Political Context of the Work of International Agencies

A FUNDAMENTAL SHIFT IN THE APPROACH TO INTERNATIONAL HEALTH BY WHO, UNICEF, AND THE WORLD BANK: INSTANCES OF THE PRACTICE OF "INTELLECTUAL FASCISM" AND TOTALITARIANISM IN SOME ASIAN COUNTRIES

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Navarro has used the term "intellectual fascism" to depict the intellectual situation in the McCarthy era. Intellectual fascism is now more malignant in the poor countries of the world. The Indian Subcontinent, China, and some other Asian countries provide the context. The struggles of the working class culminated in the Alma-Ata Declaration of self-reliance in health by the peoples of the world. To protect their commercial and political interests, retribution from the rich countries was sharp and swift. they "invented" Selective Primary Health Care and used WHO, UNICEF, the World Bank, and other agencies to let loose on poor countries a barrage of "international initiatives" as global programs on immunization, AIDS, and tuberculosis. These programs were astonishingly defective in concept, design, and implementation. The agencies refused to take note of such criticisms when they were published by others. They have been fascistic, ahistorical, grossly unscientific, and Goebbelsian propagandists. The conscience keepers of public health have mostly kept quiet.

OVERVIEW

Giving a personal account of studies on class, health, and quality of life during 1965–1977 in the United States, Vicente Navarro (1) has brought back chilling memories of the dreaded McCarthyism which overshadowed almost every facet of intellectual life in that country. He has, very appropriately, used the term "intellectual fascism" to describe this phenomenon. The intellectual fascism that is being practiced by the rich countries of the world on the health services of the poor, dependent countries is of an even more malignant variety. There is an unholy nexus between the ruling classes of the rich and the poor countries in

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imposing health programs on the poor, because it serves their commercial and political interests. Even the most cogent, well-documented, and well-argued observations questioning the scientific validity of these programs are ignored. Making use of the market-generated information revolution, the rich have brainwashed the helpless masses of the poor to sell their programs. They have also ignored the fact that health policy formulation is a highly complex process, requiring optimization of very complex systems. The task becomes even more complicated when it has to be performed in the context of poor, non-Western countries. These considerations have received scant attention from the health policy experts hired by rich countries.

Asia is a huge continent, with extreme variations in geography, population, ethnic composition, and political commitments. In this report, only the countries that fall in the "median" positions will be taken into account. Among them, again, very brief references will be made to the cases of health service developments on the Indian subcontinent and in China to provide a setting for discussion. Together they account for more than two-fifths of the entire population of the world, and a much higher proportion of the world's poor.

The long experience of India in developing its health services has escaped the attention of scholars from the rich countries, of both the hired and the "progressive" varieties. It has been a most virulent form of intellectual fascism. These scholars were actively ahistorical, apolitical, and atheoretical. After Independence, India's ruling class, which had led the freedom struggle against the colonial rulers, was impelled by the working class to fulfill the promises it had made while mobilizing them for the struggle. This was the compelling motive force for its ushering in very ambitious health programs to cover the needs of the unserved and the underserved during the first two decades of independence, even though the country faced massive problems.

The situation in China is entirely different from that in India. Significantly, the two major ideas in public health that emanated from China—the barefoot doctor and the use of the traditional Chinese systems of medicine in their health services—are the outcomes of the revolutionary movement, particularly the Long March. Unfortunately, China also adopted the now well-discredited Soviet model, which failed to work. Deng Xiaoping's move to promote "market socialism" dealt an almost deadly blow to the village commune system, which sustained the barefoot doctors.

Other Asian countries such as Sri Lanka, Pakistan, Bangladesh, Malaysia, Indonesia, Thailand, and the Philippines have also made "progress" in developing their health services. The four last-named countries were among those specially favored by the world capital for stimulating rapid economic growth during the past two decades. Even at the peak of their growth phase, serious flaws have been observed in the health services in the form of rapid privatization leading to gross overcapacity in private hospitals and almost criminal neglect of the poor because of further decay of the already inadequate health services for poor people. One can well imagine the health and health service consequences of the severe financial crises that have overtaken these "Tiger" countries since 1997.

The ferment in the development of health services in Asia and elsewhere during the 1960s and 1970s triggered major changes in World Health Organization (WHO) policies. The Alma-Ata Declaration on Primary Health Care was the culmination of the chain reaction. Apparently for tactical reasons, all the rich countries of the world signed the Declaration. But their retribution for such a daredevil declaration by the poor was swift and sharp. As if from nowhere, they "invented" the concept of Selective Primary Health Care (SPHC). A large number of concerned scholars categorically questioned the scientific validity of the concept, but all failed to make any impression on the exponents of SPHC.

Two main issues stand out from the awesome manifestation of power by the rich countries in imposing their will on the poor. First, although they lay claim to being the inheritors of the European Enlightenment, which involves a deep commitment to the scientific method, they have shown contemptuous disregard for these principles whenever scientific data stood in the way of their commercial and political interests. Second, the bulk of public health scholars, who proclaim their allegiance to the scientific method and commitment to social justice, found it worthwhile to remain silent while such active desecration took place.

As a follow-up, the ruling classes of the countries of the world exercised their control over international organizations such as UNICEF, WHO, and the World Bank (WB) to get them started with formulating some selected programs as "global initiatives." These were bristling with inconsistencies, contradictions, and patent scientific infirmities. Even the main planks for the formulation of these initiatives were profoundly flawed. First, how can one have a "prefabricated" global initiative given the extreme variations among and often within poor countries? Second, selection of health problems for action conformed more to the special interests of the rich countries than the poor. Third, a technocentric approach to problem-solving was adopted. Fourth, there is an obvious contradiction in the scientific bases of the claim that the suggested globe-embracing programs are cost-effective given the profound variations among and within countries. Fifth, by their very nature, international initiatives cannot promote community self-reliance. Sixth, there is the key question of dependence and sustainability; "donors" have used their tremendous influence on the pliable ruling classes of the poor countries to ensure that the ill-conceived, ill-designed, and ill-managed global initiatives are given priority over the ongoing work of the health organizations. Finally, and above all, these programs are the very antitheses of the Alma-Ata Declaration.

It is grimly ironic that soon after the leadership given by WHO and UNICEF in writing one of the brightest chapters in the history of public health practice, in the form of acceptance of the Alma-Ata Declaration by all countries of the world in 1978, the ruling classes should have started the international initiatives that opened one of the darkest chapters. By the early 1980s, UNICEF let loose a barrage of global initiatives on the poor countries of the world. WHO and the World Bank lent the full weight of their considerable prestige and influence in strengthening this menacing trend in public health thinking and action.

The outbreak of the AIDS epidemic in 1982, which later took the form of a pandemic, legitimately thrust on WHO the onerous responsibility for action on a global scale. It developed the Global Programme for AIDS. Despite the bewildering variations in the epidemiological behavior of the disease—including its complex social and cultural dimensions, which required a very flexible approach to program formulation—the program conformed to a set pattern which was principally shaped in the United States.

WHO's declaration of the tuberculosis problem as a "Global Emergency" was a totally surprising move. The database to justify such a sweeping declaration was virtually nonexistent. Ironically, allocation of overriding priority to the international initiatives, all down the line, led to the neglect of other services provided at the peripheral or grassroots level. This included tuberculosis work. WHO had also launched two other global programs with considerable fanfare. One was the diarrheal disease control programme and the other was meant to deal with acute respiratory infections in infants and children. Mercifully, these programs failed right at the take-off stage. The World Bank had joined WHO to launch yet another international initiative called the Safe Motherhood Initiative. This too has a very long way to go.

Some high-profile research administrators got together to set up a global Commission on Health Research and Development in 1987. Practice of Essential National Health Research was the centerpiece of the report. Even the very scanty materials produced to document progress in its implementation leave little doubt that the initiatives taken could have little impact on the strengthening of health services in the countries of the world.

It should come as no surprise that virtually every global initiative taken by WHO, UNICEF, and the World Bank since the promotion of SPHC by the rich countries suffered from serious infirmities. Remarkably, even when these infirmities were pointed out to the organizations, they failed even to enter into discussion on the issues raised or take any corrective measures. It is not necessary here to make a comprehensive critique of all the programs. Only three of the major ones—on immunization, AIDS, and tuberculosis—will be taken up here, and these only very briefly.

Even a very broad analysis of the process of policy and program formulation and implementation of the immunization program (EPI/UPI) reveals that the apical organizations of international public health have shown scant regard for some of the fundamental principles of public health practice. They have dared to launch a global/universal immunization program without caring to have a reasonably reliable epidemiological baseline. They have tended to "homogenize" the situation; even the 100 or so poor countries have widely varying parameters. When there is no epidemiological baseline, how is it possible to assess the epidemiological impact of the program? Without paying any attention to these vital infirmities, the WHO/UNICEF/WB establishment has not hesitated to repeat in 1998 the wild claim that: "Today 80 percent of the world's children receive this form of protection against childhood diseases during their first year of life."

WHO and UNICEF had joined the Government of India to get the Indian program systematically evaluated in 1989. The results were published in the form of a book, which was widely circulated. The findings seriously questioned the claims by WHO/UNICEF/WB. Another all-India study conducted in 1992–1993 revealed that at the national level as few as 35.4 percent of eligible children were fully protected, with the coverage hovering around 9 to 22 percent among many of the highly populated states with the poorest records of infant mortality. If the situation is so bad in India, the conditions prevailing in the world's least developed countries, and many more, will certainly not be any better.

The same trend was followed when WHO, along with a large number of U.N. agencies, set out to design the Global Programme for AIDS (GPA), which was principally directed toward the poor countries. Despite the efforts by WHO/WB officials and their Indian camp followers to control information and extensively spread unsubstantiated information, it was possible, as early as in 1992, to bring out a monograph that called into question a number of critical assumptions in the formulation of the GPA in India. This too was disregarded.

The justification given by WHO/WB for launching the Global Programme for Tuberculosis (GPT) is even more fantastic and incredibly contradictory. Out of the blue, as it were, in the early 1990s, WHO/WB sounded a maximum-alert alarm bell to proclaim that tuberculosis had become a "Global Emergency" and the GPT was the way of tackling it. Once again, despite putting on a cloak of secrecy while selling the program in India, a comprehensive document was prepared pointing out major epidemiological, sociological, economic, and organizational and management flaws in the GPT. But this did not deter the authorities from pushing on with their doomed venture.

A very large area is covered in this report to demonstrate how the imposition of an enormous, high-priority, prefabricated health service agenda of the rich countries on the poor ones has virtually decimated the somewhat promising growth of people-oriented health services in a country such as India. The overriding priority assigned to a Malthusian family planning program for over four decades by the ruling classes, both national and international, has also had a devastating impact on the growth and development of the health services in India. As described later, Nicholas Demerath, Sr., has given a well-documented account of the various ways in which India's family planning program has been influenced by the U.S. government (U.S. AID) and other U.S. agencies.

In conclusion, let me list just a few of the major areas of distortion. First, the "public health" practiced by exponents of the international initiatives is starkly ahistorical. Second, the scientific term "epidemiology," which forms the foundation of public health practice, has been grossly misused by the new breed of experts. Third, suppression of information, use of doctored information, spread of misinformation and disinformation, and lack of effective evaluation/surveillance are expected outcomes. Fourth, directors-general of two top public health institutions in India extended their support to the GPT, even though serious flaws in the program were repeatedly brought to their attention. After they endorsed the WHO/WB program, they found highly lucrative positions in WHO. This and many other such instances mark the rock-bottom of the moral and ethical standards of the parties concerned. Finally, those who are expected to be the conscience keepers of ethics and morality in public health practice are perhaps the worst offenders in inflicting such a humiliation on the poor peoples of the world.

The line of action for those few who still attach high value to intellectual and moral integrity, and are prepared to pay the sort of price mentioned by Navarro, emerges from the analysis presented in this report.

INTELLECTUAL FASCISM

Giving a personal account of studies on class, health, and quality of life during 1965–1997 in the United States, Vicente Navarro notes that "terms such as class, working class (not to mention class struggle), and just plain capitalism were dismissed as ideological. No serious scholar, aware of the penalty it would carry, would dare to use these terms" (1, p. 391). He has, to my mind very appropriately, used the term "intellectual fascism," whose "destructive powers could be even worse than the fascism I had experienced in Spain" (1, p. 392), to describe this phenomenon.

The intellectual fascism that is being practiced by the rich countries of the world against the poor, dependent countries is of an even more malignant variety. In the field of health, to subserve their commercial and political interests, the ruling classes of the rich and the poor countries have formed an unholy nexus which enables them to impose prefabricated, technocentric, dependence-producing health programs on the poor. These interests are so powerful that even most cogent, well-documented, and well-argued observations calling into question the scientific validity of these programs are simply ignored. When it comes to protecting their interests, the special brand of intellectuals/scholars who are hired by the ruling classes are ruthless, unscrupulous, and nonchalant (2). The Bhopal tragedy of 1984 (3–10), in which the Union Carbide Corporation got away so lightly with the consequences of its criminal neglect—which led to the spraying of the deadly chemical methyl isocyanate on hundreds of thousands of people, leading to the death of thousands and severe health damage to scores of thousands—provides an awe-inspiring case study demonstrating the power of the nexus of the ruling classes.

The ruling classes of the rich countries have also mobilized a number of international agencies and myriad bilateral and "voluntary" agencies or nongovernmental organizations to implement their agenda for action. Suppression of information, doctoring of information, misinformation, and disinformation have been freely used as means to push their agenda. Making use of the market-generated information revolution, they have employed the approach of social marketing (11, 12) to brainwash the helpless masses of the poor so as to sell their programs. The way in which the "experts" employed by the World Bank have twisted and distorted the meaning of health policy formulation almost beyond recognition, by bringing it down to the level of health financing (13), provides a startling instance of this new brand of scholarship from the rich countries.

Lest they "forget" the essence of health policy formulation by hiding themselves in the jungle of the massive, programmed information onslaught, it is worthwhile to "remind" the hired experts about some of its basic concepts. ("Man's struggle against oppression is a struggle between memory and forgetfulness"—Milan Kundera.) Health policy formulation is a highly complex process, requiring optimization of very complex systems. For this purpose, epidemiological, medical and public health, and organizational and management issues are visualized in their social, cultural, and economic contexts so as to crystallize them in the form of policies based on constitutional and other types of political commitments (14). The task becomes even more complicated when it has to be performed in the context of poor, non-Western countries. Western medicine is, after all, Western in origin. Furthermore, it has been grafted onto countries that already had ways of coping with their health problems. The grafting was done usually against the background of colonial conquest, as in the case of India, or in blatant imperialistic settings, as in the case of China. Differences in the ecology of diseases, availability of resources, cultural meanings of health problems and health practices, formulation of appropriate technologies and economic production practices are some other important determining factors. These considerations have received scant attention from the health policy experts hired by rich countries (15).

EARLY EFFORTS TO DEVELOP HEALTH SERVICES IN SOME ASIAN COUNTRIES

Countries of Asia

Asia is a huge continent, with wide variations in geography, population, ethnic composition, and political commitments. For instance, there are Japan and South Korea at one extreme, and Nepal, Bhutan, and Afghanistan at the other. Here I will discuss the role of foreign and international agencies and other organizations in health policy formulation in terms of those Asian countries occupying median positions. A very brief reference will be made to the cases of health service developments on the Indian subcontinent and in China to provide a setting for discussion. Together they account for more than two-fifths of the entire population of the world, and a much higher proportion of the world's poor. Besides, many of the observations made about India and China are also relevant, to varying degrees, to many other Asian countries in "median" positions. It also so happens that information available on development of health service systems in these other Asian countries is very scanty and often of rather unreliable quality.

Health Service Development on the Indian Subcontinent

The long experience of India in developing its health services has escaped the attention of scholars from the rich countries, of both the hired and the "progressive" varieties. Indeed, the former category has actively ostracized the indigenous scholarship, apparently to create "space" for justifying the agenda handed down to them by their paymasters; it has been a most virulent form of intellectual fascism. As pointed out by Navarro (1, 16), and earlier noted by John McKinlay (17) in a slightly different context, these scholars were actively ahistorical, apolitical, and atheoretical. Such an approach subserves the class interests of the rulers. Obviously, this normally would require considerable elaboration (e.g., 18), but in the present context I will present only a bare outline of India's experience.

The British inducted Western medicine in India in the wake of their colonial conquest in the latter half of the 18th century, primarily to strengthen their exploitative machinery—the army, the civil service, the European business class, and a wafer thin, uppermost crust of native collaborators (18). Reciprocally, this further weakened the native working class, which constituted more than 98 percent of the population. They were further pauperized due to colonial exploitation, thus further increasing the disease load, and were made to lose the indigenous coping mechanisms that they had developed over the course of centuries (18).

As a dialectic response, the people of India launched an anti-colonial freedom struggle, which became a mass movement, leading to the overthrow of the colonial rulers in 1947 (19). The reports of the National Health Sub-committee of the National Planning Committee of the Indian National Congress in 1940 (20) and the famous Bhore Committee (21) (which, incidentally, was spearheaded by "foreign" experts such as John Grant and Henry Sigerist) in 1946 provided the basis for the formation of a blueprint for building an egalitarian health service for free India.

After Independence, the ruling class, which had led the freedom struggle, was impelled by those of the working class to fulfill the promises it had made while mobilizing them for the struggle. This was the motive force for ushering in very ambitious health programs to cover the needs of the unserved and the underserved, even though the country faced massive problems—accentuated severalfold in the wake of Partition. A nationwide network of Primary Health

Centres (22) for the rural population was established from 1952 to provide integrated health services to entire populations, as part of a still more ambitious Community Development Programme (23). The Primary Health Centres formed the sheet anchor for developing the other important facets of the health service system—for example, people-oriented manpower development (24–27), research (28, 29), regionalization of the health services (30), inclusion of the indigenous systems of medicine (31), and so on. Very well-designed public health research on tuberculosis conducted in India had a far-reaching influence on tuberculosis programs all over the world, including in the rich countries. This research showed that home treatment is as good as sanatorium treatment (32); that the BCG vaccine has little protective value, at least for adults (33, 34); that a substantial proportion of tuberculosis patients in a population were already seeking assistance at Primary Health Centres and other health institutions; and that sputum smear examination is the most reliable diagnostic tool (35–37).

The major political upheaval that followed imposition of the National Emergency in 1975–1977 was instrumental in adoption of the program of entrusting "people's health in people's hands" (38); using community health workers chosen by the people themselves has been another landmark. These movements culminated in enunciation of the National Health Policy in 1982 (39), which proclaimed that:

> The prevailing policy in regard to education and training of medical and health personnel, at various levels, has resulted in the development of a cultural gap between the people and the personnel providing care. The various health programmes have, by and large, failed to involve individuals and families in establishing a self-reliant community . . . the ultimate goal of achieving a satisfactory health status for all our people cannot be secured without involving the community in the identification of their health needs and priorities as well as in the implementation and management of various health and related programmes.

As discussed later, the approach adopted by the special brand of experts hired by the rich countries and their camp followers is diametrically opposed to that envisaged in the National Health Policy. Incidentally, as also pointed out by Navarro (1), the emphasis on democratization of community health services is also conspicuously missing in the approach adopted by the erstwhile "socialist countries" (including China) and those European countries that have set up national health services.

Health Service Development in China

The situation in China is entirely different from that in India. China had the most blatant form of imperialistic exploitation, as symbolized by the Opium

Wars; feudal monarchy; the revolution of 1912; the KMT of Chiang Kai-shek and their pathetic, supplicant-level dependence relationship with the United States in almost all spheres; the Japanese war of aggression; the revolutionary movement by the Chinese Communist Party, including the fabled Long March, leading to its ultimate victory and establishment of the People's Republic of China in 1948.

The United Missions Medical College was China's first medical college, started in 1925 (40). In contrast, India had three government-funded medical colleges by 1835 (41). Significantly, the two major ideas in public health that emanated from China—the barefoot doctor and use of the traditional Chinese systems of medicine in the health services (42)—are the outcome of the revolutionary movement, particularly the Long March. Unfortunately, China also adopted the now well-discredited Soviet model, which failed to work. In sheer frustration, Mao had exclaimed, as late as in 1965 (43):

> Tell the Ministry of Public Health that it works only for fifteen percent of the population of the country and this fifteen percent is mainly composed of gentlemen while the broad masses of peasants do not get medical treatment . . . why not change its [Ministry of Public Health's] name into the Ministry of Urban Health, the Ministry of Gentlemen's Health or even the Ministry of Urban Gentlemen's Health?

Deng Xiaoping's move to promote "market socialism" dealt an almost deadly blow to the village commune system, which sustained the barefoot doctors. Even though critical of the Soviet model of health services, Navarro (1) has also observed how the capitalist model adopted by post-Soviet Russia has led to a disastrous collapse of the health service system of that country. Almost grudgingly, he also concedes that "the same process is now underway in China." It is a profound irony that, having brought about the collapse of the earlier socialist system, China is now asking for help from WHO's Division for Intensive Cooperation with Countries and Peoples in Greatest Need "to solve problems in health financing in connection with re-establishment of the country's Rural Cooperative Medical System" (44). China also created a most embarrassing situation for other countries when it accepted the World Bank/WHO-supported tuberculosis program with alacrity, turning a blind eye to the myriad scientific design flaws repeatedly pointed out by scholars from other countries (45–47). That China should now adopt an openly coercive policy of one-child families, while earlier it had described the dangers of population growth as a trait of the capitalist system, is yet another indication of grave flaws in its population policies and planning. Incidentally, no political leader would dare even to think of a similar approach for India, for fear of a backlash from the people.

The "Tiger" and Other Asian Countries

The state of Kerala in India (population 30 million) (48, 49) and Sri Lanka (population 16 million) (50) stand out sharply among all the low-income countries in having remarkably good health and mortality statistics. Other Asian countries such as Pakistan, Bangladesh, Malaysia, Indonesia, Thailand, and the Philippines have also made "progress" in developing their health services.

The four last-named countries were among those specially favored by the world capital for stimulating rapid economic growth during the past two decades. Even at the peak of their growth phase, serious flaws have been observed in their health services in the form of rapid privatization leading to gross overcapacity in private hospitals and almost criminal neglect of the poor because of further decay of the already inadequate health services for the poor (51). In a recent article, Barraclough (51) has described how the conglomerate corporations of Malaysia, which often own plantations, also run the leading private hospitals, using the latest technology. He points out the paradox that the workers on the rubber and palm estates are the poorest in the country. Conforming to laws originating in the colonial period, the services now being provided to them are "woefully inadequate and offer little more than treatment of minor ailments and first-aid." Given such a situation in 1994 in one particularly "successful" "Tiger" country, one can well imagine the health and health service consequences of the severe financial crises that have overtaken these "Tiger" countries since 1997. Although some of these consequences are already visible in the form of a sharp deterioration in health and mortality statistics and an acute scarcity and sharp rise in price of drugs, the full impact of the crises on the health service systems has yet to be systematically assessed.

THE ROAD TO ALMA-ATA AND THE RESPONSE OF THE RICH

The Alma-Ata Declaration: A Watershed in Public Health Practice

This very broad account of the evolution of health service systems in the two Asian giants, and a mere mention of the state of affairs in many other Asian countries, set the stage for understanding and analyzing the practice of intellectual fascism by a syndicate of the world's ruling classes, with those that are rich and powerful setting the agenda for action. The ferment in the development of health services in Asia and elsewhere in the world during the 1960s and 1970s triggered major changes in WHO policies. The Alma-Ata Declaration on Primary Health Care (52) was the culmination of the chain reaction. Health as a fundamental human right, community self-reliance, intersectoral action for health, social control over health services, use of appropriate technology, encouragement of traditional systems of medicine, essential drugs—these are some components of the Declaration. It also contained a detailed definition of Primary Health Care.

The Invention of Selective Primary Health Care

Apparently for tactical reasons, all the rich countries of the world signed the Alma-Ata Declaration even though it shook the very foundations of the conventional thinking on international public health as hitherto practiced by these countries. The Declaration marked a watershed. It was also clear to the rich countries that such a declaration of self-reliance by the poor peoples of the world was against their class interests. They saw its "subversive" character. Navarro (1) has described how the use of such radical terminology as "class interests" has long been seen in the United States as "too ideological," with the enjoinment that such things have to be "value free"—forgetting that this is itself a most value-laden term. The retribution for such a daredevil act as the Alma-Ata Declaration was swift and sharp.

As if from "nowhere," the rich nations "invented" the concept of Selective Primary Health Care (53). The justification was that Primary Health Care was good, but was too ambitious; one therefore should be selective in choosing areas that are cost-effective. To legitimize such a fragile stand, they got hold of a very poorly designed, and even more poorly conducted and analyzed, study in Haiti. The principal author was then an "assistant clinical professor of medicine" at Harvard. Such a paper would have been rejected out of hand by even the poorest academic journal in a developing country. That it found ready acceptance for publication in the prestigious *New England Journal of Medicine* speaks volumes about the intensity of intellectual fascism that still prevails in the United States.

More than 80 scholars from schools of tropical medicine and other public health institutions in Europe and from the United States, Africa, and Asia gathered at Antwerp to discuss SPHC. In the Antwerp Declaration (54, 55) they categorically questioned the scientific validity of the concept. *Social Science and Medicine* (56) brought out a special issue with a detailed account of the deliberations at Antwerp. There were articles on the subject in the *Economic and Political Weekly* (Bombay) (57) and the *International Journal of Health Services* (58). *The Journal of the Indian Medical Association* (2) carried a leading article on the subject. All these and many others (e.g., 59–62) failed to make any impression on the exponents of SPHC. The latter went on to organize a high-profile meeting attended by top executives of WHO, UNICEF, the World Bank, and many other agencies, as well as like-minded persons who called themselves public health scholars, at Bellagio, Italy (63), thus getting a resounding endorsement for SPHC. After two years, they organized a similar meeting at Cartagena in Columbia (64) (called Bellagio-II) to get a similar endorsement.

Two main issues stand out from the awesome manifestation of power by the rich countries in imposing their will on the poor. First, although they lay claim to being the inheritors of the European Enlightenment, which involves a deep commitment to the scientific method, they have shown contemptuous disregard for these principles whenever scientific data stood in the way of their commercial and political interests. Second, despite the brave scholars who stood up to the bullies at Antwerp and at other forums, the bulk of public health scholars, who proclaim an allegiance to the scientific method and commitment to social justice, including the Alma-Ata Declaration, found it worthwhile to exercise discretion—the better part of valor. They remained silent on the most blatant desecration of scientific principles and methods, presumably to avoid the anger of the most powerful country and its camp followers. This brand of "intellectuals," who belong to the middle class and attained their positions of importance by putting on a mask of progressivism, can also be said to harbor at least some traits of intellectual fascism, which they try to hide deep within them. They too need to be exposed. Where were they when China started its program of enforcing the norm of a single-child family, or when Indira Gandhi imposed a National Emergency and let loose a reign of terror, and used force to sterilize millions of people against their will (65)? The Vietnam "war hero" and then President of the World Bank, Robert McNamara, visited India at that time and is on record praising India for its achievement in fighting the menace of population explosion (66).

LETTING LOOSE A BARRAGE OF INTERNATIONAL INITIATIVES

UNICEF's Primacy in Imposing International Initiatives

As a follow-up to acceptance of Selective Primary Health Care, the ruling classes exercised their control over international organizations such as UNICEF, WHO, and the World Bank to get them started with formulating some selected programs as "global initiatives" for implementation in the poor countries. The brief accounts of the evolution of health services in India and China and mention of some other Asian countries will provide the context for understanding how different has been the conceptualization, formulation, and implementation aspects of these initiatives undertaken by the triad (WHO, UNICEF, and the World Bank). On the basis of this description it is possible to list some major aspects of their actions.

1. Even the main planks for formulation of these initiatives were profoundly flawed. How can one have a "prefabricated" global initiative when one takes into account the extreme variations among and often within the poor countries? This very obvious determining factor escaped attention, or, more likely, was deliberately overlooked, when the initiatives were formulated. The situation bears an uncanny resemblance to the economic "rescue packages" of the International Monetary Fund (IMF).

2. Selection of health problems for action conformed more to the special interests of the rich countries than to the specific epidemiological situations in the various poor countries.

3. A technocentric approach to problem-solving was adopted, not because it provided the "optimal solution" (67, 68), but because this was "friendly" to the economic interests of the rich countries. The biotechnology, refrigeration, and drug industries, particularly in the private sector, are some examples. There was, besides, the opportunity for the creation of high-salaried employment in rich countries, for hirelings who could then exercise the enormous power bestowed on them to perform the jobs assigned by their paymasters.

4. There is an obvious contradiction in the specific bases of claims that the suggested globe-embracing programs are cost-effective, given the profound variations among and within countries. Presumably because of this, no serious efforts were made to assess cost-effectiveness at the time of program formulation. The claim of cost-effectiveness by once highly respected organizations such as WHO and UNICEF is an example of the blatant spread of almost manifest disinformation. The latest instance of this almost deliberate effort to avoid subjecting their assumptions to objective evaluation comes from the failure of WHO/WB to set up reliable baseline data on "Annual Rate of Infection" (69) for monitoring the progress of the huge Global Programme for Tuberculosis which they had launched.

5. By their very nature, international initiatives cannot promote community self-reliance.

6. Because countries receive a considerable proportion of the funds from outside, there is the key question of dependence and sustainability—apart from the real danger of vulnerability to political exploitation by the "donors."

7. The "donors" have used their tremendous influence on the pliable ruling classes of the poor countries to get overriding priority assigned to the ill-conceived, ill-designed, and ill-managed global initiatives at the expense of the ongoing work of the health organizations. In India, for example, the primacy given to the programs pushed by the WHO/UNICEF/WB triad, along with an almost frenzied preoccupation with the family planning program, has had a devastating impact on almost every facet of organization, management, and growth of the health services infrastructure. In the case of China, as (under) stated by Navarro (1), it was more an overt political decision by the oligarchic ruling class to shift investment away from the people-based health services; privatization was the slogan for socialist market orientation.

8. Above all, these programs are the very antitheses of the Alma-Ata Declaration and, in the case of India, of its National Health Policy (39), which envisaged "involving the community in the identification of its health needs and priorities as well as in the implementation and management of the various health and related programmes."

It is grimly ironic that soon after the leadership given by WHO and UNICEF in writing one of the brightest chapters in public health practice—acceptance of the Alma-Ata Declaration in 1978 by all countries of the world—the ruling classes should have started the international initiatives that opened one of its darkest chapters. The oppressed peoples of the world will have to pay yet another installment to their oppressors before their tormentors are again forced to admit their mistakes and to abandon their ill-conceived misadventures, so that the oppressed can then resume their long, grinding struggle toward access to people-oriented services for their populations (57). Using the hindsight of 1998, it is appalling to find so few who have had the courage of their convictions to call the bluff of the tormentors of the oppressed.

By the early 1980s, the triad of WHO, UNICEF, and the World Bank had started to give a global form to the grossly inadequate but politically and economically important concept of Selective Primary Health Care. UNICEF opened up a barrage of global initiatives on the poor countries of the world. WHO and the World Bank lent the full weight of their considerable prestige and influence in strengthening this menacing trend in public health thinking and action. At first, UNICEF came up with four areas for "special" attention in child health: Growth Monitoring, Oral Rehydration, Breast Feeding Promotion, and Immunization (GOBI) (70, 71). It was soon impelled to add to the list: Fertility Promotion, Feeding Programme, and Female Development, thus making it GOBI-FFF (72). Again, it had to backtrack and focus its attention only on immunization. This project was named the Universal Programme of Immunization (UPI) (73, 74), or simply the strengthening of WHO's pre-existing Extended Programme of Immunization (EPI) (75). It is not difficult to visualize the impact of such a fickle-minded approach on the world's utterly dependent, poorest of the poor countries. At a later stage, there was yet another turnaround, when one of the six diseases—poliomyelitis—was singled out for eradication from the globe (76, 77). Thus, the disturbing signals were already there on the quality of care and on the considerations that had gone into the triad's drawing up policies and plans for acting globally to fulfill the responsibility assigned to the three agencies in their respective constitutions.

In the world of the poor, with virtually no system even to record births and deaths, not to mention a dependable health information and evaluation system, "experts" hired by UNICEF, WHO, and many affluent countries of the world made the pronouncement that six immunizable diseases—tetanus, pertussis, diphtheria, tuberculosis, poliomyelitis, and measles—account for most deaths among infants. It was assumed that a massive program of vaccination against these six diseases would create a strong enough "herd immunity" to eliminate them as public health problems, if not totally eradicating them within five years, presumably as in the case of smallpox (74).

To cope with the mind-boggling task of immunizing hundreds of millions of infants, particularly those living under the most primitive conditions in extremely remote areas of the very large number of the world's poorest countries (where, incidentally, a much higher incidence of the six diseases would be expected), experts from UNICEF/WHO suggested an intensive program of mass communication, using the new technological advances. The globally telecast pop extravaganza organized by the Irish pop star Bob Geldof at London's Wembley Stadium in the form of "Band Aid," and later, a still bigger show at the same place under the label "World Aid" (12), are two outstanding instances of appeals to the "charitable instincts" of the rich to contribute to UNICEF's crusade against the six diseases "to save the lives of the poor." The rank hypocrisy of the over-affluent rich, throwing away hundreds of billions of dollars to sustain their vulgar "entertainment industry," could not have been more blatant. There were, incidentally, few protests from the concerned people of the world at this patently indecent insult to the poor by the rich. These are the modern-day Marie Antoinettes, the only difference being that their number has swollen to the hundreds of millions, brainwashed by the potent weapons provided by the so-called information revolution. UNICEF also hired experts from the marketing field and gave the name "social marketing" to these techniques used to "fight" its crusade against the six diseases. Indeed, in order to sell its ideas, particularly to the burgeoning proportion of the gullible, it claimed that the movement for immunization would lead to "mass mobilization" of the people of poor countries for other health and development work (11, 72).

As I will briefly mention later, the propaganda blitz let loose on the poor countries of the world to promote EPI/UPI has apparently been "forgotten" within a few years, because it has served the purpose for which it was generated. The informatics industry, moving fast on the information highways in the rich countries, has found new pastures for helping to launch new international crusades against other specific diseases (45). The experts also seem to have conveniently "forgotten" about the data that had seriously questioned the very bases of the program (54–62). They, too, seem to have moved on to new pastures, to carry on new crusades. Public health experts at WHO also fully endorsed the UNICEF initiative on EPI/UPI, and WHO undertook to use its far-flung organizational outreach in different countries to push this program (74–76). It has also undertaken the task of running the global program for eradicating poliomyelitis by 2000 (77).

The WHO Global Programme for AIDS (GPA)

The outbreak of the AIDS epidemic in 1982, which later took the form of a pandemic, legitimately thrust on WHO the onerous responsibility for action on a global scale. It developed the Global Programme for AIDS. Despite the bewildering variations in the epidemiological behavior of the disease, including complex social and cultural dimensions that required a very flexible approach to program formulation, the GPA conformed to a set pattern that was principally shaped in the United States (78). As pointed out later, this proved to be its

Achilles' heel. At a later stage, implementation of the GPA was entrusted to an inter-agency U.N. organization called UNAIDS.

The WHO/WB Global Programme for Tuberculosis (GPT)

The World Health Organization's declaration of the tuberculosis problem as a "Global Emergency" was a totally surprising move. The database to justify such a sweeping declaration was virtually nonexistent. It has been accepted (e.g., 35–37, 79) worldwide for more than four decades that public health programs against tuberculosis are based on general health services, which are expected to take on the task of diagnosing and treating the bulk of tuberculosis cases in the poor countries. Ironically, allocation of overriding priority to the international initiatives, all down the line, led to the neglect of other services provided at the peripheral or grassroots level. This included tuberculosis work.

What made the very perpetrators of the decline in tuberculosis care work up such an intense concern for the disease as a public health problem is a useful case study for scholars interested in a more detailed study of the political economy of health services. One plausible explanation might be the sudden awakening to the problem in the United States and other rich countries when their AIDS epidemics activated the dormant primary foci in many persons with AIDS, and this led to spread of tuberculosis to others. This triggered alarm bells for the ruling class, which, in the course of its exponential polarization from the poor, has created a sterile/sanitized world for itself. An irrational and therefore very malignant fear of microbes struck terror in the hearts of the rich. One consequence of this mass hysteria against germs, which received support from the once sober and highly respected International Union Against Tuberculosis and Lung Disease (e.g., 45–47, 80), was that these unfounded fears (as will be elaborated later) took the entire world back a century to the days of the long-discarded single-etiology theory of diseases. What is worse, this observation on tuberculosis in the rich countries was extrapolated to the entire world. Already, as the AIDS epidemic seemed to attain a plateau in the rich countries, poor countries were singled out as the "rich" breeding grounds for a devastating spread of the AIDS pandemic. As almost a majority of the adult populations in these countries had acquired primary tubercle foci, a fear complex was actively generated to claim that this would lead to widespread outbreaks of tuberculosis, hence the declaration of the Global Emergency. Incidentally, subsequent experience has shown that both fears proved to be unfounded. Black Africa is very much there, in spite of the rapid phase of spread of AIDS; there is no tuberculosis epidemic even in this region. The incidence/prevalence of AIDS and tuberculosis is a tiny fraction of what was predicted by the WHO/WB experts in North Africa, in Central, West, South, Southeast, and East Asia, and in South America (81, 82). All these facts speak volumes about the technical competence of those who rule over the destiny of the world's health services, particularly in the poor regions.

Sticking tenaciously to the single-etiology theory, despite overwhelming evidence to the contrary, and the (virtual?) "reality" of the Global Emergency, a strategy was developed for the GPT. It consisted of making a massive effort to identify tuberculosis cases in entire populations, then subjecting them to Directly Observed Treatment with Shortcourse chemotherapy (DOTS) (83). Starting with China (45, 46), which did not find anything amiss in the DOTS approach, WHO and the World Bank have come together and managed to successfully "push through" this approach to the poor countries of the world.

WHO's Other Efforts to Launch Global Initiatives

The World Health Organization had also launched two other global programs with considerable fanfare. One was the Diarrheal Disease Control Programme (84), with Oral Rehydration Treatment as its centerpiece. The other program was meant to deal with acute respiratory infections in infants and children (85); it envisaged timely administration of antibacterial drugs to affected children, using paramedical staff in rural and urban areas. Despite the usual promotional efforts of WHO/UNICEF/WB, mercifully, these programs failed right at the take-off stage.

The World Bank had joined WHO to launch yet another international initiative: the Safe Motherhood Initiative (86). Child survival programs were later dovetailed with this initiative. Apart from the question of cost-effectiveness, the success of this initiative, like all the preceding ones, depended on the capacity of the health service systems to undertake the task envisaged in the program.

Global Initiative in Launching "Essential National Health Research"

Some high-profile research administrators, who had earlier headed many key research organizations/committees, both nationally and internationally, in 1987 got together to set up a global Commission on Health Research and Development (87). The report of the Commission, and an account of the subsequent follow-up action and its impact, provide an interesting administrative case study on the intellectual make-up of the key decision-makers who have dominated the field worldwide for the past three or more decades. While the Commission had a self-imposed deadline for its automatic "liquidation" within one year, it could not present the report until 1991. Practice of Essential National Health Research (ENHR) was the centerpiece of the report. The Commission took some more time to hold well-publicized seminars in different parts of the world to promote the report. It received warm endorsement from government leaders and most of academia throughout the world, including the prestigious Nobel Symposium (88). The Swedish Agency for Research Cooperation with Developing Countries

(SAREC) (89) and the International Development Research Council of Canada (IDRC) (90) were among the foremost institutions to promote ENHR and the other recommendations. The then Executive Director of UNICEF proclaimed that "in future at least five per cent of UNICEF's budget will be devoted to research." This promise, incidentally, was never kept. SAREC and IDRC also agreed to provide funds for yet another proposal of the Commission to set up a two-year task force, with its office located in Geneva, to encourage developing countries to implement ENHR (88). The materials produced to document progress in the implementation of ENHR (88) leave little doubt that the initiatives could make little impact on the strengthening of health services in the countries of the world. The ENHR movement has not achieved anything more substantial than what was already done by WHO's Advisory Committees on Medical/Health Research at the global and regional levels.

SERIOUS INFIRMITIES IN THE GLOBAL INITIATIVES

It should come as no surprise that virtually every global initiative taken by WHO, UNICEF, and the World Bank since the promotion of Selective Primary Health Care by the rich countries suffered from serious infirmities. Remarkably, even when these infirmities were pointed out to the organizations, they failed even to enter into discussion on the issues raised, not to mention taking any corrective measures. That the infirmities were indeed serious is borne out by the fact that the programs consistently failed to yield the results expected of them. It is not necessary here to present a comprehensive critique of all the programs. Only three of the major ones—the EPI/UPI, GPA, and GPT—will be taken up, and only very briefly.

Even a very broad analysis of the process of policy and program formulation and implementation of EPI/UPI reveals that the apical organizations of international public health have shown scant regard for some of the fundamental principles of public health practice.

1. They have dared to launch a global/universal immunization program without caring to have reasonably reliable, global baseline epidemiological data (91). The specialty of epidemiology should have been the very soul of EPI/UPI. Its absence has made it "soul-less."
2. While using their patently unsubstantiated "estimates," they have tended to "homogenize" the situation even in the 100 or so poor countries, with their widely varying parameters affecting the incidence and prevalence of the six target diseases.
3. With no epidemiological baseline, how is it possible to assess the epidemiological impact of the program? It could well be argued, "from the other side," that the impact, if any, may have been due to the natural histories of the diseases over time.

4. No data have been produced to demonstrate the degree of effectiveness of the vaccines under the ecological/epidemiological conditions prevailing in the different countries.

5. No evidence has been produced to justify why the level of "herd immunity" has been fixed at 85 percent.

6. It is incredible that the program managers claimed that the programs could have been implemented "satisfactorily" in countries such as Chad and Niger, not to speak of Sudan, Somalia, and Sierra Leone, or Colombia, Ecuador or Guatemala. In Asia, Afghanistan, Nepal, Myanmar, Cambodia, and Laos provide the challenging examples. It requires stupendous logistical capabilities to ensure that an epidemiologically adequate proportion of infants receive potent doses of the vaccines in all the countries of the world.

Two academics, specializing in epidemiology, Vance Dietz from the Centers for Disease Control and Prevention and Felicity Cutts from the London School of Hygiene and Tropical Medicine, have recently produced an article in this Journal (76) on evaluation of mass immunization campaigns on the basis of a literature review. The fact that not one of the epidemiological issues raised in the foregoing discussion—which, incidentally, have been published in the Journal on more than one occasion—received any mention in their review gives a chilling picture of the depth to which the practice of public health principles has fallen during the past three decades. The authors explicitly mentioned that they "did not address the broader issue of comparing different approaches to the delivery of a strategy within the context of primary versus selective health care." Why? They did not even take up the broader epidemiological, sociological, and organizational and management issues raised, even when these issues fell within the severely limited range of the review. In their scheme of things, of course, issues concerning political economy and the less than academically acceptable role of international and other foreign agencies, including their own institutions, were considered "politically improper." Either they have become conditioned to follow the line laid down for them by the dominant intellectual group, or they did not dare deviate from this for fear of inviting retribution from them.

John Bland and John Clements (74) of the WHO/UNICEF/WB establishment have not hesitated to repeat the wild claim, as recently as 1998 in the World Health Forum, that "Today 80 percent of the world's children receive this form of protection against childhood diseases during their first year of life," even though overwhelming data have clearly pointed to the contrary.

It is remarkable, and to a considerable extent frustrating, that neither academics such as Dietz and Cutts nor program managers and experts such as Bland and Clements cared to take cognizance of the well-designed and well-conducted evaluation studies carried out in some of the poor countries by "local" scholars. Dietz and Cutts claimed that these findings did not come within the parameters they had (arbitrarily) set for their literature search. Bland and Clements "blindly" accepted the government data, without caring to question their validity and reliability. Indeed, Dietz and Cutts should have noticed that one of the "local" studies has more than once been discussed in some detail in the references cited by them. These two studies are briefly referred to below.

The EPI/UPI program of India, meant to last five years from 1985, was the largest in the world. WHO and UNICEF joined the Government of India to get the program systematically evaluated in 1989. The results were published in the form of a book, which was widely circulated (92). It showed that the immunization coverage was less than a fifth in the two-thirds of the population that account for most of the poor, as well as for most of the infant mortality in the country; the surveillance system was almost nonexistent. A similar situation existed for potency tests of the vaccines at the time of inoculation. The book described how reports of immunization coverage had been exaggerated by 100 percent or more to please the national and international officers responsible for administering the program. It also reported at least 56 recorded deaths due to the vaccination process itself. There was virtually no outcry, nationally or internationally, against this outrageous consequence of the program. Had even one such death taken place in a rich country, the entire program would have been halted. An in-depth study of the program in the State of West Bengal (93) has reinforced the findings of the national study.

All these startling findings made no impression; there was little follow-up action or correction of the records and reports. Another all-India study, the National Family Health Survey (94), was conducted with the involvement of the U.S. Agency for International Development (U.S. AID) and the East-West Centre at Honolulu in 1992–1993 (that is, well after "completion" of the time limit for the EPI/UPI). This study revealed that at the national level as few as 35.4 percent of eligible children were fully protected, with the coverage hovering around 9 to 22 percent among many of the highly populated states with the poorest records of infant mortality. In this survey, there was no study of the surveillance system, nor was there any check on the potency of the vaccines at the time of inoculation. Apparently, even these admittedly bare data, which called into question the effectiveness of EPI/UPI, did not receive the attention of Bland and Clements (74).

If the situation is so bad in the case of India, which has a fairly extensive network of health services at the grassroots level, the situation in Chad, Niger, and many countries mentioned earlier—as indeed, in all the world's least developed countries (44) and many more—will certainly not be any better. What then was the basis of the claims made by Bland and Clements?

That EPI/UPI was not a temporary aberration becomes clear when one subjects the other global initiatives to academic scrutiny. The "malady" seems to have pervaded the entire academic world of the ruling classes—as, for instance, was encountered by Navarro (1) when he ventured to study class issues in public health policy studies in the 1960s. The same trend was followed when WHO, along with a large number of U.N. agencies, set out to design the Global

Programme for AIDS, which was principally directed toward the poor countries. Incidentally, the first Union Budget (1992–1993) (13, 95, 96) after India submitted to the IMF conditionalities included a 20 percent slashing of the allocation to health services (including the tuberculosis program), without accounting for inflation. However, the World Bank and WHO "assisted" India in setting up the National AIDS Control Programme (NACP), which accounted for almost a fourth of the total allocation in the same financial year. Following the now familiar line, NACP was formulated under a veil of secrecy and no modification was permitted unless it got clearance from the World Bank Headquarters in Washington, D.C.

Despite the efforts by WHO/WB officials and their Indian camp followers to control information and extensively spread unsubstantiated information, it was possible as early as in 1992 to bring out the monograph *Combating AIDS as a Public Health Problem in India,* which questioned a number of critical assumptions in the formulation of GPA/NACP. Besides addressing matters of interdisciplinary methodology, the monograph raised issues of comparative epidemiology by taking up the history of syphilis. Interestingly, Steve Wing (97) has raised important issues in his article "Whose Epidemiology, Whose Health?" There is an interesting reference to a comparative analysis of the epidemiological behavior of AIDS and syphilis. Among the important issues raised were the profound implications of AIDS changing from a principally homosexual- associated disease in the rich countries to a heterosexual one in the poor countries; the key question of the natural history of the disease, as manifested in the differential incidence in different parts of the world, including among the countries of Sub-Saharan Africa; cultural, social, and economic parameters of the "risk groups" which determine the epidemiology of the disease; and the need for formulation of suitable strategies for different countries, based on these considerations (98–102). From the WHO/WB experts and program managers there was a stony silence on the issues raised in the monograph. Quite predictably, the objectives set before NACP in 1990 remain unfulfilled (103, 104), and very likely AIDS is set on a course broadly similar to that followed by syphilis as a public health problem in India over a period of time. A special category of sickness of mind appears to be afflicting the key decision-makers, who consciously hire an army of properly sanitized and brainwashed personnel to translate their "sick" ideas into action. For the oppressed classes and for all those who are prepared to take up their cause, it appears to be a re-enactment of a form of colonialism, with, as described by Navarro (1), fascistic overtones.

Justification given by WHO/WB for launching the Global Program for Tuberculosis is even more fantastic and incredibly contradictory. It is simply bizarre. Out of the blue, as it were, in the early 1990s, WHO/WB sounded the maximum-alert bell to proclaim that tuberculosis had become a "Global Emergency" and the GPT was the way to tackle that emergency (105, 106). How did a Global Emergency occur? What was WHO/WB doing when this emergency was building up? Is it reflected in the Epidemiological Intelligence Reports these agencies are constitutionally bound to present? Then why did they cut back the staff of the Tuberculosis Unit at the Headquarters in the 1980s to barely one (45)? Why didn't they raise an alarm when the national tuberculosis programs in the poor countries were being pushed onto the back burner to create "space" for high-priority programs such as EPI/UPI or NACP, with the already crippled health services reeling under the impact of brutal cuts imposed by orders of the IMF? This would be a comical drama had it not been so tragic, costing the lives of hundreds of thousands of the poor, whose voices were stifled by the ruling classes.

A streak of steely determination on the part of WHO/WB in imposing the prefabricated, DOTS-driven agenda of the GPT is reflected in the leading presentation of a *World Health Forum* Round Table, which gives the pre-eminent position to DOTS (83). That even the conversion rates claimed for the new spectrum of drugs used in DOTS are nothing startling is exposed by comments made by the veteran tuberculosis worker of the old school, John Crofton, who was a participant in this Round Table Discussion (79, 83). He stated "We demonstrated in Edinburgh in the 1950s that 100 percent cure of pulmonary tuberculosis, with no relapse, could be a reasonable aim (even with the drugs then available: streptomycin, isoniazid and para-amino salicylic acid)."

The GPT was particularly painful for tuberculosis workers in India, who have been instrumental in making such a mark in tuberculosis research and action worldwide over the past four decades. A meeting of key tuberculosis workers called by the Tuberculosis Association of India and the Government of India in 1992 to discuss the poor state of the country's National Tuberculosis Programme came out with well-argued and eminently implementable lines of action (107). Once again, a comprehensive document was prepared pointing out major epidemiological, sociological, economic, and administrative flaws in the GPT (108). To initiate dialogues, this too was extensively circulated to various agencies by the Voluntary Health Association of India, specifically including the chief executives of WHO, UNICEF, and the World Bank and aid missions of some of the major "donors." However, as in the previous cases, they remained unmoved; they refused to enter into discussion on scientific aspects of the program. A detailed account of the efforts made to bring them round to scientific discussions is also included in this document (108).

The cloak of secrecy shrouding the "selling" of the program to India has been a particularly unpleasant feature (108). The WHO/WB experts actively avoided entering into discussion with their counterparts at the National Tuberculosis Institute, Bangalore, and others actively involved in the conceptualization, formulation, and implementation of India's National Tuberculosis Programme. Instead, they interacted extensively with the then director-general of the Indian Council of Medical Research, who had been a tuberculosis microbiologist, and the then director-general of health services of the Government of India, who was a specialist in orthopedics. Both these functionaries were later offered positions in the South-East Asian Regional Office of WHO.

CONCLUSIONS: A FRIGHTENING SPECTACLE OF DISTORTION OF THE PRINCIPLES AND PRACTICE OF INTERNATIONAL PUBLIC HEALTH BY WHO, UNICEF, AND THE WORLD BANK

A very large area has been covered in this report to demonstrate how imposition of an enormous, high-priority, prefabricated health service agenda by the rich countries on the poor ones has virtually decimated the somewhat promising growth of people-oriented health services in a country such as India. Poor people will have to struggle for their right to access to services that are specifically designed to conform to their epidemiological, sociological, cultural, and economic requirements. For this purpose, they will not only have to fight the misconceived and mismotivated interventions in the form of international initiatives; their struggle will also include restructuring of the entire health/health service system to be in tune with their requirements. This will be a long, grinding struggle.

It may also be mentioned in passing that the overriding priority assigned to a Malthusian family planning program for over four decades by the ruling classes, both national and international (109–116), has also had a devastating impact on the growth and development of health services in India (114). In his book *Birth Control and Foreign Policy* (117), Nicholas Demerath, Sr., has given a well-documented account of the various ways in which India's family planning program has been influenced by the U.S. Government (U.S. AID) and other U.S. agencies, such as the Population Council, the Ford Foundation, the Population Crisis Committee, the Council of Foreign Relations, and programs sponsored by numerous universities, church organizations, the International Planned Parenthood Federation, and other voluntary associations. So powerful has been the population lobby in the United States that it forced the publishers, Harper and Row, to hastily withdraw Demerath's book from bookstore shelves all over the world. It has now become a collector's item.

From the standpoint of sociology of knowledge, it is interesting to note that no other scientific specialty, not even the cousins of public health such as clinical medicine/surgery, microbiology, and health statistics, has undergone such a far-reaching distortion. What a macabre situation, reflecting the nature of international and national power plays of our time. This is indeed the darkest chapter in the history of public health. In conclusion, five major areas of such distortion are summarized.

1. The "public health" practiced by exponents of the international initiatives is starkly ahistorical (16, 17). They seem to consider themselves the inventors of the wheel. So carried away were they with the "new" thinking injected into their heads by the ruling class that they seemed to have no use for the pioneering work

in public health done in earlier years by many profound and dedicated scholars. C. E. A. Winslow's classic definition of public health way back in 1920 (118); Henry Sigerist's emphasis on the history of medicine (119–121) to develop a perspective for building health services, as in the report of India's Bhore Committee (21); John Grant's efforts to promote regionalization of health services and take public health research and practice to rural field stations (40, 122); the pioneering works of Rene Sand (123), John Ryle (124), and Iago Galdston (125) in giving content to the important specialty of social medicine; John Gordon's pathbreaking field research at Khanna in India on the epidemiology of child mortality and morbidity (126); Hugh Leavell's insightful ideas on the development of strategies for intervention in the epidemiological behavior of a health problem based on analysis of its natural history of disease in an individual (127–129); Edward McGavran's exposé on an epidemiological approach to solving a public health problem (130); Milton Roemer's contributions to health manpower development (131); George Foster's pioneering work on medical anthropology (132); P. V. Benjamin and Halfdan Mahler's dedicated efforts to establish the National Tuberculosis Programme in India (35) and the latter's role in getting the Alma-Ata Declaration on Primary Health Care all over the world—these are but a few of the works of just some of the pioneers. The public health experts hired by WHO/WB/UNICEF have been selectively bred and properly programmed to be unaware, or at least to pretend to their paymasters that they are unaware, of the work of such pioneers.

2. The scientific term "epidemiology," which forms the foundation of public health practice, has been grossly misused by the new breed of experts. On the basis of the unrepresentative nature of the data used and their highly questionable reliability and validity, and the very limited data on causative relationship, validity and reliability of impact measurement, and the time trends, we can reject out of hand the scientific bases of almost all the international initiatives taken by the triad. Epidemiology, besides, includes the crucial areas of natural histories of diseases over time (133–139) and in the individual, as emphasized by Leavell (128). The experts have chosen simply to ignore other important areas, such as the social meaning of epidemiological data, the politics and political economy of health, and concepts of health administration elaborately developed in poor countries like India for over six decades (18, 129). In their zeal to sell their wares, they have also grossly distorted the concept of health economics, by confusing it with health financing (13). This amounts to practice of public health quackery. A similar fate was meted out to a well-established research tool—operational research (67, 68, 140–146). Developed in the course of World War II, it has very specific connotations and has enormous application to public health practice, as it seeks to optimize complex systems. These specifications too were simply ignored, and operational research has been grossly vulgarized (e.g., 69).

3. Suppression of information, use of doctored information, spread of misinformation and disinformation, and lack of effective evaluation/surveillance are

expected outcomes when programs are meant to serve power managers, required by their paymasters to satiate the ever increasing hunger of the marketplace.

4. Directors-general of two top public health institutions in India extended their support to the GPT, even though serious flaws in the program were repeatedly brought to their notice. After they endorsed the WHO/WB program, they found highly lucrative positions in WHO. It is not necessary to speculate here about other instances. This marks the rock-bottom of the moral and ethical standards of the practices of the parties concerned.

5. Those who are expected to be the conscience keepers of ethics and morality in public health practice—teachers in public health schools/institutes, key public health administrators in national and international institutions, nongovernmental organizations, and political leaders/activists responsible for safeguarding and promoting the health of the people—are perhaps the worst offenders in inflicting such humiliation on the peoples of the world. Apparently attracted by the financial rewards, many of these professionals actively associated themselves with the not so ethical and moral ventures. Many others looked the other way, fearing retribution for exclaiming that the emperor had no clothes. And there must have been a very substantial number of this "intelligentsia" who could not move themselves to find out what was happening. The situation certainly did not compare in depth with that in Hitler's Germany or even Franco's Spain, but the resemblance is uncanny. It shows how cheaply the leaders of the profession can be bought, to lend their support for patently unscientific, unethical, and immoral programs which have cost literally hundreds of thousands of lives of the world's poor.

The line of action for those few who still attach a high value to intellectual and moral integrity, and are prepared to pay the sort of price mentioned by Navarro (1), emerges from the analysis made in this report. The Indian subcontinent and China must take the responsibility for rediscovering their lost heritage, to set the tone for alternative, people-oriented health services for the long-exploited, deprived peoples of the world.

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Who Is WHO?

REFLECTIONS ON THE TWENTY-FIFTH ANNIVERSARY OF THE ALMA-ATA DECLARATION

Debabar Banerji

The Alma-Ata Declaration on Primary Health Care of 1978—based on the World Health Assembly's resolution of 1977 on Health for All by the Year 2000—was a watershed in the concepts and practices of public health as a scientific discipline; it was endorsed by every country in the world, rich and poor. According to the Declaration, health is a fundamental right, to be guaranteed by the state; people should be the prime movers in shaping their health services, using and enlarging upon the capacities developed in their societies; health services should operate as an integral whole, with promotive, preventive, curative, and rehabilitative components; and any western medical technology used in non-western societies must conform to the cultural, social, economic, and epidemiological conditions of the individual countries. Since Alma-Ata, a syndicate of the rich countries and the ruling elites of the poor countries, aided by the WHO, World Bank, World Trade Organization, and other international institutions, has done much to overturn the Declaration's primary health care initiatives. The WHO's recent attempt to regain some credibility, its Commission on Macroeconomics and Health, ignored the primary health care principles of the Alma-Ata Declaration. A struggle for these principles will have to be part of the larger struggle, by like-minded individuals working in individual countries, for a just world order.

The Alma-Ata Declaration on Primary Health Care of 1978 (1), which was endorsed by all the countries of the world, was a watershed in the concepts and practices of public health as a scientific discipline. Expectedly, the vision endorsed at Alma-Ata was the outcome of the power equations that had been forming within and between countries over the preceding years. India's vision in 1938 of entrusting "people's health in people's hands" (2) during the anti-colonial struggle, and the emergence in the course of the famous Long March of China's vision of developing rural health cooperatives, with the "barefoot doctor" as the

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centerpiece (3), are instances of sociopolitical conditions within individual countries that inspired such pathbreaking endogenous thinking in public health. Incidentally, the two countries—India and China—contained an overwhelming majority of the world's unserved and underserved people.

Equally expectedly, when the power equation swung massively in favor of a few rich countries, the poor were made to "forget" the idealism contained in the solemn declarations made earlier. The changes in China during the past two decades have virtually wiped out the rural health cooperatives, leaving vast masses of the poor to their fate. It is a profound irony that, fearing backlash from the poorest of the poor, the Chinese authorities have now sought assistance from the World Bank to revive health cooperatives for this population. India suffered a similar fate, but presumably because of some degree of commitment to democracy, the damage to the endogenously developed public health system has not been as extensive as in the case of China.

HIGHLIGHTS OF THE ALMA-ATA DECLARATION

The main principles of the Alma-Ata Declaration can be summarized as follows:

1. Health is considered as a fundamental right. The state has the responsibility to enforce this right.
2. Instead of starting with various types of health technologies and regarding people as almost passive recipients of these technologies, the Declaration seeks to reverse the relationship by considering people as the prime movers for shaping their health services. It seeks to strengthen the capacity of the people to cope with their health problems, a capacity they have developed through the ages.
3. It visualizes a wider approach to health by strengthening such intersectoral areas as provision of adequate supplies of potable water, environmental sanitation, nutritive food, and housing.
4. It calls for social control of the health services that are designed to strengthen people's coping capacity.
5. It considers health as an integral whole, including promotive, preventive, curative, and rehabilitative components. Any concept of "selective care" is antithetical to the concept of primary health care (PHC).
6. Health services should cover the entire population, including the unserved and the underserved.
7. Those aspects of traditional systems of medicine that have proven efficacious, or that are the only ones accessible to the people, should be used in providing PHC.
8. Any choice of western medical technology should conform to the cultural, social, economic, and epidemiological conditions of individual populations. Particular care is to be taken to use only essential drugs in generic forms.

Ivan Illich, in his book *Limits to Medicine* (4), stated (perhaps a little exaggeratedly) how, even in the rich countries, "medicine had become a threat to the people" through what he called the medicalization of life, mystification of medicine, professionalization of medicine, increasing incidence of medical, social, and cultural iatrogeneses, and other processes. Later, studying the rapid market-driven technological developments, he had pointed out (in a personal communication) the powerful trends in making the practice of medicine a mere component of a much larger "system" (systematization), which later turned into even bigger organizations, or "conglomerates" (conglomeratization). More recently, noting that U.S. doctors have lost much of their say in market-driven medical practice, John McKinlay and Lisa Marceau (5) have pronounced the "end of the Golden Age of doctoring." The PHC approach ensures that such anomalies do not creep into the practice of medicine.

It may be underlined that PHC is a *process*. Even the most rudimentary forms of home remedies or the use of a village bone-setter could form the starting point for developing PHC. Mahatma Gandhi recognized such limitations of the deprived sections of the population. In his program of "Constructive Work," he included very simple but effective methods of rural sanitation and the use of naturopathy to protect and promote the health of rural populations in India.

EVOLUTION OF THE ALMA-ATA DECLARATION

The overthrow of colonial rule and rising aspirations of the liberated peoples, the setting up of democratic forms of government in some of the newly independent countries, the initiation of the Cold War and formation of the Non-Aligned Movement—these were some of the most important factors that contributed to creation of the conditions that impelled the new rulers in these liberated countries and the newly formed international organizations to pay attention to some of the urgent problems that faced them. International organizations such as the World Health Organization and UNICEF and many bilateral agencies came forward to contribute to improvement of the health status of people in the needy countries.

The availability of so-called silver bullets tempted these organization to launch special "vertical" or "categorical" programs against some of the major scourges—such as malaria (DDT and synthetic antimalarials), tuberculosis (BCG vaccination), leprosy (dapsone), filariasis (Hetrazan), and trachoma (Aureomycin). It took them quite some time to realize that these vertical programs not only were very expensive but also were failing to yield the expected results. These programs also hindered the growth of integrated health services. This impelled the agencies to advocate the integration of health services, then to promote basic health services, and then to go to individual countries to promote country health planning and, later, country health programming.

In the mid-1970s the WHO got together with the World Bank to link health activities with poverty-reduction programs. A World Health Assembly resolution in 1977 (6), aiming for a program of Health for All through PHC by 2000 (HFA-2000/PHC), set the stage for the International Conference on PHC at Alma-Ata in 1978.

POST ALMA-ATA SCENARIO

From the early 1980s, exponential changes began in the power equations between and within the countries of the world. Events such as the end of the Cold War, enfeebling of the Non-Aligned Movement, and rapidly increasing influence of the Bretton Woods institutions brought about a sea change in the national and international commitment to HFA-2000/PHC. As early as 1979, the rich countries launched what they called Selective Primary Health Care, on the basis of virtually no scientific data (7). Apparently to make its power fully evident, the syndicate of the rich countries and the ruling elites of the poor countries forced the two sponsors of the Alma-Ata Conference—the WHO and UNICEF—to toe the line laid down by the syndicate. An active effort was made to thoroughly wash away the ideas generated by the Alma-Ata Declaration, to make "space" for a patently unscientific, market-driven agenda for health for the poor countries. It was a massive assault on the intellect of public health workers; those who conformed to the syndicate's line were rewarded; those who dared to disagree were simply ostracized (8). Public health was once again turned on its head, with people again becoming hapless recipients of prefabricated, market-driven, technocentric, and scientifically very questionable programs imposed by international agencies.

The International Monetary Fund demanded—and got—compliance for fundamental structural adjustments in the economy of dependent countries. The impact of these programs on health and health services for the poor was devastating. They entailed drastic cuts in the already pathetically inadequate public-supported health budgets. They created space for rapid growth of the private sector in medical care. They exerted pressure for cost recovery for services provided by some of the publicly funded health agencies. The pressure to globalize poor countries on grossly unequal and inequitous terms turned these populations into bonded laborers in a global village dominated by the syndicate. The World Trade Organization added its bit by forcing patent laws in many poor countries to subserve the interests of the drug manufacturing giants.

Replacing scientific reasoning and well-researched conclusions by a use of brute force, the syndicate let loose a torrent of international health initiatives on the poor countries. As admitted even by the government of India in its Health Policy announcement of 2002, these initiatives not only have been highly expensive but have also further decimated the general health services. Worse still, they have fallen far short of the objectives for which they were launched. The Universal Immunization Program, the Global Program on AIDS, the Global Tuberculosis Control Program, the Pulse Polio Program for polio eradication, and the Leprosy Elimination Program are examples of the major initiatives taken during the last decade and a half. Despite the billions of dollars poured into them, the syndicate-inspired initiatives are becoming a menace to the health and health services of the world's poor (9).

In what has turned out to be a desperate bid to regain some credibility, the WHO managed to interest some of the world's top economists in joining the Commission on Macroeconomics and Health (CMH) to study the macroeconomics of health services for the poor people of the world and to make its recommendations (10). Interestingly, the CMH included the former finance minister of India and the present leader of the opposition in the upper house of Parliament, Dr. Manmohan Singh, and the president of the Mitsubishi Bank. The CMH report is being analyzed at some length, as it provides documentary evidence of the poor level of scholarship of the members and the secretariat (11).

The report of the CMH is ahistorical, apolitical, and atheoretical. It has adopted a selective approach to conform to a preconceived ideology. It has ignored the earlier work done in this field. It has pointedly ignored such major developments in health services as the Alma-Ata Declaration. This attitude of developing massive blind spots in its vision has brought the quality of the scholastic work to an almost rock-bottom level. But it is not surprising that the CMH has developed such narrow vision in making recommendations on so important a subject. Its emphatic recommendation for perpetuating vertical programs against such major communicable diseases as tuberculosis, AIDS, and malaria—on the grounds that vertical programs have proved convenient in a number of ways to the "donors"—reveals the real motivations for undertaking an almost openly ideology-driven agenda. This is a serious warning signal for scholars who would like to maintain a scientific attitude toward program formulations that would allow the poor to get the maximum returns from the limited resources.

WHAT IS TO BE DONE?

A struggle for HFA-2000/PHC has to be part of the long and formidable struggle for a just world order. The focus must be on individual countries. Like-minded groups from these individual countries must join together to form a global movement. Some first, very tentative steps have already been taken:

1. After having their own National Health Assemblies, delegates from many countries got together in Dhaka in December 2000 to form the People's Health Assembly, to adopt a People's Health Charter. To carry forward the struggle for health it has formed a People's Health Movement, which has set up branches at the continental, national, and subnational levels.
2. The inaugural meeting of the World Social Forum (WSF) was held in Brazil in 2002. Concern for the health of the poor is an important component of the activities of the WSF. As a prelude to the second WSF conference, a meeting of the European Social Forum, attended by 200,000 to 300,000

delegates, was recently held in Florence. An Asian Social Forum was held in Hyderabad in January 2003.

3. A great deal of credit is due to anti-capitalist activists for organizing sustained demonstrations, against extremely heavy odds, to register their protest at major conclaves of rich countries in different parts of the world—beginning in Seattle and spreading to Gothenburg, Barcelona, Davos, Calgary, Doha, Genoa, and Melbourne.
4. Another line of struggle will be to use scientific critiques as a weapon to resist the imposition of the syndicate's agenda on the poor and to offer an alternative (8). A "reminder" about the Alma-Ata Declaration is one such example.

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tive on Malaria. Les revues de l'hémisphère Nord furent sélectionnées en fonction de leurs missions et engagement dans l'avancée de la santé publique et de l'environnement dans les régions en développement. Les quatre collaborations établies entre revues sont les suivantes: (1) *African Health Sciences* et le BMJ; (2) *Ghana Medical Journal* et *The Lancet*; (3) *Malawi Medical Journal* et le *Journal of the American Medical Association* ; (4) *Mali Medical, Environmental Health Perspectives* et l' *American Journal of Public Health.* La dernière collaboration—la nôtre—est la seule qui inclut 2 revues de l'hémisphère Nord, et la seule incluant une revue francophone.

En juillet 2004, nous nous sommes réunis au Research Triangle Park, en Caroline du nord, aux Etats-Unis pour commencer à travailler au succès de l'accomplissement de nos tâches contractuelles, qui sont:

1. Identifier les besoins en équipement du *Mali Medical*, puis fournir du matériel informatique et des logiciels aux rédactions, ainsi qu'une formation de base au personnel de la rédaction.
2. Identifier les besoins éditoriaux du *Mali Medical* au moyen des visites mutuelles de la part des rédacteurs en chef associés, afin d'observer les méthodes de rédaction et d'édition.
3. Offrir une formation d'auteur/re-lecteur au moyen d'ateliers, en mettant l'accent sur les normes internationales d'écriture et les approches systématiques de relecture, ouverte à tous les membres du FAME lors de sommets médico-scientifiques en Afrique.
4. Offrir une formation et un support au rédacteur en chef et au directeur du service commercial en établissant des plans pour des opérations d'édition efficaces et viables grâce à une consultation technique et un atelier en Afrique ouvert à tous les membres du FAME.
5. Développer et entretenir un site Internet qui permettrait la publication en ligne du *Mali Medical.*
6. Organiser des stages pour les représentants du *Mali Medical* au sein des rédactions de l'*Environmental Health Perspectives* et de l'*American Journal of Public Health*
7. Mettre au point quatre compte-rendus systématiques sur des sujets importants en Afrique sub-saharienne qui seront publiés dans les revues africaines partenaires à la fois en anglais et en français.

Au cours des années à venir, nous évaluerons le succès de notre initiative d'amélioration de potentiel au moyen des indicateurs suivants : augmentation des références au *Mali Medical* dans Medline, nombre d'articles soumis et publiés, nombre et efficacité des re-lecteurs locaux, et ponctualité de publication. Si nos revues et organisations partenaires accomplissent nos missions communes que sont travailler à l'amélioration de la santé publique et parvenir à l'égalité dans la santé pour tous, alors notre collaboration naissante est un moyen efficace pour atteindre ces buts. Notre espoir commun est que les trois revues exploitent mieux leur potentiel d'acteurs d'un changement progressif, et ce à travers une plus grande compréhension, la collaboration, la perspicacité et les relations entre l'environnement et la santé dans les pays développés et en développement. Nous mettrons à jour régulièrement et simultanément nos trois revues, en anglais et en français. Nous souhaitons être chacun tenu responsable pour l'accomplissement des tâches qui nous sont assignées et l'engagement d'autres partenaires dans ce combat digne d'être mené : trouver des solutions pratiques et innovantes pour éliminer les inégalités médicales passées et présentes et protéger l'environnement pour les générations futures. ■

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A Role for Public Health History

Mixed in with the rich and varied articles on global health themes in this issue of the Journal are 6 articles based on historical research. Five of the articles originated in the History Working Group of the Joint Learning Initiative (JLI) "Human Resources for Health and Development," a major international policy and planning initiative undertaken by the Rockefeller Foundation and several partners.[1] The sixth, by Didier Fassin and Anne-Jeanne Naudé, was submitted independently but fits here nicely along with the other historical articles.[2]

The purpose of the History Working Group was to contribute to the JLI's overall objectives by critically reviewing international public health initiatives during the 20th century and uncovering new insights into their successes and failures. Members were urged to illuminate through historical study the motives, context, and local complexity of these international programs. Elizabeth Fee and Marcos Cueto served as cochairs of the group, and Theodore M. Brown was senior advisor. From March 2003 to May 2004 the group held 2 meetings in Bellagio, Italy, planned and prepared papers, and helped to develop the recommendations of the final JLI report.

The 5 JLI contributions in this issue represent current concerns in the historical study of international health. For many years, scholarship in the field focused on the role played by colonial and postcolonial medicine, US philanthropies, and the first international health agencies during the early decades of the 20th century.[3–8] Few studies examined developments in international health in the second half of the century. This has begun to change, and the later period is now drawing increased attention from historians, especially because recent decades have been marked by the tense encounter of cultures in the context of international public health, a changing political climate reflecting the vicissitudes of the Cold War, the emergence of neoliberalism, and the boom of economic "globalization."[9–12]

Marcos Cueto, in "The Origins of Primary Health Care and Selective Primary Health Care," underscores the dynamics of the Cold War in the 1970s as the major contextual source for the World Health Organization's (WHO's) 1978 Alma-Ata declaration on primary health care.[13] Cueto suggests that shifts in the international power balance between the United States and the Soviet Union, the new assertiveness of recently decolonized developing nations, and the ascent of China as a geopolitical player explain the relative decline of Western technologically based approaches and the rise of comprehensive, grassroots, and sociopolitical alternatives. The location of the famous meeting at Alma-Ata in Soviet Kazakhstan was itself reflective of the Cold War context and Soviet versus Chinese maneuvering. Given the circumstances, it was no surprise that "selective primary care," the alternative to primary health care promoted by UNICEF, USAID, and other backers, was perceived by some as a staged "counterrevolution."

Socrates Litsios explores other dimensions of the emergence of primary health care as WHO policy in the 1970s. In "The Christian Medical Commission and the Development of WHO's Primary Health Care Approach,"[14] he traces 2 streams of thinking that converged in 1974, when a critical meeting took place in Geneva, Switzerland, between the staff of the Christian Medical Commission (CMC) and senior WHO staff. A few years before, the CMC had begun to refocus on preventive services for communities at large. Working from principles of human rights and distributive justice, CMC leaders deemphasized technical care and gave priority to comprehensive health care as one part of a general plan for the development of society.

Within WHO, Kenneth Newell and Halfdan T. Mahler began to shift attention toward plans for the integration of preventive and curative care. The World Health Assembly in May 1973 adopted a resolution confirming that countries must develop health services suited to their needs and socioeconomic conditions and use an appropriate level of technology. This resolution provided the basis for a close collaboration between the CMC and WHO, cemented by Mahler's election as director general of WHO and leading ultimately to Alma-Ata.

Sanjoy Bhattacharya turns from intra- and interorganizational dynamics to issues of bureaucratic complexity and resistance in his article, "Uncertain Advances: A Review of the Final Phases of the Smallpox Eradication Program in India, 1960–1980."[15] He explores unpublished correspondence to show that varying levels of programmatic commitment and belief, jurisdictional conflicts, and just plain local sabotage often undermined the supposedly smoothly run, carefully orchestrated, and centrally directed campaign. Bhattacharya documents the ways in which WHO headquarters in Geneva, the South East Asia Regional Office in New Delhi, the Indian central government, and local Indian state governments often got in one another's way and could be brought into efficient operating relationships—for limited periods—only by concerted diplomacy, financial blandishments, and threats of political embarrassment. Bhattacharya thus offers a nuanced account of the final stages of one of the major international health programs in the later 20th century and reminds us that things are rarely as simple as they are sometimes portrayed and that politics and public health are inextricably interwoven.

Stephen J. Kunitz also highlights the inextricable interweaving of politics and public health. In "The Making and Breaking of Federated Yugoslavia, and Its Impact on Health,"[16] he traces the formation and fragmentation of the Yugoslav nation, emphasizing the roles of deep-seated ethnic tensions, regional economic disparities, and the devastating inflationary consequences of a calculated turn to the West. According to Kunitz, the eruption of a bloody civil war in 1991 was inevitable, as were the health consequences of the downward economic spiral that led up to it. He shows that in the 1980s, as inflation exploded, the postwar decline in infant mortality stagnated while mortality in the elderly and mortality due to cardiovascular disease increased. Global economics, more than local ethnic conflict, was the real villain in the piece, because the policies of the International Monetary Fund led to forced underspending on social services and failed to curb inflation, thus leading to deteriorating health and intensifying ethnic antagonisms.

William Muraskin's article "The Global Alliance for Vaccines and Immunization (GAVI): Is It a New Model for Effective Public Private Cooperation in International Public Health?"[17] completes the set of JLI contributions in this issue. Muraskin strongly argues the case that GAVI, created in late 1999, is riddled with substantial and quite possibly fatal flaws that will undermine the success it has thus far enjoyed. He contends that GAVI is an enterprise built on "top-down globalism" and that its promoters in the Gates Foundation, the International Federation of Pharmaceutical Manufacturers Association, the World Bank, and elsewhere push immunization as a nonnegotiable goal. The allies recruited into GAVI by financial inducements are weak allies at best. They have their own priorities and they realize the full extent of the enormously complex problems "on the ground," not least of them the "human capacity problem," which makes it difficult to implement GAVI initiatives in recipient nations. Because of the top-down imposition of the "policy of the month," Muraskin argues, it is difficult to respond to new initiatives without seriously disrupting existing programs and priorities. He suggests that a little humility and a lot more consultation would go a very long way.

What are the take-home lessons of these 5 contributions? First, that international public health efforts are deeply influenced and critically shaped by their political context. Programs cannot be created in a vacuum or applied in isolation. They are of this world and, like it, they constantly change and thus need to be frequently renegotiated. Second, the culture of international health organizations must be acknowledged in order to understand what priorities will emerge at any particular time and which will survive intra- and interagency competition. Programmatic ideas are always contested and rise and fall with shifting political alliances.

Third, ideas are applied in a world governed by administrative and bureaucratic realities. The translation of plans into actual programs requires a great deal of persistence and negotiating skill to make them real and keep them functioning. Fourth, international health initiatives must reckon with deep-seated historical and cultural traditions, local realities, and global forces. All play roles in the success and failure of public health activities, and no success is likely to last forever, especially when the world changes in dramatic ways. Fifth, top-down initiatives cannot expect to succeed without real bottom-up support. Because people at the local level understand how programs need to function to address their particular needs, there can be no simple formula for international public health success. A single agenda or set of priorities cannot suit all circumstances.

Clearly, there is an important role for history in global public health. Studying history carefully and generalizing from its particulars may not necessarily help us avoid repeating the mistakes of the past, but by distilling the lessons of history, we can certainly learn more clearly where we have been and, as a consequence, become more aware of where we are. ■

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The World Health Organization and the Transition From "International" to "Global" Public Health

Theodore M. Brown, PhD, Marcos Cueto, PhD, and Elizabeth Fee, PhD

The term "global health" is rapidly replacing the older terminology of "international health." We describe the role of the World Health Organization (WHO) in both international and global health and in the transition from one to the other. We suggest that the term "global health" emerged as part of larger political and historical processes, in which WHO found its dominant role challenged and began to reposition itself within a shifting set of power alliances.

Between 1948 and 1998, WHO moved from being the unquestioned leader of international health to being an organization in crisis, facing budget shortfalls and diminished status, especially given the growing influence of new and powerful players. We argue that WHO began to refashion itself as the coordinator, strategic planner, and leader of global health initiatives as a strategy of survival in response to this transformed international political context. (*Am J Public Health.* 2006;96:62–72. doi:10.2105/AJPH.2004.050831)

EVEN A QUICK GLANCE AT THE titles of books and articles in recent medical and public health literature suggests that an important transition is under way. The terms "global," "globalization," and their variants are everywhere, and in the specific context of international public health, "global" seems to be emerging as the preferred authoritative term.[1] As one indicator, the number of entries in PubMed under the rubrics "global health" and "international health" shows that "global health" is rapidly on the rise, seemingly on track to overtake "international health" in the near future (Table 1). Although universities, government agencies, and private philanthropies are all using the term in highly visible ways,[2] the origin and meaning of the term "global health" are still unclear.

We provide historical insight into the emergence of the terminology of global health. We believe that an examination of this linguistic shift will yield important fruit, and not just information about fashions and fads in language use. Our task here is to provide a critical analysis of the meaning, emergence, and significance of the term "global health" and to place its growing popularity in a broader historical context. In particular, we focus on the role of the World Health Organization (WHO) in both international and global health and as an agent in the transition from one concept to the other.

Let us first define and differentiate some essential terms. "International health" was already a term of considerable currency in the late 19th and early 20th century, when it referred primarily to a focus on the control of epidemics across the boundaries between nations (i.e., "international"). "Intergovernmental" refers to the relationships between the governments of sovereign nations—in this case, with regard to the policies and practices of public health. "Global health," in general, implies consideration of the health needs of the people of the whole planet above the concerns of particular nations. The term "global" is also associated with the growing importance of actors beyond governmental or intergovernmental organizations and agencies—for example, the media, internationally influential foundations, nongovernmental organizations, and transnational corporations. Logically, the terms "international," "intergovernmental," and "global" need not be mutually exclusive and in fact can be understood as complementary. Thus, we could say that WHO is an intergovernmental agency that exercises international functions with the goal of improving global health.

Given these definitions, it should come as no surprise that global health is not entirely an invention of the past few years. The term "global" was sometimes used well before the 1990s, as in the "global malaria eradication program" launched by WHO in the mid-1950s; a WHO Public Affairs Committee pamphlet of 1958, *The World Health Organization: Its Global Battle Against Disease*[3]; a 1971 report for the US House of Representatives entitled *The Politics of Global Health*[4]; and many studies of the "global population problem" in the 1970s.[5] But the term was generally limited and its use in official statements and documents sporadic at best. Now there is an increasing frequency of references to global health.[6] Yet the questions remain: How many have participated in this shift in terminology? Do they consider it trendy, trivial, or trenchant?

Supinda Bunyavanich and Ruth B. Walkup tried to answer these questions and published, under the provocative title "US Public Health Leaders Shift Toward a New Paradigm of Global Health," their report of conversations conducted in 1999 with 29 "international health leaders."[7] Their respondents fell into 2 groups. About half felt that there was no need for a new terminology and that the label "global health" was meaningless jargon. The other half thought that there were profound differences between international health and global health and that "global" clearly meant something transnational. Although these respondents believed that a major shift had occurred within the previous few years, they seemed unable clearly to articulate or define it.

In 1998, Derek Yach and Douglas Bettcher came closer to capturing both the essence and the origin of the new global health in a 2-part article on "The Globalization of Public Health" in the *American Journal of Public Health*.[8] They defined the "new paradigm" of globalization as "the process of increasing economic, political, and social interdependence and integration as capital, goods, persons, concepts, images, ideas and values cross state boundaries." The roots of globalization were long, they said, going back at least to the 19th century, but the process was assuming a new magnitude in the late 20th century. The globalization of public health, they argued, had a dual aspect, one both promising and threatening.

In one respect, there was easier diffusion of useful technologies and of ideas and values such as human rights. In another, there were such risks as diminished social safety nets; the facilitated marketing of tobacco, alcohol, and psychoactive drugs; the easier worldwide spread of infectious diseases; and the rapid degradation of the environment, with dangerous public health consequences. But Yach and Bettcher were convinced that WHO could turn these risks into opportunities. WHO, they argued, could help create more efficient information and surveillance systems by strengthening its global monitoring and alert systems, thus creating "global early warning systems." They believed that even the most powerful nations would buy into this new globally interdependent world system once these nations realized that such involvement was in their best interest.

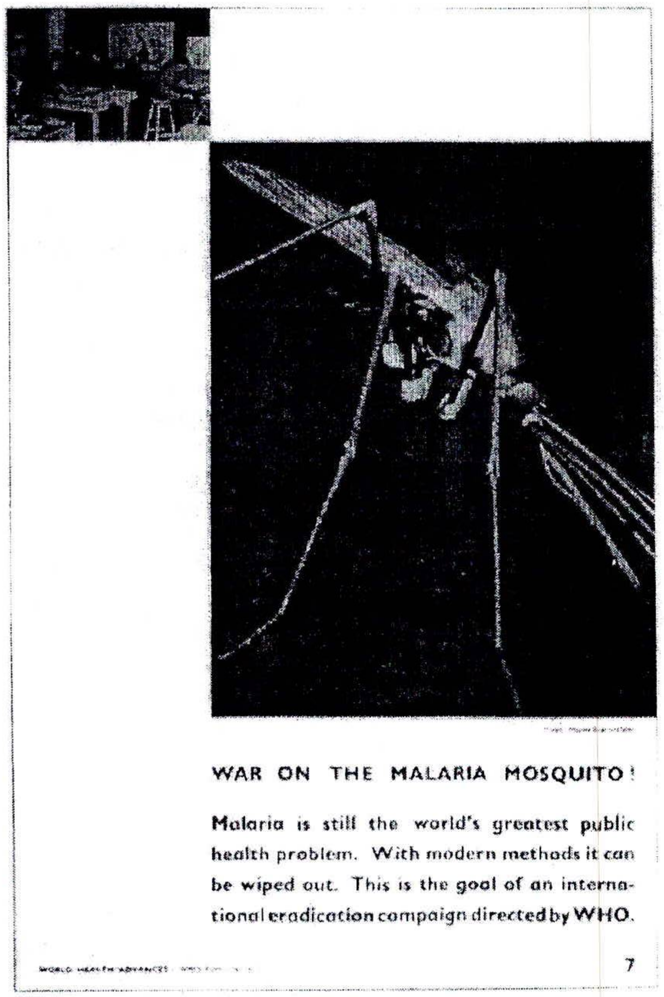
Despite the long list of problems and threats, Yach and Bettcher were largely uncritical as they promoted the virtues of global public health and the leadership role of WHO. In an editorial in the same issue of the Journal, George Silver noted that Yach and Bettcher worked for WHO and that their position was similar to other optimistic stances taken by WHO officials and advocates. But WHO, Silver pointed out, was actually in a bad way: "The WHO's leadership role has passed to the far wealthier and more influential World Bank, and the WHO's mission has been dispersed among other UN agencies." Wealthy donor countries were billions of dollars in arrears, and this left the United Nations and its agencies in "disarray, hamstrung by financial constraints and internal incompetencies, frustrated by turf wars and cross-national policies."[9] Given these realities, Yach and Bettcher's promotion of "global public health" while they were affiliated with WHO was, to say the least, intriguing. Why were these spokesmen for the much-criticized and apparently hobbled WHO so upbeat about "global" public health?

THE WORLD HEALTH ORGANIZATION

The Early Years

To better understand Yach and Bettcher's role, and that of WHO

"War on the Malaria Mosquito!" Poster produced by the Division of Public Information, World Health Organization, Geneva, 1958. Courtesy of the World Health Organization. Source: Prints and Photographs Collection of the National Library of Medicine.



Malaria is still the world's greatest public health problem. With modern methods it can be wiped out. This is the goal of an international eradication campaign directed by WHO.

TABLE 1—Number of Articles Retrieved by PubMed, Using "International Health" and "Global Health" as Search Terms, by Decade: 1950 Through July 2005

Decade	International Health[a]	Global Health[a]
1950s	1 007	54
1960s	3 303	155
1970s	8 369	1 137
1980s	16 924	7 176
1990s	49 158	27 794
2000–July 2005	52 169[b]	39 759[b]

[a] Picks up variant term endings (e.g. "international" also picks up "internationalize" and "internationalization"; "global" also picks up "globalize" and "globalization").
[b] Number for 55 months only.

more generally, it will be helpful to review the history of the organization from 1948 to 1998, as it moved from being the unquestioned leader of international health to searching for its place in the contested world of global health.

WHO formally began in 1948, when the first World Health Assembly in Geneva, Switzerland, ratified its constitution. The idea of a permanent institution for international health can be traced to the organization in 1902 of the International Sanitary Office of the American Republics, which, some decades later, became the Pan American Sanitary Bureau and eventually the Pan American Health Organization.[10] The Rockefeller Foundation, especially its International Health Division, was also a very significant player in international health in the early 20th century.[11]

Two European-based international health agencies were also important. One was the Office Internationale d'Hygiène Publique, which began functioning in Paris in 1907; it concentrated on several basic activities related to the administration of international sanitary agreements and the rapid exchange of epidemiological information.[12] The second agency, the League of Nations Health Organization, began its work in 1920.[13] This organization established its headquarters in Geneva, sponsored a series of international commissions on diseases, and published epidemiological intelligence and technical reports. The League of Nations Health Organization was poorly budgeted and faced covert opposition from other national and international organizations, including the US Public Health Service. Despite these complications, which limited the Health Organization 's effectiveness, both the Office Internationale d'Hygiène Publique and the Health Organization survived through World War II and were present at the critical postwar moment when the future of international health would be defined.

An international conference in 1945 approved the creation of the United Nations and also voted for the creation of a new specialized health agency. Participants at the meeting initially formed a commission of prominent individuals, among whom were René Sand from Belgium, Andrija Stampar from Yugoslavia, and Thomas Parran from the United States. Sand and Stampar were widely recognized as champions of social medicine. The commission held meetings between 1946 and early 1948 to plan the new international health organization. Representatives of the Pan American Sanitary Bureau, whose leaders resisted being absorbed by the new agency, were also involved, as were leaders of new institutions such as the United Nations Relief and Rehabilitation Administration (UNRRA).

Against this background, the first World Health Assembly met in Geneva in June 1948 and formally created the World Health Organization. The Office Internationale d'Hygiène Publique, the League of Nations Health Organization, and UNRRA merged into the new agency. The Pan American Sanitary Bureau—then headed by Fred L. Soper, a former Rockefeller Foundation official—was allowed to retain autonomous status as part of a regionalization scheme.[14] WHO formally divided the world into a series of regions—the Americas, Southeast Asia, Europe, Eastern Mediterranean, Western Pacific, and Africa—but it did not fully implement this regionalization until the 1950s. Although an "international" and "intergovernmental" mindset prevailed in the 1940s and 1950s, naming the new organization the *World* Health Organization also raised sights to a worldwide, "global" perspective.

The first director general of WHO, Brock Chisholm, was a Canadian psychiatrist loosely identified with the British social medicine tradition. The United States, a main contributor to the WHO budget, played a contradictory role: on the one hand, it supported the UN system with its broad worldwide goals, but on the other, it was jealous of its sovereignty and maintained the right to intervene unilaterally in the Americas in the name of national security. Another problem for WHO was that its constitution had to be ratified by nation states, a slow process: by 1949, only 14 countries had signed on.[15]

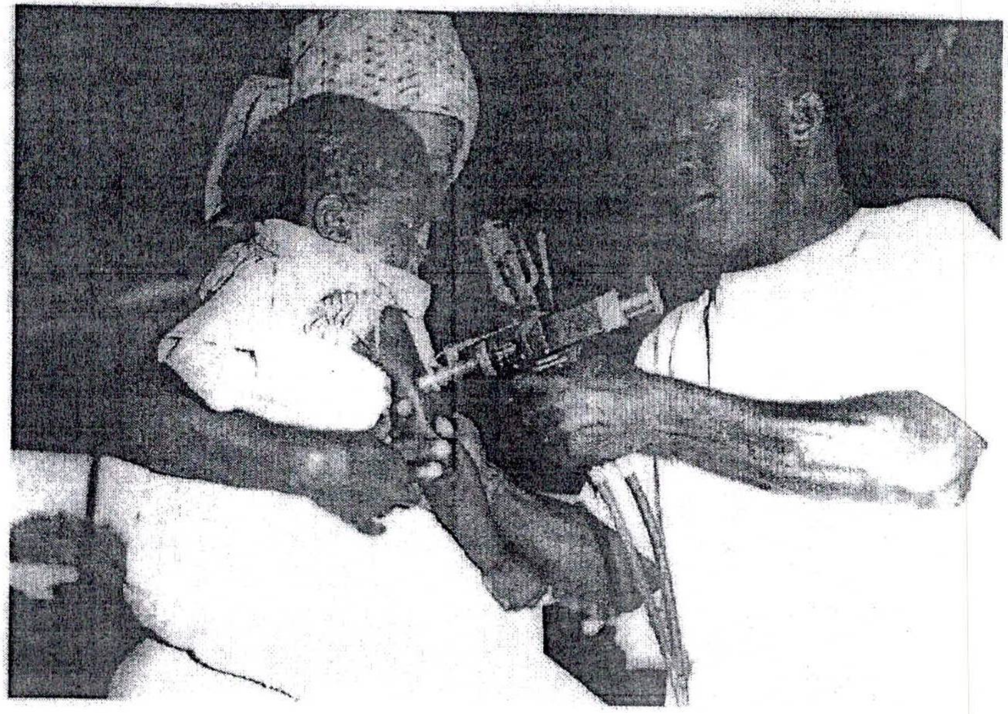
As an intergovernmental agency, WHO had to be responsive to the larger political environment. The politics of the Cold War had a particular salience, with an unmistakable impact on WHO policies and personnel. Thus, when the Soviet Union and other communist countries walked out of the UN system and therefore out of WHO in 1949, the United States and its allies were easily able to exert a dominating influence. In 1953, Chisholm completed his term as director general and was replaced by the Brazilian Marcolino Candau. Candau, who had worked under Soper on malaria control in Brazil, was associated first with the "vertical" disease control programs of the Rockefeller Foundation and then with their adoption by the Pan American Sanitary Bureau when Soper moved to that agency as director.[16] Candau would be director general of WHO for over 20 years. From 1949 until 1956, when the Soviet Union returned to the UN and WHO, WHO was closely allied with US interests.

In 1955, Candau was charged with overseeing WHO's campaign of malaria eradication, approved that year by the World Health Assembly. The ambitious goal of malaria eradication had been conceived and promoted in the context of great enthusiasm and optimism about the ability of widespread DDT spraying to kill mosquitoes. As Randall Packard has argued, the United States and its allies believed that global malaria eradication would usher in economic growth and create overseas markets for US technology and manufactured goods.[17] It would build support for local governments and their US supporters and help win "hearts and minds" in the battle against Communism. Mirroring then-current development theories, the campaign promoted technologies brought in from outside and made no attempt to enlist the participation of local populations in planning or implementation. This model of development assistance fit neatly into US Cold War efforts to promote modernization with limited social reform.[18]

With the return of the Soviet Union and other communist countries in 1956, the political balance in the World Health Assembly shifted and Candau accommodated the changed balance of power. During the 1960s, malaria eradication was facing serious difficulties in the field; ultimately, it would suffer colossal and embarrassing failures. In 1969, the World Health Assembly, declaring that it was not feasible to eradicate malaria in many parts of the world, began a slow process of reversal, returning once again to an older malaria control agenda. This time, however, there was a new twist; the 1969 assembly emphasized the need to develop rural health systems and to integrate malaria control into general health services.

When the Soviet Union returned to WHO, its representative at the assembly was the national deputy minister of health. He argued that it was now scientifically feasible, socially desirable, and economically worthwhile to attempt to eradicate smallpox worldwide.[19] The Soviet Union wanted to make its mark on global health, and Candau, recognizing the shifting balance of power, was willing to cooperate. The Soviet Union and Cuba agreed to provide 25 million and 2 million doses of freeze-dried vaccine, respectively; in 1959, the World Health Assembly committed itself to a global smallpox eradication program.

In the 1960s, technical improvements—jet injectors and bifurcated needles—made the process of vaccination much cheaper, easier, and more effective. The United States' interest in smallpox eradication sharply increased; in 1965, Lyndon Johnson instructed the US delegation to the World Health Assembly to pledge American support for an international program to eradicate smallpox from the earth.[20] At that



Smallpox Vaccination Program in Togo, 1967. Courtesy of the Centers for Disease Control and Prevention. Source: Public Health Image Library, CDC.

time, despite a decade of marked progress, the disease was still endemic in more than 30 countries. In 1967, now with the support of the world's most powerful players, WHO launched the Intensified Smallpox Eradication Program. This program, an international effort led by the American Donald A. Henderson, would ultimately be stunningly successful.[21]

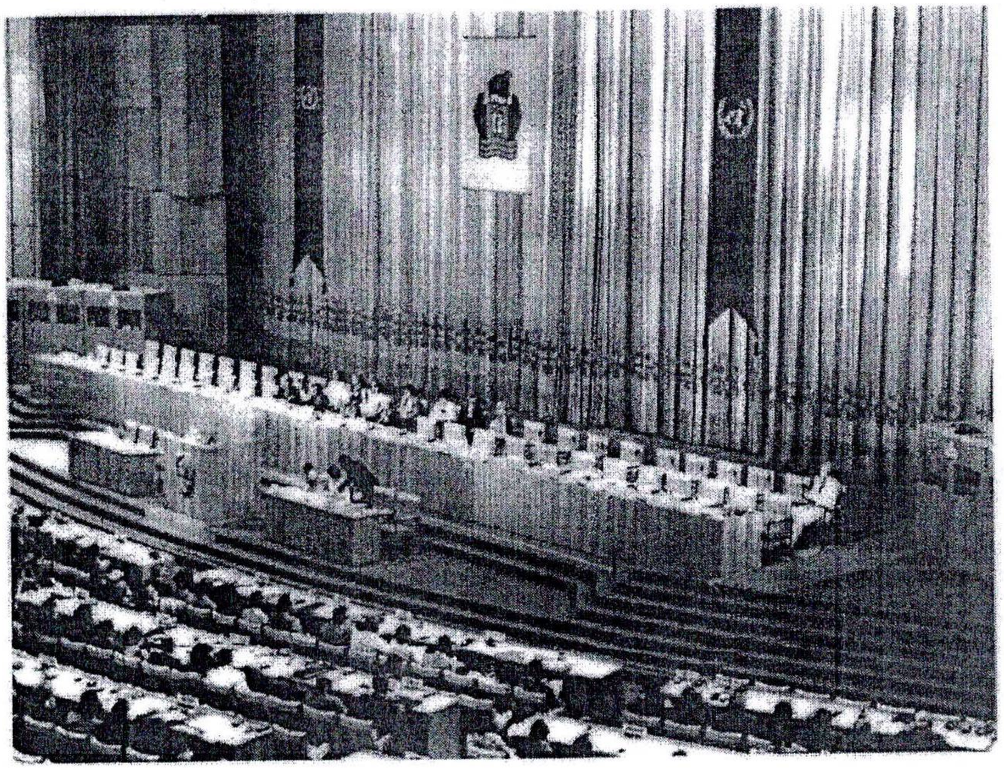
The Promise and Perils of Primary Health Care, 1973–1993

Within WHO, there have always been tensions between social and economic approaches to population health and technology- or disease-focused approaches. These approaches are not necessarily incompatible, although they have often been at odds. The emphasis on one or the other waxes and wanes over time, depending on the larger balance of power, the changing interests of international players, the intellectual and ideological commitments of key individuals, and the way that all of these factors interact with the health policymaking process.

During the 1960s and 1970s, changes in WHO were significantly influenced by a political context marked by the emergence of decolonized African nations, the spread of nationalist and socialist movements, and new theories of development that emphasized long-term socioeconomic growth rather than short-term technological intervention. Rallying within organizations such as the Non-Aligned Movement, developing countries created the UN Conference on Trade and Development (UNCTAD), where they argued vigorously for fairer terms of trade and more generous financing of development.[22] In Washington, DC, more liberal politics succeeded the conservatism of the 1950s, with the civil rights movement and other social movements forcing changes in national priorities.

This changing political environment was reflected in corresponding shifts within WHO. In the 1960s, WHO acknowledged that a strengthened health infrastructure was prerequisite to the success of malaria control programs, especially in Africa. In 1968, Candau called for a comprehensive and integrated plan for curative and preventive care services. A Soviet representative called for an organizational study of methods for promoting the development of basic health services.[23] In January 1971, the Executive Board of the World Health Assembly agreed to undertake this study, and its results were presented to the assembly in 1973.[24] Socrates Litsios has discussed many of the steps in the transformation of WHO's approach from an older model of health services to what would become the "Primary Health Care" approach.[25] This new model drew upon the thinking and experiences of nongovernmental organizations and medical missionaries working in Africa, Asia, and Latin America at the grassroots level. It also gained saliency from China's reentry into the UN in 1973 and the widespread interest in Chinese "barefoot doctors," who were reported to be transforming rural health conditions. These experiences underscored the urgency of a "Primary Health Care" perspective that included the training of community health workers and the resolution of basic economic and environmental problems.[26]

These new approaches were spearheaded by Halfdan T. Mahler, a Dane, who served as director general of WHO from



Alma Ata Conference, 1978. Courtesy of the Pan American Health Organization. Source: Office of Public Information, PAHO.

> “The Declaration of Primary Health Care and the goal of “Health for All in the Year 2000” advocated an “inter-sectoral” and multidimensional approach to health and socioeconomic development, emphasized the use of “appropriate technology,” and urged active community participation in health care and health education at every level.

1973 to 1988. Under pressure from the Soviet delegate to the executive board, Mahler agreed to hold a major conference on the organization of health services in Alma-Ata, in the Soviet Union. Mahler was initially reluctant because he disagreed with the Soviet Union's highly centralized and medicalized approach to the provision of health services.[27] The Soviet Union succeeded in hosting the September 1978 conference, but the conference itself reflected Mahler's views much more closely than it did those of the Soviets. The Declaration of Primary Health Care and the goal of "Health for All in the Year 2000" advocated an "intersectoral" and multidimensional approach to health and socioeconomic development, emphasized the use of "appropriate technology," and urged active community participation in health care and health education at every level.[28]

David Tejada de Rivero has argued that "It is regrettable that afterward the impatience of some international agencies, both UN and private, and their emphasis on achieving tangible results instead of promoting change . . . led to major distortions of the original concept of primary health care."[29] A number of governments, agencies, and individuals saw WHO's idealistic view of Primary Health Care as "unrealistic" and unattainable. The process of reducing Alma-Ata's idealism to a practical set of technical interventions that could be implemented and measured more easily began in 1979 at a small conference—heavily influenced by US attendees and policies—held in Bellagio, Italy, and sponsored by the Rockefeller Foundation, with assistance from the World Bank. Those in attendance included the president of the World Bank, the vice president of the Ford Foundation, the administrator of USAID, and the executive secretary of UNICEF.[30]

The Bellagio meeting focused on an alternative concept to that articulated at Alma-Ata—"Selective Primary Health Care"—which was built on the notion of pragmatic, low-cost interventions that were limited in scope and easy to monitor and evaluate. Thanks primarily to UNICEF, Selective Primary Health Care was soon operationalized under the acronym "GOBI" (Growth monitoring to fight malnutrition in children, Oral rehydration techniques to defeat diarrheal diseases, Breastfeeding to protect children, and Immunizations).[31]

In the 1980s, WHO had to reckon with the growing influence of the World Bank. The bank had initially been formed in 1946 to assist in the reconstruction of Europe and later expanded its mandate to provide loans, grants, and technical assistance to developing countries. At first, it funded large investments in physical capital and infrastructure; in the 1970s, however, it began to invest in population control, health, and education, with an emphasis on population control.[32] The World Bank approved its first loan for family planning in 1970. In 1979, the World Bank created a Population, Health, and Nutrition Department and adopted a policy of funding both stand-alone health programs and health components of other projects.

In its 1980 *World Development Report*, the Bank argued that both malnutrition and ill health could be countered by direct government action—with World Bank assistance.[33] It also suggested that improving health and nutrition could accelerate economic growth, thus providing a good argument for social sector spending. As the Bank began to make direct loans for health services, it called for more efficient use of available resources and discussed the roles of the private and public sectors in financing health care. The Bank favored free markets and a diminished role for national governments.[34] In the context of widespread indebtedness by developing countries and increasingly scarce resources for health expenditures, the World Bank's promotion of "structural adjustment" measures at the very time that the HIV/AIDS epidemic erupted drew angry criticism but also underscored the Bank's new influence.

In contrast to the World Bank's increasing authority, in the 1980s the prestige of WHO was beginning to diminish. One sign of trouble was the 1982 vote by the World Health Assembly to freeze WHO's budget.[35] This was followed by the 1985 decision by the United States to pay only 20% of its assessed contribution to all UN agencies and to withhold its contribution to WHO's regular budget, in part as a protest against WHO's "Essential Drug Program," which was opposed by leading US-based pharmaceutical companies.[36] These events occurred amidst growing tensions between WHO and UNICEF and other agencies and the controversy over Selective versus Comprehensive Primary Health Care. As part of a rancorous public debate conducted in the pages of *Social Science and Medicine* in 1988, Kenneth Newell, a highly placed WHO official and an architect of Comprehensive Primary Health Care, called Selective Primary Health Care a "threat . . . [that] can be thought of as a counter-revolution."[37]

In 1988, Mahler's 15-year tenure as director general of WHO came to an end. Unexpectedly, Hiroshi Nakajima, a Japanese researcher who had been director of the WHO Western Pacific Regional Office in Manila, was elected new director general.[38]

Crisis at WHO, 1988–1998

The first citizen of Japan ever elected to head a UN agency, Nakajima rapidly became the most controversial director general in WHO's history. His nomination had not been supported by the United States or by a number of European and Latin American countries, and his performance in office did little to assuage their doubts. Nakajima did try to launch several important initiatives—on tobacco, global disease surveillance, and public–private partnerships—but fierce criticism persisted that raised questions about his autocratic style and poor management, his inability to communicate effectively, and, worst of all, cronyism and corruption.

Another symptom of WHO's problems in the late 1980s was the growth of "extrabudgetary" funding. As Gill Walt of the London School of Hygiene and Tropical Medicine noted, there was a crucial shift from predominant reliance on WHO's "regular budget"—drawn from member states' contributions on the basis of population size and gross national product—to greatly increased dependence on extrabudgetary funding coming from donations by multilateral agencies or "donor" nations.[39] By the period 1986–1987, extrabudgetary funds of $437 million had almost caught up with the regular budget of $543 million. By the beginning of the 1990s, extrabudgetary funding had overtaken the regular budget by $21 million, contributing 54% of WHO's overall budget.

Enormous problems for the organization followed from this budgetary shift. Priorities and policies were still ostensibly set by the World Health Assembly, which was made up of all member nations. The assembly, however, now dominated numerically by poor and developing countries, had authority only over the regular budget, frozen since the early 1980s. Wealthy donor nations and multilateral agencies like the World Bank could largely call the shots on the use of the extrabudgetary funds they contributed. Thus, they created, in effect, a series of "vertical" programs more or less independent of the rest of WHO's programs and decisionmaking structure. The dilemma for the organization was that although the extrabudgetary funds added to the overall budget, "they [increased] difficulties of coordination and continuity, [caused] unpredictability in finance, and a great deal of dependence on the satisfaction of particular donors,"[40] as Gill Walt explained.

Fiona Godlee published a series of articles in 1994 and 1995 that built on Walt's critique.[41] She concluded with this dire assessment: "WHO is caught in a cycle of decline, with donors expressing their lack of faith in its central management by placing funds outside the management's control. This has prevented WHO from [developing] . . . integrated responses to countries' long term needs."[41]

In the late 1980s and early 1990s, the World Bank moved confidently into the vacuum created by an increasingly ineffective WHO. WHO officials were unable or unwilling to respond to the new international political economy structured around neoliberal approaches to economics, trade, and politics.[42] The Bank maintained that existing health systems were often wasteful, inefficient, and ineffective, and it argued in favor of greater reliance on private-sector health care provision and the reduction of public involvement in health services delivery.[43]

Controversies surrounded the World Bank's policies and practices, but there was no doubt that, by the early 1990s, it had become a dominant force in international health. The Bank's greatest "comparative advantage" lay in its ability to mobilize large financial resources. By 1990, the Bank's loans for health surpassed WHO's total budget, and by the end of 1996, the Bank's cumulative lending portfolio in health, nutrition, and population had reached $13.5 billion. Yet the Bank recognized that, whereas it had great economic strengths and influence, WHO still had considerable technical expertise in matters of health and medicine. This was clearly reflected in the Bank's widely influential *World Development Report, 1993: Investing in Health*, in which credit is given to WHO, "a full partner with the World Bank at every step of the preparation of the Report."[44] Circumstances suggested that it was to the advantage of both parties for the World Bank and WHO to work together.

Current Director General Jong-wook Lee with three former Directors-General at the celebration to mark the 25th Anniversary of the Alma Ata Declaration. From left: G. H. Brundtland, H. Mahler, H. Nakajima, Lee JW. Courtesy of the World Health Organization. Source: Media Center, WHO.

WHO EMBRACES "GLOBAL HEALTH"

This is the context in which WHO began to refashion itself as a coordinator, strategic planner, and leader of "global health" initiatives. In January 1992, the 31-member Executive Board of the World Health Assembly decided to appoint a "working group" to recommend how WHO could be most effective in international health work in light of the "global change" rapidly overtaking the world. The executive board may have been responding, in part, to the Children's Vaccine Initiative, perceived within WHO as an attempted "coup" by UNICEF, the World Bank, the UN Development Program, the Rockefeller Foundation, and several other players seeking to wrest control of vaccine development.[45] The working group's final report of May 1993 recommended that WHO—if it was to maintain leadership of the health sector—must overhaul its fragmented management of global, regional, and country programs, diminish the competition between regular and extrabudgetary programs, and, above all, increase the emphasis within WHO on global health issues and WHO's coordinating role in that domain.[46]

Until that time, the term "global health" had been used sporadically and, outside WHO, usually by people on the political left with various "world" agendas. In 1990, G. A. Gellert of International Physicians for the Prevention of Nuclear War had called for analyses of "global health interdependence."[47] In the same year, Milton and Ruth Roemer argued that further improvements in "global health" would be dependent on the expansion of public rather than private health services.[48] Another strong source for the term "global health" was the environmental movement, especially debates over world environmental degradation, global warming, and their potentially devastating effects on human health.[49]

In the mid-1990s, a considerable body of literature was produced on global health threats. In the United States, a new Centers for Disease Control and Prevention (CDC) journal, *Emerging Infectious Diseases*, began publication, and former CDC director William Foege started using the phrase "global infectious disease threats."[50] In 1997, the Institute of Medicine's Board of International Health released a report, *America's Vital Interest in Global Health: Protecting Our People, Enhancing Our Economy, and Advancing Our International Interests*.[51] In 1998, the CDC's *Preventing Emerging Infectious Diseases: A Strategy for the 21st Century* appeared, followed in 2001 by the Institute of Medicine's *Perspectives on the Department of Defense Global Emerging Infections Surveillance and Response System*.[52] Best-selling books and news magazines were full of stories about Ebola and West Nile virus, resurgent tuberculosis, and the threat of bioterrorism.[53] The message was clear: there was a palpable global disease threat.

In 1998, the World Health Assembly reached outside the ranks of WHO for a new leader who could restore credibility to the organization and provide it with a new vision: Gro Harlem Brundtland, former prime minister of Norway and a physician and public health professional. Brundtland brought formidable expertise to the task. In the 1980s, she had been chair of the UN World Commission on Environment and Development and produced the "Brundtland Report," which led to the Earth Summit of 1992. She was familiar with the global thinking of the environmental movement and had a broad and clear understanding of the links between health, environment, and development.[54]

Brundtland was determined to position WHO as an important player on the global stage, move beyond ministries of health, and gain a seat at the table where decisions were being made.[55] She wanted to refashion WHO as a "department of consequence"[55] able to monitor and influence other actors on the global scene. She established a Commission on Macroeconomics and Health, chaired by economist Jeffrey Sachs of Harvard University and including former ministers of finance and officers from the World Bank, the International Monetary Fund, the World Trade Organization, and the UN Development Program, as well as public health leaders. The commission issued a report in December 2001, which argued that improving health in developing countries was essential to their economic development.[56] The report identified a set of disease priorities that would require focused intervention.

Brundtland also began to strengthen WHO's financial position, largely by organizing "global partnerships" and "global funds" to bring together "stakeholders"—private donors, governments, and bilateral and multilateral agencies—to concentrate on specific targets (for example, Roll Back Malaria in 1998, the Global Alliance for Vaccines and Immunization in 1999, and Stop TB in 2001). These were semiautonomous programs bringing in substantial outside funding, often in the form of "public–private partnerships."[57] A very significant player in these partnerships was the Bill & Melinda Gates Foundation, which committed more than $1.7 billion between 1998 and 2000 to an international program to prevent or eliminate diseases in the world's poorest nations, mainly through vaccines and immunization programs.[58] Within a few years, some 70 "global health partnerships" had been created.

Brundtland's tenure as director general was not without blemish nor free from criticism. Some of the initiatives credited to her administration had actually been started under Nakajima (for example, the WHO Framework Convention on Tobacco Control), others may be looked upon today with some skepticism (the Commission on Macroeconomics and Health, Roll Back Malaria), and still others arguably did not receive enough attention from her administration (Primary Health Care, HIV/AIDS, Health and Human Rights, and Child Health). Nonetheless, few would dispute the assertion that Brundtland succeeded in achieving her principal objective, which was to reposition WHO as a credible and highly visible contributor to the rapidly changing field of global health.

CONCLUSION

We can now return briefly to the questions implied at the beginning of this article: how does a historical perspective help us understand the emergence of the terminology of "global health" and what role did WHO play as an agent in its development? The basic answers derive from the fact that WHO at various times in its history alternatively led, reflected, and tried to accommodate broader changes and challenges in the ever-shifting world of international health. In the 1950s and 1960s, when changes in biology, economics, and great power politics transformed foreign relations and public health, WHO moved from a narrow emphasis on malaria eradication to a broader interest in the development of health services and the emerging concentration on smallpox eradication. In the 1970s and 1980s, WHO developed the concept of Primary Health Care but then turned from zealous advocacy to the pragmatic promotion of Selective Primary Health Care as complex changes overtook intra- and interorganizational dynamics and altered the international economic and political order. In the 1990s, WHO attempted to use leadership of an emerging concern with "global health" as an organizational strategy that promised survival and, indeed, renewal.

But just as it did not invent the eradicationist or primary care agendas, WHO did not invent "global health"; other, larger forces were responsible. WHO certainly did help promote interest in global health and contributed significantly to the dissemination of new concepts and a new vocabulary. In that process, it was hoping to acquire, as Yach and Bettcher suggested in 1998, a restored coordinating and leadership role. Whether WHO's organizational repositioning will serve to reestablish it as the unquestioned steward of the health of the world's population, and how this mission will be effected in practice, remains an open question at this time. ■

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GOVERNMENT HEALTH SERVICES VERSUS COMMUNITY: CONFLICT OR HARMONY

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Abstract—From their daily experiences with PHC implementation in Mali, the authors discuss the relation between the government oriented basic health services (BHS) and the community health services (CHS) practised at village level. They question the general assumption that the two 'systems' work harmoniously together to improve the health of the rural population.

They argue that the workers within the BHS have little interest in the health of the rural population for economic reasons, for reasons of training and background, for reasons of their own curative interests and finally for reasons inherent to the BHS organisation. Thus the BHS are not likely to respond to the essential needs and problems of the CHS. Some suggestions for what can be done in such a situation are made.

INTRODUCTION

It is almost ten years since 134 Governments signed the Alma-Ata Declaration on primary health care (PHC), in which they described in quite concrete terms their intentions for the implementation of PHC in their respective countries. At the time, all these governments took a serious commitment vis a vis each other to try to expand and improve the existing health situation by having the 'consumers of health care' more actively involved. Since then a lot has been written about PHC and how to implement it [1]. Participation and an empowering development strategy are generally considered essential to make the PHC-philosophy materialise [2, 3]. However little attention has been given to the role of the State (especially the Ministry of Health) in trying to have the rural (and urban) masses participate.

Apart from some exceptions, the general assumption underlying the literature seems to be that the role of the Ministry of Health is to bring health to the people or at best to have people participate in a mutual effort to improve the general health situation.

This paper tries to argue a different point of view: that the interests of the workers in the Ministry of Health responsible for PHC implementation conflict with the interests of the people at village level. It will be argued that this conflict partly explains some of the failures in PHC-implementation. Although an image of good versus bad seems difficult to avoid in this discussion, the reader is asked to keep in mind that nuances abound and reality is always subtle. At all levels there are victims and survivors.

The argument will be pursued against the background of Mali, a Francophone country in West Africa, struck by the general drought problems of the Sahel region, a country with important donor commitment and financial support for PHC implementation. After a brief introduction to the socio-political situation in the country and the Malian health situation, a description will be given of the Government health services, the community health activities, and donor health interventions, each with its different characteristics. The various conflicting interests will be described and illustrated using case studies and examples from our experiences in the field.

Finally we will suggest some possible lines of action that could be taken to improve the situation.

SOCIO-POLITICAL SITUATION IN MALI

The history of Mali is marked by mighty and influential empires, sources of pride which probably created a basis for a national identity and a collective consciousness that still defines many of the social forces in Malian society. But at present Mali figures among the three poorest countries in the list of low-income countries mentioned by the World Bank. The vast Sahelian territory (with no access to the sea), marked by economic insecurity due to climatic uncertainty and desertification, aggravated by a weak productive structure, makes Mali dependent on foreign aid for its development.

As elsewhere in Africa, the French presence in Mali (1908–1960) manifest itself in cultural, economic and administrative domination. Taxes, the civil-servant system and the market economy disturbed the traditional ecosystem and started a process of marginalisation of the Malian peasants. A socialist experience (1960–1968) and the present-day military Government have not changed the position of the rural population in the development process of Mali. Eighty percent of the eight million people in Mali live in the rural areas. Their production has to feed themselves as well as the urban population and it defines the export-potential of the country. These factors together put heavy pressures on the peasant population.

On the other side, within Mali's elite we can distinguish a fragile alliance between:

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—the army who controls the population politically.
—the 'fonctionnairs' (civil-servants), who are in charge of the administrative bureaucracy, and
—the merchants who at every level regulate the flow of money from bottom to top [5].

Although their mutual interests do not always run parallel (the merchants are often troubled by the bureaucracy, who in turn are often opposed to the political authorities due to the low and irregular payment of salaries), they still succeed together to present the rural population with the bill for the economic problems in the country. The peasant population of around seven million people on the other hand sees surplus consumed by public institutions which are not capable of limiting their running costs (90% of the state-services rendered remain of poor quality and are not tailored to their needs). In short, they find little in return. For a Malian peasant only the distribution mechanism is tangible and he/she, wise by prolonged experiences, remains passive as a sign of rejection of the proposals from the top [6].

THE HEALTH SITUATION IN MALI

Considering the economic situation of Mali, the poor health situation becomes self-evident. The following data only describe this situation in quantitative terms (Table 1):

Table 1. Some general data on the Malian health situation

Size	1,246,000 km^2
Population ('86)	8.0 million
GNP/capita ('84)	46,200 FCFA (S140)
Health Budget as % of Nat. Budget ('84)	8.4%
Money/pp/year for health ('84)	460 FCFA [USS1,--]
% Rural ('82)	80%
Ration Drs/100,000 population	24.6 Bamako*
Birth rate (84)	48.0 ‰
Death rate (84)	20,0 ‰
Infant mortality rate	60–200 ‰ (National 176 ‰)
Life expectancy	46 years (38 rural, 60 Bamako) (44 male, 48 female)

*Capital city. Source: Basic information Mali: EEC. World Development Report 86 (WB).

Through its enormous territory (five times the size of the U.K.), the Government has expanded its health infrastructure. Manpower was strengthened automatically by law as the Government was obliged up until 1985 to include all the graduates from Medical School and the various Nursing Schools into their ranks. However the distribution of personnel did not follow that of the population (Table 2).

Mali adopted the PHC concept as a national strategy in 1976 before Alma Ata. Unfortunately, the Government was not able to translate these concepts into operational terms, nor did it give those in the field the training manuals and other necessary material to support the many village health-workers that were trained all over the country.

A remarkably uniform approach was adopted by training two hygieniste/secouriste (HS), and two accoucheuse traditionelle (AT) per village. Few people seriously tried to allow for local variations, or gave thought to the problem of remuneration. This was left to the 'villagers themselves' who everybody assumed would be able to solve this vital issue. Now we know that broadly speaking they did not, and the country is faced with the impending failure to implement PHC before the year 2000.

THE MALIAN HEALTH SERVICES

The Malian Health Pyramid shows the different levels of health infrastructure with corresponding personnel. From the bottom upwards we see first *community health services* (*CHS*), in principle organised and executed by the villagers themselves, while supervised and (partly) financed by higher levels.

At this level health activities in principle are characterised by some degree of continuity, a decision capacity with the existing village authorities (e.g. village health committee), and an integral approach to health including curative, preventive and promotive aspects. The villages relationship with the representatives of the state however is ambiguous: on the one hand they see them coming in the name of the Ministry of Health, as persons who might improve their health situation, and thus to be respected; on the other hand they adopt towards these persons a 'wait and see' approach, that gives them time to judge their real commitment and their capacity to come with sensible suggestions.

A great deal depends on the respect and politeness shown by the health officials, as to how the villagers will react to the various proposals made to them. We feel that in most villages it takes between one and three years even with good relations between the various partners before some form of self-reliance is seriously considered.

The next level of the health services is the '*secteur de base*' which is between the village level and the state organised health infrastructure. In general the aide soignants (AS) and matrones who work here come from the area concerned, though they are not chosen by the villagers. They have a longer training (on average six months) and are able to handle a variety of drugs (including injections). They are supposed to cover an area of about five to ten villages. However they are not paid by the Ministry of Health but through local cooperative funds and/or taxes, that are paid to them quite irregularly and sometimes with extremely long time intervals. One of the authors works in an area where these workers have not received their salaries for seven months. In such a situation it is understandable that they will become small health entrepreneurs, who make their living by directly charging the sick for their services, doing private practice sessions in the afternoon.

Table 2. Number and distribution of health personnel in Mali, 1982

	Bamako		Rural		Total number
	No.	%	No.	%	
Doctors	95	42	133	58	228
State nurses	252	39	395	61	647
Secondary nurses	372	31	828	69	1200
Midwives	147	64	82	36	229

Source: Rapport Annuel Medecin Sans Frontiere, 1986.

Due to their monthly salary they are more related to the health officials than to the village health workers (VHW) who they are supposed to supervise. For this reason we consider them in this paper as belonging to the BHS. However their position is ambiguous as their salary is so often lacking and their background training is quite limited.

Finally the other levels of the health care pyramid, the arrondissement and cercle level are part of the BHS that is to say the health infrastructure directed and controlled by the Ministry of Health, and staffed by health officials paid by the State. These BHS are characterised by central decision making and a straight line of command from top to bottom. One observes regular transfers decided upon for reasons inherent to the administration, that do not always coincide with the needs of the population in the area.

Inherent in this medical administration is a tendency to bureaucracy, seen, for example, in the effort to gather information for its own sake instead of using it locally for planning and overall management. One observes also a strong curative bias and a tendency to define problems in a medical–technical sense.

Health personnel, whether doctors or nurses, tend to look down upon village life, as they have not been trained to analyse it in its social or cultural dimensions. When confronted therefore with the necessity for interventions at village level, solutions and actions are proposed even before an effort is made to find out the social–cultural pattern that will have to sustain and support the proposals. In short a tendency prevails to reinforce health workers telling people what to do, rather than discussing with people what their options are. And their suggestions are of a medical–technical nature.

DONOR INTERVENTION

It is not the objective of this paper to describe the various types of donor intervention in the actual Malian socio-economic situation. At the same time their role in the health sector cannot be ignored. Here we will briefly sketch their intermediate role between the state and the village level.

In general donors seem to try to make the BHS work effectively for the benefit of the CHS: they often want the personnel of the BHS to do something positive for the villagers. To that end they bring in money (per diems), training, means of transport and materials, all in an effort to mobilise the health personnel to do something that is considered good for the villagers. In a way it looks as if the donors want the state to do what the state itself is not able (interested?) anymore to do.

In this way the donors see their role more and more limited to provide the incentives to the health staff, who are themselves not very motivated. However, staff are prepared to play the game of showing interest so that money will continue to come in. Implicitly it is the hope of many donors that by paying the nurses for the extra efforts they undertake in implementing the CHS, in the long run it will become a routine part of their daily work. Very often time seems to prove this assumption false.

The health personnel from their side see the donor as an important potential to add to their meagre salary. As long as the donor is willing to 'subsidise' their income through all sorts of allowances, the work runs quite smoothly. But when these allowances diminish or disappear, a certain passivity, or even resistance becomes apparent. And, it should be stressed, these are all normal daily activities, that are part of the official workload of a nurse. In short the attitude of the health staff to community health care is ambivalent: they have to work harder, suffer hardship and bear responsibility, but they see their living-conditions improved with money and material from the external donors [7].

Looking now for a functional definition of PHC, it is apparent that PHC embraces both the BHS and CHS. Within this broad PHC concept we see the donor as a sort of mediator, trying to have the two work together as smoothly as possible (Table 3).

Table 3. Differences between BHS and CHC

Basic health services	Community health care
Central decision making	Local decision making
Top-down line of command	Long discussions
Discussion on content rare	Often no harmony
Frequent transfers	Continuity in approach
Technical and curative approach (numbers)	Intersectional essential but no overview
Bureaucratic tendencies	Quality counts more

CONFLICTING INTERESTS

Most people working for some period of time with the Ministry of Health trying to improve the functioning of the BHS in order to make them better equipped to implement the CHS, will agree with the differences mentioned in the previous paragraph. They probably will argue that this is part of their job, and that we should continue to prepare better the health officials for their difficult and arduous tasks. We will not deny this idea. We do, however, question the implicit assumption that the interests of the two health systems run parallel and are complementary to one another. We would rather argue that the two systems have often contradictory interests and that their mutual relation is therefore better described in terms of an implicit and almost continuous conflict, in which one side does have substantially more control over the other, by dominating information, and the financial and personnel reasons. They need each other for their daily functioning, but in reality they are seldom partners in a development process.

The following examples will try to make clear why the interests of the two systems run in opposite directions and are not likely to become complementary in the foreseeable future.

1. Mr Tounkara, an elderly nurse in N'Debougou, Degou region, has started CHS activities in some villages. He has less free time now and has spent considerable effort in finding out what the villagers actually want. Each month he sweats some litres during supervision and follow-up. For all this work he will receive the esteem and love of the villagers, but financially he will not earn a penny more.

As he does his work well, he sees even fewer patients. Some of the sick will now seek treatment with the VHW he has just trained. His VHW has become competitive, though not directly in a financial way, as he receives a fixed salary per month. However over some years, the number of VHWs in the area could very well affect the number of Mr Tounkara's private consultations in the afternoon.

In general training VHWs increases the number of competitors for the sick. Whether this will lead to a loss of revenue from curative work remains to be seen. As the number of health workers is actually still grossly insufficient, this argument will gain in importance only over a long period.

In the meantime other points of contradiction between health workers do emerge, such as the access to injectable drugs, which has become an important goal for VHWs: it is in this way that they rapidly will become 'the doctor' for the village. For midwives the argument is more acute, as the number of deliveries per midwife is low. The auxiliary midwife Fanta (who works with Tounkara) complained to us that since she had trained traditional birth attendants in the area she had only done two deliveries in the last month. Before she did on the average about 15 deliveries per month, which was an important extra revenue to her very modest income (20,000 FCFA/month). She had not received her salary for the last six months. We could only wonder how she managed to survive during that period.

2. The nurses utilise conventional training methods with emphasis on the passive copying of information while training VHWs. In this way the passivity of the system is continued and chances are lost to generate discussions and enhance participation. The trainers are not too keen to create such a climate, as this might expose their own gaps of knowledge or even question their authority. Their own education is continuously reflected in the efforts to realise CHS. No wonder that participation or improving village health becomes less important in comparison with the passing on of curative lessons that often have little applicability to daily reality. Similarly, within the CHS, it is rare to see the HS share his knowledge with the people of his village. Apart from cultural reasons, it might prove more beneficial for his position with the village hierarchy to exploit his extra knowledge rather than share it.

Another remarkable contradiction is observable in discussions with the nurses on how to integrate traditional medicine in the daily work of the VHW. Many show reluctance and hesitation as to whether this is a useful thing to do. In their personal life, however, it is most likely that their first option is to treat themselves with home-remedies. In general, therefore, training often continues the dependence of VHWs on the BHS and brings village care even more under the (western) control of BHS, rather than making it self-reliant.

Nurses support training mainly because of the allowances that are given during the training sessions which are an important source of revenue for their families (18,000 CFA for two weeks training).

3. The curative approach, often of poor quality, is in itself contradictory to the interest of CHS for various reasons. The many drugs prescribed by the nurse and doctors during their consultation are not affordable for the general population, making western medicine, without any necessity, the medicine of the rich who can afford to pay between 3000 and 7000 FCFA per illness. A nurse conscious of the financial situation of his patient could easily reduce this expenditure to 500–3000 FCFA without changing the efficacy of his treatment.

The common practice of prescribing on average four to six drugs at each visit implicitly overestimates the importance of drugs for the treatment of ailments. It seems to advocate a policy of "the more drugs, the better the cure", that is accepted within the BHS. No wonder that many at least feel that CHS represents a second-best alternative to modern (read: consumptive) medicine. We suggest this is avoided by allowing VHWs access only to cloroquine and aspirin.

Traditional medicine offers a more coherent explanation of illness at village level, while the BHS only provide some basic drugs without any comprehensible explanation. In this way the actual policy does not start to bring the two systems together. At best, for the moment they continue to evolve apart. Also the emphasis on drugs during the consultations is the opposite to the verbal affirmations on the importance of preventive action. As is often the case, the oral advice is not in line with the practice in the dispensary.

At village level, the outcome of all this is a consumptive attitude by the people that look on the BHS as a distributor of some important drugs, while at the level of the BHS the patients are often grossly overcharged for their treatment: for example, the father of little Fode, four years old, showed me a receipt of a doctor, worth more than 8000 CFA, while the only problem with the child was a severe anaemia. A blood transfusion from an uncle, and iron tablets worth about 300 CFA restored Fode's health completely. One wonders whether the doctor really had not noticed this marked anaemia.

4. Another difference of interest between the two systems lies in what we would call the 'non-serving' character of the BHS. The remarkably uniform approach to the CHS-implementation has already been mentioned. It shows that few have tried to find out what the interests and organisational–financial capacities of the villagers are. People have assumed that two VHWs would be taken care of by the village but few have asked themselves whether village level cohesion really exists or whether a family-unit would not have been more prepared to support their own VHWs?

Similarly it is not remarkable that all VHWs are male. Few people have seriously given thought to the possibility of discussing the option to include women in the curative oriented role of the VHW. Again, the BHS have opted for an easy way out of a difficult and complex problem: how to involve women in CHS. True, women are difficult to reach, especially by the majority of male nurses; they are very often illiterate and therefore need special learning tools, but their potential to improve the health of groups most at risk (e.g. the children) is much greater than the male VHWs.

Our essential point here is that these different options have never been seriously discussed by the BHS, as potential solutions for major CHS problems. The actual emphasis on vertical programmes (expanded programme immunisation, diarrheal control etc.) is another example where objectives inherent to the BHS, like ease of implementation and control, definition of priorities outside the CHS, prevail over the integrated and participative approach recommended by the Alma-Ata Declaration. As time and means are limited, the vertical programmes will be in competition with the horizontal village-based activities. Most likely, the coming years will show the preference of the BHS (and many donors?) for this technical approach.

DISCUSSION

The examples mentioned above try to argue the conflicting interests of the two health systems in Mali. For economic reasons, for reasons of training and background, for reasons of its own curative interests, and finally for reasons inherent in its own organisation, the basic health services are not likely to respond to the essential needs and problems of the CHS. If they seem to do so, it is for reasons of short term advantages (financial allowances, acquisition of transport) or to respond to external pressure by the international community and the various donors, that ask the country to do something for their deprived populations. But a real long-term commitment that will cost effort, sweat and some financial input, is not likely in the socio-economic situation of Mali today.

Unluckily people often forget that PHC is an integral part of the social-political context. Contradictions within society will become apparent within PHC.

The Malian elite, including the personnel of the BHS, assume for themselves a positive role in the process for modernisation. Unconsciously, they look down at the possibilities of the peasants to make their own contribution to this process. The peasants can only protect themselves against the continuous obligation to hand over goods and finances by shutting themselves off from this effort to modernise imposed by the elite. This in turn for them is proof that their proposals for development are a waste of time and effort.

Foreign donors seem to underestimate the complexity and depth of the situation. They try to reduce the failure of PHC to technical and/or financial constraints, or a lack of modernising efforts by the peasants. The tendency to vertical programmes and selective PHC can be considered as examples of this way of thinking, that in itself reinforces the conflicting situation. People and donors working in the health field in Mali should be realistic in their approach: the BHS are not likely to realise a capacity-building CHS, that is able to decide and implement its own health activities. The BHS will not support such a process but rather shift it towards a technical-curative health intervention.

The analysis presented above seems pretty grim and negative. If the BHS are really not interested in the support of a valid CHS, what remains to be done? Is there still any perspective for action? We think change is possible with the following caveats in mind: one has to realise that one's work within the BHS of Mali has a limited sphere of influence and as such will never be able to change the fundamental issues raised above. If the implications of that statement are accepted, a strategy should be developed, that aims at changing the two systems gradually, reciprocally and similarly, along two major lines:

1. Within the BHS, there are people interested in change who have valid ideas on what could be done at village level. As they often do not have the chance to realise these ideas, it will be important to reinforce them with all sorts of means: training, training material, money, strengthening management capabilities etc. Good initiatives and ideas should be supported, thus trying to make part of the BHS more geared to the CHS.

The cooperation with the other sectors of development, like habitat, agriculture, education and industry should be further reinforced and supported. In Mali, some of the 'Operations de Developpement Rural (ODR)', offer hopeful initiatives. Those that have been shown to be reasonably effective in supporting village based actions, could eventually take over some of the deficient functions of the BHS (drugs supply, training VHWs etc.).

Coordination between donors and non-governmental organisations could be essential to demand from the Malian BHS a more concise policy regarding some major aspects:

- —Implementation of an essential drug policy, that excludes the 2000 non-essential drugs available in the country. This would mean an important price reduction in the medical treatment of the villagers.
- —Re-definition of the CHS policy envisaged by the Ministry, taking the acquired experiences into account.
- —Re-definition of the role and potential of the intermediate level of 'Secteur de Base' as part of future health development efforts.
- —Integration of some major vertical programmes within the general functioning of the BHS.

As donors very often do not seem to agree on these issues between themselves, the results of such a coordination should not be looked at too optimistically.

2. At the same time we should try to strengthen the decision-making capacity of the CHS, by reinforcing the role of village health committees and training them in such a way as to make them as independent as possible from the BHS. Autonomy for the CHS should be a major objective. Some of the effective ODRs could play an intermediate role in an effort to realise this.

In our contacts with the villagers new issues should be discussed, like the number of VHWs to be trained and the role of women within the health team. We should also try to define more clearly the 'deal' that could exist between the BHS and the CHS when working together, so that both sides know and if

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Child Health Development After Alma Ata Declaration

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Health development includes health care, essential non-specific measures like nutrition, protected water supply, sanitation, education and economic development. Primary Health Care (PHC) is essential health care based on practical, scientifically sound and socially acceptable methods. Community involve-ment, inter sectoral cooperation and approaches to peripheralise health services are the three pillars on which PHC is being built. Implementing PHC successfully will improve health development. Human progress and overall development lie in the progress of women and children and the realization of their rights. Problems of health development and under development are intimately linked.

In the later half of last century important technological advances in medicine were made. Vaccination against major diseases and therapy for infectious diseases and the technical knowledge to prevent nutrition deprivation and diseases were available. As a result rapid decline in death rate has occurred. Inspite of impressive progress in health picture, the prevailing health and nutrition disparities were a cause for serious concern.

Medical science realized that poverty related social conditions like poor sanitation and housing were major causes of ill health. Studies have shown that irrespective of medical intervention health status improved remarkably when basic requirements of health were available. The challenge was primarily a question of equal access for all. In 1978 for the first time all the Government of the world - Democracies or Dictatorships, Communists or Capitalists - accepted the principle of PHC officially and promised to bring them into being in all nations within the next 22 years. This Alma-Ata Declaration accepted that Health is a Fundamental Human Right. It also accepted that the gross inequalities in health status are unacceptable. Health for all heralded the vision of a new and better future for all the human family.

To fulfil her commitment of Health for All, India evolved a National Health Policy in 1983. To transfer all objectives of Health for All, the policy laid down specific goals with quantifiable targets to be achieved. This commitment did lead to some renewed attempt at achieving these goals. India launched ambitious campaigns for eradica-tion of communicable diseases, infections and malnutrition. Various policies and acts introduced earlier and later tried to augment efforts. Few examples in this context include ICDS (1974) CSSM (1992), The Infant Milk Substitute Act (1992), Pulse Polio Immunization (1997), RCH and others. The impact of all these interventions to improve health, particularly maternal and child health has been large. In India decline in vaccine preventable diseases and severe malnutrition of this magnitude has never been achieved in our setting and certainly not in an equivalent period of time. Still there are disparities in health. So the achievements of the National Health Policy need critical analysis.

Progress in Maternal and Child Health

A. Mortality and Mobidity in and around Infancy (Table I)

Mortality rates and nutrition status are good indicators to measure the level of health and nutrition care. This also helps in assessing the overall socioeconomic development.

Still births and deaths within the first week of life are not investigated like infant and neonatal deaths. With declining infant mortality rate, perinatal mortality is assuming importance as a yardstick of obstetric and pediatric care before and around the time of birth. There is a wide variation in urban/rural death rates.

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options have never been seriously discussed by the BHS, as potential solutions for major CHS problems. The actual emphasis on vertical programmes (expanded programme immunisation, diarrheal control etc.) is another example where objectives inherent to the BHS, like ease of implementation and control, definition of priorities outside the CHS, prevail over the integrated and participative approach recommended by the Alma-Ata Declaration. As time and means are limited, the vertical programmes will be in competition with the horizontal village-based activities. Most likely, the coming years will show the preference of the BHS (and many donors?) for this technical approach.

DISCUSSION

The examples mentioned above try to argue the conflicting interests of the two health systems in Mali. For economic reasons, for reasons of training and background, for reasons of its own curative interests, and finally for reasons inherent in its own organisation, the basic health services are not likely to respond to the essential needs and problems of the CHS. If they seem to do so, it is for reasons of short term advantages (financial allowances, acquisition of transport) or to respond to external pressure by the international community and the various donors, that ask the country to do something for their deprived populations. But a real long-term commitment that will cost effort, sweat and some financial input, is not likely in the socio-economic situation of Mali today.

Unluckily people often forget that PHC is an integral part of the social-political context. Contradictions within society will become apparent within PHC.

The Malian elite, including the personnel of the BHS, assume for themselves a positive role in the process for modernisation. Unconsciously, they look down at the possibilities of the peasants to make their own contribution to this process. The peasants can only protect themselves against the continuous obligation to hand over goods and finances by shutting themselves off from this effort to modernise imposed by the elite. This in turn for them is proof that their proposals for development are a waste of time and effort.

Foreign donors seem to underestimate the complexity and depth of the situation. They try to reduce the failure of PHC to technical and/or financial constraints, or a lack of modernising efforts by the peasants. The tendency to vertical programmes and selective PHC can be considered as examples of this way of thinking, that in itself reinforces the conflicting situation. People and donors working in the health field in Mali should be realistic in their approach: the BHS are not likely to realise a capacity-building CHS, that is able to decide and implement its own health activities. The BHS will not support such a process but rather shift it towards a technical-curative health intervention.

The analysis presented above seems pretty grim and negative. If the BHS are really not interested in the support of a valid CHS, what remains to be done? Is there still any perspective for action? We think change is possible with the following caveats in mind: one has to realise that one's work within the BHS of Mali has a limited sphere of influence and as such will never be able to change the fundamental issues raised above. If the implications of that statement are accepted, a strategy should be developed, that aims at changing the two systems gradually, reciprocally and similarly, along two major lines:

1. Within the BHS, there are people interested in change who have valid ideas on what could be done at village level. As they often do not have the chance to realise these ideas, it will be important to reinforce them with all sorts of means: training, training material, money, strengthening management capabilities etc. Good initiatives and ideas should be supported, thus trying to make part of the BHS more geared to the CHS.

The cooperation with the other sectors of development, like habitat, agriculture, education and industry should be further reinforced and supported. In Mali, some of the 'Operations de Developpement Rural (ODR)', offer hopeful initiatives. Those that have been shown to be reasonably effective in supporting village based actions, could eventually take over some of the deficient functions of the BHS (drugs supply, training VHWs etc.).

Coordination between donors and non-governmental organisations could be essential to demand from the Malian BHS a more concise policy regarding some major aspects:

- —Implementation of an essential drug policy, that excludes the 2000 non-essential drugs available in the country. This would mean an important price reduction in the medical treatment of the villagers.
- —Re-definition of the CHS policy envisaged by the Ministry, taking the acquired experiences into account.
- —Re-definition of the role and potential of the intermediate level of 'Secteur de Base' as part of future health development efforts.
- —Integration of some major vertical programmes within the general functioning of the BHS.

As donors very often do not seem to agree on these issues between themselves, the results of such a coordination should not be looked at too optimistically.

2. At the same time we should try to strengthen the decision-making capacity of the CHS, by reinforcing the role of village health committees and training them in such a way as to make them as independent as possible from the BHS. Autonomy for the CHS should be a major objective. Some of the effective ODRs could play an intermediate role in an effort to realise this.

In our contacts with the villagers new issues should be discussed, like the number of VHWs to be trained and the role of women within the health team. We should also try to define more clearly the 'deal' that could exist between the BHS and the CHS when working together, so that both sides know and if possible respect their mutual agreement. In short an effective 'methodology of intervention' should be looked for that defined as clearly as possible the essential issues that should be discussed while introducing CHS at village level.

The financial supervision of the VHW by the villagers themselves should rapidly be improved. The villagers should be able to control the VHW and decide what to do with the revenues from the sale of drugs. In a similar way information should be given to everybody on prices of drugs, and where to get them more cheaply. In general the financial control of CHS activities should be clearly laid in the hands of existing village structures. By these and other measures, the CHS will perhaps become sufficiently strong to start a process towards emancipation and (relative) autonomy.

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SELECTIVE PRIMARY HEALTH CARE: A CRITICAL REVIEW OF METHODS AND RESULTS

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Abstract—In the aftermath of the Alma Ata conference, three types of Primary Health Care (PHC), have been identified. Comprehensive PHC (CPHC) and Basic PHC (BPHC) both have a wide scope of activities, BPHC however does not include water and sanitation activities. Only one year after the Alma Ata conference, CPHC was attacked as not 'feasible' and selective PHC (SPHC) was offered as an interim alternative. SPHC only addresses 5 to 8 diseases, almost all of them falling within the realm of pediatrics. Our article critically analyses the methods and results of SPHC. It contrasts the lack of supportive data for SPHC and its methodological deficiencies with the extent of its adoption by bilateral cooperation agencies, foundations, academic and research institutions, and international agencies. We suggest that rather than health factors, the major determinants of this adoption have been political and economical constraints acting upon decision makers exposed to a similar training in public health.

Key words—selective PHC, public health decisions

Selective Primary Health Care (SPHC) has attracted wide-spread attention as a major alternative to the Primary Health Care (PHC) concept announced in the 1978 Alma Ata Conference Declaration [1]. The SPHC strategy emphasizes 'rationality' and potential cost-savings [2]. By implication, it challenges governments whose ministries of health joined WHO, PAHO and UNICEF in formally adopting the program of the 1978 Alma Ata Declaration. We attempt here to describe the historical context of this alternative health service approach; to critically analyze its methods and operational structure; to explore its empirical foundation; to discuss the implications of adopting this strategy for the health of developing country populations; and finally to examine some of the economic and political reasons for its current notoriety.

THE ORIGINS OF SELECTIVE PRIMARY HEALTH CARE

Approaches to health care in LDCs

In the late 1970s, when the Alma Ata Declaration first was being implemented, the mix of health services existing in the Third World only approximated the purity of health system models. These health service structures could be grouped into three broad categories for presentational purposes:

(1) Hospital-oriented medical care;
(2) Vertical or disease-specific programs;
(3) Community-based primary health care.

Hospital-oriented systems. In most developing countries, health ministry planning and policy agencies are dominated by a concern with treating the sick. The hospital orientation associated with this curative view has two distinct forms in most LDCs. One form is a facsimile of European or American systems. It is urban-based, highly technological and often includes a major private sector component. Originally designed to cater to a colonia population, this system now serves the national or expatriate middle- and upper-classes.

The other hospital-oriented form targets rural or peri-urban needs, serves poor population groups, and is usually state or church operated. In practice, the hospital sector in LDCs encompasses both forms of the hospital-oriented system and consumes about 80% of total health care expenditures [3].

Vertical or disease-specific programs. The success of specific disease control measures that contributed to the elimination of yellow fever, smallpox and typhus in North America and Europe in the early 20th century encouraged the growth of vertical campaigns. These programs, targeted upon specific LDC diseases, were recognized as having residual benefits for the industrialized countries as well (e.g. the construction of the Panama Canal and the U.S. military occupation of Cuba). Large American foundations (Rockefeller, Ford) joined the U.S. military in the early development of vertical disease control programs and continue to show interest in this strategy today.

Early WHO programs, typically vertical in nature, enhanced the popularity of vertical interventions by creating time-limited disease eradication programs. Only the failure of campaigns against malaria and trypanosomiasis in Africa and Asia (and to a lesser extent in Latin America) has cast doubt on the ability of vertical control programs to achieve significant reductions of suffering and mortality in the long-run.

Community-based primary health care. Just as the vertically-oriented smallpox campaign was reaching its successful conclusion, the WHO and its Director-General, Dr Halfdan Mahler, began to advocate a comprehensive effort to reach the entire world's population with horizontally-integrated primary health care services (PHC). The personal and public health services of the PHC model sought to improve health status by the use of health auxiliaries and appropriate health technologies. The model sought to provide acceptable, accessible services based upon local initiative and maximum levels of community participation.

The community-based PHC model was by no means a new notion. For decades, community-based services were advocated by King in Africa and Shaw in India. As a member of the Bhore Committee (1946), John Grant argued for the integration of vertically designed health interventions into a core of more comprehensive health services [4]. Similarly, Hugh Leavell, a Professor at the Harvard School of Public Health and Edward MacGaveran, a Dean of the North Carolina School of Public Health, have firmly supported an integrated PHC approach [4].

Through the Alma Ata Conference Declaration, WHO and UNICEF formalized a consensus about PHC standards that had already proven themselves in many Third World Nations. By acknowledging that Third World diseases result from poverty and that the health care system, "can be a lever for increasing social awareness and interest, initiative and innovation" [1], the conference declaration implied that political commitment toward a reallocation of scarce resources is required for implementing the PHC concept.

There remains considerable practical debate as to what constitutes appropriate primary health care in developing countries. PHC, by the WHO definition, is broad in scope and includes:

health education
food supply and nutrition
water and sanitation
maternal and child health programs
immunizations
prevention and control of locally endemic diseases
treatment of common diseases and injuries
provision of essential drugs.

Because of its great range, this approach is often called 'Comprehensive Primary Health Care' (CPHC) as distinguished from approaches which consider water, sanitation and food supply to be outside the scope of health care system responsibility. The latter view is frequently referred to as 'Basic Health Services' (BHS). Finally, PHC presupposes that its referral and supervisory network will be built into a stabile health network.

Selective primary health care

Just as PHC concepts were first being implemented by Alma Ata signatories, Walsh and Warren presented the SPHC approach to a joint Ford/Rockefeller Foundation Symposium on Health Services in Bellagio, Italy. As an alternative to PHC, selective primary health care would institute, "health care directed at preventing or treating the few diseases that are responsible for the greatest mortality and morbidity in less-developed areas and for which interventions of proved efficacy exist" [2].

Instead of a full health infrastructure based upon primary health care, the SPHC approached would reduce the scope of health services in accordance with the findings of cost-effectiveness analysis. Presumably, cost–effectiveness analysis justifies a selective elimination of PHC services since (1) PHC in the Alma Ata context (CPHC) is "unattainable because of the cost and number of personnel required" [2] and (2) even without water and sanitation included, basic health services (BHS) would cost billions of dollars in the view of the World Bank [2].

The operating assumptions of SPHC are determined by one variety of rationalized choice. The selection of a limited number (usually 5–10) of health interventions is established by prioritizing diseases of importance on the basis of prevalence, mortality, morbidity data and on 'the feasibility of control'. As a result, SPHC health services "concentrate on a minimum number of severe problems that affect large numbers of people and ignore interventions of low questionable or unmeasured efficacy". Examples of interventions that would be ignored because they are difficult to control, are: treatment of tuberculosis, pneumonia, leprosy, trypanosomiasis, meningitis and helminths. These types of health problems, "may better be dealt with through the investment in research", since, in terms of potential benefit, "the cost of research is low".

Warren suggests that the SPHC health services structure would be a Christmas tree upon which ornaments (independent interventions of 'proven efficacy') might be hung, one by one. The initial nature of the structure would necessarily emphasize vaccinations in order to gain the high coverage (greater than 90%) required to interrupt transmission of the major diseases such as measles. Interventions such as oral rehydration therapy for diarrhea which require a more stable, community-based health service structure would be introduced later on. Health services such as malaria, chemoprophylaxis or vaccines, schistosomiasis treatment, or other new vaccines would be added rationally to the structure as they become cost-effective in areas where such diseases were of high importance.

Despite its virtual overlap with the initial adoption of the PHC concept, the SPHC approach has continued to attract support. The American CDC has developed a series of training manuals for the Expanded Program of Immunization (EPI/WHO) and the Control of Diarrheal Disease Program (CDDP/WHO) based on the 'priority setting' method [5]. Specific CDC international programs emphasize a selective intervention approach.

In late 1982, the U.S. Agency for International Development (USAID) sent telegrams to all Latin American health stations orienting them to the employment of the priority-intervention approach when possible. Despite its deep involvement in the PHC concept at the time of the Alma Ata Conference, UNICEF's current health policy, as elaborated in the December 1982 strategy, reflects a SPHC approach [6]. A. W. Clausen, in his first health-related pronouncement as President of the World Bank, stated that child mortality in the world could be cut in half through the implementation of the new 'technological breakthroughs' of oral rehydration therapy and vaccinations by means of an SPHC-like structure [7]. In addition, the World Bank appears ready to place billions of dollars behind the SPHC approach: the former World Bank President, Robert S. MacNamara and Dr Jonas Salk recently announced the formation of a world-wide organization devoted to speeding up the application of selective immunization interventions and diarrhea therapy in low-income countries.

The WHO leadership and other PHC supporters have been less than enthusiastic about the SPHC approach to primary health care. In an April 1983 address to the World Health Assembly, Dr Halfden Mahler, Director-General of the WHO warned:

> "Honorable delegates, while we have been striking ahead with singleness of purpose in WHO based on your collective decisions, others appear to have little patience for such systematic efforts, however democratically they are applied. There are unfortunate signs that negative impatience is looming on the horizon and some of it is already peeping over and gaining superficial visibility.... I am referring to such initiatives as the selection by people outside the developing countries of a few isolated elements of primary health care for implementation in these countries; or the parachuting of foreign agents into these countries to immunize them from above; or the concentration on only one aspect of diarrheal disease control without thought for the others. Initiatives such as these are red herrings.... Without building up health infrastructures based on primary health care, valuable energy will only be wasted, and you will be deflected from your path".

The SPHC alternative has already been the core issue of critical articles. With democracy and equity as key criteria, Banerji [8, 9] has contrasted SPHC methods with those entailed by the development of a national health service. Briscoe [10] followed Walsh and Warren in the acceptance of cost–effectiveness ranking as a major criterion in the assessment of health services but reached dissimilar conclusions on the exclusion of water and sanitation activities. Others have described the SPHC alternative as a thinly disguised return to technologically-oriented vertical health care programs [11]. Also the cost–effectiveness technology used to justify SPHC as a system of rational choice-making has been questioned with respect to its validity [12].

Clearly, a major controversy is brewing with issues about how billions of dollars will be allocated for international health services and with choices concerning millions of lives hanging in the balance. The following sections of this paper offer both a conceptual and empirical analysis of the underpinnings of the selective strategy for primary health care.

METHODOLOGICAL ISSUES REGARDING SPHC

Obviously, quantitative planning is necessary for any health manager—whether he holds to the 'SPHC' position or to the 'Alma Ata spirit'. Since a wide variety of quantitative planning methods are available, health managers have options to exercise. For instance, in the realm of health manpower planning a manager could assess manpower needs through a planning base that emphasizes: (1) health needs (epidemiological information), (2) activity objectives, (3) health demand or even (4) arbitrary standards (e.g. agent/population ratios) [13, p. 94]. The variety of planning methods not only have specific technical advantages, drawbacks and justifications, they convey as well a strong political valence.

Planning methods articulate with political structures in at least a two-fold manner: (1) specific planning methods converge with the political structuring of health systems (e.g. activity objectives best suit centralized health systems while health demand-based planning methods apply readily to systems of private medicine) and (2) health planning methods are always to some extent 'structure determinative'.

Of course, the choice of a planning method should follow from the force and power of the method, not primarily from its political goodness of fit. The wide-spread appeal of the SPHC method must be examined in this light. Only if it suffers from major internal methodological flaws could its political and economic attractiveness account for its enthusiastic reception.

An exploration of the SPHC prioritization method raises a series of questions about SPHC methodological adequacy. This approach to priority-setting—one based upon the use of epidemiological information and extensively used by the American CDC—must proceed along several lines: the way the SPHC approach determines its programmatic objectives, the SPHC view of resource utilization, and the planning structure entailed by the application of SPHC principles [14].

Setting SPHC priorities

The basic objective of SPHC is the control of diseases in order to improve the health of a population. Improved health in this case amounts to the reduction of morbidity, mortality and disability, such reductions being demonstrated by the diminution of disease-specific mortality rates among 'priority' diseases. Walsh and Warren characterize the SPHC disease prioritization method as follows, "in selecting the health problems that should receive the highest priorities for prevention and treatment, four factors should be assessed for each disease: prevalence, morbidity, mortality, and feasibility of control (including efficacy and cost)". CDC training modules prepared for mid and upper-level EPI program managers use the same method only summarized concisely in the form of an equation:

$$\text{PRIORITY} = \frac{\text{Importance of Disease}}{\text{mortality; incidence; disability}} + \frac{\text{Likelihood of Success}}{\text{government commitment; technical and management factors; public response.}}$$

The SPHC prioritization method is inseparably integrated into the next step, the selection of an appropriate health care system for intervention. Appropriateness turns upon the 'reasonable cost' and 'practicibility' of the health care system in question and Walsh and Warren analyze health system structures on the basis of these criteria [2].

> The interventions relevant to the world's developing areas which are considered are comprehensive primary health care... basic primary health care... multiple disease-control measures (e.g. insecticides, water supplies), selective primary health care and research.

This set of objectives appears to follow from the application of a logically related series of procedural steps: (1) an objective selection of diseases of great importance for an area, (2) their prioritization on the basis of whether they can be controlled feasibly and (3) the creation of a health system around the intervention scheme which has been selected.

Objective selection of diseases. The characteristics of epidemological data in the less developed world may jeopardize the validity of the simple and apparently sound SPHC method. Epidemiological data required for an initial SPHC prioritization as well as for subsequent monitoring of disease-specific mortality rates are of uniformly poor quality in LDCs. Cause-specific mortality rates are particularly unreliable due to the lack of adequate diagnostic measures.

A high percentage of causes of mortality cannot be identified, even when surveillance programs established expressly for that purpose have been developed. The 1980 Bangladesh child mortality survey, for example, failed to identify the cause of 44% of infant deaths [15]. In addition, seasonal fluctuations compound the difficulties of analyzing annual rates that summarize mortality. The intermediate aim of reducing disease-specific mortality suffers thus from data imprecision.

Relatedly, the uncertain weighting scheme used in prioritizing diseases for intervention through the SPHC method combines conceptual ambiguity with data imprecision. Obviously, the product of a relatively precise parameter and a defective coefficient will be a parameter which is itself defective. Clearly, it is questionable to rely upon this method not only for the identification of disease priorities but above all for the designing and planning of the related health system.

Feasibility and SPHC objectives. Determining 'feasibility of control' is not simply a matter of scientific assessment. Obviously, the absence of a biomedical tool suitable for treatment or prevention of a condition rules out its control. When a tool is available, however, its 'feasibility' is often a function of the health system that uses it. Tuberculosis control, for example, it not feasible in a vertically-oriented system that uses interval-bound mobile teams or poorly trained Community Health Workers (CHWs). Tuberculosis control, on the other hand, may be feasible in the context of an integrated CPHC or BHS system where medical assistants practice primary care with the aid of well-crafted treatment strategies and adequate supervision.

As SPHC proponents proceed to gauge feasibility of control, they are often selective in their view of 'feasible' health systems. The feasibility of control permitted by PHC systems is assessed in terms of the existing state of organization and management in LDCs, usually called 'inadequately developed' and overly exhaustive [16–18]. On the other hand, the health system structures involved in determining feasibility of control for SPHC systems tend to be judged on the potential efficiency of future technologies (e.g. new vaccines, single-dose therapies) rather than upon their current or demonstrated effectiveness.

While potential technological developments appear to offer hope for improving health status in the future, the SPHC literature envisions little prospect for improved management, training, and organization or for the re-allocation of resources in the health sector of Third World countries.

The 'likelihood of success' feature of SPHC and CDC priority-setting procedures makes evident the value-laden nature of 'feasibility'. The feasibility of control of a particular disease is as much a function of value preferences about health systems as it is a matter of empirical analysis. Immunizable diseases and diarrhea treatment, for example, are thought 'feasible' because they are viewed as diseases that can be effectively managed in a vertically-oriented system. Pneumonia treatment requires the skill of a medical assistant and a continuous drug distribution network, facts which reduce its 'feasibility of control'. On the other hand, mobile teams are ruled out altogether, since they cannot address the treatment of acute conditions, due to the absence of the mobile team when the episode occurs.

The overall impression created by 'feasibility of control' in the SPHC method is that it amounts to a circular logic. A selective analysis of health care organization determines priorities for disease control while it is being claimed that prioritization leads to the choice of health care intervention systems.

Diseases of importance. By the account of Walsh and Warren, medical interventions appropriate to prioritized diseases are stratified, "from the most comprehensive to the most selective" [2]. But the decision to focus on only 8–10 diseases, regardless of which diseases are eventually selected, limits health services, predetermines the level of medical intervention and concentrates attention on diseases that cause high mortality. Largely ignored are the majority of conditions, i.e. those which cause the bulk of pain, suffering, and disability among a population.

This is true even when appropriate interventions might be available. Although the SPHC approach to 'importance of disease' draws upon a definition of considerable theoretical scope, the practice of SPHC method [19] leads to an almost exclusive consideration of diseases which cause high mortality and which enjoy 'feasibility of control'.

One important result of the SPHC emphasis on mortality is an overriding interest in childhood conditions. As Julia A. Walsh put the matter [20], "since infants and young children are at greater risk of mortality and morbidity, then health care should be primarily directed towards them". Infants and young children are at greater risk than most other population groups. They represent a large component of total mortality in LDC's and SPHC appropriately addresses itself to their pressing problems. While the SPHC strategy does not by-pass adult disability and suffering intentionally, the constraints of the SPHC method establish prioritized objectives and preferred intervention schemes that do very little for adult health problems.

When the 'importance of disease' measure is further refined, as Berggren *et al.* [19] and the Ghana Health Assessment Team [21] have attempted, the SPHC/CDC prioritization approach only serves to compound the problems involved in concentrating upon childhood mortality. Their substitution of 'days of life lost' or 'years of life saved' for total mortality figures suggests that a day of life at any age is equally valued. In consequence, the value of a 7-day-old infant with neonatal tetanus is 'twice' that of a 20-year-old with tuberculosis. The life expectancy patterns in most LDCs, however, calls this into question. Life expectancy in Liberia in 1971 [22], for example, was only 45 years and the chance of dying before age 4 was almost 24% in Malawi. Nevertheless a 25-year-old male's life expectancy was nearly equal to that of a person living in a developed nation (38.3 in Liberia, 1971; 47.3 in Canada, 1971) [23].

But even if 'days of life lost' were somehow 'properly' weighted to reflect factual life expectancies, the SPHC method would still yield a high priority for childhood mortality diseases due to its focus on 8–10 conditions. The relatively high valuation of children's health problems by the SPHC approach raises serious questions for planning applications of the SPHC method. Third World communities may hold value preferences distinctly at odds with an emphasis on childhood mortality, in part, at least because adult manpower is indispensable for community survival.

Expected intermediate outcomes for SPHC

Intermediate SPHC goals are almost all related to a single, general intermediate goal, namely reducing disease-specific mortality. The methods of SPHC explicitly assume that a reduction in a certain few disease-specific mortality rates will result in a reduction of the overall mortality rate for a population. This assumption is uncertain at best in developing nations where mortality follows from the myriad health insults associated with poverty and where suitable epidemiological information is in very short supply.

It is likewise questionable whether an attempt to reduce the disease specific mortality rate of a very few pathologies can yield success in the reduction of a population's overall mortality rate. Noting the difference between diseases registered as the cause of death and the determinants of death in an area, Mosley [24] has proposed that child and infant death has no discrete cause. Childhood mortality is, rather, the result of a long series of recurrent infections and deficiencies, particularly deficiencies of food intake. To overlook the complex nature of childhood mortality could lead to: "recommendations for disease-oriented technical intervention programs that fail to achieve their goals, a typical example being supplementary feeding programs to combat malnutrition" [24].

Recent reports from Kasongo, Zaire have underscored the serious nature of Mosley's contentions. These reports suggest that measles vaccination programs which result in a reduction of measles mortality may simply shift mortality to other diseases and conditions without affecting the overall mortality of the population [25]. The results of the Kasongo study, it should be noted, are a matter of current debate [26]. Nevertheless, critics concede the seriousness of the questions raised and call for further study of the Kasongo report's major questions.

The SPHC method, through its focus on medical interventions of narrow scope aimed at reducing disease-specific mortality among the children of an area, appears to overlook the cautionary issue raised by the Kasongo study. If it is true, that measles-vaccinated, malnourished children perhaps will die of pneumonia instead of measles, then this disease specific mortality shift from one disease to another requires a wider scope of PHC activities.

It should not be thought, however, that measles vaccination stands alone in raising questions about SPHC intermediate goals. Oral rehydration is a compulsory component of any selective strategy [2, 7, 19] due to the fact that: "... in most developing countries, diarrheal diseases rank among the top three 'causes of death' among infants and young children along with respiratory diseases and malnutrition" [24, p. 33]. However, Mosley considers that it is a great leap of faith to expect that oral rehydration therapy can reduce the overall mortality rate: "... it becomes evident that a strategy which is directed toward treatment of the diarrheal cases is likely to be ineffective, while a strategy which can reduce the diarrheal incidence may expect to achieve substantial reduction of mortality" [24, p. 34].

Areas dominated by poverty and malnutrition are not likely to respond to narrow SPHC activities. Technical approaches too frequently gloss over this underlying problem: "... in any PHC program that takes the narrow technical or 'selective' approach, an underlying premise must be that there is no absolute poverty or severe food shortage in the population" [24].

These observations about SPHC intermediate goals are especially pertinent, given the cost–effectiveness contentions that serve as the underlying SPHC rationale. If SPHC methods target a reduction of disease-specific mortality among children in resource-poor areas of the world, then selective disease-control programs are most likely to be used in the very areas where an unfavorable nutritional background may doom the SPHC intervention to failure. As WHO notes, 47% of Asian preschool children and 30% of African preschool children were wasted in 1983 (China not included) [27].

SPHC method and resource utilization

Selective methods apparently encourage the rational use of scarce health resources in developing countries since a narrow group of activities are targeted for the control of 5–8 prioritized diseases. In several major health planning areas, however, the consequence of using SPHC methods may be a misuse of scarce resources, not a rational plan for their conservation.

Physicians and hospitals. With the physician and hospital-centered elements of most LDC health infrastructures absorbing 80% or more of developing country health care budgets, attempts to rationally introduce primary health care must include referral functions in overall planning.

However the SPHC approach calls for extremely limited curative roles through its selectivity. Walsh and Warren indicate only malaria, diarrhea and schistosomiasis [2]; UNICEF suggests only diarrhea and malnutrition [6]; both the GOBI-FF program and the Deschappelles program [19] propose diarrhea, malnutrition and tuberculosis as priority disease conditions requiring curative activities. On the other hand, Walsh and Warren call for 'temporary' controlling for tuberculosis, pneumonia, leprosy, trypanosomiasis, meningitis and helminth [2]. These choices tend to isolate PHC from curative services by reducing the scope of the curative role to 2 or 3 treatments at the PHC level.

With curative roles focused on only 2–3 disease conditions, hospital utilization patterns are not likely to be modified by the creation of a PHC network. It is significant to note that these utilization patterns are known to be unfavorable in the Third World. At Mityana hospital, for example, a utilization analysis showed that 40% of those in the wards could have been treated by 'self-care' facilities [28]. The same hospital showed that, "the average number of outpatient attendances per person per year falls precipitously the greater the distance that separates the patient's home from the hospital" [28]). The study concluded that, "Taking services to the people is the main way of correcting this imbalance" [28].

In Kasongo, the SPHC key interventions are part of a basic health service package—one emphasizing both curative and preventive activities. These interventions account for an 85.6% reduction of hospital admissions due to diarrhea, diptheria, pertussis, tetanus, malaria, malnutrition and measles in areas covered by the project. As compared to total excess hospitalization in areas not covered, this coverage-related reduction still represents only 28.6% of the reduction possible through a basic health services (BHS) package (unpublished data of the Kasongo Project Team).

The modest Kasongo results were achieved by medical assistants working in a health center network. Of necessity, Village Health Workers (VHWs) would find it most difficult to apply appropriate referral criteria. Similarly, mobile teams would not offer the permanent presence required by curative activities. In relation to the reduction of excess hospital utilization, the SPHC results are likely to be lower than those observed at Kasongo.

As a consequence, hospitals will continue providing primary health care, though access to hospitals will remain restricted to those living nearby and to the wealthy. The isolation of primary health care from curative services encouraged by the SPHC method will sustain this arrangement.

Physicians raise similar problems. Because of their relative scarcity, physicians in LDCs must be used where their skills are needed most. Encouraged by their Western-training and by the location of hospital facilities, physicians in developing countries commonly remain in their nation's largest cities or they emigrate to more developed countries.

To meet the test of rational resource allocation in this regard, SPHC should require the redirection of physician services from the over-doctored cities to the doctor-scarce countryside. But the methods of the selective strategy are not suited to accomplishing physician redirection. Within the PHC system and pursuant to the narrow scope of foreseen activities, an SPHC approach would confine physicians to extremely simplified, mostly non-medical work, including personnel management, supply maintenance, and limited epidemiological surveillance. A manager with narrow epidemiological training might function as well as a physician in such a role.

Since a PHC system would address only 2 to 3 curative activities when operating under SPHC assumptions, it would not be able to screen patients, successfully referring patients to levels of care requiring physician skills. These physicians would remain within the classical first-level of curative responsibility.

In consequence, SPHC methods put a double burden on any attempt to decentralize and redirect physician skills in LDCs. First, in restricting the physician's role to a few skill areas, the SPHC approach tends to rob the physician of motivation to leave urban areas. Second, by reducing rural interventions to management tasks, SPHC methods discourage LDC physicians from incorporating public health notions of their nations into their day-to-day activities.

By contrast, Comprehensive Primary Health Care (CPHC) systems and methods would formalize, standardize and subsequently delegate to medical assistants the curative and preventive tasks performed by a general practitioner. Since such a comprehensive approach would require that physicians be involved in carefully analyzing their own work in order to write strategies and instructions for medical assistants, the physicians of developing countries would be deeply and rationally involved in PHC activities. Under the CPHC design, this involvement would also call for regular physician supervision of medical assistants.

SPHC methods, on the other hand, apparently deny a role to medical assistants. Disease control activities limited to less than 10 conditions do not require the broad skills of a medical assistant. General practitioners, like medical assistants, would find that the SPHC structure offered them no effective supply system, no regular supervision and virtually no referral network. Under-utilization of medical assistants and other general practitioners would be the likely result of any attempt to supplement SPHC methods with a more rational use of personnel.

Community health workers. Selective methods give community health workers (CHWs) a pivotal role. In fact, the inclusion of CHWs is presumed to be a rational characteristic of SPHC, one distinguishing it from strictly vertical programs. In theory, the CHW links selective interventions with the community, thereby lowering program costs. Though not described uniformly, village health workers have as primary tasks the organization of communities for vaccination and the administration of oral rehydration solutions.

The claim that CHW activities such as these are comparatively inexpensive does merit examination. Much of a CHWs resource efficiency stems from the CHWs short training period and low wages. An analysis of 52 USAID assisted health care projects [29]—most of which were designed along the lines of SPHC concepts—reveals that 86% of the CHWs involved were trained for less than 2 months. More than one-half were trained for 2 weeks or less.

While training of this sort obviously lowers direct, financial costs, the training is not adequate for many of the tasks identified through the use of selective disease-prioritization methods [30]. Most targeted SPHC conditions, for example, involve immunization only. The limited training of CHWs would not permit them to perform these immunizations, thus necessitating the use of mobile vaccination teams. Field studies conducted in accord with selective methods, such as those by Berggren *et al.* in Haiti [19], rely upon hospital-based activities instead of the interventions of CHWs. Only oral rehydration therapy appears well-suited for the competence of the CHW and even this intervention requires experience and clinical judgment for successful case management.

The apparent cost-savings which accrue from the use of CHWs also must be matched against the opportunity costs of such volunteers, including time lost from harvest and cultivation. These losses to the local economy combined with other pressures, such as the difficulty CHWs face in gaining community respect and acceptance, tend to produce a high level of attrition and turnover among CHWs. In Nicaragua the rate is reported to exceed 35% [31]. The stress of SPHC upon undertrained village health workers turns the question of cost-savings into one about rising long-term costs and the reliability of undertrained health workers. The statement by Walsh and Warren that, "these services could be provided by fixed units or by mobile teams" [2], is a claim of flexibility not supported by CHW capabilities and one that is undercut by program limitations. In consequence, the selective strategy appears compelled to fall back to a first reliance upon mobile teams at the expense of other health infrastructure elements.

Vertical structure and selective methods. Because selective primary health care methods rely upon the mandatory use of mobile teams, the SPHC operational structure closely resembles that of a traditional vertical program [8]. Typically vertical programs are organized along military lines. As a result, they tend to be isolated units standing apart from the larger health care structure about them, both in terms of budget and administrative functioning. Verticalist concepts have been characterized as favoring, "categorically specific, hierarchically organized, discrete disease control programs" [32].

Although preventive care may be provided by periodic services, curvative care requires the presence of a permanent structure. As a result, multiple health problems are not included within the scope of effort of the mobile team program. In addition, vertical schemes overlook the advantage of integrated preventive and curative health care [33].

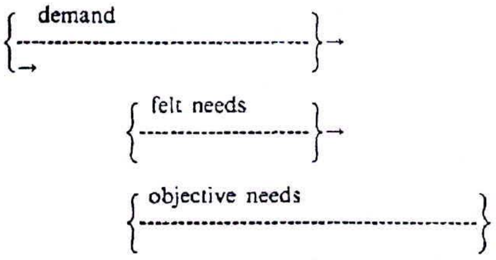
The CHW/mobile team structure that SPHC requires enjoys neither the increased health team prestige that results from its curative efforts nor the improved coverage and effectiveness which belongs to a system whose personnel gain an increased sociocultural knowledge of an area as they remain in one location. Further, vertical structures by their nature cannot take advantage of information generally available through CPHC approaches, particularly the integrated, centralized information that CPHC systems gather regarding medical histories and preventive health statuses.

In practice, the costs of vertical intervention structures frequently undermine whatever feasibility exists in their program design, thereby placing a burden on other health system structures. As Oscar Gish has noted: "special campaigns [vertical programs] absorbed more resources than did the whole of the country's health services located outside the larger cities and towns" (Note that this statement does not refer to a specific country [32, p. 207]).

Finally, SPHC interventions tend to place tight limits on popular participation in the planning of programs. They require an extremely close fit between focused goals and the elements of vertical design so that the selective strategy almost certainly precludes participatory modification of the health care agenda created for an area. With participation reduced or practically eliminated, perceived community needs—already understated by the SPHC emphasis upon the problems surrounding childhood mortality—tend to be overlooked. To ensure that health problems match-up with the SPHC approach, community participation is likely to be replaced with community manipulation.

Quantitative planning: an alternative to the epidemiologically based planning approach

As noted above, epidemiologically based planning is but one specific form of quantitative health planning. An alternative form includes normative considerations. Instead of defining health planning objectives as the reduction of a few disease-specific mortality rates, these objectives could represent the commonality between the felt needs of the population (mostly curative ones) and health needs as defined by professionals. This more normative approach can be schematized as follows:



This is a dynamic scheme which takes the demand factor into account thus enabling health services to communicate with people so as to

(1) attempt control of 'irrational' demand ("irrational" quest for therapies such as vitamines or injections)

(2) increase the felt needs, that is make people aware of "objective" needs.

Under this scheme, the fit between the planned health structures and related health activities could not be too tight.

A normatively grounded alternative to epidemiologically quantitative health planning would stress two characteristics for planned primary health care systems: (1) they should rely upon polyvalent health teams and (2) they should consist of sufficiently decentralized but fixed units. Pivotal determinants of concentration of health professions and facilities would include the following elements:

(1) geographical accessibility via decentralization
(2) PHC facilities scaled to 'human size'

(3) consideration of decentralization costs
(4) reduced technical performance linked with highly decentralized effort
(5) resource constraints.

The normative–quantitative planning alternative recommends a structure-based planning approach within which activity objectives would be regionally and locally established. Such a planning strategy does not eliminate the need for well-defined priorities. For example, health center supervision can underscore the importance of oral rehydration or immunization. Instead, it advocates quantitative planning on both professional and local or community criteria.

JUSTIFICATION FOR THE SPHC POSITION

Empirical support for the SPHC position is quite limited since there are only a few field reports available to support its claims. In addition, the cost-savings claimed for the selective approach to primary health care involve an unorthodox approach to cost–effectiveness analysis.

Empirical support for SPHC

The SPHC approach formally described by Walsh and Warren relies upon 7 field reports for its substantiation, one of which remains unpublished. Walsh and Warren first cite a field study from Guatemala. Gwatkin *et al.* [34] have suggested that numerous complications prevented the Guatemala investigators from reaching unambiguous conclusions.

The Jakhmed (India) project, a second study that Walsh and Warren cite, cannot be used for substantiating the SPHC position since the project under investigation provided, "... a wide range of nutrition, health, and family planning services" [34]. This makes the Jakhmed project inappropriate for bolstering a SPHC viewpoint. Because it was clearly a simple, vertical program and not a selective one, the Hanover (Jamaica) project listed by Walsh and Warren cannot be used as evidence for the value of SPHC; furthermore it dealt only with malnutrition. The Walsh and Warren reference to the Ghana primary health service system is in fact a reference to a comprehensive not a selective system. Finally, the Narangwal project [35] cited by Walsh and Warren as empirical support for SPHC involved projects in 4 villages, each with a different health care activity: nutrition, curative care with a physician back-up, nutrition and curative care, and a control village. The separate Narangwal activities best fit either simple, vertical intervention formats or coincide with CPHC functions, not SPHC medical intervention schemes. In a critique of the studies Walsh and Warren list as support for the selective strategy, Gish remarks that the, "... authors [Walsh and Warren] confuse diverse pilot project research results with World Bank estimates [and] with their own data based on [an] African model area" [32].

Substantiation for the selective disease-control strategy reduces itself primarily to the field report from Berggren *et al.* [19] conducted in the Deschapelles area of Haiti. The results of the Haitian project are cited as evidence of what a selective approach ("the same approach advocated in our paper" [20]) can achieve. Because it is central to the credibility of the selective strategy for disease control, it is worth examining the design and empirical claims of the Berggren *et al.* study.

Haiti project. The Deschapelles project prioritized 8 identified disease conditions and then targeted them for intervention in a small (5 × 5 km) census tract. The population of the area was approx. 10,000 and the tract contained a 150-bed hospital with a staff of 13 physicians. Before and after medical interventions, the authors measured disease and age-specific mortality rates in the census tract. They concluded that a selective approach significantly lowered mortality rates. These claims are open to dispute since the study exhibits a number of deficiencies. In particular, its outcome indicators are not controlled, it uses external standards in a context bereft of external validity, and the program appears to be more expensive than SPHC programs.

External standards. Results from the Deschapelles study are presented by a comparison of death rates in the targeted area and available national estimates. Kenneth Warren cites the outcome of this comparison as evidence for SPHC effectiveness: "mortality rates fell progressively during five years to levels only one-fourth as high as the national estimates" [20].

The Haiti Project's use of external standards is open to question in 4 major respects. First, beginning and final figures of the study are not derived by similar methods. The beginning figures came from interviews while the ending ones came from a process of longitudinal follow-up. Second, during the project's first year, the mortality rate for 0–1 age groups in the Deschapelles area was 55/1000 while the comparable figure for all Haiti was 146.6/1000 [36, p. 14], a figure almost three times greater than that of the experimental area. Third, among all areas of Haiti, the Deschapelles sector showed the lowest prevalence of Gomez' Stage-III malnutrition [37], still another indication that it was an exceptional area. Finally, the superiority of agricultural production in the Artibonite valley, where Deschapelles is situated, makes it one of Haiti's superior rice producing locations.

In consequence, the use of internal comparisons and beginning-to-end death rate figures suggest that the selective Haiti program may have had a much lower impact (if at all) upon the mortality of the Deschapelles area than a comparison with 1972 national figures would suggest.

Confounding socio-economic factors. Forty-three per cent of the total mortality decline claimed for the selective interventions of the Haiti study can be attributed to malnutrition deaths averted. There are sound reasons for skepticism concerning this claim. First, the zone of greatest mortality reduction for the Deschapelles program falls into the second priority of diseases listed in the Walsh and Warren version of SPHC [2]. It is surprizing to see this element of the Haiti project succeed more markedly than activities more highly favored by the SPHC strategy, for example measles or tetanus. Second, the reported 43% decline in malnutrition deaths averted is particularly surprizing. Results of a Colombian study [38, p. 167] indicate that the greatest reductions of infant mortality rates are to be achieved through supplemental feeding programs that target pregnant women. This was not the approach used in the Deschapelles field trial, a fact which raises further doubt about tracing malnutrition deaths averted to the Haiti project's selective interventions.

Confounding socio-economic factors are perhaps at the root of the increasing number of malnutrition deaths averted which were reported in the Haiti study. Despite the fact that Berggren *et al.* identify a series of such factors (housing, food preparation, latrine availability, protected water supplies), they do not show their constancy across time. Even more importantly, food availability is not discussed, a fact that raises questions about the degree to which the study's overall results are confounded by intervening variables.

Confounding hospital activities. Findings in the Haiti study do not adequately control for the impact of Albert Schweitzer Hospital activities upon reported mortality rates. The facility was located less than 3 km from the surveillance area under study. With respect to this confounding influence, it is demonstrable that the introduction of prioritized health care activities failed to statistically modify the targeted disease-specific deaths as a proportion of overall deaths in the area. A two-tailed Z-test for proportion ($P = 0.2270$) does not reject the equality of 1968 and 1972 proportions at the 0.05 level. Specifically, the following assertion in the Haiti study must be called into question: "the hospital services probably achieved their maximum impact during the 12 years before the health surveillance and health services began. The impact of health surveillance and health services is therefore reflected in the changes in mortality rates after 1968" [19].

Reliance upon the findings of Berggren *et al.* as a provisionally adequate defence for selective disease control interventions poses serious difficulties. When the Deschapelles activities were extended to three other Haitian areas (each with a population of 10,000 persons), overall mortality rates only slightly decreased in two of the three while actually increasing from 78 to 89/100 in the third [39]. Further, it should be noted that the activities introduced by the Haiti use of the SPHC approach fall well within the range of comparable Basic Health Services (BHS) expenditure levels and cannot easily serve as a normative cost model.

Cost–effectiveness justifications for SPHC

Cost–effectiveness analysis is a relatively flexible and non-dogmatic mode of economic analysis which should bolster the contentions of national health care strategies. As decision-makers consider careful cost–effectiveness analyses, for example, they remain free to apply variable standards and situation-specific criteria in setting priorities and in selecting program objectives for their area.

The 1978 Walsh and Warren article sought to link SPHC and cost–effectiveness analysis quite directly [2]. Instead of demonstrating the usefulness of cost–effectiveness analysis in the planning of primary health care programs, the Walsh and Warren article sought to use cost–effectiveness analysis as a justification for normative claims, thereby exceeding the careful limits of the technique.

Empirical adequacy. In asserting that SPHC is, "potentially the most cost–effective type of medical intervention" [2], Walsh and Warren demarcate an exceptionally wide scope for their cost–effectiveness comparisons. They make head-to-head comparisons between five approaches: CPHC, BHS, Multiple Disease-Control Measures, SPHC and research. In so doing, Walsh and Warren impose considerable strain upon the cost and effectiveness data of their report.

First, the cost and effectiveness estimates relied upon in the Walsh and Warren cost–effectiveness discussion are heterogeneous and derived from multiple sources: WHO, the World Bank, bi-lateral field projects and diverse research programs. Although these cost figures may be completely adequate when taken as isolated data, the sweep of the Walsh and Warren cost analysis leaves numerous un-answered questions. Were the cost estimates of their study reported in the same manner and with equal completeness, particularly in the case of estimates about training, indirect costs at the referral level, and the value of volunteer labor [40, pp. 27–49]? Did the various sources of data rely upon a uniform method and rate for discounting reported cost figures? Were the costs discounted at all? Since pilot programs and field studies can change greatly in terms of costs when they are 'scaled-up' to national levels, it should be known whether (and how) national cost estimates were compared with those derived from projects of smaller scale. How were project and research cost figures reconciled?

Problems also appear in the Walsh and Warren effectiveness data as well. By supporting their selective strategy on the basis of heterogeneous findings, it remains unclear whether multi-outcome programs were demoted in importance by definitional fiat [40]. The decision to compare the effectiveness of research with primary health care programs designed for field implementation seems equally open to doubt.

The considerable gap between SPHC costs per capita (1978 $0.25/capita/year) and those reported in the Berggren *et al.* field trial (1981 $1.60/capita/year) [19] raises still further questions about the empirical adequacy of SPHC cost–effectiveness comparisons. If these disparities were projected straightforwardly to a national scale, they alone are enough to dampen enthusiasm for the potential cost-savings of the SPHC approach. Finally, it should be noted that BHS field cost reports [41] disagree with the BHS cost figures reported by SPHC supporters [2, 42].

Conceptual adequacy. Health planners and decision-makers are best served by cost–effectiveness analysis when a conceptually clear cost constraint or program objective has been set for the analysis. To compare alternatives successfully, cost–effectiveness analysis requires compliance with several procedural requirements:

a clear operational definition (or set of definitions) for the program to be analyzed

a careful computation of net costs and net health effects among the alternatives being compared

an exact specification of decision rules to guide the selection of preferred alternatives

a sensitivity analysis to probe areas of uncertainty in the study.

The Walsh and Warren comparisons violate these rules of conceptual adequacy at several points. First, comparisons between CPHC and SPHC only doubtfully meet the standards for operational definition. Second. CPHCs multiple program outcomes require that it be treated as a cluster of programs, each scaled-up individually for comparison with the single programs of BHS and SPHC. In the absence of such treatment, its net costs and net health effects are extremely hard to compute.

Third, the teasing out of cost equivalents to form valid cost–effectiveness ratios would be most challenging in this case, to say the least. Fourth, the Walsh and Warren report is silent about the subject of a conceptually clear decision rule and makes no use of sensitivity analysis. The absence of a sensitivity analysis affects the assessment of alternative approaches adversely. For example, in specific areas such as water supply, an analysis that allowed existing expenditures to be redirected away from inferior water services has shown that long-term PHC costs decline when water quality is improved [10]. Finally, the criteria pertinent to broad-scope cost–effectiveness comparisons (e.g. 'equity' and 'efficacy') are missing from the Walsh and Warren report.

Cross-strategy comparisons. Cost–effectiveness analysis is poorly suited to determining what programs a society should pursue [43]. Its forte lies in the realm of allocative choice, not normative or distributive judgment. Walsh and Warren, however, use the technique or accomplish cross-strategy comparisons. In so doing, they reveal normative intentions whose distorting impact may underlie the conceptual problems of their study. In effect, the Walsh and Warren use of cost–effectiveness analysis substitutes for measurable, comparable program alternatives a group of proxies for entire health care strategies.

At issue in these comparisons are: choices about how a population values the existence of a rural health care infrastructure, about the extent to which an area's health care system should be fundamentally participatory, about the degree to which a health system should stress objective and extra-local health criteria rather than the 'felt needs' of an area, and about the extent to which health services will be privately owned and operated. These are valuative elements in the Walsh and Warren cost–effectiveness analysis. As integral features of the proxie measures just noted, they inject value elements that confound the attempt to make cross-strategy comparisons.

DETERMINANTS OF SPHC ADOPTION

The selective strategy of disease control has prompted considerable comment and has been well received by international agencies (World Bank, UNICEF), academic institutions and research centers (Centers for Disease Control; Harvard University), bilateral cooperation agencies (USAID) and private institutions (Ford and Rockefeller Foundations). Given the empirical weaknesses, methodological problems and conceptual difficulties of the SPHC position, however, it is important to explore some of the less apparent reasons for SPHCs popular reception and for the magnitude of funding already earmarked for its implementation in developing areas. When this is done, SPHCs widespread appeal seems to be the coincidental result of constraints and challenges facing influential, independent decision-makers, forces leading them to endorse a primary health care strategy with strong appeal to their training in 'classical' public health.

Political and economic valence of SPHC

The expanding body of pathologies that burden the population of the Third World are paired with budget reductions [44] that threaten disaster. These constraints from the external environment of international cooperation agencies are matched by 'internal forces' of no smaller significance:

1. Results.
Donor agency funding requires "results" within the period of the agency's mandate, a pressure which encourages short-term planning and readily measured program objectives; this rules out the measurement of factors such as the avoidance of suffering and the import of participatory structures; it also slows the creation of health infrastructure.

2. Privitized Service.
International agencies, recognizing "political realities", seek to achieve larger macro-economic objectives through their funding strategies, not the least of which is the establishment of a uniform economic pattern for the recipient nation; this leads to an increasing of the private medical sector, an expanded donor agency influence over the recipient nation's economy, financially and geographically inaccessible private care and a weakening of curative and preventive service integration (the concept of health service responsibility for a well-defined population is strained greatly by rapid expansion of the private, curative sector).

3. Donor Clientel Expansion.
Leading donor agencies recognize that supporting of medical programs in recipient countries is only one element in the process of political-economic barter; as donors seek to expand their number of recipient clients, health contributions to individual nations approaches the floor below which no modification of health care can be achieved.

4. Research and Commercial Outlets
The cooperative activities of funding agencies frequently aim at the promotion of significant financial and research outlets for corporations and leading academic institutions of donor nations; this results in reversed priorities: even before the benefits of existing technologies are disseminated to recipient nations, "space age" technologies are given enthusiastic support (e.g. vaccines and other fruits of genetic engineering); the research concerns of donor agencies supplant the applied research interests of developing nations [45].

5. Financial and Institutional Status Quo.
Institutionally, international cooperation agencies and research institutions seek to respect the financial and institutional status quo of recipient nations; this favors the adoption of health program strategies placing little constraint upon national health budgets and making only minimal demands upon the existing institutions of the recipient nation.

6. Reduction of Public Expenditures.
Despite the seeming paradox, optimizing the cost–effectiveness of a health system can entail the introduction of a new level of health care services. The paradox is only apparent, however, since introducing Village Health Workers for the sake of cost–effectiveness generally leads to the dismantling of the health center and dispensary network of the state. While VHWs reputedly are self-supporting.

Table 1. Order of the priorities for the study of causes of death according to indices of incidence, importance and vulnerability (State of Aragua, Venezuela, 1960)

Causes of death (1)	Coefficient of incidence (2)	Coefficient of importance (3)	Coefficient of vulnerability (4)	Product (2 × 3 × 4) (5)	Order of priority (6)
Dysentry, gastritis duodenitis, etc. (B6, B36)	9.7	0.98	0.66	6.27	1
Premature births	8.5	1.00	0.33	2.80	2
Influenza, the pneumonias, and bronchitis (B30, B31, B32)	4.4	0.97	0.33	1.40	3
Cardiovascular diseases (B22–28)	20.3	0.65	0.10	1.32	4
Pulmonary tuberculosis (B1)	2.8	0.68	0.66	1.25	5
Transportation accidents (E802–E861)	3.9	0.83	0.33	1.07	6
Other diseases of early childhood (B44)	2.5	1.00	0.33	0.82	7
Tumors (B18, B19)	6.7	0.68	0.10	0.45	8
Accidents (excluding transportation)	5.5	0.75	0.10	0.41	9

Note: arranged in accordance with the weighted coefficient of incidence the causes of death would appear in the following order: dysentry; premature births; other diseases of early childhood; cardiovascular diseases; transportation accidents; accidents (excluding transportation); influenza, etc.; tumors; and pulmonary tuberculosis.

Source: [42, p. 27].

fixed health centers and dispensaries often generate state expenditures. The overall pattern of replacement is consistent with World Bank and International Monetary Fund and donor policies aimed at "low cost health projects" for PHC [46].

The internal and external constraints upon the cooperative efforts of international agencies have combined with the technical training of key decision-makers to encourage an enthusiastic response to SPHC. Among the features of SPHC which such agencies find appealing are the following:

Agency Constraint	Associated Reasons for SPHC Appeal
1. An emphasis upon 'results'	1. SPHC depends upon 'objective' measures and calls for little additional health infrastructure SPHC favors a technical agenda whose items have been established by technical methods
2. Privatization	2. By filling in functional blanks left by the private sector (preventive activities), SPHC implies no competition between public and private health units [47, 48] SPHC tends to by-pass the issue of population-oriented health service responsibility
3. A numerical building of donor agency clientel	3. SPHC's claim to be 'potentially the most cost-effective' appeals to the desire of international and bilateral cooperation agencies to expand their clientel
4. The development of commercial and research outlets	4. SPHC emphasizes prospects for vehicles well-suited for 'space age' commercial technologies, e.g. vaccines derived from genetic engineering rather than prospects for management improvement of existing techniques SPHC leaves open the option for private sector doctors to refuse standard treatments, e.g. use of standard pharmaceutical lists [49]; this excludes from the scope of PHC curative activities (except oral rehydration and chloroquine)
5. A concern for the financial and institutional status quo	5. The claims of SPHC assure that it would put almost no strain upon existing financial or institutional arrangements SPHC tends to preclude community impact upon the planning and management of health services, an emphasis which tends to sustain existing institutional practices and priorities SPHC requires little fund transfer from hospital to primary health services.

Training of health system managers; SPHC

The SPHC appeal to international agencies of cooperation parallels the attraction of health program managers to the SPHC conceptual structure. Many of these key decision-makers have an exposure to past or 'classical' approaches to disease control as a feature of their public health training. Gish, for example, has noted the similarity between the priorities of SPHC and the CENDES approach [11]:

This widely known effort attempted to put into practice a fully formed model for health care planning of the sort put forward in far more simple form by Drs Walsh and Warren. After many years of work and the training of several hundred Latin Americans in the methodology, it was concluded in the mid-1970s that planning of this sort was infeasible and thus to be put aside.

Table 1 summarizes the approach of CENDES analysis for Araqua State (Venezuela) [50]—an approach quite closely paralleling the method taught 20 years later by the CDC (Atlanta) for SPHC-type prioritizations (Table 2) [51].

The kinship between SPHC and CENDES analysis is not surprising since the political constraints which confront program managers and cooperation agency leaders have been relatively constant in the post-World War II period, as was noted earlier. The program management view of primary health care retains its emphasis upon the following:

Table 2. Possible answers to the exercise on establishing priorities (module on national priorities)

Health problem	Overall importance	Most feasible control measure	Feasibility of control measure	Overall priority
Accidents	Moderate	First aid; medical diagnosis and treatment; rehabilitation	Low	Low
Diarrhoea	High	OR therapy	High	High
Diphtheria	Moderate	DPT vaccine	High	Moderate
Lower respiratory infection	High	Drug therapy	Moderate	High
Malaria	Moderate	Drug treatment	Moderate	Moderate
Measles	High	Measles vaccine	High	High
Neonatal tetanus	Moderate	Tetanus toxoid	High	High
Other neonatal conditions	Moderate	Prenatal and delivery care	Low	Moderate
Pertussis	Moderate	DPT vaccine	High	Moderate
Poliomyelitis	Moderate	Oral polio vaccine	High	Moderate
Skin infection	Low	Good hygiene and health education	Moderate	Low
Tuberculosis	Moderate	BCG vaccine	Moderate	Moderate
Undernutrition	Moderate	Education, food supplies and child spacing	Low	Moderate

Record assessments as *high, moderate* or *low*.
Source: [43, p. 26].

(1) selection of top-priority pathologies that require epidemiology, surveillance projects and readily quantified weighting schemes

(2) operational designs that call for the use of mobile teams

(3) a mobilization of 'popular-based' manpower in accord with anthropological understanding to the extent that it provides insight about how to increase popular participation

(4) field evaluation using cost–effectiveness analysis for single outcome, process evaluation purposes.

Not only do training and field experiences predispose program managers to selective interventions once they reach the level of national health service management, these forces also lead to a planning of national health services in terms of program management concepts—not a health service management framework:

Program Management	Health Services Management
Short-term planning outlook	Long-term planning outlook
Planning for program development	Planning for structural development of health services and functional development within these structures
	Responsibility toward population covered by health services.

Given the political constraints and the program management perspective derived from successful disease campaigns such as the smallpox effort, the appeal of SPHC is a rather predictable phenomenon. This is especially the case, since program managers tend, with seniority, to obtain tenure in the public health schools of developed countries. This is not the case, however, with national health service managers hired by LDC public health schools that enjoy relatively low resource and influence levels.

CONCLUSION

This paper has set forth an historical context for understanding the current appeal of SPHC for those who urge its widespread adoption in developing countries. The weaknesses of its empirical foundation, methods and operational structure make dubious the enthusiasm with which SPHC has been greeted. Since the economic pledges to the SPHC disease-control strategy are already considerable, however, it is essential to identify reasons for its ready adoption by international cooperation agencies and developing nations. The prime forces appear to be political and economic in nature, but these justifications are reinforced by the education and field experiences of key decision-makers.

Ultimately, the planning and development of primary health services that accord with the 1978 Alma Ata declaration will require approaches that run counter to the vertical program characteristics that typify SPHC. It appears mistaken to create extensive new financial and human resources commitments for a SPHC-type campaign. The alternative lies in the study of methods explicitly connected to the expansion of national health services. The methods of health service development must first be shown to have clear and demonstrable efficacy for attaining health for all by the year 2000.

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Child Health Development After Alma Ata Declaration

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Health development includes health care, essential non-specific measures like nutrition, protected water supply, sanitation, education and economic development. Primary Health Care (PHC) is essential health care based on practical, scientifically sound and socially acceptable methods. Community involve-ment, inter sectoral cooperation and approaches to peripheralise health services are the three pillars on which PHC is being built. Implementing PHC successfully will improve health development. Human progress and overall development lie in the progress of women and children and the realization of their rights. Problems of health development and under development are intimately linked.

In the later half of last century important technological advances in medicine were made. Vaccination against major diseases and therapy for infectious diseases and the technical knowledge to prevent nutrition deprivation and diseases were available. As a result rapid decline in death rate has occurred. Inspite of impressive progress in health picture, the prevailing health and nutrition disparities were a cause for serious concern.

Medical science realized that poverty related social conditions like poor sanitation and housing were major causes of ill health. Studies have shown that irrespective of medical intervention health status improved remarkably when basic requirements of health were available. The challenge was primarily a question of equal access for all. In 1978 for the first time all the Government of the world - Democracies or Dictatorships, Communists or Capitalists - accepted the principle of PHC officially and promised to bring them into being in all nations within the next 22 years. This Alma-Ata Declaration accepted that Health is a Fundamental Human Right. It also accepted that the gross inequalities in health status are unacceptable. Health for all heralded the vision of a new and better future for all the human family.

To fulfil her commitment of Health for All, India evolved a National Health Policy in 1983. To transfer all objectives of Health for All, the policy laid down specific goals with quantifiable targets to be achieved. This commitment did lead to some renewed attempt at achieving these goals. India launched ambitious campaigns for eradica-tion of communicable diseases, infections and malnutrition. Various policies and acts introduced earlier and later tried to augment efforts. Few examples in this context include ICDS (1974) CSSM (1992), The Infant Milk Substitute Act (1992), Pulse Polio Immunization (1997), RCH and others. The impact of all these interventions to improve health, particularly maternal and child health has been large. In India decline in vaccine preventable diseases and severe malnutrition of this magnitude has never been achieved in our setting and certainly not in an equivalent period of time. Still there are disparities in health. So the achievements of the National Health Policy need critical analysis.

Progress in Maternal and Child Health

A. Mortality and Mobidity in and around Infancy (Table I)

Mortality rates and nutrition status are good indicators to measure the level of health and nutrition care. This also helps in assessing the overall socioeconomic development.

Still births and deaths within the first week of life are not investigated like infant and neonatal deaths. With declining infant mortality rate, perinatal mortality is assuming importance as a yardstick of obstetric and pediatric care before and around the time of birth. There is a wide variation in urban/rural death rates.

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The ORIGINS of Primary Health Care and SELECTIVE Primary Health Care

| Marcos Cueto, PhD

I present a historical study of the role played by the World Health Organization and UNICEF in the emergence and diffusion of the concept of primary health care during the late 1970s and early 1980s. I have analyzed these organizations' political context, their leaders, the methodologies and technologies associated with the primary health care perspective, and the debates on the meaning of primary health care.

These debates led to the development of an alternative, more restricted approach, known as selective primary health care. My study examined library and archival sources; I cite examples from Latin America.

DURING THE PAST FEW decades, the concept of primary health care has had a significant influence on health workers in many less-developed countries. However, there is little understanding of the origins of the term. Even less is known of the transition to another version of primary health care, best known as selective primary health care. In this article, I trace these origins and the interaction between 4 crucial factors for international health programs: the context in which they appeared, the actors (personal and institutional leaders), the targets that were set, and the techniques proposed. I use contemporary publications, archival information, and a few interviews to locate the beginnings of these concepts. I emphasize the role played by the World Health Organization (WHO) and UNICEF in primary health care and selective primary health care. The examples are mainly drawn from Latin America. The work is complementary to recent studies on the origin of primary health care.[1]

BACKGROUND AND CONTEXT

During the final decades of the Cold War (the late 1960s and early 1970s) the US was embroiled in a crisis of its own world hegemony—it was in this political context that the concept of primary health care emerged. By then, the so-called vertical health approach used in malaria eradication by US agencies and the WHO since the late 1950s were being criticized. New proposals for health and development appeared, such as John Bryant's book *Health and the Developing World* (also published in Mexico in 1971), in which he questioned the transplantation of the hospital-based health care system to developing countries and the lack of emphasis on prevention. According to Bryant, "Large numbers of the world's people, perhaps more than half, have no access to health care at all, and for many of the rest, the care they receive does not answer the problems they have . . . the most serious health needs cannot be met by teams with spray guns and vaccinating syringes."[2]

In a similar perspective, Carl Taylor, founder and chairman of the Department of International Health at Johns Hopkins University, edited a book that offered Indian rural medicine as a general model for poor countries.[3] Another influential work was by Kenneth W. Newell, a WHO staff member from 1967, who collected and examined the experiences of medical auxiliaries in developing countries. In *Health by the People*, he argued that "a strict health sectorial approach is ineffective."[4] In addition, the 1974 Canadian Lalonde Report (named after the minister of health) deemphasized the importance attributed to the quantity of medical institutions and proposed 4 determinants of health: biology, health services, environment, and lifestyles.[5]

Other studies, written from outside the public health community, were also influential in challenging the assumption that health resulted from the transference of technology or more doctors and more services. The

British historian Thomas McKeown argued that the overall health of the population was less related to medical advances than to standards of living and nutrition.[6] More aggressively, Ivan Illich's *Medical Nemesis* contended that medicine was not only irrelevant but even detrimental, because medical doctors expropriated health from the public. This book became a bestseller and was translated into several languages, including Spanish.[7]

Another important influence for primary health care came from the experience of missionaries. The Christian Medical Commission, a specialized organization of the World Council of Churches and the Lutheran World Federation, was created in the late 1960s by medical missionaries working in developing countries.[8] The new organization emphasized the training of village workers at the grassroots level, equipped with essential drugs and simple methods. In 1970, it created the journal *Contact*, which used the term primary health care, probably for the first time. By the mid-1970s, French and Spanish versions of the journal appeared and its circulation reached 10 000.

It is worth noting that John Bryant and Carl Taylor were members of the Christian Medical Commission and that in 1974 collaboration between the commission and the WHO was formalized. In addition, in Newell's *Health by the People*, some of the examples cited were Christian Medical Commission programs while others were brought to the attention of the WHO by commission members. A close collaboration between these organizations was also possible because the WHO headquarters in Geneva were situated close to the main office of the World Council of Churches (and 50 WHO staff received *Contact*).[9]

Another important inspiration for primary health care was the global popularity that the massive expansion of rural medical services in Communist China experienced, especially the "barefoot doctors." This visibility coincided with China's entrance into the United Nations (UN) system (including the WHO). The "barefoot doctors," whose numbers increased dramatically between the early 1960s and the Cultural Revolution (1964–1976), were a diverse array of village health workers who lived in the community they served, stressed rural rather than urban health care and preventive rather than curative services, and combined Western and traditional medicines.[10]

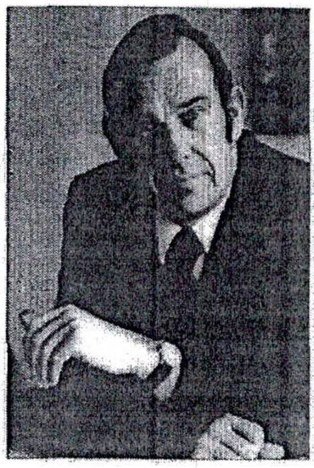
Primary health care was also favored by a new political context characterized by the emergence of decolonized African nations and the spread of national, anti-imperialist, and leftist movements in many less-developed nations. These changes led to new proposals on development made by some industrialized countries. Modernization was no longer seen as the replication of the model of development followed by the United States or Western Europe. For example, Prime Minister Lester B. Pearson of Canada and Chancellor Willy Brandt of West Germany chaired major commissions on international development emphasizing long-term socioeconomic changes instead of specific technical interventions.[11] In a corollary decision, in 1974 the UN General Assembly adopted a resolution on the "Establishment of a New International Economic Order" to uplift less-developed countries.[12]

NEW ACTORS AND NEW HEALTH INTERVENTIONS

New leaders and institutions embodied the new academic and political influences. Prominent among them was Halfdan T. Mahler of Denmark. He was elected the WHO's director general in 1973 and was later reelected for 2 successive 5-year terms, remaining at its head until 1988. Mahler's background was not related to malariology, the discipline that dominated international health during the 1950s. His first international activities were in tuberculosis and community work in less-developed countries. Between 1950 and 1951, he directed a Red Cross antituberculosis campaign in Ecuador and later spent several years (1951–1960) in India as the WHO officer at the National Tuberculosis Program. In 1962, he was appointed chief of the Tuberculosis Unit at the WHO headquarters.[13] In Geneva, Mahler also directed the WHO Project on Systems Analysis, a program that implied improving national capabilities in health planning.

More importantly, Mahler was a charismatic figure with a missionary zeal. His father, a Baptist preacher, helped shape his personality. Many years after his retirement from the WHO, he explained that for him, "social justice" was a "holy word."[14] The strong impression he produced in some people is well illustrated by a religious activist who met Mahler in the 1970s: "I felt like a church mouse in front of an archbishop."[15]

Mahler had excellent relations with older WHO officers. The Brazilian malariologist Marcolino Candau, the WHO director general before Mahler, appointed the



Source. Prints and Photographs Collection, History of Medicine Division, National Library of Medicine, Bethesda, Md.

Halfdan T. Mahler, director general of the World Health Organization, 1973–1988.

From the late 1960s, there was an increase in WHO projects related to the development of "basic health services" (from 85 in 1965 to 156 in 1971). These projects were the institutional predecessors of the primary health care programs that would later appear.

Dane as an assistant director general in 1970. Thanks to his close relationship with the WHO's old guard, Mahler could ease the transition experienced by this agency under his command. Some of these changes occurred before Mahler assumed the post of director general. From the late 1960s, there was an increase in WHO projects related to the development of "basic health services" (from 85 in 1965 to 156 in 1971).[16] These projects were institutional predecessors of the primary health care programs that would later appear. Another early expression of change was the creation in 1972 of a WHO Division of Strengthening of Health Services. Newell, a strong academic and public health voice for primary health care, was appointed director of this division (Newell's career with the WHO started in 1967 as director of the Division of Research in Epidemiology and Communications Science).

In 1973, the year of Mahler's appointment as the WHO director general, the Executive Board of WHO issued the report *Organizational Study on Methods of Promoting the Development of Basic Health Services*.[17] This report was the basis for a redefinition of the collaboration between the WHO and UNICEF (which could be traced to the years immediately following World War II). Mahler established a close rapport with Henry Labouisse, UNICEF's executive director between 1965 and 1979, who had his own rich experience with community-based initiatives in health and education. The agreement produced in 1975 a joint WHO–UNICEF report, *Alternative Approaches to Meeting Basic Health Needs in Developing Countries*, that was widely discussed by these agencies. The term "alternative" underlined the shortcomings of traditional vertical programs concentrating on specific diseases. In addition, the assumption that the expansion of "Western" medical systems would meet the needs of the common people was again highly criticized. According to the document, the principal causes of morbidity in developing countries were malnutrition and vector-borne, respiratory, and diarrheal diseases, which were "themselves the results of poverty, squalor and ignorance."[18] The report also examined successful primary health care experiences in Bangladesh, China, Cuba, India, Niger, Nigeria, Tanzania, Venezuela, and Yugoslavia to identify the key factors in their success.

This report shaped WHO ideas on primary health care. The 28th World Health Assembly in 1975 reinforced the trend, declaring the construction of "National Programs in primary health care" a matter "of urgent priority." The report *Alternative Approaches* became the basis for a worldwide debate. In the 1976 World Health Assembly, Mahler proposed the goal of "Health for All by the Year 2000." The slogan became an integral part of primary health care. According to Mahler, this target required a radical change. In a moving speech that he delivered at the 1976 assembly, he said that "Many social evolutions and revolutions have taken place because the social structures were crumbling. There are signs that the scientific and technical structures of public health are also crumbling."[19] These ideas would be confirmed at a conference that took place in the Soviet Union.

ALMA-ATA

The landmark event for primary health care was the International Conference on Primary Health Care that took place at Alma-Ata from September 6 to 12, 1978. Alma-Ata was the capital of the Soviet Republic of Kazakhstan, located in the Asiatic region of the Soviet Union. According to one of its organizers, the meeting would transcend the "provenance of a group of health agencies" and "exert moral pressure" for primary health care.[20] A Russian co-organizer claimed that "never before [have] so many countries prepared so intensively for an international conference."[21]

The then-current tension among communist countries played an important role in the selection of the site. The Chinese delegation to the WHO originated the idea of an international conference on primary health care. Initially, the Soviet Union opposed the proposal and defended a more medically oriented approach for backward countries.

However, after noticing that the primary health care movement was growing, the Soviet delegate to the WHO declared in 1974 that his country was eager to hold the meeting. The offer also resulted from the growing competition between the traditional communist parties and the new pro-Chinese organizations that emerged in several developing countries. However, the proposal of the Soviet Union had one condition: the conference should take place on Soviet soil. The Soviet Union was willing to fund a great part of the meeting, offering $US 2 million.[22]

For a while, the WHO searched for an alternative site. The governments of Iran, Egypt, and Costa Rica entertained the idea but finally declined. Nobody could match the economic offer of the Soviet Union, and in the case of Iran there was fear of political instability. Finally, the WHO accepted the Soviet offer but asked for a different location than Moscow, suggesting a provincial city. After some negotiations Alma-Ata was selected, partly because of the remarkable health improvements experienced in what was a backward area during Tsarist Russia. The event was a small Soviet victory in the Cold War.

The conference was attended by 3000 delegates from 134 governments and 67 international organizations from all over the world. Details were carefully orchestrated by the Peruvian David Tejada-de-Rivero, the WHO assistant director general who was responsible for the event.[23] Most of the delegates came from the public sector, specifically from ministries of health; of 70 Latin American participants, 97% were from official public health institutions. It was expected that many of the delegates would be planning officers and education experts, who would be able to implement an effective intersectorial approach, but few of them were. The meeting was also attended by UN and international agencies such as the International Labor Organization, the Food and Agriculture Organization, and the Agency for International Development. Nongovernmental organizations, religious movements (including the Christian Medical Commission), the Red Cross, Medicus Mundi, and political movements such as the Palestine Liberation Organization and the South West Africa People's Organization were also present. However, for political reasons—the Sino-Soviet conflict had been worsening since the 1960s—China was absent.

At the opening ceremony, Mahler challenged the delegates with 8 compelling questions that called for immediate action. Two of the most audacious were as follows:

- Are you ready to introduce, if necessary, radical changes in the existing health delivery system so that it properly supports [primary health care] as the overriding health priority?
- Are you ready to fight the political and technical battles required to overcome any social and economic obstacles and professional resistance to the universal introduction of [primary health care]?[24]

When the conference took place, primary health care was to some degree already "sold" to many participants. From 1976 to 1978, the WHO and UNICEF organized a series of regional meetings to discuss "alternative approaches." The conference's main document, the Declaration of Alma-Ata, which was already known by many participants, was approved by acclamation. The term "declaration" suggested high importance, like other great declarations of independence and human rights. The intention was to create a universal and bold statement. This was certainly unusual for a health agency used to compromising resolutions. The slogan "Health for All by the Year 2000" was included as a prospective view.

Three key ideas permeate the declaration: "appropriate technology," opposition to medical elitism, and the concept of health as a tool for socioeconomic development. Regarding the first issue, there was criticism of the negative role of "disease-oriented technology."[25] The term referred to technology, such as body scanners or heart-lung machines, that were too sophisticated or expensive or were irrelevant to the common needs of the poor. Moreover, the term criticized the creation of urban hospitals in developing countries. These institutions were perceived as promoting a dependent consumer culture, benefiting a minority, and drawing a substantial share of scarce funds and manpower. Mahler's used the story of the sorcerer's apprentice to illustrate how health technology was out of "social" control.[26] In contrast, "appropriate" medical technology was relevant to the needs of the people, scientifically sound, and financially feasible. In addition, the construction of health posts in rural areas and shantytowns, instead of hospital construction, was emphasized.

The declaration's second key idea, criticism of elitism, meant a disapproval of the overspecialization of health personnel in developing countries and of top-down health campaigns. Instead, training of lay health personnel and community participation were stressed. In addition, the need for working with traditional healers such as shamans and midwives was emphasized. Finally, the declaration linked health and development. Health work was perceived not as an isolated and short-lived intervention but as part of a process of improving living conditions. Primary health care was designed as the new center of the public health system. This required an intersectorial approach—several public and private institutions working together on health issues (e.g., on health education, adequate housing, safe water, and basic sanitation). Moreover, the link between health and development had political implications. According to Mahler, health should be an instrument for development and not merely a byproduct of economic progress: "we could . . . become the *avant garde* of an international conscience for social development."[27]

The 32nd World Health Assembly that took place in Geneva in 1979 endorsed the conference's declaration. The assembly approved a resolution stating that primary health care was "the key to attaining an acceptable level of health for all." In the following years, Mahler himself became an advocate of primary health care, writing papers and giving speeches with strong titles such as "Health and Justice" (1978), "The Political Struggle for Health" (1978), "The Meaning of Health for All by the Year 2000" (1981), and "Eighteen Years to Go to Health for All" (1982).[28] However, despite the initial enthusiasm, it was difficult to implement primary health care after Alma-Ata. About a year after the conference took place, a different interpretation of primary health care appeared.

SELECTIVE PRIMARY HEALTH CARE

The Alma-Ata Declaration was criticized for being too broad and idealistic and having an unrealistic timetable. A common criticism was that the slogan "Health for All by 2000" was not feasible. Concerned about the identification of the most cost-effective health strategies, the Rockefeller Foundation sponsored in 1979 a small conference entitled "Health and Population in Development" at its Bellagio Conference Center in Italy. The goal of the meeting was to examine the status and interrelations of health and population programs when the organizers felt "disturbing signs of declining interest in population issues."[29] It is noteworthy that since the 1950s, international agencies had been active in population control and family planning in less-developed countries.

The inspiration and initial framework for the meeting came from the physician John H. Knowles, president of the Rockefeller Foundation and editor of *Doing Better and Feeling Worse*, who strongly believed in the need for more primary care practitioners in the United States.[30] (Knowles died a few months before the meeting took place.) The heads of important agencies were involved in the organization of the meeting: Robert S. McNamara, former secretary of defense in the Kennedy and Johnson administrations and, since 1968, president of the World Bank; Maurice Strong, chairman of the Canadian International Development and Research Center; David Bell, vice president of the Ford Foundation; and John J. Gillian, administrator of the US Agency for International Development, among others. The influential McNamara was trying to overcome the criticism that the World Bank had ignored social poverty and the fatigue of donor agencies working in developing countries. He promoted business management methods and clear sets of goals, and he moved the World Bank from supporting large growth projects aimed at generating economic growth to advocating poverty reduction approaches.[31]

The conference was based on a published paper by Julia Walsh and Kenneth S. Warren entitled "Selective Primary Health Care, an Interim Strategy for Disease Control in Developing Countries."[32] The paper sought specific causes of death, paying special attention to the most common diseases of infants in developing countries such as diarrhea and diseases produced by lack of immunization. The authors did not openly criticize the Alma-Ata Declaration. They presented an "interim" strategy or entry points through which basic health services could be developed. They also emphasized attainable goals and cost-effective planning. In the paper, and at the meeting, selective primary health care was introduced as the name of a new perspective. The term meant a package of low-cost technical interventions to tackle the main disease problems of poor countries.

At first, the content of the package was not completely clear. For example, in the original paper, a number of different interventions were recommended, including the administration of antimalarial drugs for children (something that later disappeared from all proposals). However, in the following years, these interventions were reduced to 4 and were best known as GOBI, which stood for growth monitoring, oral rehydration techniques, breastfeeding, and immunization.

The first intervention, growth monitoring of infants, aimed to identify, at an early stage, children who were not growing as they should. It was thought that the solution was proper nutrition. The second intervention, oral rehydration, sought to control infant diarrheal diseases with ready-made packets known as oral rehydration solutions.[33] The third intervention emphasized the protective, psychological, and nutritional value of giving breastmilk alone to infants for the first 6 months of their lives.[34] Breastfeeding also was considered a means for prolonging birth intervals. The final intervention, immunization, supported vaccination, especially in early childhood.[35]

These 4 interventions appeared easy to monitor and evaluate. Moreover, they were measurable and had clear targets. Funding appeared easier to obtain because indicators of success and reporting could be produced more rapidly. In the next few years, some agencies added FFF (food supplementation, female literacy, and family planning) to the acronym GOBI, creating GOBI-FFF (the educational level of young women and mothers being considered crucial to many health programs). Interestingly, acute respiratory infections, a major cause of infant mortality in poor countries, were not included. These were thought to require the administration of antibiotics that nonmedical practitioners in many of the affected countries were not allowed to use.

Selective primary health care attracted the support of some donors, scholars, and agencies. According to some experts, it created the right balance between scarcity and choice.[36] One participant of the Bellagio meeting that was greatly influenced by the new proposal was UNICEF. James Grant, a Harvard-trained economist and lawyer, was appointed executive director of UNICEF in January 1980 and served until January 1995.[37] Under his dynamic leadership, UNICEF began to back away from a holistic approach to primary health care. The son of a Rockefeller Foundation medical doctor who worked in China, Grant believed that international agencies had to do their best with finite resources and short-lived local political opportunities. This meant translating general goals into time-bound specific actions. Like Mahler, he was a charismatic leader who had an easy way with both heads of state and common people. A few years later, Grant organized a UNICEF book that proposed a "children's revolution" and explained the 4 inexpensive interventions contained in GOBI.[38]

Mahler never directly confronted this different approach to primary health care. After some doubts, Mahler himself attended the Bellagio Conference, and although there is evidence that he did not get along with the new director of UNICEF, he asked a WHO assistant director to nourish a good relationship between the 2 organizations. However, a debate between the 2 versions on primary health care was inevitable.[39] Some supporters of comprehensive primary health care, as the holistic or original idea of primary health care began to be called, considered selective primary health care to be complementary to the Alma-Ata Declaration, while others thought it contradicted the declaration. Some members of the WHO tried to respond to the accusation that they had no clear targets. For example, a WHO paper entitled "Indicators for Monitoring Progress Towards Health for All" was prepared at the "urgent request" of the Executive Board.[40] Another publication provided specific "Health for All" goals: 5% of gross national product devoted to health; more than 90% of newborn infants weighing 2500 g; an infant mortality rate of less than 50 per 1000 live births; a life expectancy over 60 years; local health care units with at least 20 essential drugs.[41] However, most of the supporters of primary health care avoided these indicators,

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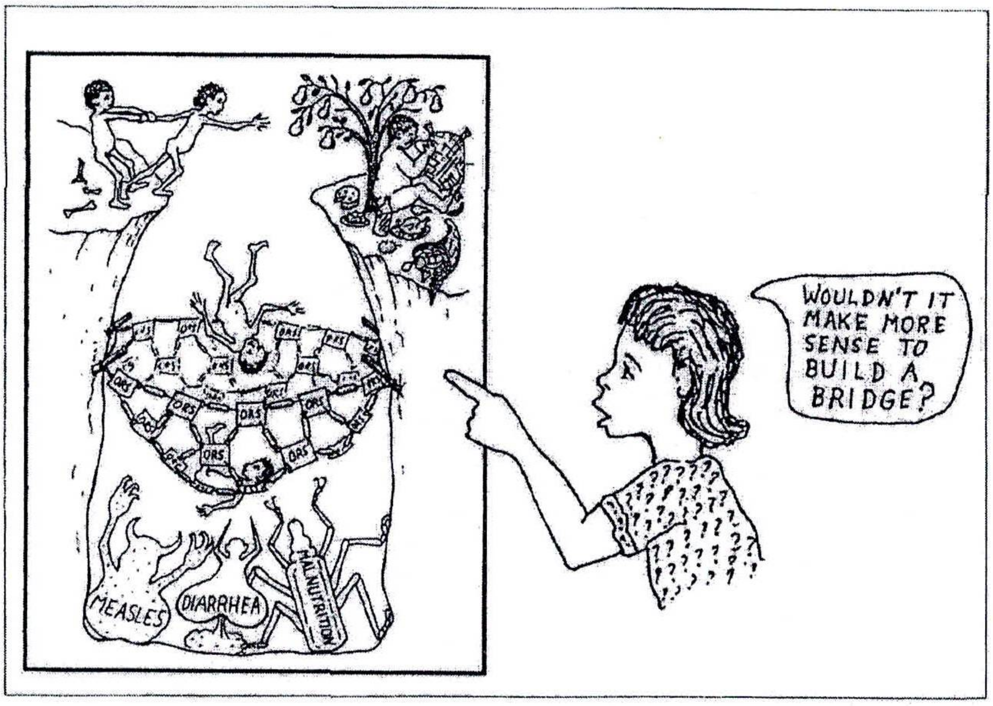

Oral rehydration salts promoted by selective primary health care were criticized in this drawing as a "Band-Aid." (Drawing by Alicia Brelsford, reprinted with permission from David Werner. David Werner and David Sanders, with Jason Weston, Steve Babb, and Bill Rodriguez, *Questioning the Solution: the Politics of Primary Health Care and Child Survival, with an In-Depth Critique of Oral Rehydration Therapy* [Palo Alto, CA : HealthWrights, 1997].)

arguing that they were unreliable and failed to demonstrate the inequities inside poor countries.[42] The debate between the 2 versions of primary health care continued.

THE DEBATE

The supporters of comprehensive primary health care accused selective primary health care of being a narrow technocentric approach that diverted attention away from basic health and socioeconomic development, did not address the social causes of disease, and resembled vertical programs.[43] In addition, critics said that growth monitoring was difficult since it required the use of charts by illiterate mothers (recording data was not an easy operation, weighing scales were frequently deficient, and charts were subject to misinterpretation). Breastfeeding confronted powerful food industries. In 1979, it was estimated that global sales of artificial infant formula were $2 billion a year (Third World nations accounted for 50% of the total).[44] Companies argued—incorrectly—that infant formulas had to be used in developing countries because undernourished mothers could not provide proper nourishment and prolonged lactation would aggravate their health.[45] In contrast, for health advocates, who launched a boycott against the Swiss multinational Nestlé, one of the main problems was the use of unsafe water for bottle-feeding in shantytowns. This fascinating controversy helped to change maternal practices in several countries but did little to excite the enthusiasm of donor agencies.[46]

To supporters of comprehensive primary health care, oral rehydration solutions were a Band-Aid in places where safe water and sewage systems did not exist. However, this intervention, together with immunization, became popular with agencies working in developing countries,[47] partly thanks to an important achievement: the global eradication of smallpox in 1980. Beginning in 1974, the WHO's Expanded Program on Immunization fought against 6 communicable diseases: tuberculosis, measles, diphtheria, pertussis, tetanus, and polio, setting a target of 80% coverage of infants or "universal childhood immunization" by 1990. This program contributed to the establishment of cold-chain equipment, adequate sterilization practices, celebration of National Vaccination Days, and expanded systems of surveillance.[48]

Immunization campaigns accelerated in the developing world after the mid-1980s. They also gained the important support of Rotary International.[49] Colombia, for example, made immunization a national crusade. Starting in 1984, it was strongly supported by the government and by hundreds of teachers, priests, policemen, journalists, and Red Cross volunteers.[50] In 1975, only 9% of Colombian children aged younger than 1 year were covered with DPT (a vaccine that protects against diphtheria, pertussis, and tetanus, given to children younger than 7 years old). By 1989, the figure had risen to 75% and in 1990 to 87%.[51] In a corollary development, the infant mortality rate decreased. These experiences were instrumental in overcoming popular misperceptions such as that vaccination had negative side effects, was not necessary for healthy children, and was not safe for pregnant women.

However, the achievements of immunization did not lessen the debate over primary health care.[52] Newell, one of the architects of primary health care, made a harsh criticism: "[selective primary health care] is a threat and can be thought of as a counter-revolution. Rather than an alternative, it . . . can be destructive. . . . Its attractions to the professionals and to funding agencies and governments looking for short-term goals are very apparent. It has to be rejected."[53] US agencies, the World Bank, and UNICEF began to prioritize some aspects of GOBI, such as immunization and oral rehydration solutions. As a result, increasing tension and acrimony developed between the WHO and UNICEF, the 2 founding institutions of primary health care, during the early 1980s.[54]

The debate between these 2 perspectives evolved around 3 questions: What was the meaning of primary health care? How was primary health care to be financed? How was it to be implemented? The different meanings, especially of comprehensive primary health care, undermined its power. In its more radical version, primary health care was an adjunct to social revolution. For some, this was undesirable, and Mahler was to be blamed for transforming the WHO from a technical into a politicized organization.[55]

For others, however, it was naïve to expect such changes from the conservative bureaucracies of developing countries. According to their view, it was simplistic to assume that enlightened experts and bottom-up community health efforts had a revolutionary potential, and the political power of the rural poor was underestimated. They also thought that the view of "communities" as single pyramidal structures willing to participate in health programs after their leaders received the necessary information was idealistic. In fact, they said, these communities and their learning process were usually diverse and complex.[56]

In its mildest version, primary health care was an addition to preexisting medical services, a first medical contact, an extension of health services to rural areas, or a package of selective primary health care interventions. However, none of these features could avoid being considered second-quality care, simplified technology, or poor health care for the poor.[57] Two corollary criticisms from Latin American leftist scholars were that "primary" really meant "primitive" health care and that it was a means of social control of the poor, a debasement of the gold standard established in Alma-Ata. A related question not answered was, Is primary health care cheaper than traditional health interventions or does it demand a greater investment?[58]

It was not clear just after the Alma-Ata meeting how primary health care was going to be financed.[59] In contrast to other international campaigns, such as the global malaria eradication program of the 1950s, where UNICEF and US bilateral assistance provided funding, there were no significant resources in the WHO for training auxiliary personnel, improving nutrition and drinking water, or creating new health centers. It was difficult to convince developing countries to change their already committed health budgets. A 1986 study examined several estimates of primary health care in developing countries (around US$1 billion) and concluded that "the wide range of costs . . . is indicative of how little is known about this area."[60]

As a result, most international agencies were interested in short-term technical programs with clear budgets rather than broadly defined health programs.[61] In addition, during the 1980s many developing countries confronted inflation, recession, economic adjustment policies, and suffocating foreign debts that began to take their toll on public health resources. A new political context created by the emergence of conservative neo-liberal regimes in the main industrialized countries meant drastic restrictions in funds for health care in developing countries. According to Mahler, during the 1980s, "Too many countries, too many bilateral and multilateral agencies, too many individuals had become too disillusioned with the prospects for genuine human development."[62]

The changing political context was also favorable for deeply ingrained conservative attitudes among health professionals. For example, most Latin American physicians were trained in medical schools that resembled US universities, were based in hospitals, lived in cities, received a high income by local standards, and belonged to the upper and upper-middle classes.[63] They perceived primary health care as anti-intellectual, promoting pragmatic nonscientific solutions and demanding too many self-sacrifices (few would consider moving to the rural areas or shantytowns). A minority of medical doctors who embraced primary health care thought that it should be conducted under the close supervision of qualified professional personnel. Frequently, they distrusted lay personnel working as medical auxiliaries.

In a 1980 speech, Mahler had already complained about the "medical emperors" and their negativism toward primary health care because of false "pompous grandeur."[64] The confrontation made matters worse. The resistance of medical professionals became more acute since they feared losing privileges, prestige, and power. Confrontation continued since there was no steady effort to reorganize medical education around primary health care or to enhance the prestige of lay personnel. However, for a generation of Latin American medical students, primary health care became an introduction to public health and Mahler a sort of icon.

Another problem of primary health care implementation was real political commitment. Some Latin American authoritarian regimes, such as the military regime in Argentina, formally endorsed the Alma-Ata Declaration but did not implement any tangible reform. Because most international agencies favored selective primary health care, many Latin American ministries of health created an underfunded primary health care program in their fragmented structures and concentrated on 1 or 2 of the GOBI interventions. As a result, the tension between those who advocated vertical, disease-oriented programs and those who advocated community-oriented programs was accepted as a normal state of affairs.

During the mid-1980s, Mahler continued his crusade for a more holistic primary health care in different forums. However, he was frequently alone, since he did not have the full support of the WHO's bureaucracy, and his allies outside WHO were not always available. For example, from 1984 to 1987, an important US scholar for primary health care, Carl Taylor, left Johns Hopkins and was a UNICEF representative in China. In 1985, Tejada-de-Rivero, one of Mahler's main assistants at Geneva, moved permanently to Peru, where he became minister of health. In 1988, Mahler ended a 3-term period as director general of the WHO. Although he never officially launched a reelection campaign, no one appeared who was second-in-command or had sufficient energy to keep promoting primary health care against all odds. In a confusing election and an unexpected turn of events, the Japanese physician Hiroshi Nakajima was elected as the new director general.

Nakajima lacked the communication skills and charismatic personality of his predecessor. His election can be considered to mark the end of the first period of primary health care. The WHO seemed to trim primary health care, and most importantly, the WHO lost its political profile. In a corollary development, a 1997 Pan American Health Organization document proposed a new target, or a new deadline, entitled "Health for All in the 21st Century."[65] Supporters of a holistic primary health care believed that the original proposal largely remained on the drawing board,[66] a claim still made today.

CONCLUSION

The history of the origins of primary health care and selective primary health care analyzed in this article illustrate 2 diverse assumptions in international health in the 20th century. First, there was a recognition that diseases in less-developed nations were socially and economically sustained and needed a political response. Second, there was an assumption that the main diseases in poor countries were a natural reality that needed adequate technological solutions. These 2 ideas were taken—even before primary health care—as representing a dilemma, and one path or the other had to be chosen.

I have illustrated the crucial interaction between the context, the actors, the targets, and the techniques in international health. Primary health care and selective primary health care represent different arrangements of these 4 factors. In the case of primary health care, the combination can be summarized as the crisis of the Cold War, the prominence of Mahler at the WHO, the utopian goal of "Health for All," and an unspecific methodology. The combination in the case of selective primary health care was neo-liberalism, the leadership of Grant as head of UNICEF, the more modest goal of a "children's revolution," and GOBI interventions.

A lesson of this story is that the divorce between goals and techniques and the lack of articulation between different aspects of health work need to be addressed. A holistic approach, idealism, technical expertise, and finance should—must—go together. There are still problems of territoriality, lack of flexibility, and fragmentation in international agencies and health programs in developing countries. Primary and vertical programs coexist. One way to enhance the integration of sound technical interventions, socioeconomic development programs, and the training of human resources for health is the study of history. ■

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The promise of primary health care

Marcos Cueto[1]

Twenty-seven years after it was embraced at Alma-Ata (now Almaty, Kazakhstan), primary health care and its call for "health for all" still holds a promise (*1*). Study of the history of medicine suggests its worldwide appeal. Primary health care is the latest expression of a belief that can be traced to the 19th-century pathologist Rudolf Virchow: the solution to major human disease problems resides not only in the best science available but also in brave political proposals for social justice and the improvement of the life of the poor (*2, 3*). From this perspective, health is not only a by-product of social changes but an instrument to promote such changes — and health workers are in the vanguard. History does not follow a linear path of progress, however: setbacks, resistance, negotiations and compromise have existed in the history, design and practice of primary health care programmes.

Based on reflections by Socrates Litsios (*W4*) and my own research on the history of primary health care (*W5*), I suggest four themes for reconsideration: its meaning, funding, and implementation, and the culture created by restricted top-down versions of the philosophy. First, primary health care has had several meanings that undermined its power as a health paradigm. In its more radical version, the complete reform of public health structures and the promotion of major social changes were envisaged, with primary care as the new centre of health systems. In contrast, according to an instrumental interpretation, it was merely an entry point, a temporary relief or an extension of services to underserved areas (*W6*). The latter interpretation could not avoid being perceived as second-class care, "poor" medicine for poor people.

Second, funding for primary health care has usually been insufficient and inconsistent (*7*). In the past few decades it has been difficult to establish an effective financial system with clear indicators that ensures sustained support of community participation and intersectoral collaboration, to mention just two important but controversial project tasks (*W8*).

Third, implementation encountered resistance from health personnel. Many physicians in less developed countries were linked to specialized urban hospitals and traditional medical schools; they knew much about treatment but little about prevention. Many of them hoped that their expertise would facilitate upward social mobility (*W9*). Unless health professionals and their systems of training are closely committed, a health programme can be undermined from within.

Fourth, restricted primary health care interventions reinforced a culture of survival in developing countries, where many people believe that public health is an emergency response embodying vaccines, drugs, ephemeral training of lay personnel, or the creation of a health post. Health work is perceived as a low-value, short-lived activity from outside the community. As a result, a culture of survival among the poor sustains the privileges of power among politicians. The poor continue to struggle to obtain access to fragmented programmes and foreign aid in order to relieve pain, delay death and protect loved ones, while the elite's control of limited resources becomes a source of power in an environment of scarcity. The combination of the culture of survival and the privileges of power reinforces inequity, dependency and passivity, all of which are incompatible with primary health care. It will take imaginative decision-making to transform the public health implications of the culture of survival and recreate a true primary health care system.

In order to renew the promise of Alma-Ata, it is crucial to tackle these four issues and to increase the awareness of the political contexts in which the strategy might flourish. The persistence of neoliberalism, the transition from an "international" to a "global" framework, and the coexistence of the most terrible expression of human history (war) and one of the most idealistic (the Millennium Development Goals) mark a complex political context, in which one actor should play a crucial role: the local health worker. As a recent report underscored, dramatic changes have occurred recently in the growth, job insecurity and self-assertion of local health workers (*10*). There have never been so many health workers in developing countries with experience in providing community-oriented care. Many believe in change from below and have a vested interest in the integral improvement of health systems. The old fear of losing professional privileges is no longer a concern because these are evaporating. Mobilizing, empowering and strengthening these human resources in developing countries are crucial to pursuing the promise of primary health care. ■

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EDITORIAL

THE DEBATE ON SELECTIVE OR COMPREHENSIVE PRIMARY HEALTH CARE

As many readers of this journal will know the debate concerning the difference between PHC and SPHC has generated a great deal of discussion. The origins of the debate can be traced to a paper written by Walsh and Warren in 1979 [1]. They argued that the primary health care approach was too idealistic to be implemented by most governments. Instead it was more realistic to target scarce resources to control specific diseases which accounted for the highest mortality and morbidity; which had available low cost technologies for prevention and treatment; and which had techniques that were cost-effective. This approach was called selective primary health care.

The discussion about SPHC has not been merely academic. By the mid-1980s it was apparent that several donor agencies had accepted the line of argument put forward by Walsh and Warren. As a result resources were increasingly being directed into vertical programmes that sought quick technical solutions to health problems rather than integrated programmes which addressed a wider range of development issues over the longer term. It was concern over this trend amongst international agencies that prompted a number of people, academics, practitioners, agency personnel and donor recipients from both the less developed and the developed world, to come together to analyse the situation at a meeting in Antwerp in 1985.

Having discussed the SPHC–PHC issue, participants at the Antwerp meeting concluded that an important next step was "to undertake a programme of fundamental research on primary health care so as to identify its main features, reinforce them, and make them known". The purpose of this special issue therefore is not to review the history and development of the debate, which has been done recently [2, 3] but to give the reader an overview of the present status of these discussions and to continue the spirit of the Antwerp meeting by taking the debate further.

As in the first paper we therefore chose a review summarising the issues which were debated at the Antwerp meeting. As it is written in French by Grodos and de Bethune, we have included an extended summary in English by Bichmann.

The remainder of the issue is divided into three sections. Section one focuses on health policy. Section two examines some of the critical issues identified at the Antwerp meeting. Section three presents five case studies.

In the health policy section four papers reflect different thinking about the concepts. The originators update their views about SPHC. In his article, Warren gives a historical perspective of the ebbs and flows of the debate while Walsh argues that the importance of technology in health should not be underestimated. Newell takes a more combative stand, and argues that the ideas at the core of PHC are revolutionary, and are threatened by the contrary approaches of SPHC. Concluding this section is a commentary by Mosley, who rejects the polarisation of SPHC and PHC and suggests a problem-oriented rather than technological or disease oriented approach that draws together the differences into a 'middle' way.

In the second section a number of important issues identified at the Antwerp meeting are addressed. The first paper by Smith and Bryant explores the debate between vertical and horizontal programmes, and suggests what the lessons are for the building of a PHC infrastructure. Barker and Green address the issues of financing PHC and question the existing mechanisms for priority setting and for resource allocation. They suggest that the technique of economic appraisal reinforces an approach which focuses on specific disease control and works against involvement of communities in decision making. The third paper in this section by Rifkin, Muller and Bichman addresses the issue of how to develop methods of assessing the processes involved in PHC. Here they make a specific attempt to measure participation and suggest indicators for participation in health care programmes.

Participants at the Antwerp meeting stressed the need for more case studies that analysed the effects of SPHC or PHC approaches. The following case studies illustrate three major themes encompassed in the debate. The first analyses the effects of one 'selective' approach—growth monitoring. Nabarro and Chinnock argue that this technique has been used by the international donor agencies as an intervention to promote the interests of "the agencies, rather than the communities" and doubt that on its own it changes health status.

The second theme examines the effects of developing a comprehensive PHC system. Van Leberghe and Pangu examine data from the Kasongo Project in Zaire and suggest that by providing integrated comprehensive health services and a good referral system, hospital admissions (and therefore costs) can be reduced. Chabot and Bremmer use their experiences in Mali to illustrate the interface between government and community health services, and the role of donor agencies in the health system, examining the weaknesses in these relationships.

The final theme confronts the issue of donor agency influence directly. The two papers use UNICEF as their example, although the points highlighted are just as relevant to other donor agencies. In his paper Wisner analyses UNICEF's GOBI-FFF programme and concludes these efforts are likely to undermine the social basis of comprehensive PHC. Taylor and Jolly, as representatives of UNICEF, address this criticism and go on to argue that the UNICEF approach is to develop priority programmes in such a way as to build on and strengthen health infrastructures.

In conclusion, the question remains as to whether there is a fundamental conceptual conflict between the proponents of SPHC and PHC.

Certainly there have been accusations of misrepresentation. On the one hand, advocates of SPHC have felt aggrieved at the suggestion that they neglect the issues of equity. On the other hand, advocates of PHC believe they are wrongly accused of ignoring the importance of technology.

There has also undoubtedly been some shifting of position. The debate has generated much thinking about what PHC can attain, and about the ways of measuring comprehensive PHC. It has fired discussions about other influences on health, such as education, and also on the political context within which policies are made [4] and resources are allocated. Both Warren and Mosley now seem to be saying that SPHC and PHC are falsely juxtaposed—that there is a 'middle' way in which selective programmes can be integrated so as to influence the processes that lead to improvements in health: an evolutionary process within a revolutionary concept.

However, it is not difficult to reduce PHC itself to a technocratic strategy that ignores the role of the state (in distributing resources) and continues to see health determined by health service delivery rather than by overall development [5]. In the wider international scene the most visible effect of a new 'middle way' will be the abandonment by international agencies of the vertical, selective, programmes they have been favouring, for longer-term development-oriented strategies. As editors of this issue we have put forward some of the arguments in the debate. As participants in the debate we support the Haikko Declaration on actions for PHC which suggested that "The need for a broad 'horizontal' social and intersectoral approach to health problems should be reasserted. Verticalism should be avoided and selection of programme priorities should be made mainly locally with popular involvement. Multilateral agencies and bilateral donors should support countries to develop national health systems based on primary health care" [6].

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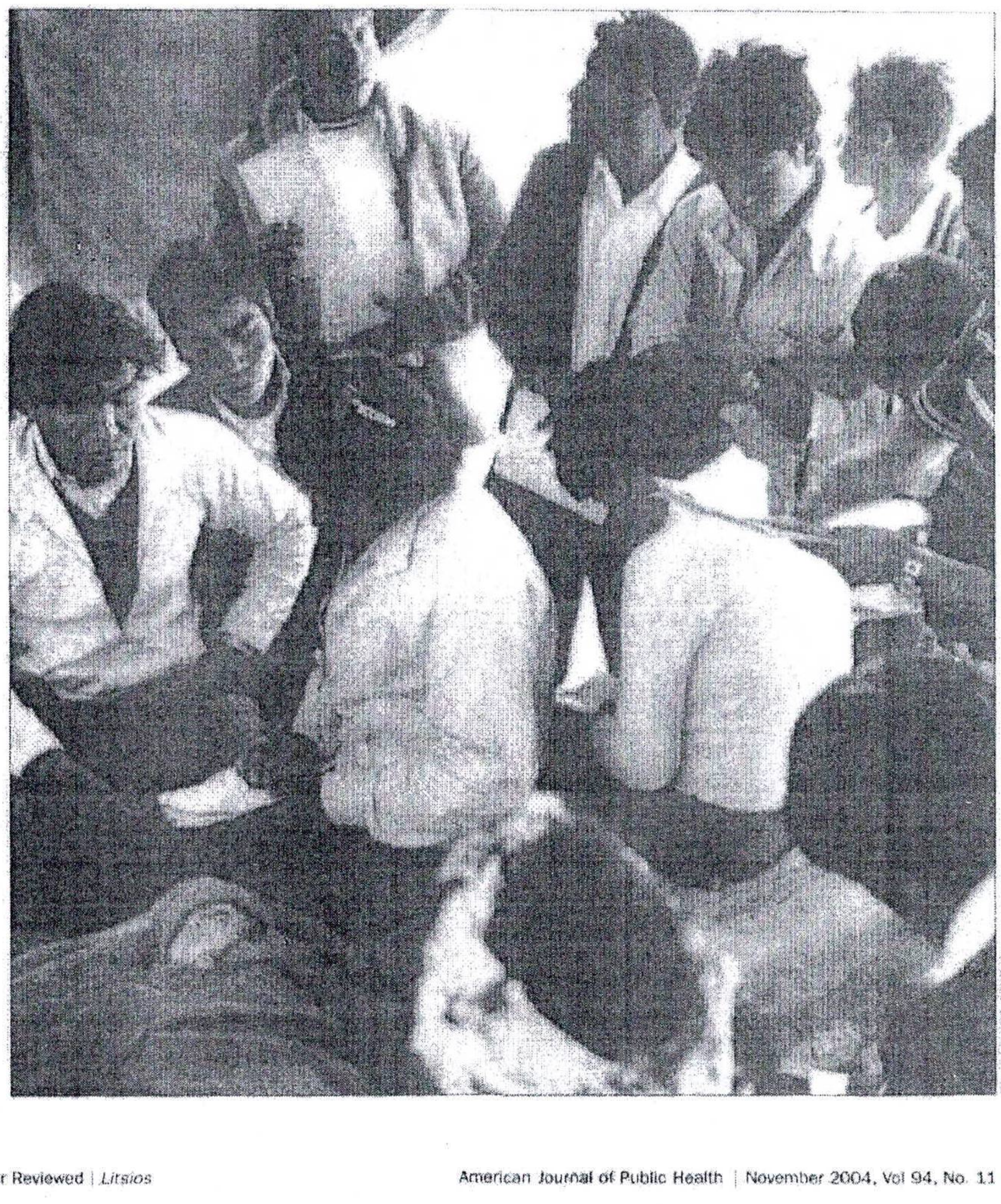
The Christian Medical Commission and the Development of the World Health Organization's Primary Health Care Approach

| Socrates Litsios, ScD

The primary health care approach was introduced to the World Health Organization (WHO) Executive Board in January 1975. In this article, I describe the changes that occurred within WHO leading up to the executive board meeting that made it possible for such a radical approach to health services to emerge when it did. I also describe the lesser-known developments that were taking place in the Christian Medical Commission at the same time, developments that greatly enhanced the case for primary health care within WHO and its subsequent support by nongovernmental organizations concerned with community health.



Phot by Ulli Steltzer

Health promoters at the bedside of a sick child, Chimaltenango Hospital.

THE PERIOD 1968 TO 1975 saw dramatic changes in the priorities that governed the work program of the World Health Organization (WHO). For more than a decade, the global malaria eradication campaign had been WHO's leading program. Initiated in the mid-1950s, it was a strictly vertical program based on the insecticidal power of DDT. Only in the early 1960s was it acknowledged that a health infrastructure was a prerequisite for the success of the program, especially in Africa.

Independent of the malaria campaign's needs, UNICEF, wishing to increase available funding to help governments develop health services, sought technical guidance from WHO for planning such services. In response, WHO prepared in 1964 a short paper outlining broad principles for the development of basic health services. The model, which followed an outline developed in the early 1950s,[1] called for a hierarchical arrangement of health facilities staffed by a wide range of public health disciplines.

As it became evident that malaria eradication would not be achieved, greater priority was given to the development of basic health services. The then-director general of WHO, Dr Marcolino Candau, in 1967 noted that "the success of practically all the Organization's activities depends upon the effectiveness of these very services."[2] In 1968, Candau again highlighted their importance and called for a comprehensive health plan, within which an integrated approach to preventive and curative services could be developed.[3]

I begin this article with a description of 2 WHO programs, one initiated in 1967 and the other in 1969, that became deeply involved in questions concerning what countries should do to improve their health services. I then turn to the history of the Christian Medical Commission (CMC), which was addressing similar questions, but for totally different reasons.

The parallel paths of WHO and the CMC came together only after Dr Halfdan T. Mahler became director general of WHO in July 1973. I conclude the article by describing how cooperation between these 2 organizations developed and how it influenced the formulation of the primary health care approach.

> *As it became evident that malaria eradication would not be achieved, greater priority was given to the development of basic health services. The then-director of WHO, Dr. Marcolino Candau, in 1967 noted that 'the success of practically all the Organization's activities depends upon the effectiveness of these very services.'*

WHO—SEEDS OF CHANGE

In 1967, a new division was created in WHO: Research in Epidemiology and Communications Science. Its director, Dr Kenneth N. Newell, was an infectious disease epidemiologist. Among the research projects developed, one addressed research in the organization and strategy of health services. Its purpose was "the development and demonstration of methods to show that a rational approach to the formulation of health strategies is desirable, possible and effective."[4] By "rational approach" was meant the incorporation of epidemiological, ecological, and behavioral perspectives into the health services planning process, while "methods" included standard statistical methods plus mathematical and simulation modeling; these were part of the "systems analysis" approach that was very much in vogue at the time.

In 1969, a new program called Project Systems Analysis was established in WHO. Its director, Dr Halfdan T. Mahler, a tuberculosis specialist, had been chief of the Tuberculosis Unit from 1962 to 1969. Although both programs had many points in common, Mahler's program was created as an instrument to change the way WHO worked with countries, an orientation that was outside Newell's mandate.

Candau appointed Mahler assistant director general in September 1970, assigning him responsibility for both programs as well as the divisions concerned with health care (Organization of Health Services and Health Manpower Development). He was 1 of 5 assistant director generals who shared responsibility for around 15 technical programs. Although the programs worked for common goals, each pursued their objectives following somewhat independent paths, thereby contributing to a highly fragmented situation that Mahler's program hoped to overcome through improved project and program planning methodologies.

In January 1971, the executive board chose the subject of methods of promoting the development of basic health services for its next organizational study.[5] To facilitate this study, the WHO secretariat prepared a background document for the board's deliberations in January 1972. It provided an excellent historical overview of the subject and identified different ways that WHO might assist countries—for example, "organize a planning and evaluation section in their ministry of health," "train health planners in the establishment and implementation of national training programmes," and "prepare plans for the organization and development of the public health services."[6] No reference was made to community participation.

In introducing this document, Mahler noted that "there were sufficient financial and intellectual resources available in the world to meet the basic health aspirations of all peoples," and suggested that "there was a need for an aggressive plan for worldwide action to improve this unsatisfactory situation."[7]

> *WHO, the report said, should serve as a 'world health conscience,' thereby providing a forum where new ideas could be discussed as well as a 'mechanism which can point to directions in which Member States should go.'*

In 1972, Mahler oversaw the amalgamation of Newell's research division with the Organization of Health Services to create a new division, Strengthening of Health Services, with Newell as director. Newell inherited the job of secretary to the executive board's working group responsible for the organizational study. He worked closely with its members and was deeply involved in drafting the group's final report on basic health services, which was presented to the full executive board in January 1973.

Avoiding the question of what was meant by basic health services, the working group identified the criteria whereby national health services should be judged and the role that WHO might play in assisting member states to improve their health delivery systems. These criteria were as follows: health status, in terms that included "fertility, the opportunity for proper growth and development, morbidity, disability and mortality"; operational factors, such as coverage and use of health service facilities; accepted technology; cost; and consumer approval.[8]

The report concluded that no single or best pattern existed for developing a health services structure capable of providing wide coverage and meeting the varying needs of the population being served: "Each country will have to possess the national ability to consider its own position (problems and resources), assess the alternatives available to it, decide upon its resource allocation and priorities, and implement its own decisions."[9]

WHO, the report said, should serve as a "world health conscience," thereby providing a forum where new ideas could be discussed as well as a "mechanism which can point to directions in which Member States should go."[10] To fulfill this role, WHO needed to make better use of the resources available to it by concentrating on those projects that were likely to "show major returns and . . . result in a long-term national capability for dealing with primary problems."[11]

In May 1973, the 26th World Health Assembly adopted resolution WHA26.35, entitled "Organizational Study on Methods of Promoting the Development of Basic Health Services." Among other things, this resolution confirmed the high priority to be given to the development of health services that were "both accessible and acceptable to the total population, suited to its needs and to the socioeconomic conditions of the country, and at the level of health technology considered necessary to meet the problems of that country at a given time."[12] This wording reflects the impact of the executive board's study. Countries were again being reminded that there was no universal model for the health services that they could or should aim to develop. They had to adapt available technologies to fit the conditions that were unique to each situation. The assembly also confirmed the election of Mahler as the next director general of WHO, the functions of which he assumed on July 21, 1973.

Shortly after Mahler became director general, a WHO/UNICEF intersecretariat discussion decided to seek out "promising approaches to meeting basic health needs"; among possible characteristics to be considered were "community involvement in financing and controlling health services, in projects to solve local health problems, in health-related development work, or other relevant ways."[13]

The search for new approaches led to 2 important WHO publications in early 1975: *Alternative Approaches to Meeting Basic Health Needs of Populations in Developing Countries*, edited by V. Djukanovic and E. P. Mach (staff members under Newell), and

Health by the People, edited by Newell.[14] During the first 18 months that Mahler was director general, the WHO and the CMC greatly intensified their cooperation. It is therefore necessary to backtrack and learn how the CMC came into being and how its activities became so important for WHO in the years that followed.

ESTABLISHMENT AND EARLY WORK PROGRAM OF THE CMC

The CMC was established in 1968 as a semiautonomous body to assist the World Council of Churches in its evaluation of and assistance with church-related medical programs in the developing world. The decision to create the CMC did not take place overnight. It evolved from much field work and a series of consultations. The field work, which started in late 1963, showed that churches had concentrated on hospital and curative services and that these "had a limited impact" in meeting the health needs of the people they were meant to be serving. It was found that "95% of church-related work was curative" and "at least half of the hospital admissions were for preventable conditions![sic]"[15]

Of particular concern to the World Council of Churches was the fact that many of the more than 1200 hospitals that were run by affiliated associations were rapidly becoming obsolete and their operating costs were increasing dramatically. What was needed were "some criteria for evaluating these programmes" that would help reorient the direction for their future development.[16]

The CMC had very limited resources. It was composed of 25 members and was served by an executive staff consisting of a director and "not more than three others."[17] It was to engage in surveys, data collection, and "research into the most appropriate ways of delivering health services which could be relevant to local needs and the mission and resources of the Church." It was concerned with determining "what specific or unique contribution to health and medical services can be offered by the Church."[18]

Two major consultations, called Tübingen I (May 1964) and Tübingen II (September 1967) had set the stage for the work of the CMC. Tübingen I reviewed the nature of the church's involvement in healing and the theological roots of such work. In contrast to the response of medical missions in the early part of the 19th century to the overwhelming need at that time, which was "instinctive without any conscious concern about its theological justification," the justification for current activities, both medically and theologically, was still weakly developed.[19] The church's medical staff was trained in medical care and had little interest in disease prevention, which was considered to be the government's responsibility.

The report resulting from Tübingen I, *The Healing Church*, confirmed that the church did have a specific task in the field of healing. The medicalization of the healing art had led to a rift between the work of "those with specialized medical training and the life of the congregation." The entire congregation had a part to play in healing.[20]

James C. McGilvray, the CMC's first director, found the contribution of Dr Robert A. Lambourne to be "the most significant" one in the preparatory stages of Tübingen II. McGilvray had been involved in hospital and health services administration since 1940, first when he was superintendent of the Vellore Medical College Hospital in India and then in various health administration positions in Southeast Asia and the United States.

From Lambourne's reports, a disturbing picture emerged of the manner in which modern care was at odds with the quest for health and wholeness. The hospital had become a "factory for repair," in which the patient had been broken down into "pathological parts." The "results of a battery of tests" were more important "than the relationship of persons in a therapeutic encounter."[21]

Lambourne's concept of wholeness and health had strong implications for the congregation, a position that had emerged from Tübingen I. It is only "when the Christian community serves the sick person in its midst [that] it becomes itself healed and whole."[22] Going further, he argued that the healing congregation accepts the fact "that any one individual group or nation may not be entitled to an unlimited use of the resources of healing when such unlimited use will mean less available resources of healing for others."[23] Thus, Lambourne's argument suggested a moral basis for individuals and communities to be involved in any consideration of how resources are to be used to promote their health.

The theological basis for health and healing work continued as important points of discussion during the CMC's first annual meetings. These were critical in helping the commission advise the World Council of Churches how to help church-funded services to move from the provision of medical care to individuals to the development of curative and preventive services to communities at large.

The discussions took the form of a "dialogue" between Dr John H. Bryant, the commission's chairman and a professor of public health, and David E. Jenkins, a commission member and a theologian. The last dialogue, which took place in 1973, demonstrates well to what degree, even though there were important differences of opinion between them, both were committed to a distribution of resources that improved the lot of those worst off.

Bryant addressed the question of "health care and justice."[24] In doing so, he applied the notions of entitlement, natural rights, positive rights, and distributive justice to the question of human health, and developed a series of tentative principles:

- Whatever health care and health services are available should be equally available to all. Departure from that equality of distribution is permissible only if those worst off are made better off.
- There should be a floor or minimum of health services for all.
- Resources above this floor should be distributed according to need.
- In those instances in which health care resources are nondivisible or necessarily uneven, their distribution should be of advantage to the least favored.[25]

Jenkins approached the question differently. He did not believe, for example, that "the notion of human rights is biblical." The Bible is concerned about "human possibilities, about divine activities, and about human response to divine activities," and with "obstacles to becoming human," and consequently is much more concerned with "attacking exploitations, attacking oppressions, attacking inequalities, attacking deprivation than laying down rights."[26]

The reflections of both Bryant and Jenkins supported the involvement of Christians in fighting inequities. To do so, the CMC from its inception gave priority to what it termed comprehensive health care—"a planned effort for delivering health and medical care attempting to meet as many of the defined needs as possible with available resources and according to carefully established priorities." Such a program "should not be developed in isolation but as the health dimension of general development of the whole society."[27]

Given the fragmented and often competing nature of most church-related programs, the CMC identified planning as "the most important new dimension in the field of health care today" as a means of exercising "stewardship with their resources." Stewardship was required "not only to achieve the optimum health care within our resources, but equally to see that the results are economically viable in the local context."[28]

CMC staff actively worked with various church groups and voluntary organizations to encourage them to undertake joint planning and action with the aim of promoting a more effective use of resources. At the same time, they searched for field situations that lent themselves "to experimentation in broad-based community health programmes."[29] Along with members of the commission, they also searched for community-based experiences around the world that would shed light on how best to develop programs that were comprehensive (i.e., would offer a spectrum of services ranging from treatment and rehabilitation to prevention and health promotion), were part of a network of services ranging from the home to specialized institutions, and would incorporate human resources ranging from involved church members to specialist professionals, including auxiliary and midlevel health workers.[30]

Many of the community-based experiences uncovered were discussed at various CMC meetings and were written up in the publication *Contact*, whose first issue appeared in November 1970.

Contact was not a regular publication. For the first few years, around 6 issues were published annually. The first issue was a summary of a lecture given by Lambourne entitled "Secular and Christian Models of Health and Salvation." Issue 4, published in July 1971, contained the Bryant–Jenkins dialogue held during the third annual meeting in June of that year.

Three community-based experiences presented to the CMC between 1971 and 1973 proved critical in WHO's conceptualization of primary health care.

CRITICAL COMMUNITY-BASED EXPERIENCES

McGilvray "discovered" the first project during a survey undertaken in Indonesia in 1967.[31] The project, located in central Java, was run by Dr Gunawan Nugroho. Begun in 1963, it featured such innovations as goat and chicken farming to increase the income available to the poorest members of the community and the creation of a health fund that aimed at "providing inexpensive treatment so that anyone who was sick could afford to seek medical care."[32] Educational activities were stressed to provide individuals with the information they needed to learn for themselves what they could do to improve their health and that of the community.

Although Nugroho presented his project to the CMC's annual meeting in 1971, and Newell had met him in the early 1960s when he was working in Indonesia, Newell only learned about Nugroho's project in late 1973. Dr Joe Wray, who was then with the Rockefeller Foundation in Bangkok, ran into Newell in the "middle of nowhere" in India and told him about the project when he learned that Newell was looking for "people who were doing interesting things in rural health care."[33] Subsequently, Newell visited Nugroho and invited him to Geneva in July 1974 to prepare a chapter on his project for *Health by the People*.[34]

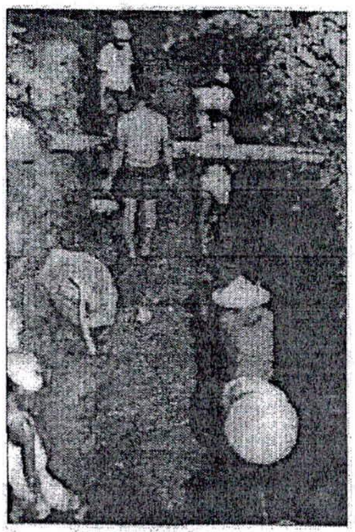
The second project was also run by a husband–wife medical team, Rajanikant and Maybelle Arole. Their project was developed in Jamkhed, India. The Aroles sought financial help from the CMC in 1970, at which time they described how their initial attempts at providing curative services "had done little for the general health of the community around us."[35]

When on their return they found the project area facing a severe drought, they helped organize a community kitchen and found funding for introducing tractors in areas where farmers had lost their cows and for installing deep tube wells. To extend services to nearby villages, they contacted indigenous practitioners and health workers in the area, helping to shape them into health teams and to extend the services offered by introducing village health workers.

The Jamkhed project aimed to establish a viable and effective health care system that involved the "community in decisionmaking," was "planned at grass roots," used local resources "to solve local health problems," and provided "total health care not fragmented care."[36]

Rajanikant Arole presented their project to the 1972 annual meeting of the CMC, and it was written up in *Contact*. The WHO regional office in New Delhi had not recommended this project because "it wasn't an Indian government project." However, it came to the attention of Dr Ed Brown, who was working for Djukanovic (the WHO officer responsible for the alternative approaches study) while on sabbatical leave from the Indiana University Medical Center. Brown gathered the project files from the CMC (which was just down the road from the WHO office) to show Djukanovic, who then visited the project and made arrangements for its inclusion in his study.[37]

In the third critical community-based experience, Carroll Behrhorst directed the Chimaltenango development project in Guatemala. The use of community health promoters was one of the major features of this project. Initially selected on the basis of recommendations from local priests or Peace Corps volunteers, this approach quickly gave way to the formation of community health committees who took over this responsibility.

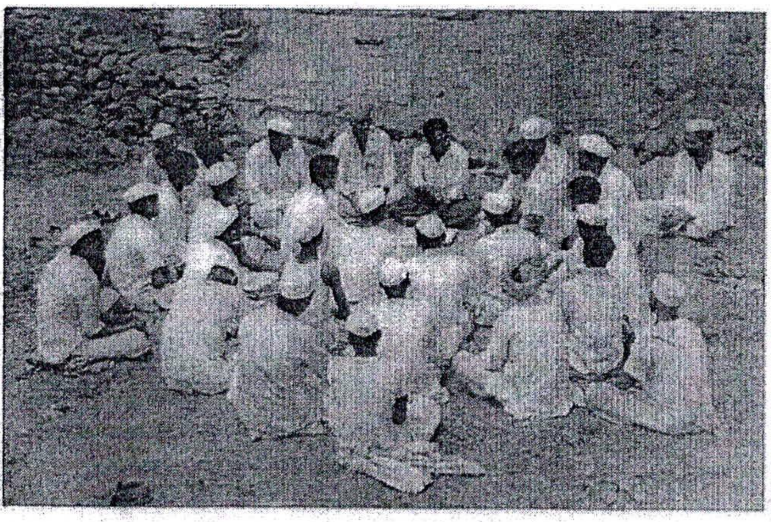

Source. Gunawan Nugroho

Thanks to a mini-dam built by the community with village labor and the help of a small loan from the health center, Sirkandi village in central Java, Indonesia, increased its rice production by 25% in 1 year.

Educational activities were stressed to provide individuals with the information they needed to learn for themselves what they could do to improve their health and that of the community.

The training of community health promoters was a continuous activity. They were trained in groups, attending sessions once weekly for a year before they were allowed to dispense medicines or give injections. They could enter the program at any time; "nearly all of them, even those who began their training more than 8 years ago, still come every week to learn new techniques or treatments."[38]

Promoters were also trained as community catalysts, working in areas other than curative medicine (e.g., literacy programs; fam-



Source. Connie Gates

A farmers' club gathering in Jamkhed, India.

ily planning; the organization of men's and women's clubs; agricultural extension; the introduction of new fertilizers, new crops, and better seeds; chicken projects; and improving animal husbandry).[39]

Behrhorst presented his project at the CMC's 1973 annual meeting, and it was written up in *Contact* the following year.[40]

There is no doubt that other experiences, either then ongoing or publicized earlier, had an influence on Newell's conceptualization of primary health care. As an active member of the UK social medicine community in the 1950s, he would have been exposed to related concepts and projects early in his career. He was a contemporary of John Cassel, whom Newell knew well and admired; Cassel frequently visited Geneva, where he presented his latest social epidemiological research results. These were actively followed and discussed by the epidemiologists working in Newell's research division.

Cassel's early career was "closely intertwined with [Sidney] Kark's."[41] It is therefore highly probable that it was he who introduced Newell to Kark, who was Newell's dinner guest on at least one occasion before 1973.[42] Given Newell's interest in social medicine and epidemiology, it is difficult to imagine that he did not learn, first from Cassel and then from Kark, of their earlier community-oriented primary care experience in South Africa.[43] Many similarities between primary health care and Kark's work in Africa are evident.

WHO AND CMC JOIN FORCES

By the summer of 1973, the CMC had brought to the world's attention many projects that offered innovative ways to improve the health of populations in developing countries. WHO, under its new leadership, intensified efforts to seek alternative approaches to meeting the basic needs of those same populations. New leadership was required to bring about a closer working relationship between the CMC and WHO.[44] "In the Candau-Dorolle era [of WHO] there was a basically hesitant if not negative relation to religious bodies," said Dr Hakan Hellberg of the CMC, speculating that WHO might have felt pressure from the Catholic Church on sexual issues.[45] Even before taking over as director general from Candau, Mahler was advising WHO staff to read the February 1973 issue of *Contact* (issue 13), which was on rural health.[46]

The first official sign of efforts to bring WHO staff together with CMC staff was a letter from McGilvray to the commission members. Dated November 7, 1973, it said that Dr Tom Lambo, the new deputy director general of WHO, "is arranging a meeting between our staff and several officers of that organization to explore more effective ways of working together." That meeting did not take place until March 22, 1974, at which time the small professional staff of the CMC met with some 10 senior WHO staff, including Newell. Newell reacted enthusiastically to the discussion that took place.[47] To what degree he was already aware of the CMC before the meeting is not easy to judge. His father had been a minister who worked for the World Council of Churches in Geneva in the late 1940s or early 1950s, suggesting that he might have had an even deeper knowledge of their health-related activities than those who worked with him realized at the time.[48] In any case, he seized the opportunity offered to work with individuals who clearly shared his values concerning human and health development.

Immediately after this meeting, Newell met with McGilvray and Nita Barrow, deputy director of the CMC, to decide on how to explore "possible collaboration and the mechanisms of action."[49] A joint working group was established, with Barrow and Newell designated as representatives from the CMC and WHO, respectively. The working group prepared a 6-page statement that was subsequently approved by both organizations.[50]

It was envisaged that a working relationship could best be achieved by "joint involvement in common endeavours" in the domain of "policy and research, or research and development endeavours with particular emphasis upon health delivery systems at the peripheral level."[51]

Newell attended the CMC annual meeting in July 1974, where the joint statement was discussed. Following the meeting, McGilvray wrote Mahler that it was "enthusiastically welcomed by our membership."[52] In his annual report, McGilvray noted that "cooperation has already begun at a very practical level." Referring to the inclusion of the 3 projects discussed earlier in the reports being prepared by WHO, he expressed his delight "by this development, not so much because of the credibility it confers upon us, as because it significantly enhances our mutual efforts to ensure health services for those who are now deprived of them."[53]

The 3 community-based projects were incorporated into Newell's *Health by the People*, a publication that he viewed as "an extension" of the alternative approaches study.[54] Only the Jamkhed project had been included in the publication edited by Djukanovic and Mach.

Newell classified the case studies from China, Cuba, and Tanzania included in *Health by the People* as examples of changes introduced at the national level, while those from Iran, Niger, and Venezuela represented examples of changes introduced through an extension of services provided by the existing health services system. He classified the 3 community-based experiences discussed in the previous section as local community development. Each example offered something different—China, for example, trained large numbers of part-time health workers (barefoot doctors), while Venezuela introduced what it called "simplified medicine" and Tanzania mobilized its rural population into "Ujamaa villages" that that were socialistic in structure and designed to encourage popular participation in development planning.

While Newell expressed excitement at what had been demonstrated in all of the programs, he was particularly enthusiastic about the 3 community development projects. He contrasted issues such as improving the productivity of resources to enable people to eat and be educated—and the sense of community responsibility, pride, and dignity obtained by such action—with the more traditional public health activities of malaria control and the provision of water supplies. The challenge for people in the health field was to accept these wider developmental goals as legitimate ones for them to pursue; Newell even said that "without them there must be failure."[55]

PRIMARY HEALTH CARE: WHO'S NEW APPROACH TO HEALTH DEVELOPMENT

Resolution WHA27.44, adopted by the 27th World Health Assembly in July 1974, called on WHO to report to the 55th session of the Executive Board in January 1975 on steps undertaken by WHO "to assist governments to direct their health service programmes toward their major health objectives, with priority being given to the rapid and effective development of the health delivery system."[56] This provided Mahler and Newell with the opportunity

Magdalena Mucia de Cuex at the clinic in an informal gathering of patients, talking about nutrition for pregnant women.

Photo by Uli Stelzer

to introduce primary health care in a comprehensive manner, drawing on the work of the previous 2 years.

The paper presented to the board, known as document EB55/9, argued that the "resources available to the community" needed to be brought into harmony with "the resources available to the health services." For this to happen, "a radical departure from conventional health services approach is required," one that builds new services "out of a series of peripheral structures that are designed for the context they are to serve." Such design efforts should (1) shape primary health care "around the life patterns of the population"; (2) involve the local population; (3) place a "maximum reliance on available community resources" while remaining within cost limitations; (4) provide for an "integrated approach of preventive, curative and promotive services for both the community and the individual"; (5) provide for all interventions to be undertaken "at the most peripheral practicable level of the health services by the worker most simply trained for this activity"; (6) provide for other echelons of services to be designed in support of the needs of the peripheral level; and (7) be "fully integrated with the services of the other sectors involved in community development."[57]

Four general courses of national action were outlined, with the expectation that each country would respond to its need in a unique manner:

1. the development of a new tier of primary health care;
2. the rapid expansion of existing health services, with priority being given to primary health care;
3. the reorientation of existing health services so as to establish a unified approach to primary health care;
4. the maximum use of ongoing community activities, especially developmental ones, for the promotion of primary health care.[58]

Invited to speak on this occasion, McGilvray observed, "What the Commission had learnt from its mistakes was reflected in the principles set forth in document EB55/9." He went on to urge the board to give its enthusiastic support for the policy statement constituted by that document, and pledged the resources of the commission in implementing it.[59]

CONCLUSION

How dramatic a change primary health care was for WHO can be seen in the contrast between it and the ideas and approaches being promoted several years earlier concerning how best to develop national health systems. Instead of the "top-down" perspective of health planning and systems analysis, priority was now being given to the "bottom-up" approaches of community involvement and development, but without losing sight of the importance of planning and informed decisionmaking. This article documents how and when this shift took place, but it does not capture the courage that it took for Mahler to challenge the organization to rethink its approach to health services development or for Newell to respond to that challenge in the way he did.

Once Mahler took command, he moved quickly to make known his thinking on how health services should be developed. In March 1974, for example, he discussed with Newell's senior staff how he envisioned their objectives. He especially stressed the objective of "pursu[ing] the idea of community participation (and its logical bottoms-up orientation) to the maximum degree possible."[60]

In January 1975, Newell formally created the Primary Health Care program area, whose members included those who had drafted the report to the executive board. While there was mixed reaction within WHO to this new priority, a wide range of nongovernmental organizations (NGOs) joined forces in what soon became the NGO Committee on Primary Health Care. This group of organizations prepared for the International Conference on Primary Health Care held at Alma-Ata in September 1978 in an independent manner, thus helping to keep WHO on track.

For those of us in WHO committed to the primary health care approach, working with members of this committee was of prime importance. At the psychological level, the constant positive feedback helped us "keep the faith." At the professional level, new opportunities opened up that led to projects that would have been difficult, if not impossible, to pursue in earlier years.

That primary health care in time was forced to take second billing to "selective" primary health care in no way detracts from its importance. The same reasons that led to it emerging as a force in public health in the 1970s apply equally, if not more so, today. Under new leadership, WHO has recently reintroduced primary health care onto the agenda of the governing bodies, and nongovernmental voices are again pressuring WHO to make primary health care its priority for the coming decades.[61] It is too soon to judge whether this will happen. Sadly, however, the CMC will no longer be involved with whatever emerges, as it was effectively disestablished in the 1990s. ■

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34. Newell invited Nugroho to join WHO, which he did in late 1974.

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47. McGilvray letter from author's personal file. I remember being told at the time that Newell was the only WHO director present who reacted positively to these discussions.

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The Jerusalem Experience: Three Decades of Service, Research, and Training in Community-Oriented Primary Care

Leon Epstein, MB, ChB, MPH, Jaime Gofin, MD, MPH, Rosa Gofin, MD, MPH, and Yehuda Neumark, PhD, MPH

Community-oriented primary care (COPC) developed and was tested over nearly 3 decades in the Hadassah Community Health Center in Jerusalem, Israel. Integration of public health responsibility with individual-based clinical management of patients formed the cornerstone of the COPC approach.

A family medicine practice and a mother and child preventive service provided the frameworks for this development. The health needs of the community were assessed, priorities determined, and intervention programs developed and implemented on the basis of detailed analysis of the factors responsible for defined health states. Ongoing health surveillance facilitated evaluation, and the effectiveness of interventions in different population groups was illustrated.

The center's international COPC involvement has had effects on primary health care policy worldwide. (*Am J Public Health.* 2002;92:1717–1721)

FOR MORE THAN 25 YEARS beginning in 1970, the feasibility of applying the principles of community-oriented primary care (COPC) was demonstrated in different forms of primary health care practice at the Hadassah Community Health Center in the Kiryat HaYovel neighborhood of western Jerusalem.[1,2] COPC was based on principles of social medicine developed by Sidney and Emily Kark in rural South Africa in the mid-20th century[3–5] and brought by them to Israel in 1958.

This pioneer development of COPC occurred against the backdrop of 3 major features of primary health care in Israel at that time. First, the health service providers, with whom nearly the entire population was insured, responded only to demand for care. Second, primary health care involved very limited health promotion and disease prevention primary health care services, especially for adults. Third, an extensive network of mother and child health centers focusing on preventive services existed throughout the country, and this network was organizationally and functionally separate from the curative care system.

The COPC approach that grew out of primary health care in Israel and the concepts developed in rural South Africa were conceptualized as "a continuous process by which PHC [primary health care] is provided to a defined population on the basis of its defined health needs by the planned integration of public health with primary care practice."[6] This approach involved a recognition that, in line with the World Health Organization definition of health as far more than absence of disease, health services should be responsive to health needs in the widest sense and should be flexible in their response to changes in these needs. In addition, health services' responsibility is to the health of all members of the defined community and the subgroups entitled to health care, irrespective of whether or not they seek it. The basing of health care planning and delivery on assessed health needs was achieved by the introduction of epidemiology as a central feature of the Hadassah Community Health Center's practice.

These epidemiological skills were necessary to answer what Sidney Kark labeled the "five cardinal questions" that formed the strategic basis for the development of COPC[1]:

1. What is the community's state of health?
2. What are the factors responsible for this health state?
3. What is being done about it?
4. What more can be done, and what is the expected outcome?
5. What measures are needed to continue health surveillance of the community and to evaluate the effects of existing programs?

THE COPC CYCLE

In Jerusalem, these concepts were operationalized in the COPC cycle (Figure 1), which entails the continuous and repetitive performance of various stages. The COPC cycle begins with a multistage *community diagnosis* that includes definition of the community's demographic characteristics, environment,

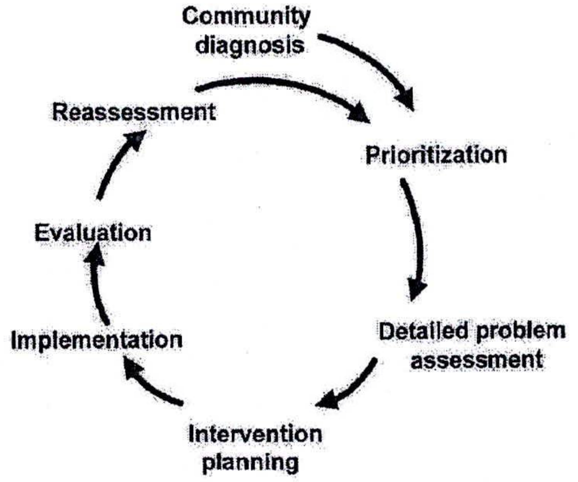

FIGURE 1—The COPC cycle.

health status, and available health and social services. This preliminary diagnosis provides an appraisal of the community's major health-related problems based on epidemiological and clinical data and community and professional input. These identified problems are then *prioritized* through application of predetermined objective criteria, and a single health problem (or a set of problems with common risk factors) is selected as the priority target for intervention. The rationale for prioritization is the unfeasibility of simultaneously intervening on a multitude of problems while continuing to provide high-quality primary health care services.

The targeted problem is then subjected to a *detailed assessment* to examine its precise nature and extent in the community, associated risk factors and determinants, and options for intervention. With this detailed information, an *intervention program* (including an *evaluation* component) can be developed and *implemented*. The stage is then set for later *reassessment* of the community's health status, along with further prioritization, planning, implementation, and evaluation of intervention programs. The repetitive nature of this cycle differentiates the COPC approach from that of community-based projects aimed at a specific disease entity and conducted over a limited period.

THE HEALTH CENTER AND COPC

The Hadassah Community Health Center opened its doors in the mid-1950s[7] in an area populated largely by recent immigrants from Europe (remnants of the Holocaust) and North Africa. The community was characterized by diverse ethnic groups originating from more than 25 countries. Over the years, the area rapidly grew from an urban development project to become an integral part of the city, with a population of about 15 000. The primary care approach that developed in the health center involved provision of integrated curative and preventive care, both clinic based and home based, to residents of a geographically defined area of the neighborhood. This area was divided into clusters of homes to which teams of doctors and nurses were assigned. These teams, along with other professionals, also identified and cared for the social, cultural, and emotional health needs of the area's residents.

Here we demonstrate the performance of the COPC cycle stages as they were developed over a period of nearly 3 decades in the 2 clinical practices that functioned in the Hadassah Community Health Center: a comprehensive family medicine unit and a preventive mother and child health program. Academic responsibility for these practices fell to the Department of Social Medicine of the Hadassah Medical Organization and to the Hebrew University Faculty of Medicine.

The clinical teams and the department's faculty of epidemiologists, biostatisticians, and behavioral scientists were jointly responsible for developing, implementing, and evaluating the COPC programs. Although all members of the clinical team had public health training, this academic environment provided the framework for the training of public health and other professionals and the performance of applied research.

Community Diagnosis

The community diagnosis was driven by questions raised by team members, based on their clinical experience and review of patient records; by student projects and theses; and by repeated community health surveys. For example, the community-based activities of the nurses brought to light the problem of elderly residents homebound because of physical or mental limitations. The extent and underlying causes of the problem were assessed, and a clinical and social welfare support program was developed.[2]

Similarly, infectious diseases were subject to ongoing surveillance through the use of "Pickles charts" (daily recordings of new cases of defined diseases),[1] and programs were instituted relating to identified changes in morbidity. A relatively high incidence of rheumatic fever came to the team's attention as well, leading to the development of one of the first community-based prevention programs in the family medicine unit.[1]

As mentioned, student work and health surveys also contributed to the community diagnosis. In the mid-1960s, at the peak of mass immigration to Israel, 2 master's of public health (MPH) students wrote their theses on the phenomenon of greater growth retardation in infants born to new-immigrant parents from Morocco than in infants of Israel-born parents, notwithstanding the fact that the former were significantly heavier at birth.[8,9]

Finally, a community health survey was conducted between 1969 and 1971 in which all of the inhabitants of the health center's defined catchment area were interviewed and examined.[10–12] A central finding of the survey was that cardiovascular disease accounted for more than half of adult mortality and was a major cause of hospitalization.[13]

The data sources just described formed the basis for detailed knowledge of the community's health state. The information gathered also served as the baseline for the subsequent evaluation of intervention programs.

Prioritization

It was clear that not all identified health needs could be simultaneously targeted for intervention. Furthermore, all interventions were to be integrated into the ongoing primary health care activities and were not to require additional clinical manpower or resources. Priorities were defined separately in relation to children and adults, taking into account identified health needs and available resources.

The findings regarding infant and child growth and development led us to identify these elements as the major priority in this age group. Thus, the intervention needed to focus on promoting growth and development through supervision of the pregnancy, labor, and puerperium and of the first years of the child's life through entry into school.[1,2,4] Similarly, as a result of the survey findings, priority in the case of the adult population was given to atherosclerotic cardiovascular disease.[1,2,14]

Detailed Assessment of Needs

As a means of effecting changes in community health status, a detailed assessment of the prioritized health state was required to determine relevant risk factors and guide the development of intervention activities. Community health surveys, clinical chart reviews, and summations of relevant literature (including experiences elsewhere) provided the basis for regular meetings of the health team (academic and clinical personnel) and students in "epidemiology in practice" sessions, a community medicine equivalent of hospital grand rounds. At these sessions, all available information was incorporated into planning the intervention.[1,3] These meetings later became the forum for reviews of program performance and effectiveness.

Child growth and development. Several factors affecting growth and development were integrated into the intervention program.[15] For example, one of the characteristics related to the differential development of community groups was the socioeconomic status of parents, especially maternal education level.[15] Improving social conditions was beyond the scope of our community-based intervention program, but the primary health care team identified infants of poorly educated mothers as a high-risk group warranting intervention. Another important observation was that verbal interaction with very young infants was not commonplace among North African parents. This lack of interaction was considered to be a constituent of those infants' observed deficiencies in intellectual development.

Adult atherosclerotic disease. In the early 1970s, when COPC was being developed at the Hadassah Community Health Center, international and Israeli data had defined the major risk factors related to coronary heart disease, acute myocardial infarction, and angina pectoris. Detailed assessments of these factors in our community revealed high prevalence rates of coronary heart disease, hypertension, obesity, hypercholesterolemia, and cigarette smoking in adult men and women.[14] These and other data formed the epidemiological basis for subsequent program development.

Program Planning, Development, and Implementation

Intervention planning required the articulation of operational definitions of objectives and activities. Consideration was given to logistic implications of the interventions, especially with regard to additional training and changes required in the functioning of the health center.

Child growth and development. The aim of the child intervention program was to *pro*mote the growth and *d*evelopment (PROD) of infants and toddlers and to decrease gaps between population groups in this area. PROD program activities included iron supplementation,[16] promotion of breast-feeding,[17] early stimulation,[15] and promotion of a healthy pregnancy and a healthy neonatal period.[18] These activities and other programs (e.g., injury prevention[19] and oral health[20]), introduced over time according to the changing needs of the population, were integrated into the routine mother and child health clinic functions.[1,3]

Adult atherosclerotic disease. The intervention program among adults addressed the identified community syndrome of *h*ypertension, *a*therosclerosis, and *d*iabetes (CHAD). The CHAD program aimed for risk reduction at the individual and community levels.

In the early 1970s, a multifactorial intervention program was initiated encompassing all individuals in the community 25 years or older. Medication, diet, physical activity, and health education methods were employed in an attempt to achieve a low-risk or no-risk status for each risk factor and to promote health.[21,22] The primary health care team acted at the primary, secondary, and tertiary levels of prevention.

Evaluation and Surveillance

Evaluation activities and ongoing surveillance were developed as inherent components of the intervention programs.

PROD. The feasibility and effectiveness of the PROD program were demonstrated. Review of specially designed surveillance records (that became part of the clinical file) revealed that the early stimulation program improved child development in all maternal education groups and reduced gaps across groups.[15,23] An increase in breast-feeding[17] and a decrease in anemia prevalence[16] were also noted.

CHAD. Routine clinical records and CHAD program records were reviewed to monitor activity performance and changes in risk status. Evaluations performed 5 years,[24] 10 years,[25] and 15 years[26] after the initiation of the intervention showed the program to be most effective in relation to hypertension control and reductions in cigarette smoking.

These examples illustrate the successful and effective integration—and sustainability over 3 decades—of the COPC approach in an existing primary health care clinic. The approach was flexible enough to adapt to the changing needs of the community, modifying existing programs and introducing new ones according to clinical and epidemiological evidence.

SPREAD OF COPC THROUGH PROFESSIONAL TRAINING

The COPC approach is the focus of a field-based workshop in the Hadassah MPH program. Since 1960, more than 1000 health professionals from Israel and more than 75 other countries have participated in this workshop.[27,28] In addition, hundreds of nursing students, family medicine and public health residents, and other professionals have undergone training. Evaluations of these workshops by our international MPH graduates (3 to 5 years after completing the program) revealed that more than half are actively involved in the application of COPC principles and methods.

Recent administrative reshuffling has resulted in a change in responsibility for the functioning of the health center. Whereas in past years the Kiryat HaYovel community served as the field laboratory for the COPC workshop, we now select communities throughout the country (in collaboration with local health departments) in which our students perform community diagnoses, conduct detailed assessments of prioritized health problems, and develop relevant intervention programs.

Decades of COPC service, research, and training in Jerusalem set the stage for the development of collaborative links with academic and clinical institutions in countries around the world. In the United States, for example, a COPC workshop is offered jointly with members of the Jerusalem faculty at the George Washington University School of Public Health and Health Services. We have also taken the model back to its country of origin, South Africa, where a series of training workshops were organized in several cities.

In addition, Jaime Gofin has developed a COPC training program with the Catalonian Society of Family Physicians in Spain, with the participation of more than 500 family physicians and nurses. An outcome of this collaboration has been the incorporation of COPC into the Spanish National Family Medicine Residency Program and its application in 8 primary health care clinics as demonstration centers.[29] In the United Kingdom, a COPC project was carried out in 17 general practices together with the King's Fund.[30,31]

As mentioned, a central feature of the Jerusalem COPC experience has been the academic framework within which the intervention programs were developed, implemented, and evaluated. Had it not been for this academic backing, one can only speculate as to whether international links would have been forged and whether worldwide penetration of COPC would have occurred.

This issue has direct implications with regard to successful conduct of COPC programs elsewhere. Although many sites proclaim to have adopted the COPC model in the delivery of health care, few, if any, have actually undertaken the entire COPC cycle over an extended period of time. Our experience leads us to believe that the availability of appropriate professional resources (enabling integration of routine clinical practice with epidemiological, social, and behavioral scientific expertise) was an important factor contributing to the successful application of the complete COPC model in our health center practice. Moreover, the COPC experience became part of the program development of mother and child health centers in Israel, was the basis for a major hypertension program in the largest health maintenance organization in the country,[32] and was introduced into family medicine practice in the northern region of Israel.[33]

In conclusion, the Jerusalem experience has shown the feasibility and sustainability of primary care–public health integration in community health services and its positive impact on community health. The COPC lessons of Pholela and Jerusalem continue to have relevance for the primary health care reforms that are occurring throughout the world.[34,35] ■

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L. Epstein was responsible for primary authorship and revisions of the commentary. The other authors contributed to revising the commentary.

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The Community-Oriented Primary Care Experience in the United Kingdom

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The UK National Health Service has long delivered public health programs through primary care. However, attempts to promote Sidney Kark's model of community-oriented primary care (COPC), based on general practice populations, have made only limited headway.

Recent policy developments give COPC new resonance. Currently, primary care trusts are assuming responsibility for improving the health of the populations they serve, and personal medical service pilots are tailoring primary care to local needs under local contracts.

COPC has yielded training packages and frameworks that can assist these new organizations in developing public health skills and understanding among a wide range of primary care professionals. (*Am J Public Health.* 2002;92: 1721–1725)

THE EXPERIENCE OF community-oriented primary care (COPC) in the United Kingdom includes the most comprehensive attempt since 1997 to embed the principles of COPC in the "new National Health Service" (NHS) emerging from the Labour government's reforms.

Despite a predominantly biomedical and humanist focus, general practice in the United Kingdom has long been infused by knowledge and skills traditionally associated with public health medicine.[1] The conceptual basis of COPC can be recognized in the writings of Will Pickles describing the use of epidemiology in his rural practice in the 1930s.[2] Likewise, the Peckham Pioneer Health Centre, established before the Second World War by G. Scott Williamson and Innes Pearce,[3] has been seen as an antecedent. The philosophy of the center involved protecting good health through a combination of individual and family assessment and provision of a supportive environment.[4]

Throughout the past 30 years, there have been eloquent pleas for closer working relationships between public health and primary care professionals. At one extreme, arguments have advocated the total usurpation of public health doctors' work by general practitioners.[5] Most have envisioned the emergence of a hybrid: the "community general practitioner." Julian Tudor Hart has been the most visible exponent of something akin to Sidney Kark's COPC in the United Kingdom. In a series of painstaking studies, he demonstrated the impact of "anticipatory" approaches to the management of cardiovascular risk factors on his practice population's health.[6] His practice, located in a Welsh mining village, took responsibility for both community and clinical functions and held itself accountable to the population served through such means as patient committees, annual reports, and meetings. He argued for new alliances between health professionals and patients as "co-producers of health."[7]

What injected new vigor into these debates in the late 1980s and early 1990s was the reaffirmation of public health following the Acheson report and the Conservative government's market-oriented reforms. The former sought to redefine and strengthen the discipline of public health medicine after several decades of decline and presaged a major expansion in the public health specialist workforce.[8] At the crux of Tory reforms was the introduction of an "internal market" separating the roles of purchasers (health authorities and fund-holding general practitioners) from the roles of health care providers. "Fundholders" could invest savings accrued through more efficient use of secondary care in practice-based services. (Fund-holding general practitioners, generally serving populations of at least 7000 patients, were allocated budgets under the Tories' internal market for purchase of most elective hospital care, staffing, and coverage of prescribing costs.) As public health doctors sought to develop strategic planning and purchasing functions within health authorities, however, fundholders often dismissed the constraining disciplines of needs assessment and service evaluation.[9]

Community-Oriented Primary Care: A Path to Community Development

Although community development and social change are not explicit goals of community-oriented primary care (COPC), they are implicit in COPC's emphasis on community organization and local participation with health professionals in the assessment of health problems. These goals are also implicit in the shared understanding of health problems' social, physical, and economic causes and in the design of COPC interventions.

In the mid-1960s, a community health center in the Mississippi Delta created programs designed to move beyond narrowly focused disease-specific interventions and address some of the root causes of community morbidity and mortality.

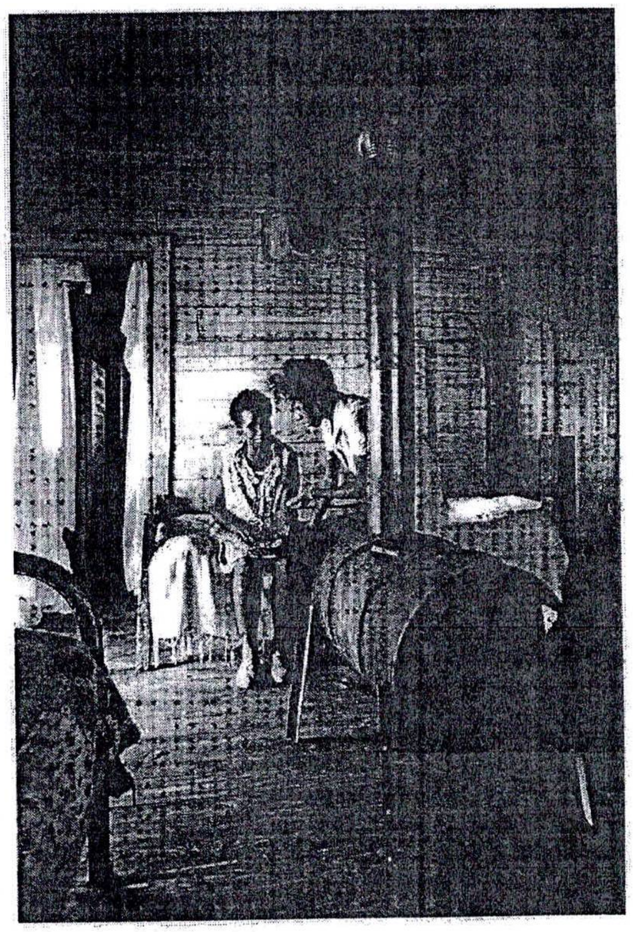
Drawing on the skills of the community itself, a self-sustaining process of health-related social change was initiated. A key program involved the provision of educational opportunities. (*Am J Public Health.* 2002;92:1713–1716)

H. Jack Geiger, MD, MSciHyg

EARLY IN HIS CAREER, THE distinguished social epidemiologist John Cassel worked for a time as clinical director of the Pholela Health Center, the pioneering South African program at which Sidney and Emily Kark and their colleagues first created and implemented community-oriented primary care (COPC). Their work transformed the health status of an impoverished rural Zulu population and, ultimately, served as a worldwide model for the integration of clinical medicine and public health approaches to individuals and communities.[1–4] During a window of opportunity that opened in the 1950s, Pholela's center and a network of other South African health centers elaborated the core goals of COPC: epidemiological assessment of demographically defined communities, prioritization, planned interventions, and evaluation.[5] By decade's end, however, these centers had all been shut down by a rigidly racist apartheid government.

A few years later, Dr Cassel—by then a professor at the University of North Carolina School of Public Health—made a return visit to a Pholela that was even more deeply impoverished. After conducting a thoroughly informal and anecdotal survey, he saw no signs that the earlier improvements in health status had persisted. But he was struck by the target population's unusually high levels of educational aspiration and educational achievement. (Indeed, one of the health center's pediatric patients later went on to become a physician, a leader of the African National Congress in exile, and—after liberation—Nelson Mandela's first minister of health.[6])

Cassel's observation illustrates a goal of COPC—community development—that the Karks, fully aware that social, economic, and environmental circumstances are the most powerful determinants of population health status, understood very well. Although only occasionally specified in their publications, it was implicit in their programs focusing on community organization and involvement, training and development of local residents as staff members, employment of Zulu nurses as role models, intensive



A health center nurse makes a home visit to a stroke-disabled patient living in a plantation shack near Shelby in Bolivar County, Mississippi, in 1967. Most such housing is less substantial than this. (Photo by Dan Bernstein.)

health education, and environmental improvements. Even in the constrained social and political circumstances of apartheid-era South Africa, such efforts apparently had a lasting educational effect.

In the mid-1960s, half a world away, another—and much bigger—window of opportunity opened in the United States. The "war on poverty" and its federal implementing agency, the Office of Economic Opportunity (OEO), proposed in principle to address the root causes of deprivation and inequality. The OEO's largest arm, the Community Action Program, was committed to ideas of community involvement and program participation. Of equal importance, the flourishing civil rights movement embodied bedrock principles of community empowerment and political and economic equity. When health services—and, specifically, COPC-based health centers—were added to this rich mix, the stage was set for an experimental test of the idea that a health program, in addition to its traditional curative and preventive roles, could be deliberately fashioned as an instrument of community development and as a lever for social change.

A typical plantation shack near Alligator, Mississippi, in 1968. A whole generation is often missing from the home, as parents—displaced by mechanical cotton-harvesting—leave children with grandparents while they search for other work in northern cities. (Photo by Dan Bernstein.)

This experiment was conducted, in the late 1960s and early 1970s, when Tufts Medical School proposed the community health center model to OEO. The Tufts-Delta Health Center was the first in what is now a national network of more than 900 federally qualified health centers. Closely modeled on the Pholela experience,[7] it was designed to serve a primarily African American population of 14 000 persons residing in a deeply impoverished 500-square-mile area of northern Bolivar County in the Mississippi Delta. As was the case with many other areas of the cotton-growing delta, this was a population of sharecroppers increasingly displaced by mechanization and living in crumbling wooden shacks with no protected water supplies, untouched by food stamps or commodity surplus foods. These families had a median income of less than $900 per year, had a median level of education of 5 years (and were exposed to segregated and inferior schools), and were suffering the inevitable consequences of malnutrition, infant mortality, infectious and chronic diseases, and adult morbidity and mortality.

Detailed descriptions of the Tufts-Delta Health Center's personal medical service programs, outreach services, health education efforts, and environmental and other interventions involving housing, water supplies and sanitation, and other public health approaches have been published elsewhere.[8,9] What is of interest here is the center's community empowerment program.

With the guidance of Dr John Hatch, the head of the center's community organization department, 10 local health associations were formed and began to survey and assess local needs, nominate people for employment at the center, and plan satellite centers. Each association elected a representative to an overarching organization, the North Bolivar County Health Council. The council served as the health center's required community advisory board but was deliberately chartered as a nonprofit community development corporation to broaden the scope of its work.

Its first effort was to end the local racist banking custom that denied mortgages to Black applicants altogether, demanded a White cosigner, or charged exorbitant (and illegal) under-the-table interest rates. Members of the health council visited all of the local banks and informed them that the center's million-dollar annual funding and cash flow would be deposited in whichever bank opened a branch in a Black community, hired residents as tellers instead of janitors, and engaged in fair mortgage loan practices.

After successful completion of this process, the local health associations obtained mortgages to buy buildings for satellite centers, rented them to the health center during the day, used the rental income to cover the loan payments, and used the buildings as community centers at night. Local health center staff members obtained mortgages to build modest new homes. Next, because there was no public transportation and few people had cars, the health council—on contract from the health center—established a bus transportation system that linked the satellites to the health center (and provided economic mobility for workers and shoppers).

This was just the beginning. Subsequently, the council developed a pre–Head Start early childhood enrichment program and a nutritional and recreational program for isolated elderly rural residents. In addition, the council hired a part-time lawyer to ensure that federal and state agencies (which had often ignored Black communities) provided equitable assistance in housing development, recreational facilities, water systems, and other elements of physical infrastructure.

Also, by means of a federal grant and its own budget, the health council developed a supplemental food program. And when staff of the health center suggested that local residents grow vegetable gardens, the council had a better idea: with a foundation grant and help from the Federation of Southern Cooperatives, it spun off a new nonprofit organization, the North Bolivar County Farm Co-op, in which a thousand families pooled their labor to operate a 600-acre vegetable farm and share in the crops. This unique enterprise—nutritional sharecropping—built on the agricultural skills people already possessed.

What made all of this possible? One of the principal factors was ending the isolation that had kept members of poor rural minority communities cut off from knowledge of, or help from, such traditional sources of support as government agencies, philanthropic foundations, and universities and professional schools. By 1970, for example, the health council and health center had ties to 7 universities, a medical school, and numerous foundations and agencies. In addition, in the summer of 1970 alone, the programs were host to Black and White student interns from 8 medical schools, 2 nursing schools, 3 schools of social work, 2 public health schools, and 3 environmental health programs.

At a 1968 meeting of the North Bolivar County Health Council at the Delta Health Center, Mound Bayou, Mississippi, William Finch announces the arrival of a Ford Foundation check that will launch a farming cooperative to grow vegetables for a malnourished population. (Photo by Dan Bernstein.)

As was the case at Pholela, however, the most important impact was educational, in this instance in the form of a structured and multifaceted program. The health center established an office of education, seeking out bright and aspiring local high school and college graduates, assisting them with college and professional school applications, and providing scholarship information and university contacts. At night, health center staff taught high school equivalency and college preparatory courses, both accredited by a local Black junior college. In the first decade in which it was in place, this effort produced 7 MDs, 5 PhDs in health-related disciplines, 3 environmental engineers, 2 psychologists, substantial numbers of registered nurses and social workers, and the first 10 registered Black sanitarians in Mississippi history.

One of the physicians returned to become the center's clinical director, and another returned as a staff pediatrician. A sharecropper's daughter acquired a doctorate in social work and a certificate in health care management and returned as the center's executive director. (Her successor 8 years later, similarly well credentialed, had once been a student in the college preparatory program.) Other center staff members completed short-term intensive training as medical records librarians, physical therapists, and laboratory technicians.

Moreover, as John Cassel's observation at Pholela suggested, this process has proved to be self-perpetuating. Today, the number of Black northern Bolivar County residents and their next-generation family members working in health-related disciplines, at every level from technician to professional, is well over 100. There is anecdotal evidence to suggest that other health centers, even without special programs of this sort, may have a similar effect. Local residents who become center staff members tend to invest their increased earnings in two areas: better housing and college education for their children.

The effect is more than economic, however. Building community-based institutions and replacing the race- and class-based isolation of poor and minority communities with ties to other institutions in the larger society may create a new kind of social capital that facilitates social change. This in turn enlarges the health effects of the traditional clinical and public health interventions that are the core of COPC. Other community health centers established in the first wave of the OEO's Office of Health Affairs program similarly invested vigorously in community organization, environmental change, and (in urban areas with more existing resources) links with other organizations to create multisectoral interventions.

There are two important lessons to be gained from the Mississippi Delta experience. The first is that communities of the poor, all too often described only in terms of pathology, are in fact rich in potential and amply supplied with bright and creative people. The second is that health services, which have sanction from the larger society and salience to the communities they serve, have the capacity to attack the root causes of ill health through community development and the social change it engenders.

As at Pholela, after too few years the window that was open to expanded programs and community development began to close. This happened in part because of program costs and in larger measure because conservative national administrations were (to put it mildly) not overly interested in community empowerment and social change. As a result, health center programs were squeezed back toward more traditional roles of delivering personal medical services and more limited public health interventions.

Good ideas, however, may be rediscovered, and the potential is still there. The North Bolivar County Health Council, no longer in need of university sponsorship, now owns and operates the freestanding Delta Health Center, with branches in 2 additional counties, and most other federally qualified health centers have analogous community control and practice elements of COPC. Over the next few years, the number of community health centers will double. The recent and growing national interest in community–campus partnerships, including but not limited to health services, may be a first step in the rediscovery of community development as a legitimate goal of health care interventions. ■

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Education and debate

The World Health Organisation: WHO's special programmes: undermining from above

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Despite the World Health Organisation's spoken commitment to developing integrated primary health care, its most visible and successful activities are not integrated within countries; they are its disease specific intervention programmes, such as the Global Programme on AIDS and the programmes for the control of diarrhoeal and acute respiratory diseases. The 10 or so special programmes, all but one of which (the onchocerciasis control programme) are based in Geneva, have found increasing favour among donors, but critics say that they undermine WHO's attempts to integrate its activities at country level and discourage countries from developing their own capacity.

WHO's special programmes were set up in response to the perceived need among donors for something more comprehensive than WHO's regional and country based activities could offer. The idea is that they boost the organisation's routine activities, using international and regional expertise and a project based approach to attack specific diseases or health issues. The special programmes receive no funds from WHO's regular budget. They are funded from so called extrabudgetary contributions. Because of this they are not under the control of the director general, the executive board, or the World Health Assembly. Each special programme has its own director and a management executive committee made up of donors' representatives.

From the donors' point of view the special programmes have clear advantages over WHO's non-project based activities. They have well defined aims and strategies; they have outcome measures, even if most relate to process rather than health indicators; they are more financially accountable than the rest of WHO; and they are not under the direct control of the secretariat. This last point has become increasingly important in the past five years, according to diplomats in Geneva. As donors in Europe, Scandinavia, and America have become increasingly discontented with the organisation's lack of leadership and accountability they have concentrated their funding of WHO more and more in extrabudgetary donations. Extrabudgetary payments to special programmes now make up over half of the organisation's total income, compared with a quarter in 1972.

The shift to extrabudgetary funding restores to donor countries much of the influence they lost during the 1970s, when the influx into WHO of countries from the developing world more than doubled its membership. All countries have equal voting rights at the World Health Assembly, so groupings of countries from the developing world can now control the assembly's agenda. By shifting their funds to the special programmes, donors can influence how their money is spent. A spokesman for one European aid organisation said, "We invest in these programmes because we have control over what we invest in. If we don't like what happens we can vote with our cheque book." The arrangement has advantages for recipient countries too. The regular budget has been frozen in real terms for the past 13 years, which means that membership payments are falling against inflation, but extrabudgetary funds keep the money coming in.

The problems of donor power

The change is not without its problems for WHO. Instead of working in a coordinated way towards a set of centrally agreed goals, the organisation has become an umbrella within which its independent programmes compete for funds. According to international aid workers, this reduces WHO's impact and can create confusion and bad feeling. Recipient countries complain of lack of coordination between different parts of the organisation.

"Having two types of funding is an important structural weakness," said a staff member in Geneva. "Programmes are forced to go begging for money, and they have to compete with each other, which is absurd. Donors feel more comfortable with this arrangement, more in control. But because the World Health Assembly doesn't discuss the extrabudgetary programmes, the multilateral system for setting priorities is effectively bypassed." Priorities depend on the energy with which each programme lobbies for support, explained another staff member. Such efforts may be motivated in part by the desire among specialists on each programme to keep and strengthen their own positions. "These specialists need the jobs," he said.

WHO's priorities increasingly reflect those of the major donor nations. As Dr Jonathan Mann, former director of the global programme on AIDS and now director for the International Centre for AIDS at Harvard, puts it, "The tail is now wagging the dog." The United States, for example, puts three fifths of its £100m extrabudgetary contributions into the global programme on AIDS, which is now WHO's largest single programme and one of the largest in the United Nations. Meanwhile, until recently the United States refused to donate money to maternal and child health programmes that might advocate abortion.

Dr Gill Walt of the London School of Hygiene and Tropical Medicine identifies other problems of "donor power."[1] Big donors can and do use the threat of withdrawing funds to exert political pressure. Threats by the United States to withdraw from WHO kept the Palestine Liberation Organisation from attaining full membership until last year. Also, donor governments are answerable to their own voters and need to see results. This tends to encourage them to invest in short term, technically driven programmes and to judge them by short term outputs (such as the number of immunisations given) rather than long term outcomes (such as reductions in mortality or improved quality of life).

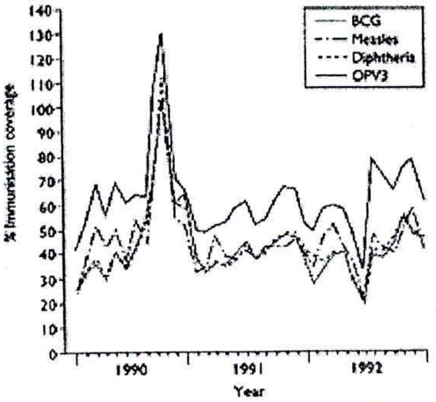
"Extrabudgetary contributions allow donors to escape from their responsibilities," said one member of WHO's staff. "They can go for glamorous diseases like AIDS, which grab the attention of the voting public, but they are not so interested in, say, polio, which is remote and gives results only in the much longer term." Finally, the shift towards extrabudgetary donations means that more time at meetings between donor nations and WHO is now spent debating financial discipline and budgets rather than defining and formulating policy.[2]

A recent paper from the Karolinska Institute in Sweden points out another quirk of the funding of special programmes.[2] Much of the money donated for research finds its way back to the donor country. From 1975-89, America gave $33m to the tropical diseases research programme. Over the same period it received $44.4m from the programme in research grants. Meanwhile Britain received back over a third of its $43.3m donation to the programme for research on human reproduction from 1972-92. The authors of the paper conclude that "the cost effectiveness of transferring large sums of national money through WHO and back to the country of origin must be questioned."

Need for integration

The special programmes look set to remain a major part of WHO's activities, and WHO is aware of the need to integrate them into local health care systems if they are to be sustainable. "Horizontal integration is the main tool for survival of the programmes," said Dr Anton Fric, medical officer to the expanded programme on immunisation in South East Asia. "It is especially important if donor funds begin to decline." He believes that the immunisation programme is now well integrated at central and district level in most countries in the region and that other programmes will now be able to use the programme's networks to spread advice on AIDS and maternal and child health.

The immunisation programme has, however, run into problems, largely because WHO depends on Unicef for its implementation. WHO's initial plan recognised that setting up a vaccination programme would not only be a valuable intervention in itself but would also provide vital experience in developing health care systems across the board. But according to international aid workers, the original principles were lost with Unicef's decision to work towards the quantitative goal of universal childhood immunisation by 1990. Instead of gradually developing health care infrastructure, as envisaged by the first director of WHO's immunisation programme, Dr Rafe Henderson, Unicef injected vast sums of money and external manpower in an attempt to satisfy its donors with visible results. As 1990 approached and countries in Africa continued to lag behind even the rescheduled target of 80% vaccine coverage, Unicef poured in resources for mass vaccination campaigns. Data from Ghana show the result: a massive surge in coverage in 1989-90, allowing Unicef to claim success, but an almost immediate return to levels of 40-50% when the additional resources were removed (see figure). According to Unicef, coverage in Nigeria has followed the same pattern, peaking at 70% in 1990 and falling to under 20% in 1994.



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Immunisation coverage in Ghana[3]--an example showing that, without additional funds for mass vaccination campaigns (1990), levels are usually 40-50%

Harsh lessons unlearnt

The problems besetting the immunisation programme illustrate the pitfalls of single strategy, top down interventions. Large sections of WHO, and the special programmes in particular, remain wedded to this approach. Since eradicating smallpox in 1978, and with the millenium approaching, WHO is understandably keen to do the same with the other major tropical diseases. The success with smallpox may not, however, be repeatable. Experts attributed its eradication largely to clear strategic planning but also to specific characteristics of the disease. Smallpox has no animal reservoir and no subclinical or carrier state. Its clinical manifestations are clearly recognisable. This meant that cases could be identified by lay people such as village chiefs, and WHO's staff did not have to screen individuals. Case monitoring could be done over large areas.

For different reasons, the eradication of polio looks increasingly achievable. The vaccine virus is secondarily transmitted, especially in endemic areas where there is poor sanitation. As a result of this multiplication effect, coverage of whole areas can be achieved without attempting comprehensive individual coverage.

ERADICATING MALARIA

Other diseases are proving less amenable to eradication, and in one famous case, malaria, intervention has left large areas of the world far worse off than before. The current malaria pandemic is, says Dr Andrew Spielman of the department of tropical public health at Harvard, an iatrogenic phenomenon.[4] WHO's malaria control programme was set up in 1956. In 1958 the American government announced its plans for an "intensified effort" against the disease, and unlike WHO's open ended commitment, the Congress specified a five year time limit. The plan, based on the ideas of Professor Paul Russell of Harvard University, was to eradicate the disease within the limited three to five year window of opportunity before resistance to drugs and pesticides set in. Vast sums were invested in spraying houses with pesticides, the money coming largely from USAID, America's overseas aid organisation.

The initial success was extraordinary. In Sri Lanka, the annual incidence fell from 1 million in a population of 12 million exposed people in the early 1950s to 18 cases in 1963. Eradication, at least in some areas of the world, seemed guaranteed. But the plan had been based on the premise that populations were homogeneous and that those who escaped the spraying programme--itinerant workers, for example--would be equally spread throughout an area. Professor Russell estimated that covering 80% of houses would be sufficient. He did not take into account the possibility of clusters of migrant workers--gem miners in Sri Lanka, for example--who served as an unreachable reservoir for the parasite. By 1963, the year that USAID was due to pull out of the scheme, resistance to DDT had arrived, soon to be followed by resistance to the main antimalarial drugs, and the battle against malaria was lost. WHO was left to pick up the pieces.

WHO's response over the past 20 years has been to retreat into research. Its tropical diseases research programme, which spends a fifth of its budget on malaria, has had notable successes. Almost all of the new drugs for treating malaria have come out of research collaborations funded by WHO, and the programme is now testing drugs and vaccines for effectiveness and toxicity. Dr Diane Worth, an expert in tropical diseases at Harvard University, sees this independent validation of products as a vital role for WHO. But the emphasis still seems to be on finding a single answer, a magic bullet, whether it be the transgenic mosquito or the malaria vaccine. WHO responds to this criticism by pointing to the current efforts to integrate the work of separate special programmes like the tropical diseases research programme and the sick child initiative (box) and to shift the emphasis towards implementation in the field. Promising though these changes are, they remain isolated developments within the organisation as a whole.

Sri Lanka now has over 25000 cases of malaria a year. As was recognised when the eradication programme was launched, failure would carry grave consequences--a non-immune population exposed to fatal outbreaks with no tools to fight the disease. The message of the malaria debacle, says Dr Spielman, is that, even with dramatically effective tools, there is a need to act with restraint. "We need to identify attainable, worthwhile objectives and then try to act small, to make incremental advances."

"Eradicationitis"

Despite this harsh lesson, "eradicationitis" remains highly prevalent within WHO. The organisation's eagerness to follow on from its success with smallpox is evident in other programmes. According to Dr Diana Lockwood, specialist in leprosy at the Hospital for Tropical Diseases in London, this has led WHO to overplay its success in controlling leprosy, with serious consequences for the funding of control and eradication programmes. "WHO has been very successful in implementing effective antibacterial treatment for leprosy, but it is naive to think that we can eradicate the disease," she said. She believes that WHO's approach to leprosy is too short term and places too much emphasis on drug treatment. "Multiple drug therapy alone is not enough," she said. "Preventing nerve damage and rehabilitating patients is just as important. WHO is doing very little in this area."

Since the early 1980s, when WHO launched its programme to eradicate leprosy by 2000, the number of active cases has fallen from 7m to 3.1m. These figures suggest that WHO is well on the way to achieving its target. But by the WHO definition, patients who have completed a two year course of treatment no longer suffer from leprosy, a definition that takes no account of long term disability and recurrence. Other agencies dealing with leprosy say that WHO's optimistic reports are making it difficult to interest donors in funding leprosy programmes. "The WHO's announcements that the number of cases is falling have taken the pressure off governments and donors," said Terry Vasey of Lepra, the London based leprosy charity.

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Rehabilitating patients with leprosy is just as important as using multiple drug therapy to eradicate the disease

The most dangerous pitfall of eradicationitis, however, remains the distortion of emphasis, from gradual horizontal integration to top down vertical intervention. This is a criticism levied at the joint WHO and Unicef initiative to eradicate polio by the end of the century. Dr Ciro de Quadros, director of the polio eradication programme in the Americas has, say aid workers, achieved astonishing results through his singleminded and single disease oriented approach, but they warn that such a strategy would be highly inappropriate in Africa, where it would be a bad use of resources to invest heavily in the top down eradication of a single disease without developing health care infrastructure in the process.

The vertical approach of most of the special programmes not only undermines WHO's attempts to integrate its initiatives within countries but has also affected the way recipient countries organise their health services. A recent study of health policy and organisation in Ghana concludes that, although the technical concerns of the special programmes have changed--from smallpox, malaria, and yaws before independence to immunisation, Guinea worm, and AIDS today--their organisational structures have remained largely unchanged, and their vertical approach has resulted in separate divisions of the ministry, each controlling its own cadres of staff and concerned with its own area of intervention.[7]

Ironically, having been the beneficiaries of donors' discontent over WHO's regional and country based activities, the special programmes are now themselves being hit. Short of resigning from the organisation, the main way for donors to press home their concerns about WHO's lack of effectiveness is to cut their extrabudgetary contributions. Earlier this month Sweden did just that. One of WHO's most trenchant supporters and the second biggest overall contributor of extrabudgetary funds after America, Sweden announced that it was pulling out half of its funding for the special programmes. Other Nordic countries are considering similar action.

Conclusion

WHO is caught in a cycle of decline, with donors expressing their lack of faith in its central management by placing funds outside the management's control. This has prevented WHO from coordinating its activities in line with centrally agreed priorities and has undermined attempts to develop integrated responses to countries' long term needs. The tendency to give money in extrabudgetary donations was a message to WHO's leaders, says Dr Jonathan Mann. "It was telling WHO that donors wanted more accountability and transparency. They wanted more aggressive, concrete, solid work on important problems. Somehow WHO needs to achieve the same power of response as these programmes achieve but through the mechanisms of the whole organisation." Unless WHO now responds to this message, its hopes of achieving sustainable changes at country level are slim.

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The certificate is proof of success--having eradicated smallpox worldwide, WHO is keen to add other diseases to its books

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The International Federation of Leprosy Associations estimates that 6.5 million people are currently affected by leprosy worldwide and that, despite multidrug treatment, there has been no sign of a decline in the number of new cases. A declaration by members of the federation in July last year emphasised that achieving WHO's current target "does not mean the end of leprosy or of work on behalf of all those people who are and will be affected by the disease."

Making things look good

The pressure to eradicate major tropical diseases by the end of the century has brought with it additional pressures to make the data look good. Aid workers say that they recognise a degree of mutual self deception when gathering data from local health workers. One doctor working for a British based aid agency told me that workers in Ethiopia admitted to falsifying the data on immunisation coverage "because Unicef gave them so much money, they didn't want to disappoint them."

Shifting goal posts is another sign of the millenium approaching, say aid workers. The leprosy programme has changed its target from eradication to elimination of the disease as a public health problem, meaning fewer than one case in 100000 population. Dr Ebrahim Samba, outgoing director of the onchocerciasis control programme, defends this approach on the grounds that it is not cost effective to pursue a disease to eradication when other priorities need resources. He considers the onchocerciasis programme to have achieved its target now that the prevalence of infection in West Africa is less than 5% (see box). Some commentators remain concerned, however, that closing the programme at this stage carries the risk of recurrence.[6]

Top down interventions

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Editorial: **A framework for analysing the relationship between disease control programmes and basic health care**

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Summary In this paper, we present a framework for analysing the complex relationship between disease control programmes and basic health care systems. Many of the ideas and concepts presented in this paper were developed by the staff of the Public Health Department of the Antwerp Institute of Tropical Medicine (ITM) over the last 20 years. They are thus the product of the reflection of an entire team.

keywords disease control, basic health care, vertical programmes, integration

The difficult relationship between (vertical) disease control programmes and (horizontal) basic health care services: an unfulfilled potential?

The relationship between disease control programmes and basic health care systems has always been, and still is, a problematic and even tempestuous one. One of the reasons for this state of affairs lies in the fact that in the past, too often, protagonists of both approaches took rigid ideological viewpoints and dug themselves in, each in their own trenches. Managers of basic health care systems looked at disease control programmes as a threat to the values and principles underlying primary health care. And disease control programme managers considered the defenders of basic health care systems as dreamers who had forgotten about the need for effectiveness and impact.

The lack of dialogue, and even respect, between the so-called 'verticalists' and 'horizontalists' has blurred judgement. It is our conviction that this has been a hindrance to a fruitful collaboration in the interest of patients and populations whose health would benefit from a more open relationship and from more exchange. Hence the need to clarify the terms of the debate.

What is a disease control programme?

A programme can be defined in two ways, which are not mutually exclusive. The first and rather classical way of defining a programme is to describe it as a coherent set of activities conceived to control, possibly eliminate, a given disease (Cairncross 1997). The identification of this set is, in principle, the intellectual product of scientific research and rational planning.

A second way is to consider a programme as an institution, with a specific administration, scientific and technical staff, and logistical and financial resources – the core business of which it is to control one particular health problem. Such an institution generally has access to more resources – often earmarked – than is the case for other departments or sections in the Ministry of Health. A programme thus represents an important resource and opportunity to reduce the burden caused by a given disease.

But it also is, by the very force of its resources, a powerful player in national and local health systems (Gish 1992). It has considerable weight on (inter)national and local decision-making processes, which can then be – more or less easily – biased in favour of the control of one particular disease.

Why a programme?

A programme is launched when a health problem is considered sufficiently important to warrant specific attention and means to combat it. This decision is taken on the basis of two types of criteria: on the one hand, objective and explicit criteria, mainly the importance – its frequency and severity, and the vulnerability of the disease – i.e. the availability of an effective treatment. On the other hand, it is based upon more subjective and implicit criteria related to the way the disease is 'perceived'. The social perception of a disease is in fact a complex issue. It is shaped by a variety of actors: patient organizations, lobbyists from a variety of backgrounds (including the pharmaceutical industry), health care providers, research institutions, politicians, non governmental organisations, media, etc. The decision to launch a specific programme is, naturally, influenced by prevailing international, political, economic and cultural power relations between the North and the South.

What is integration about?

In the case of health care, integration usually means that general health services take the responsibility to operate specific activities designed to control a health problem. These services thus become one of several channels for the programme to implement its activities, which then become part of the broader package of activities delivered by these multipurpose general health services (Criel *et al.* 1997).

It is important to point out that this definition and many of the other concepts handled when analysing the issue of integration into general health services also apply to other sectors than health care. Indeed, a disease control programme may collaborate with a variety of partners. For instance, a schoolteacher can speak in his classes about the prevention of HIV infection; an environmental health worker can mention the use of bednets in the prevention of malaria; and a field agricultural worker can highlight the need for children to have a balanced diet. Finally, let us not forget that when we talk about integration, the issue is not integrating (or not) programmes in their totality; the issue is integrating or not (some) activities of a programme.

The logic of disease control programmes and basic health care: a field of tension

Table 1 summarizes the main differences in logic between disease control programmes and basic health care systems. A limit of this comparison is that it probably presents things in an overly simplifying way, as if in reality there were no situations in between – which of course there are; or as if the opposition in logic would be absolute – which of course it is not. We nevertheless think that the comparison is useful.

Disease control is disease-centred, a population dimension prevails, and the basis for the planning of interventions is need. Basic health care on the other hand is patient-centred, favours an individual dimension, and plans its activities starting from the community's felt needs. The basis for decision-making in disease control is epidemiologic evidence, but it is much more complex in the case of basic health care systems, where the health worker, ideally, needs to contextualize his decisions so that the specific and unique character of every single patient is taken into consideration.

The terms of reference for the evaluation of disease control activities are straightforward: they focus on the coverage of the programme and on its epidemiological impact. The objectives of disease control are relatively easy to quantify. This is not so in the case of basic health care. In the latter, the question to be addressed, ultimately, is to assess whether the health care delivery system is capable to help patients, cured or not, to cope with their health problem and to carry on with their lives in a way that is acceptable to them. Finally, the nature and qualification of the health workers distinguish disease control from basic health care: in the former specialists are more prominent, in the latter versatile health workers constitute the main workforce.

Integrate or not? Guiding rules for decision-making

To help answer the question whether disease control activities should be integrated in basic health care services or not, we wish to present a simple set of guiding rules. It consists of three straightforward questions. The first question is whether integration is *desirable*. Is there an added value in asking general health services to incorporate a given disease control activity, or several activities, in their basic package? In some cases integration is not a

Table 1 Disease control programmes *vs.* basic health care systems

	Disease control programmes	Basic health care systems
The object	A disease	The patient
The main dimension	Populational	Individual
The basis for planning	Need	Overlap of demand and need
The principal basis for decision-making	Evidence	Mix of evidence, patients' preferences and constraints, and local context
The terms of reference for evaluation	Programme coverage and impact on frequency and severity of disease	Is the patient able to carry on with his life in a way that is acceptable to him?
The staff	Specialists	Versatile health workers

desirable option (Mills 1983). For instance, there is a strong case for integrating BCG vaccination in general health care services, but far less so for integrating active case-finding of African trypanosomiasis (De Brouwere & Pangu 1989; Kegels 1995).

A second question is whether integration is *possible*: can a generalist perform the tasks properly? A certain degree of standardization of the task at hand is needed if it is to be delegated to non-specialists. For instance, passive case-finding and diagnosis of sputum-positive open pulmonary TB are tasks that can, relatively easily, be standardized. The diagnosis of leprosy, on the other hand, would be an example of a task where integration is much more difficult, especially in low-prevalence situations.

A third question is whether it is *opportune* to integrate. Can the general services cope with the additional workload? Are the general health services functioning sufficiently well to host the related new activities (one cannot integrate activities in something that does not work)? Or does the policy of integration constitute a genuine opportunity to strengthen the functioning and credibility of the general health services?

What transpires from this simple set of guiding rules is that the answer to the question 'integrate or not? 'must necessarily be a contextual one: the answer may differ from one country to the other, even from one district to the other. We should thus avoid blanket solutions.

The challenge: optimize the articulation between the two systems

The challenge ahead is to optimize the articulation between the two systems. Integration presents opportunities and threats for both disease control and basic health care (Table 2). The challenge is to reach an organizational set-up where the threats and dangers of integration are minimized, and where the opportunities and strengths are maximized.

For disease control, a powerful opportunity is to extend the coverage of its programme activities; for basic health care, the opportunity created by a policy of integration lies in the possibilities it creates to improve the general health services' capacity to respond to people's felt needs (Loretti 1989; Criel 1992). When it comes to the threats, the case is clear for disease control: integration means that the disease will lose its privileged status and become 'a disease like any other'. In the case of basic health care, a major threat is that the integration of disease control activities will lead to an imbalance in the offer of care, with a shift of attention and resources, within the general services themselves, towards the control of one particular disease. The opportunity cost would soon become detrimental.

Table 2 Effects of integration

	Opportunities of integration	Threats of integration
For the disease control system	Extension in coverage of programme activities	The disease loses its privileged status
For the basic health care system	Increased capacity to respond to people's felt needs	Imbalance in the offer of care

Conclusion: Proposals for a fruitful interaction between disease control systems and basic health care systems

If we wish to move in the direction of an optimal relationship between disease control and basic health care, four general proposals could be kept in mind. A first one would be to leave the dogmatic discourse behind and to drop the simplistic (and counter productive) dichotomous classification of 'us' and 'them'... A second suggestion is for the people in charge of disease control and basic health care to recognize the respective strengths and weaknesses of either approach, and also to acknowledge the intrinsic field of tension that exists between both systems. The third suggestion is to accept the need for contextualised solutions when it comes to integrating some activities of disease control in basic health care. And finally, a fourth proposal is for all to accept that basic health care is a human right and that this right is in agreement with the existence of disease control programmes *together with, not instead of*, general health services.

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PRIORITY SETTING AND ECONOMIC APPRAISAL: WHOSE PRIORITIES—THE COMMUNITY OR THE ECONOMIST?

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Abstract—Scarce resources for health require a process for setting priorities. The exact mechanism chosen has important implications for the type of priorities and plans set, and in particular their relationship to the principles of primary health care. One technique increasingly advocated as an aid to priority setting is economic appraisal. It is argued however that economic appraisal is likely to reinforce a selective primary health care approach through its espousal of a technocratic medical model and through its hidden but implicit value judgements. It is suggested that urgent attention is needed to develop approaches to priority setting that incorporate the strengths of economic appraisal, but that are consistent with comprehensive primary health care.

It is perhaps salutory to recall that one of the assumptions on which the British National Health Service was based, was a belief that there existed in any community a finite pool of ill-health, which, through the application of health services, could be reduced in such a fashion that the need for health care itself would in the long-term decline [1]. Forty years later there are few health service managers who would adhere to that view, recognising instead that whether one's view of health is a narrow medical one, or a broader more holistic view such as that characterised by the WHO definition [2], health demands will *always* outstrip the resources available, even in the (albeit untenable) extreme position in which *all* of a country's resources were devoted to health. Such a view is not limited to underdeveloped countries, whose absolute resource levels are lower, but is equally applicable to, and accepted by, richer countries such as the U.S.A.

In a situation of scarcity of resources, there is a need for means of making choices between competing possibilities, as to how such resources should be used.

How allocative decisions are made has a major effect on the allocation itself, with different priority-setting mechanisms leading to very different results. This paper examines some of the approaches, and in particular the role of economic techniques in setting priorities. It suggests that techniques currently in use, or suggested for use, are in danger of undermining the strategy of primary health care (PHC) to which WHO member states have committed themselves. It argues that 'rational' decision-making models, whether based on epidemiology, economics, social epidemiology, or, more currently fashionable, a mix of the three disciplines, obscure built-in value judgements and hence impose such values over those of the community. Planning systems, if they are to promote PHC need to adapt to allocative mechanisms that allow genuine participation in the setting of priorities, and hence to accept a major change in the role of 'technicians' and their techniques. However since the Alma-Ata Declaration, there has been a growing interest in priority-setting techniques built upon the disciplines of economics and epidemiology, and these are frequently propounded by aid and technical agencies such as UNICEF (through their implicit espousal of selective PHC) and the World Bank. Indeed, it may be largely the use of such techniques which makes the selective approach to PHC attractive to these agencies. They create a feeling of security, that allocations have been 'scientifically' made; they provide a simple basis for appraisal and evaluation. This special issue warrants emphasis on the particular relationship between such techniques and selective PHC. However it is suggested that the contradictions between the unguarded use of such techniques and the need for community participation, inter-sectoral collaboration and broader non-medical notions of health make them potentially unsuitable for use, in many situations.

Following the original Walsh and Warren paper that outlined a basis for a selective PHC approach [3], came two critical responses by Gish [4] and Berman [5], both economists, and both concerned amongst other things with the misuse of economic techniques. More recent critiques of, *inter alia*, the specific economic content of their original paper have included that of Unger and Killingsworth [6]. Their criticisms, though extremely powerful, were insufficient to halt the rise of selective PHC. This paper builds on and fully acknowledges the basis laid by their contributions. It argues that urgent consideration needs to be given to devising approaches to priority setting and redefining the roles of professionals and their techniques in ways that are consistent with and reinforce PHC, as defined in the Alma-Ata Declaration.

We stress that we use the term PHC here in the broadest sense expressed in the Alma-Ata Declaration—as an approach to the planning and organisation of all health services and health promoting activities with the goal of better health. We do *not* refer only to the primary level of health care, or to any list of merely technical actions. While within health services the primary level of care is important, consideration of priority setting must encompass priorities within a total, integrated health serivce. This approach is based on the principle of equity, the recognition of the need for intersectoral approaches to the promotion of health, and a broad concept of health.

The paper is in three sections. First the broad approaches to priority setting are described. Second, the paper analyses in more detail economic appraisal, used in priority-setting, and argues that its underlying characteristics are such that it is extremely difficult to use it in a manner consistent with comprehensive PHC; and lastly the paper suggests a series of issues in need of wider consideration.

1. PRIORITY SETTING APPROACHES

A range of approaches to priority setting exist. Amongst these, two major characteristics can be singled out which have particular implications for PHC—the distinction between needs-based and demand-based approaches and the role of the individual or community vis a vis the health professional.

1.1. Demand-based approaches

Demand-based approaches rest on the assumption that the operation of a market for the production and exchange of health care, is both the most efficient, and the most responsive to individual desires. In practice such assumptions are extremely questionable for a number of reasons, which are well-rehearsed in the health economics literature [7]. The most serious charges against such a market-based process as a means of determining priorities within the context of PHC, are that: first, the relationship between the physician, the individual and the insurer (where applicable) is such that in practice the individual has little freedom of choice; second, despite the existence of insurance schemes, market-based systems are grossly inequitable, showing great variation in the accessibility (both physical and financial) of health care to individuals; and thirdly that a free market system is historically predicated on an assumption of providing health care to *individuals*, rather than to *communities*, and as such runs contrary to concepts of community health and community participation. (It can be argued that communities exist in the form of subscribers to particular insurance schemes, but such a concept of a community, based largely on income and with no joint mechanism for decision-making holds no similarity to that of the Alma-Ata notion of community.)

The rejection of the market as the means of allocating resources is widespread, and indeed even countries such as the U.S.A. which are avowedly free market, recognise the need for safety-nets such as Medicare and Medicaid to ameliorate the worst excesses and inequities. In place of the market, planning systems have been developed to allocate resources, and hence set priorities, on criteria other than demand.

1.2. Need-based approaches

Proponents of planning argue that health care is so basic that it cannot be regarded as an exchangeable commodity available to the highest bidder, but that its distribution should be based on need, with resources allocated accordingly through a rational planning system. Early centralist planning systems in rejecting the market as a mechanism tended to rely on technocratic measures of community need, rather than adapting the notion of 'wants'. As such they relied on professional, seemingly objective measures of need, rather than need as perceived by the community. For many countries such planning systems are relatively new. It was not until the late sixties and the seventies that planning units and formal health planning systems in Ministries of Health in many countries were developed. Even in the U.K. with one of the earliest public health care systems in a mixed economy the first attempt at a formal comprehensive planning system dates from only 1974, 30 years after the birth of the National Health Service.

Within planned health systems, the means of determining need at the non-clinical level differ. Need has long been conceived of as an objective concept measureable technically by health professionals. More recently the notion of perceived need has arisen. Whilst this latter notion corresponds with the principle of community participation inherent in PHC, planning systems based on it are unknown to us.

In almost all systems, need has been categorised, first and foremost, by epidemiological assessment. This approach fails to take into account two important questions: first, whether knowledge of the importance of various medically-defined conditions of ill-health helps in planning services aimed to positively improve *health*. Second, whether the most important features of planning strategy, actually vary with different epidemiological profiles. For the moment however, we will limit discussion to whether or not a workable and theoretically sound model of disease-based assessment, is available to the health planner. This approach may seem to be logically inconsistent, given the questions we have just posed. However, this type of assessment has become so ubiquitous, and is so widely assumed useful, that the first task is to look critically at its assumptions and limitations. Historically, for most systems the most basic measure, apparently attractive in its ease of use, is the mortality rate, and for planning systems this remains the major criterion of need.

The most immediately obvious drawback to this use of mortality rates is that it disregards non-fatal illness episodes which may be self-limiting but painful, disabling, or chronic but non-fatal. Such episodes in fact constitute a major part of the work of health services. Responses to this have varied including the argument that as a general measure of community need, mortality rates are an adequate reflection of both fatal and non-fatal morbidity (this view is an assumption of the U.K. general resource allocation model RAWP [8]) and including attempts to supplement mortality measures with morbidity measures. But qualitatively morbidity and mortality are very different. Mortality rates reflect absolute states (whether death occurs from measles or a car-accident, the final result is apparently identical), whereas morbidity covers a spectrum of states of ill-health, each with differing characteristics, and not simply comparable either between themselves, or with mortality rates.

Other criticisms of mortality/morbidity, arise from the biases inherent in the manner in which such information is routinely collected—through service-based returns. Such biases include the translation of individually perceived needs into professionally determined morbidity, and the relationship between such rates, and the distribution of services. Such biases are particularly acute in developing countries with uneven and sparse distribution of services. Furthermore none of the procedures for use of mortality/morbidity rates, take into account the problem that the use of rather crude measures of rates of ill-health as observed by the health service, logically serve only as a data-base for arranging to tackle medically, those specific conditions of ill-health. This has very little to do with planning to improve the health status of a population. In fact it would be conceptually helpful if we can cease to even try to claim any links between these two approaches.

In order to unravel such diversity and to explore the possibilities of non-epidemiologically determined need, a more basic question about the nature of health needs answering. What is the view of health implicit in PHC and how does this relate to that held by economists and other health professionals? Economists are fond of viewing health (or health care) as either an investment good or a consumption good. As the former, health is regarded as an investment in human capital. A sick person is potentially less productive than his/her healthy counterpart. Such a perspective may appear to the health sector, competing for resources with other sectors, as an attractive way of making the case for health respectable to central resource allocating ministries motivated by economic growth objectives. It is however difficult to sustain such a view of health as its *sole* rationale. Such a view would logically imply priorities for health care set in such a way that it was not provided for the elderly or the unemployed, and that in family-centred economies where workers' marginal productivity may be low and where increased levels of health may not lead to greater productivity, it was concentrated in urban industrial complexes. Whilst this scenario may *in fact* reflect the distribution of resources in many countries, it is a scenario that few would, publicly at least, see as desirable, and is clearly counter to the principles of PHC—in particular through its implications for equity. A broader variant on this theme regards health not as an *economic* investment but as a *social* investment. In such cases, health improvements in certain areas may be seen as a way of reducing social tensions caused by ill-health at the family or at the community level (e.g. through reductions in alcoholism).

Both of these investment orientated approaches despite the difficulties identified, may through their apparent objectivity, appear attractive as the basis for priority setting. But this begs the question, *who* makes the value judgements about distribution of the fruits of additional productivity, and priorities in social problems? Furthermore, and in some ways yet more problematic, the resulting health policies will not (unless great effort is deliberately made) leave overt the value judgements made. This effectively removes the policies themselves from the sphere in which they are properly accessible to public scrutiny.

The third view of health regards it, not as a means to an end, but as an end in itself, a personal and social objective, even a right. Priority-setting should then become an exercise to investigate what population groups require the greatest resources to aid their struggle for health. Few attempts have been made to develop a national procedure to implement this equity-based approach. However valuable efforts made in this direction in Zimbabwe have been documented [9]. Most usually, the groups are singled out with no overt justification. A common example is the treatment as a priority, of mothers (not women) and children. This particular priority is universally assumed, and we can find no reference to work actually arguing the case for or against it. It is therefore unclear as to whether the judgement reflects an investment oriented view (the workforce of the future); a reflection of *social* prioritisation; or a medical judgement as to population groups considered most at risk from conditions which, technically speaking, are preventable. Almost equally as common, at least for less developed countries, is the singling out of rural communities before urban ones, many of which are large, desperately poor, and totally lacking a health care infrastructure. The rationale for this, falls somewhere on the spectrum between political bias and sheer short-sightedness (those who won't and those who can't, see the levels of need and deprivation in slums and shanty-towns).

1.3. Priority setting planning techniques

A planning methodology on the epidemiological model would be expected to amass information about current and future health problems, their effects on individuals and communities, along with costs of intervention, and on this basis, set priorities that would maximise social welfare (or minimise negative social effects).

Priority-setting techniques have been devised to put together all the above elements. In 1980, for example, at a regional UNICEF sponsored workshop on PHC for Southern Africa, country participants were asked to rank health problems by categories as shown in Table 1.

This technique, though including more social variables, is similar to that of the first stage of Walsh and Warren's approach [3], and aims at producing a priority list of diseases, through a combination of technical expertise (ranking of diseases by relevant professionals) and political judgement (weighting either quantitatively or qualitatively the different criteria to produce a single composite priority list).

Other techniques have been employed to arrive at ranked problem or disease lists, including management techniques, such as Delphi, that aim to reach consensus amongst individuals and in particular health professionals with differing initial perceptions. Others include more structured quantitative techniques, based on aggregating performance against pre-determined criteria, using arithmetic weights [11].

Alongside techniques which aim at categorising need, are economic techniques concerned with the costs of intervention. Concern about the costs of intervention in medical decision-making is relatively recent. For example, the path-breaking 'Effectiveness and efficiency in health services' [12] by Cochrane, an epidemiologist concerned about the allocation of resources into effective, or untested activities, was only published in 1972. The combination of measures

Table 1. Ranking of disease groups by different factors

Priority ranking	In-patient morbidity	Family disruption	Economic consequences	Public and potential demand	Technical feasibility of solution	Social consequences	Suffering and disability
1.	Enteric diseases	Alcoholism	Alcoholism	Malaria	TB	Leprosy	Leprosy
2.	Complication of pregnancy	Psychiatric disorders	TB	Complication of pregnancy	Measles	Alcoholism	Polio
3.	Respiratory diseases	Skin diseases including leprosy	Bilharzia	Alcoholism	Polio	STD	Eye disease
4.	TB	TB	Trauma	Complication of pregnancy	Malnutrition	Psychiatric disorders	TB
5.	Malnutrition	STD	Polio		Water-borne disease (enteric)	TB	Trauma
6.	Measles		Leprosy				
7.	Skin diseases including leprosy						

Both in terms of cost of treatment, and loss of production.
Source: Swaziland Country Report for presentation to the Nampula Primary Health Care Workshop—Nampula, April 1980, quoted [10].

of successful intervention against medically defined need (hence concepts of effectiveness) and cost (hence concepts of efficiency) form the basis of economic appraisal.

Economic appraisal has over the last decade, become viewed increasingly as an attractive framework for incorporating the needs-based variants described above, and hence as a valuable, if not essential, means of assisting in determining priorities, and has been heavily adopted by the epidemiological school of planning. Closer examination of the techniques of economic appraisal however, demonstrate some of the dangers of indiscriminate use of such techniques.

The most well-known attempt to formalise such techniques into a system within developing countries was the PAHO-CENDES planning system [13] which was highly structured, extremely quantified and based on concepts of economic appraisal. Its development in the sixties involved a massive investment in and commitment to the system itself, relying as it did on large numbers of trained manpower and extensive information. As a cohesive methodology PAHO-CENDES collapsed, in part as a result of the unrealistic resource requirements of operating the system, in part with the realisation that such comprehensive planning is unworkable. More recently however, less technically ambitious attempts to introduce 'rationing by rationality' have been introduced, usually also based on a variant of economic appraisal. The most well-known of these, and the subject of this journal issue is selective primary health care, as proposed by Walsh and Warren. Their approach suggests a simple criterion for prioritisation —cost per life saved, and is a prime example of inappropriate use of economic appraisal as discussed further below.

All the above such approaches are deceptively attractive, employing a blend of rational analysis to demonstrate their technical objectivity and neutrality, and quantified data to show their roots in reality. Unfortunately their present use is inconsistent with the tenets of PHC for two main reasons:

(a) They reinforce a *medical* model of health, through their emphasis on disease-based outcome measures, and leading logically to a *vertical, disease based*, programme approach.

(b) They provide the planning bureaucracy with the ability to heavily influence, if not determine, priorities.

For these reasons, such approaches to priority setting run counter to the philosophy of PHC, and in particular to its wider, holistic concept of health, its recognition of the need for broader approaches to health provision that reduce boundaries both between agencies, and within agencies between vertical programmes, and most importantly the need to place the responsibility for determination of priorities firmly in the hands of the communities.

The next section sets out briefly a critique of the methodology of economic appraisal as currently used as a technique for priority setting, and as exemplified by the selectivist school.

2. ECONOMIC APPRAISAL IN PRIORITY SETTING

As a result of the apparent inexorable logic contained in each of a series of steps, techniques of economic appraisal are extremely seductive. Various techniques exist (see Carrin [14] for review of main methods), but the two suggested most widely are cost benefit and cost effectiveness analysis. The technique of cost benefit analysis (CBA) was adopted for the public sector from the fields of industrial and commercial appraisal, with adaptation of discounted cash flow techniques to suit the broader social objectives (hence *social* CBA). Essentially the technique identifies measures in money terms and compares the advantages/benefits and disadvantages/costs to determine the relative worth/cost benefit ratio of different options, including, ideally, that of doing nothing, i.e. maintaining the status quo.

The transfer of such techniques from the private sector to the public sector, is *seemingly* easiest in areas such as public transport or nationalised industries, where the most obvious benefits are increased productivity. In such fields CBA flourishes. However in sectors or more specifically projects, which have outcomes that are not primarily or uniquely related to productivity gains, and are hence less easy to value in money terms, an alternative economic appraisal technique may be suggested. Cost-effectiveness analysis (CEA) accepts the difficulty of money valuation of outputs such as health improvement, and instead compares the cost per outcome of different interventions (e.g. the cost per life saved). Though such an approach sidesteps some of the problems of *valuing* benefits, it shares with CBA many other problems and is inherently less powerful as a priority setting tool. These techniques will be examined in turn.

2.1. *Cost benefit analysis*

Figure 1 sets out the main steps in a CBA.

2.1.1. Identify options for appraisal. The first step in a CBA is the identification of the options themselves. In theory, all possible alternative options should be examined as competing demands for resources. In practice this is palpably impossible, and judgements have to be made to exclude the majority of possibilities. Some of these exclusions are made on grounds of political judgement, or technical feasibility, whilst others may be excluded on the basis of crude 'back of the envelope' appraisals. Clearly however the process of determining *which* options are appraised carries with it tremendous potential for influencing the final outcome—both by excluding possibly viable alternatives, and by, in the final shortlist, presenting a 'good' project next to a clearly unacceptable or 'bad' project.

Appraisals can in theory be carried out at any level—from determining at the macro level the ideal mix between allocation of resources to health services and other contenders; to determining at the micro level, choice of techniques such as whether disposable syringes are better than re-usable ones. In practice however the choice of level for appraisal is constrained by a methodological need to identify the specific costs and benefits associated with the intervention. The broader an intervention, the harder it becomes to identify such consequences. The extreme, of determining resource allocation between sectors at the national level, or within the health sector of resources for hospitals rather than primary health care services, are as a result of their multiple outcomes, so difficult to measure that sectoral appraisals are virtually unknown, and programme appraisals rare. The commonest use of CBA is at the single project level, where a well-defined relationship between inputs and output apparently exists.

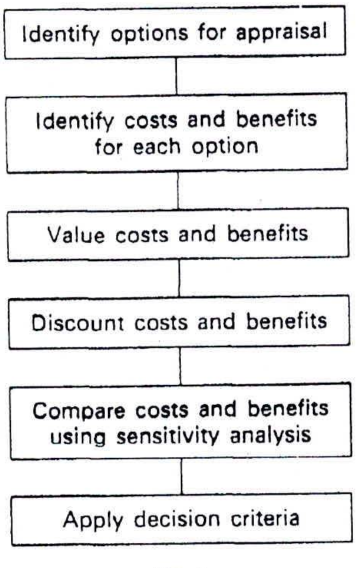

Fig. 1

2.1.2. Identify costs and benefits. The second step in an appraisal consists of the identification of the specific costs and benefits that are associated with the intervention. The major difficulty at this step lies in the drawing of boundaries around the problem. Any intervention creates a series of ripples, with those closest to the intervention being stronger. The cut-off point, as to which effects are included, may have implications for the appraisal. In theory all effects should be included but in practice a judgement is required as to which effects are so minimal as to not affect the appraisal.

A separate, but related issue, is that of 'whose costs and benefits'. Costs can be classified as falling on the initiating agency, other agencies and the public. In theory, the distinguishing feature between a public sector *social* CBA and a private sector appraisal is that the former is concerned with the effects to the society as a whole, whilst the latter is only concerned with the effects on the firm itself. Thus a private sector appraisal would not be concerned with distributional issues (e.g. who bought the product, or the effects on income distribution of their workers' wages), or with costs arising from the production that fell on others (e.g. pollution), whilst a public sector appraisal should. Similarly, within the health sector, a private health service appraisal would concern itself only with those costs that fell on itself, whereas a public health service appraisal should examine the costs to both the health service and the community. The degree to which such *social* costs and benefits, as opposed to private costs and benefits are included, can dramatically change the appraisal. Such social costs either to the user or other agencies may be identified at the early stages of an appraisal. In practice, however it is common to find appraisals that either ignore them, or identify them but fail to value them. Two reasons can be discerned for this. First, methodologically it can be extremely difficult to identify and then value such effects. Second, the budgetary systems of many countries reinforce a predominantly single agency, or private firm outlook. Within the U.K., for example, the transfer of the care of suitable patients from long-stay hospital to domiciliary settings is a stated public policy. The implications of such a policy on agency costs however are that health service hospital costs may drop, but community based costs of both the health service, other agencies and the community itself will rise. Whilst overall it may be argued that the balance of social benefits over social costs is greater under such a policy, in practice the implementation in the U.K. has not gone smoothly due in part to rigid institutional barriers between sectors. In such an environment, where budgetary transfers between agencies are difficult, incorporation of other agency costs into an appraisal may be resisted, in the knowledge that no compensatory transfer is likely.

The above describes the situation presently pertaining, partly as a result of budgetary systems in many countries. The integration of budgets, introduction of compensatory transfers or creation of special inter-agency budgets could overcome some of the reluctance to include third party costs in appraisals, and the economist has an important role to play in helping to design such systems.

A more serious, and methodologically more complex, concern, however, relates to the *types* of benefits and costs chosen. Table 2 sets out the usual categories of costs and benefits that a health project may consider. Such costs and benefits are firmly linked to an epidemiological *input–output* model. Indeed this mirrors a wider concern in health planning over the last decade with effectiveness and efficiency—the desire to relate services to outcomes, as measured in medical terms, through mortality/morbidity changes. Wider benefits of, for example *participation* in the process of health care planning and delivery are rarely considered.

2.1.3. Value costs and benefits. Once costs and benefits have been identified, they need to be valued in money terms, in order for direct comparisons to be made. It is at this stage that most methodological difficulties lie and where criticism is most vocal.

There are two types of difficulty with valuing costs and benefits. Firstly, information systems are rarely routinely geared to providing relevant information, e.g. on consumer travel costs, and though some of this information is obtainable through other methods such as surveys, the cost of providing the information itself may be significant, particularly where information management skills are scarce. More important though are the difficulties associated with valuing the benefits (other than productivity gain) of saving life, and reducing pain and suffering. Various methods exist [15], ranging from analysis of life insurance premiums, to analysis of peoples' behaviour in, for example, the trade-off between lower aircraft ticket prices and the associated greater risk of aircraft accidents. Ultimately however such methods are based, however ingenious the method, on measuring the value individuals or society place on such outcomes. Whose values are to be measured and how such values are to be weighted are essentially political questions, for which the economist has no expertise to offer.

One device common to appraisals where such difficulties are met, is the introduction of unquantifiable intangibles. In such appraisals, those costs and benefits that *are* measurable, are quantified and those that are not, are left to be considered alongside the 'valued' effects. Whilst such an approach is clearly both accurate and honest, it considerably emasculates the technique and leaves open the question of *how* such intangibles are incorporated into the decision criteria.

There are, at the valuation stage, a variety of possibilities for building into the equation, other concerns and which demonstrate the reliance on value judgements. Outside the health sector, 'shadow prices' are commonly used to correct for apparent distortions in the market which lead to the level of prices and wages failing to reflect the real costs to the economy. Concern about the distributional effects of projects, particularly those considered to be directly productive, may be built in to allow national objectives concerning equity or regional growth to be considered. Such corrections of the market value of costs and benefits demonstrate the potential ability of project appraisal to respond to social/political value judgements. Failure to adopt such corrective mechanism does not of course imply greater objectivity, but acceptance of the values inherent in existing distortions.

2.1.4. Discounting. Having identified and valued costs and benefits, the next step is to discount them. In a typical project, the costs and benefits will occur over a period of time. The technique of discounting allows the stream of costs and benefits to be added by applying a differential weighting to each year to reflect a view of the future. Typically a discount rate of between 5 and 12% may be chosen, which implies that a benefit of £100 in year 1 is equivalent to (at a discount rate of 10%) a benefit of £110 in year 2 or £121 in year 3. The choice of the public sector discount rate is often made by a central ministry, and reflects various linked factors including the current interest rate and society's view of investment as opposed to present consumption. The choice of discount rate can easily change the nature of an appraisal—a high discount rate favouring projects with early benefits compared to costs. Table 3 demonstrates the effect of discount rates of 5 and 10% on a hypothetical stream of valued benefits and costs.

Whilst there is clearly a valid argument for the use of a discount rate to reflect the opportunity cost of capital, it should be noted that such calculations are

Table 2. Costs and benefits commonly identified in economic appraisal of a health project

Benefits	Costs
To the individual/family;community	
Decrease in	
Mortality rates Morbidity* rates	
Leading to	
Increase in productivity	Loss of production during treatment
Reduction in pain, grief and suffering	Treatment pain, grief and suffering
Reduction in caring costs	Increase in caring costs, travel costs to services to services, environmental
Creation of employment	
To agencies	
Reduction in future costs	Service provision costs

*N.B. Morbidity contrasts with mortality in that mortality is considered a disbenefit in itself, whereas morbidity is a disbenefit through its secondary effects (some of which are secondary effects of mortality also).

Table 3. Discount example

	Year 0	Year 1	Year 2	Year 3	Year 4	Totals
0% *discount rate*						
Benfits	0	12	40	100	135	287
Costs	100	50	50	50	10	260
Net (benefits − costs)	−100	−38	−10	50	125	27
5% *discount rate*						
Benefits	0	11	36	86	111	244
Costs	−100	−48	−45	−43	−8	−244
Net (benefits − costs)	−100	−37	−9	43	103	0
10% *discount rate*						
Benefits	0	11	33	75	92	211
Costs	−100	−45	−41	−38	−7	−231
Net (benefits − costs)	−100	−34	−8	37	85	−20

often themselves based on the operations of a distorted money market. Furthermore whilst it is equally clear that as individuals we view the future as of less importance than the present (partly as a result of uncertainty), there is an equally valid argument that a *social* view, as exercised in a public sector appraisal should defend the interests of future populations, and should deliberately take a long term view.

The choice of discount rate therefore cannot be seen as being a technical choice, but one of considerable political importance.

2.1.5. Appraisal. The last stage in an appraisal brings together the costs and benefits by comparing their present values (values after discounting). The appraisal in a CBA is of two kinds. Firstly, an appraisal of a project on its own can indicate whether, compared with the ever existent option of doing nothing, it is worth carrying out. Secondly, it *should* be compared to all other possible alternatives to determine whether it is the *best* use of resources. Even at this stage however, ambiguity arises from at least three sources.

Firstly the appraisal may be affected by the choice of appraisal criteria. Methodological uncertainty may exist as to whether to view certain consequences as costs or benefits [16]. A reduction in future health service costs for example may be regarded as a benefit, or as a negative cost. The choice of appraisal criteria [e.g. net present value (the difference between benefits and costs) or the benefit to cost ratio] can, in such instances, affect an appraisal result.

Furthermore, one of the comparative problems *between* projects arises through the scale of a project. A small scale project may have a higher benefit:cost *ratio* than a larger project, but because of its scale, a lower net present value. The choice of decision criteria is clearly important.

Secondly, attempts to scale up small projects to make them of equivalent size to larger projects is fraught with dangers of determining average costs which may alter with the *scale* of the project.

The third and major difficulty lies in comparison between valued benefits and costs on which appraisal criteria can be levied, and intangibles. The very difficulties that resulted in a decision *not* to value such intangibles raises similar difficulties in making comparisons both between different intangibles themselves, and between intangibles and 'valued' effects. There is often, in such situations, a severe and dangerous temptation to ignore intangibles, concentrating on the quantified and valued effects which decision criteria can be applied.

2.2. *Cost-effectiveness analysis*

CEA is at first sight an attractive alternative to CBA. Where difficulties exist in attaching money values to benefits, CEA may be used which measures the cost per outcome, and allows comparison between projects by seeking interventions with the lowest cost per outcome. Whilst this clearly circumvents some of the methodological difficulties of CBA, it introduces its own set of problems.

The major difficulty it faces stems from the need to have a single outcome measure, which is common to those interventions being compared. For it to measure the *effectiveness* of a service the outcome should be in terms of health objectives; if not, the analysis is reduced to measuring efficiency in service provision alone. The simplest outcome measure used is deaths averted, which can be made more sophisticated by measuring life-years saved. (Which of these is chosen depends on such normative assumptions as to whether the life of a 60-year-old is equally important to that of a 5-year-old or how the life of a 2-year-old with measles and leukaemia is compared to the life of a 2-year-old with measles alone.) However comparison, using such indicators, between death from different causes fails to distinguish between the different *processes* of *dying* (cancer versus road accidents for example). Many interventions within the health field are of course not life-saving but concerned with alleviating pain and discomfort, and returning someone to a 'normal' state of health as soon as possible. Measures such as days of sickness averted or working days lost may be used to measure this. However such measures are qualitatively different from those related to death (as opposed to dying) in that whilst death is absolute, different illnesses are viewed qualitatively differently (flu versus schizophrenia for example).

Attempts have been made to provide composite measures, in ordinal if not cardinal terms, of different mixes of pain, death and disability. These include measures such as healthy days of life lost [17] and more recently the Quality Adjusted Life Years (QUALYS) [18]. Amongst these measures two approaches can be discerned; firstly an attempt to set up medically based indices that provide standards against which specific illness can be compared (e.g. can the patient feed him/herself). Whilst such an approach is attractive in its apparent objectivity, it provides no means of comparing between two illnesses with different ratings and different incidences. The second set of approaches such as QUALYS try to face up to such value judgements by basing measurements of the different qualities of life associated with different states of illness, on community assessments, and hence offer the greatest hope for community involvement in such value judgements. However, it is still methodologically in its infancy, and more importantly, through its reliance on mortality rates and its disease-specific nature, is still based on a medical model of health. There are also important questions of value judgement inherent in the methodology—most importantly that of *who* makes the assessments.

The present state of the art however, both in developing and more developed countries, is that CEAs are almost invariably based on simple outcome measures. Such measures are either highly restrictive, or open to misuse. This stems from the need to compare interventions which result in similar outcomes. This can be a powerful tool at the level of determining the most efficient way of dealing with a specified health problem, but as such is essentially concerned with questions of 'how' not questions of 'what'—process not prioritisation. Alternatively, as in the Welsh and Warren approach, comparisons are made between programmes with different outcomes, and as such blur potential differences in the type of outcome.

A further problem exists however, in that the need for simple outcome measures forces consideration of *disease* strategies rather than *health* strategies. However as Unger and Killingworth [6], amongst others, point out, the effect of a reduction in disease-specific mortality, as a result of medical interventions, on the health of a community is far from clear, particularly in poverty situations where deaths averted from one disease, are replaced by another. Whilst epidemiologists and economists concentrate on such medical disease based input–output analyses, the wider objectives of health improvement are likely to be overlooked. This is one of the fundamental criticisms of the selective PHC approach, but can be seen in many CEAs. The direction of the relationship between the medical model of health and appraisal techniques, is unclear and can only be speculated on. It is likely however that the emergence of economic appraisal into the health field, was at a time of strong medical dominance, and for economics to gain a foot-hold, acceptance of such an approach was inevitable. Since then however, the apparent methodological need in appraisal for simple input–output relationships as conveniently provided by the medical model has provided a false synergy between them. Lastly, CEA shares with CBA a number of similar considerations of value judgements as outlined earlier.

2.3. Economic appraisal and priority setting

The preceding has outlined briefly the approaches of CBA and CEA appraisal techniques. Most economists involved in carrying out appraisals are well aware of the difficulties in applying the results of such studies within the field of priority setting. In particular they are aware of the following general problems that the preceding has highlighted:

(a) That appraisal techniques, tend to reinforce a medical model of health through their emphasis on disease, and their methodological difficulties of comparing multi-input/multi-output programmes; hence they are often *project* rather than *programme* orientated, and where they are programme orientated they tend to appraise vertical programmes.

(b) Economic appraisal requires value judgements to be made about:
- —national objectives;
- —which groups, if any, are to be favoured (e.g. regional, income, disease, age);
- —the future compared to the present;
- —whose costs/benefits are to be included;
- —weighting to be given to tangible compared to intangible effects.

Frequently such value judgements are made without the active participation of communities, either because of the difficulties of so doing, or because of a mistaken belief that they are technical rather than political decisions.

(c) The process of economic appraisal is open to misuse as a 'black box' technique, by providing the planning bureaucracy with the means to heavily influence, if not determine, priorities, through its control of the mechanism, e.g. through initial judgements required as to which areas appraisal should focus on, and its parameters.

These potential characteristics run counter to the philosophy of primary health care and in particular its broad concept of health, its emphasis on multi sectoral activities, and its clear requirement for community involvement in priority setting.

The above has deliberately used the word 'potential'. Most economists would argue that they are professionals carrying out a technique which is available for use by planners or the community alike, and into which any set of value judgements can be inserted. Furthermore they would argue that appraisal techniques are not in themselves decision-*making* techniques, but *aids* to decision-making. Whilst strictly true, paradoxically in practice those appraisals which deliberately attempt to set out the assumptions made, are often the least accessible to the non-economist planner, politician or community. If such appraisal techniques are to be reoriented towards PHC, they must be made more accessible, and more relevant non-medical measures of output devised. The final section re-examines the process of priority-setting and looks at possible roles for economic appraisal within it.

3. PRIORITY SETTING AS A PROCESS

The setting of priorities is no new phenomenon being as it is a necessary consequence of scarcity of resources. However the last 20 years has seen a growing *formalisation* of the process as part of a wider interest in and development of planning systems and an extension of the scope and scale of services particularly in the post-independence period for many underdeveloped countries. Early formal plans were often heavily norm-based and institutionally-focused with capital developments providing a focal point for growth. Increasing interest in the *effectiveness* of services (resulting from a mixture of the need to convince donors, and the growing strength and synergy between medical epidemiology and economics), led to public emphasis on preventive services and was reflected in moves to set plan objectives in terms of health status improvement (or more accurately reduction in incidence of specific disease), rather than service targets *per se*. However despite public emphasis on non-hospital activities, the major proportion of resources continued to be allocated in that direction. Two main reasons can be discerned for this: firstly the late sixties was a period of growth in Ministry of Health budgets for many developing countries, allowing the *parallel* growth of hospital and non-hospital activities. However the difference in size of the resource base from which each started and the greater capacity for implementation within the hospital sector meant that hospitals not only continued to grow, but to increase the overall proportion of resources. Secondly, where there *was* strong competition for resources, the size of the hospital sector, coupled with its political appeal, allowed 'rational priority setting' as formally set out in plan documents to be overturned.

The inability of epidemiologically determined plans stressing preventive activities and in particular single disease strategies to be fully implemented, should be interpreted not simply as the result of a shortage of resources, but rather as a demonstration that priority setting is *not* and cannot be a 'rational objective' process, but is ultimately concerned with power relations and value judgements. This can be further demonstrated by the observation that plans rarely deal with *reallocation* of *existing* resources—however inefficient or ineffective they are, but with allocation of additional resources—a tacit recognition of power structures. Such an observance of the status quo was an explicit part of the PAHO-CENDES method. Yet even this degree of sophistication is denied within the selective approach to PHC, which is essentially ahistorical, forgetting that anything existed before.

The resources that were allocated to preventive activities in the sixties and seventies were largely channelled into single disease campaigns (TB, smallpox, malaria, schistosomiasis etc.), both resulting from, and reinforcing, the epidemiological model of priority setting.

The resource constraints arising from the recession of the late seventies, concentrated interest in planning and priority setting and added to the epidemiological model, stronger economic perspective and interest in economic techniques, together with increased demands on information about health or illness and service provision. Shortages of economic, epidemiological and statistical skills inevitably resulted in their concentration at ministry level and greater potential for top-down medical technocratic planning.

However other trends were running counter to this. First, realisation of links between poverty and health, suggested that broader strategies were required if health (albeit defined in medical terms) was to be improved. Second, many countries concerned at their slow progress in implementing developments in the rural sector saw a way forward in decentralisation. Third, and in part, connected with decentralisation were moves in the health sector towards community participation, both as a resource provider, but more importantly as an end in itself.

These strands culminated for the health sector in the Alma-Ata Declaration and commitment by signatories to PHC involving a broader concept of health, recognition of the need for an integrated multi sectoral approach, equity and community participation as a right, and necessity.

The implications of PHC for the process of priority-setting as compared to that prevailing are major, and are demonstrated in Fig. 2.

The tensions set up in many countries by the concept of PHC are understandable when viewed in this context, for PHC calls not so much for medical change as for social change, with major shifts in

PHC	Econ./epidem. approach
Communities participate in proactive process as a right, and to the end of positive production of health.	Communities participate in a reactive process to release resources.
Recognition of links between poverty and health implies need for ability to switch resources between sectors.	Medical model reinforces sectoral boundaries.
Broad concept of health incorporating not only physiological concerns, but relationship to society.	Concept of health as measured by inverse relationship to disease episodes.
Equity reflecting both access to health care and other services, and social structure.	Equity reflecting access and utilisation of services.

Fig. 2

power structures. Responses to these tensions have varied from analyses that PHC is unachievable outside a socialist framework [19], to attempts to dress up previous medical models and call them PHC—as Walsh and Warren did. This latter approach is clearly attractive to many health professionals as a means of accommodating their own technocratic training, and side stepping the fundamental question of empowering communities. These tensions, though present in all aspects of a PHC strategy from its development to its implementation, are perhaps most polarised in the area of priority setting. It is paradoxical therefore that little analysis and research has gone into the process and the role of professionals and their techniques vis a vis the community. Documents outlining WHO's MPNHD [20] for example are remarkably vague in their description of this process and it is assumed that professionals will continue with a similar role to that occupied in the pre-PHC days of medical epidemiology.

Since the Alma-Ata Declaration, interest in community participation has largely focused on training of CHWs (by professionals). However participation of communities is absolutely constrained by existing and prevailing structures of priority setting. Attention needs to be given to the interface between communities and professionals, and the use of techniques such as economic appraisal.

To argue the preceding however is not to argue the disposal of professionals, bur rather to suggest that in developing PHC strategies explicit recognition is required that priority setting concerns value judgements. As such it is the province of the communities and politicians and cannot be left in the hands of planners and their superficially attractive techniques.

A shift in the role of professionals in relation to communities is required; with the general principle of accountability by professionals to communities being paramount. However it must be recognised that different types of priority decisions exist with the nature of the professional's role altering accordingly. The following sets out some preliminary thoughts as to the nature of such decisions, and hence the characteristics of the role of the professional, within a PHC context.

3.1. National level

At the national level, allocation of resources needs to respond to three criteria: equity, need-based allocation, health before health care.

3.1.1. Equity. Determination of equity is a sociopolitical judgement. However inasmuch as a country has adopted the Alma-Ata concepts of PHC, it has already made a formal political decision to promote equity, aiming for equal distribution of access to services on the basis of need.

Working against this effort will be, of course, the practical consideration of existing resource distribution and the political strength of those presently enjoying a large share of the cake.

There has been pioneering work done [9] in some countries to identify existing patterns of resource allocation; and economists have an important role to play in this activity. However for the majority of countries, such analyses are incomplete due in part to both a lack of awareness of the need to evaluate the role of, *inter alia* the private sector, and a lack of appropriately categorised data.

3.1.2. Need-based allocation. Given the strong links between poverty and health, distribution of resources should be based, not on medical indicators, as in traditional epidemiological models (such as RAWP) but on social-epidemiological models that reflect these causal links and are disaggregated on a social rather than purely geographical basis. Identification and measurement of relevant socio-economic indicators should be an important research item.

3.1.3. Health before health care. Resource allocation from the national level down, must recognise the need for an inter-sectoral approach, and at local levels, the necessary ability to shift resources between sectors. Few budgetary systems allow such shifts; and yet this ability is one of the essential prerequisites for successful decentralisation.

If health is indeed the goal, priorities have to be identified not only at the level of primary care, but first, at the level of the total budget; primary care which becomes merely another vertical programme is an organisational phenomenon closer to selective PHC then to that described in the Alma-Ata Declaration.

3.2. Local levels

At local levels, the allocative mechanism that corresponds most closely to PHC would require control by the community and ability to shift resources between sectors. At this level the role of the professional would be in the fields of providing information at the request of communities, i.e. both listening to, and discussing with, communities. Professionals need to be able to respond to priorities from communities being formulated either in medical *status* terms (e.g. reduction in deaths from measles), or in *service* terms (e.g. provision of water supplies or clinic services). Appraisal techniques need developing that are accessible to communities, and that respond to *their* needs rather than those of the technique.

3.3. Within the service

As we said at the beginning of this paper, however, the epidemiological model of planning must be questioned on further grounds—if we take the goals of PHC seriously, are epidemiological values the important ones for health management? Is allocation *really* between diseases, many of which health services cannot cure, and many of which a national health service strategy would safely put in the hands of a reasonably well-trained multi-purpose health auxillary, provided that such a person had access to drugs and a referral system. For the purpose of studying techniques currently used, we have laid aside the question of which *types* of criteria are important. We would wish to argue that a real life health manager will only concern him/herself (if left alone to develop a rational plan) at the margins, with specific diseases. The categories of choice which are *actually* important, include: mix of manpower/professionals; training; weights of services at the tertiary/secondary/primary levels; amount of resources allocated to improvement of the community participation process itself; emphasis on health care infrastructure and operations, emphasis given to staff motivation. These are the decisions which the community cannot directly address, but which the professional manager, having understood the community(ies)'s demands, can incorporate into plans for a comprehensive primary health care approach.

Once the service priorities have been identified, there is a clear role for appraisal, and in particular cost-effectiveness studies, to determine the optimal means of provision. Such appraisals however, again require a process of demystification, and must be structured in such a way that communities and all levels of health worker can be involved in the process.

4. CONCLUSION

The paper has argued that since Alma-Ata, two contradictory strands have emerged within the field of priority setting. PHC clearly recognises that priorities need to be set by communities, whilst the structures and techniques that existed prior to Alma-Ata, and which reinforce biases towards single disease, medically orientated, professionally determined strategies remain. Economic appraisal is gaining in popularity as an 'aid' to priority-setting and yet its application is often open to misuse and manipulation. Arguments for selective PHC are couched in such terms and are examples of the failure of PHC to develop alternative community orientated priority-setting processes.

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Primary Health Care and England: The coming of age of Alma Ata?

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Abstract

The Alma Ata Declaration is now 28 years old. This article uses its framework to assess the changes that have occurred in recent years in the English health system. It summarises the health reform changes that have occurred internationally and those in the English health system in two eras, pre- and post-1997 – when the Labour Party came to power. It concludes that linked forces of managerialism and consumerism have had an impact on the health system which has undergone a number of structural changes in recent years. It suggests that the original Alma Ata focus on equity is being modified by the concept of choice. The tensions between central priorities, often reflected in targets, and local accountability and needs are explored. There appears to be a greater interest in seeking genuine health (rather than solely health care) change, with attendant public health and partnership policies, however the gap between policy and practice still needs to be bridged, and questions as to the appropriate locus and leadership for health promotion activities addressed. However there have been numerous institutional changes which carry the danger of distracting from the purpose of achieving health change, and which continue to raise questions as to the appropriateness of a market model for health. Finally the paper argues that the PHC framework of Alma Ata remains a useful framework for assessing health systems, but needs to be tailored to, and prioritised within, a political dynamic.

Keywords: Alma Ata; Primary Health Care; Public health; Health systems

1. Introduction

Two years ago, the 25th anniversary of the Alma Ata Declaration passed quietly. Yet for many health systems, especially in low-income countries, Alma Ata with its Primary Health Care (PHC) strategy was influential in setting the health policy agenda during the 1980s. In contrast, in high-income health systems, such as the UK, the Primary Health Care strategy was ignored as irrelevant on the presumption that primary level services were already well-developed. Although referred to as "the cornerstone of health services system in the United Kingdom as well as in many countries" [1] the interpretation of PHC as a focus on services, ignored, as we shall argue, the wider universal principles underpinning Alma Ata [2]

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However by the 1990s the Alma Ata polices were overshadowed by policy fascination with health sector structures and reforms. Indeed in some parts of WHO, its original sponsor, it was even regarded as an historic process with little current relevance. Yet the agenda set by Alma Ata is re-emerging albeit hesitantly in key international policy organisations including WHO [3–6].

This article assesses the current health policies and system in England [7] against the PHC approach. It starts by summarising the key elements of Alma Ata, and analyses the historical shifts that have occurred since then. It then assesses the current health system in England using the PHC principles and concludes by identifying future challenges.

2. The Alma Ata Declaration and subsequent international policy developments

The Alma Ata Declaration was signed in 1978 by health ministers at an international conference organised by WHO and UNICEF [8]. It set out a strategy for attaining Health for All which included two distinct levels of thinking – an operational set of services and a number of principles. The operational set of services at the primary level which ranged from provision of immunisations through to adequate nutrition and water supplies), were seen by more advanced health systems as being already in place. The principles, on which we focus in this article, however, can be argued as universal and equally applicable to developed industrial societies as to low-income rural economies. These principles were:

- attention to equity has to be at the heart of health strategies both for reasons of principle and for sustainability;
- decisions about health care services should be made with the involvement of communities both for reasons of justice and in order to ensure that services are appropriate and acceptable;
- health strategies have to incorporate a preventive approach alongside the more widespread curative focus both on grounds of efficiency and appropriateness of approach;
- the wide determinants of health require health promoting strategies that are intersectoral and much wider than the more traditional narrow medical care focus of many health strategies;
- the inevitable shortfall between resources available for health and the total needs of any population reinforces the need for adoption of appropriate technology in health strategies.

Implicit, particularly in the second of these, was a principle that decisions should be made as locally as possible, i.e. that decentralisation of decision-making was important. This was seen as a response to bureaucratic centralism and as such having the potential to promote greater efficiency, and allow greater identification and response to locally determined needs. This ‘principle’ became more explicit in the late 1980s and 1990s [9].

Alma Ata had a strong influence on policy agendas in developing country health sectors. However implementation of the Primary Health Care principles was more variable [10–12] though its influence can be seen in common policy themes such as the development of community health workers, and the adoption of essential drug lists. However by the beginning of the 1990s there was a sense of disillusion in many low-income health systems and international agencies at the failure to make major inroads into the poor health status of many marginalized groups. Attention focused on the causes of this failure and in particular the health system structures and led to a decade in which a, if not the, key policy focus for many developing countries shifted from PHC to health sector reform [13,14]. This was consistent with a wider focus, in part ideologically driven by New Right thinking, particularly in high-income countries, on reducing, or at least changing, the role of the public sector in the area of welfare. This policy focus was shared, and indeed led by, a number of industrialised health systems – and in particular the UK with the reforms initiated by British Prime Minister Margaret Thatcher [15–17]. The reforms generally contained the following elements:

- introduction of market principles of distinction between the functions of supply and demand leading to a purchaser-provider split;
- enhanced role for the private sector as providers of health care, potentially purchased by public sector commissioning authorities;

- attention to approaches to prioritisation with particular emphasis on economic approaches;
- financing of health care with increased interest in individual financing of health care rather than collective responsibility;
- decentralisation of decision-making powers both to lower administrative levels and to hospital institutions;
- introduction of private sector approaches to management (including the concept of leadership, and greater interest in incentives) in contrast with previous top-down command and control lines of authority.

With the exception of decentralisation the above reform paradigm can be contrasted with that of the Alma Ata PHS principles. For example, financing reforms emphasised the individual rather than community – a key aspect of PHC; efficiency rather than equity were key drivers; and the reforms focused on the role of the health service rather than the wider determinants of health.

The international reform process has, in the last 5 years, shifted away from a formulaic set of common elements to a more organic and context-specific approach. This is reflected in the change in terminology away from health sector *reform* to *health system development*. Within the structures themselves, emphasis is placed on issues of governance or, as WHO termed it, stewardship [18] Indeed there has appeared to be, within WHO, a renaissance of the concepts of PHC as symptomised by the call for a return to PHC principles by the new WHO Director-General [3] though the degree of commitment to this has been questioned [6,19].

The last important shift to recognise as part of the policy development process over the last decade, has been the increased interest in evidence-based policy-making exemplified by the focus by WHO at the recent Mexico summit on health systems research and its role in policy-making [20].

Whilst Alma Ata was the dominant policy influence in the 1980s for low-income countries, this was less the case in industrialised countries where PHS was seen as established services. However there were various significant initiatives within Europe and in particular the European Health for All targets [21] and the Healthy City movements [22] which were clearly influenced by

Box 1: Selected key dates In the English health system

1980	Although not officially acknowledged, Black Report was a first attempt to highlight health inequalities in this period
1984	Introduction of principles of general management to the NHS following the Griffith's report. Contracting out services
1990	Policy initiatives to increase utilisation of private sector – tax relief on the premium cost of individual private medical insurance to people of 60+ years
1992	Publication of "Health of the Nation" – the first attempt to introduce public health targets
1992	Introduction of Patient's Charter for England and Wales, which set out 10 rights to which every patient was entitled
1993	Conservative Government began NHS Reforms with introduction of GP fund-holding, private sector management techniques in the NHS, greater emphasis on health needs, health promotion and public health
1997	Election of Labour Government with ideological shift towards wider determinants of health, which resulted in various multi-sectoral initiatives at all levels
1998	Neighbourhood Renewal Strategy – introduction of multi-sectoral approaches at the local level covering five sectors (health, police, education, business and voluntary sector)
2000	New Local Government Act gave new powers to Local Authorities to promote 'well-being'
2000	Labour Government introduced new NHS Plan targeting inequalities-reducing waiting times, enhancing role of PHC level and putting emphasis on health needs – establishment of PHC Trusts, etc.
2002	Department of Health launches a new initiative 'Shifting the Balance of Power' which provided more commissioning power to PCTs and the merging of District Health Authorities to Strategic Health Authorities with a performance management role. Department of Health Regional offices abolished and Regional Directors of Public Health move to Government Offices as part of government initiative to decentralise public sector and put greater emphasis on health promotion and public health
2003	Further decentralisation establishing Foundation Hospital Trusts

2004	Multisectoralism at the national level – Government requirement to develop Public Sector Agreements on cross-cutting objectives
2004	Government publishes Public Health White Paper 'Choosing health' which places greater emphasis on individual choice on improving lifestyles behaviour

the PHC philosophy. However, as we have seen, there was far more congruence in the 1990s between low- and high-income country health sector policies with a shared focus on structural reforms.

We consider that the PHC principles provide a robust framework by which to assess health systems and we use this framework to explore the degree to which a PHC revival is occurring in the English health system. We start by a brief outline of the key features of the changes to the English health systems over the last two decades as an important contextual background to the current structures and policies. Box 1 summarises the key dates.

3. Primary Health Care and England – changes since Alma Ata

3.1. History of UK reforms prior to 1997

The Alma Ata Declaration virtually coincided with the election of the centre-right Conservative Government that was to remain in power until 1997. Following an initial *laissez-faire* health policy during its first term, elements of market reform were increasingly introduced into the UK health sector. These reforms were driven by an ideological belief in the benefits of private over state sector provision, and the power of the market to improve efficiency. They also focused on how to increase the funding base for the health sector and then, more importantly, how the constrained resources available to the health sector could be more efficiently utilised.

Although care remained free at the point of initial access, various user charges were imposed to increase resource generation, most controversially for prescriptions and eye assessments (which still remain for certain groups). Efficiency was focused on, with an underlying belief that increased market competition would produce this, echoing, and indeed, in part leading the global health sector reform movement described earlier. A number of different policy components were included, several proving politically contentious. Key components included firstly the introduction of a split between *purchasing* (or as it later became known, commissioning) of health care and *provision* of health care. Provider units were split from the previously integrated local health authorities and established as semi-autonomous hospital and community health service trusts. Services were then purchased from trusts through contracts. A second component was a shift in the roles of the public and private sectors with encouragement to private agencies, including the voluntary sector, to provide a range of services. This was seen most directly in the incentives offered, through tax relief, for older people to take out private healthcare insurance [23]. Encouragement (such as increased scope for private practice in the revisions of NHS consultant's contracts, town and country legislation favouring private sector development, relaxing controls over private hospitals, adjusted taxation and insurance schemes) was given to the placing of contracts with the private sector [24]. A third component was decentralisation policies ostensibly in response to concerns over excessive, irresponsive and bureaucratic central control (it can be argued that decentralisation also provided a convenient means of diffusing political embarrassment with the NHS at the national level) with greater power being given to lower levels in the health sector through deconcentration. The most significant element of this was the establishment of general practice (GP) fund holding in the mid 1990s, in which local groups of primary care physicians were allocated budgets to purchase certain hospital and community services on behalf of their patients.

Wider public health, and particularly efforts to reduce poverty and its consequences on health, received little direct attention by policy makers. Instead, the so-called 'trickle down' effect was relied upon to ensure that socially excluded and deprived groups in the population benefited, indirectly, by the wealth creation of others. Similarly, there was little interest in 'health inequalities' despite the publication of the Black Report [25]. This report had been commissioned by the previous (Labour) Government in 1977, to assess health inequalities and to make recommendations for action. It, and the subsequent 'Whitehead Report' [26,27], demonstrated both that people from lower socio-economic groups were less healthy and more likely to die prematurely than those from more affluent groups, and that the gap was widening. Black made a number of recommendations to tackle inequalities, mainly through progressive tax and benefits, along with special action zones for the most deprived areas and excluded groups. However the new Conservative Government rejected its findings; indeed the report was never formally published. During the 1980s and 1990s, this inequality widened [28–30]. For example, by the early 1990s, death rates were almost three times higher among unskilled groups as they were for professional groups comparing to two-fold difference in early 1970s; in 1999/2001, the difference between areas with the highest and lowest life expectancy at birth was 9.5 years for boys and 6.9 years for girls [31].

The publication of 'Health of the Nation', in 1992 [32], was the first attempt by a British Government to set health targets. Whilst these focused on the major disease groups (coronary heart disease, stroke, cancer and accidents) there was at last some recognition of health inequalities, though no target was set and the term 'variations' was preferred to 'inequalities'.

Health promotion also received little attention by policy-makers at this time. One exception to this was the high profile media campaign against HIV/AIDS in 1986/1987. Although controversial at the time, with its emphasis on a mass 'blanket' campaign and on promoting changes in personal habit through fear, it is generally regarded now as successful in raising awareness [33,34]. The Health Education Council, the body responsible for setting health education policy and which had led this campaign, came under pressure from the Conservative Government on their approaches to sexual health and community development. This policy difference led the Government to take more direct control of health education policy, by abolishing the council and setting up a new Health Education Authority in early 1987.

The purchaser-provider split resulted in a fragmentation of Health Promotion and Public Health Services. Furthermore, in the context of continual budget restraints, health promotion was also seen by both purchasers and providers as an easy target for cuts. However after the 1993 reforms, which formally established purchasing health authorities, the opportunity arose for purchasing to be based on health gain giving a potentially greater impetus to the science of 'needs assessment'. This became recognised as a key function for new authorities-based on the utilitarian approach of achieving the greatest gain to meet health needs of a given population [35].

With a growing emphasis on both consumerism and managerialism in health care, health boards of purchasing health authorities recruited lay and business non-executive directors. The first represented a new approach towards local\public representation and the ethos of consumer responsiveness and listening exercises [36] and can be criticised for breaking the earlier link with democratic control through local authority representation. The second indicated a shift from public sector management towards greater private sector management techniques.

3.2. The English health system since 1997

The striking thing about the election of the New Labour Government in 1997 was the initial policy continuity with that of the previous Conservative regime. Whilst the ideological commitment certainly shifted to a greater concern with equity and a reinvigoration of a publicly funded national health service, the mechanism continued to be one of market orientation.

The recent approach to health policy, has been founded upon four central tenets:

- setting of defined standards for the delivery of health services and health improvement, linked to strengthened public accountability through regulatory mechanisms;
- decentralisation of health management and decision-making;
- flexibility of health service delivery through the introduction of new contractual mechanisms;
- choice exercised by patients in the quality, range and location of care given to them.

An initial reaction against what were seen as excesses of the market approach, led to the ending of subsidisation of private health insurance and GP fund-holding and the creation of primary care groups (PCGs). However, the fundamentals of the market approach remained; most notably through the retention of the purchaser/provider split. An initial coolness towards the private sector was replaced however by a belief that the private sector could drive state sector efficiency gain by attacking the perceived constraints of professional cartels and the introduction of more modern health delivery processes. Decentralisation was most dramatically evidenced by complete devolution of health sector responsibility to the new administrations in Scotland, Wales and Northern Ireland. Since devolved administrations were established in Scotland and Wales, the government has also pursued greater autonomy for the English Regions. Following pilots in devolving economic development policies to Government Offices in these Regions, the Government set out an agenda to devolve various functions from 1999. This included public health with the move of Regional Directors of Public Health to Regional Government Offices in 2002. This provided a new opportunity to tackle the wider determinants of health such as economic regeneration, education and community safety working [37,38].

Under a new health minister, and with media focus on long waiting times and health care quality, the Government launched its NHS Plan in 2000 [39]. This included pledges to boost NHS funding to tackle waiting times, give greater weight to the primary care level through the conversion of Primary Care Groups (PCGs) to Trusts (the latter with greater authority), a plan to tackle health inequalities and 'codification' of service and health improvement targets into the Planning and Priorities framework. In England, Primary Care Trusts were established covering populations of around 150,000 people. These now control 75% of total state health care resources, with a broad remit to improve the health of their population, purchase hospital services and provide primary care services. In 2002 former district health authorities were merged to form 'strategic health authorities' covering populations of 1.3–4 million and with a performance management function for both primary and hospital care trusts. The Labour Government which was re-elected in 2001 subsequently made a commitment to boost health service expenditure to the European average, and to reform services to meet NHS Plan targets, particularly waiting times for major surgery, and access to services.

In 2003 the Government gave hospitals greater autonomy through the establishment of Foundation Hospital Trusts (FTs). They remain part of the NHS and are subject to NHS inspection and regulation via Monitor (a non-departmental public body established under the Health and Social Care (Community Health and Standards) Act 2003, responsible for authorising, monitoring and regulating NHS Foundation Trusts). However FTs operate outside central control and have accountability to local members who elect a Board of Governors. Some FTs have up to 6000 members – a possibly unexpected level of local interest, although it is still too early to evaluate the effectiveness and genuine representativeness of this type of public involvement. They are funded through a process which links income directly to the amount of activity undertaken within a national tariff system. FTs can access capital markets based on their ability to service debt. This places very direct incentives to maximise business opportunities to improve services. The utility and affordability of additional activity remains a concern at present. One danger of the move to FT status is the shift to private sector accounting standards which potentially exposes historic debt built up in organisations, although in theory this should be dealt with during the FT approvals process.

A significant difference between pre- and post-1997 policy has been an apparent recognition that health improvement requires action on the wider determinants of health. Almost all such determinants are outwith the immediate control of the health sector, and thus there has been emphasis upon multi-sectoral working. An initial exclusive focus on area (community) based initiatives such as Health Action Zones, Surestart, and Structural Regeneration, has given way to local government multi-agency partnerships, called Local Strategic Partnerships, to co-ordinate strategy and implementation. These provided, for the first time since the 1970s, formal structures to work tackle wider determinants of health with an emphasis on community and Local Authority involvement.

The emphasis on efficiency has not mitigated the realisation that the effectiveness of the health sector is critically tied to the overall level of resources invested in it. This has led, since 2000, to substantial planned investment. Between 2002 and 2006 £34 billion, a 43% increase in real terms in health services is planned [40]. However it is clear that, as a result of factors such as changing technology, wage inflation and changes in working practice, this is unlikely to lead to a comparable increase in outputs. Between 1995 and 2003, for example, health inputs grew by 80% at current prices (or between 32 and 39% with pay and price inflation removed) whilst health output has been estimated to have grown by 28% [41].

There has always been recognition that unless the vast majority of the population remain loyal to the NHS, support will inevitably wane leading to a two-tier service giving greater inequality in access and health outcomes. As such, policy has been geared towards maintaining public confidence and trust in the NHS. This has had effects on the willingness of individuals and corporations to subscribe to private health insurance, leading to price deflation in the private sector and service reorganisation with, for example, BUPA (a leading private sector health provider) selling 9 out of its total 35 hospitals in summer 2005 [42].

4. Assessment of current health system in England

We turn now to assess, against the above background, the current health system using the PHC principles as an evaluative framework.

4.1. Equity

The English healthcare system espouses objectives of equity, usually expressed as equality of access for equal need. The right to access is established in common law and any health organisation denying it would face judicial challenge. The attainment of this objective needs to be assessed by the degree of equity achieved in the distribution of resources, the outputs of health services and outcomes in terms of health improvement.

4.1.1. Distribution of resources

The allocation of financial resources continues to be based on refinement of the Resource Allocation Working Party (RAWP) formula first introduced in 1976 [43]. This is calculated on the basis of population weighted by proxies of health need including demographic profiles, and, despite some criticism [44,45] this formula is generally accepted as equitable [46]. Since 2002, allocations have been made directly to Primary Care Trusts (PCTs). The comparison of present allocation versus 'ideal' target allocation gives an indication of the degree of inequity. The policy set for the period 2002–2005 moves all PCTs towards their target allocation, through a combination of a capped increase for over-resourced districts of around 8.5% per annum (still well in excess of inflation) and significantly greater increases of up to 14% for under-resourced districts. The effect of this will be that at the end of the period only four (of 302) PCTs are anticipated to remain more than 10% under target, and eleven PCTs more than 10% over target [47].

Similarly, there has been recognition of the inequity of distribution of human and physical resources. The NHS Plan [39] sets challenging objectives for increasing the number of health care staff. Targets have been set for strategic health authorities in proportion to the base differential from national comparator benchmarks for specific cadres e.g. numbers of community nurses or hospital consultants. The rationale for such targets can, however, be questioned especially as health service modernisation drives skill-mix changes making historically based comparators, focusing on the availability of single professions, difficult to interpret. Specific financial incentives were introduced through 'golden hellos' to encourage GPs to take up appointments in more deprived areas. However the effectiveness of these in contributing to greater equity was limited and the scheme was withdrawn in April 2005. This reflects a shift towards addressing resource management issues at local rather than national level, and a realisation that equity of outputs and outcomes are of greater importance than attempted national micro-management of inputs.

Strategic health authorities allocate capital resources to trusts, although the majority of capital in the health service is now controversially raised through private finance initiatives (PFI) with concerns both about privatisation of the NHS and about potential for overextension of recurrent commitments. Allocation of public capital is dependent upon a variety of factors, such as existing building stock, making direct equity analysis complex. The most glaring examples of estates inequity occur within primary care services, in inner city areas. To respond to this, legislation has been enacted to allow the establishment of Local Investment Finance Trusts (LIFT), a public/private partnership focused on producing increased capital resources for community-based services. It remains too early to evaluate the effectiveness of such initiatives, though it has attracted criticism including a concern that this is likely to result in for-profit ownership and leasing of primary care facilities with potential for misalignment with population health needs [48].

4.1.2. Health care outputs

Any assessment of health system outputs faces a bewildering range of potential measures that reflect the controversy around overall system productivity. In terms of assessment against the equity principle of PHC, we focus on two-attainment of equality of access as measured by the proxy of waiting times and attainment of equal geographical quality of health services-the end of what is called 'postcode prescribing'.

Waiting lists are the most tangible symptom of inequity within and between the public and private health sectors in England. Eradication of waiting lists has therefore become a policy priority to promote equity and maintain public confidence in a publicly funded health service. The NHS Plan set out annual milestones towards eradication of waits in excess of 3 months for outpatients and 6 months for in-patients by the end of 2005. Substantial progress has been made to reduce waiting lists both in total size and, more importantly, length of waiting time. There has been a reduction from a peak of 1.3 million people on NHS waiting lists in April 1998, to 857,221 in October 2004 [49]. Within this figure there is a significant reduction in those waiting in excess of 6 months falling from 264,000 in March 2000 to 69,638 in October 2004. The waiting time ceiling target has also reduced from a maximum of 18 months to 9 months [50]. Although there have been examples of outliers from the general levels of improvement across the country, these variations have been usually within a few percentage points of overall attainment.

Attention is also now being paid to the, often hidden, issue of waiting times for primary care services. According to the NHS plan, by the year 2004 all patients are expected to have access to GP within 48 hours and a health professional within 24 hours [39]. Whilst at the end of 2001 40% of PCTs were finding it hard to meet these interim targets, particularly the second one [51], by 2003/2004 the majority (79% and 84%, respectively) of general practices were meeting these key targets [52]. The Minister of Health stated that "97% of patients are now able to see a GP within two days" [53]. The Commission for Health Improvement, however, has criticised PCTs as "...technically meeting their target while actually not achieving the underlying goal"; PCTs were not offering any appointments in advance of 48 hours [54], an example of the dangers of the perverse managerial incentives built into such targets. The importance of this is illustrated by the fact that political attention (with particular embarrassment for the Prime Minister who appeared unaware of the issue) was focused on this particular issue in the last election. Policy objectives for the future focus on waiting for diagnostic tests and times from referral to treatment (including any need for diagnostic tests). Whilst this may be desirable in promoting patient care, it does have the effect of further diverting priorities towards acute care provision and away from chronic care such as in learning disability.

Stronger central policy definition and regulation, through for example the development of National Service Frameworks (these are long term strategies for improving specific areas of care, by setting measurable goals and time frames) is aimed at reducing variation in the quality of health service delivery across the country. Although variance still exists [55] there is evidence through the assessments in clinical governance reviews and annual performance assessment ratings by the Healthcare Commission that quality is improving and variance reducing [56].

4.1.3. Health outcome inequalities and equality and diversity policies

The Labour government has given high priority in its policies to reducing the levels of inequity in health experience alongside an objective of improving general health levels. A recent report monitoring progress on inequalities suggests mixed results in terms of achievement against these policies [57]. On the positive side progress is reported on child poverty and housing and in some specific disease areas. However for two key indicators – inequalities by social class in infant mortality and life expectancy have widened. The independent monitoring group also calls attention to need for greater focus on other forms of inequality including by ethnicity. The following explores the details of this.

One important proxy measure of population health is average life expectancy at birth. Throughout the 1980s to the present, there was steady increase in life expectancy [58]. However, significant gaps in life expectancy remain, both geographically and between socio-economic and ethnic groups [59–61] – for example, there is a two-fold difference in infant mortality by social class [62]. Generally whilst average population health improves, persistent gaps in health experience between the rich and poor remain and in some cases are even widening [63,31]. Health Action Zones were created in 1998–1999 in 26 areas across England particularly challenged by poor health and lower life expectancy – largely in the post-industrial urban areas in the North of England and London. Persistent inequalities were acknowledged in subsequent initiatives such as 'Programme for Action' and 'Spearheads' and 'Communities for Health' launched with the publication of the Public Health White Paper in 2004 [50]. All these initiatives have a common theme-to provide extra resources for community development and cross sector activities, particularly across the Local Government departments such as education, community safety and regeneration, recognising the wider determinant of ill health. However, whilst all these initiatives had been positively received by PCTs and the public health community, the timescales for reversing the trends in life expectancy will require political commitment for many years.

One important and persistent area of health inequality has been for minority ethnic groups. Despite many national and local initiatives, poor health inequalities persist [62]. For example, perinatal mortality within communities with Pakistani and Caribbean origins is almost double the national average [64]. Furthermore, recent widespread criticism of 'institutional racism' in some areas of public service, has led the government to launch a new programme to promote diversity and mentorship.

In summary, it can be seen that there is now more apparent interest in inequalities than previously. However, unsurprisingly, the health inequalities are significantly a function of wider forces outside the direct control of the NHS, and raises major challenges for the NHS at different levels in its growing health promotion responsibilities as discussed later.

4.2. *Participation and decentralisation*

Increasing levels of participation and decentralisation have been central objectives of recent English health policy [65–67]. In addition to the necessity to maintain a balance between strategic and local priorities within partnerships between NHS and local authorities [68], there continues however to be tension between the participation of *individuals and patients* versus the participation of *communities*.

4.2.1. *Participation*

In the early 2000s, UK legislation promoted the participation of patients and community in health [69], with the expectation that this will ultimately improve accountability [70]. Problems remain however in developing effective relationships between NHS and the public to secure accountability [71].

A number of models of participation for community accountability and involvement in planning of health services have been tried. From 1974 to 2003 Community Health Councils (CHCs) which were non-elected bodies had statutory rights to be consulted on changes to the health service. In late 2003 the CHCs were abolished as part of the wider changes in the NHS [72] with the aim to increase public involvement in the NHS via the establishment of alternative means of community involvement such as Overview and Scrutiny Committees and Patients' Forums. The rationale appeared to be a desire to align patient inputs with specific health care organisations but this can be questioned on the grounds that the public does not necessarily view health care in such organisationally constrained terms.

Another model involves non-executive representation on the boards of healthcare organisations, such as NHS trust boards; however their line of accountability is clear – to the Board chair and through him/her to the Strategic Health Authority. This raises questions as to the accountability of such representatives unless there is a clear link to democratic processes such as local government. As we have seen, FTs include a membership element designed to provide a form of community accountability, but still untested. The role of the public in healthcare inspection processes has been strengthened through, for example, the use of lay assessors in the visits of the Healthcare Commission (a body set up to monitor health care quality and practice) and the annual quality assessment process recently required in all general practices, though their genuine involvement in the process remains to be evaluated.

Increased scrutiny of health services, in particular the effectiveness of their processes for public involvement, is also a function of the recently established Patient Forums which link a group of local residents to their healthcare organisation. An explicit role has also been established for local publicly elected authorities to question directly the running of district health services. Citizen's juries, another form of public involvement in health decision-making, have been commented on positively [73,74] and legislation has been enacted which requires healthcare organisations to consult formally with the public on all major changes to service provision [75].

Additional initiatives include analysis of health which includes public perceptions of health and health services. A national patient survey, which can be disaggregated to district level, has been conducted since 2002. This has yielded information on local priorities. More immediate and direct feedback from the public is provided by the Patient Advice and Liaison Service (PALS) established in all healthcare organisations. PALS provides mechanism for the public both to seek advice on using health services, and to register concerns about the delivery of health services. Information from PALS has proved more sensitive and reliable to track the quality of service provision than the more traditional reliance on formal complaints [76].

In 2001 the Modernisation Agency was set up to spear-head dissemination of health improvement methodology across the NHS [77]. The stated objective was to place the patient at the centre of redesign efforts. To enable this, tools such as patient led process mapping and the use of patient questionnaires and histories have been encouraged within the service. These provide opportunities to analyse services from a patient, rather than medical, perspective. Although a number of discreet examples of improvement can be identified, the overall impact is less easy to quantify. Patient surveys indicate a fairly constant level of approval rating for quality of care since they were initiated in 2002 [78,79].

4.2.2. Choice

Choice is a policy theme that places the individual and the decisions they take about the quality, range and location of care available to them at the centre of the healthcare dynamic [80]. This gives increasing importance in policy to individual consumerism as contrasted with the PHC approach to *community* participation. However, for choice to be genuine, a real set of different and accessible care options needs to be available. Patients can then assess their choices by trading off various known access and quality parameters weighted by their individual values. Participation through choice is seen by policy-makers as an important driver in making services more responsive to individual wishes and preferences.

Choice as a policy initiative has become closely aligned with efforts to diversify provision through encouraging a greater range and plurality (public and private) of providers. As well as promoting choice, the rationale for plurality is also seen as enhancing contestability between health services, which is perceived as encouraging efficiency. The most tangible result of plurality policies has been the introduction of independent sector run treatment centres and an objective to increase significantly the volume of private sector provision contracted by the NHS over the next 3 years [81]. There are however a number of criticisms made of the dangers of such pluralism and the potential for growing privatisation [82,83]. In particular, growing numbers of private providers could change the balance of power in the medium term with concomitant potential for "rapid cost inflation, rising transaction costs in managing the market, and an inability of governments adequately to regulate the private sector" [84].

Increasing choice by driving appropriateness and efficiency is also perceived in some quarters as promoting equity, as summarised by a recent statement from the health minister:

> *The post-war welfare state was characterised by a belief that services could deliver equality through the provision of the same services to everyone. What became clear is that different people have different needs and that uniformity of provision fails to provide equity of provision for people with different needs. Different provision suited to different needs will encourage equity [85].*

There are, however, several potential negative aspects to the focus on choice. Firstly, the ability of patients to exercise genuine choice is adversely affected by levels of deprivation, e.g. access to transport to move to alternative providers. Thus more affluent and articulate groups potentially seize differential benefits. This is exacerbated by the growing ability of certain groups to access information through sources such as the internet, which may provide selective social empowerment. Secondly, an almost inevitable consequence of increased competition is failure of some providers. This may have significant effects on local access in affected areas. The implications of this have yet to be tested.

It remains too early to judge the success of the 'choice' initiative, but it provides a new perspective on, and interpretation of, individual participation driving other aspects of PHC.

In summary, the last few years has seen a number of new initiatives in the area of community and individual participation in decision-making in the NHS with attempts to operationalise the rights of the public to be consulted, with mechanisms to provide greater accountability. This coincides with, or indeed may be driven by, heightened expectations by the public as to their rights within health and health care delivery, which is likely to grow. At the community level, there remain doubts as the representativeness and genuine accountability processes, given the lack of links to a democratic process. At the individual level, participation is being increasingly interpreted as providing alternatives for choice, which raises questions as to the genuine nature of the choices for certain social groups, and a different interpretation to that of the original Alma Ata Declaration which focused on *community* inputs to decision making rather than individual roles and responsibilities.

4.2.3. Decentralisation

At the core of efforts to promote decentralisation has been the establishment of Primary Care Trusts (PCTs) with the functions of improving health both through public health responsibilities and the provision of health services either directly or through commissioning. Underpinning this was the need to work in partnership with other organisations, notably local authorities and many PCTs are seen to be "...developing partnerships more effectively than any of their NHS predecessors" [86]. It is important to recognise however, that while an overt rationale for decentralisation is a desire to allow central government to focus on key policy levels such as regulation and standardisation, this paradoxically may lead to greater centralisation. Furthermore, some analysts have argued that the origins of the current decentralisation in the Thatcher reforms were based in a political desire to shift responsibility for the failings of the NHS away from central government.

When first established PCTs were seen as powerful entities in shaping both the future provision of health services and efforts to implement health promoting initiatives, through a strong community basis, and a primary care view on the design of health services. The effectiveness of PCTs in leading commissioning has, however, been increasingly questioned due to the continuing dominance of large hospitals and inadequate capacity of PCTs to successfully perform public health function [87]. Recent policy guidance has given greater emphasis to decentralisation within PCTs [88,89] through the introduction of practice-based commissioning to enable primary care physicians and patients to have a direct influence on service commissioning.

However, since 1997, the scope for genuine self determination of local bodies remains restricted, as a result of the large number of centrally driven targets, and performance management approach. In response to this, financial and target setting systems are being reformed to support local target setting as the next logical stage in supporting local determination. This is seen in two policy areas.

Firstly, greater power and autonomy for local government is being sought [90]. One of the early manifestations of this is 'Local Area Agreements' being piloted in 21 local authorities, to release nearly all previously earmarked funding for local determination. Health is one of three 'blocks, together with 'children and young people' and 'stronger safer communities'. However a central hand remains present with local organisations needing to demonstrate that they can deliver on nationally set targets within budget, before being given greater responsibility – the concept of 'earned autonomy'.

Secondly, attention is also shifting towards a greater development of locally determined health targets. All PCTs are required to agree a range of targets for local health plans. As long as these comply with a national prioritisation framework and can be seen to be sufficiently challenging, then PCTs have the power to determine them. However, the usefulness of this power is questionable as pursuit of national targets usually consumes all resources available at local level.

In conclusion, there are clear tensions between the desires of national politicians to drive change through centrally imposed targets, and to allow greater freedom at the local level to determine and respond to their own priorities, with the latter clearly being closely related to the conceptualisation and approach to local participation discussed in the previous section. What is the balance between accountability upwards to the national level and accountability downwards to the community? [91] As Peckham reminds us, Butler pointed out 10 years ago: "it is still not clear whether the NHS is a central service that is locally managed or a local service operating within central guidelines" [92]. The management of these tensions remains an ongoing political challenge.

4.3. Prevention and health promotion

In recent years has been greater emphasis on prevention and promotion. This can be viewed at different levels – that of general government policy concerning the determinants of health, and the specific activities of the health agencies. In the next section we examine the institutional arrangements for intersectoral activities in pursuit of a public health agenda.

4.3.1. National health promoting policies

Since 1997, the Government has embarked on a more progressive (though still cautious) tax and incomes policies and more socially inclusive policies. There is some evidence that the increasing gap between lower income groups and other groups has halted and in some areas, is narrowing [93]. However data is mixed. The economic and social gap between London/Southern England and the post industrial North (the so called North–South divide) is reported to have widened on a number of economic and social indicators [94–96]. Efforts to address these persistent inequalities have intensified since 2002. For example there is renewed effort to ensure open access to higher education, assistance for public services in areas of high deprivation, economic regeneration policies and access to NHS services through the use of health equity audits which are designed to influence local allocative and service improvement decisions. Audits [97] are expected/designed to identify how fairly services or other resources are distributed in relation to the health needs of different groups and areas, and the priority action to provide services relative to need.

In 2002 and 2004 the government published reports into NHS financing and opportunities for preventing ill health-the Wanless Reports [98,99] which criticised public policy in the area of prevention and accused the NHS for its emphasis on acute care. Interestingly this report originated from the finance ministry in recognition of the high cost of failing to achieve a public health policy. It predicted an exponential year on year increase in the demand for health services and outlined scenarios on how this increase in cost could be prevented or contained. It recommended that only when individuals are fully engaged in their health can there be any opportunity to prevent ill-health. The report was welcomed by the health sector and public health community, although critics point out that the report emphasises individual choice rather than wider community and government action [100,101]. The Government subsequently consulted and published its Public Health White Paper *Choosing Health* [50]. This attempts to define the role of individuals and communities and government in public health policy in the 21st century and states that its prime objective is to empower individuals to make healthy choices about their lifestyles. The government's role is seen as creating an environment which will enable disadvantaged people to make healthier choices and to protect those (such as children) who cannot make choices themselves. At the national level there have been various institutions aimed at providing health promotion leadership, of which the most recent, the Health Development Agency, recently merged with the National Institute for Clinical Excellence to become the new National Institute for Health and Clinical Excellence (to continue to be known as NICE). This is intended to reflect the need to advise on good practice in health promotion as well as continuing to assess and issue guidance on clinical procedures and treatments.

The Government's Public Health White Paper [50] contains proposals to introduce smoke-free public places by 2008. There is, however, a loophole-pubs and bars which do not serve prepared food will be able to allow smoking on their premises[1]. The BMA in a recent study found that 9 of out 10 towns and cities with the highest proportion of 'non-food' pubs are in the north of England or the Midlands [102]. This suggests further differences in health status contradicting to Government's policy to reduce health inequalities.

Following the terrorist attacks of 9/11, the government increased investment in public health services to prepare for new threats to the public's health from

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[1] An interesting, and politically significant, difference from other parts of the UK and in particular Northern Ireland and Scotland.

nuclear, chemical or biological weapons. In England, this was one of the reasons for re-organising the communicable disease control and emergency planning functions, which were fragmented at local and national levels into a Health Protection Agency. Although this investment has been in a narrow field within public health, this increased awareness and investment has had some spin-offs in other areas of public health, particularly in communicable diseases such as STI and HIV/AIDS.

4.3.2. Role of PCTs in prevention

Each PCT is now required to promote the health of its population – a shift from the traditional general practice patient-centred approach. Health promotion's organisational location within primary care has meant its re-focusing at this level, on health improvement for defined populations. Health promotion services have enjoyed a renaissance with this focus and have engaged in area-based initiatives such as Health Action Zones (HAZs) [103]. However one downside of this has been the loss of a co-ordinated approach in large conurbations where previously functions such as communicable disease control were led from a wider level. Furthermore, the continued political attention to targets such as waiting lists for acute care, inevitably put pressures on PCTs to respond to these, at the cost of attention to wider preventive activities.

One of the implications of the principles of Alma Ata was the need to integrate promotion, prevention, curative and rehabilitative services at the primary care level. To address this integrated approach to prevention National Service Frameworks (NSFs) have been produced for heart disease, cancer, diabetes, older people and child services amongst others. A defined set of proposals now exist to move towards a single holistic approach to health and health care. Whilst certain variations exist, NSFs appear to have been successful in focusing attention and initiating service improvement. Indeed one of the functions of the NSFs is to provide explicit standards to help with equity goals, given as we have seen that in 1990s there were major inequities in provision and use of health services in England [104].

Concern exists however that resultant services, such as smoking cessation, whilst improving overall levels of health still suffer from differential access and effectiveness leading to widening health inequalities.

The above suggests that there has been a greater interest in public health and personal prevention than in previous decades. However, a significant gap between policy and practice continues to exist and to reflect the dominance of acute care thinking in the NHS. There clearly remain areas where public health and preventive policies are less strong than would be desirable, both in terms of national initiatives (such as smoking legislation) and at the local level in terms of co-ordination of activities. This raises in itself questions as to whether the NHS (or any similar health care service) can transform itself into a lead health promoting agency or whether such leadership is more feasible from a different organisational location within government and we turn now to an examination of the relationships between different sectoral actors in health promotion.

4.4. Multisectoralism

The principle of multisectoralism is derived from a desire to promote good health by focusing on the determinants of health, and as such is closely related to the previous section. Here we examine particular mechanisms at different levels for enhancing collaborative work across sectors.

4.4.1. Local partnerships

In 2001 the Government launched a Strategy for Neighbourhood Renewal [105]. Five sectors (health, police, education, business and the voluntary sector) are required to work with local authorities to establish and manage Local Strategic Partnerships (LSPs). All areas are required to establish LSPs, but the Strategy also identified 88 most deprived LA areas ear marked for additional funding to support local work. Nearly all PCTs participate in LSPs-many with specific local health objectives.

Increasing attention is being paid to formal arrangements to link health with directly related areas of public sector provision. The potential to establish Care Trusts fusing health and social care has existed for several years, but this power has only been availed by a limited number of organisations. Much more significant are the implications flowing from the Children's Act (2004) which require the establishment of Children's Trusts in all local authority area under a single Director of Children's Services. Although at a fairly early stage of implementation and with significant potential for local flexibility it is already clear that health, social and educational services for children will have to become increasingly integrated over the coming years. Knock-on impact into models for adults and older people is likely.

4.4.2. Regional partnerships

Government Offices, alongside Regional Development Agencies (RDAs) and Assemblies act as a key partnership at this level. Nine Government Offices exist in England and through the provision of the White Paper "Your Region Your Choice' (2002) allow for these organisations to work in partnership on cross sector planning at a regional level. Through the Regional Directors of Public Health a number have agreed partnership frameworks and plans to tackle health inequalities. Also at Government Office level, other partnerships have developed with the voluntary sector, businesses, education (learning skills councils), the environment (Countryside Agency) sport (Sports Boards), and culture, which have led to incorporation of health improvement objectives into other sector strategies. For example, most regions now have regional housing strategies which require meeting population health needs for new housing development – particularly warm affordable housing in deprived areas. Similarly sporting strategies now incorporate health improvement as a key aim through improving participation in sport and leisure. However as in many areas of government policy implementation at the regional level, there is a lack of robust research on the effectiveness of these partnerships.

4.4.3. National Government Partnerships

During 2004, the Government issued its 3 years Comprehensive Spending Review, which includes spending plans for each department. The Treasury requires each department to make 'Public Sector Agreements (PSAs) on cross cutting objectives. Public health, for the first time, is a key theme in this review. Each Department is required to establish new partnership arrangements across Whitehall. For example there is obesity PSA, which requires the Departments of Health, Culture, Media and Sport and Education and Science to collaborate to reduce the obesity epidemic (through education, access to leisure and sporting facilities and health promotion). These partnership agreements are new in tackling upstream wider determinants of health at Central Government level; their impact is still to be assessed.

The preceding sections on prevention and multisectoralism have indicated a weakness in the Alma Ata framework. The rationale for a multisectoral approach is, of course, the opportunity for action on the wider social determinants of health, and as such, a major opportunity for health promotion. Assessing the two criteria together, suggests that there has been a significant increase in interest in health promotion in recent years both within the health care system and in other parts of government. Interestingly some of this has been driven by an economic agenda. The impact of this new emphasis and its institutional mechanisms however remains to be evaluated, including the ability of PCTs to take on a genuine broad population-based role and the ability of government to provide sufficient incentives to obtain genuine cross-agency working. Underlying all of this are questions as to the ability and indeed willingness of the NHS, given its history of focus on acute care, to lead on a health (rather than health care) agenda [106]. At the national level, the major thrust towards public health has emanated from Treasury concerns over the economic cost of preventable illness. Furthermore, political considerations have led, to reluctance to "challenge powerful commercial interests that undermine public health" [107]. At the local level, despite a number of important partnership initiatives, the frequent reorganisations of the health service have not helped to allow the emergence of genuine and sustainable partnerships on a health agenda.

4.5. Appropriate technology

Health technology is potentially an all encompassing concept. For the purposes of this paper it is taken to be the set of techniques, drugs, materials, equipment and procedures used by health care professionals in delivering health care to patients and the systems within which such care is delivered. Appropriateness is a more problematic term to define and encompasses criteria such as relevance, safety, cost, usability, feasibility, community and cultural acceptability. Some of these have already been considered elsewhere in this paper.

As a highly advanced increasingly post-industrial economy within which many health technologies have been adopted with a well-trained workforce, many aspects of appropriateness appear well met at a general level. Although not expressed in the direct terminology of appropriateness, concern for maximising the efficiency and effectiveness of healthcare technology has been an important facet of recent health policy. There has been a focus both on individual technologies and their location within healthcare processes.

The Wanless Report [98] highlighted three particular aspects:

- the continuing importance of NICE in examining newer technologies and older technologies and practices which may no longer be appropriate or cost effective;
- extension of National Service Frameworks to other areas of the NHS, to include estimates of the resources – in terms of the staff, equipment and other technologies and subsequent financial needs – necessary for their delivery;
- recognition that a key priority is the need for effective investment in Information and Communication Technology (ICT) with a major programme being required to establish the infrastructure and to ensure that common standards are established.

4.5.1. Healthcare Technology Assessment

The need for effective health care interventions, which provide the maximum benefit appropriate to the resources has led to the development of a National Institute for Health and Clinical Excellence (NICE) which makes recommendations to government and clinicians on the most effective treatments available.

Currently, NICE produces three types of guidance:

- technology appraisals – guidance on the use of new and existing medicines and treatments;
- clinical guidelines – guidance on the appropriate treatment and care of people with specific diseases and conditions;
- interventional procedures – guidance on whether interventional procedures used for diagnosis or treatment are safe enough and work well enough for routine use.

A significant proportion of interventions is assessed as not appropriate for support and therefore should not be made available within the NHS. The recent plans to incorporate the Health Development Agency into NICE will mean that similar approaches will be adopted for public health interventions.

NICE appears to have attained a high level of influence and credibility within the health sector, in determining the health technology assessment and dissemination process and thus its appropriateness within England. Its explicit rulings may also provide a focus for lobbying by interest groups as has been shown recently in public debate over the provision of cancer drugs.

4.5.2. Information and communication technology

The publication of the Wanless report in 2002 led to the production of a new national strategy for ICT [108]. Three main objectives were set to:

- support the patient and the delivery of services designed around the patient, quickly, conveniently and seamlessly;
- support staff through effective electronic communications, better learning and knowledge management, cutting the time to find essential information (notes, test results) and make specialised expertise more accessible;
- improve management and delivery of services by providing good quality data to support NSFs, clinical audit, governance and management information.

Implementation through the National Programme for Information Technology (NPfIT) has focused on:

- greater central control over the specification, procurement, resource management, performance management and delivery of the information and IT agenda;
- development of the infrastructure, including improving broadband capacity, giving central storage (allowing sharing and analysis) of all health information;
- development of key applications which allow effective integration of care around the patient.

Implicit within this was recognition that current ICT had been inadequate in delivering appropriate technology. The previous decentralised approach had led to a multiplicity of systems standards and applications, making effective system communication and integration virtually impossible.

Substantial controversy has surrounded the implementation of the NPfIT over recent years. Major concerns have focused on cost, programme feasibility, confidentiality of records and resistance of professional groups to adopt new technologies and working practices. Although progress is being made in establishing the core infrastructure, many of the anticipated benefits for staff and patients remain unrealised.

Attention has also focused on improving levels of patient access to healthcare information through both telephone and internet routes. A national telephone access point – NHS Direct – provides advice on handling medical problems based on standardised care algorithms. Efforts to introduce telecare remain at early stage, except in certain vulnerable groups [109] and highly rural locations.

This discussion has focused on two critical aspects of health technology: assessment processes and the importance of ICT in delivering modern integrated healthcare. These suggest that concerns about, and delivery of, appropriate healthcare is an increasingly important aspect of health policy.

5. Conclusions

This article has provided an assessment of the current English health system against the Alma Ata PHC principles. There are two broad areas of conclusion. The first relating to the English health system and the second concerning the PHC principles.

5.1. Assessment of the English health system

Although within the English health system, the perception and understanding of Primary Health Care as a specific strategy has often been limited, the various principles which underpin PHC are in fact largely implicit within health policy. The English system has come some way from its days of excessive secondary care dominance of health services and the internal market of the 1980s, although significant elements of the market still exist.

Clearly health policy has evolved, and is currently located, within a socio-political context that has changed substantially over the past 25 years. Two linked forces: consumerism and market management can be seen to have had a significant impact on the interpretation of PHC within the English healthcare system.

The rising importance of consumerism can be seen to have led directly to increased attention to choice in the type and range of healthcare, based on individualised rather than community needs and rights of users. Logically such choice can only be meaningful if a range of diverse providers exists and is genuinely accessible to all social groups. To avoid significant potential inequities such a market needs to be tightly managed with a clear centrally defined system of pricing and standards. Indeed whether choice requires a 'market' as such, is open to question. This at first sight paradoxical need for tight national systemic regulation in defence of local choice is an example of the wider tension that is evident in the recent history of the English health system – between a desire to drive reforms centrally and to allow greater decentralisation.

Yet the ability to exercise choice, both in terms of service access and health promoting interventions, is directly linked to social factors. This explains the increasing paradox in English health; rapidly improving health service outputs, processes and overall health outcome indicators, alongside widening equity gaps. There is a real danger that the new emphasis on choice (unrealisable for some) may result in further widening inequities. Closely related to this are questions as to the relative roles of the state and the individual, with difficult balances to be made between the roles of individuals *as individual* actors in pursuit of their own health, the roles of individuals as part of a *wider community* making decisions as the nature of priorities and services and the roles of the state in leading and responding to democratic processes. This tension is well illustrated in the policy area of smoking in public places, and which has led to different political responses in England from Scotland.

Improvements in outputs have come at substantial cost and increasing concern has been voiced about the overall efficiency of the health service. This led to the initiation of the Gershon Review [110] which recommended reductions in non-service overhead costs by 15%. As well as ineffective managerial structures, a significant driver has been rising unit labour costs. New contractual arrangements for all major staff groups, most significantly for general practitioners and hospital consultants, have not resulted in the expected improved productivity. Weaknesses in organisational design and human resources policy pose significant risks to the attainment of sustainable PHC based services.

Underpinning all of the above however is a more direct question as to the appropriateness of a market model in health. The Thatcher reforms introduced a market into the British health delivery system and subsequent reforms have essentially responded in one way or another to this paradigm. Some commentators [111] have argued strongly, that this market philosophy should be rejected; and that this does not need to imply a return to old 'command and control' approaches to the NHS. Instead it is argued that a third way is required which addresses the needs for reform without resorting to market principles and drawing on principles of mutualism (idem). We have not addressed this issue directly in this paper, but it is clearly a critical one. Indeed alternative models for structuring the health service will inevitably have implications for the principles of primary care that we have examined, such as participation. The original concept of participation by communities in decisions was intended to be more than the sum of individual participation in their own health care needs. A market approach to health care emphasises the individual as a *consumer* rather than as a member of a *community*. Such more communally based participation is not easy to see in the English health system. Whilst, the new roles for Local Government in public health, identified in the Public Health White Paper, may provide an opportunity for more local democratic accountability for health, PCTs and FTs are not, in any sense, democratic and cannot be argued to be representative in any sense of the wider community. This remains a major challenge.

One particular aspect of this relates to the continuing tension between the setting of central policy, as expressed by central targets, and local policies to reflect community needs and interests which is evident within the present system.

One of the major policy shifts that does however seem to be appearing within the English health system is greater attention to the wider determinants of health rather than a narrower healthcare agenda. The critical question is whether these policies can be turned into practice. If this is genuinely implemented and sustained, then this could provide a set of experiences for other countries that struggle to move beyond the narrow and medically dominated interpretation of health policy. Policies to regenerate deprived areas economically and socially will have a direct impact on health. Similarly, health promoting schools and workplaces are likely to provide opportunity for heath improvement outside the direct responsibility of traditional health care systems. However there is some evidence that the government may not have the desire to show political leadership in some areas of public health promotion and where necessary challenge commercial or indeed professional interests. Linked to this are questions as to the most appropriate focus for leadership in public health and whether the current structures allow the genuine development of sustainable partnerships for interventions on the wider determinants of health.

Lastly the last 15 years of reform of the English health system has been characterised by a combination of changes in the structure of the system accompanied by a proliferation of institutional responses to policy challenges. As one commentator has suggested this has been a "phenomenon of 'dynamics without change'" [112]. Indeed, as this article is finalised, a further round of reforms is being prepared for implementation. This is to some degree paradoxical given the political stability which would have suggested the ability to develop a single cohesive approach. There would appear to be a real danger that such the frequent institutional reconfigurations have the danger of masking, and indeed detracting from the underlying objectives and principles of any health system, and in particular those of PHC.

5.2. *Primary Health Care as a framework*

The dichotomies and tensions within and between AA principles are well illustrated by the experience of the English healthcare system. This illustrates the need to recognise that political value judgements will always be required to prioritise the AA elements giving the implementation of PHC a particular and changing interpretation.

The exercise has not only identified traditional tensions in any health care system (such as equity versus efficiency and central targets versus local autonomy) but interesting new tensions which need further exploration.

For example Alma Ata does not identify the role of government in health improvement and individual choice. Indeed it could be argued that there is a paradox in this paper in that we have focused on the public sector responses to ill-health. However implicit in the interpretations of the PHS principles is the need for state action, and given the endorsement by health ministers, such a focus is regarded as appropriate. The English White Paper attempts to define the boundaries of government and individual responsibility for a 21st century Western society. It states that individual must take responsibility for making personal healthy choices and that communities and government has a role in creating the right conditions for healthier choices, particularly if those conditions encourage poor healthy lifestyles. This particular boundary may not be acceptable within all societies. However it does provide an example of the sort of policy concerning the role of government that is required.

Indeed, the degree to which a market orientated health care system can support the attainment of PHC objectives presents an interesting challenge to conventional PHC thinking.

Finally, we consider that an exercise such as this is worthwhile is tracking progress and we believe that further mapping by other countries will shed light on useful comparisons.

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Health for all beyond 2000: the demise of the Alma-Ata Declaration and primary health care in developing countries

John J Hall and Richard Taylor

ABSTRACT

- Access to basic health services was affirmed as a fundamental human right in the Declaration of Alma-Ata in 1978.
- The model formally adopted for providing healthcare services was "primary health care" (PHC), which involved universal, community-based preventive and curative services, with substantial community involvement.
- PHC did not achieve its goals for several reasons, including the refusal of experts and politicians in developed countries to accept the principle that communities should plan and implement their own heathcare services.
- Changes in economic philosophy led to the replacement of PHC by "Health Sector Reform", based on market forces and the economic benefits of better health.
- It is time to abandon economic ideology and determine the methods that will provide access to basic healthcare services for all people.

MJA 2003; 178: 17–20

> The Conference strongly reaffirms that health, which is a state of complete physical, mental, and social wellbeing, and not merely the absence of disease or infirmity, is a fundamental human right and that the attainment of the highest possible level of health is a most important world-wide social goal whose realization requires the action of many other social and economic sectors in addition to the health sector — Alma-Ata Declaration, 1978.[1]

ACCESS TO BASIC HEALTH SERVICES was affirmed as a fundamental human right by the Declaration of Alma-Ata in 1978.[1] The reality is that, in 2002, more than 30 years later, many people in resource-poor settings still do not have equitable access to even basic services. In many places this gap is widening.[2]

Background

The 1960s and 1970s was, for many developing countries, an era of newly won independence from former colonial powers. This independence was accompanied by an enthusiasm to provide high-standard healthcare, education and other services for the people. Governments moved to establish teaching hospitals and medical and nursing schools, often with the assistance of donor nations. These tertiary services consumed the largest portion of the country's healthcare budget, and were available mostly in urban areas, creating access problems for the predominantly rural societies. Healthcare services to the rural majority were supplied by missionary hospitals and clinics, or by "touring services" provided from urban hospitals. There was a wide variety of services of varying standard and quality in the rural areas. Most of the population still visited traditional healers.[3]

By the 1970s, the morbidity and mortality for rural communities was not improving, and in some places they deteriorated.[3,4] In places where people did have access to services, cultural beliefs about illness meant those services were not being accessed.[3,4]

Further developments, such as oral rehydration solutions, showed that early and appropriate intervention by carers and village volunteers could avoid referral and admission to hospital,[5,6] and, if combined with an effectively organised vaccination program, would address the major causes of death and illness.[7]

In the 1960s and 1970s, China, Tanzania, Sudan and Venezuela initiated successful programs to deliver a basic but comprehensive program of primary care health services covering poor rural populations.[3,4] From these programs came the name "primary health care". Papua New Guinea had a similar comprehensive program in place for some years.[8,9] This new methodology for healthcare service delivery incorporated a questioning of top-down approaches and the role of the medical profession in healthcare provision.

During the 1970s, a synthesis of these concepts was undertaken by the World Health Organization (WHO) and UNICEF. It addressed the need for a fundamental change in the delivery of healthcare services in developing countries, with an emphasis on equity and access at affordable cost, and emphasising prevention while still providing appropriate curative services. This took place in an era where the pre-eminent role of government in the provision of health, education and welfare services was taken for granted in most developed countries, and when there still existed large countries with socialist economies, such as the USSR and China.

The Foundations of Primary Health Care: Alma-Ata

The Declaration of Alma-Ata formally adopted primary health care (PHC) as the means for providing a comprehensive, universal, equitable and affordable healthcare service

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for all countries. It was unanimously adopted by all WHO member countries at Alma-Ata in the former Kazak Soviet Republic in September 1978.[1]

> Primary health care is essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination. It forms an integral part both of the country's health system, of which it is the central function and main focus, and of the overall social and economic development of the community. It is the first level of contact of individuals, the family and community with the national health system bringing health care as close as possible to where people live and work, and constitutes the first element of a continuing health care process — Alma Ata Declaration, 1978.[1]

PHC envisaged universal coverage of basic services such as education on methods of preventing and controlling prevailing health problems; promotion of food security and proper nutrition; adequate safe water supply and basic sanitation; maternal and child health, including family planning; vaccination; prevention and control of locally endemic diseases; appropriate treatment of common diseases and injuries; and provision of essential drugs. The emphasis changed from the larger hospital to that of community-based delivery of services with a balance of cost-effective preventive and curative programs. The approach was intersectoral, involving agriculture extension officers, schoolteachers, women's groups, youth groups and ministers of religion, etc. The community, through its leaders, was to be involved in the planning and implementation of its own healthcare services through community Primary Health Committees. Where Western-trained doctors and nurses were not available, Village Health Workers were to be trained and used as a formal part of the healthcare system.[10]

The conference went so far as to address the economic and political steps needed to fund the initiative:

> An acceptable level of health for all people of the world by the year 2000 can be attained through a fuller and better use of the world's resources, a considerable part of which is now spent on armaments and military conflicts. A genuine policy of independence, peace, détente and disarmament could and should release additional resources that could be devoted to peaceful aims and in particular to the acceleration of social and economic development of which primary health care, as an essential part, should be allotted its proper share — Alma-Ata Declaration, 1978.[1]

National governments throughout the world adopted PHC as their official blueprint for total population coverage with essential PHC services. Goals and targets were set for Achieving Health For All by the Year 2000.[10] Some of these goals were that:

- at least 5% of gross national product should be spent on health;
- at least 90% of children should have a weight for age that corresponds to the reference values;
- safe water should be available in the home or within 15 minutes' walking distance, and adequate sanitary facilities should be available in the home or immediate vicinity;
- people should have access to trained personnel for attending pregnancy and childbirth; and
- child care should be available up to at least one year of age.

In the initial stages, nurses and health extension officers (who had skills allowing them to undertake procedures previously the domain of doctors) were trained to work in community health centres, which covered the population. They were given balanced training in clinical and preventive PHC interventions. Where there were gaps in the healthcare system, village health workers were trained in a limited number of skills to fill these gaps. Community representatives, through Village Primary Health Care Committees, were supposed to have a central role in planning and overseeing their healthcare services.[10] Adequate supervision to ensure service quality, essential drugs, vaccines and equipment, especially at the most peripheral levels, was envisaged.

Almost as soon as the Alma-Ata Conference was over, PHC was under attack. Politicians and aid experts from developed countries could not accept the core PHC principle that communities in developing countries would have responsibility for planning and implementing their own healthcare services. A new concept of "Selective Primary Health Care" (SPHC)[11] advocated providing only PHC interventions that contributed most to reducing child (< 5 years) mortality in developing countries. The advocates of SPHC argued that comprehensive PHC was too idealistic, expensive and unachievable in its goals of achieving total population coverage. By focusing on growth monitoring, oral rehydration solutions, breastfeeding and immunisation, greater gains in reducing infant mortality rates could be achieved at reduced cost.[11]

In effect, SPHC took the decision-making power and control central to PHC away from the communities and delivered it to foreign consultants with technical expertise in these specific areas. These technical experts, often employed by the funding agencies, were subject to the policies of their agencies, not the communities. SPHC reintroduced vertical programs at the cost of comprehensive PHC.[12,13]

The PHC versus SPHC debate continued throughout the 1980s.

There were other reasons why PHC did not achieve Health For All by the Year 2000.[14]

- Many ordinary people felt PHC was a cheap form of healthcare and, if they were able to, they bypassed this level to attend secondary and tertiary centres because of a lack of staff and essential medicines at the PHC level.
- Civil war, natural disasters and, more recently, HIV affected the ability of PHC to maintain comprehensive services, especially in many sub-Saharan countries.
- Political commitment was not sustained after the initial euphoria of Alma-Ata. In many cases PHC became a jargon term used as a slogan, and little else. The rhetoric was not backed with the necessary reforms.[14] Agencies were content if countries adopted PHC as a policy, and did not assess

actual practice. Politicians saw PHC as a way to reduce expenditure in health and lacked the political will to ensure that services were equitably shared and distributed. Most healthcare resources continue to be directed to the large urban-based hospitals.

- Issues of governance and corruption in the use of resources resulted in donors becoming very wary of funding comprehensive, broad-based programs. Vertical, definable, time-limited programs that could be changed every few years suited both donor agencies and governments.

Health Sector Reform: The World Bank Report, 1993

Changes in political and economic philosophy in the late 1980s and 1990s marked a major change in how government services were delivered throughout the world. These reforms had their roots in the economic reforms of North America and Europe. Emphasis was placed on reducing government involvement in all aspects of society. Market forces became the dominant model for service delivery.

The fall of the socialist eastern European bloc and China's adoption of many aspects of liberal economics were major features of this period.

Governments in resource-poor countries, which had already reduced their expenditure on health as their foreign debt mounted in the 1980s and 1990s, now had to contend with the new economic philosophy. International donors insisted these governments adopt the market-driven economic reforms if they were to receive foreign aid and debt relief.

It was against this background that the World Bank's World Development Report of 1993, "Investing in Health", was undertaken.[15] It reflected a marked change in the orientation of how healthcare services in resource-poor countries would be delivered. The report makes little use of the term "Primary Health Care". It considers the delivery of healthcare services in terms of the economic benefit that improved health could deliver, and sees health improvement mainly in terms of improvement of human capital for development, rather than as a consequence and fruit of development. The report is mostly about healthcare sector activities in improving health, and gives scant recognition to the role of other sectors, which contrasts with the original PHC's multisectoral approach.

This World Bank approach became known as Health Sector Reform. This heralded an emphasis on using the private sector to deliver healthcare services while reducing or removing government services. User pays, cost recovery, private health insurance, and public–private partnerships became the focus for delivery of healthcare services. Although the report does discuss in detail the issues of market failure, externalities, inequity and the importance of public goods, its conclusions fail to fully reflect these concerns in matters of policies and recommendations. How these reforms are implemented in situations of absolute poverty and to indigent populations is not explained.

Further, Health Sector Reform was and is seen in developing countries as being imposed by economists from North America and Europe. As a policy it has not been debated and unanimously agreed to, as PHC was at Alma-Ata. Communities in developing countries do not have a say directly or indirectly in their health services. There is no sense of this new approach promoting equity in accessing even the most basic of services, let alone the benefits of modern medical advances. Rather, there is a sense of inequity, marginalisation and frustration.

Case study: the Gambia[18]

In the Gambia, in west Africa, a study by the United Kingdom Medical Research Council of 40 villages beginning in 1981 over a 15-year period compared infant and child mortality between villages with and without primary health care (PHC). Extra services to the PHC villages included a paid Community Health Nurse for about every five villages, as well as a Village Health Worker and a trained Traditional Birth Attendant. Maternal and child health services with a vaccination program were accessible to residents in both PHC and non-PHC villages. There were marked improvements in infant and child (<5 years) mortality in both PHC and non-PHC villages.

After the establishment of PHC in 1983, infant mortality in the PHC villages dropped from 134/1000 in 1982–1983 to 69/1000 in 1992–1994, and from 155/1000 to 91/1000 in the non-PHC villages over the same period. The change in death rates for children aged 1–4 years between the two groups was not as marked.

Supervision of the PHC system weakened after 1994, and infant mortality rates in the PHC villages rose to 89/1000 in 1994–1996. The rates in non-PHC villages fell to 78/1000 for the same period. Mortality rates rose significantly when PHC services were weakened.

Since the 1993 report, the World Bank and other similar agencies have made little reference to PHC as endorsed at Alma-Ata. WHO continued to use the terminology throughout the 1990s. It conducted reviews and held meetings[16] assessing and attempting to strengthen progress towards Health for All by the Year 2000.

The "World Health Report 2000, Health Systems: Improving Performance" marked the end of WHO's use of PHC as the means for the delivery of healthcare services in resource-poor countries. This report puts the failure of PHC to achieve its goal down to inadequate funding and insufficient training and equipment for healthcare workers at all levels. This resulted in either a total lack of services at the community level, or services of such poor quality that people had no option but to bypass the primary-level providers, resulting in a failure of the referral system within the PHC hierarchy.[17]

But what has been the basis for abandoning PHC other than a change in economic and political philosophy? As the study from the Gambia shows (Box),[18] PHC does bring about reductions in infant mortality when implemented with sufficient resources. Further, worldwide vaccination coverage rates for measles have risen from less than 20% in 1980 to now cover 80% of the world's population, and measles cases have fallen from more than four million in 1980 to be now less than 0.8 million annually.[19] There is strong evidence that infant mortality rates in resource-poor countries have continued to drop at a steady rate since 1990.[20] There are strong indications that PHC has and can bring about marked gains in health.

The future: health beyond 2000

Given the enormous economic and political sway of the World Bank, the Health Sector Reform methodology will continue in the immediate future as the vehicle for healthcare service delivery, especially in countries having structural adjustment programs imposed on them

However, this is not unquestioned. Health Sector Reform is criticised as being driven by economic and political ideology.[13] There is little provision for ensuring equity in access to services, especially for people living in absolute poverty or the indigent. As Whitehead et al point out, "The actual outcomes of previous and current market-oriented reforms have often been contrary to stated objectives, as economic access for poor people has declined and total costs have increased".[21] Ten years on, is it not time that Health Sector Reform also underwent thorough review?

Advocates of PHC are drawn largely from non-government organisations, academics and community groups within developing countries who argue that PHC was not given a chance to establish itself as a viable system or methodology.[22] Once the economic and political implications of the Alma-Ata Declaration were recognised, it was not given a chance to survive politically or economically.

A reasonable criticism of PHC is that it did not establish whether it was actually bringing about a quantifiable change in the health of populations in the early 1990s. Its data, analysis and evaluation systems were weak at a time when there was a demand for evidence-based demonstrations in health status. But was this sufficient reason to stifle a methodology that gave a sense of participation in and equity of access to a healthcare service over which communities had some control?

Conclusion

As the world reviews healthcare services beyond 2000,[23] work continues on reducing health inequities for poor people. Concern is being expressed that people living in absolute poverty still do not have access to basic services or a healthy environment.[2] As economic development improves the incomes and standards of living in many developing countries, an increasing gap is opening up between the rich and the poor and this is associated with inequitable access to healthcare services. There are now calls to give "voice" to the poor so they have a greater say in how healthcare services are delivered.[24] But, then, isn't this PHC?

Further, as we reflect on recent world events, surely we must address the underlying causes. The United States is prepared to spend $US100 billion on a war in Iraq,[25,26] but only contribute $US200 million to the Global Fund to Fight AIDS, Tuberculosis and Malaria. If those funds were expended on the provision of an equitable and comprehensive PHC system and the relief of the massive debt burden, this would be a major step in addressing the prevailing sense of frustration in resource-poor countries.

It is time to put political and economic ideology aside and determine the methodology that will yield the greatest gains and provide access to even the most basic of services for All People Beyond the Year 2000.

Competing interests

None identified.

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LETTERS

COMMUNITY-ORIENTED PRIMARY CARE AND PRIMARY HEALTH CARE

Nowadays there is a renewed interest in the role of primary care as an essential component of the delivery of health care. Cueto's article on the role of the World Health Organization (WHO) in the emergence of primary health care[1] is timely indeed and stimulates discussion about this dimension of health care.

We wish to direct attention to an approach not mentioned in Cueto's article that is taught, practiced, and written about extensively—the community-oriented primary care (COPC) model. The recent application and evaluation of COPC in various countries was reported in several articles published in the November 2002 issue of the Journal.

The conceptual roots of COPC were introduced and developed in the 1940s by Sidney Kark and Emily Kark in a rural area of South Africa. As family physicians, the Karks implemented a comprehensive approach to care, taking into account the socioeconomic and cultural determinants of health, identifying health needs, and providing health care to the total community. Their pioneering work, integrating preventive and curative care with significant community involvement, created a service network of a kind scarcely known then in that continent, with more than 40 community health centers established in different regions of the country.[2] The Karks and their team developed this approach further at the Community Health Center of the Hadassah School of Public Health and Community Medicine in Jerusalem.[3]

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In Sidney Kark's book *Epidemiology and Community Medicine* (published in 1974, before Alma Ata), he speaks of "community medicine and primary health care as a unified practice."[4(p7)] This approach, which later was denominated COPC,[5] is considered an expression of the Alma Ata spirit.[6,7]

In our COPC teaching,[8] we have had frequent discussions with international public health students, mainly Africans, concerning the similarities and differences between COPC and the primary health care approach of WHO. As an explicit expression of the role played by COPC in the development of the WHO primary health care approach, Litsios notes (also in the November 2004 issue of the Journal) that there is evidence of "many similarities between primary health care and Kark's work in Africa."[9(p1890)]

The renewed interest in primary care is particularly appropriate because primary care is the component of health services that addresses most of the health problems arising in a community, and when it is enhanced by a community orientation, it can be considered public health at the local level.[10] ■

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CUETO RESPONDS

I am grateful for Gofin and Gofin's letter mentioning an important dimension of primary health care that I did not examine in my article. One reason for its absence is that I did not find the term "community-oriented primary health care" very frequently in the archival materials of the late 1970s and early 1980s of the World Health Organization, the United Nations Children's Fund, the Rockefeller Foundation, and the Pan American Health Organization. My article was the first result of 2 years' investigation based on the archives of these official health agencies. My research is ongoing, and I am certain that in the future I will find many remarkable cases of community-oriented primary health care that may have been missed by the official agencies.

I very much agree with Gofin and Gofin that the work of Sidney and Emily Kark is crucial for anyone interested in primary health care. Their letter suggests the need for more research on the history of primary health care, and I thank them for it. ■

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EDITORIAL

PRIMARY HEALTH CARE AND THE HOSPITAL: INCOMPATIBLE ORGANISATIONAL CONCEPTS?

LAURENCE MALCOLM

Primary health care (PHC), in one form or another, has become a key policy priority in the health systems of most countries, both developing as well as developed. This new approach, formally launched with great expectations at the Alma-Ata Conference in 1978, was seen to be the key strategy by which Health for All would be achieved [1, 2]. In describing events leading up to Alma-Ata, Newell [2] refers to a report to the 1973 Executive Board of WHO on major health service problems of inadequate coverage, gaps in health status within and between countries, rapidly rising costs and a feeling of helplessness on the part of consumers. This report led the Board to conclude that these problems were "symptoms of a wide and deep seated error in the way health services are provided" [2]. Newell [2] states that debates on this report led directly to the emergence of the WHO concept of PHC and to Alma-Ata in 1978.

Despite widely held expectations of what this new approach might achieve, progress towards health systems based upon PHC, with its emphasis upon social justice, a broad concept of health, intersectoral integration and participation by communities in developing comprehensive, equitable and holistic treatment and preventive services has been slow [3]. While recent reports have drawn attention to increasing political commitment to Health for All and significant gains achieved globally in life expectancy [3, 4], they have also noted the widening gap in health status between rich and poor countries and an increase in both communicable and non-communicable disease. Health systems in all countries continue to be dominated by hospitals and provider groups with priorities largely determined by increasing demands and expectations for tertiary and high technology type services [4]. Is the 'deep-seated error' that concerned WHO in 1973 still present? The problems of 20 years ago certainly are and in greater measure. Is the problem the continued recognition of the hospital as a key organisational entity of health systems particularly when its goals appear to be in fundamental conflict with those of PHC? Is there an alternative to hospitals?

PHC continues to be bedeviled by both conceptual confusion and operational uncertainty [5–8]. Conceptually, PHC has been seen to be polarised between two extreme viewpoints [2, 9, 10]. The 'comprehensivists' take the somewhat fundamentalist position that PHC is largely an approach, a philosophy and strategy for reorienting health systems and eschew its implementation as a service to be organised and managed [11, 12]. At the opposite pole are the 'selectivists' who advocate the implementation of fragments of PHC, so-called vertical programmes such as immunisation, family planning, cervical screening, etc., detached from the other components of PHC including generalist service provision [9, 10]. These problems are particularly evident in developing countries through the influence of donor agencies but are also important in developed countries' programmes. Such approaches do little to develop an integrated and sustainable infrastructure for PHC.

A number of compromises to these somewhat extreme positions have been advocated [13–15]. The position of WHO itself has been somewhat unclear. Its publications over the years, representing the views of participants in various expert committees, study groups etc., have seen it as inclusive of a philosophy concerned with equity and social justice, a strategy concerned with intersectoral collaboration, a level of care including being the point of first contact with the health system and a set of at least eight activities, including the provision of clinical services [16–19].

But this broad spectrum view has done little to clarify the operational aspects of PHC. PHC has been variously equated with community-based care, with primary medical care or more often just called primary care [20, 21]. Starfield sees PHC as evolving from primary medical care with a progressive shift towards the goals of Alma-Ata [21]. In practice most countries, indifferent to or unimpressed with the conceptual debate, are implementing some form of PHC inclusive of some of the basic elements although tending to focus more upon the clinical and preventive aspects rather than broader strategic concerns. But few countries have seen PHC as an organisational strategy, a key subsystem of the health system to be organised and managed in its own right. Consequently it remains largely a disjointed set of fragmented provider and community groupings with little collective power to influence decision making.

While there may be a desirable idealism in PHC as a philosophy and an approach to reorienting health systems little progress might be expected having regard to the realities of the power structures influencing health systems. In short hospitals have been empowered to dominate health systems by being recognised as organisational and managerial entities. By contrast PHC has been disempowered by being denied such status.

Most decisions about PHC see it as complementing hospital-based services [17–19]. However, this presumes that, in contrast to the hospital, PHC is largely, if not entirely, community-based care. But community-based care can include specialised care such as provision of mental health services, disability services and public health engineering services which, even in the broadest sense, could not realistically be called PHC. On the other hand, there are many hospital-based activities which could be classified as PHC including the basic services provided within the district in many developing countries. PHC could also include the services provided by smaller community-type hospitals in developed countries. It also logically includes the services of primary care providers such as general practitioners and midwives undertaking maternity and other type care even in larger hospitals.

To what extent does this conceptual and organisational confusion stem from the continuing acceptance of the hospital as an organisational entity? Almost all health systems are divided organisationally and managerially into hospital-based services on the one hand and community-based services on the other [22, 23]. But while there are strengths in hospitals as organisational entities, including their clearly defined architectural boundaries, their ability to coordinate services under one roof, their being a base for education and training and being valued as an important resource by communities, they have many weaknesses. These include their ability to dominate health systems in almost all countries and to absorb resources from less powerful and often poorly organised PHC and community services. Their goals are largely focused on the development of specialised activities, they may become a 'fortress' to protect those working inside their walls from responding to the needs of the community and they may become a 'prison' for those needing to undertake community-based activities. A significant volume of health resources is tied up in plant and equipment.

However, the overiding problem of hospitals, as organisational entities, is that they fragment the continuum of care, the delivery of integrated services which should be inclusive of both hospital- as well as community-based care. A mental health service, for example, should be an integrated entity inclusive of psychiatric wards of a general hospital, the mental hospital of an area, where it exists, and community-based mental health services including those provided by a range of agencies [24].

An alternative view to this 'anatomical' or locational division of health systems into hospital-based services on the one hand and community-based services on the other is a 'physiological' or functional approach to health care organisation [22]. Based on a systems approach this involves dividing the health system more fundamentally, not on location but on level, into PHC on the one hand and secondary health care on the other. In this division PHC is not only a level of care. It is also care which can be generalist, holistic, continuing and comprehensive. This contrasts with secondary care which is specialised, dealing with only one aspect of the person's needs and is episodic [22].

Under this model, hospitals and community services, as organisational divisions of health systems, would be replaced by service programmes or subsystems of the health system. Such services, medical, surgical, child health, mental health, etc., as well as PHC, would have both a community- as well as a hospital-based component. PHC would be the infrastructure service underpinning all others [22]. As such, PHC may be inclusive of services provided by general practitioners and other PHC providers, nurses, social workers, etc., as well as preventive and health promotive activities. In a smaller locality it may include the hospital-based services which are essentially just PHC. As an organised entity PHC could become the budgetholder for referral to secondary care and thus become a practical strategy for shifting the balance of care from secondary to primary. In developing countries a PHC service could include the general outpatients section of the district or regional hospital as well as the urban and rural health centres.

PHC, as an accountable service, could develop closer relationships with communities and establish significant community participation and even ownership of such a service. It would be able to argue, on the grounds of equity, for a fairer share of the health resources for a defined population to be distributed to localities and groups in greatest need in an area. An accountable, managed PHC service could also support such projects as healthy cities, thus demonstrating, in a practical way, its involvement in intersectoral action.

Such a service would appear, at least at this operational level, to fulfil many of the requirements of the 'comprehensivists'. Furthermore, as an integrated, comprehensive and holistic service, it can be contracted to for the delivery of a wider range of treatment and preventive programmes. It thus establishes a sustainable infrastrucure for the ongoing provision of such services, thus satisfying the demands of the 'selectivists'.

But is this just a theoretical concept with little basis in practical reality. The integrated continuum of hospital- and community-based care which has been successfully implemented in mental health services in a number of countries is one example of this model [24]. Evidence is emerging from developments in New Zealand's health system, which has possibly been through more organisational reform than any other developed country, that services have largely replaced hospitals as the key organisational units of the health system [23, 24]. In a recent survey, 58% of top managers of New Zealand's area health boards agreed with the statement that services had replaced hospitals as organisational entities [25]. Only 23% disagreed. Furthermore, 93% stated that there were advantages in managing services rather than hospitals [25].

The most recent reorganisation, implemented on 1 July 1993, put in place crown health enterprises (CHEs) as the main delivery units of the public health system [26]. CHEs, like the previous area health boards, which were fully implemented only in 1989, are still largely population-based delivery systems, providing comprehensive treatment and preventive services [25]. Most have been organised along services lines with service managers for mental health, elderly, medicine, surgery, child health and, in increasing numbers of CHEs, for PHC. Managers of PHC are responsible for such community-based activities as community support services, sexual health services, social work, health promotion, community hospitals and, to an increasing extent, liaison with the privately provided general practitioner services. Increasingly, general practitioners are becoming accountable, through collective independent practice associations, for contracting with the four newly formed regional health authorities (RHAs). These RHAs have the potential to be the most integrated purchasing system of any developed country with responsibility for the purchasing of public and privately provided government-funded services, hospital and community, secondary and primary, health and disability services.

While it is too early to be confident that an integrated, comprehensive PHC service will emerge from these new structures, a trend towards this is occurring. This is possible because, for the large part, New Zealand has replaced hospitals with service programmes as organisational entities. This opens the way for PHC to emerge, not just a service division but a key service underpinning all others. It is able, in so doing, to influence the balance of both hospital and community services on the one hand and secondary and primary services on the other. It also provides an accountability entity for moving towards integration and for closer relationships with communities and consumers through community budgetholding.

An integrated, comprehensive, managed PHC service, underpinning a set of secondary care services, which means going beyond hospitals as organisational entities, may be the key to solving some of the basic problems facing all health systems and achieving better progress towards Health for All.

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Review article

Community participation in health: perpetual allure, persistent challenge

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The concept of community participation continues to capture the attention of international health policymakers and analysts nearly a quarter of a century after it was formally introduced at the Alma Ata Conference. This paper reviews trends in the participation literature of the 1990s, drawing examples primarily from Latin America. The following topics are discussed: sustainability, new methods for operationalizing and evaluating participation, the significance of local and cultural variability in determining outcomes, participatory self-determination as raised in the social movements literature, the increasing importance of intersectoral linkages, and continuing impediments posed by biomedical ideologies and systems. While the rhetoric and practice of participation have become fully integrated into mainstream health and development discourses, the paper concludes that ideological and political disagreements continue to divide pragmatists, who favour utilitarian models of participation, from activists, who prefer empowerment models.

Introduction

This paper[1] reviews recent trends and debates concerning the concept of community participation in health, focusing on new ideas that were added to the debate during the 1990s, and focusing specifically on examples drawn from Latin America. There, as elsewhere, participation has captured the attention of health planners, policymakers and activists, and become well entrenched in mainstream health discourse. This widespread consensus about the importance of participation follows years of disagreement about what it meant and how best to create participation. Twenty-five years after the formalization of the concept at the Alma Ata Conference in 1978, advocates of participation tend to have a greater appreciation of the difficulty and complexities involved in enhancing participation than they did then. The analytic complexities, definitional disputes, and operational challenges have been thoroughly (even exhaustively) discussed and illustrated through case studies. Today, a middle ground has opened for researchers who focus on methodologies for monitoring and assessing participation and for making sure that the principle is woven into policy and planning at district and national levels in addition to international levels (Chambers 1995; Kahssay and Oakley 1999).

Because so much of the debate over participation involves conversations between anthropologists and epidemiologists, this paper will also address how the concept has been analyzed by anthropologists and other social scientists, and by epidemiologists, health service managers and policymakers. While their approaches often overlap, anthropologists are more typically concerned with conceptual issues such as what the concept means to those involved in implementation, while epidemiologists, managers and policymakers are often concerned with how to operationalize, implement and measure levels of participation.

The definitional divide: utilitarian and empowerment models

Community participation in health has traditionally been defined according to one of two distinct perspectives. Firstly, it can be a *utilitarian* effort on the part of donors or governments to use community resources (land, labour and money) to offset the costs of providing services. Nelson and Wright describe this as 'participation as a *means* (to accomplish the aims of a project more efficiently, effectively, or cheaply)' (1995 [1986], p. 1; emphasis in original). In the most recent and comprehensive World Health Organization (WHO) publication on the subject, Kahssay and Oakley describe one of the interpretations of participation as 'collaboration', in which people 'voluntarily, or as a result of some persuasion or incentive, agree to collaborate with an externally determined development project, often by contributing their labour and other resources in return for some expected benefit' (1999, p. 5; see Morgan 1993; Bronfman and Gleizer 1994 for reviews of this literature). On the other hand, participation can be defined as an *empowerment* tool through which local communities take responsibility for diagnosing and working to solve their own health and development problems. Nelson and Wright describe this as 'participation as an *end*, (where the community or group sets up a process to control its own development)' (1995, p. 1); others describe this as an empowerment approach, or as people-centered development.

Each of these definitions itself encapsulates a range of meanings; for example, empowerment may be defined as simply allowing community representatives a seat at the table where policy decisions are made, or it may mean a process of democratization whereby governments become more open and responsive to the needs of disenfranchised citizens. Some proponents herald participation for its cost-sharing potential and its contribution toward building sustainable programmes. Others emphasize the need for effective partnerships between government and citizenry, and yet others stress the prospects for democracy that would follow if governments were accountable to citizens. How can one phrase carry so many definitions?

The proliferation of meanings attached to the phrase 'community participation in health' (also called 'popular participation', 'social participation' and 'community involvement') has allowed it to be analyzed as a political symbol capable of being simultaneously employed by a variety of actors to advance conflicting goals, precisely because it means different things to different people (Morgan 1993). Chambers lists as one of the definitions of participation its 'cosmetic' value, its ability 'to make whatever is proposed look good' (Chambers 1995, p. 30). Participation quickly became a regular feature of international health discourse in part because the word sounds so appealing and desirable, which may also explain why it was so heartily endorsed at Alma Ata. It is now an essential element of community health and other development programmes sponsored by NGOs and international donors.

That participation has been institutionalized in mainstream development discourse is evident in the fact that the World Bank has adopted the concept. After publishing several documents about participation over the last decade, the World Bank defines it as: 'a process through which stakeholders influence and share control over development initiatives and the decisions and resources which affect them' (World Bank 1996). The Bank defines 'stakeholders' not as the poor or disadvantaged, as we might imagine based on the discussion thus far, but as all those who 'could affect the outcome of a proposed Bank intervention or be affected by it'. This includes 'borrowers, that is, elected officials, line agency staff, local government officials', 'indirectly affected groups, such as non-governmental organizations (NGOs), private sector organizations, and so forth', as well as 'Bank management, staff, and shareholders'. The Bank notes that these powerful stakeholders might oppose Bank efforts if attempts are made to bypass them. The decision to define 'stakeholders' in this way, they say, 'is a decision that we have made consciously, and one that has potentially important implications for the way the Bank works' (World Bank 1996). Sceptics might argue that the Bank's definition co-opts the concept of 'participation', using it to put a rosy face on business as usual. They might argue that we should all be sceptical of using organizations like the World Bank as major actors in attempts to strengthen civil society, at the same time that states (in the neoliberal economic model) are being asked to step back. The danger with this model, as Jelin notes for NGOs and international financial institutions in general, is that they 'do not have a built-in mechanism of accountability'; they claim various constituencies (including, in the case of the Bank, the rich AND the poor), but they are accountable to none of them (Jelin 1998, p. 412; see also Mayo and Craig 1995). At the very least, though, the Bank's definition acknowledges what many others have said: participation is about power.

Power struggles are, to many analysts, crucial to the long-term viability of participatory endeavours. Susan Rifkin, one of the world's foremost experts on participation in health, argues that participation programmes have often failed to meet expectations precisely because they were 'conceived in a paradigm which views community participation as a magic bullet to solve problems rooted both in health and political power' (1996, p. 79). Struggles over power are not necessarily destructive; Chambers points out that, 'Conflict can be an essential and creative factor in change for the better' (Chambers 1998, p. xviii). In order for conflict to be productive, however, planners and policymakers need to anticipate it and devise mechanisms to accommodate it. Participation programmes that cannot cope with disputes over power are likely to fall short of expectations.

Paradoxically, neither of the two most widely used notions of participation calls for it to be initiated entirely by community members; each entails some degree of outside motivation. 'Encouraging participation is something that practically by definition comes from above or outside' (Uphoff et al. 1998, p. 83). Even Robert Chambers, whose respectful approach to community work has won admiration in international health circles, admits that participation is never consensual, at least in the short run, for many projects (Chambers 1998, p. xviii). Many proponents of the empowerment approach to participation would like to ignore the uncomfortable fact that participation may require outside prompting; they would rather see spontaneous, self-generating *conscientization* and participatory action on the part of poor community members. Increasingly, however, they are willing to acknowledge that marginalized or disenfranchised communities are powerless to effect participation precisely because they have no power, and that outsiders might succeed in fostering community mobilization if they act with great sensitivity and humility.

> 'A complex of factors, varying from country to country as well as community to community, maintains a political, economic, and social status quo that keeps the large majority of rural people from having much voice in or control over their lives. Poverty, prejudice, despair, paternalism, local power structures, legal and regulatory restrictions, adverse past experiences, and other forces commonly discourage people from playing more active roles in changing their circumstances and opportunities. Yet there are encouraging examples of emergent local activism and institutional development that can change the participation equation.' (Uphoff et al. 1998, p. 83)

Today, facilitators and policymakers are more willing to assume the responsibility that is entailed by their desire to enhance participation. This means that they must take greater responsibility for planning the kind of participation they want to encourage. Guidebooks for participation planners often emphasize that project planners must begin by having detailed discussions about their own goals and definitions of participation before taking the concept to the field.

Frits Muller, a well-respected activist and theorist of participation who has worked in Latin America, expands the discussion of participation beyond definitional issues to include hierarchies of power in Latin America. He does not agree that participation needs to be initiated by outsiders; participation, he says, emerges when citizens demand that the state include them. His perspective is apparent in the first two sentences of his book: 'Latin America is characterized by the grand inequality that exists between rich and poor, *mestizos* and *indios*, city and countryside, man and woman. These inequalities are so obvious and so repugnant that no one can remain unmoved; not the visitor, and certainly not any of those who suffer' (Muller 1991, p. 13). The problem of poor health in Latin America, he says, is largely attributable to the marginalization of certain sectors of the population. Only about 15% of the population can afford to buy private medical care, another 15% enjoy either state-subsidized or private insurance, and 70% have to rely on state-provided health services. Of those 70%, about half do not have access to medical care even in the event of an emergency. In this context, he says, participation is not a state- or NGO-initiated effort, but a local reaction to desperate living conditions: 'This kind of participation forms part of a survival strategy for marginalized people, expressed in traditional health services and in the demands for decent services they make of the Ministry of Health. It finds expression in, among other things, the soup kitchens, the glass of milk programs, school lunches, mothers groups and neighborhood and peasant health organizations; these are the specific manifestations of opposition in our unequal societies' (Muller 1991, p. 16). If we contrast Muller's perspective with that offered by the World Bank, for example, we can see that there are still great discrepancies over the way that participation is defined and practiced, even 25 years after the optimism generated by the Alma Ata Conference.

New ideas about participation in the 1990s

Much has changed since Alma Ata. The remainder of this paper reviews some of the new language and concepts that have influenced the discussion pertaining to participation generally, as well as to participation in health, in the past decade. The first section deals with the notion of 'sustainability', which entered development discourse in the 1990s and prompted theorists to discuss whether participation was a product or a process. Those who advocated participation as a product (often for pragmatic reasons, including the need for donor accountability) were keen to develop methods to operationalize and evaluate participation; this is the topic of the second section. The tendency to systematize and operationalize participation was counterbalanced by those who emphasized the importance of local context; the third section reviews discussions about culture, context and the state. It includes a brief review of lessons learned from fine-grained case studies of participatory initiatives. The literature on social movements in Latin America has not yet been fully incorporated into the discourse on participation in health, but the fourth section argues that the social movements literature offers useful analytic insights. The fifth and sixth sections, respectively, review the emerging consensus that intersectoral collaboration is essential to successful community-based health programmes, and that biomedical training and the hierarchical structure of medical practice is a barrier to participation. The paper concludes that notions of participation are infinitely more nuanced and complex today than they were a decade ago, yet many of the same fundamental ideological divisions remain.

Sustainability and process

Sustainability was one of the big international development buzzwords of the 1990s, so perhaps it was inevitable that the term would be applied to health programming and participation (LaFond 1995). Like 'participation', the term 'sustainability' has multiple meanings. For donors, it may mean that project costs can be borne by locals without further international aid; for policymakers it may mean that the initiative in question (such as participation in health) has to be continually reinvented and reinvigorated in order to stand the test of time. Uphoff et al. caution that the term is 'highly favored these days by governments and donor agencies' and that it is 'often used in overblown ways and [is] easily overstated' (Uphoff et al. 1998, p. 196). The marriage of the concepts of 'sustainability' and 'participation' has led analysts to add sustainability criteria to the list of points on which participation will be evaluated.

In response to this challenge, analysts of participation have stressed that participation is a continuous process. Questions about sustainability raise questions about how to define a programme and how to determine the point at which it should be assessed. In response to the question about defining programmes, Krishna et al. (1997) emphasize that blueprint models rarely work and that participatory initiatives must be adaptable to local situations. Canned or cookbook models of participation are thus rarely 'sustainable', if we understand that to mean static and unchanging. As for the question of assessment, Kalinsky and colleagues note that participatory programmes are often evaluated in the literature on an 'all or nothing' basis; they have either succeeded or failed (Kalinsky et al. 1993, p. 11). If participation is a process, however, it is difficult to know whether and when a programme has finally reached its endpoint. Analysts today tend to stress that participation is not a product or a time-delimited project; rather, it needs to be 'continuous, sustained and locally grounded' (Krishna et al. 1997, p. 5).

Participation can be sustainable only as long as the relevant actors remain committed, and the sociopolitical and economic environments remain conducive, to the process. Process has therefore emerged as the *sine qua non* of participatory endeavours: 'The key issue [in the first steps of project development] is the notion of *process* and the fact that community participation is not merely an input to the project but the basis upon which it will operate. Furthermore, participation cannot be assumed but has to be systematically encouraged, and means have to be created to make it effective' (Oakley et al. 1999, p. 117). Processual understandings of participation make sense to those interested in theory and implementation, but they can compound the challenges of operationalization, measurement and assessment.

Operationalization and evaluation

WHO and UNICEF were the multilateral sponsors of community participation in health, and their names are still strongly associated with the concept. The WHO's most recent document on the subject, *Community involvement in health development: a review of the concept and practice*, proposes that participatory thinking needs to be institutionalized at district levels in national ministries of health (Kahssay and Oakley 1999). The authors argue that participation efforts in the 1980s and 1990s often bypassed national and district levels of health planning and policymaking. Participation was originally introduced as an international mandate, yet as part of the primary health care strategy it was often implemented at local levels. National ministries of health did not usually enlist the support of clinicians and other health professionals, nor did they seek the support of institutions that were not directly involved in primary health care. Consequently, Kahssay and Oakley say, there is still a great deal of resistance to participation among health professionals and institutions, especially at district levels. If these important constituencies continue to be excluded, participation will likely never become fully accepted and will always meet resistance. They argue, therefore, that project-level commitment to community participation, while important, is insufficient to insure the sustainability of the concept; that what they call 'community involvement in health (CIH)' should be regarded as a principle rather than a programme. In order for participation to be sustainable, it must extend beyond the local (or project) level. 'For CIH this is the key issue; it is not just a question of people's participation in health activities or health projects but, more importantly, their *involvement in district-level health services* which is crucial to sustainable health development' (Kahssay and Oakley 1999, p. 18; emphasis in original).

Sceptics may argue that Kahssay and Oakley have taken an overly technocratic view of the concept of health participation, leading to a self-fulfilling call for professional training and development workshops, educational and curricular reform, and capacity building among health clinicians, planners, managers and labour organizations. The authors demonstrate familiarity with the political and situational complexities of participation, but in comparison to earlier documents, the implications of their analysis are specific to the health sector and do not emphasize the value of building democratic institutions or citizens. In this sense, the latest document to emerge from WHO can be analyzed within a larger global sociopolitical and economic framework; once the appearance of democracy was restored to most Latin American countries, the rhetoric of participation could be transformed into a reformist, technocratic project and shed its radical connotations. If this document is read as a portent of trends in health participation, we might expect international health agencies to adopt policies and support programmes that are more pragmatic and less idealistic.

Critiques aside, development planners are often under pressure to systematize and generalize concepts such as participation, so that other planners and technicians can 'consciously include this principle in their programme plans and evaluations' (Rifkin et al. 1988, p. 931), learning from them and thereby ostensibly maximizing their own chances for success. Donors usually also require that projects be evaluated. During the 1990s, these pressures led to a rapid proliferation of new methodologies and techniques both for assessing rural health and development needs, and for designing implementation, intervention and evaluation programmes. Oakley and colleagues, for example, have worked on a methodology for enhancing community involvement in health which entails training staff and setting up mechanisms at the project level to monitor participation and to evaluate its effect (Oakley et al. 1999, p. 115). A full review of these approaches is beyond the scope of this paper, but it is important to mention the proliferation of rapid appraisal techniques and participatory action research methodologies (Nichter 1984; Scrimshaw and Hurtado 1987; Fals-Borda and Rahman 1991; Manderson and Aaby 1992). Developed during the 1980s, these approaches turned into a booming business opportunity for qualitative researchers who generated a veritable mountain of books, documents and reports directed at community researchers (Rahman 1993). Analysts are quite cognizant of the multiple dilemmas posed by these trends:

> 'The situation today [1996] reveals two paradoxes in participatory development. The first involves the standardization of approaches. This trend contradicts one of the original aims, to move away from the limitations of blueprint planning and implementation towards more flexible and context-specific methodologies. A second, related, paradox lies in the technical, rather than empowerment-oriented, use of "participatory" methods. A manual and method-oriented mania has led many to claim successful participatory development, despite only a superficial understanding of the underlying empowerment principles that were at the root of much pioneering work.' (Guijt and Shah 1998, p. 5; see also Rifkin et al. 1988)

Given the divisions within and outside the development establishment, anyone who watched the debates over participation in the 1980s could well have predicted the situation that would emerge in the 1990s. Just as 'community' is not a monolithic entity, neither is the development establishment, which contains within it both the propensity to standardize and to adapt to local circumstances. The tendency during the 1990s to pay heed to qualitative research was a positive event for anthropologists and other social scientists, who were finally able to bring local meanings and alternative social movements into mainstream conversations within the development establishment. Furthermore, the work provided for social scientists by the enthusiastic reaction to participatory research methodologies has allowed social science perspectives, theories, ideologies and politics (various though these are) to be debated throughout the development enterprise. Consequently, the paradoxes articulated by Guijt and Shah will likely not be resolved; they will continue to co-exist because the competing exigencies of development demand a coterie of responses.

For example, donors are often pressured to operationalize community participation, even while they recognize that 'participatory processes do not necessarily follow structural, pre-determined and linear directions. Participation cannot be seen merely as an input to a project, but as an underlying operational principle which should underpin all project activities' (Oakley et al. 1999, p. 114). The penchant for operationalization and evaluation exists in spite of its recognized limitations. Donors often realize that it is hard to measure participation when participation is so hard to define. They recognize that it is difficult to measure a 'process' that has no fixed endpoint. They may recognize an additional paradox: the evaluation of participatory programmes often lacks community participation (Kalinsky et al. 1993, p. 12). Experience has shown that, even in the case of 'successful' projects, there is no guarantee that what worked in one situation will work in another, or will work in the future. The uniqueness of each participatory project resists the systematizing requirements of operationalization and evaluation.

Nevertheless, Rifkin et al. (1988) point out that the professionals who control the allocation of resources will not necessarily be inclined to support participatory initiatives unless the benefits can be demonstrated to them. Their matrix for measuring participation is a useful first step in the process of convincing the sceptical of the utility of participation; meanwhile, other pragmatic efforts to combine quantitative and qualitative approaches to community health have been tried, such as the census-based, impact-oriented approach recently implemented in Bolivia (Perry et al. 1999). The tendency to operationalize and measure participation was offset, however, by a countervailing trend to tailor participation to specific local, cultural and state contexts.

Culture, context and the state

Anthropological research into community participation in health has emphasized the importance of context. As Muller (1991: 26) says, 'Participation is an ambiguous concept because it cannot be defined outside of a social context'. 'Context', from an anthropological perspective, refers to the social relations and matrices of power through which participation must be effected. 'Culture' emphasizes the importance of understanding what participation means within a particular setting, beyond the bounded, formal political system and institutional structures. This does not mean, however, that a focus on culture need be apolitical. Anthropologists do not perceive 'culture' and 'politics' as two separate entities, but rather as 'simultaneous and inextricably bound aspects of social reality' (Alvarez et al. 1998, p. 4). They note that because participation usually involves a set of material demands (a redistribution of resources), its meanings will inevitably be contested, both at the level of rhetoric and in social practice. Anthropologists are often incorporated into the planning, implementation and evaluation of participatory endeavours because their observational skills and techniques are able to elicit the multiple (and often conflicting) meanings associated with particular development initiatives. They have, therefore, become the designated experts in community-level analysis of community participation.

Idiosyncratic local contexts are the sites where programmes succeed or founder. As Oakley et al. stated, 'Culture is *not* an obstacle to community participation, but it must be understood before participation is externally imposed' (1999, p. 123). This was the anthropologist's cue. For many years, anthropologists were cast as experts in 'the local'. They were called in to evaluate initiatives *in situ*. Can a given initiative be successfully implemented in a particular setting? What are the factors that facilitate or impede it? Does it result in the desired outcome? Who decides what the desired outcome is? The answer to many of these questions is presumed to lie in 'culture' (often glossed as 'local'). In 1992, Linda Stone reviewed the understandings of culture that have been utilized in the participation literature. Culture, she says, was initially viewed in one of two ways:

> 'One view, held primarily by planners and health project personnel, saw culture as a set of "beliefs" and "customs" which were potential "obstacles" to the introduction of new health measures and ideas. A second view, sponsored primarily but not exclusively by social scientists, saw "culture" in the realm of health as "local knowledge" (indigenous medicine) on the one hand, and local "strategies" for securing health care on the other. Both groups, however, tended to regard local culture as fairly static.' (Stone 1992, p. 410)

There were a number of reasons why these understandings of culture fell into disfavour. Stone mentions that the relationship between traditional and modern medicine proved more complex and adaptable than many had predicted, and that communities exposed to primary health care often expressed a preference for curative care, which had not been predicted. More attentive now to the creative dynamism of culture, anthropological studies of participation of the 1980s and 1990s began to emphasize 'political relationships and processes' (Stone 1992, p. 413). Ugalde and Morgan, among many others, showed that community participation in Latin America in the early 1980s was often motivated by ideological and political factors that had little to do with improving health. Furthermore, participation programmes often took a patronizing attitude toward local communities, which were often regarded as passive and incapable of organizing themselves (Morgan 1990; Ugalde 1993; Zakus 1998; see also Woelk 1992). Stone says that this emphasis was important because it 'encourages an encompassing framework within which all levels of a health system can be simultaneously incorporated' (Stone 1992, p. 413), allowing for the integration of macro and micro level analysis. Social scientists began to study the meanings of participation among international and national experts, consultants, agencies and institutions, as well as among rural and poor people (Justice 1986; Foster 1987; Morgan 1993; Barrett 1996). They have shown that international health agencies have a near-hegemonic control over the definition of health problems and solutions worldwide. Consequently, they have become bloated bureaucratic machines, burdened by the vicissitudes of global politics, over-dependent on 'top-down' planning, and prone to faddish trends (Werner 1993).

Concomitantly, anthropologists began to look at the effects of ethnic and gender (in addition to class) stratification on participatory initiatives. They expanded traditional anthropological critiques of the supposedly monolithic 'community', pointing to the effects of institutionalized stratification and discrimination on keeping certain people excluded, even as others were encouraged to participate.

> 'The cutting edge of development practice in the 1990s is described in terms of "participation", "community-driven action", and "empowerment". The broad aim of participatory development is to increase the involvement of socially and economically marginalized people in decision-making over their own lives. The assumption is that participatory approaches empower local people with the skills and confidence to analyse their situation, reach consensus, make decisions and take action, so as to improve their circumstances. The ultimate goal is more equitable and sustainable development.' (Guijt and Shah 1998, p. 1)

This model is flawed, Guijt and Shah say, because 'many participatory development initiatives do not deal well with the complexity of community differences, including age, economic, religious, caste, ethnic, and, in particular, gender' (1998, p. 1). They argue that development planners should not treat 'the community' as a benign entity with shared goals and values, because the relationships within particular communities can isolate or even harm some individuals and groups. In this sense, all development projects should consider the impact that they have on reinforcing or undermining existing identities within stratified socioeconomic contexts.

If context is everything, then the case study format is essential to presenting, analyzing and comparing experiences within and between countries and regions. Case studies both reinforce and reflect the assertion that participation is contingent upon local contexts. Even the most cursory review of the 1990s literature on participation turns up case studies from Argentina (Kalinsky et al. 1993); Brazil (Dias 1998); Central America (Barrett 1996); Costa Rica (Morgan 1993); El Salvador (Smith-Nonini 1997); England (Jewkes and Murcott 1996); Nicaragua, Peru, Colombia, and Guatemala (Muller 1991); Mexico (Sherraden and Wallace 1992; Rasmussen-Cruz et al. 1993; Zakus 1998); Africa (Toure 1994), including South Africa (Botes and Van Rensburg 2000); Turkey (Tatar 1996); and many others (Oakley 1991; Nelson and Wright 1995). Case studies can provide important lessons about the range of factors that might influence participation, but if 'context is everything' then case studies should not and cannot be used to predict what might happen in a different context. Nevertheless, case studies are vital for a variety of reasons. They allow new ideas to be tested and results to be compared and disseminated. They are useful to people designing their own programmes in different settings because they allow them to anticipate problems and implement procedures that worked elsewhere. During the 1980s, for example, a number of case studies were published about Nicaragua, which were later invoked by British policymakers trying to democratize decision-making in the British Health Service (Crowley, undated).

Epidemiologists and policymakers working at international levels are not satisfied with case studies alone, however, because they need to formulate or derive principles of community participation that can be generalized and applied across a variety of national and political environments. To accomplish this goal, they must extrapolate from individual cases and summarize the results. This task has been accomplished for rural development literature (not just health, per se) in two recent volumes by Krishna et al. (1997) and Uphoff et al. (1998). The first volume includes case studies from a variety of rural development projects, emphasizing the *emic*, or participants', perspective on events. The second volume contains the *etic*, or analysts', evaluation of events, focusing on the factors conducive to success 'through amicable and respectful collaboration between external and community actors' (Uphoff et al.1998, p. viii). The authors are not overly optimistic about the prospects for success of rural development projects, which they note have often failed due to 'the ways that governments, donor and international agencies, and some nongovernmental organizations usually proceed' (1998, p. viii). According to the authors, impediments to participatory projects include changes in the development paradigm used by governments and donors to 'neoclassical economic logic', which led to structural adjustment and privatization, trickle-down theories, etc. in the 1980s and 1990s. Uphoff et al. (1998, p. 2) say that, 'Although this doctrine is still dominant, there is some evolving thinking that poverty alleviation needs to be resurrected as a prime concern, with concern for sustainable development now legitimating the incorporation of environmental considerations into policy and planning'. Impediments also include changing environments: increased urbanization, population growth, landlessness and unemployment, and environmental degradation (Uphoff et al. 1998, p. 2–3).

Zakus' (1998) case study of community participation in health in Oaxaca, Mexico, during the 1980s, provides a useful theoretical perspective for analyzing and comparing participation across national contexts. Zakus utilizes the 'resource dependency model' to argue that the Mexican Ministry of Health set up participatory initiatives because it was under tremendous internal and international pressure to expand health services. Because the Ministry lacked sufficient resources to extend services itself, it looked to the surrounding environment for additional resources and 'ironically . . . [found them] in the under served communities themselves' (Zakus 1998, p. 487). Through a close evaluation of the structure and implementation of the programme, Zakus concludes that the Ministry did not grant power or decision-making authority to communities; furthermore, it co-opted participants (including communities and health workers) and failed to provide adequate training or supervision (Zakus 1998, p. 491). The resource dependency approach, Zakus argues, can help to identify and to anticipate organizational impediments to participation, in hopes that similar failures can be avoided in future programmes.

The social movements literature

In addition to the resource dependency model and other analytic frameworks for analyzing participation, the 1990s saw the emergence of a literature focused on social movements. The social movements literature examines how culture and politics are intertwined, that is, how they constitute each other; it provides another way to analyze the intersections of popular mobilization and government action in the post-1990s era. Elizabeth Jelin says it was unclear whether participatory movements in Latin America were 'new' in the 1970s and 1980s, or were merely a response to 'the closing of institutionalized channels of participation' caused by dictatorships, civil war and repression (Jelin 1998, p. 405). Likewise, the return to democratic rule may not have had the salutary effect on participation envisioned by some authors. Jelin (1998, p. 405) says the return to democratic rule 'implied giving priority to political parties and making a renewed commitment to institution building, a trend that emphasized the construction of institutions within the political system, guided by the logic of "governability". This effort often clashes with the less institutionalized collective means of expressing old and new social demands, and even with the more participatory pressures in the process of democratization.' Meanwhile, income inequalities and poverty are on the rise in Latin America. The return to democracy is publicly heralded; support for formal democracy is 'a hegemonic discourse', but it is accompanied by the impoverishment of a large segment of the population, caused by inequitable economic relations (Jelin 1998, p. 408).

Jelin's analysis has interesting implications for participation in health. It implies that participation stalls in conditions in which there is a modicum of civilian participation in public life, in which reformist governments channel dissident voices into political parties, in which formal democratic governments do not need separate participatory initiatives because the presumption is that the entire government is purportedly devoted to democratic participation, in which people have not (yet) organized themselves against the apathy and disillusionment that accompanies the spiral into deeper poverty.

Poststructural critiques of development published in the 1990s also provided new frameworks for analyzing participation (Ferguson 1990; Escobar 1995). Poststructuralists would analyze 'participation' as a site of struggle over the causes and solutions to poverty and underdevelopment. On one hand, participation became a hegemonic discourse only because it was promulgated by powerful international donors and financial institutions that have an interest in representing 'low participation' as an impediment to development. As James Ferguson (1990) argues in *The anti-politics machine*, development agencies prefer to identify problems for which they can devise technical (rather than political) solutions. On the other hand, the rhetoric of participation can be used to advance claims on power by a variety of groups, using 'participation' to justify tactics that had previously been excluded from the political arena. The poststructuralist critiques call for close examination of the relationship between historical events and social actions. They might ask, for example, what effect neoliberal economic policies and increasing privatization of government functions had on participation and community action. Under what conditions do impoverished communities become passive and apathetic? Under what conditions do they mobilize to protest the withdrawal of government services and accountability? How can a discourse such as 'participation in health' be co-opted (in a process similar to what Sonia Alvarez described for Latin American feminist NGOs) in 'a move toward policy-focused activities, issue-specialization, and resource concentration among the more technically adept, transnationalized and professionalized NGOs' (Alvarez 1998)? The cultural politics of co-optation are also discussed by Eric Dudley, who writes:

> 'Participation used to be the rallying cry of radicals; its presence is now effectively obligatory in all policy documents and project proposals from the international donors and implementing agencies. Community participation may have won the war of words but, beyond the rhetoric, its success is less evident. Part of the problem is clearly political. True participation is a threat to powerful and vested interests.' (Dudley 1993, p. 7)

A poststructuralist analysis would propose that international donors and development agencies win a major political battle by claiming to understand the many meanings of participation, while at the same time synthesizing those meanings into a single definition that goes on to dominate participation discourse. The World Bank example cited at the beginning of this paper shows how an international donor can wield its considerable authority to define participation in self-serving terms.

Thus far, we have discussed trends that affected general participation discourses during the 1990s. The remaining sections of this paper focus specifically on trends related to community participation in health.

The intersectoral nexus

In the years following Alma Ata, participatory initiatives were often directed at primary health care programmes. Analysts quickly realized, however, that community members often defined health broadly. They identified impediments to good health that reached far beyond the health sector to encompass other issues including housing, employment and land tenure (see Asthana, undated; Morgan 1993). Furthermore, donors and governments recognized that they could not resolve many of the most pressing primary health problems without also addressing other aspects of development, including (in addition to the above) education, water and sanitation, agriculture and the environment, and economic development. Nowadays, advocates of community participation in health expect that participatory initiatives directed at one sector will have ramifications in others. Participation 'in health' is hardly ever just 'in health' (Kalinsky et al. 1993).

Health has never been easily compartmentalized; participation is even less likely to be confined to one developmental sector. In fact, some argue that the goal of participation is to ripple throughout a society, having a positive effect on democracy-building. Another consequence of this trend is that ideas about 'community participation' and empowerment have captivated the interest of development experts, activists, and educators far beyond the primary care sector. Community participation is now discussed with reference to health education (Cardaci 1997; Arenas-Monreal et al. 1999) and disease control (Manderson 1992; Briceno-Leon 1998). Advocates of the utilitarian and empowerment models agree that intersectoriality is both desirable and necessary.

Biomedicine as an impediment

Proponents of both empowerment and utilitarian models also agree that biomedical training and the hierarchical practice of medicine can impede participatory initiatives. John Macdonald offers an extreme rendition of this argument when he suggests that allopathic medicine is by its very nature non-participatory. Doctors are trained to be authoritarian; they are taught to retain the power to diagnose, prescribe and cure (and to target diseases rather than people). Therefore they do not know how to promote participation. Macdonald offers his analysis as a corrective to studies of health participation that focus on structural impediments. While he admits that there is considerable structural opposition to participation, he wants to highlight 'the great strength of medical opposition to participation which mirrors and in a sense is part of the social and political opposition to a strong PHC [primary health care] with its emphasis on real participation and a move towards equity' (Macdonald 1993, p. 105).

Macdonald's analysis is important for our purposes because it offers one explanation for the tension between anthropological and epidemiological approaches. Epidemiologists, Macdonald says, are similarly tainted by the biomedical model that informs their training (see also Blum 1995). This explains why we rarely hear such terms as 'participatory epidemiology', which:

> 'do not fit with what we have come to understand to be the scope and method of the work of epidemiologists. According to their training, they are ready to analyse data on morbidity and mortality and to suggest correlations and trends. But they have much less preparation in the skills of asking community members about their perceptions of their needs, what they think of the services provided, or the skills necessary to enable the community to be involved in future planning. Western scientific medicine sees the community as the aggregation of the (sick or potentially sick) individuals in it. It equips its practitioners to diagnose and tell, not to listen and plan in partnership.' (Macdonald 1993, p. 103)

Macdonald tends to exaggerate his case, overlooking the work of social epidemiologists who work alongside community members to define and resolve health problems, and who are committed to health services research and popular, public health education (American College of Epidemiology 1998; McKnight 1999). Nevertheless, his argument could be applied to Kahssay and Oakley's case for community involvement in health. Their approach is rhetorically sophisticated but programmatically modest. Kahssay and Oakley emphasize the intersections between participation and health sector reform, arguing that community involvement needs to become a central component of national health systems through intervention with policymakers. This could be seen as a pragmatic response to earlier attempts that placed responsibility solely on community members, when in fact those people rarely had the power to effect dramatic structural change. Kahssay and Oakley, by contrast, turn the onus of responsibility back onto those who control the allocation of resources. Their final recommendations are directed not toward community mobilization, but toward the need to incorporate community involvement 'principles' into health sector planning and evaluation. Critics might point out that this makes their analysis similar to that offered by the World Bank, which redefined participatory initiatives to direct attention away from the poor and toward 'stakeholders'. This approach, while posing less of a threat to the status quo, is fraught with problems and dilutes the transformative potential of participatory rhetoric and programmes (Zakus 1998).

Pragmatists, activists and the persistent challenge of participation

Responses to the analytic complexities and persistent challenges of participation a quarter of a century after Alma Ata include both pragmatic and activist proposals. Pragmatists point out that participation has been 'talked to death'. They doubt there is much new to say about it, yet they note with some urgency that development problems are deeper and more pressing than ever. Dudley says, 'The challenge is now to get beyond the general principle and determine the practicalities of how participation fits into a larger picture of effective aid for just and sustainable development' (Dudley 1993, p. 159). The pragmatic response has been offered as a justifiable response to cynicism and disillusionment (see Woelk 1992, p. 419), in spite of charges of utilitarianism. Pragmatists argue that even compromised, utilitarian action is better than the alternatives: to hold onto the romantic hope for a utopian democracy, to give up in frustration, to allow governments and donor agencies to focus on economic growth at the expense of poverty alleviation, or to allow governments to dump responsibility for rural development onto local communities with impunity. Pragmatists favour an approach of respectful collaboration among donors, community representatives, and governments (when possible) to achieve mutual goals. Pragmatic solutions require policymakers, managers and planners to identify the elements critical to success, which include 'novel ideas and strong value commitments that outside resources could support and make more productive, once a significant learning process is initiated and carried through' (Krishna et al. 1997, p. 3). Pragmatists are convinced that the poor will be better served by accepting self-reliance as a strategy rather than waiting for government or donor assistance.

In contrast to the pragmatists, activists argue that a sustained commitment to social justice and genuine democratic process is more important than ever. In a world ideologically and economically dominated by globalization and transnational capitalism, there can be no excuse for ignoring the underlying causes of the desperate poverty that affects an ever-greater proportion of the world's population. There is too much at stake in this context for 'community participation' to be offered as a panacea for health and development problems. Activists argue that empowerment is essential; it is increasingly important, they say, to identify and dismantle the political, economic and social arrangements that foster increasing disparities between the rich and healthy, and the poor and ill. The activist agenda calls for supporting and strengthening collective social movements that share these goals. Activists do not want to see participation reinvented as a toned-down, moderate form of continuing education for professionals or of small-scale village programmes. They want to retain and strengthen the movement's devotion to empowerment models, in which conflict is stimulated with the goal of achieving a more equitable distribution of power.

The complexities of participation are better understood today, and the possibilities for pragmatic compromise more widely accepted by a generation of seasoned planners, practitioners and analysts. Yet disagreements about participation persist, to a large extent rehearsing and reiterating the original schisms between empowerment and utilitarian models. Meanwhile, participation continues to be at once alluring and challenging, promising and vexing, necessary and elusive.

Endnotes

[1] A different version of this paper will appear in Portuguese in *Abordagens Antropológicas em Epidemiologia*. Coimbra CEA, Jr, Trostle JA (eds). Rio de Janeiro, Brazil: Editora Fiocruz. Forthcoming.

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Biography

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SELECTIVE PRIMARY HEALTH CARE: THE COUNTER REVOLUTION

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Abstract—Primary health care in the WHO sense was triggered indirectly by the failure of the Malaria Eradication Programme. The response to this failure was an ideological change which considered that health services were not purely a way of delivering health care interventions to people but were something important to individuals and groups in their own right. Key changes of this idea called primary health care were linked to qualities such as power, ownership, equity and dignity. Such an ideological change involves the evolution of new forms to reflect the changes in content and some of these structures still require development.

The advocates of highly selected and specific health interventions plus the managerial processes to implement them have ignored, or put on one side, the ideas which are at the core of what could be described as the primary health care revolution. They are in this sense counter revolutionaries.

Key words—primary health care, selective primary health care, equity

Most of us have difficulties in describing a success. We are aware of the conditional clauses we would have to use to describe a successful person. Few would say it was the richest person, or the one who had the most children, the person with the greatest apparent power, or even the one who states that he had reached the peak of all his aspirations. We all have heard of the unhappy millionaire, the miserable leader, the near vegetable who exists in a cloud cuckoo land of apparent achievement and yet exists in personal and social squalor.

The definition and description of health involves similar problems for very similar reasons. There are so many facets that have to be seen together and there is no objective way of judging whether one mix is better or worse than another. Two individuals can have two very different mixes and each may be the ideal for that particular person. Because of the diversity of acceptable outcomes, the promoters of success (or health) feel forced to concentrate on trying to prevent failures (or disease). Unfortunately, when one follows this line of reasoning one almost inevitably is led to the idea that if we can prevent, abolish, or remove enough aspects of failure, the result will be a success. This is not valid reasoning. Certainly, it must be 'good' to abolish or control diseases but this does not inevitably lead to health or to what people necessarily want.

Philosophic dilemmas such as the above sometimes resurface and become the starting points of new initiatives, and primary health care (PHC) as expressed by WHO could be said to have had its genesis from the implications of failure rather than from any vision of success. It is worth remembering that PHC started in the late 1960s and early 1970s. This was the era dominated by the thinking of people such as René Dubos [1] whose 'Man Adapting' was almost compulsory reading for anyone interested in the biomedical sciences. In the same era WHO and many countries were struggling to face the implications of the failure of malaria eradication as an idea and as a programme and the long knives were out looking for technical, political and administrative scapegoats to blame. The conclusion which was most widely and comfortably drawn from these malaria debates was that while there were technical reasons for the difficulties in malaria eradication the most dominating cause of failure was the lack of a complete continuing health service infrastructure which could reach every household and remain in place. This health care infrastructure did not have to be very sophisticated and the degree of completeness of its coverage and its stability were more important than its level of technical competence.

With such a conclusion, WHO was almost forced to look more deeply into the distribution, form, and roles of 'basic health services' (as such services were then often called). This was done by the Executive Board of WHO proposing, carrying out, and reporting on an 'Organizational Study on the Methods of Promoting the Development of Basic Health Services' [2]. The report was a surprising and unexpected document. An appreciation of the present position [2, p. 106] describes a "major crisis on the point of developing" in the developed as well as in the third world. It states that "there appears to be widespread dissatisfaction of populations about their health services for varying reasons". A number of causes (of dissatisfaction) are listed and include:

—"a failure to meet the expectations of the populations;

—an inability of the health services to deliver a level of national coverage adequate to meet the stated demands and the changing needs of different societies;

—a wide gap (which is not closing) in health status between countries and between different groups within countries;

—rapidly rising costs without a visible and meaningful improvement in services;

—a feeling of helplessness on the part of the consumer, who feels (rightly or wrongly) that the health services and the personnel within them are progressing along an uncontrollable path of their own which may be satisfying to the health professions but which is not what is most wanted by the consumer."

A number of reasons for the above were explored further and the report concludes that "they are possibly symptoms of a wide and deep-seated error in the way health services are provided". When the report describes what should be the content of basic health services, it denies that any collective or world list of health service actions should exist. "Physicians cannot say that persons with this or that condition, for which a health intervention is possible, should be given first priority or that another disease should be left alone to be dealt with later." Instead it suggests that it is the responsibility of the health sciences to describe possible interventions and their implications and costs, but not to choose.

I have quoted at length extracts from this report for two reasons. Firstly because it turned objectives for a health service upside down by saying that its structure and content should not be dominated by a form required for malaria eradication, or any other disease control measure, but for quite different societal reasons. Secondly, because the debates on this report by the Executive Board of WHO and within the following World Health Assembly led up to the idea of PHC as expressed by WHO.

During these debates it was the representatives of the industrial world who first rose to their feet and stated that the report described *their* health system problems. This was followed later by similar statements from representatives from the developing world. In the debate on the implications of the report, the examples quoted were not limited to disease states of deprived societies but included occupational hazards, pollution, traffic accidents, and drug addiction as often as malaria, child and maternal mortality or communicable diseases. The issues moved on from the right of every individual to have access to health care towards the realities that the *form* that the health system took was not just of epidemiological, fiscal or managerial relevance and that both the long and short term objectives, and who should decide, were of fundamental importance. The imminent crisis that was being described and the criticisms of the existing health care scene were not directed towards the present health status of populations or to particular disease states but to the indignity of health and health care being 'owned' by special groups and the form and objectives of these systems being imposed on populations on quasi-rational grounds. The report was unexpected and revolutionary because it described health systems as failures because people were dissatisfied with their ideology and form—not because they were unsuited for malaria eradication.

The evolution of a statement consistent with these ideas has been slow and tortuous and is far from being completed. As with any radical shift in ideology, the steps from ideology to applications and methods of implementation present real difficulties. Even a definition seems to start with essential or core qualities rather than a proper statement giving boundaries and direction. The first attempt to describe a revised system, given by WHO the code name of PHC, followed the Joint WHO/UNICEF study of success [3]. This was in a paper presented to the 1975 World Health Assembly [4]. Here PHC was described rather than defined and seven qualities or principles were proposed. These included the design of a PHC system around the life patterns of the population, the need for total health systems to be designed to support the needs of the periphery, the acceptance that many primary causes of ill-health were based on factors such as poverty, deprivation and environmental abuse, the need for active participation (ownership) of health systems by local populations, and equity. These principles were accepted by the Assembly, and led to the meeting in Alma Ata in 1978.

Large, formal international meetings of national representatives have their own peculiar needs. It is difficult for a representative to return home and report on an ideology. What is wanted is a programme. At Alma Ata, almost inevitably the emphasis moved from what is wrong, and why, to what can health services do, and how can success be measured. Lists started to appear of health status problems which needed to be dealt with and they included the expected, including maternal and child mortality, water and sanitation, health education, fertility, and the communicable diseases. It can fairly be said that it would be surprising if such widespread horrors were not on such a list. However, the risk of such an activity is that when you start with *any* list, the entire reasoning starts to change and the list becomes the objective.

It can be said that 'selective primary health care' (SPHC) may possibly have started from the lists of Alma Atas rather than from the Walsh–Warren article in 1979 [6]. There seems little difference in principle between an international forum selecting a group of disease and intervention priorities and saying we will try and implement these throughout the world, from a different group making a different selection based on the cost and effectiveness of interventions and saying do *these* things first because they work. Both groups are putting forward health status objectives as goals and are either saying use PHC principles to implement *our* choices (if they are cheaper, more effective or more acceptable) or let us design a different series of delivery systems which could optimize *our* goals and leave the more general goals to some later date when such luxuries can be afforded.

To the convinced PHC advocate such SPHC proposals are not PHC at all but are the antithesis of it. They are disease control programmes which are ideologically similar to the malaria eradication disaster and are a regression to the very qualities of imposed systems which were described in the Organisational Study. The selected initial lists are expressed as 'interim' objectives but even if these items were solved they could then be followed by another list using similar logic, *ad infinitum*. In no way do they share the objectives of PHC and the apparently preferred vertical programme management structure is very different from the horizontal decentralisation which is an essential component of a PHC form. The choices are those of the technologists and managers (national and international); 'ownership' rests with the programmes; mechanisms are designed for the job and not for the system; objectives and outcomes are short term rather than primary causes or barriers of change; there are built-in assumptions that the problems and outcomes are those of the people and the technology is the preferable one for all societies; and the programmes support the existing resource gathering and distribution patterns and may increase dependency.

Such statements can easily be misinterpreted. The 1960s and 1970s were not only the time of the appearance of PHC but were also the era of smallpox eradication. This success story of modern medicine was selected internationally and was implemented using highly specific methods designed exclusively for the programme. It would be difficult to find anyone now who does not applaud this programme and who is not satisfied with the result. But the main health problems of both the poor and the rich countries do not fall into the same category as smallpox. The health problems of today, when viewed by the professionals or the people, are ones requiring continuing action cohort by cohort, person by person, and day to day. There are few health advances which do not have to be weighed against disadvantages and opportunity costs which are important to individuals and to societies. SPHC and PHC are not similar.

The clash between PHC and SPHC is real even though the points of conflict are not the obvious ones. Both sides in the argument accept that poverty, deprivation, malnutrition, lack of education, the status of women, environmental hazards and a gross maldistribution of resources are among the primary causes of much ill-health and that these things need to be faced directly in their own right. SPHC takes no responsibility for attempting to alter them and PHC may only influence them indirectly or marginally. Similarly, both sides equally accept that many (or most) infant, child, and maternal deaths and some other illnesses and deaths can be directly prevented or influenced by existing interventions which can be cheap and effective. Both sides are aware that these interventions are only being applied to a minority of the world's risk populations.

These agreements may seem to be so all-embracing that the differences must be only marginal. They are not. If the objectives and who decides them as well as the form are opposed, then the similarities rather than the differences are of little account. PHC advocates feel that, even if the list of actions and interventions put forward by SPHC are applied to a total population, the health system may still be classed as a failure. If what results is still an oppression, does not deal with that society's priorities, and is inconsistent with the way of life and the dignity of that population, then it is not successful. Such a statement can be reversed to say that a PHC system can still be classed as successful even if some of the illnesses and deaths targeted by SPHC continue to occur *if* that society truly has a choice but decides to take up other priorities knowing the implications. This may seem strange but surely it is no different from an industrial country accepting a certain level of disability and death as a consequence of traffic accidents or pollution.

This is completely different from the SPHC view that the targeted health priorities are an abomination because they are so easily dealt with, and it is intolerable that they should continue when effective technologies and sufficient resources exist to deal with them if they are used wisely and with proper management. Success to the SPHC will come when every child is immunised at the right time, every child is fed, and so on.

Another way of illustrating the two choices is by saying [7] that the solution for a malnourished child is the provision of proper food (SPHC). The advocate of PHC will reply that a healthy village or family feeds its children. The differences between SPHC and PHC are not just variants on a single theme or technological fights between scientists. The differences are real and are of crucial importance.

A different line of argument used by some is that PHC is an ideological dream but that it does not work and is difficult or impossible to implement, especially in those countries which are poor and have more arbitrary political systems. In such circumstances, which is best—a PHC system which does not fully work or a series of vertical programmes directed towards identifiable consumers? A response to such a question must take into account that central PHC ideas such as equity and decentralisation are not accepted in any sector of some countries. They may even be viewed as political threats. Most resources may be purposely directed to the cities, or to special groups such as civil servants or the army. Fragmentation may be a real threat to a newly independent country and decentralisation may appear to encourage it. Factors such as these may be some of the reasons why PHC is rejected or accepted in name but not in reality. With such factors being possibly present it would be unreasonable to expect PHC to be immediately and completely implementable everywhere at once. Evolution is possible as well as revolution and it would seem more sensible to work slowly in the direction of a long-term solution than to build structures which are for the moment and impossible to justify in the long term. In such countries, forward movement may be slow and fragile and can so easily be stopped or destroyed by misplaced actions. The accounts which are now becoming available from Africa and Asia of the destructive effects at the district and peripheral levels of the health system by processes such as preferential field allowances to workers participating in vertical EPI programmes are so dramatic that they cannot be ignored. They must be viewed as the national expressions of technical SPHC decisions tied to international or bilateral resources in New York, London, Geneva or elsewhere and are signs that the battle is not just ideological but is one which will have its ultimate expression in villages and homes.

CONCLUSION

There are moments of history when unplanned and apparently irrelevant events present the opportunity to view ourselves in a different way and to change. The events of the 1960s and 1970s not only made visible the magnitude of the health problems facing the majority of the world's people but gave us the opportunity to discuss publicly some of the absurdities of our health systems and the objectives we were working towards. If health is not definable except in a fluffy way, can never be completely attainable by individuals or groups, and will always involve a play off between risks and aspirations, then why do we continue to act as if disease and death control equals health? There is no objective way of using the scientific method to choose between these issues, to select this rather than that illness for action, to say that the death of a child is somehow worse than that of an adult, or to selectively direct public resources to one set of individuals rather than to another. These are inevitably value judgements. Only society can choose and if a society has rights one of them must be the right to know what the choices are, to have access to those choices in an acceptable way, and to understand the consequences or implications of the decisions.

The continuing evolution of PHC is the nearest thing that we have at present which reflects these rights. It is likely that it will take a long time and many ineffective attempts before it is possible to get it to work properly. The PHC failures may need to be ruthlessly destroyed but the movements towards workable forms have to be protected and encouraged. SPHC is a threat and can be thought of as a counter revolution. Rather than an alternative, it is a form of health service feudalism which can be destructive rather than an alternative. Its attractions to the professionals and to funding agencies and governments looking for short term goals are very apparent. It has to be rejected, but for the right reasons.

No one can justify the mismanagement, logistic incompetence, and conceptual confusion of many so-called PHC systems which make many of the interventions selected by SPHC inaccessible to the people who might very well choose them if they had the opportunity. But if these are corrected in the wrong way, they may result in pathetic substitutes for the *real* thing if the main objectives and qualities of PHC are forgotton or put on one side.

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SELECTIVE PRIMARY HEALTH CARE: A CRITICAL REVIEW OF METHODS AND RESULTS

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Abstract—In the aftermath of the Alma Ata conference, three types of Primary Health Care (PHC), have been identified. Comprehensive PHC (CPHC) and Basic PHC (BPHC) both have a wide scope of activities. BPHC however does not include water and sanitation activities. Only one year after the Alma Ata conference, CPHC was attacked as not 'feasible' and selective PHC (SPHC) was offered as an interim alternative. SPHC only addresses 5 to 8 diseases, almost all of them falling within the realm of pediatrics. Our article critically analyses the methods and results of SPHC. It contrasts the lack of supportive data for SPHC and its methodological deficiencies with the extent of its adoption by bilateral cooperation agencies, foundations, academic and research institutions, and international agencies. We suggest that rather than health factors, the major determinants of this adoption have been political and economical constraints acting upon decision makers exposed to a similar training in public health.

Key words—selective PHC, public health decisions

Selective Primary Health Care (SPHC) has attracted wide-spread attention as a major alternative to the Primary Health Care (PHC) concept announced in the 1978 Alma Ata Conference Declaration [1]. The SPHC strategy emphasizes 'rationality' and potential cost-savings [2]. By implication, it challenges governments whose ministries of health joined WHO, PAHO and UNICEF in formally adopting the program of the 1978 Alma Ata Declaration. We attempt here to describe the historical context of this alternative health service approach; to critically analyze its methods and operational structure; to explore its empirical foundation; to discuss the implications of adopting this strategy for the health of developing country populations; and finally to examine some of the economic and political reasons for its current notoriety.

THE ORIGINS OF SELECTIVE PRIMARY HEALTH CARE

Approaches to health care in LDCs

In the late 1970s, when the Alma Ata Declaration first was being implemented, the mix of health services existing in the Third World only approximated the purity of health system models. These health service structures could be grouped into three broad categories for presentational purposes:

(1) Hospital-oriented medical care;
(2) Vertical or disease-specific programs;
(3) Community-based primary health care.

Hospital-oriented systems. In most developing countries, health ministry planning and policy agencies are dominated by a concern with treating the sick. The hospital orientation associated with this curative view has two distinct forms in most LDCs. One form is a facsimile of European or American systems. It is urban-based, highly technological and often includes a major private sector component. Originally designed to cater to a colonia population, this system now serves the national or expatriate middle- and upper-classes.

The other hospital-oriented form targets rural or peri-urban needs, serves poor population groups, and is usually state or church operated. In practice, the hospital sector in LDCs encompasses both forms of the hospital-oriented system and consumes about 80% of total health care expenditures [3].

Vertical or disease-specific programs. The success of specific disease control measures that contributed to the elimination of yellow fever, smallpox and typhus in North America and Europe in the early 20th century encouraged the growth of vertical campaigns. These programs, targeted upon specific LDC diseases, were recognized as having residual benefits for the industrialized countries as well (e.g. the construction of the Panama Canal and the U.S. military occupation of Cuba). Large American foundations (Rockefeller, Ford) joined the U.S. military in the early development of vertical disease control programs and continue to show interest in this strategy today.

Early WHO programs, typically vertical in nature, enhanced the popularity of vertical interventions by creating time-limited disease eradication programs. Only the failure of campaigns against malaria and trypanosomiasis in Africa and Asia (and to a lesser extent in Latin America) has cast doubt on the ability of vertical control programs to achieve significant reductions of suffering and mortality in the long-run.

Community-based primary health care. Just as the vertically-oriented smallpox campaign was reaching its successful conclusion, the WHO and its Director-General, Dr Halfdan Mahler, began to advocate a comprehensive effort to reach the entire world's population with horizontally-integrated primary health care services (PHC). The personal and public health services of the PHC model sought to improve health status by the use of health auxiliaries and appropriate health technologies. The model sought to provide acceptable, accessible services based upon local initiative and maximum levels of community participation.

The community-based PHC model was by no means a new notion. For decades, community-based services were advocated by King in Africa and Shaw in India. As a member of the Bhore Committee (1946), John Grant argued for the integration of vertically designed health interventions into a core of more comprehensive health services [4]. Similarly, Hugh Leavell, a Professor at the Harvard School of Public Health and Edward MacGaveran, a Dean of the North Carolina School of Public Health, have firmly supported an integrated PHC approach [4].

Through the Alma Ata Conference Declaration, WHO and UNICEF formalized a consensus about PHC standards that had already proven themselves in many Third World Nations. By acknowledging that Third World diseases result from poverty and that the health care system, "can be a lever for increasing social awareness and interest, initiative and innovation" [1], the conference declaration implied that political commitment toward a reallocation of scarce resources is required for implementing the PHC concept.

There remains considerable practical debate as to what constitutes appropriate primary health care in developing countries. PHC, by the WHO definition, is broad in scope and includes:

health education
food supply and nutrition
water and sanitation
maternal and child health programs
immunizations
prevention and control of locally endemic diseases
treatment of common diseases and injuries
provision of essential drugs.

Because of its great range, this approach is often called 'Comprehensive Primary Health Care' (CPHC) as distinguished from approaches which consider water, sanitation and food supply to be outside the scope of health care system responsibility. The latter view is frequently referred to as 'Basic Health Services' (BHS). Finally, PHC presupposes that its referral and supervisory network will be built into a stabile health network.

Selective primary health care

Just as PHC concepts were first being implemented by Alma Ata signatories, Walsh and Warren presented the SPHC approach to a joint Ford/Rockefeller Foundation Symposium on Health Services in Bellagio, Italy. As an alternative to PHC, selective primary health care would institute, "health care directed at preventing or treating the few diseases that are responsible for the greatest mortality and morbidity in less-developed areas and for which interventions of proved efficacy exist" [2].

Instead of a full health infrastructure based upon primary health care, the SPHC approached would reduce the scope of health services in accordance with the findings of cost-effectiveness analysis. Presumably, cost-effectiveness analysis justifies a selective elimination of PHC services since (1) PHC in the Alma Ata context (CPHC) is "unattainable because of the cost and number of personnel required" [2] and (2) even without water and sanitation included, basic health services (BHS) would cost billions of dollars in the view of the World Bank [2].

The operating assumptions of SPHC are determined by one variety of rationalized choice. The selection of a limited number (usually 5–10) of health interventions is established by prioritizing diseases of importance on the basis of prevalence, mortality, morbidity data and on 'the feasibility of control'. As a result, SPHC health services "concentrate on a minimum number of severe problems that affect large numbers of people and ignore interventions of low questionable or unmeasured efficacy". Examples of interventions that would be ignored because they are difficult to control, are: treatment of tuberculosis, pneumonia, leprosy, trypanosomiasis, meningitis and helminths. These types of health problems, "may better be dealt with through the investment in research", since, in terms of potential benefit, "the cost of research is low".

Warren suggests that the SPHC health services structure would be a Christmas tree upon which ornaments (independent interventions of 'proven efficacy') might be hung, one by one. The initial nature of the structure would necessarily emphasize vaccinations in order to gain the high coverage (greater than 90%) required to interrupt transmission of the major diseases such as measles. Interventions such as oral rehydration therapy for diarrhea which require a more stable, community-based health service structure would be introduced later on. Health services such as malaria, chemoprophylaxis or vaccines, schistosomiasis treatment, or other new vaccines would be added rationally to the structure as they become cost-effective in areas where such diseases were of high importance.

Despite its virtual overlap with the initial adoption of the PHC concept, the SPHC approach has continued to attract support. The American CDC has developed a series of training manuals for the Expanded Program of Immunization (EPI/WHO) and the Control of Diarrheal Disease Program (CDDP/WHO) based on the 'priority setting' method [5]. Specific CDC international programs emphasize a selective intervention approach.

In late 1982, the U.S. Agency for International Development (USAID) sent telegrams to all Latin American health stations orienting them to the employment of the priority-intervention approach when possible. Despite its deep involvement in the PHC concept at the time of the Alma Ata Conference, UNICEF's current health policy, as elaborated in the December 1982 strategy, reflects a SPHC approach [6]. A. W. Clausen, in his first health-related pronouncement as President of the World Bank, stated that child mortality in the world could be cut in half through the implementation of the new 'technological breakthroughs' of oral rehydration therapy and vaccinations by means of an SPHC-like structure [7]. In addition, the World Bank appears ready to place billions of dollars behind the SPHC approach: the former World Bank President, Robert S. MacNamara and Dr Jonas Salk recently announced the formation of a world-wide organization devoted to speeding up the application of selective immunization interventions and diarrhea therapy in low-income countries.

The WHO leadership and other PHC supporters have been less than enthusiastic about the SPHC approach to primary health care. In an April 1983 address to the World Health Assembly, Dr Halfden Mahler, Director-General of the WHO warned:

> "Honorable delegates, while we have been striking ahead with singleness of purpose in WHO based on your collective decisions, others appear to have little patience for such systematic efforts, however democratically they are applied. There are unfortunate signs that negative impatience is looming on the horizon and some of it is already peeping over and gaining superficial visibility .... I am referring to such initiatives as the selection by people outside the developing countries of a few isolated elements of primary health care for implementation in these countries; or the parachuting of foreign agents into these countries to immunize them from above; or the concentration on only one aspect of diarrheal disease control without thought for the others. Initiatives such as these are red herrings .... Without building up health infrastructures based on primary health care, valuable energy will only be wasted, and you will be deflected from your path".

The SPHC alternative has already been the core issue of critical articles. With democracy and equity as key criteria, Banerji [8, 9] has contrasted SPHC methods with those entailed by the development of a national health service. Briscoe [10] followed Walsh and Warren in the acceptance of cost–effectiveness ranking as a major criterion in the assessment of health services but reached dissimilar conclusions on the exclusion of water and sanitation activities. Others have described the SPHC alternative as a thinly disguised return to technologically-oriented vertical health care programs [11]. Also the cost–effectiveness technology used to justify SPHC as a system of rational choice-making has been questioned with respect to its validity [12].

Clearly, a major controversy is brewing with issues about how billions of dollars will be allocated for international health services and with choices concerning millions of lives hanging in the balance. The following sections of this paper offer both a conceptual and empirical analysis of the underpinnings of the selective strategy for primary health care.

METHODOLOGICAL ISSUES REGARDING SPHC

Obviously, quantitative planning is necessary for any health manager—whether he holds to the 'SPHC' position or to the 'Alma Ata spirit'. Since a wide variety of quantitative planning methods are available, health managers have options to exercise. For instance, in the realm of health manpower planning a manager could assess manpower needs through a planning base that emphasizes: (1) health needs (epidemiological information), (2) activity objectives, (3) health demand or even (4) arbitrary standards (e.g. agent/population ratios) [13, p. 94]. The variety of planning methods not only have specific technical advantages, drawbacks and justifications, they convey as well a strong political valence.

Planning methods articulate with political structures in at least a two-fold manner: (1) specific planning methods converge with the political structuring of health systems (e.g. activity objectives best suit centralized health systems while health demand-based planning methods apply readily to systems of private medicine) and (2) health planning methods are always to some extent 'structure-determinative'.

Of course, the choice of a planning method should follow from the force and power of the method, not primarily from its political goodness of fit. The wide-spread appeal of the SPHC method must be examined in this light. Only if it suffers from major internal methodological flaws could its political and economic attractiveness account for its enthusiastic reception.

An exploration of the SPHC prioritization method raises a series of questions about SPHC methodological adequacy. This approach to priority-setting—one based upon the use of epidemiological information and extensively used by the American CDC—must proceed along several lines: the way the SPHC approach determines its programmatic objectives, the SPHC view of resource utilization, and the planning structure entailed by the application of SPHC principles [14].

Setting SPHC priorities

The basic objective of SPHC is the control of diseases in order to improve the health of a population. Improved health in this case amounts to the reduction of morbidity, mortality and disability, such reductions being demonstrated by the diminution of disease-specific mortality rates among 'priority' diseases. Walsh and Warren characterize the SPHC disease prioritization method as follows, "in selecting the health problems that should receive the highest priorities for prevention and treatment, four factors should be assessed for each disease: prevalence, morbidity, mortality, and feasibility of control (including efficacy and cost)". CDC training modules prepared for mid and upper-level EPI program managers use the same method only summarized concisely in the form of an equation:

$$\text{PRIORITY} = \frac{\text{Importance of Disease}}{\text{mortality; incidence; disability}} + \frac{\text{Likelihood of Success}}{\text{government commitment; technical and management factors; public response.}}$$

The SPHC prioritization method is inseparably integrated into the next step, the selection of an appropriate health care system for intervention. Appropriateness turns upon the 'reasonable cost' and 'practicibility' of the health care system in question and Walsh and Warren analyze health system structures on the basis of these criteria [2].

> The interventions relevant to the world's developing areas which are considered are comprehensive primary health care ... basic primary health care ... multiple disease-control measures (e.g. insecticides, water supplies), selective primary health care and research.

This set of objectives appears to follow from the application of a logically related series of procedural steps: (1) an objective selection of diseases of great importance for an area, (2) their prioritization on the basis of whether they can be controlled feasibly and (3) the creation of a health system around the intervention scheme which has been selected.

Objective selection of diseases. The characteristics of epidemological data in the less developed world may jeopardize the validity of the simple and apparently sound SPHC method. Epidemiological data required for an initial SPHC prioritization as well as for subsequent monitoring of disease-specific mortality rates are of uniformly poor quality in LDCs. Cause-specific mortality rates are particularly unreliable due to the lack of adequate diagnostic measures.

A high percentage of causes of mortality cannot be identified, even when surveillance programs established expressly for that purpose have been developed. The 1980 Bangladesh child mortality survey, for example, failed to identify the cause of 44% of infant deaths [15]. In addition, seasonal fluctuations compound the difficulties of analyzing annual rates that summarize mortality. The intermediate aim of reducing disease-specific mortality suffers thus from data imprecision.

Relatedly, the uncertain weighting scheme used in prioritizing diseases for intervention through the SPHC method combines conceptual ambiguity with data imprecision. Obviously, the product of a relatively precise parameter and a defective coefficient will be a parameter which is itself defective. Clearly, it is questionable to rely upon this method not only for the identification of disease priorities but above all for the designing and planning of the related health system.

Feasibility and SPHC objectives. Determining 'feasibility of control' is not simply a matter of scientific assessment. Obviously, the absence of a biomedical tool suitable for treatment or prevention of a condition rules out its control. When a tool is available, however, its 'feasibility' is often a function of the health system that uses it. Tuberculosis control, for example, it not feasible in a vertically-oriented system that uses interval-bound mobile teams or poorly trained Community Health Workers (CHWs). Tuberculosis control, on the other hand, may be feasible in the context of an integrated CPHC or BHS system where medical assistants practice primary care with the aid of well-crafted treatment strategies and adequate supervision.

As SPHC proponents proceed to gauge feasibility of control, they are often selective in their view of 'feasible' health systems. The feasibility of control permitted by PHC systems is assessed in terms of the existing state of organization and management in LDCs, usually called 'inadequately developed' and overly exhaustive [16–18]. On the other hand, the health system structures involved in determining feasibility of control for SPHC systems tend to be judged on the potential efficiency of future technologies (e.g. new vaccines, single-dose therapies) rather than upon their current or demonstrated effectiveness.

While potential technological developments appear to offer hope for improving health status in the future, the SPHC literature envisions little prospect for improved management, training, and organization or for the re-allocation of resources in the health sector of Third World countries.

The 'likelihood of success' feature of SPHC and CDC priority-setting procedures makes evident the value-laden nature of 'feasibility'. The feasibility of control of a particular disease is as much a function of value preferences about health systems as it is a matter of empirical analysis. Immunizable diseases and diarrhea treatment, for example, are thought 'feasible' because they are viewed as diseases that can be effectively managed in a vertically-oriented system. Pneumonia treatment requires the skill of a medical assistant and a continuous drug distribution network, facts which reduce its 'feasibility of control'. On the other hand, mobile teams are ruled out altogether, since they cannot address the treatment of acute conditions, due to the absence of the mobile team when the episode occurs.

The overall impression created by 'feasibility of control' in the SPHC method is that it amounts to a circular logic. A selective analysis of health care organization determines priorities for disease control while it is being claimed that prioritization leads to the choice of health care intervention systems.

Diseases of importance. By the account of Walsh and Warren, medical interventions appropriate to prioritized diseases are stratified, "from the most comprehensive to the most selective" [2]. But the decision to focus on only 8–10 diseases, regardless of which diseases are eventually selected, limits health services, predetermines the level of medical intervention and concentrates attention on diseases that cause high mortality. Largely ignored are the majority of conditions, i.e. those which cause the bulk of pain, suffering, and disability among a population.

This is true even when appropriate interventions might be available. Although the SPHC approach to 'importance of disease' draws upon a definition of considerable theoretical scope, the practice of SPHC method [19] leads to an almost exclusive consideration of diseases which cause high mortality and which enjoy 'feasibility of control'.

One important result of the SPHC emphasis on mortality is an overriding interest in childhood conditions. As Julia A. Walsh put the matter [20], "since infants and young children are at greater risk of mortality and morbidity, then health care should be primarily directed towards them". Infants and young children are at greater risk than most other population groups. They represent a large component of total mortality in LDC's and SPHC appropriately addresses itself to their pressing problems. While the SPHC strategy does not by-pass adult disability and suffering intentionally, the constraints of the SPHC method establish prioritized objectives and preferred intervention schemes that do very little for adult health problems.

When the 'importance of disease' measure is further refined, as Berggren *et al.* [19] and the Ghana Health Assessment Team [21] have attempted, the SPHC/CDC prioritization approach only serves to compound the problems involved in concentrating upon childhood mortality. Their substitution of 'days of life lost' or 'years of life saved' for total mortality figures suggests that a day of life at any age is equally valued. In consequence, the value of a 7-day-old infant with neonatal tetanus is 'twice' that of a 20-year-old with tuberculosis. The life expectancy patterns in most LDCs, however, calls this into question. Life expectancy in Liberia in 1971 [22], for example, was only 45 years and the chance of dying before age 4 was almost 24% in Malawi. Nevertheless a 25-year-old male's life expectancy was nearly equal to that of a person living in a developed nation (38.3 in Liberia, 1971; 47.3 in Canada, 1971) [23].

But even if 'days of life lost' were somehow 'properly' weighted to reflect factual life expectancies, the SPHC method would still yield a high priority for childhood mortality diseases due to its focus on 8–10 conditions. The relatively high valuation of children's health problems by the SPHC approach raises serious questions for planning applications of the SPHC method. Third World communities may hold value preferences distinctly at odds with an emphasis on childhood mortality, in part, at least because adult manpower is indispensable for community survival.

Expected intermediate outcomes for SPHC

Intermediate SPHC goals are almost all related to a single, general intermediate goal, namely reducing disease-specific mortality. The methods of SPHC explicitly assume that a reduction in a certain few disease-specific mortality rates will result in a reduction of the overall mortality rate for a population. This assumption is uncertain at best in developing nations where mortality follows from the myriad health insults associated with poverty and where suitable epidemiological information is in very short supply.

It is likewise questionable whether an attempt to reduce the disease specific mortality rate of a very few pathologies can yield success in the reduction of a population's overall mortality rate. Noting the difference between diseases registered as the cause of death and the determinants of death in an area, Mosley [24] has proposed that child and infant death has no discrete cause. Childhood mortality is, rather, the result of a long series of recurrent infections and deficiencies, particularly deficiencies of food intake. To overlook the complex nature of childhood mortality could lead to: "recommendations for disease-oriented technical intervention programs that fail to achieve their goals, a typical example being supplementary feeding programs to combat malnutrition" [24].

Recent reports from Kasongo, Zaire have underscored the serious nature of Mosley's contentions. These reports suggest that measles vaccination programs which result in a reduction of measles mortality may simply shift mortality to other diseases and conditions without affecting the overall mortality of the population [25]. The results of the Kasongo study, it should be noted, are a matter of current debate [26]. Nevertheless, critics concede the seriousness of the questions raised and call for further study of the Kasongo report's major questions.

The SPHC method, through its focus on medical interventions of narrow scope aimed at reducing disease-specific mortality among the children of an area, appears to overlook the cautionary issue raised by the Kasongo study. If it is true, that measles-vaccinated, malnourished children perhaps will die of pneumonia instead of measles, then this disease specific mortality shift from one disease to another requires a wider scope of PHC activities.

It should not be thought, however, that measles vaccination stands alone in raising questions about SPHC intermediate goals. Oral rehydration is a compulsory component of any selective strategy [2, 7, 19] due to the fact that: "... in most developing countries, diarrheal diseases rank among the top three 'causes of death' among infants and young children along with respiratory diseases and malnutrition" [24, p. 33]. However, Mosley considers that it is a great leap of faith to expect that oral rehydration therapy can reduce the overall mortality rate: "... it becomes evident that a strategy which is directed toward treatment of the diarrheal cases is likely to be ineffective, while a strategy which can reduce the diarrheal incidence may expect to achieve substantial reduction of mortality" [24, p. 34].

Areas dominated by poverty and malnutrition are not likely to respond to narrow SPHC activities. Technical approaches too frequently gloss over this underlying problem: "... in any PHC program that takes the narrow technical or 'selective' approach, an underlying premise must be that there is no absolute poverty or severe food shortage in the population" [24].

These observations about SPHC intermediate goals are especially pertinent, given the cost-effectiveness contentions that serve as the underlying SPHC rationale. If SPHC methods target a reduction of disease-specific mortality among children in resource-poor areas of the world, then selective disease-control programs are most likely to be used in the very areas where an unfavorable nutritional background may doom the SPHC intervention to failure. As WHO notes, 47% of Asian preschool children and 30% of African preschool children were wasted in 1983 (China not included) [27].

SPHC method and resource utilization

Selective methods apparently encourage the rational use of scarce health resources in developing countries since a narrow group of activities are targeted for the control of 5–8 prioritized diseases. In several major health planning areas, however, the consequence of using SPHC methods may be a misuse of scarce resources, not a rational plan for their conservation.

Physicians and hospitals. With the physician and hospital-centered elements of most LDC health infrastructures absorbing 80% or more of developing country health care budgets, attempts to rationally introduce primary health care must include referral functions in overall planning.

However the SPHC approach calls for extremely limited curative roles through its selectivity. Walsh and Warren indicate only malaria, diarrhea and schistosomiasis [2]; UNICEF suggests only diarrhea and malnutrition [6]; both the GOBI-FF program and the Deschappelles program [19] propose diarrhea, malnutrition and tuberculosis as priority disease conditions requiring curative activities. On the other hand, Walsh and Warren call for 'temporary' controlling for tuberculosis, pneumonia, leprosy, trypanosomiasis, meningitis and helminth [2]. These choices tend to isolate PHC from curative services by reducing the scope of the curative role to 2 or 3 treatments at the PHC level.

With curative roles focused on only 2–3 disease conditions, hospital utilization patterns are not likely to be modified by the creation of a PHC network. It is significant to note that these utilization patterns are known to be unfavorable in the Third World. At Mityana hospital, for example, a utilization analysis showed that 40% of those in the wards could have been treated by 'self-care' facilities [28]. The same hospital showed that, "the average number of outpatient attendances per person per year falls precipitously the greater the distance that separates the patient's home from the hospital" [28]). The study concluded that, "Taking services to the people is the main way of correcting this imbalance" [28].

In Kasongo, the SPHC key interventions are part of a basic health service package—one emphasizing both curative and preventive activities. These interventions account for an 85.6% reduction of hospital admissions due to diarrhea, diptheria, pertussis, tetanus, malaria, malnutrition and measles in areas covered by the project. As compared to total excess hospitalization in areas not covered, this coverage-related reduction still represents only 28.6% of the reduction possible through a basic health services (BHS) package (unpublished data of the Kasongo Project Team).

The modest Kasongo results were achieved by medical assistants working in a health center network. Of necessity, Village Health Workers (VHWs) would find it most difficult to apply appropriate referral criteria. Similarly, mobile teams would not offer the permanent presence required by curative activities. In relation to the reduction of excess hospital utilization, the SPHC results are likely to be lower than those observed at Kasongo.

As a consequence, hospitals will continue providing primary health care, though access to hospitals will remain restricted to those living nearby and to the wealthy. The isolation of primary health care from curative services encouraged by the SPHC method will sustain this arrangement.

Physicians raise similar problems. Because of their relative scarcity, physicians in LDCs must be used where their skills are needed most. Encouraged by their Western-training and by the location of hospital facilities, physicians in developing countries commonly remain in their nation's largest cities or they emigrate to more developed countries.

To meet the test of rational resource allocation in this regard, SPHC should require the redirection of physician services from the over-doctored cities to the doctor-scarce countryside. But the methods of the selective strategy are not suited to accomplishing physician redirection. Within the PHC system and pursuant to the narrow scope of foreseen activities, an SPHC approach would confine physicians to extremely simplified, mostly non-medical work, including personnel management, supply maintenance, and limited epidemiological surveillance. A manager with narrow epidemiological training might function as well as a physician in such a role.

Since a PHC system would address only 2 to 3 curative activities when operating under SPHC assumptions, it would not be able to screen patients, successfully referring patients to levels of care requiring physician skills. These physicians would remain within the classical first-level of curative responsibility.

In consequence, SPHC methods put a double burden on any attempt to decentralize and redirect physician skills in LDCs. First, in restricting the physician's role to a few skill areas, the SPHC approach tends to rob the physician of motivation to leave urban areas. Second, by reducing rural interventions to management tasks, SPHC methods discourage LDC physicians from incorporating public health notions of their nations into their day-to-day activities.

By contrast, Comprehensive Primary Health Care (CPHC) systems and methods would formalize, standardize and subsequently delegate to medical assistants the curative and preventive tasks performed by a general practitioner. Since such a comprehensive approach would require that physicians be involved in carefully analyzing their own work in order to write strategies and instructions for medical assistants, the physicians of developing countries would be deeply and rationally involved in PHC activities. Under the CPHC design, this involvement would also call for regular physician supervision of medical assistants.

SPHC methods, on the other hand, apparently deny a role to medical assistants. Disease control activities limited to less than 10 conditions do not require the broad skills of a medical assistant. General practitioners, like medical assistants, would find that the SPHC structure offered them no effective supply system, no regular supervision and virtually no referral network. Under-utilization of medical assistants and other general practitioners would be the likely result of any attempt to supplement SPHC methods with a more rational use of personnel.

Community health workers. Selective methods give community health workers (CHWs) a pivotal role. In fact, the inclusion of CHWs is presumed to be a rational characteristic of SPHC, one distinguishing it from strictly vertical programs. In theory, the CHW links selective interventions with the community, thereby lowering program costs. Though not described uniformly, village health workers have as primary tasks the organization of communities for vaccination and the administration of oral rehydration solutions.

The claim that CHW activities such as these are comparatively inexpensive does merit examination. Much of a CHWs resource efficiency stems from the CHWs short training period and low wages. An analysis of 52 USAID assisted health care projects [29]—most of which were designed along the lines of SPHC concepts—reveals that 86% of the CHWs involved were trained for less than 2 months. More than one-half were trained for 2 weeks or less.

While training of this sort obviously lowers direct, financial costs, the training is not adequate for many of the tasks identified through the use of selective disease-prioritization methods [30]. Most targeted SPHC conditions, for example, involve immunization only. The limited training of CHWs would not permit them to perform these immunizations, thus necessitating the use of mobile vaccination teams. Field studies conducted in accord with selective methods, such as those by Berggren *et al.* in Haiti [19], rely upon hospital-based activities instead of the interventions of CHWs. Only oral rehydration therapy appears well-suited for the competence of the CHW and even this intervention requires experience and clinical judgment for successful case management.

The apparent cost-savings which accrue from the use of CHWs also must be matched against the opportunity costs of such volunteers, including time lost from harvest and cultivation. These losses to the local economy combined with other pressures, such as the difficulty CHWs face in gaining community respect and acceptance, tend to produce a high level of attrition and turnover among CHWs. In Nicaragua the rate is reported to exceed 35% [31]. The stress of SPHC upon undertrained village health workers turns the question of cost-savings into one about rising long-term costs and the reliability of undertrained health workers. The statement by Walsh and Warren that, "these services could be provided by fixed units or by mobile teams" [2], is a claim of flexibility not supported by CHW capabilities and one that is undercut by program limitations. In consequence, the selective strategy appears compelled to fall back to a first reliance upon mobile teams at the expense of other health infrastructure elements.

Vertical structure and selective methods. Because selective primary health care methods rely upon the mandatory use of mobile teams, the SPHC operational structure closely resembles that of a traditional vertical program [8]. Typically vertical programs are organized along military lines. As a result, they tend to be isolated units standing apart from the larger health care structure about them, both in terms of budget and administrative functioning. Verticalist concepts have been characterized as favoring, "categorically specific, hierarchically organized, discrete disease control programs" [32].

Although preventive care may be provided by periodic services, curvative care requires the presence of a permanent structure. As a result, multiple health problems are not included within the scope of effort of the mobile team program. In addition, vertical schemes overlook the advantage of integrated preventive and curative health care [33].

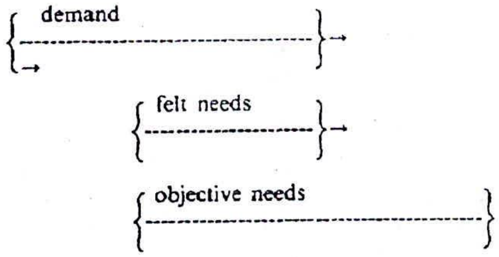
The CHW/mobile team structure that SPHC requires enjoys neither the increased health team prestige that results from its curative efforts nor the improved coverage and effectiveness which belongs to a system whose personnel gain an increased sociocultural knowledge of an area as they remain in one location. Further, vertical structures by their nature cannot take advantage of information generally available through CPHC approaches, particularly the integrated, centralized information that CPHC systems gather regarding medical histories and preventive health statuses.

In practice, the costs of vertical intervention structures frequently undermine whatever feasibility exists in their program design, thereby placing a burden on other health system structures. As Oscar Gish has noted: "special campaigns [vertical programs] absorbed more resources than did the whole of the country's health services located outside the larger cities and towns" (Note that this statement does not refer to a specific country [32, p. 207]).

Finally, SPHC interventions tend to place tight limits on popular participation in the planning of programs. They require an extremely close fit between focused goals and the elements of vertical design so that the selective strategy almost certainly precludes participatory modification of the health care agenda created for an area. With participation reduced or practically eliminated, perceived community needs—already understated by the SPHC emphasis upon the problems surrounding childhood mortality—tend to be overlooked. To ensure that health problems match-up with the SPHC approach, community participation is likely to be replaced with community manipulation.

Quantitative planning: an alternative to the epidemiologically based planning approach

As noted above, epidemiologically based planning is but one specific form of quantitative health planning. An alternative form includes normative considerations. Instead of defining health planning objectives as the reduction of a few disease-specific mortality rates, these objectives could represent the commonality between the felt needs of the population (mostly curative ones) and health needs as defined by professionals. This more normative approach can be schematized as follows:



This is a dynamic scheme which takes the demand factor into account thus enabling health services to communicate with people so as to

(1) attempt control of 'irrational' demand ("irrational" quest for therapies such as vitamines or injections)

(2) increase the felt needs, that is make people aware of "objective" needs.

Under this scheme, the fit between the planned health structures and related health activities could not be too tight.

A normatively grounded alternative to epidemiologically quantitative health planning would stress two characteristics for planned primary health care systems: (1) they should rely upon polyvalent health teams and (2) they should consist of sufficiently decentralized but fixed units. Pivotal determinants of concentration of health professions and facilities would include the following elements:

(1) geographical accessibility via decentralization
(2) PHC facilities scaled to 'human size'

(3) consideration of decentralization costs
(4) reduced technical performance linked with highly decentralized effort
(5) resource constraints.

The normative–quantitative planning alternative recommends a structure-based planning approach within which activity objectives would be regionally and locally established. Such a planning strategy does not eliminate the need for well-defined priorities. For example, health center supervision can underscore the importance of oral rehydration or immunization. Instead, it advocates quantitative planning on both professional and local or community criteria.

JUSTIFICATION FOR THE SPHC POSITION

Empirical support for the SPHC position is quite limited since there are only a few field reports available to support its claims. In addition, the cost-savings claimed for the selective approach to primary health care involve an unorthodox approach to cost–effectiveness analysis.

Empirical support for SPHC

The SPHC approach formally described by Walsh and Warren relies upon 7 field reports for its substantiation, one of which remains unpublished. Walsh and Warren first cite a field study from Guatemala. Gwatkin *et al.* [34] have suggested that numerous complications prevented the Guatemala investigators from reaching unambiguous conclusions.

The Jakhmed (India) project, a second study that Walsh and Warren cite, cannot be used for substantiating the SPHC position since the project under investigation provided, "... a wide range of nutrition, health, and family planning services" [34]. This makes the Jakhmed project inappropriate for bolstering a SPHC viewpoint. Because it was clearly a simple, vertical program and not a selective one, the Hanover (Jamaica) project listed by Walsh and Warren cannot be used as evidence for the value of SPHC; furthermore it dealt only with malnutrition. The Walsh and Warren reference to the Ghana primary health service system is in fact a reference to a comprehensive not a selective system. Finally, the Narangwal project [35] cited by Walsh and Warren as empirical support for SPHC involved projects in 4 villages, each with a different health care activity: nutrition, curative care with a physician back-up, nutrition and curative care, and a control village. The separate Narangwal activities best fit either simple, vertical intervention formats or coincide with CPHC functions, not SPHC medical intervention schemes. In a critique of the studies Walsh and Warren list as support for the selective strategy, Gish remarks that the, "... authors [Walsh and Warren] confuse diverse pilot project research results with World Bank estimates [and] with their own data based on [an] African model area" [32].

Substantiation for the selective disease-control strategy reduces itself primarily to the field report from Berggren *et al.* [19] conducted in the Deschapelles area of Haiti. The results of the Haitian project are cited as evidence of what a selective approach ("the same approach advocated in our paper" [20]) can achieve. Because it is central to the credibility of the selective strategy for disease control, it is worth examining the design and empirical claims of the Berggren *et al.* study.

Haiti project. The Deschapelles project prioritized 8 identified disease conditions and then targeted them for intervention in a small (5 × 5 km) census tract. The population of the area was approx. 10,000 and the tract contained a 150-bed hospital with a staff of 13 physicians. Before and after medical interventions, the authors measured disease and age-specific mortality rates in the census tract. They concluded that a selective approach significantly lowered mortality rates. These claims are open to dispute since the study exhibits a number of deficiencies. In particular, its outcome indicators are not controlled, it uses external standards in a context bereft of external validity, and the program appears to be more expensive than SPHC programs.

External standards. Results from the Deschapelles study are presented by a comparison of death rates in the targeted area and available national estimates. Kenneth Warren cites the outcome of this comparison as evidence for SPHC effectiveness: "mortality rates fell progressively during five years to levels only one-fourth as high as the national estimates" [20].

The Haiti Project's use of external standards is open to question in 4 major respects. First, beginning and final figures of the study are not derived by similar methods. The beginning figures came from interviews while the ending ones came from a process of longitudinal follow-up. Second, during the project's first year, the mortality rate for 0–1 age groups in the Deschapelles area was 55/1000 while the comparable figure for all Haiti was 146.6/1000 [36, p. 14], a figure almost three times greater than that of the experimental area. Third, among all areas of Haiti, the Deschapelles sector showed the lowest prevalence of Gomez' Stage-III malnutrition [37], still another indication that it was an exceptional area. Finally, the superiority of agricultural production in the Artibonite valley, where Deschapelles is situated, makes it one of Haiti's superior rice producing locations.

In consequence, the use of internal comparisons and beginning-to-end death rate figures suggest that the selective Haiti program may have had a much lower impact (if at all) upon the mortality of the Deschapelles area than a comparison with 1972 national figures would suggest.

Confounding socio-economic factors. Forty-three per cent of the total mortality decline claimed for the selective interventions of the Haiti study can be attributed to malnutrition deaths averted. There are sound reasons for skepticism concerning this claim. First, the zone of greatest mortality reduction for the Deschapelles program falls into the second priority of diseases listed in the Walsh and Warren version of SPHC [2]. It is surprizing to see this element of the Haiti project succeed more markedly than activities more highly favored by the SPHC strategy, for example measles or tetanus. Second, the reported 43% decline in malnutrition deaths averted is particularly surprizing. Results of a Colombian study [38, p. 167] indicate that the greatest reductions of infant mortality rates are to be achieved through supplemental feeding programs that target pregnant women. This was not the approach used in the Deschapelles field trial, a fact which raises further doubt about tracing malnutrition deaths averted to the Haiti project's selective interventions.

Confounding socio-economic factors are perhaps at the root of the increasing number of malnutrition deaths averted which were reported in the Haiti study. Despite the fact that Berggren *et al.* identify a series of such factors (housing, food preparation, latrine availability, protected water supplies), they do not show their constancy across time. Even more importantly, food availability is not discussed, a fact that raises questions about the degree to which the study's overall results are confounded by intervening variables.

Confounding hospital activities. Findings in the Haiti study do not adequately control for the impact of Albert Schweitzer Hospital activities upon reported mortality rates. The facility was located less than 3 km from the surveillance area under study. With respect to this confounding influence, it is demonstrable that the introduction of prioritized health care activities failed to statistically modify the targeted disease-specific deaths as a proportion of overall deaths in the area. A two-tailed Z-test for proportion ($P = 0.2270$) does not reject the equality of 1968 and 1972 proportions at the 0.05 level. Specifically, the following assertion in the Haiti study must be called into question: "the hospital services probably achieved their maximum impact during the 12 years before the health surveillance and health services began. The impact of health surveillance and health services is therefore reflected in the changes in mortality rates after 1968" [19].

Reliance upon the findings of Berggren *et al.* as a provisionally adequate defence for selective disease control interventions poses serious difficulties. When the Deschapelles activities were extended to three other Haitian areas (each with a population of 10,000 persons), overall mortality rates only slightly decreased in two of the three while actually increasing from 78 to 89/100 in the third [39]. Further, it should be noted that the activities introduced by the Haiti use of the SPHC approach fall well within the range of comparable Basic Health Services (BHS) expenditure levels and cannot easily serve as a normative cost model.

Cost–effectiveness justifications for SPHC

Cost–effectiveness analysis is a relatively flexible and non-dogmatic mode of economic analysis which should bolster the contentions of national health care strategies. As decision-makers consider careful cost–effectiveness analyses, for example, they remain free to apply variable standards and situation-specific criteria in setting priorities and in selecting program objectives for their area.

The 1978 Walsh and Warren article sought to link SPHC and cost–effectiveness analysis quite directly [2]. Instead of demonstrating the usefulness of cost–effectiveness analysis in the planning of primary health care programs, the Walsh and Warren article sought to use cost–effectiveness analysis as a justification for normative claims, thereby exceeding the careful limits of the technique.

Empirical adequacy. In asserting that SPHC is, "potentially the most cost–effective type of medical intervention" [2], Walsh and Warren demarcate an exceptionally wide scope for their cost–effectiveness comparisons. They make head-to-head comparisons between five approaches: CPHC, BHS, Multiple Disease-Control Measures, SPHC and research. In so doing, Walsh and Warren impose considerable strain upon the cost and effectiveness data of their report.

First, the cost and effectiveness estimates relied upon in the Walsh and Warren cost–effectiveness discussion are heterogeneous and derived from multiple sources: WHO, the World Bank, bi-lateral field projects and diverse research programs. Although these cost figures may be completely adequate when taken as isolated data, the sweep of the Walsh and Warren cost analysis leaves numerous un-answered questions. Were the cost estimates of their study reported in the same manner and with equal completeness, particularly in the case of estimates about training, indirect costs at the referral level, and the value of volunteer labor [40, pp. 27–49]? Did the various sources of data rely upon a uniform method and rate for discounting reported cost figures? Were the costs discounted at all? Since pilot programs and field studies can change greatly in terms of costs when they are 'scaled-up' to national levels, it should be known whether (and how) national cost estimates were compared with those derived from projects of smaller scale. How were project and research cost figures reconciled?

Problems also appear in the Walsh and Warren effectiveness data as well. By supporting their selective strategy on the basis of heterogeneous findings, it remains unclear whether multi-outcome programs were demoted in importance by definitional fiat [40]. The decision to compare the effectiveness of research with primary health care programs designed for field implementation seems equally open to doubt.

The considerable gap between SPHC costs per capita (1978 $0.25/capita/year) and those reported in the Berggren *et al.* field trial (1981 $1.60/capita/year) [19] raises still further questions about the empirical adequacy of SPHC cost–effectiveness comparisons. If these disparities were projected straightforwardly to a national scale, they alone are enough to dampen enthusiasm for the potential cost-savings of the SPHC approach. Finally, it should be noted that BHS field cost reports [41] disagree with the BHS cost figures reported by SPHC supporters [2, 42].

Conceptual adequacy. Health planners and decision-makers are best served by cost–effectiveness analysis when a conceptually clear cost constraint or program objective has been set for the analysis. To compare alternatives successfully, cost–effectiveness analysis requires compliance with several procedural requirements:

a clear operational definition (or set of definitions) for the program to be analyzed

a careful computation of net costs and net health effects among the alternatives being compared

an exact specification of decision rules to guide the selection of preferred alternatives

a sensitivity analysis to probe areas of uncertainty in the study.

The Walsh and Warren comparisons violate these rules of conceptual adequacy at several points. First, comparisons between CPHC and SPHC only doubtfully meet the standards for operational definition. Second, CPHCs multiple program outcomes require that it be treated as a cluster of programs, each scaled-up individually for comparison with the single programs of BHS and SPHC. In the absence of such treatment, its net costs and net health effects are extremely hard to compute.

Third, the teasing out of cost equivalents to form valid cost–effectiveness ratios would be most challenging in this case, to say the least. Fourth, the Walsh and Warren report is silent about the subject of a conceptually clear decision rule and makes no use of sensitivity analysis. The absence of a sensitivity analysis affects the assessment of alternative approaches adversely. For example, in specific areas such as water supply, an analysis that allowed existing expenditures to be redirected away from inferior water services has shown that long-term PHC costs decline when water quality is improved [10]. Finally, the criteria pertinent to broad-scope cost–effectiveness comparisons (e.g. 'equity' and 'efficacy') are missing from the Walsh and Warren report.

Cross-strategy comparisons. Cost–effectiveness analysis is poorly suited to determining what programs a society should pursue [43]. Its forte lies in the realm of allocative choice, not normative or distributive judgment. Walsh and Warren, however, use the technique or accomplish cross-strategy comparisons. In so doing, they reveal normative intentions whose distorting impact may underlie the conceptual problems of their study. In effect, the Walsh and Warren use of cost–effectiveness analysis substitutes for measurable, comparable program alternatives a group of proxies for entire health care strategies.

At issue in these comparisons are: choices about how a population values the existence of a rural health care infrastructure, about the extent to which an area's health care system should be fundamentally participatory, about the degree to which a health system should stress objective and extra-local health criteria rather than the 'felt needs' of an area, and about the extent to which health services will be privately owned and operated. These are valuative elements in the Walsh and Warren cost–effectiveness analysis. As integral features of the proxie measures just noted, they inject value elements that confound the attempt to make cross-strategy comparisons.

DETERMINANTS OF SPHC ADOPTION

The selective strategy of disease control has prompted considerable comment and has been well received by international agencies (World Bank, UNICEF), academic institutions and research centers (Centers for Disease Control; Harvard University), bilateral cooperation agencies (USAID) and private institutions (Ford and Rockefeller Foundations). Given the empirical weaknesses, methodological problems and conceptual difficulties of the SPHC position, however, it is important to explore some of the less apparent reasons for SPHCs popular reception and for the magnitude of funding already earmarked for its implementation in developing areas. When this is done, SPHCs widespread appeal seems to be the coincidental result of constraints and challenges facing influential, independent decision-makers, forces leading them to endorse a primary health care strategy with strong appeal to their training in 'classical' public health.

Political and economic valence of SPHC

The expanding body of pathologies that burden the population of the Third World are paired with budget reductions [44] that threaten disaster. These constraints from the external environment of international cooperation agencies are matched by 'internal forces' of no smaller significance:

1. Results.

Donor agency funding requires "results" within the period of the agency's mandate, a pressure which encourages short-term planning and readily measured program objectives; this rules out the measurement of factors such as the avoidance of suffering and the import of participatory structures; it also slows the creation of health infrastructure.

2. Privitized Service.

International agencies, recognizing "political realities", seek to achieve larger macro-economic objectives through their funding strategies, not the least of which is the establishment of a uniform economic pattern for the recipient nation; this leads to an increasing of the private medical sector, an expanded donor agency influence over the recipient nation's economy, financially and geographically inaccessible private care and a weakening of curative and preventive service integration (the concept of health service responsibility for a well-defined population is strained greatly by rapid expansion of the private curative sector).

3. Donor Clientel Expansion.

Leading donor agencies recognize that supporting of medical programs in recipient countries is only one element in the process of political-economic barter; as donors seek to expand their number of recipient clients, health contributions to individual nations approaches the floor below which no modification of health care can be achieved.

4. Research and Commercial Outlets

The cooperative activities of funding agencies frequently aim at the promotion of significant financial and research outlets for corporations and leading academic institutions of donor nations; this results in reversed priorities: even before the benefits of existing technologies are disseminated to recipient nations, "space age" technologies are given enthusiastic support (e.g. vaccines and other fruits of genetic engineering); the research concerns of donor agencies supplant the applied research interests of developing nations [45].

5. Financial and Institutional Status Quo.

Institutionally, international cooperation agencies and research institutions seek to respect the financial and institutional status quo of recipient nations: this favors the adoption of health program strategies placing little constraint upon national health budgets and making only minimal demands upon the existing institutions of the recipient nation.

6. Reduction of Public Expenditures.

Despite the seeming paradox, optimizing the cost–effectiveness of a health system can entail the introduction of a new level of health care services. The paradox is only apparent, however, since introducing Village Health Workers for the sake of cost–effectiveness generally leads to the dismantling of the health center and dispensary network of the state. While VHWs reputedly are self-supporting,

Table 1. Order of the priorities for the study of causes of death according to indices of incidence, importance and vulnerability (State of Aragua, Venezuela, 1960)

Causes of death (1)	Coefficient of incidence (2)	Coefficient of importance (3)	Coefficient of vulnerability (4)	Product (2 × 3 × 4) (5)	Order of priority (6)
Dysentry, gastritis duodenitis, etc. (B6, B36)	9.7	0.98	0.66	6.27	1
Premature births	8.5	1.00	0.33	2.80	2
Influenza, the pneumonias, and bronchitis (B30, B31, B32)	4.4	0.97	0.33	1.40	3
Cardiovascular diseases (B22–28)	20.3	0.65	0.10	1.32	4
Pulmonary tuberculosis (B1)	2.8	0.68	0.66	1.25	5
Transportation accidents (E802–E861)	3.9	0.83	0.33	1.07	6
Other diseases of early childhood (B44)	2.5	1.00	0.33	0.82	7
Tumors (B18, B19)	6.7	0.68	0.10	0.45	8
Accidents (excluding transportation)	5.5	0.75	0.10	0.41	9

Note: arranged in accordance with the weighted coefficient of incidence the causes of death would appear in the following order: dysentry; premature births; other diseases of early childhood; cardiovascular diseases; transportation accidents; accidents (excluding transportation); influenza, etc.; tumors; and pulmonary tuberculosis.

Source: [42, p. 27].

fixed health centers and dispensaries often generate state expenditures. The overall pattern of replacement is consistent with World Bank and International Monetary Fund and donor policies aimed at "low cost health projects" for PHC [46].

The internal and external constraints upon the cooperative efforts of international agencies have combined with the technical training of key decision-makers to encourage an enthusiastic response to SPHC. Among the features of SPHC which such agencies find appealing are the following:

Agency Constraint	Associated Reasons for SPHC Appeal
1. An emphasis upon 'results'	1. SPHC depends upon 'objective' measures and calls for little additional health infrastructure SPHC favors a technical agenda whose items have been established by technical methods
2. Privatization	2. By filling in functional blanks left by the private sector (preventive activities), SPHC implies no competition between public and private health units [47, 48] SPHC tends to by-pass the issue of population-oriented health service responsibility
3. A numerical building of donor agency clientel	3. SPHC's claim to be 'potentially the most cost-effective' appeals to the desire of international and bilateral cooperation agencies to expand their clientel
4. The development of commercial and research outlets	4. SPHC emphasizes prospects for vehicles well-suited for 'space age' commercial technologies, e.g. vaccines derived from genetic engineering rather than prospects for management improvement of existing techniques SPHC leaves open the option for private sector doctors to refuse standard treatments, e.g. use of standard pharmaceutical lists [49]; this excludes from the scope of PHC curative activities (except oral rehydration and chloroquine)
5. A concern for the financial and institutional status quo	5. The claims of SPHC assure that it would put almost no strain upon existing financial or institutional arrangements SPHC tends to preclude community impact upon the planning and management of health services, an emphasis which tends to sustain existing institutional practices and priorities SPHC requires little fund transfer from hospital to primary health services.

Training of health system managers; SPHC

The SPHC appeal to international agencies of cooperation parallels the attraction of health program managers to the SPHC conceptual structure. Many of these key decision-makers have an exposure to past or 'classical' approaches to disease control as a feature of their public health training. Gish, for example, has noted the similarity between the priorities of SPHC and the CENDES approach [11]:

> This widely known effort attempted to put into practice a fully formed model for health care planning of the sort put forward in far more simple form by Drs Walsh and Warren. After many years of work and the training of several hundred Latin Americans in the methodology, it was concluded in the mid-1970s that planning of this sort was infeasible and thus to be put aside.

Table 1 summarizes the approach of CENDES analysis for Araqua State (Venezuela) [50]—an approach quite closely paralleling the method taught 20 years later by the CDC (Atlanta) for SPHC-type prioritizations (Table 2) [51].

The kinship between SPHC and CENDES analysis is not surprising since the political constraints which confront program managers and cooperation agency leaders have been relatively constant in the post-World War II period, as was noted earlier. The program management view of primary health care retains its emphasis upon the following:

Table 2. Possible answers to the exercise on establishing priorities (module on national priorities)

Health problem	Overall importance	Most feasible control measure	Feasibility of control measure	Overall priority
Accidents	Moderate	First aid; medical diagnosis and treatment; rehabilitation	Low	Low
Diarrhoea	High	OR therapy	High	High
Diphtheria	Moderate	DPT vaccine	High	Moderate
Lower respiratory infection	High	Drug therapy	Moderate	High
Malaria	Moderate	Drug treatment	Moderate	Moderate
Measles	High	Measles vaccine	High	High
Neonatal tetanus	Moderate	Tetanus toxoid	High	High
Other neonatal conditions	Moderate	Prenatal and delivery care	Low	Moderate
Pertussis	Moderate	DPT vaccine	High	Moderate
Poliomyelitis	Moderate	Oral polio vaccine	High	Moderate
Skin infection	Low	Good hygiene and health education	Moderate	Low
Tuberculosis	Moderate	BCG vaccine	Moderate	Moderate
Undernutrition	Moderate	Education, food supplies and child spacing	Low	Moderate

Record **assessments** as *high*, *moderate* or *low*.
Source: [43, p. 26].

(1) selection of top-priority pathologies that require epidemiology, surveillance projects and readily quantified weighting schemes

(2) operational designs that call for the use of mobile teams

(3) a mobilization of 'popular-based' manpower in accord with anthropological understanding to the extent that it provides insight about how to increase popular participation

(4) field evaluation using cost–effectiveness analysis for single outcome, process evaluation purposes.

Not only do training and field experiences predispose program managers to selective interventions once they reach the level of national health service management, these forces also lead to a planning of national health services in terms of program management concepts—not a health service management framework:

Program Management	Health Services Management
Short-term planning outlook	Long-term planning outlook
Planning for program development	Planning for structural development of health services and functional development within these structures
	Responsibility toward population covered by health services.

Given the political constraints and the program management perspective derived from successful disease campaigns such as the smallpox effort, the appeal of SPHC is a rather predictable phenomenon. This is especially the case, since program managers tend, with seniority, to obtain tenure in the public health schools of developed countries. This is not the case, however, with national health service managers hired by LDC public health schools that enjoy relatively low resource and influence levels.

CONCLUSION

This paper has set forth an historical context for understanding the current appeal of SPHC for those who urge its widespread adoption in developing countries. The weaknesses of its empirical foundation, methods and operational structure make dubious the enthusiasm with which SPHC has been greeted. Since the economic pledges to the SPHC disease-control strategy are already considerable, however, it is essential to identify reasons for its ready adoption by international cooperation agencies and developing nations. The prime forces appear to be political and economic in nature, but these justifications are reinforced by the education and field experiences of key decision-makers.

Ultimately, the planning and development of primary health services that accord with the 1978 Alma Ata declaration will require approaches that run counter to the vertical program characteristics that typify SPHC. It appears mistaken to create extensive new financial and human resources commitments for a SPHC-type campaign. The alternative lies in the study of methods explicitly connected to the expansion of national health services. The methods of health service development must first be shown to have clear and demonstrable efficacy for attaining health for all by the year 2000.

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EDITORIALS

Alma Ata revisited

The central Asian republics[1] present several paradoxes in health care; they give women up to one year's paid leave after delivery but mothers seldom breast feed; they have one doctor for 200 people but a high maternal mortality rate; and they have modest birth rates but a low use of contraception. To explore these issues and look for solutions the US Agency for International Development (USAID) sponsored a seminar in Alma Ata last month on Maternal and Child Health. Medical leaders and parliamentarians from Kazakhstan, Kirghiztan, Tajikistan, Turkmenistan, and Uzbekistan were represented. These newly independent nations contain 50·6 million people. Education is universal and of a high standard, but there are many environmental problems. As many as 80% of women are anaemic and hepatitis is common. There is no record of human immunodeficiency virus infection yet.

Before the break-up of the Soviet Union, all aspects of health and nutrition were centrally planned and even breastfeeding was organised according to the "Moscow regimen". Every state still has a network of milk kitchens, and rigid diagnostic screening practices end up categorising the overwhelming majority of women as sick. Antenatal care consists of twelve visits and women stay in hospital for a week after a normal delivery. Yet many women complain about impersonal and even callous treatment and presumably it is this perception of services, with consequent low uptake, together with inadequate access in some areas, that accounts for the high maternal mortality rate per 100 000 live births (Uzbekistan: 65, Turkmenistan: 134). Even more worrying, the maternal mortality rate is rising in several republics and has jumped by one third in Kazakhstan since 1987.

The central Asian republics have always had a higher fertility than the rest of the former Soviet Union (total fertility rates 2–3 in urban areas and 3–4 in rural), although it is much lower than in their Moslem neighbours such as Afghanistan and Pakistan. Only about 15% of couples use any modern method of contraception. Again, Moscow set inflexible rules: after two caesarean sections women had their tubes tied without their consent but those who requested sterilisation were refused and the pill was regarded as dangerous. Supplies of contraceptives remain grossly inadequate and abortion rates are high (25–60 per 100 live births). Although outpatient vacuum aspiration abortion was originally developed in the Soviet bloc, women in the Asian republics still have dilatation and curettage procedures and spend two nights in hospital. The most widely used contraceptive is the intrauterine device. In Uzbekistan there has been a major effort to increase its use and this is the only republic where the maternal mortality rate has fallen (78 in 1989, 55 in 1992).

The USAID seminar provided a welcome opportunity to begin the transition from a centrally planned medical system to local decisions based on scientific research—a change that national leaders are well placed and eager to make. It was agreed to adopt World Health Organization standards for defining vital statistics and the five republics plan to work together on such things as a common drug registration policy. A client-centred approach to maternity care is needed, with more involvement of women in decisions about their care. There was unanimous agreement that a family member should be allowed to stay with the woman during labour, and on the desirability of rooming-in of newborn babies. Even in the areas with very high environmental pollution from pesticides and nitrates breastfeeding was still seen as preferable to bottle feeding (local research showed bottlefed babies have five times as many infections as their breastfed counterparts). One republic has begun to offer voluntary sterilisation and it should be relatively easy to replace dilatation and curettage by vacuum aspiration for first trimester abortions.

The people of the former Soviet Union face a difficult transition from a centrally planned economy to a free market and they need and deserve short-term assistance from the West. What was probably not needed was the recent donation of 1483 tons of powdered milk by the American Red Cross to Turkmenistan—a country where half the homes have no running water. Most of the $6·5 million cost would have been better spent on contraceptives, which would undoubtedly save a great many abortions, or on iron and folic acid tablets to prevent anaemia.

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PRIMARY HEALTH CARE: ON MEASURING PARTICIPATION

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Abstract—This paper considers the problems of finding measurements for the two major principles of primary health care (PHC), equity and participation. Although both are of equal importance, the authors concentrate on the assessment of participation. A methodology is put forward to define indicators for participation in health care programmes as how wide participation is on a continuum developed for each of the five factors which influence community participation. These factors are: needs assessment, leadership, organisation, resource mobilisation and management. By plotting a mark on a continuum which is defined as wide and narrow at the extremes and is connected with all other marks in a spoke arrangement, it is possible to describe a baseline for participation in any specific health programme. This baseline can be used to compare the same programme at a different point in time, to compare observations by different evaluators, and/or to compare perceptions of different participants in the same programmes. A case study provides an example of how the indicators might be used. These indicators focus on the breadth of participation and not its potential social impact, an area which is recognised to be critical for future research.

Key words—comprehensive primary health care, community participation, measurements

INTRODUCTION

As the first decade in which primary health care (PHC) has been the accepted policy of over 150 nations grows to a close, the future of this policy is still very much uncertain. The promises of a radically better life for those whose needs were greatest remains an illusive goal and the vision of both authors and signatories of the Alma Ata declaration threatens to remain a mere platitude. There are many reasons for this situation. One of the most important is the unrealistic expectations of policy makers, planners and beneficiaries concerning how health improves [1].

Traditionally expectations about health improvements have been linked to inputs and outputs of medical services (more recently termed 'health services' to include preventive care) and/or impact in terms of health status. The development decades of the 1960s and 1970s which gave birth to PHC and the 'basic needs' [2] concepts, put forward an analysis which related better health not only to health services but also to the existing socio-economic conditions. It was argued that health improved not merely by the provision of health services but in addition by the distribution of available resources based on the principle of equity and by the involvement of beneficiaries in decisions about care based on the principle of participation.

Despite the acceptance of these arguments by those who adhere to the Alma Ata declaration on PHC, traditional views which judge the success or failure of health programmes in terms of service delivery and health status alone remain strong. In part, it may be argued that one reason is that there are few ideas of a pragmatic nature by which to assess participation and equity.

This paper is a beginning to give a form to the principle of participation that might enable policy makers, planners and beneficiaries to consciously include this principle in their programme plans and evaluations. Participation cannot be divorced from equity. As the framework develops, therefore, equity will be a constant, if not explicit, factor.

Is it realistic to believe that an analytical framework to assess participation can be developed? There are arguments to suggest it is not [3, 4]. Whatever the validity of these views, there, on the other hand, remains a major problem. Decisions about allocations of resources for PHC are often in the hands of medically trained people. Until those who have to make decisions about resources also have frameworks by which to understand and judge their efforts to extend PHC beyond service delivery, it is likely they will continue to expect health to be related mainly to the provision of services and choose policies and actions that reflect this view. For this reason, it is important to attempt to develop a framework in which professionals can see benefits of efforts to support participation, alter their expectations accordingly and allocate resources and time to developing this approach. Until those who have control of resources are convinced that participation is a viable and desirable concept, it is likely to remain relegated to rhetoric.

This paper presents a methodology by which assessment of participation in health programmes can be undertaken. It sets out to provide a tool to assist

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those involved in PHC programmes to describe participation in their programme and upon that basis plan their future actions. It takes as its starting point the conclusion of a previous work by one of the authors which suggests that broader participation is gained by developing a wider range of activities [5]. It does not set out to validate the crucial role of equity and participation in PHC as these arguments have been accepted by the signatories of the Alma Ata declaration. Nor does it attempt to present an argument that more participation is 'good' or 'bad' as this tool is descriptive and not judgemental.

The paper is divided into five parts. In the first section, we will review past efforts in measuring PHC by frameworks other than those which only examine the improvement in health status and in measuring participation. Part two discusses the conceptual framework for assessing participation. Part three discusses the analytical framework. Part four presents the methodology. Part five describes a case study using the analysis. The final section presents the conclusions. The appendix includes some questions to suggest how the indicators might be placed.

OF OUTCOMES, IMPACT AND PROCESS INDICATORS

Health improvements, as we have mentioned, have traditionally been measured in terms of causal relationships. Evaluations have described inputs then looked for the results in terms of specific outcomes and overall impact (usually health status). These measurements are characterised as being quantitative rather than qualitative and static rather than dynamic [6]. In other words, they describe a specific situation at a given time in terms of numbers. With the broadening of analysis that linked health improvements to overall economic development, the confines of the traditional approach have become apparent. It, thus far, has proved not possible to give a number to individual perceptions of changes in the quality of life or to quantify the relationship of specific changes such as the correlation of the number of educational facilities to improved income. Nor is it possible, as we have already suggested, to quantify the relationship of available health services with improved health status.

Recognition of these difficulties has been expressed by those involved in evaluating both development and health programmes. There is still no satisfactory method by which to measure social and economic change. Dudley Seers in his classic essay on "The Meaning of Development" discusses in detail some of the problems with identifying indicators highlighting the need to take into account social, economic and political systems. In view of this analysis, it is easy to see why quantitative, static measurements are ephemeral [7].

Attempts to quantify relationships in the health field, for instance, for specific interventions such as nutrition programmes or family planning similarly have been unsatisfactory. The search for direct correlations between interventions and health improvements for large populations based on the biomedical research model so far has proved futile. In their often quoted study of 10 small scale programmes, Gwatkin *et al.* concluded that even though evidence suggested selected interventions improved the health and nutrition of target groups, the effects of these interventions on health improvements did not depend solely on the inputs but also on how the inputs were administered [8]. Isley studied the relationship between rural development strategies and their health and nutrition effects on fertility and also found that direct causal relationships between inputs and effects were not possible to identify [9].

The above studies illustrate the constraints of an approach which uses a tightly designed study to identify critical factors for health improvements. To help overcome these problems, Mosley and Chen offer the "proximate determinants" framework [10] combining social science analysis with the biomedical model. These proximate determinants which include maternal health factors, environmental factors, nutritional factors, injury and personal illness control are quantifiable and combined with socioeconomic measures can be put forward to identify children at risk. Although the framework accounts for non-medical influences upon health, the determinants still remain static as they do not assess changes over time and still view health improvements in terms of defined causal relationships.

The weaknesses of assessing economic development and health improvements in terms of linear causal relationships and/or through tightly controlled studies are magnified when trying to assess community participation [4]. These efforts are complicated not only by lack of a clear definition of the terminology but also by the specific cultural, historical, social, economic and political environments in which they take place. As a result parameters of such assessments, in an attempt to become globally applicable, become merely vague or basically descriptive.

The World Health Organisation, for example, in its publication concerning indicators for progress toward 'Health for All by the year 2000' states that community involvement (the term it prefers to community participation because it implies active rather than passive engagement in health activities) can be assessed by the level of involvement in and the degree of decentralisation in decision-making as well as the development of effective mechanisms for expression of people's needs and demands [11]. When Palmer and Anderson attempted to apply this framework to assessing community participation in WHO's Western Pacific Region, they concluded ways to measure participation are too new and too infrequently used to be precise [12].

In attempting to provide a strong conceptual and evaluative framework, Muller in his analysis of case studies in Latin America uses the 'basic needs' framework and argues that society must be analysed in terms of inequalities [13]. He says that there are those who have full access to the benefits of society, including health services and who fully participate in decision-making. And there are those who are not. Within this framework, the provision of services to and increasing participation in national decision-making of those who had no access to services or to power or control he calls *social participation*. In the development of health care programmes, a more targeted form of participation is present which relates to involvement in the health care programmes. This he calls *direct participation.* His studies look at the linkage between the two types of participation. In developing the latter concept, however, he relies on the description of the development of situations specific to a given community. His work gives case study comparisons which cannot be generalised to programmes in different areas.

Agudelo [14] building on Muller puts forward an analysis for comparing participation between programmes. By assigning numbers to rank participation in a specific range of activities in the areas of (1) management, (2) the range and completeness of participation in terms of the number of community 'agents' present and operating and (3) community support and financing, he suggests that a standard of participation can be articulated. With a standard, programmes can be compared. Agudelo, however, leaves no means by which to assess participation in decision-making, a crucial factor in PHC, and no way by which to assess the process by which participation takes place. In addition, his framework is not flexible enough to account for change or reverses in the programme with the probable result that many of these will be overlooked by those using the evaluation. In his attempts to quantify the problem, he becomes entrapped in the limitations found in the bio-medical research model which we have discussed above.

This wide range of experiences in seeking to evaluate both health improvements and community participation suggests that an alternative is needed. Rather than looking for measures which show where programme development is in relation to a specific, static standard, it is perhaps better to seek a relative measure. Studies have suggested that a method by which to assess the process of programme development is needed [15–17]. The development of process indicators is critical to the understanding of health improvements and community participation defined in the 'basic needs' and PHC strategies of the recent UN development decades.

DEVELOPING A CONCEPTUAL FRAMEWORK

To assess participation in a health programme we can suggest the use of indicators which in any specific programme will tell us whether participation has become narrower, broader or remained unchanged. The development of these indicators depend, firstly, on a clear understanding of the use of the terms 'community' and 'participation'.

Midgley [18] suggests that community has had two meanings in the health/development literature. The first is that which defines community in geographic terms. Community is a group of people living in the same defined area sharing the same basic values and organisation. This definition is the one most often used in the health literature.

The second definition is that which says a community is a group of people sharing the same basic interests. The interests change from time to time with the consequence that the actual members of the 'community' change from time to time. This definition of community and its implications for health policy has been explored by Ugalde in an article [19] where he suggests that this definition is critical if health plans are to be more realistic and effective.

A third definition of community which is important to health professionals is that of target populations or 'at risk' groups. This definition is rooted in the epidemiological view of community. In PHC, in terms of equity, effectiveness and efficiency, groups of people need to be identified so that resources can be allocated to the greatest effect. It is therefore important to take into account this aspect of health concerns in seeking a realistic definition.

The term participation also has a wide range of meanings [20]. In reviewing these definitions, three characteristics appear to be common to all. The first is that participation must be active. The implication is that the mere receiving of services does not constitute participation. (We have noted previously WHO's use of the word 'involvement' to place emphasis on this characteristic.) The second is that participation involves choice. Participation implies the right and responsibility of people to make choices and therefore, explicitly or implicitly, to have power over decisions which affect their lives. The third is that the choice must have the possibility of being effective. This suggests that mechanisms are in place or can be created to allow the choice to be implemented.

Based on these considerations, we can suggest a definition of community participation which takes into account the geographic, common interests and epidemiological meanings as well as the characteristics of participation we have described. Community participation is a social process whereby specific groups with shared needs living in a defined geographic area actively pursue identification of their needs, take decisions and establish mechanisms to meet these needs. In the context of PHC, this process is one which focuses on the ability of these groups to improve their health and health care and by exercising effective decisions to force the shift in resources with a view to achieving equity.

DESCRIBING THE ANALYTICAL FRAMEWORK

On the basis of this definition and in recognition of the need to examine process rather than impact of community participation in health programmes we can suggest the following framework.

We can take the factors which influence participation identified by Rifkin [5] in a paper which analysed over 100 case studies. These factors are: (1) needs assessment, (2) leadership, (3) organisation, (4) resource mobilisation, (5) management, (6) focus on the poor. For each factor, except the last, we can develop a continuum with wide participation (community people plan, implement and evaluate the programme using professionals as resources) at one end and narrow participation (professionals take all decisions, no lay participation) at the other. We then can divide the continuum into a series of points and place a mark at the point which most closely describes participation in the health programme we are assessing. Upon this basis, we can define process indicators for participation in health care programmes as the width of participation on the continuum of each of these factors. We can use these indicators to compare differences in participation (1) at a different time in the same programme, (2) by different assessors of the same programme, (3) by different participants in the same programme.

A word needs to be said about the sixth factor—focus on the poor. It is difficult to convert this factor to an indicator for two reasons. Firstly, as an indicator for participation it also must be viewed as an indicator for equity. The whole question of the assessment of equity is recognised as key to PHC but is beyond the scope of this paper. As we later note, it is a vital area for future research. Secondly, based on personal field experience of the authors and of others, it is very difficult to firstly, identify the very poor in any given community and secondly, to define activities which truly reflect a long term shift of resources to improve the plight of the most impoverished. For these reasons, the sixth factor is not included as a factor in assessing participation in the present framework.

When a mark has been placed on the continuum these marks can be connected in a spoke configuration which brings them together at the base where participation is the most narrow. The first point at this end of the continuum is not at the point where the spokes connect because we recognise that in any community there already exists some participation which people undertake to meet their health needs. Figure 1 gives an illustration. By placing the appropriate mark on each continuum and connecting these marks, we can show the degree of breadth of participation to describe a baseline which provides for a comparative assessment either at a later time or by other assessors. The differences between the baseline and other assessments will show what movement has taken place and whether it is great or small. From the narrow links near the base, as participation becomes broader, the links which cross the sections, fan out and widen.

Figure 2 shows a programme where the baseline has been done. Figure 3 is an example where difference between the baseline and another assessment either over time or by different assessors can be seen. In the penultimate section, the indicators have been used for an actual case study to illustrate this analysis.

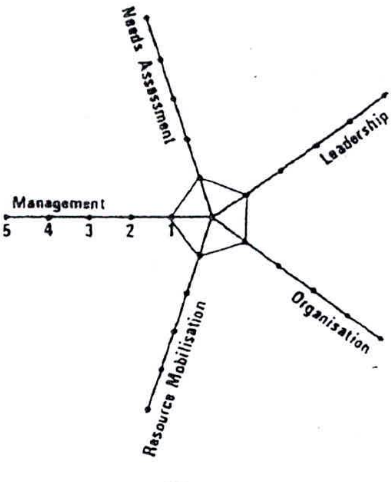

Fig. 1

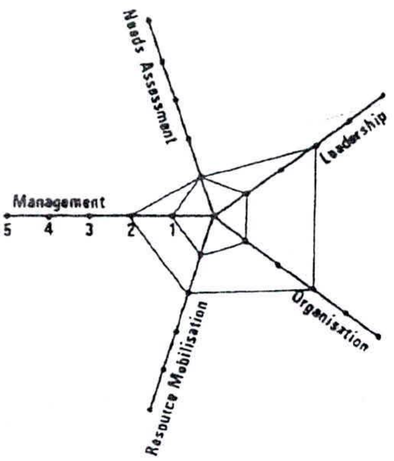

Fig. 2

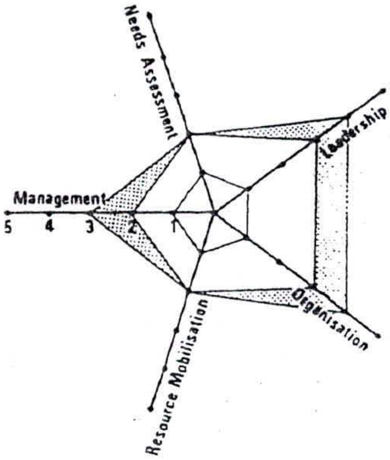

Fig. 3

Rather than assessing community participation in health care in a linear relationship or in terms of a standard, these indicators allow us to assess health programmes in a varied relationship accounting for both progressive and retrogressive periods and analysing relative change.

To re-iterate, these indicators do not value wider community participation as 'good' or 'bad' nor do they correlate community participation with improved health status. They are intended to describe changes and show the processes of participation in specific health programmes. They take as their starting points that health improves through community participation and that broad participation builds on a wide range of activities and involvement of many different community groups.

These indicators are developed to assess participation in health programmes. Increasing the breadth of participation along the continuum means increasing involvement of the community in health programmes in terms of *direct participation*. Whether or not this means increasing *social participation* depends on the nature of existing inequalities in a given society which may be along the lines of economic classes, social classes, tribes, gender, etc. In other words, this question focuses on the question of equity. Muller has in his work suggested some indicators for *social participation* [13] which include awareness of the interpretation of health problems and their causes, awareness-building, and the existence of organisation(s) to change the unacceptable existing situation. As social realities are different among communities and countries and as theoretical frameworks for analysis are also different, a global conceptual analysis is difficult to make. The indicators discussed in this paper do not link the breadth of participation to *social participation*. We again repeat that we are aware to the importance of making this linkage and define it as a critical area for future research.

DEFINING THE METHODOLOGY

As we stated, the purpose of this assessment is to define the movement of the process of participation in health care programmes. Using the definition of participation we have earlier suggested and recognising limitations which may be imposed on participation by the government [18] a mark will be placed along the continuum to tell us how wide or narrow the process is at any given time.

To collect information which will decide where the point will be plotted, 'action/research' [21] may be used in which the programme planners, the health team and the beneficiaries all play a role. Through 'participant/observation', data can be collected. We have included in the appendix a list of questions which might be useful to help define each indicator in a specific health programme (Appendix 1).

Once information is obtained, a decision as to where to place the mark needs to be made. The discussions about this decision can be as valuable as the final decision. *It is not crucial to find the precise point for the mark.* Rather the objective is to find a point which can be used as a point for comparison at a later time. Once all the marks have been placed, they can be connected to give a broad picture of the extent and scope of participation in the programme.

The first phase of the assessment is now completed. The process indicators for participation provide the baseline by which future assessments can be made. These assessments can be carried out by the same team, by a new team or a new assessor. As a means of developing participatory evaluation [22], they also can be carried out by a range of programme participants to see if the assessment by programme planners differs from community assessment.

The new assessments will show changes in participation in the programme or will show areas where no perceived change has taken place. They will also show where participation has tended to become more broad or more narrow. Based on these assessments, planners and beneficiaries can decide what next programme steps might be in relation to participation. They also may reflect on this assessment as a learning exercise to better understand the process of participation and how it develops or why it does not develop in a given health programme.

USING PARTICIPATION INDICATORS: A CASE STUDY

In his fieldwork in Nepal Bichmann [23] made experimental use of the process indicator framework described above.

The setting

Rural health programmes in Nepal are not unlike those in other parts of the world, where village health committees and community health workers form the main formal mechanisms for community participation in health care. Health services of a western type have been evolving in Nepal only slowly until the thirties [24]. A Ministry of Health was created in 1956, but Nepal's health sector has been characterised for a long time by the existence of poorly coordinated vertical programmes and the involvement of a multitude of foreign donor agencies [25]. The need for integration of all these programmes promoted the concept of 'integrated health services' and a special division was formed in the Ministry of Health for that purpose. The Sixth Five Year Plan, furthermore, announced a country-wide system of locally recruited employed village health workers (VHW), who, later on, were supplemented by voluntary community health leaders (CHL) and traditional birth attendants. Several studies revealed, however, that there existed a large gap between the villagers' perspectives on health and those of national PHC planners and international consultants [25, 26]. The low quality of curative health services in remote areas has been a long standing concern in many communities.

In the present government health system, curative and preventive health services are modelled according to the district health care approach [27]. In contrast to the situation in many other developing countries, however, Nepal's Decentralisation Act (1982) is a clear committment to the decentralisation of government structures as it establishes the legal prerequisites for decentralised planning. In the health sector health committees have been created at different levels of the administrative system in order to guarantee community involvement—especially at health post and ward level, i.e. in the basic administrative units of the communities. Whereas the Ward Health Committees (WHC) in the district studied on average were not busy, the Health Post Committees—under the strong leadership of the local Health Post-in-charge—met regularly, a fact which therefore might not be an indication of strong community involvement but rather one of consequent management by the professionals.

Data collection and analysis

Using participant observation and semi-structured interviews with carefully selected key informants from both the health services and the community, Bichmann drew a profile of the breadth of community participation present in the Kaski District of Nepal in a poor mountainous part of the country. As already mentioned, wide community participation was an aim of the health programme. Individual

	RANKS				
Indicator [range]	Narrow, nothing 1	Restricted, small 2	Mean, fair 3	Open, much good 4	Wide very much excellent 5
1. Leadership (L) [wealthy minority-variety of interests]	One-sided (i.e. wealthy minority; imposing ward-chairman; health staff assumes leadership; or: inexistence of heterogeneous WHC.	WHC not functioning, but CHL works independent of social interest groups.	WHC functioning under the leadership of an independent CHL.	Active WHC, taking initiative.	WHC fully represents variety of interests in community and controls CHL activities.
2. Organisation (O) [created by planners—community organisation]	WHC imposed by health services and inactive.	WHC imposed by health services, but developed some activities.	WHC imposed by health services, but became fully active.	WHC actively cooperating with other community organisations.	Existing community organisations have been involved in creating WHC.
3. Resource Mobilisation (RM) [small commitment + limited control-good commitment + commited control]	Small amount of resources raised by community. No fees for services. WHC does not decide on any resource allocation.	Fees for services. WHC has no control over utilisation of money collected.	Community fund raising periodically, but no involvement in control of expenditure.	Community fund raising periodically and WHC controls utilisation of funds.	Considerable amount of resources raised by fees or otherwise. WHC allocates the money collected.
4. Management (M) [professional induced–community interests]	Induced by health services. CHL only supervised by health staff.	CHL manages independently with some involvement of WHC. Supervision only by health staff.	WHC self-managed without control of CHL's activities.	WHC self-managed and involved in supervision of CHL.	CHL responsible to WHC and actively supervised by WHC.
5. Needs Assessment (NA) [professional view-community involved]	Imposed from outside with medical, professional point of view (CHL, VHW, HP-staff); or: Latrine building programme imposed on community.	Medical point of view dominates an 'educational' approach. Community interests are also considered.	CHL is active representative of community views and assesses the needs.	WHC is actively representing community views and assesses the needs.	Community members in general are involved in needs assessment.

VHW = village health worker; WHC = ward health committee; CHL = community health leader; HP = health post.

Fig. 4. Ranking scale for six process indicators for community participation.

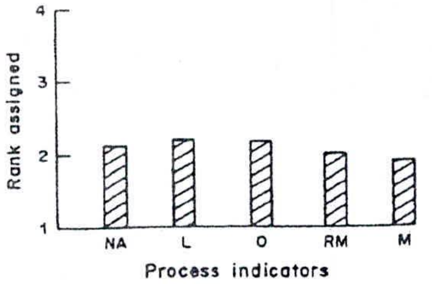

Fig. 5. Degree of CI achieved in Kaski district

interviews were carried out with 20 CHLs and 21 elected community leaders in the hamlets of the health post areas served. The interview data were analysed using a matrix (Fig. 4), which assigned relative ranks to each of the five above-mentioned factors using a 5-point scale. Thus every single interview produced a subjective measure of the degree of participation achieved as reflected in the five factors considered.

Averages of the ranking of indicators were calculated per group of respondents, per health post area and per district. Interesting differences in the assessment by different groups of community informants were obvious and could later on be analysed in depth. The district average of the degree of participation achieved—as expressed by the totality of community key informants—was visualised using a bar chart (Fig. 5). Using the visualisation developed above, the plotting of data of Fig. 5 would result in a spider's web as shown in Fig. 6.

In this case study, the conclusion to be drawn from using this framework of process indicators was that the degree of community participation achieved was still rather low, even though the structure, organisation and management of the district health services was excellent in comparison with the situation in other parts of the country. It was suspected that reasons for this low achievement have to be sought in factors such as social structure, lack of financial committment of the government, suppression of community initiatives, attitudes of superiority of health staff, previous negative experience with community development programmes, and lack of orientation, sensitisation and training of both health professionals and community members.

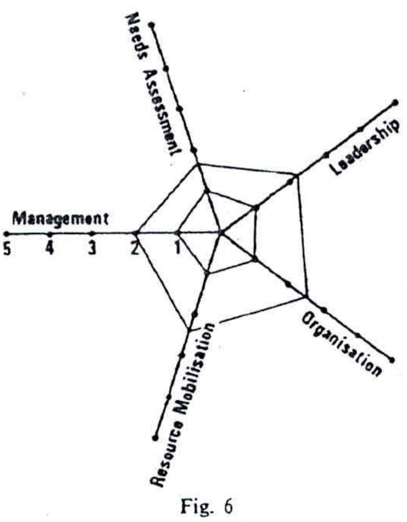

Fig. 6

Limitations

It was not possible to get interviewees to recall how the participation in the programme might have looked at its inception. For this reason changes in the participation process could not be assessed. However, it was possible to describe the present situation thus providing a baseline for future assessments which focus on changes.

Conclusion

The cited case study provides an example of how the assessment of process indicators of community participation in health might be used. Although programmes vary widely, for each specific situation similar matrices can be developed in order to identify formal and informal mechanisms of participation. The result of the case study provides a useful baseline assessment which can be used by other persons, assessors, health staff or community members, when planning for a comparative assessment at a later stage. This baseline might also stimulate debate within other concerned groups. The assessment uses relative values. It does not pretend to be 'correct' and therefore, does not pretend to be a method for defining participation in terms of a standard.

CONCLUSION

In this paper, we have presented a framework and methodology for assessing community participation in any specific health care programme. We have defined process indicators as indicators which show how wide participation is on a continuum of each of the major factors which influence participation. We have described how to identify and use these indicators to assess participation in these programmes. Finally, we have presented an example of how these indicators can be used in practice.

As we have continually stressed, process indicators are not used to quantify or standardise changes. They do not tell us whether community participation is 'better' or 'worse'. Rather their value is two-fold. Firstly, they describe differences in community participation in a health programme over time and by different people. Secondly, and equally important, they serve as a departure for discussions about community participation which can help us to understand the process better and which can help the people involved in the programmes to achieve better results by allowing for greater involvement.

This presentation is one of the first steps in beginning to develop practical, useful tools for understanding community participation in health programmes. We would very much appreciate hearing from those of you who try it in your own programmes. We would also appreciate any comments and criticisms.

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APPENDIX 1

Questions to help determine the plotting of participation indicators:

Note: The following is a description of the broad framework of each of the five participation indicators. After explaining the two extreme points, a list of relevant questions is presented. These questions are not given as a checklist for finding the position of the indicators. Rather they are given as guidelines for evaluators to enable them to develop their own questions for each specific programme. It will be quickly realised that the answers to these questions are not always easily obtained nor easily analysed. These difficulties should not be underestimated. However, the point to be plotted on the continuum does not have to be precise but rather comparative. As experience is gained, a backlog of knowledge will be colleced to make this task easier.

Needs Assessment

The introduction of a health programme reflects judgements about the health needs of people living in a certain area and decisions to act upon those needs. Needs assessment can be made by professionals using their training and past experience either to project possible problems or carry out surveys in order to plan actions. Professional assessment alone places the indicator at the narrow end of the spectrum. It moves toward broader participation with actions that involve community members in research and analysis of needs. Questions to assess participation might include:

—How were health needs identified?
—Did the identification include only health service needs or other health needs?
—What role, it any, was foreseen for community people in conducting needs assessments, in analysing health needs?
—Were surveys used? Who designed the surveys and who conducted them?

- —Were the surveys used merely to get information or also to initiate discussions with various possible beneficiaries?
- —Were potential beneficiaries involved in analysing the results?
- —Was the assessment used to further involve the beneficiaries in future plans and programmes?
- —Was only one assessment made or is it an exercise for change, review and further involvement of community people in programme plans?
- —How were the results of the assessment used in the planning of the programme?
- —If community people were involved in the assessment, did they continue to be involved in the implementation?
- —Was the assessment used to strengthen beneficiaries role in decision-making about the programme?
- —Was it able to include various representatives from the wide range of possible beneficiaries for which the health programme was designed?

Leadership

It is necessary to examine who the existing leadership represents, how does the leadership act on the interest of various community groups, especially the poor and how responsive are the leaders to change. Narrow participation is present if the leadership represents only the small and wealthy minority and continues to act only in their interest. The indicator moves toward the wider end if the leadership represents the variety of interests present in its constituencies.

- —Which groups does the leadership represent and how does it represent these groups?
- —How was the leadership chosen and how has it changed?
- —Is the leadership paternalistic and/or dictatorial limiting the prospects for wider participation by various groups in the community?
- —Does a charismatic leader exist who might not allow mechanisms for continuity to be developed?
- —How does the leadership respond to the poor and marginalised people, i.e. peasants, labourers, unemployed, women?
- —How does the leadership respond to demands of outside organisations in terms of gaining resources for the poor as well as the better off?
- —Have most of the decisions by the leadership resulted in improvements of the majority of the people, for only the elites, for the poor?
- —What was the attitude of the leadership toward the introduction of a health programme and what was the attitude of the leadership to health before the programme was introduced?

Organisation

If the health programme is to be community based, the organisations must exist among the community people to implement the programme. If programme planners and professionals do not use community organisations, experience suggests programmes will find it difficult to succeed. Programmes with community organisations created by planners will see the indicator for this activity placed at the narrow end of the continuum. Where community organisations exist, include a broad constituency and incorporate or create their own mechanisms for introducing health programmes, the mark will fall near the broad end of the continuum. Questions which might be asked to determine this point are some of the following;

- —How were organisations focusing on health needs development?
- —What is the relationship of the health professionals to these organisations—do they have a decision-making role and if so, how important is that role?
- —If new organisations were created, how do they relate to existing organisation(s)?
- —How does the organisation(s) get resources?
- —What kind of input do the resource holders have in the organisation(s), is it a large decision-making role?
- —Has the representation and the focus of the organisation(s) changed since it was created, if so, how and to whose benefit?
- —Who staffs the organisation(s)—professionals, beneficiaries and which beneficiaries (elites or the poor)?
- —Can the organisation(s) meet needs other than providing health services if other needs have been identified?
- —Is the organisation(s) flexible and able to respond to change or is it rigid fearing a change in control?

Resource Mobilisation

In the PHC philosophy, self-reliance in terms of both resources and responsibility for programmes is a major goal. While mobilising indigenous resources is a symbol of commitment to a specific programme, all too often it also has been seen as a way in which governments can be relieved of allocating their scare resources to these areas. If this situation exists, the commitment of resources limits the ability of participants to decide on allocations which have been defined by outsiders rather than enhance their control over programmes. Thus the indicator for resource mobilisation not only must take account of the commitment of community resources but also the flexibility which can be exercised in deciding how these resources can be used. A point at the narrow end of the spectrum therefore would be one which showed a programme with a small commitment of indigenous resources (money, manpower, materials) and/or limited decisions about how local resources are allocated. Questions to suggest where the indicator is to be placed must reflect both these concerns. They might include:

- —What have beneficiaries contributed?
- —What percentage of total requirements come from these groups?
- —What are the resources being used to support?
- —Have these resources been allocated for support of parts of the programme which in other circumstances would be covered by government allocations?
- —Who has decided how indigenous resources should be used?
- —Do all groups that contribute have a decision-making role?
- —How do the poor benefit from allocations to which, because of their poverty, they can make little contribution?
- —Can resources raised to support a health programme be used to support more than health services?
- —How are mechanisms developed to decide about allocations and are they flexible or rigid?
- —How are resources mobilised from the community?
- —Which groups influence mobilisation and how do they do it?
- —Whose interests are being served in both the mobilisation and allocation of these resources?

Management

Management includes not only the management of the organisations responsible for the programme but also the management of the programme itself. Decisions and management structures which favour the professionals and planners indicate narrow participation and those which favour the wide range of community people widen the scope. To assess this indicator, we may ask:

- —What is the line of responsibility for management and what are the roles of beneficiaries, particularly community health workers (CHWs) if present in the programme?

—For instance, are the CHWs responsible to community organisation(s) or programme managers?

—Has the decision-making structures changed both from the beginning and from the baseline to favour certain groups and which groups are favoured?

—Have the management structures expanded to broaden the decision-making groups, have they been able to integrate needs which are not health needs?

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BUILDING THE INFRASTRUCTURE FOR PRIMARY HEALTH CARE: AN OVERVIEW OF VERTICAL AND INTEGRATED APPROACHES

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Abstract—In the past four decades there has been a succession of different approaches to the development of infrastructure for the delivery of health services. There have been striking similarities among these approaches in both direction and timing in many different countries, particularly in the developing world. While the general trend has been strongly in the direction of a more comprehensive, integrated health infrastructure, there have been important regressions from this path. It is suggested that the recent attention given to the delivery of 'selective' packages of interventions has often diverted energy and resources from the essential task of developing comprehensive, efficient and effective health services.

This paper begins with an historical review of trends in the development of health services infrastructure in recent decades. It proceeds to analyse the implications for the organization of health services and for resource allocation when the health services infrastructure is viewed as part of a health system based on primary health care.

Finally, we maintain that district health systems based on primary health care provide an excellent practical model for health development, including an appropriate health system infrastructure. Within this model the concerns with accelerating the application of known and effective technologies and the concerns with strengthening of community involvement and intersectoral action for health are both accommodated. The district health system provides a realistic setting for dialogue and planning involving both professionals and non-professionals concerned with health and social development.

Key words—health infrastructure, PHC, vertical programmes, selective PHC, district health system

INTRODUCTION

Much of the debate in recent years concerning 'selective primary health care' has arisen from a conflict between two different perspectives on improving health. These perspectives have been elaborated in detail in recent articles [1, 2]. Common to both is a belief that it is possible to improve health on a much wider scale than is currently being done by making better use of existing financial and human resources, including non-professionals and community organizations, and by wider application of existing technology.

The differences, which frequently seem exaggerated and misconstrued, are not mainly a conflict over what needs to be done, although there are differences in this area, but over who decides on the sequence and priorities, and who are the most important actors in the process.

But the diversionary effects of a selective approach on the development of a sustainable and efficient health services infrastructure have often been overlooked. In its most dramatic form, this is exemplified by the fear that 'selective PHC' might mean establishing parallel health delivery systems for the implementation of the 'selected' interventions, creating yet another 'vertical' programme structure. There is little evidence that this has happened on a large scale.

A second common fear is that a selective approach would concentrate scarce resources on only a few selected interventions, leaving those unfortunate enough to suffer from diseases not on the 'selected' list, such as malaria or tuberculosis, without recourse. This concern has been increasingly expressed by many health system managers, particularly in the poorer developing countries. They have indicated that the additional resources being targeted by external donor agencies for certain 'selective' programmes often have the undesirable effect of diverting the time and attention, particularly of peripheral health workers, away from other priority programmes such as antenatal care and environmental health.

Thus the renewed concentration on 'delivery' of a narrow range of interventions has diverted both attention and resources away from the essential tasks of strengthening the capabilities of both health institutions and people at all levels to plan, implement and monitor a broad range of essential health activities. This diversion began about the same time as primary health care initiatives focused increased attention on the training of community health workers and the development of community-based health activities. These activities were unfortunately themselves often relatively isolated from the organized health services, and in some countries took the form of a separate 'vertical' primary health care programme.

The importance of a strong linkage between community health activities and health services has been widely recognized for some time [3]. However, the growing experience in community-based primary health care has underlined the point that if the potential of the primary health care approach is to be realized, greater attention must be given to the interface between communities and the health services, along with stronger efforts to alter the perspectives and actions of health workers, especially at the periphery of the health services. It is increasingly apparent that in order to make better use of existing health resources, the role of health facilities such as clinics, health centres and hospitals needs to be expanded and strengthened in at least two complementary directions:

—expanding their involvement with and support of communities and community based health activities, including reallocation of greater time and resources for these activities;

—increasing their ability to plan, prioritize and monitor their ongoing activities, and to adapt national (and international) plans and priorities to local needs and circumstances, with the involvement of local organizations and people in this process.

The above observations rightly point to a need for renewed attention to the development of the health services infrastructure *per se* and not just to a few 'priority' programmes.

By *health services infrastructure*, we mean the structures, functions and resources required to provide a range of health programmes and services—facilities, manpower, management, information, logistics, transport and supplies. It is through an appropriately organized infrastructure that health care programmes can be effectively implemented. The health services infrastructure has often included numerous poorly coordinated components such as independent public and private infrastructures, a variety of semi-autonomous specialized elements such as 'vertical' programmes.

A *health system* comprises the inter-related elements that contribute to health in homes, communities and workplaces, including the physical and psychosocial environment, the health services, and health-related sectors. The health system therefore includes a variety of infrastructural elements including health services, community organizations and numerous health-related infrastructural elements, *working together* towards common goals. Both the health services infrastructure and the health system are usually organized at various levels from the community to the national level.

The principles of primary health care demand movement from the traditional model of diverse and poorly related health *services infrastructures* towards a more comprehensive health system based on primary health care. Throughout this paper, we will attempt to maintain a clear distinction between these two terms.

A germinal event for coalescence of ideas concerning the importance of the health services infrastructure, and its evolution towards a health system based on primary health care, was a WHO meeting which took place in New Delhi in June 1984 [4]. The participants were largely Ministry of Health officials with senior managerial responsibilities for the operational implementation of primary health care in their own countries. This meeting reviewed the patterns of development of health infrastructure over the last several decades with particular regard to the progression from vertical towards integrated health services infrastructures. The historical information presented in the next three sections is based largely on country studies and discussions from that meeting.

GLOBAL TRENDS IN HEALTH SERVICES INFRASTRUCTURE DEVELOPMENT

The development of national health systems during the past three decades has been marked by two major trends, which vary in their inter-relatedness from country to country.

The first was the establishment of 'vertical' programmes for the control of specific priority health problems, each with its own specialized infrastructure staffed by uni-purpose workers. The programmes against yaws and malaria, and the global smallpox eradication effort are among the more successful examples of this approach.

The second was the development and expansion of general health services infrastructure designed for the provision of curative services with a variable range of preventive services. They were at first largely hospital-based and often urban-oriented, but they have become increasingly accessible to national populations, though often still with a strong curative orientation. The limitations of these basic health services in reaching non-urban populations, and their weak attention to promotive and preventive health care, provided the underlying stimulus for the development of the primary health care approach.

Since the WHO/UNICEF Conference on Primary Health Care at Alma-Ata in 1978, the trend toward more integrated health services infrastructure has accelerated dramatically, through the expansion and strengthening of health facilities, emphasis on priority activities such as immunization, and especially the training of community health workers and the involvement of communities in health efforts; these have made it possible, more and more, to reach unserved populations with primary health care services.

Although, in general, health decision-makers accept the idea of comprehensive primary health care with its multiple components, there have been many difficulties in making the transition from semi-autonomous vertical programmes, alongside a general health infrastructure, to an integrated infrastructure capable of providing both general and specialized health care effectively to entire populations in relation to their main needs. These difficulties have included a variety of hurdles to be overcome: administrative integration of personnel, finances, supplies and information; training and re-orientation of uni-purpose workers to carry out a broader range of activities; ensuring the effective maintenance of desired special programme activities; and mediating among the various persons and groups affected by the changing roles and power relationships caused by the integration progress.

These operational difficulties within countries have often been compounded by the continued international debate on the merits and demerits of vertical and integrated approaches to the organization of health programmes, and the continuing preference of some donor agencies for the support of specialized programmes with autonomous infrastructures concentrating on a single set of activities, which can be insulated from the broader demands of the general health services.

In order to shed further light on the question of how countries can progress towards a more rational use of resources and a more effective implementation of all the essential elements of primary health care, an attempt was made to review the evolution of the health services infrastructure in a number of countries.

THE EVOLUTION OF COUNTRY HEALTH SERVICES INFRASTRUCTURE

A striking aspect of the evolution of primary health care around the world has been the extent to which the trends and major milestones have appeared in similar forms and at nearly the same times during recent decades. The main shifts in emphasis, first, towards vertical programmes and, later, towards integrated programmes, occurred in many different countries within only a few years. The global historical factors that gave rise to these particular approaches, and then stimulated the subsequent changes, form a basis for understanding some of the current problems that countries face, both individually as they try to implement their own health strategies, and collectively as members of WHO in pursuing the goal of health for all.

The main events can be grouped into three historical periods. This grouping provides a framework for understanding the evolutionary path of recent decades and the major issues that influenced it.

Predominantly curative period: pre-World War II

In the late 1800s health services were generally very sparsely distributed and limited in effect. In the developing countries they were often provided by missionaries or by the early forerunners of colonial or national health services. Occasionally there appeared an event that was extremely important in the development of public health, such as the initiation of yellow fever control programmes in Brazil in the 1890s (one of the first examples of what was to be called a vertical programme), and the discovery by Ross in India in 1898 of the role of the mosquito in malaria transmission, providing the scientific basis for subsequent malaria control effects.

After the turn of the century curative services became more widespread. The construction of the Kenya–Uganda railway around 1910 led to the provision of rudimentary health services for the workers, whose health was constantly threatened by the environment of East Africa. In India, in the 1930s, tuberculosis was treated largely in sanatoria, following the pattern in Great Britain and Europe. During these years the emphasis was on medical care, though with a steadily increasing understanding of the particular problems of tropical diseases. But in the background a base of scientific knowledge was gradually building up, which would allow a more widespread attack in the second half of the 20th century on many common endemic diseases.

Predominantly vertical programmes: the 1950s and 1960s

The period after World War II brought a rapid increase of vertical programmes for disease control. The predominant targets were communicable diseases—malaria, yaws, tuberculosis, schistosomiasis—but other problems also were attacked in this way, particularly population growth and malnutrition. There were clear reasons for this wave of vertical programmes: new technology and a strong interest in bringing under control some of the major scourges of mankind (though at times there was more faith in the technology and programmes than proved to be warranted, as in the expectations for malaria eradication).

International donors in this period often insisted on independent vertical programmes, each with its specific focus, because of the lack in most countries of institutions capable of reaching the large populations required for effective control efforts. Indeed in this period many countries had no widespread health service infrastructure, even for basic curative services. With the focus on disease-oriented programme priorities, it is probable that there was also a general lack of appreciation, then as now, of the importance of the health services infrastructure *per se* as a prerequisite for the development of more widespread and comprehensive services.

The vertical approach brought substantial advances in the control of a number of diseases, and this undoubtedly contributed to the considerable improvements in health that have occurred over the past several decades. Nonetheless, it gradually became apparent that multiple vertical programmes as a long-term approach entailed serious inefficiencies and reduncancies. Some countries had more than 10 separate and largely autonomous vertical programmes, and at the same time had to cope with many health problems for which there were no programmes at all. Reservations were expressed. Broader visions of the health services were described. Experiments began.

One of the most notable of the early statements of the need for integrated and comprehensive approaches to health services and manpower development was the Bhore Report in India in 1946. Kenya's health services were oriented toward comprehensive services based on an expanding network of health centres from the 1950s onward. Indonesia ran its first pilot effort at integrated services in 1958. The Philippines were exploring integrated systems in the same period. Thus the first probes towards integrated approaches had already begun to appear in the 1950s and 1960s, though they attracted little attention, perhaps because of the still limited infrastructure of general health services. However, with increasing awareness of the costs and limitations of vertical programmes, and the concomitant increasing public and governmental desire for more widespread and comprehensive health services, integration became the focus of another wave of policy change in the early 1970s.

Transition from vertical programmes to integrated PHC: 1970s–80s

The probes and explorations of more comprehensive and integrated services spread. Each country took its own path, but there was undoubtedly some international awareness of the issues, and some learning from one another in this process. A number of countries had already laid the conceptual and administrative groundwork in the 1950s and 1960s. They were then able to shift to integrated programmes as a major policy step, such as happened in Finland and Indonesia in 1972, and India in 1974.

WHO and UNICEF convened the International Conference on Primary Health Care at Alma Ata in 1978. The Declaration of Alma At reaffirmed the social target of Health for All by the Year 2000, and specified primary health care as "the key to attaining this target as part of development in the spirit of social justice" [5]. Where did this signal event fit into the historical sequence outlined above?

The basic commitment to equity and justice in health services was already gaining hold in many countries, and the efforts to implement effective vertical programmes, and then to make the transition to integrated approaches, had begun some time before Alma Ata. Indeed, the remarkable success of the Alma Ata Conference and the elaboration of strategies of health for all was probably in great part due to the groundwork laid previously in a number of countries. Nonetheless, it is also likely that the commitment of countries, collectively within WHO, to health for all, has been largely responsible for the substantial subsequent progress towards universal coverage with effective services through implementation of primary health care.

Following Alma Ata, the policy direction toward full integration with a health system based on primary health care was reinforced, but operational realities required a step by step process and much time.

In this period, integrated programmes were 'sold to' and approved by planning and finance ministries as more cost-effective approaches to organization of health services. At the same time, however, considerable expansion of health services infrastructure was still required in many countries to provide adequate population coverage. This led to considerable concern later as the extension of more services to larger numbers of people brought requests for ever *higher* budget allocations, rather than the expected savings.

It was also not at all clear that integrated PHC services would be able to maintain the ground that had been gained through the vertical programmes, particularly as available resources were spread more thinly to cover more activities. Malaria control in India, for example, regressed considerably during the early phases of integration. However, it was also clear that the goal of universal coverage with a full range of effective services would not be attained by means of purely vertical programmes; integrated programmes were the only realistic choice available, though the way to achieve these was less clear.

Countries now are taking various paths toward integrated health systems. Indonesia, for instance, is concentrating within its health services on a 'cluster' of programmes related to child care so as to have an assured impact on infant mortality, while some of its other disease control programmes remain predominantly vertical. India has integrated all programmes except leprosy from the district level downward. Malaysia is retaining its vertical structures in the central regions, but integrating most programmes in the more remote provinces. Ethiopia is taking major steps to bring together its various vertical programmes into a more integrated system starting from the national level.

In the course of this transition, countries have encountered various problems, obstacles, and unforeseen events. For example, changes have been required in manpower training to assure the necessary technical knowledge as workers shift from single purpose to multipurpose roles. Establishment of new administrative relationships have often been complicated in practice because of continuing allegiance to previous vertical programme supervisors and objectives at the expense of newly assumed responsibilities. But at the same time these difficulties have pointed the way to new solutions, providing leverage for other constructive changes across a series of programmes, especially where the skills and knowledge of well-established vertical programmes in areas such as management and supervision could be applied to a wider range of primary health care activities.

Both vertical programmes and general health services covering large populations require extensive support systems: a network of facilities, supplies, transport and personnel; an information system, including surveillance of problems and target populations and a capacity for monitoring progress; manpower development, including training, deployment, and supervision; and general management capabilities including plannning and evaluation. Given the complexity and costs of these support system requirements, countries have often had difficult choices between the high cost of providing adequate support for effective programmes and the risks of limiting their population coverage. This dilemma is exacerbated when several vertical programmes multiply both the redundancies in support systems and the associated costs.

The most serious deficiency in many developing countries during this transitional decade of the 1970s was the lack of an adequate infrastructure for primary health care. This continues to be a weakness in some even today. An adequate, integrated and effective infrastructure is a crucial requirement for a health system based on primary health care. The need for duplication of support services is eliminated by the shift from vertical programmes to an integrated organizational structure. But the infrastructure required for primary health care is necessarily more complex than that needed for a vertical programme, as it must provide effective coordination and support for multiple and often diverse programme activities.

Another important function required of a health system based on primary health care is the establishment and nurturing of close relations between communities and health services, so that communities can become fully involved in protecting and promoting their own health. The recent global economic crisis has made it even more clear that governments have, and will continue to have, only a limited capacity for the provision of health services to their populations. It is equally clear that the primary health care approach demands a much broader attack on the

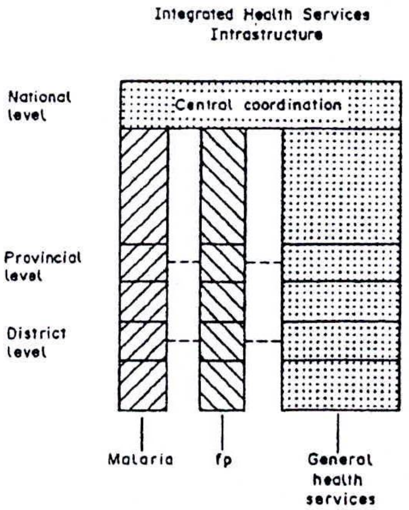

Fig. 1. Vertical independent infrastructures.

various determinants of health which lie outside the traditional concerns of the health services. This in turn demands new forms of dialogue between communities, health professionals, and social and political groups to mobilize the necessary action on many fronts for health and social development.

Despite the progress towards an integrated *health services infrastructure*, and the wide expansion of community-based health programmes in many developing countries, progress in realizing the Alma Ata visions of community involvement and intersectoral action for health has been relatively limited. This is largely because of difficulties in establishing and maintaining adequate dialogue and social control between the health services, other sectors and community-based health programmes within a coordinated *health system* based on shared social goals and aspirations [6, 7].

The problem of establishing more effective linkages between communities and the health services will be dealt with further in the final section of this paper. The following section, however, will look at some of the practical solutions adopted by countries which have tried to make the transition from vertical to integrated programmes, with particular regard to the organizational options in the structure of the health services.

ORGANIZATIONAL ASPECTS OF THE TRANSITION FROM VERTICAL PROGRAMMES TOWARDS INTEGRATED PRIMARY HEALTH CARE SERVICES

Variations of vertical and integrated arrangements

The transition from vertical programmes towards integrated PHC services is characterized by different and changing mixtures of vertical and integrated components. One such mixture is a group of vertical programmes, with their own lines of command, staff and supplies, from centre to periphery, alongside a more generally integrated health services infrastructure. Figure 1 illustrates how programmes on malaria and family planning often run in parallel with general health services. In a more integrated form (Fig. 2), separate programmes are incorporated into an integrated set of primary health care services, although some programme components continue to provide specialized staff and support for the integrated components in order to ensure their continued effectiveness.

There are many variations among these mixtures. The most important points, however, are first, the vertical programmes have often established functions and infrastructures which are separate from those of the general health services. Secondly, primary health care programmes, which depend on a general health infrastructure to provide services to the community, need continuing support from specialized units at higher levels within that infrastructure, even where services are fully integrated at the peripheral levels.

Some of the existing mixtures reflect systems still in transition; others represent a stable equilibrium. Interesting questions arise: What are appropriate linkages between vertical programmes and integrated services? How much specialized support is appropriate for integrated primary health care programmes, and how far towards the periphery should this support continue to be provided by specialist personnel restricted to only a limited range of functions, as opposed to generalists with special training as necessary? These questions call for an analysis of the organizational structures and relationship of national health systems at all levels, including such matters as administrative lines of authority, functions, finance and budget, information, and supplies.

Health system infrastructure in support of primary health care

The health system infrastructure needed for primary health care is comprised of the physical structures and the functional capacities needed to support all primary health care activities. This includes health services infrastructure such as facilities, including equipment; supplies and communications; health manpower, including education, training and supervision; planning, management and evaluation;

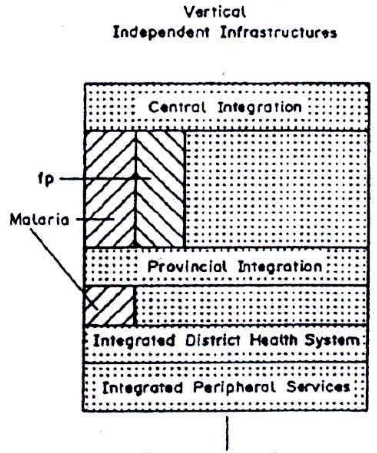

Fig. 2. Integrated health services infrastructure.

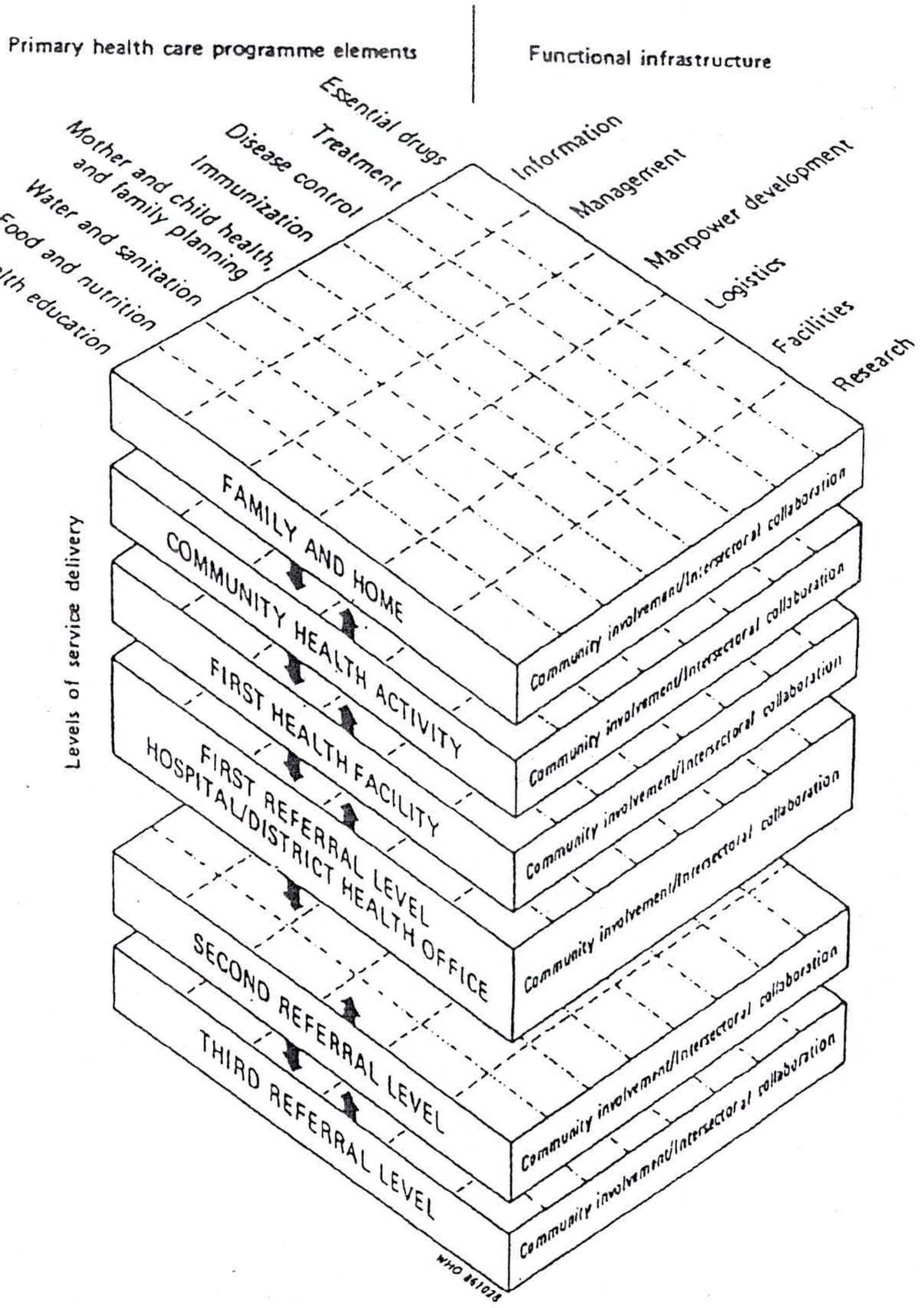

Fig. 3. A conceptual model of a comprehensive health system based on the principles of primary health care. World Health Organization. *Hospitals and Health for All.* Report of a WHO Expert Committee on the Role of Hospitals at the First Referral Level. WHO, Geneva, 1987. Technical Report Series No. 774, p. 21.

financing; information systems, including health surveillance and programme monitoring; and possibly action-oriented research. It is the infrastructure which makes it possible to assess a population's health problems, to extend health care to communities and to people and groups with special needs, to ensure that manpower is deployed according to need, and to monitor the effectiveness of programmes.

In addition to the health services infrastructure, the health system also includes health-related infrastructure of other sectors and the more informal community infrastructure including local leaders, health committees, voluntary organizations, and community health workers, *inter alia*. It is the latter which through its interaction with the health services enables communities to become fully involved in the planning and implementation of health activities in a health system based on primary health care. Both the health services and the community infrastructure must be adequately developed, and working together, to provide an adequate infrastructure for primary health care.

The range of needed structures and functional capacities is as yet only partly developed in most health systems. The possibilities of achieving health for all depend largely upon further development of this infrastructure, and improvement of its effectiveness.

Infrastructure levels. The infrastructure has components at all levels of the system—central, provincial, district, and community, by whatever names they may be called. A primary health care system isolated from central policies, technical support and logistic systems cannot be expected to function effectively. Figure 3 depicts these relationships schematically.

Health services reorganization. Virtually every element of the health services infrastructure can be brought into play in support of primary health care. It can facilitate epidemiological surveillance and the determination of target groups, short-term training for health manpower, preparation for new initiatives, active participation of community leaders and village groups, and the efficient provision of supplies. Without an effective health services infrastructure, primary health care programmes would be seriously hampered. This realization has led to the review and reorganization of health service structures in a number of countries.

In *Kenya*, where primary health care programmes are fully integrated under the 'district focus' for rural development, the infrastructure has been extended to provide relatively broad coverage of the population. Aided by recent efforts to strengthen district planning and management, the system can focus on priority needs, and teams of health workers are trained together in a network of eight rural health training centres.

The State of *São Paulo, Brazil*, is well advanced in a major health development with a hierarchical organization based on the health needs of a largely urban population. It is essentially an epidemiologically oriented health system which is trying to focus greater attention on the needs of the disadvantaged urban poor. Great attention is being given to the development of the infrastructure, including proposals under considerations for integrating the social security and public health institutions into a more efficient system.

Community role in health system infrastructure. It should be emphasized that unlike the view of the health services infrastructure prior to Alma Ata, the health system infrastructure as outlined here includes individuals, families and communities as integral partners with the health services and other sectors. The community can be involved in planning surveillance, training, supervision, monitoring and sharing in the provision of resources for primary health care activities. This infrastructure ideally provides the framework for regular interaction among community structures, including relations with social and political groups, non-governmental organizations, and both public and private sector health institutions at various levels.

In *Indonesia* communities are actively involved in primary health care through close interaction with health centres, selection of village *kaders* (community health workers), involvement of village councils, and self-help activities. Such activities are often included in village community health development efforts.

In the State of *Gujarat, India*, the panchayat (the equivalent of a village council) exercises authority over local primary health care, including some health personnel (health guides) and budget. Thus the interaction of the community with the government health services in planning, budgeting, implementing and evaluating health programmes is very close. Voluntary organizations also play a strong role in supporting or implementing health programmes with the framework of the health system.

In *Finland* the tradition of local self-government is strong and long-standing. Interactions between local and national government, and between local government and the health infrastructure, are highly dynamic, with well-established guidelines for shared decision-making.

Intersectoral linkages for health. Finally, the health system infrastructure, directly and through its relations with communities and primary health care programmes, includes interaction with the social and economic development infrastructure. This interaction is focused on a more concerted effort to influence the many promotive and preventive activities capable of influencing health in a positive way through acting on behavioural, social, environmental and economic causes of ill health. A variety of approaches can be used, ranging from policy analysis and dialogue, legislation and regulation, and social marketing to collaborative development of educational materials or coordinated community development action at the local level.

SETTING PRIORITIES AND ALLOCATING RESOURCES FOR PHC

The setting of priorities and the related allocation of resources usually, or at least often, ignores the infrastructure, focusing instead on selecting from among primary health care programmes. An exception is the frequent readiness to expend money on buildings and equipment, often coupled with a regrettable reluctance, particularly in poorer countries, to finance the operating costs essential for ensuring their effective use.

A central point in the management of primary health care is to make the best use of resources. Attention must be given to the entire community or population, not only to certain privileged groups. The practical question is how to promote health within the context of general development, and to achieve maximum reduction of suffering within the resources available.

With equity as the guideline—total coverage taking into account differential need—criteria used in allocating resources often refer to such factors as: the magnitude of the problem (its prevalence and seriousness, based on epidemiological findings); its effects on the underprivileged; the extent of community concern; technological and organizational feasibility of effective action; costs; and the importance of the problem in the overall framework of national development.

The idea of cost-effectiveness of programmes is inherent in these criteria. However, it needs to be understood that there is frequently conflict between cost-effectiveness and equity: the people most in need are often the most costly to reach. It is often argued that the dominant criterion should be equity, within the limits of resource availablity. But it is more difficult to translate this principle into useful practical guidelines for resource allocation, beyond obvious examples such as avoiding concentration on high-tech hospital equipment in countries with high mortality from preventable diseases, etc. There are, however, some practical tools for assessing equity in terms of indicators of coverage with certain primary health care services, which should find increasing application in planning and resource allocations [8].

Much of the recent emphasis on cost-effectiveness and the related international trends in resource allocation towards 'selective' primary health case have been based on evidence from isolated studies of specific interventions. These studies have largely ignored the health services infrastructure and the factors which contribute to or inhibit its effectiveness. They tend also to focus on only a few interventions, with little effort to look at opportunity costs of alternative activities, or at the dynamics and requirements of social and organizational change in altering the behaviour of individuals or institutions.

This is certainly in large part due to the real limitations of available scientific methodologies, which require isolating the parts from the whole in order to increase our understanding of their functioning. But the operational realities are that "provision of primary health care is a far more complex and cumbersome process than is reflected by current strategies" [9]. The same author goes on to underline a number of important issues including both technical factors, such as the limitations of impact indicators and the problems of assessing interventions with multiple effects (female literacy, for example), and behavioural factors which influence demand for and utilization of available services.

On a still broader scale, are the well-known linkages between health status and a wide range of socio-economic indicators. One of the most hopeful lessons from the extensive literature on this subject is that a broad attack on social determinants of ill health might be mounted with good effect even in the face of very limited economic resources.

Some of the evidence is well summarized in a recent report based on the experience in mortality reduction in China, Costa Rica, India's Kerala State, and Sri Lanka [10]. In these cases, the combination of *political commitment* to change, and *social policies* providing for a broadly based development effort with substantial inputs in the areas of education, health services and nutrition, seemed to be the most important determinants of accelerated progress. Indeed the experiences of these countries are among those upon which the primary health care approach was built.

An important extension to this information is the study conducted by Caldwell to assess the extent to which the experiences of these countries which had achieved "Good Health at Low Cost" might be followed by other poor countries [11]. Based on a detailed analysis of the changes in Costa Rica, Kerala and Sri Lanka during their period of mortality transition, a number of key conditions for their progress seemed to emerge; sufficient *female autonomy*; considerable inputs into *education*, with similar levels for both sexes; some means of assuring *adequate nutrition* for everyone; and *health services accessible* to all and *working efficiently*, usually because of popular pressure, and providing *antenatal and postnatal health services, fully trained birth attendants*, and *universal immunization* [11, p. 208].

After looking again at a larger group of countries with similar, but less dramatic progress, Caldwell notes the importance in these countries of a broad *consensus on social goals*, and the important role played by an *enlightened local community* in making demands upon and requiring *accountability from the local health services to the community*. He goes on to remark that the most striking needs are the *furtherance of female autonomy* and *increasing the efficiency of the local health services*.

The above study has been cited because it seems to underline and illustrate well several of the key points of this paper: the need to look beyond the health services alone in order to improve health; the important roles to be played by communities and other sectors, as part of the health system; and the need to focus greater attention on strengthening the health services infrastructure within the health system.

If we have now reached some consensus on this approach, how might we then proceed in more practical terms?

DISTRICT HEALTH SYSTEMS BASED ON PRIMARY HEALTH CARE: THE OPERATIONAL LOCUS FOR INTEGRATION

In May 1986, the 39th World Health Assembly adopted a resolution calling on countries to place more emphasis on strengthening district health systems based on primary health care. This call for action reflected the growing awareness among countries that a major obstacle to achieving health for all is weak organization and management, particularly at the local and intermediate levels of the health system.

A district health system based on primary health care may be considered to be the 'local' operational framework required for the implementation of primary health care as defined at Alma Ata and discussed above. It is an integral part of the national health system, comprising a population living within a clearly delineated administrative or geographical area, whether urban or rural. It includes all institutions and individuals providing health care in the district, whether governmental, social security, non-governmental, private or traditional.

A district health system, therefore, consists of a large variety of inter-related elements that contribute to health. It includes self-care as well as all health care workers and facilities, up to and including community and district hospitals, and laboratory and other diagnostic and logistic support services.

The characteristics of a district health system should reflect the principles of primary health care on which it is based: equitable use of resources in relation to need; total population coverage; emphasis on health promotion and disease prevention; intersectoral action; community involvement; comprehensive and integrated services; effective and efficient management.

The district is well situated to play a pivotal role in matching local needs and priorities with national policy guidelines and resource allocations. Playing this role effectively requires adequate decentralization of both responsibility and resources. Both community involvement and intersectoral action can take place at various levels within the district health system. Mechanisms and opportunities for such dialogue already exist within districts in most countries.

It is also here that the multitude of special programmes found at the national level often falls on the shoulders of a small team charged with numerous responsibilities for promotive, preventive, curative and rehabilitative services for a local community. It is thus here that integration usually occurs by necessity, if not by choice. It is also often at the health centre or clinic that the conflicting demands of many specialized programmes are resolved, for better or for worse, by arbitrary decisions, frequently made without benefit of careful planning or epidemiologic analysis.

It is obvious that while the type of district health system outlined above may be conceptually appealing, the reality in many districts falls far short of this model. But a growing body of experience reinforces the utility of this approach to improving the efficiency and effectiveness of our primary health care efforts, and for improving the integration of various programmes within the health services.

In our view it is within the district health system, with the participation of all concerned groups, that 'selection' of priority PHC interventions for implementation within the district should be made, targets established, operational plans made and progress monitored. It is also within districts that more coordinated efforts among the various governmental, private, voluntary and community groups can be undertaken. And of course, such a decentralized process must be fully supported by national leaders, health policy-makers, technical experts and specialized national and provincial programmes, with the understanding that these local efforts will function within the framework of established national policies, strategies and procedures.

Recently, a conference on Strengthening District Health Systems based on Primary Health Care was held in Harare, Zimbabwe, to review current experience in more than 20 countries [12]. The meeting concluded that communities and all sectors, including the health sector, need to work more closely together for the effective strengthening of district health systems, in order to accelerate and sustain movement towards equity and to increase the impact of primary health care programmes.

This vision of a district health system based on primary health care seems to provide a viable means to work towards a better balance between the current concentration on intensifying specific programmes, and the need for greater strengthening of the infrastructure through which these and other activities must be carried out. Perhaps if the balance can be redressed in this way, it will be possible to both accelerate targeted primary health care actions and increase the effectiveness of the health system, while avoiding the twin pitfalls of 'planning without people', and 'participation without progress'.

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The views expressed in this article are the sole responsibility of the authors, and do not necessarily reflect the views of the World Health Organization or the Aga Khan University.

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THE STRAW MEN OF PRIMARY HEALTH CARE

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Abstract—The following paper discusses the progress made in providing primary health care (PHC) to the developing world in the 10 years following the joint WHO/UNICEF International Conference on Primary Health Care held at Alma Ata, U.S.S.R., in 1978. UNICEF is now 12 years from the goal to provide Health for All by the Year 2000. In this context, the authors describe UNICEF's 'country programming approach' to PHC as part of the child survival and development revolution (CSDR), articulated by the agency in 1982. A polarization between the two concepts of 'selective' and 'comprehensive' PHC is examined in the light of quotations from the original conference document which set forth strategies and priorities. The authors, a consultant and a staff member of UNICEF, respond to criticism of the agency in this regard by drawing directly on UNICEF's own work in the field and its record of success, even at a time when developing countries are battling severe economic constraints and health budgets are being slashed—a contingency not foreseen at Alma Ata. WHO evaluations of both the Expanded Program on Immunization (EPI) and oral rehydration therapy (ORT) show that accelerated programs develop best when underpinned by a good health infrastructure. The challenge is to develop priority programs in such a way as to build on or strengthen this infrastructure. Flexibility is the key in adapting national priorities to local programs. The point is made that international agencies should be careful to limit themselves to advocacy and support. The authors conclude by discussing some major points that require further debate and analysis, including the final and most fundamental question—how can we ensure true equity in reaching those in greatest need?

Key words—primary health care, selective, comprehensive, Health for All

One of the most wasteful of human endeavors is the tendency described in the allegory of beating on straw men that we have created ourselves rather than tackling our real antagonists.

The battle between 'selective' and 'comprehensive' primary care (SPHC vs CPHC) has all the elements for becoming a focus for such a self-satisfying war. Battle lines have been drawn up, banners and slogans identified, challenges and insinuations have been hurled and further recruitment and mobilization is, apparently, under way. The irony of the battle is that those involved share many of the same objectives and values—a concern with poverty eradication, equity, community participation, with 'democratizing' and 'demedicalizing' health, with making the goals of Alma Ata a current reality, not merely a distant hope [1]. As history shows, however, such common convictions are no guarantee of harmony and may actually serve to inflame the conflict. Religious crusades are all the fiercer when fighting what is seen as heresy at home rather than the enemy abroad.

We do not feel we are overdramatizing the problem or emphasizing imagined risks. We are concerned that one recent conference concluded that a "campaign against this (selective PHC) approach should be launched, on the grounds that selective care will not improve health, particularly not in the countries normally targeted where the roots of ill-health lie in poverty" [2]. To the extent that the confrontation diverts time and attention from more substantive action, the suffering that results will continue to be in the lives of those in greatest need in developing countries. The poor and vulnerable who have always been on the margins of any form of health care will still not have access to services that might have reached them. If we can agree on the basic issues we could open the way for more relevant research, writing, debate and action.

It is in no way our intention to stifle debate. We assume that all who are engaged in the current confrontation would agree that it would be preferable to stop fighting from entrenched battle lines and repeating old arguments. Our appeal is that we focus not on buttressing existing stylized positions but on moving from these to empirical analysis of issues. The real preoccupation should be with promoting Health for All as part of a general, poverty-alleviating development strategy.

An increasing number of developing countries are sustaining the severest economic constraints and cutbacks in half a century. *Per capita* income has declined in two-thirds of the countries of Africa and Latin America since 1980. Health budgets in most of these countries have been cut in half and have been reduced more than public expenditure as a whole. Little of this reduction of total resources was envisaged at the time of Alma Ata. It poses a major change of context, within which the goals of Alma Ata still need to be pursued if progress is to be made.

An encouraging development is that, in the 1980s, a diversity of countries have tried different approaches to accelerate health action, mobilizing resources and people in ways markedly different from those tried earlier. At the same time, major changes have been taking place in the health systems of countries such as China which had earlier set the models on which the Alma Ata view of PHC had been built. More such practical experimentation is needed. This empirical experience deserves careful analysis leading to lessons, guidelines and strategies for reaching the goals of Health for All by the year 2000.

This note attempts to define potential areas of convergence and possible directions for future action. We do this first by noting some polarizations that seem exaggerated. Then we pose some empirical questions requiring analysis and research which might lead to policy and action. Since UNICEF is obviously a party to the debate, we have included references to UNICEF's own experience and programs. But first, we return to Alma Ata and how the issue of selectivity in PHC was treated in the background document.

PRIORITY SETTING IN THE ALMA ATA DOCUMENTATION

The concept of 'selective primary health care' was built into the original definition of PHC in the background document for the Alma Ata conference. This is important to underline, since this point has often been misinterpreted, especially by proponents of SPHC arguing that CPHC ignored the need for explicit priorities.

Thus, the first straw man to be created after Alma Ata was based on the mistaken assumption that CPHC services were supposed to try to implement all eight components of PHC equally and at the same time. This misinterpretation was criticized repeatedly by proponents of campaign approaches. The straw man assumed that PHC proponents were totally naive—which indeed was sometimes said in so many words. In a country with limited resources it is obviously impossible to do everything at once. The need for setting priorities was fundamental to all versions of country health programming and the managerial process for primary health care that have guided implementation efforts.

It seems obvious from statements made by these critics of PHC that they had never bothered to read the Alma Ata documents but had substituted their own interpretations of the shorthand slogans used to generate political support. Incidentally, this process of mobilizing political will was remarkably successful because within one year over 100 countries had legislated policies accepting the principles of Alma Ata. This was a necessary step before moving on to implementation. A few quotations from the official publication on Alma Ata will help to clarify the issue.

> On page 74, item 117: "The national programme may begin in selected parts of the country, provided that all are covered as soon as possible. It may also start with only a limited number of the components of primary health care, provided that the others are added in the course of time. The essential feature is that it should be extended progressively, in both geographical coverage and content, until it covers all the population with all essential components." On page 75, item 118: "However, if it is not possible to implement strategies in accordance with a strictly rational process of decision-making, a pragmatic approach may have to be adopted in order to seize every opportunity to introduce primary health care whenever and wherever possible" [3].

It should be evident that most of the attacks on CPHC from proponents of SPHC have been directed against a set of assumptions which are very different from the middle ground charted in the Alma Ata documentation. Most of the rationale for SPHC was already included as part of phased progress towards CPHC.

OTHER MISLEADING POINTS OF POLARIZATION

Selectivity versus comprehensiveness is only the beginning of a misleading list of polarizations. Just as Alma Ata recognized the need to be both comprehensive in goals and strategy and somewhat selective in choosing tactics and specific program interventions, so many of the other points of debate have been misleadingly polarized. For instance:

Vertical vs horizontal

Most health systems embody elements of both verticality and horizontality, and both are needed. Health education and promotion through the mass media of radio and television almost by definition tend to become a vertical activity. Health centers tend to be organized horizontally—though almost always with some support (e.g. training and drug supply). It is a straw man construct to imply that programs should be "always horizontal, never vertical". We need, however, to ensure the necessarily vertical aspects of organization remain responsive to local views and realities.

Top–down vs bottom–up approaches

This also is a misleading polarization, though there is currently much justification for stressing bottom–up approaches, because of the overwhelming predominance of top–down perspectives in decision making. But recognition of the need to offset this bias does not justify the tendency to deny a need for overall 'macro-planning'.

Planned vs participatory approaches

Experience in many countries confirms that there is generally a cluster of similar health problems which should have high priority. The community is usually aware of the problems but they frequently do not know that solutions are available or can be mobilized. The pneumonia–diarrhea complex has for over 20 years been recognized to include the two conditions that are the first and second causes of death in most poor communities [4]. The six diseases targeted by EPI, especially measles and neonatal tetanus, also cause many deaths and can be readily prevented. Problems associated with maternal care and the synergism of malnutrition and common infections have almost universal priority. It is a straw man argument to suggest that it was the intention at Alma Ata to recommend that community demand would somehow spontaneously mobilize local control programs to attack such priority problems in an efficient way. The whole process of national health planning which has been carefully promoted by WHO has provided a framework for setting priorities.

Planning is greatly influenced by the size of the population group where a priority problem occurs. Because of economies of scale, the larger the administrative unit the greater the efficiency of implementing a control program. Where problems are common in large population groups it is relatively easy to mobilize support. This is especially true of support from national and international sources. A major factor in obtaining such support is the demonstration that inexpensive and simplified interventions are available that make it possible to control priority problems within the resource limitations of developing countries.

"*Technological, magic-bullet approaches*" *versus* "*building organizational structures*"

Polarization over this issue is not merely misleading but dangerous. On the one hand, new technologies are important and effective and they need to be more widely promoted than they are [5]. Immunization on average still reaches under 50% of children and pregnant mothers; ORT is still used in less than 20% of children with diarrhea; new technologies for diagnosing acute respiratory infections (ARI) are used even less. Malaria, AIDS and a host of common health problems require technological research to produce low-cost, widely applicable solutions. It is a straw man argument to decry these technologies because of their "use by the ruling class in third world countries to achieve visible and dramatic improvements in health and to divert attention away from the lack of basic survival needs". However, the issue is more realistically stated in the same paper as "the health improvements brought about by, say, immunisation or the use of ORT or for that matter growth charts or nutritional supplements can only be sustained by the availability of food, water and shelter and the political and economic power to obtain them" [6]. Technologies alone will not make much difference. Knowledge of when and how to use new methods must be disseminated widely, along with appropriate supplies and equipment. Personnel and family members must be trained. All this requires organization and tackling issues of access, cost and inequality. This process of organization will include the building of PHC structures. These management variables have to be promoted along with empowering people to solve their own problems.

It is counterproductive to pose the issues as technology versus building infrastructure. Recent experience in countries (left and right) show that promotion of technological approaches has often substantively helped to accelerate the building of PHC infrastructure. By making specific the purpose and contributions of particular service activities in promoting health goals, it has been possible to increase the competence and self-confidence of health personnel along with their credibility and public support.

UNICEF EXPERIENCE

Since UNICEF has sometimes been criticized as a leading culprit in this controversy, it seems appropriate to refer to UNICEF experience directly.

A quotation from the *Review of African Political Economy* may make clear the nature of the changes:

> "*The Politics of the Debate*
>
> Despite the impressive array of criticisms that have been mounted against the selective approach to health care, most of the important international agencies are presently favouring that approach in financing aid projects to the health sector. The most visible and notable example is that of UNICEF, who co-sponsored with WHO the Alma-Ata Conference, and yet whose own activities since then have been increasingly selective, reduced to the promotion of single activities/techniques such as oral rehydrationin isolation."

In replying to such criticism it should be made clear that UNICEF has never wished to align itself with either position in this confrontation—but rather as this paper argues, to focus on what can be done in a practical way to tackle major child health problems. The activism and decentralization that has always marked UNICEF's work also necessarily leads to pragmatism. This is characterized by a willingness to try the approach, if it works go ahead, if it does not work try something else. In different parts of the world many alternatives have been tried, tested and modified.

A number of internal tensions have resulted from this process based on decentralized decision making, especially among those within the organization who hold different points of view. Some of these tensions reflect reluctance to change within a bureaucracy when it is challenged to implement new priorities. The promotional and mobilizing rhetoric of GOBI-FFF was sometimes misinterpreted as setting up rigid requirements for field implementation [7]. Certainly, internal doubts about the child survival and development revolution (CSDR) thrust and priorities have greatly diminished in the last 2 years, as positive results have been seen and as it has become clear that establishing UNICEF-wide goals need not conflict with constructing country programs sensitive to national needs, thinking and priorities. Other doubts arose over the use of statistical estimates of deaths averted from EPI and ORT, which were never intended as precise epidemiological projections but were presented in order to stimulate public awareness and interest. They serve the same function as the slogan 'Health for All by the Year 2000', which has helped decision makers to firm up their commitment to equity in health care.

The potential for a "veritable child survival and development revolution" was first articulated at UNICEF headquarters in 1982. At this meeting, the GOBI-FFF interventions were identified as having widespread applicability for reducing infant and child mortality and improving child health and welfare in the vast majority of developing countries. From the early stages, a major concern was that the package be a focus for priority but not exclusive action and that all activities be designed as part of strengthening PHC. In fact, for internal purposes, UNICEF sometimes refers to the concept of "EPI to the third power" to indicate that the goal of universal child immunization should be achieved in three dimensions—the first power being to reach effective universal coverage of EPI services, the second to make them sustainable and the third power being to spread the linkages with other elements of PHC.

UNICEF has, however, been aware that the greatest weakness of current CSDR efforts has been that generally insufficient attention has been paid to long-range objectives in the pressure to get something/anything started fast. Predictably, some EPI campaigns have peaked and subsequent coverage somewhat declined (though in no case to date, to below pre-campaign levels of coverage). The challenge remains to take advantage of the social mobilization that promoted the accelerated effort to maintain coverage at a higher level than it had been before. The emphasis now being given to sustainability reflects a learning process in which subsequent generations of workers have to learn for themselves by making the same sort of mistakes made by their predecessors.

From 1981 to 1986, immunization and the use of oral rehydration salts (ORS) in the developing world have each increased dramatically, with immunization coverage in developing countries expanding from around 25% in 1981 to about 50% in 1986, and ORT use from less than 1% of the population to around 50% in 1986. At a time when health budgets and many health activities have been cut, these increases by over 300% in mainstream components of PHC are remarkable for at least three reasons: they represent a movement against a downward trend in health activities over the period; they imply a significant restructuring of activity and usually of financial expenditure on health (since foreign aid has usually provided for a minority share of the total expenditure on these items); and they represent a clear acceleration over past trends in these areas of activity and, in most countries, over past growth of PHC activity as a whole. Equally important, in many countries this expansion has been part of a process going far beyond the health services in their traditional sense. As documented in a succession of UNICEF reports on *The State of the World's Children* (1985, 1986 and 1987, in particular) a process of social mobilization has been set in motion which is involving a wide range of groups and organizations—political, governmental, nongovernmental, churches, youth groups, national and international—many not previously involved in health activities.

It is important to stress that in no way does UNICEF see these impressive developments as the simple result of its own efforts. The very goals of universal immunization and, more recently, of universal access to and knowledge of ORT originated in WHO, and were subsequently endorsed by UNICEF's Executive Board, UNICEF has increasingly been one of a wide number of national and international agencies committed to this core of activities within PHC. WHO itself has units focused on EPI and diarrhea disease control; the Red Cross has concentrated on a Child Alive Program, the World Council of Churches on CSDR and Rotary International on the Polio Plus Program.

Similarly, several of the international aid agencies have provided basic support for GOBI-FFF activities, notably USAID (support for ORT), CIDA and the Italian government (support for EPI).

Lest this focusing of support be interpreted as an exclusive concern, it must be made clear that most of these agencies have also continued a considerable range of other support for health and other development activities. The share of UNICEF's program support for immunization and ORT has risen sharply—but to only 16% of total program expenditure in 1986. Future forecasts suggest that expenditure on these activities may rise to a maximum of just over 20% of total program expenditure by 1989–90, before tapering down in the 1990s as recurrent support becomes increasingly incorporated into national health budgets. These proportions can be compared wtih UNICEF's total expenditure on health care (about 37% in 1986) and 18% on water, 9% on education and 5% on nutrition in the same year. Even these proportions are misleading since they suggest separate programs and actions in each area, while UNICEF pursues and stresses an integrated, multisectoral approach.

The fact is that far more has been achieved than would have been predicted by even the most optimistic proponents of CSDR. It is probably a pretty good batting average that two of the main interventions have done well while the other two have been slow. Certainly, the CSDR rhetoric has been highly effective for generating political commitment and social mobilization, but not in a narrow fashion. Rarely, if ever before, has so much attention been generated for children in so short a period of time. There is a chance that a global ethic of concern for children can be made a continuing development focus.

A striking feature of current prospects is that the experience (and dialogue) of the past 10 years has produced a better basis for an operational consensus for action than some of us would have thought possible a few years ago. At a second meeting of a scientific advisory group at UNICEF in June 1987, four and a half years after the first 'GOBI meeting', there was a tendency at first for confrontation between those who said that the focus on EPI and ORT should not be diluted and those who said it was time to go beyond GOBI-FFF. Some of the sterile old arguments promoting polarization were being trotted out. Fortunately, the focus of discussion shifted, and a consensus emerged that it was time to build on the tremendous foundation of agreement that has evolved from practical experience in field activities, rather than continuing theoretical arguments in searching for universal principles. WHO evaluations of both EPI and ORT have shown clearly that accelerated programs have developed best where there was a good health infrastructure. The challenge remains to learn how to develop priority programs in such a way as to build on or strengthen this infrastructure. It was agreed that "priority does not mean exclusivity" and that flexibility is needed in adapting national priorities to local programs. It was also readily agreed that ultimately all decisions about priorities must be made by countries themselves and that international agencies should be careful to limit themselves to advocacy and support.

UNICEF has long practiced a "country programming approach". In each country, a 3- to 5-year program of support is prepared in close collaboration with country officials over an 18-month or 2-year period. This begins with a situation analysis, which includes the general problems and needs of children in that country, and how they are being corrected. In addition to collaboration with government agencies, appropriate parts of the analysis are done by university or other specialized groups within the country. The purpose is both to have a solid basis of understanding within which UNICEF's country program of support can be prepared and to raise awareness of key problems of children in the country in a way which stimulates advocacy and action.

UNICEF's country programs cover a wide range of activities in addition to health. Indeed, in spite of great acceleration of UNICEF's efforts in support of immunization and ORT, program expenditure on these activities is not projected to rise much above 20% (from the current 16%). In terms of total expenditure, UNICEF is still spending more on low-cost water schemes than on immunization and almost as much on education as on these activities.

UNICEF's experience shows the value of mobilizing opinion and action for child survival and development activities. Social mobilization has been a conscious and increasing thrust of program action since the launch of CSDR at the end of 1982. *The State of the World's Children* report, UNICEF's flagship publication, issued in 41 languages and 300,000 copies each year, has been used to promote awareness of the potential gains from simple and cost-effective interventions, providing care as near as possible to people's homes. The results of this mobilization—and the efforts of many governments, NGOs and international agencies—can be seen in the increase in funding, focus, use and immunization coverage achieved over the last 5 years. The increase in ORS use has risen dramatically from 1982 to 1986. WHO's own statistics of officially recorded morbidity show a marked decline in the prevalence of polio, tetanus and measles in most countries.

But lest there be too much emphasis on UNICEF's role, it is important to stress that the goals underlying UNICEF's mobilization of action towards universal child immunization and universal awareness and access to ORT were not UNICEF's but those of the World Health Assembly and ministers of health in different parts of the world. The goal of universal immunization was originally posed by the World Health Assembly in 1977, and the declaration of 1986 as Immunization Year for Africa and the re-endorsement of universal immunization in Africa by 1990 were made by the African ministers of health, meeting under WHO auspices in Brazzaville, Congo, in 1986.

MAJOR POINTS REQUIRING FURTHER DEBATE AND ANALYSIS

From the perspective of UNICEF some major questions require resolution soon. A systematic process is needed to bring together field personnel and those who can contribute specific scientific and management expertise. The focus should be not only on what can be done now, but also on the long-range implications of current action.

The most urgent question is how to achieve long-run sustainability of accelerated programs as they evolve. This includes:

—sustainable PHC infrastructures;
—maintaining intersectoral cooperation;
—sustained motivation and commitment, at grass-roots worker and volunteer level as well as among political and administrative national policy makers;
—financial sustainability, especially during the present period of scarce resources (sustaining CSDR faces the same constraints as the more general question of financial sustainability for PHC as a whole).

Secondly, what is the role of national mobilization in generating new awareness of health needs and the potential of building a new alliance for health? What are the limits and limitations of social mobilization and how best can such mobilization efforts be integrated with the normal ongoing work of PHC? What are the best mechanisms for getting bureaucracies, research institutions, national ministries and international agencies like WHO and UNICEF to move with consistency and purposeful direction towards agreed goals? How can we take advantage of present opportunities to use practical scientific knowledge to empower those in greatest need? In order to do this, people with expertise will have to give up doctrinaire positions and adapt flexibly to changing conditions. A subsidiary question relating to social mobilization and communications is how to ensure that the necessary simplification of messages does not lead to over-simplification resulting in narrowness of action.

A third question in trying to balance top–down and bottom–up planning is how to relate objective priority setting by experts to community-felt need. New practical mechanisms need to be developed that can be used in defining the problems that are most important and can be most readily solved.

A fourth question is to improve understanding of how correlative risk influences child survival. It is often the same children in a community who are most susceptible to infections and malnutrition. If they are saved from death by immunization or any other specific intervention, how does this influence their future health? Risk may be greater because of the increased probability that they will die from another health problem simply because they are poor and live in a hazardous environment. On the other hand, risk may be reduced because the sequelae of an infection such as measles are numerous and have long-term synergistic effects on other conditions. The interactions need to be worked out.

The fifth question is, what can be done to ensure that program acceleration leads to the broadening of action and extension into other health and development activities? Abundant experience has shown the limitations of vertical programs which have often been started at the insistence of international donors so that they can monitor the flow of their dollars and take credit for their impact. Overly circumscribed activities have tended to leave countries with entrenched bureaucracies that resist eventual integration into PHC. Over the years, most countries have developed such hierarchies, and we need to learn how to encourage them to work together.

Sixth, an important set of questions relates to how and where priority setting should be done. Most current definitions of SPHC fit well with the Alma Ata document as summarized in this paper, except for disagreement about the process of setting priorities. Most proponents of SPHC and all advocates of vertical campaigns must rely on centralized priority setting. For international donors, this centralization means that they will set priorities in Geneva, New York or the capital city where the donor agency is based. Those whose field orientation includes a primary commitment to community participation have tended to construct a straw man that anyone holding a different point of view is automatically considered to be imposing interventions on the community without their involvement in the decision process. They reject any central control as a continuation of past patterns of promoting dependence rather than self-reliance. They describe the use of terms such as community participation or social mobilization as part of a campaign approach as being a devious process of community manipulation by outside forces. We need better ways of balancing top–down and bottom–up priority setting.

The final and perhaps most fundamental question is how to ensure true equity in reaching those in greatest need. This goes well beyond issues of equal coverage. Rather than traditional bureaucratic concerns about equalizing input, a more cost-effective approach may be to focus on outcome. This will require means to identify those in greatest need and at most risk. A new approach to surveillance may be needed to evolve social indicators to monitor pockets where health problems are concentrated. Public funds can then be focused where they will make the greatest difference in improving the health of the community. But the political ramifications of such an egalitarian approach to affirmative action are manifestly complex.

Ten years after Alma Ata and 12 years before the year 2000 we can move forward with more assurance based on the great achievements of recent years. A major contribution of Alma Ata was to turn around by 180 degrees the political posture of leaders in many developing countries who had previously been obsessed with imitating the hospital-based, doctor-controlled health services of many industrialized countries. It has taken longer to get reallocation of funds to follow the rhetoric. It has been hard also for health professionals to make the sharp break needed in promoting new policies of using simple health technology, auxiliary personnel and efficient management to make services cost-effective, and to accept community involvement and intersectoral co-operation.

The most important contribution of the PHC/Health for All by the Year 2000 movement has been to get acceptance of the fundamental principle of equity in health care—emphasizing the 'All' in the slogan. Using the foundation of the political will generated by commitment to PHC in developing countries it has, in the past 5 years, been possible to accelerate implementation by focusing on important priority interventions as part of CSDR. As activities such as EPI develop greater sustainability within PHC there should evolve a process through which combinations of interventions and their relative priorities will vary and shift in adapting to local conditions. The progress achieved in the last 10 years provides a basis for hope that Health for All will become a reality for the poor and deprived of the world by the year 2000.

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3. On p. 57, item 62: "Once priorities are decided on, decisions have to be taken concerning the methods and techniques to be employed. These have to be acceptable both to those who use them and to those on whom they will be used. Further decisions have to be taken on the composition and degree of skill of the health team providing primary health care. Should this be composed of health workers each providing the same range of services, or by a mixture of health workers each providing different kinds of service? Are there to be part-time or full-time health workers or a combination of both? Will they have prospects for advancing in their career and how will this be organized and controlled? Should volunteers be mobilized?"

On p. 58, item 67: "Primary health care aims at providing the whole population with essential health care. Population coverage has often been expressed in terms of a numerical ratio between services for providing health care and the population to be served. Such ratios are often misleading. It is necessary to relate the specific components of health care being provided to those who require them—for example, to relate the provision of child care to the total number of children in the community, female as well as male, in order to make sure that such care is in fact available to all children. Even then, such ratios express the mere existence or availability of services and in no way show to what extent they have been used, let alone correctly used. To be used they have to be properly accesible."

On p. 54, item 52: "Strategies have to be devised to translate policies into practice; a useful process for this purpose has come to be known as Country Health Programming, which consists essentially of assessing the country's health problems in their socioeconomic context, identifying areas susceptible to change and formulating priority programmes to induce such change."

On p. 55, item 57: "Strengthened by this guidance and information (from central planning), members of the community are better equipped to participate fully in the formulation of their primary health care programmes, by analysing their known health problems, taking decisions on priorities, making local adaptations of national solutions, and establishing their own community organizations and support and control mechanisms."

On p. 56, item 61: "In determining priorities, what are the best ways of ensuring that the voice of the whole community is heard? And once priorities have been determined, are they to be given effect all at once or in stages? The answer to this last question will of course depend on the resources available; decisions have to be taken concerning the generation of local resources in cash and kind, and assessments made of the resources potentially available from the other levels of the health system and from the central government."

Finally, on p. 79, the last item 133: "In conclusion, international commitment to primary health care should be oriented to support national primary health care programmes by creating a positive climate of opinion; by facilitating the exchange of expertise, technology and information through technical co-operation among developing countries and between industrialized and developing countries; and by encouraging proper

orientation of financial resources. However, all international agencies, non-governmental organizations and countries providing support have to be aware that the purpose of their efforts is, in the long run, to enable countries themselves to apply primary health care as part of their overall development and in the spirit of self-reliance."

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Disease control in primary health care: a historical perspective

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Summary The effectiveness of disease control by mobile teams decreased when countries became independent. Early case-finding and continuity of care require permanently accessible health care facilities where rationalization by professionals and participation of the users are well balanced. The Primary Health Care concept, a plea for this equilibrium, has been discredited by different types of misapplication. Correctly functioning and accessible first line health services, completed by a referral level, are a precondition for effective participation of the users. Where 'ideal health districts' cannot be realized, a form of steady exchanges between generalists and the specialists of the referral level has lead to diverse 'functional districts'.

keywords disease control, primary health care, health policy, systems approach, health district, users participation

Evolution of vertical structures for the control of endemic diseases

In the 1950s, scientific advances fed the great hope that disease could be overcome if modern health care and medical technology were made available to all people. Before 1950, yellow fever was already under control as an effective vaccine offered protection for at least 10 years. Several very rational control programmes of endemic diseases had been consigned to vertical structures, often with the aim of eradicating those diseases. This indeed led to the eradication of smallpox – possible because human beings were the only reservoirs and the attack rate of the disease was relatively low.

The malaria eradication programme of the 1960s, striving to definitively interrupt the transmission of the parasite, turned out to be too ambitious. The mosquito control programmes still have to be executed by specific structures and the adequate and timely treatment of cases still requires permanently accessible health care facilities.

Until recently, the prospect of the eradication of poliomyelitis was deemed possible. It is now doubted that polio can be eradicated globally within a few years, in which case the routine immunization has to be continued (Razum 2002).

In the 1950s, mobile teams drastically reduced the incidence of sleeping sickness by active compulsory detection and treatment of new cases but, in a democratic setting, preventive measures imposed on people without their consent could hardly be maintained. During the 1960s, active case finding by mobile teams deteriorated into a yearly passive case finding. Once simple serological screening tests became available, the advantage of permanently accessible facilities became obvious: the delay of detection amongst patients with symptoms could be reduced and by focussing on high-risk groups, the periodic outreach clinics were able to actively detect infected cases (Kegels 1995). This potential of greater effectiveness and efficiency was not considered and the orientation of specific human and material resources to vertical structures was maintained.

The multicausal deterioration of people's health, above all if conditioned by poverty, is hardly influenced by isolated immunization campaigns (Kasongo Project Team 1981). It requires a combination of vaccination with early treatment of prevailing ailments and nutritional rehabilitation.

Above all, a study on early case finding and treatment of tuberculosis patients (Banerji & Andersen 1963) conducted in 1960 in Bangalore, showed that easy access to credible health care facilities, alertness of the practitioner, good communication, counselling and retrieval of defaulters are far more important for the result than the maximization of the technical components of the diagnosis and treatment. The conclusions of this study are applicable to practically all disease-specific programmes.

So in the early 1960s, there were compelling arguments for the allocation of more resources to the organization of permanently accessible adequate multi-function health care facilities, as an essential contribution to the efficient control of endemic diseases.

Evolution of the general health services

This did not preclude most newly independent countries from maintaining the broad lines of the inherited health services: expensive hospitals and a network of dispensaries conceived as the second best solution for people who lived too far away from a hospital where 'really good care' was provided.

The activities organized in those services were based on health needs determined by medical experts while the public had to accept what was proposed. Yet people did not react as health workers thought they should: they consulted late, they did not adhere to the treatment, they disregarded preventive advice pertaining to hygiene, systematic screening or lifestyle. Meanwhile their demand for care, responding to the problems they were worrying about, was met by drug hawkers, drugstore keepers and 'healers'. In the meantime, the community development movement of the 1950s and 1960s had emerged, encouraging communities to identify their needs and find solutions themselves in all areas of social life, including health (Van Balen & Van Dormael 1999).

During the 1970s, in rich and poor countries, field experiences in health care, where individual patients as well as population groups were viewed as active partners, have shown the relevancy to cope with the felt needs of the people, to cope with their own knowledge, with their ability to deal with health problems and with their overall subjective aspirations (Newell 1975).

The Alma Ata Declaration

Those field experiments and research on the optimization of health care inspired the Alma Ata Declaration on PHC, adopted in 1978 by the WHO. PHC was seen as a component of overall development based on social justice. The concept responded not only to the need for accessible and trustworthy facilities, but also to the social pressure to strike a satisfactory balance between the participation of the population and the rationalization of the care.

Article V of the Declaration describes PHC as 'essential health care based on practical, scientifically sound and socially accepted methods and technology, made universally accessible to individuals and families in the community through their full participation and at a cost that the community can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination'. Hence the importance 'to bring health care as close as possible to where people live and work' in order to improve 'the first level of contact of individuals, the family and community with the national health system, which constitutes the first element of a continuing health care process' (WHO/UNICEF 1978).

The place of disease control in PHC-inspired health systems

The implementation of PHC as defined in Alma Ata entails substantial change in health care. Organizing basic health services, one has to take into account that their prime objective is not epidemiological but social: the reduction of health problems impeding human well-being. The timely detection, cure and care of endemic diseases and relevant personalized preventive care and advice is thus their main role in disease control. Therefore, the decentralized first line health services have to be strengthened. Technically they should perform well. Moreover, they should generate an interface, a channel of communication, for interaction with the individual users, their family and representative groups of the population it serves. Such an interface makes it possible to take into account the demand and the know how of the people and to negotiate their contribution as well to the solution of their problem as to a better functioning of the health centre (Van Balen 1990, 1994).

The network of health centres has to be backed by a referral level. Mahler (1981) claimed that a health system based on primary health care cannot exist without hospitals for the continuity of care requiring techniques which cannot be realized adequately at the first line (Mahler 1981; Van Lerberghe & Lafort 1990). In Harare, the WHO formulated recommendations for the realization of such health systems: the integrated health districts (WHO 1987). Ideally, the district health system was to be managed by a direction committee, accountable to the target population. In several countries health care services have been patiently oriented that way, sufficiently to show that the system can play the expected role in disease control as long as the indispensable resources are available.

In countries where doctors were too few in number to be assigned to health centres, experiments have shown that it was possible to delegate clinical functions to less qualified staff without detriment to the clinical quality of the care (Kasongo Project Team 1980). When budgets became insufficient, they were completed with affordable cost sharing patient charges (Pangu 1988).

In the 1980s, there were comprehensive training programmes in Thiès (Senegal), Kinshasa and Dogondoutchi (Niger), which prepared medical doctors for the role of district medical officer and saw to a follow-up on the job in order to enable young doctors to manage or at least to coordinate, in a team, the components of a coherent system (Unger 1989, 1995). Unfortunately funding to the above scheme was withdrawn.

The PHC concept discredited

Several governments, funding agencies and NGOs, eager to obtain 'instant success', have failed to notice the complexity of the proposed change and the time needed, for the appropriation, by the actors involved, of an acceptable expression of the conceptual model. Many of the early initiatives, dealing with only one aspect of the system, were harmful for the evolution towards an integrated system. Moreover, successful local initiatives were, for political reasons, too rapidly extended to a national level (Berman *et al.* 1987). The multiplication of village health workers, seen as the magic bullet, did indeed increase the geographic accessibility but did not bring along effective care, complementary to what people were able to do for themselves. Similar programmes, defined at national (or even international) level were pushed through at a local level, often including a fake interface. As a consequence, neither system adjustment nor adaptation to local situations was possible.

In many countries, PHC became a vertical programme with its own structure, alongside the apparently undisturbed 'modern' health services and the existing traditional health care (Senghor 1984). The enormous amount of money spent on this simplistic interpretation of PHC, was held back from the strengthening and multiplication of health centres.

In the 1980s and 1990s, the budgets of the first-line health services went down. In some places a productive interaction between representatives of the population and the health staff succeeded in the mobilization of local resources. But the top-down imposition of local health committees did not automatically lead to an increase of resources for the health service. Too often the mobilized resources were diverted to the committee itself. Not everywhere does the population demand to be involved in the development of the health service; for them, health is but one concern amongst others. In such situations, the first step to be taken is the establishment of an adequate health service which enables users to judge in practical terms what is being offered to them.

The adoption of the Bamako initiative has undoubtedly contributed to an increase of the income of the first line health services. But as an isolated measure, the raising of the income proportionally to the sale of drugs often boosted the dependence on drugs.

In order to cope with smaller budgets, Walsh and Warren (1980) proposed 'selective primary health care' as an interim strategy for disease control in developing countries. How could health personnel, not bothering about the felt need of the population, boost dialogue and participation? When the budgets of mobile teams went down, in some places proposals were made to integrate their activities in the existing basic services but without allocating a supplement to their budget. It became clear that without resources these tasks could not be performed correctly by those basic services.

Another initiative was the allocation of important premiums to health centre staff for tasks related to specific diseases or problems but taking too much of their time, prejudicing other activities of the centre and hence its credibility. Sometimes single-purpose personnel was allocated to the centre for these tasks. Often this was counterproductive for the real integration of disease control because it disrupted teamwork.

Workshops and seminars have been organized in order to train the personnel of general health services in the control of specific diseases or problems. Generally speaking, the instructions took into account neither the real context in which that personnel worked nor the other tasks they had to perform.

In many countries 'integrated health districts' were officially recognized even if there was not the least trace of a system. The time and effort it takes to change an established hospital-centred approach into an 'integrated systems approach' was underestimated. It is indeed not self-evident to reconcile the approach of the specialist, who aims for maximum use of available technologies, with the approach of a general practitioner, who talks to a patient to see which effort he or she is prepared to make in view of the improvement that can be expected and keeping in mind the patient's other priorities. Therefore, formal arrangements where the staff of the district office and the medical staff of the hospital, joined in a direction committee, organize the complementarity of the levels of care for the control of diseases, are exceptional. Such a committees can only work adequately if the staff is competent, experienced and motivated. It is therefore illogical that their remunerations is budgeted so ridiculously low that even were they to be found, they could not be maintained at this level. In contrast, funding agencies offer very high salaries to this type of staff for the implementation of vertical programmes in specialized structures.

Effective control of endemic diseases requires a trade-off between investments in specific programmes and investments in general health services

The alternation of technocratic and populist excesses show that we certainly have underestimated the complexity of an integrated health care system and the difficulty and cost to implement it. We also underestimated the conservatism of the medical establishment and the time the appropriation of the change by the actors involved requires in diverse circumstances.

The basic health service has to play its obvious role in disease control: personalized curative and preventive care. Therefore, we first of all have to create conditions which can enhance the development of the system: correctly functioning and accessible health centres and referral levels. Indeed, an accessible and effective therapeutic service meets with public approval worldwide. If the performance of the service enables users to judge the advantages of what is being offered in practical terms, the reinforcement of the system by individual or collective participation will be more likely.

A platform for steady exchanges between the existing staff of the first-line and of the referral level, 'involving the specialists responsible for the implementation of the disease-specific programmes', can orient their activities towards a performing integrated system. By a common analysis of the diseases and problems to be tackled, by understanding the complementarity of each other's role in the control of diseases it can bring about an agreement on the distribution of tasks. It must not necessarily lead to a formal geographically defined district. In the last two decades workable flexible health systems, realizing such kind of exchanges, came into being: e.g. SILOS (*sistemas locales de salud*) in Latin America (Paganini & Capote Mir 1990); *l'espace sanitaire coherent* in urban settings in West Africa (Grodos & Tonglet 2002); the experimental SYLOS (*système local de santé*) which started in Belgium in the mid-1990s (Unger *et al.* 2000).

Carried out in diverse ways, the PHC concept becomes more inspiring. It also shows the need for never-ending health systems research in a continuously changing environment (Grodos & Mercenier 2000).

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PRIMARY HEALTH CARE IN A MULTI-LEVEL PERSPECTIVE: TOWARDS A RESEARCH AGENDA

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Abstract—The authors propose to view primary health care (PHC) from a multi-level perspective. Studying how PHC is conceived and implemented at different levels of social organization (e.g. in international agencies, national governments, regional centres of health care and local communities) will reveal which interests may be competing in the planning and execution of what broadly and conveniently is called 'PHC'. Mapping out these conflicting views and interests will contribute towards a better understanding of how PHC works or why it does not work and provide suggestions for a more effective and equitable PHC. Five themes are proposed for a multi-level research approach: (1) vertical versus horizontal organization of PHC; (2) the role of medical personnel in PHC; (3) the distribution of pharmaceuticals; (4) the integration of traditional medicine in PHC; and (5) family planning.

Key words—primary health care, multi-level perspective, research

INTRODUCTION

The idea of primary health care (PHC) as a strategy to attain 'health for all by the year 2000' was received enthusiastically at Alma Ata at the time. However the critics started raising their voices almost from the very beginning [1]. One of the main complaints, and the most threatening to PHC's existence, was that the PHC concept was unrealistic. The comprehensive and community-based health care approach was believed to be too idealistic and not feasible. Tangible decreases in morbidity and mortality rates were seldom reported. A PHC success story, comparable to the eradication of smallpox for example, has not yet been written.

Most of the criticisms were heard in the debates on selective versus comprehensive, and vertical versus horizontal PHC [2]. Today, more than 10 years after Alma Ata, PHC is in real danger. Some of the WHO's paymasters and donors of public health programmes are chafing at PHC's slow pace and its revolutionary rhetoric. They seem to favour a vertical, 'no-nonsense' approach going after quick results. At the same time, important shifts have taken place at the WHO and the consequences these will have for the organization's policy are still being awaited.

In this paper we investigate the possible sources of problems surrounding PHC by looking at PHC from a 'multi-level perspective' (see next section). The immediate reason for undertaking this exploration was the contrast between the unanimous approval of PHC at the Alma Ata conference and the following confusion about its meaning. Countless reports and publications on PHC programmes in many countries have made it clear that PHC can mean all sorts of things to different people in different positions in the political hierarchy. Consequently, Alma Ata has generated a great variety of programmes and activities on all of which the 'PHC' label has been pinned, but which in fact may even prove to be in conflict with one another.

The confusion about the concept's meaning and the contradictions in the PHC policy are, however, not formless. They seem to have a logic of their own. It is our intention to give a rough sketch of the different forms and meanings of PHC by departing from a multi-level perspective; that is, we will examine how PHC is perceived and implemented at different levels of social integration. Our contention is that 'PHC' could not succeed because it never really existed as a concrete strategy agreed to by its supposed supporters. PHC as a global movement systematically avoided the different views and interests of the participants—in fact, needed to ignore them so that a global movement could take place. The multi-level perspective enables us to illuminate and analyse the underlying processes that led to the present state of 'PHC'. This paper provides suggestions for inter-disciplinary and comparative research into problems in PHC policy.

MULTI-LEVEL PERSPECTIVE

Social research has often been confined to a single level of social organization. For anthropologists this level was usually that of the village community. Influences from beyond this level were generally excluded from the researcher's area of attention. With growing state intervention in rural societies and the increase of global economic interdependence, this one-sided interest became more and more problematic and prevented a deeper insight into the social developments in local communities. Conversely, researchers studying processes of state formation and other macrosocial themes often did not consider sufficiently the influence of developments at lower levels. In order to simplify the research, social reality was often made, as it were, one-dimensional.

The multi-level perspective, which is a reaction against this one-sidedness, insists that the object of research should not be isolated but rather seen as linked to 'higher' and 'lower' levels of social organization. It could, therefore, also be called 'linkages perspective'. The assumption is that developments at the various levels are linked to one another and that the nature of these linkages has to be studied in order to understand properly what takes place at a specific level. The word 'level', a metaphor, refers in particular to the international, national, regional and local tiers of social organization [3]. The term 'linkage', it should be noted, does not refer to political power alone. Of equal importance are aspects of 'descending cultural values': opinions and customs held by elites, and which are gradually becoming part of the social code of larger groups in society. For that matter, it is not only a question of 'linkages' extending from 'the top' to 'the bottom'. Influence spreading from one level to another can also start from the bottom.

What we call 'linkage' will almost always be some form of communication transmitted by man or by material means and moving from one level to another. Information, in its widest sense, is distributed over the various levels of society by people and objects, particularly by commodities. Underlying the multi-level perspective is the assumption that *what* is carried around does not remain the same thing during its journey. The meanings of concepts and objects, of words and institutions change as they move from one level to another. So the main concern of those applying a multi-level perspective is to reveal the different meanings of phenomena carrying the same name at different levels of social organization.

In the multi-level perspective we are particularly concerned with vertical linkages. But there is also an interest in horizontal linkages. This interest presents itself in a multi-sectoral approach breaking with the tradition of dividing reality into fields of scientific disciplines such as economy, politics, religion, language and health. Finally, interest in the historical context is growing, phenomena are being considered in their development through time. One could therefore speak of vertical, horizontal and time linkages. Here we shall mainly focus our attention on vertical linkages [4].

The subject of this paper, PHC, lends itself particularly well to a multi-level perspective. PHC is, after all, a subject which occupies people at all levels. Furthermore, it seems to be a 'vehicle', as we shall see later, with which governments try to exert influence on lower levels. One could say that PHC material and personnel themselves constitute linkages between the various levels in the health care system.

PHC AT DIFFERENT LEVELS

A general assessment of PHC at different levels of social integration is not really possible. The differences between countries are too great. Therefore the following exposition can only be exploratory and fragmentary. The examples quoted come mainly from a few countries in which the authors have conducted research: Nepal, Cameroon and Somalia. Examples from The Netherlands are sometimes used to compare experiences in developing countries with those in a highly industrialized society.

International organizations

PHC is not a new concept. However in 1978 it began to receive more attention as a response to the immense health problems, in Third World countries in particular. For the WHO, PHC was in the first place a correction of the old model of hospital-based and urban-centred curative health care. The PHC plan was an attempt to adjust the achievements of medicine to the economic reality of the countries concerned. It was hoped that this objective would be attained by emphasizing the importance of disease prevention and by drawing the attention of local communities to their own possibilities of preventing illness. Furthermore, it was pointed out in the document that certain outside curative services could be provided much more cheaply than had been the case so far. Much of this care could also be provided by low-skilled health workers instead of highly qualified doctors. PHC should be an integration of two approaches: first, community-based health care, that is by and for the community, provided to the greatest possible extent with the community's own means and, therefore, including traditional health care; second, basic health services, that is the lowest level of health care organized, financed and controlled by the government or by private institutions. In broad outline the PHC document was a plea for prevention and for the greatest possible self-reliance in the field of health care. The principal components of PHC were summed up as follows:

> . . . promotion of proper nutrition and an adequate supply of safe water: basic sanitation, maternal and child care, including family planning; immunization against the major infectious diseases; prevention and control of locally endemic diseases; education concerning prevailing health problems and the methods of preventing and controlling them; and appropriate treatment for common diseases and injuries [5, p. 2].

Apart from the WHO and UNICEF, many other organizations are involved in implementing PHC policy, bilaterally or multilaterally, by financing or carrying out projects. They include public as well as private organizations. The latter sometimes have a religious affiliation.

The emphasis on community participation is significant. Stone [6] has suggested that the way this concept is (was?) promoted by international donor organizations reflects Western notions of self-reliance and equality. Community participation is understood as the people's "adoption of an attitude of self-reliance and faith in their own powers to better their lives through 'self-help' and 'taking initiatives'" [6, p. 212]. Indeed, Western cultural values of individualism seem to dominate these organizations which may be 'international' but are not yet 'inter-cultural'. Stone shows that rural people in Nepal have quite different ideas about 'community participation'. For them it means: obeying orders from above to contribute land, money or labour to a specific development project. In their situation, a Western-type of self-reliance would amount to social and economic suicide. In the Nepalese village community *interdependence* seems the best strategy for survival. Stone remarks: "Rather than seeking self-reliance and a sense of 'mastery over their own destiny', perhaps villagers would welcome a greater sense of meaningful interdependence and exchange with outside development agencies and institutions" [6, p. 211]. In addition, as we shall see in the next section, national authorities may apply yet another definition of 'community participation'. Many governments will probably favour political and socio-economic dependence for their population rather than the Western ideal of self-reliance. It seems likely, therefore, that one of the basic concepts of the Alma Ata strategy is a Western cultural value that may not be shared at all by those involved in the PHC enterprise at lower levels of social organization.

In a survey of the failures of community participation in PHC throughout the Latin American continent, Ugalde [7] criticizes the political objectives behind the international—mainly U.S.A.—support for these programmes. He summarizes his argument as follows: "... through symbolic participation, international agencies had two purposes in mind: (1) the legitimization of low quality care for the poor, also known as primary health; and (2) the generation of much needed support from the masses for the liberal democracies and authoritarian regimes of the region" [7, p. 41]. In his view, PHC is not only a political tool in the hands of national governments (as we shall argue in the next section) but also in those of organizations at the international level, where certain countries may be able to sway the policy.

To make things still more complex, the PHC policy of the international organizations has not remained unchanged in the past years. The emphasis, which was at first placed on the population's participation and self-reliance, has been shifted here and there towards a more marketing-like strategy; the original comprehensive approach is now faced with competition from more selective approaches. Examples of this development are the GOBI approach (Growth monitoring, Oral rehydration, Breastfeeding and Immunization), 'FFF' (Family spacing, Food supplements and Female education) and a growing emphasis on water and sanitation. Another development that should be mentioned is the cautious but increasing value accorded to traditional healers. It can perhaps be stated that the following characteristics still broadly determine the policy of the WHO, of UNICEF and of other supranational organizations and donors:

a. PHC is based on considerations of medical rationality and efficiency. It is hoped that via PHC, Third World health statistics will improve. The principal objective is to reduce morbidity and mortality rates.
b. At the same time the very limited resources of the governments of Third World countries are taken into account. Therefore, the second characteristic is that PHC is based on economic considerations. After all, medical rationality is dependent on material possibilities.
c. Furthermore, it is of importance that the WHO and UNICEF are bound to abstain from making political statements openly criticizing a particular government. Yet the concept of PHC is political because emphasizing general improvement of health conditions has immediate political implications. However, these implications are not mentioned. The PHC document is openly apolitical, as most other WHO and UNICEF publications are. As a matter of fact, most aid organizations avoid political pronouncements, usually for tactical reasons, exceptions being a few private organizations.
d. It seems contradictory that, on the one hand, PHC is offered and promoted from the top and, on the other, community participation at the bottom is urged.
e. The plea for community participation carries another contradiction, for is it not the case that the most urgent problems of local communities and the solutions to the same problems have been defined at the top? As we have seen, the PHC document recommends self-reliance and more attention to prevention as a solution. However, it is odd that the plea for self-reliance does not come from those who should become self-reliant but from the international health planners.

The state

The most important transformation PHC is undergoing at national government level is that it is becoming a political topic. Many Third World countries are young nations in which it is difficult to propagate the ideal of unification among the whole population. This applies mostly to African nations, but even in these countries where the concept of a unified nation is already understood by the population, local governments are still confronted with large cultural, ethnic and linguistic variations, which are difficult to unify [8]. Another obstacle in the process of state formation is the poor economic situation of many countries. Consequently, a large part of the population often lives in poverty. If, as Rousseau states, the raison d'etre of the state is "the salvation and the prosperity of its members", then many young states risk contradicting themselves. After all, they are not always in a position to guarantee an acceptable subsistence level for their populations. For national governments encountering so many problems in their efforts to introduce the concept of one nation and to establish the authority of the state in the local communities, health care seems an attractive vehicle to spread state influence. Western biomedical care, which has proved its popular appeal in most non-Western societies, undermines self-reliance. Almost everywhere Western medicine seems to succeed in displacing local medical traditions based on self-help and to make people dependent on highly specialized knowledge [9]. At the same time Western medicine tends to be so expensive that it cannot be applied by local groups trying to restore their autonomy. By supplying the villages with medical care, the state appears in its most favourable light as a bringer of provisions which the community cannot itself provide. Advanced technology and high costs are the reasons that this type of health care can only be organized by very wealthy professional institutions such as the state itself.

However, in practice it is quite a different matter. Many national governments do not succeed or are not interested in taking advantage of the political opportunities of health care. The costs appear to be too high and the physicians, whose training they have financed, often disappear abroad or remain in the big cities where the financial situation is more attractive. In addition, in many countries the position of the Ministry of Health in the governmental bureaucracy seems to be rather weak. And frequently, governments are not even interested in using PHC as a political tool. Salim [10, p. 308] points out that PHC is not attractive to politicians, "... because it takes a long time to show results and because the benefits are not easily calculated. Consequently, primary health care is among the first activities to be cut when government revenues decline." Generally politicians who want to build up a clientele by promising rewards to their supporters, prefer to give impressive evidence of something that can be realized within their period of office, which is usually about 5 years. PHC does not suit that purpose. The fact that most PHC activities are especially directed towards rural communities can be another reason for their low priority; the rural population does not usually pose a threat to the government nor does it need political favours to keep quiet. The likely result is that public health care, particularly in the rural areas, finds itself in dire straits and is disliked by the local population. Especially when well-functioning private medical services are available in addition to the inadequate public provisions, public health care will provide negative political publicity for the government. It then proves that the government is not capable of performing its most essential task. Especially in Africa and Latin America, where many private institutions (churches and NGOs) are active in the area of medical care (and education), this development is frequently seen. However, in many Asian countries as well, public health service is often regarded as a second-rate choice by the population. Even in a more prosperous country such as The Netherlands the state does not always guarantee every medical provision. In recent years, the Dutch government has, for example, tried to economize on all kinds of medical costs by withdrawing from some sectors of health care, leaving them in the hands of volunteers and/or commercial organizations.

As we have just mentioned, the failure to distribute health care provisions effectively to all sections of the population was one factor that led to the PHC concept, according to which the ambition to make expensive specialist curative provisions available everywhere should be abandoned. Only the most indispensable (and affordable) services should be provided by the state and apart from those the population should learn to look after itself as best as it can, for instance by means of disease prevention. This 'solution' places national governments in a peculiar quandary. On the one hand, PHC appeals to them because it shows them a way out of the impasse which health care has reached. On the other hand, achieving one of the PHC's main objectives (greater self-dependence by the people) could constitute a threat to the concept of a unified state [11].

The present estimate is that many governments in developing countries have adopted the PHC concept without giving much substance to the aims of autonomy. By officially including PHC in government policy, by training people, by setting up programmes and providing resources, the state has incorporated PHC into the existing health care system. PHC is not so much an 'antidote' to a maladjusted and overly expensive health care system but rather an extension of it. In most cases it is still organized from the top and carried out by professional workers from the state, with the help of outside finances. In this way PHC becomes a means of subordination which can be used to reach social and political consensus. Werner's [12, p. 47] distinction between 'community-supportive' and 'community-oppressive' PHC still provides an apt description of the state's dilemma:

> Community-supportive programmes or functions are those that favourably influence the long-range welfare of the community, that help it stand on its own feet, that genuinely encourage responsibility, initiative, decision-making and self-reliance at the community level, that build upon dignity.
>
> Community-oppressive programmes or functions are those which, while invariably giving lip-service to the above aspects of community input, are fundamentally authoritarian, paternalistic or are structured and carried out in such a way that they effectively encourage greater dependency, servility and unquestioning acceptance of outside regulations and decisions and in the long run cripple the dynamics of the community.

The latter strategy is financially advantageous to the state in two respects. At the level of the local population the state hopes to be able to economize on personnel and material resources and to present this cut-back as a qualitative improvement of health care; after all this is PHC. At the top, at the level of the international organizations, it hopes to acquire more financial aid by using PHC as a banner. In that light it is obvious that the concept of PHC can be overstretched. Summing up, it can perhaps be said that at the level of the national government, PHC has three particular characteristics:

a. Medical: the objective is to expand the 'coverage' of medical provisions and to push back the mortality and morbidity rates.
b. Political: the medical improvements brought about by state-initiated PHC must increase the political credibility of the government.
c. Financial: via PHC the government hopes to reduce its expenditure (for basic health care) and to increase its revenue (with international aid).

Professional health workers

Those who want to gain an impression of what PHC means for health care personnel, should ask themselves what opportunities there are for health workers to become dedicated to PHC and what their interests are in implementing a PHC policy.

There seem to be at least five reasons why doctors, nurses and other health care staff have little interest in PHC.

First. the government offers them insufficient opportunities to perform the preventive and informative tasks expected of them. If the curative services function badly, those who provide them are likely to lose their credibility as health counsellors. They are not able to mobilize the local community for preventive measures, because the people are not prepared to listen to health workers who cannot even offer adequate curative care.

Second, PHC has little financial appeal to health workers. Doctors and nurses in government service often earn an extra income by providing curative care privately (formally or informally). In a well-to-do environment this additional income can rise to a multiple of the official salary. An appointment to a PHC project, however, is likely to deprive doctors and nurses of this opportunity, mainly because they will probably be posted to a poor rural area. An additional disadvantage is that they are supposed to concentrate on preventive services for which the population is unwilling to pay.

Third, doctors and other health workers have usually not been trained to provide preventive health care and have little professional interest in it [13]. Many doctors are not interested in health but in disease. A serious disease presents a challenge, while an improvement in diet or drinking-water has little appeal. Such objectives are regarded as less interesting. The same applies, to a lesser degree, to nurses.

Fourth, conscientious performance of a PHC task is rarely beneficial to the career of a health worker. Those who want to carve out a career for themselves have to steer away from the periphery where PHC is usually found. Higher functions fall to those who have succeeded in finding a position in the administrative centres or who have specialized.

Finally, health workers are often opposed to a PHC function for all sorts of personal reasons such as primitive living conditions in rural areas, attitude of their relatives and limited educational opportunities for their children [14].

To sum up, health workers may assume a negative attitude towards PHC because of the following implications:

a. Frustration in their work, because they do not get sufficient support from the government and because the population is not interested in their message.
b. Reduction of income.
c. Medically the work is uninteresting.
d. The consequences for their career are negative.
e. Personal problems within the family.

The population

In the section dealing with PHC policies at the highest level, that is at the level of the WHO, World Bank and UNICEF, it was stated that these organizations tend to determine the needs and wishes of local communities. But what do those concerned have to say?

Research into primary health care needs of local communities is scarce. Although medical anthropology has already established a respectable tradition in the study of lay opinions about illness and health, it seems that this subject has been largely avoided in PHC research. One explanation could be that policy-makers anticipated the findings of such research and did not know how to put them into practice. Consequently, the emphasis on prevention and on the greatest possible autonomy in health care should not be seen as an evaluation of the real desires of local population groups but as an indication of what they are supposed to want. Here the concept, already mentioned, of 'descending cultural values' applies. Some 'messages' reaching the periphery are picked up, others are rejected. The effectiveness of modern curative drugs, for example, is widely recognized and ever larger groups of the population are wanting them. Hence the opposition to any government policy which recommends prevention and withholds modern drugs. It illustrates the contradiction pointed out earlier in this paper: the local community *is told* to become more *independent*.

Although only little research has been done into the PHC client's perspective, Bloom's conclusion seem plausible: "Clients' perceived needs may vary widely from planners' epidemiological definition of needs" [15, p. 8]. Justice [16] comes to a similar conclusion. She describes how unaware international organizations were of the problems and cultural conventions of villagers in Nepal and how this lack of knowledge led to PHC initiatives which failed completely to fit in with the culture and needs of the local population. We will confine ourselves to three examples of local opinions which deviate from the PHC objectives that exist at a higher level of social organization.

During her research in Nepal, Stone [17] examined closely the question of what the villagers themselves regarded as their most urgent needs. Apparently they were not at all pleased at the strong emphasis on *prevention* which, in addition, was provided at the expense of curative aid:

> . . . it is not only that the PHC 'package' fails to deliver what the people really want by way of modern health 'services', but also that the package itself runs the risk of being perceived as largely unneeded and irrelevant to the majority of people it is intended to serve. During my . . . household interviews covering the work of village health workers, one woman's comment was typical: "He comes, he writes things down. He tells us to do this and that. What benefit is there to us?" Another man remarked: "It is his job to come here. I do not mind. But when we are sick, there is nothing he can do."
> PHC is perhaps forced to ignore local priorities for curative services since it cannot deliver them in good quality on a wide scale [17, p. 296].

In another quotation the villagers' exasperation at not being given curative aid by PHC workers is even more strongly expressed. One of the workers relates:

> Sometimes they get angry. One woman when I measured her child's arm . . . , we saw the child was too thin. She got angry and said: "Then why don't you do something? You come to show me my child is not good like this and then you do nothing!" [16, p. 297].

A PHC project in South Cameroon which at first was primarily oriented towards prevention and education-cum-awareness 'developed' after some time into an almost purely curative service, not differing very much from a pharmacy on wheels where people could buy their medicine. Ironically, both parties, the medical staff and the villagers, appeared to be reasonably satisfied with this procedure [18].

A second contradiction between a population's needs and PHC objectives, which Stone also discusses, lies in the assumption made by PHC officials that people consider *health to be their greatest concern*. It is quite possible the people in question beg to differ and regard their deplorable living circumstances as problem number one because they rightly believe that poverty is the principal cause of all kinds of disease. Indeed, this opinion is in agreement with the official formulation of PHC in the Alma Ata document. The "Intersectoral Action for Health" report [19] gives a most detailed description of this point of view and has translated it into 19 recommendations. The sixth recommendation, for example, reads as follows:

> Governments should:
> formulate comprehensive agriculture and health policies, covering all aspects of development of human and natural resources and actively supported by coherent strategies including:
>
> —joint diagnosis of the food and nutrition situation from agricultural and health points of view;
> —explicit statement of health goals in agricultural development plans and programmes, particularly when there is likely to be a conflict between health and production objectives;
> —systematic analysis and assessment of the nutritional and health impact of agricultural policies and projects and of the process of resource allocation [18, p. 131].

How these broad statements should be translated into concrete action in a PHC project is, however, not at all clear. Village health workers usually have no other choice than to 'stick to their guns' and try to solve immediate health problems. At this point the PHC supply no longer meets the demands of the villagers. The fact of the matter is that the villagers often know exactly what they want: instant financial aid, not improvements in agriculture in 5 years' time or more. They are faced with so many immediate problems that they cannot afford the long term view. For the same reasons they are relatively uninterested in improvements for the whole community but first want help for themselves and their close relatives. Rather than 'preventive' help for their financial problems they require an immediate 'solution', however narrow-minded that may appear to a 'rational' outsider.

Huyts [20], in her study of two community health projects in South Cameroon, writes that the population cooperated with her because it expected personal benefits (gifts, work, free medicine and 'connections') in return. Sanitary improvements for the village interested these people much less. It does not seem an exaggeration to claim that the villagers, in having such expectations (direct advantages), actually react in exactly the same way to PHC as do those involved in it at other levels: the experts in the international organizations earn a comfortable living from PHC; national governments try to acquire more development funds via PHC (which would also bring private gains to state officials); health workers adopt a reserved attitude because there is little money in PHC for them; and villagers hope to become 'better off' with it.

The third example of conflicting expectations is closely linked with the two mentioned earlier. The stimulation of *greater self-reliance* may be no more than the concern of a foreign project staff hailing the Western ideal of individual independence. Or it can be a strategy by which a government tries to rid itself of certain burdens in a decent and internationally accepted manner. Such self-reliance is not always liked by the villagers. They may rightly gain the impression that highlighting self-reliance is a euphemism for leaving them to fend for themselves. In particular, the recommendation that they should have more faith in traditional medical knowledge and skills does not ring true to the villagers, who for years have been told that those traditional methods are useless or even dangerous. The same villagers have meanwhile come to the conclusion that the curative methods of modern medicine have quicker and more effective results than their own traditional methods. If they are forced to take up the 'old' methods again they feel they are being fobbed off with inferior quality health care. That is not the way they want to become 'self-reliant'. They are demanding their share of the national facilities and will not accept that the right to have doctors, hospitals and proper medicines is reserved to the urban population.

That same contradiction within PHC can be found in The Netherlands. Bensing [20], for instance, has pointed out that only healthy people are willing to assume greater responsibility for their own health. The sick and the weak, on the other hand, will ask for more care from professional medical workers. The enthusiasm for 'volunteer aid' is also greatest among those who do not have anyone in need in their immediate vicinity. And patients' associations do not appear to be pressing for more autonomy in their campaigns but rather to be aiming for greater medical dependence and for more advanced diagnostic and therapeutic techniques. Those who worry about their health and welfare see more self-reliance not as an improvement but as a threat to their situation.

In summary it can be said that the population often expects something quite different from PHC than has been planned for it at higher levels. The three principal conflicts are probably:

a. People ask for curative instead of preventative aid.
b. People expect material advantages.
c. People do not want self-reliance if it means they will be left to fend for themselves.

A broad and hypothetical sketch has thus been given of the changes which the concept of PHC may undergo at the various levels of social organization. Research will have to prove whether and how these conflicting views occur in specific PHC settings. A multi-level approach seems to be a suitable strategy for revealing the more hidden problems of present PHC policies via the analysis of the divergent—and sometimes conflicting—views and interests at the different levels of social organization.

RESEARCH THEMES

Research into problems of PHC from a multi-level perspective will mostly not focus on PHC in general nor on all levels at which PHC is planned and implemented. It is more likely that research will be limited to a few levels or that a choice is made for a certain aspect of PHC. In the next section five such aspects will be outlined as possible themes of research. The key question will be to what extent greater understanding can be gained of processes of conceptualization and implementation of PHC by studying the theme at different levels of social organization. In all five themes to be presented here questions about the local community's perception of and participation in PHC, as opposed to perceptions and involvements at other levels, seem particularly relevant.

Vertical organization and horizontal integration

Since the Second World War, programmes combating infectious diseases such as malaria, small pox and tuberculosis have always been well-known variants of specific organizational modes of international and national health programmes. The objectives and the means regarded as necessary to realize them are determined at the top of the organization pyramid and further specified and translated into quantitative targets at lower levels of decision-making. In general the programmes are rigid, with clear-cut divisions of tasks and authority between levels of organization and leave little room for regional variations.

In other fields of health care, such as immunization, family planning and provision of drinking-water, large-scale vertical programmes have also been drawn up. Such programmes are internationally oriented. Multilateral organizations such as the World Bank and UNICEF were, and still are, responsible for taking the initiative, for financing and implementation, for providing training material and stimulating the necessary research. Vertical programmes can be very attractive to planners and top managers. However, in practice, the coexistence of a number of such specific programmes and of the regular national health programme can easily lead to practical problems. Thus a vertical programme can be successful on a narrow front but at the same time—for example by monopolizing the best trained and most dedicated personnel—prevent progress on a broader front.

In the 1970s it gradually became clear that a broad, horizontal, integrated approach offered better perspectives for a lasting improvement in public health than a conglomerate of various vertical programmes. From 1978—and before that in a few countries like China and India—the so-called PHC programmes were created on a large scale. In these programmes the principle of horizontal integration of health care covering a variety of activities occupied an important place. In recent years, however, many donor organizations and policy-makers have become somewhat impatient with the slow progress within PHC and seem to want to go back to a vertical approach [22]. Research from a multi-level perspective can shed a new light on this issue. Important questions are: What criteria are used to measure the effects of PHC at various levels of health planning and how are these criteria regarded by a population directly involved in PHC activities? Other crucial questions are: To what extent have international donor organizations dropped 'self-reliance' as a cultural ideal and the final goal of development? What are the political and economic interests of the organizations behind the present shift of emphasis toward selective PHC? How is this new emphasis translated from the supranational level to the national governments? And finally, what PHC approach should be recommended as the most 'effective', viewed from a multi-level perspective? It may be advisable for this type of research to concentrate on selected parts of health policy, such as immunization or diarrhoeal disease control.

The role of medical personnel in PHC

Various researchers have drawn attention to the 'trained incapacity' of medical personnel in PHC and in rural health care in general. The 'incapacity' of doctors in particular seems to be due to insufficient medical training and to the difference in educational level between doctors and villagers. In an exploratory study on this issue in Somalia, Buschkens [14] draws attention to differences in life style between doctors and villagers and emphasizes differences in upbringing, religion and social aspirations.

The unwillingness and 'incapacity' of doctors and other medical personnel to serve in PHC is not the only problem. A more serious issue seems to be that their activities can pose a direct threat to one of the basic principles of PHC, the stimulation of self-dependence in the field of health care. Doctors in particular are viewed by the local community as representatives of a higher level of social organization. They embody, as it were, the links between different societal levels. By providing professional curative help, they can deprive the villagers of a serious motivation to seek self-dependence. The conflict between the availability of a doctor and the self-dependence principle in PHC stems from a lack of insight into the problematic relations between the different levels of organization in health care.

Lower-skilled health workers may feel caught between two levels of health care organization. They do not receive the support and material resources from above to carry out their work and, partly as a result, are not accepted by the local population [23, 24]. Curiously this fundamental conflict within PHC has as yet hardly been brought up from this angle in the numerous publications and reports about PHC.

Distribution and use of medicines

The role of medicines in PHC is problematic and controversial. The popularity of Western medicines is bound up with cultural perceptions of effectiveness and with technological dependence. The effective functioning of pharmaceutical distribution channels depends mainly on the smoothness of operation of the linkages between the various levels of organization. The kind of medicines obtainable or used in local communities depends on a complicated procedure based on such factors as commercial interests of pharmaceutical companies, the economic situation of the importing country, the medical opinions and personal interests of national policy-makers, the quality of the distribution system, the attitudes of doctors and other health staff with regard to the prescription of medicines and the cultural conceptions and financial resources of villagers.

As a result of the relations between the various levels of organization, the knowledge of Western medicines is widespread but their distribution is not always so. Even in peripheral communities people are familiar with the efficacy of these products and ask for them. Their own curative methods are increasingly regarded as inferior and therefore discarded. However, the medicines themselves penetrate insufficiently into the periphery. Their distribution breaks down at higher levels where interested parties receive a disproportionate share at the expense of the rural areas. The great faith in Western medicines and their limited availability often makes the demand for them even greater. Efforts to set up a PHC programme with a 'low supply of medicines' and with a strong emphasis on prevention therefore meet with a great deal of distrust, the result of which can be a complete rejection of PHC programmes.

Finally, like doctors and other health workers, medicines produced externally introduce a form of dependence into local communities which can conflict with the basic aims of PHC. Pharmaceuticals are themselves linkages. They move from one level to another, bringing with them not only the medically defined therapeutic substances they contain, but also crucial social and cultural aspects such as money-value (price), information about use (or lack of such information), political and economic dependence and meaning. These aspects (price, information, meaning) are likely to change considerably during a medicine's 'journey' from level to level. Prices may, for example, rise sharply at the local level and a doctor's or salesman's ideas about pharmaceuticals may differ considerably from those of an ordinary patient. The individuals involved in the transaction and transportation of medicines are also 'linkages'; they are like agents acting between different levels of social organization. The most relevant 'actor-linkages' are pharmaceutical representatives, government health personnel, health workers, shopkeepers (including pharmacists) and patients. By following the drugs themselves and the individuals involved in their transaction we hope to gain a better understanding of how dependency, or self-reliance, is created in the context of PHC.

Traditional medicine

In the Alma Ata document [5, p. 33] collaboration with traditional medical practitioners is recommended in the following terms:

> Traditional medical practitioners and birth attendants are found in most societies. They are often part of the local community, culture and traditions, and continue to have high social standing in many places, exerting considerable influence on local health practices. With the support of the formal health system, these indigenous practitioners can become important allies in organizing efforts to improve the health of the community. Some communities may select them as community health workers. It is therefore well worthwhile exploring the possibilities of engaging them in primary health care and of training them accordingly.

In addition, the WHO [24] has devoted a report to the integration of Western and traditional medicine. Optimism about possible cooperation between representatives of different medical cultures also predominates in a collection of articles [25], published under the auspices of the WHO.

Although some scepticism about traditional medicine still exists, the idea seems to prevail internationally that additional training and involvement of traditional practitioners can make up the great shortage of personnel in PHC or at least ease it. Another advantage is that traditional practitioners will be less inclined to leave their community than specially trained health workers who are likely to seek further career opportunities elsewhere after they have completed their training. Their close relationship with their fellow-villagers is yet another advantage.

At the national level lip service is quite often paid to this passage in the WHO document. Promotion of traditional medicine frequently serves the purpose of national and cultural self-awareness. In practice there is hardly any question of real collaboration and exchange between modern and traditional medicine in the framework of PHC [26]. Health workers within the biomedical system are generally opposed to the idea of collaboration, whereas traditional practitioners are often more responsive. They expect an increase in prestige and income through their association with the official health care system.

As yet, little is known about the reaction of local population groups to the incorporation of traditional medicine into PHC. While they have long been accustomed to Western and traditional medicine being used side by side, they are likely to see themselves fobbed off with second rate provisions when traditional practitioners are mobilized as village health workers.

Critical observers have shown divisions of opinion on the plea for reassessment of traditional medicine. Some have criticized it as being romantic and unscientific [27] and a questionable method of economizing. Others are of the opinion that the WHO's guidelines are only a beginning and are still characterized by ethnocentrism and scientism. They take the view that policy-makers still make too extensive use of the biomedical yardstick when evaluating traditional medicine. Research into opinions and practices concerning traditional medicine and PHC at different levels of integration will doubtlessly lead to more policy-relevant conclusions.

Family planning

Although family planning is mentioned only once in the Alma Ata document as a component of PHC, it is definitely regarded as an essential item in most PHC programmes [28]. Family planning is thought about very differently at the various levels of social organization. At the level of the international organizations anti-natal and neo-Malthusian opinions predominate. National governments have often adopted this view—sometimes voluntarily, sometimes under pressure—but are not very successful in selling it to the population.

The interests of the peasants and urban poor with regard to children differ fundamentally from the views of government leaders, which are tuned towards the national economy and political stability. The views of representatives of international organizations are again directed towards other 'dangers' such as ecological disaster and international stability. A study of the views on and interests in family planning at the various levels will provide insight into the successes and failures, as well as the future possibilities of family planning as a part of PHC.

CONCLUSION

Reports and articles on PHC clearly show that PHC has no fixed meaning. At different levels of social organization people appear to have different interests in PHC and, consequently also have different ideas about it. There is no such thing as a world-wide PHC concept. We will have to be satisfied with a non-definition. PHC is what people say it is. Research into problems in the functioning of PHC should not overlook this semantic confusion.

In this article we have proposed to take this confusion as a point of departure for research. Exposing the absence of a common definition of 'PHC' and tracing back this absence to a lack of common interests in it, is the main contribution a multi-level research approach can make towards a better understanding of how 'PHC' works and why it so often does not work.

Is it possible, however, to formulate a critique of PHC if we do not agree on a definition? The confusion surrounding the concept of PHC at various levels of social organization also affects this paper. If international institutions, national governments, health workers and local communities have their own definition of PHC, why not social researchers? Are they not cultural beings with their own ideas and interests?

The somewhat schizophrenic position we have taken is indeed that PHC has no fixed meaning. At the same time, however, we have measured its functioning against the Alma Ata definition, not because we accept that definition is the only true one, but because it is the one to which participants have pledged their allegiance.

But we also have our own ideas on PHC, shaped by our cultural background. These have prompted the questions raised in this paper. We cannot anticipate the results of a multi-level study, but one conclusion seems almost certain: PHC cannot be separated from its political meanings. If we agree on a programmatic definition of PHC as "democratization of health care" [29], it will be clear that the ideal cannot be achieved as long as the political reality allows people so little room to pursue their own views and interests.

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HOW DO WE DETERMINE WHETHER COMMUNITY HEALTH WORKERS ARE COST-EFFECTIVE? SOME CORE METHODOLOGICAL ISSUES

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ABSTRACT: Since the Alma-Ata Conference in 1978 reiterated the goal of "Health for All by the Year 2000", health service delivery programs promoting the primary health care approach using community health workers (CHWs) have been established in many developing countries. These programs are expected to improve the cost-effectiveness of health care systems by reaching large numbers of previously underserved people with high-impact basic services at low cost. However, there is a dearth of data on the cost-effectiveness of CHW programs to confirm these views. This may be because conventional approaches to economic evaluation, particularly cost-effectiveness, tend not to capture the institutional features of CHW programs. Therefore, this paper aims to examine the means by which economic methods can be extended to provide evidence regarding the cost-effectiveness of CHWs in developing countries.

KEY WORDS: community health workers; cost-effectiveness; review.

INTRODUCTION

Since the Alma-Ata Conference in 1978 reiterated the goal of "Health for All by the Year 2000", health service delivery programs promoting the primary health care approach using community health workers (CHWs) have been established in many developing countries.[1] Services provided by these workers are seen to be more appropriate to the health needs of populations than those of clinic-based services, to be less expensive and to foster self-reliance and local participation. Furthermore, because CHWs are more accessible and acceptable to

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clients in their communities, they aim to improve the overall coverage of services as well as equity, i.e. increased service use by poorer individuals and households.[2] In short, these programs are expected to improve the cost-effectiveness of health care systems by reaching large numbers of previously under-served people with high-impact basic services at low cost.[3] Gilson et al.[4] argue that CHWs represent an important health resource whose potential in providing and extending a reasonable level of health care to undeserved populations must be fully tapped. However, given the stated importance of CHW there is a surprising lack of data on the cost-effectiveness of CHW programs to confirm these views.

Possibly one explanation is that the nature of CHW poses problems for conventional forms of economic analysis. The value of such activity — its appropriateness to a particular population or community — is influenced heavily by institutional factors such as altruism, volunteerism, community norms, reciprocity and duty and these tend not to be reflected well in estimates of cost-effectiveness. However, CHW does involve the use of limited social resources and thus there are compelling reasons for some form of economic evaluation to establish whether such resources are deployed efficiently. As a consequence, methods for building in some of these aspects of institutional change are important in enabling economic evaluation to better capture the full value of these programs.

This paper aims to critically review methods that have been used previously to examine the cost-effectiveness of CHW, with an emphasis on developing countries. The second section sets out some of the specific objectives of CHW programs. The third section examines the scope of conventional forms of economic evaluation and the methodological issues related to the valuation of costs and outcomes in CHW. The fourth section reviews the existing cost-effectiveness evidence-base highlighting some of its limitations and methodological shortcomings. The discussion, in section 5, considers how economic evaluation can be extended to incorporate factors important to CHW that erstwhile have not been well-recognized in the economic evaluation literature. Some brief conclusions are drawn in the final section.

SPECIFIC OBJECTIVES OF CHW

In evaluating a CHW program, an important initial step is the identification of its objectives. Economic evaluation, if it is to be policy-relevant, needs to be matched to the actual objectives of the program. This section outlines the potential objectives of CHW recognizing that these will vary across settings:

- *Health gain*: such as lives saved, years of life gained, etc. Intermediate health measures such as reduction of risky behaviour, attendance at antenatal clinic, may be seen as useful tracers for change in health status, particularly given the methodological difficulties associated with measuring and attributing change in health status to an intervention.
- *Individual non-health benefits*: there are likely to be a number of non-health benefits to individuals such as process of care and the information resulting from CHW intervention, its cultural appropriateness and the degree of autonomy afforded patients in the treatment process.
- *Social non-health benefits*: this relates to changes in the wider community resulting from the program, e.g. community empowerment, sustainability, economic benefits such as employment and production gains. In practice, some of these outcomes may have positive or negative values.

It is evident from this list that the objectives of such programs do not neatly fit into uni-dimensional measures of health that tend to be used in cost-effectiveness studies. The next section examines in more detail the scope of such analyses.

THE ROLE OF COST-EFFECTIVENESS ANALYSIS

Cost-effectiveness analysis (CEA) is a form of economic evaluation that involves the estimation of cost alongside a measure of outcome (typically health gain).[5] Estimates of cost-effectiveness for a particular health intervention, say in terms of cost per life saved, when compared with that of another, indicate where funds could be allocated to maximize health gain.

Applied to the evaluation of community-based health programs it enables a decision-maker to choose between two or more modes of delivery for the same intervention (e.g., hospital- versus clinic-based care[6]) in order to identify which represents the most efficient, or "cost-effective", use of resources. In making such comparisons, it is relevant to examine both costs and outcomes of switching between alternatives, i.e. the incremental cost and outcomes of CHW relative to a stated alternative, which is sometimes a "do nothing" option (e.g., see Wang"ombe[7]).

In terms of the incremental costs of CHW programs, a comparison with hospital-based care would need to highlight not only changes in resource use to the health sector but also those to patients and the wider community. For instance in a study of tuberculosis (TB) control comparing DOTS in the community with hospital care, it was noted that significantly lower costs were incurred for the former.[6] However, it can sometimes be unclear the extent to which such cost savings result simply from costs shifted from the health sector to the community. An important issue that needs to be explored in such studies is therefore the distribution, or burden, of costs. Although a "do nothing" option would on the face of it be less costly than a CHW program, there may in the long-term be potential downstream cost savings that result from the effective operation of such a program. An evaluation would ideally be sensitive to this although it is not typically the case that CEA is sufficiently broad in scope to capture these effects.

Another major issue is the use of volunteer labor in community health work. Although such labor is nominally "free", in principle it has an economic cost because it is a resource that has alternative, valuable uses. The cost of such labor thus ideally should be based on a "shadow price" reflecting prevailing wage rates (e.g., San Sebastian et al.[8]—see below). The argument for such valuations is generalizability to other, perhaps more typical, settings where such labor may need to be remunerated (see section 4 for further discussion).

Estimating the outcomes from CHW would entail deriving some measure of health gain (e.g., life years saved) or an intermediate measure reflecting change in health risk (e.g., improved attendance at antenatal clinics). The usual difficulties, particularly in relation to detecting health gain attributable to the program, include inevitable time lags and controlling for confounders. These problems of attribution, however, are general to all forms of evaluation and thus will not be addressed further in this paper.

REVIEW OF EVIDENCE

This paper examines three areas where there has been some literature on the economics of CHW programs: primary health care; vaccination services; and TB control programs. The review is by no means comprehensive. Its aim is simply to give a sense of the parameters with which economic evaluations of CHW tend to be set and how such findings are presented.

Primary Health Care

One of the first papers to evaluate the value for money of CHW programs was published by Wang'ombe[7] in 1984. The project consisted of CHWs, trained for 12 weeks and deployed in two locations in Kenya's Western Province, to provide basic health care and health promotion. A cost-benefit analysis (CBA) was performed using the willingness-to-pay approach to compare the costs and benefits of the project. The evaluation illustrated a large net present value and a benefit-cost ratio of between 9.36 and 9.85, depending on the choice of discount rate. The author concluded that the results were "...strongly in favor of decentralization of primary health care on similar lines in the rest of the country".[7]

More recently Makan and Bachman[9] undertook an economic analysis of CHW programs in the Western Cape Province of South Africa. Their study evaluated the costs of five CHW programs delivering primary health care services and one CHW training center. The authors observed that the CHW unit costs were comparable to those of other health services, although they noted that such a comparison fails to account for differences in disease severity and professional training. Unfortunately, a failure to assess the effectiveness of the programs did not allow for an evaluation of cost-effectiveness.

Immunization Services

In a recent review of the effects and costs of expanding the coverage of immunization services in developing countries, one of the interventions with the highest impact on full coverage was CHWs.[10] The employment of CHWs in outreach programs was evaluated in relatively small but diverse communities, e.g. urban areas of Mexico[11] and communities in rural Ecuador.[8] The involvement of communities improved services as it meant that houses were located with precision, they were registered and the days of vaccination chosen to suit parents. San Sebastian et al.[8] was one of only two studies for which cost-effectiveness was also evaluated. The use of CHWs was reported to be more cost-effective than outreach teams involving health staff. Some of the reasons posited for this were the isolation of this community, the employment of CHWs yielded both significant cost savings and a service more in tune with the needs of the community.

Tuberculosis Control Programs

There has been a number of recent studies comparing the cost and cost-effectiveness of community-based care with other strategies for TB. Wilkinson et al.[6] illustrated that the cost to both health service and patient can be substantially reduced by using community-based directly observed therapy (short-course) for TB control in South Africa. They found that this strategy was more cost-effective than hospitalization or sanatorium care on a cost per patient cured basis. Other studies have found similar findings. For example, Floyd et al.[12] compared strategies for new smear-positive pulmonary patients and for new smear-negative pulmonary patients concluding with a strong argument for expansion of decentralization and community-based DOTS in Malawi. Comparable findings have been reported elsewhere in Africa, e.g. Kenya,[13] Uganda[14] and South Africa.[15]

Another recent study in rural Bangladesh compared the cost-effectiveness of a NGO-provided TB control program involving CHWs with a government program involving regular health staff. The cost per patient cured was $64 in the NGO program compared to $96 for the government one.[16] Similarly, a study conducted alongside a clinical trial in three sites in Pakistan was undertaken to establish the cost-effectiveness of different strategies for implementing DOTS.[17] Patients were randomly allocated to one of three arms: DOTS with direct observation by health workers (at health centers or by CHWs); DOTS with direct observation by family members; and DOTS without direct observation. The clinical trial found no statistically significant difference in cure rate for the different arms. However, the economic analysis found that direct observation by health center-based health workers (the model recommended by the World Health Organization and International Union against Tuberculosis and Lung Disease) was the least cost-effective of the strategies tested in terms of cost per case cured ($310). The self-administered group came out as most cost-effective ($164 per case cured). However, the CHW subgroup achieved the highest cure rates (67%), with a cost per case only slightly higher than the self-administered group ($172 per case cured). The authors concluded that this approach should be investigated further, along with other approaches to improving patient compliance.

The limited number of studies available suggest that CHWs increase the coverage and equity of service delivery at low cost compared with alternative modes of service organization. However, such services rarely yield a substantial health impact and the quality of services they provide is sometimes poor.[3] CHWs should be seen as complementary to the formal services and not as cheap substitutes. The particular strengths of CHWs (e.g., accessibility, acceptability, and cultural sensitivity) as well as their limitations (e.g., ability to diagnose and treat serious illnesses) should be considered[9] although, as mentioned earlier, the extent to which they have formally been included in economic evaluations is very low.

DISCUSSION

The economic evaluations that have been undertaken to date tend largely to be conventional cost-effectiveness studies and thus based on narrowly defined endpoints, e.g., vaccinations administered and patients treated. The value of such measures is that they provide decision-makers with explicit bases for comparing program alternatives in terms of inputs and outputs. However, key elements of the program can be missed through this reductionist perspective. The difficulty in employing conventional economic approaches may be illustrated for instance in how they deal with the issue of volunteer labor — a major factor in many CHW programs. As indicated above, conventional forms of economic evaluation tend to treat volunteer and paid labor interchangeably. The assumption is that in using a shadow price for volunteer work based on market wage rates, one can generalize the findings to settings where volunteers are not available and consequently workers need to be paid. The problem, however, is that the presence and willingness of volunteers is often specific to the type of community in question and "volunteerism" may be tied in with other institutional characteristics such as social capital and trust. A community that produces a supply of individuals willing to volunteer tends to be significantly different to one that does not. The features of CHW which define it as a qualitatively different input into health care from other forms of labor are the specific institutional characteristics such as volunteerism that it harnesses. The implication here is that conventional forms of economic evaluation may miss important variables such as these that, in turn, contribute to the perceived value or benefit derived from such programs.

Other examples of wider benefits that may result from CHWs that are unlikely to be captured in CEA are employment and training opportunities, the value attached by clients to the process of receiving such services (e.g., in Aboriginal communities, CHWs are often seen as important in delivering culturally appropriate services[18]) and, as alluded to earlier, institutional change. Institutions, in this sense, are defined as the patterns of behavior that determine how individuals, groups and organizations interact with one another[19] and may be either informal (e.g., various norms of behavior) or formal (legislation, government policy, regulations). They are relevant to CHW since such programs are defined by specific institutions — in particular, the relationships they establish between provider and client (and the wider community). The development of such relationships, to some extent, alter the nature of the community itself, e.g., they may increase the level of trust in health services and individuals' willingness to use such services which, in turn, may influence the effectiveness of future programs. There has been recent literature examining more holistic approaches to carrying out economic evaluation using institutionalist methods to account for some of these broader issues[18,20] although these issues have generally not been well-recognized in economic evaluation.

CBA potentially addresses some of these issues because it enables the inclusion of multiple outcomes and allows for the measurement of downstream cost implications. One potential weakness, however, is that its measurement of benefits is based on the elicitation of individual preferences through willingness-to-pay estimates. An implication of this is that it is weak in terms of measuring benefits that occur in public good form, e.g. increased vaccination coverage where there is a significant free-rider problem at play and thus its value to society is not fully reflected in the aggregate benefits accruing to individuals. Thus, when an objective of a CHW program is to increase vaccination rates or contribute to any other public good such as community education or the organization of group activities, then it is unlikely that CBA would be sensitive to this social benefit.

CONCLUSIONS

This paper has examined community health work and the importance of the institutional context in defining its value or benefit. Conventional approaches to economic evaluation, particularly cost-effectiveness, as reflected in some of the findings reviewed in this paper, tend not to capture these institutional features of CHW. The development of a more holistic, institutionalist approach offers a potentially useful framework for evaluating CHW.

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SELECTIVITY WITHIN PRIMARY HEALTH CARE

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Abstract—While great strides have been made in improving socioeconomic conditions in the developing world, prospects for health for all remain remote. Resources are few, and difficult decisions must be made concerning the priorities for their use. This paper addresses several topics involved in making these choices including the methods for determining priorities and ensuring effectiveness of resource use.

First, prioritizing. Information is needed concerning the prevalence, mortality, morbidity, feasibility and cost of control for each disease of importance in the area under consideration. Second, use of technology. In discussion of health care some have denigrated the concentration many programs have placed on specific methods and technologies. Nevertheless, technological advances, while some have had detrimental results, have often led to improved living conditions; for example, improved seed and fertilizer use, improved water pumps, family planning efforts. These technologies required a larger investment in management, financial and communication systems. Health interventions are frequently more various and complex than these and need a similar support system for impact. However there are many shortcomings in health services; the paper looks at some of these learnt through experience, and concludes that the lack of impact on health of large scale health programs that have provided selective interventions is probably related to an inadequate recognition of the importance of community and political involvement and of the necessary social, cultural, financial, management and administrative underpinnings.

Primary health care as described by the Alma-Ata conference sponsored by the World Health Organization and UNICEF in 1978 specified a full list of health and multisectorial improvements for reaching the goal of 'Health for All'. This list included specific medical and public health interventions such as endemic disease control, maternal and child health, and treatment of common diseases and injuries, plus other related interventions such as water supplies and sanitation, promotion of food supply and proper nutrition. In the Alma-Ata Declaration, health is considered comprehensively. It is not just a matter of lack of disease but rather the social outcome of national development and progress expressed in terms of improved quality of life. Attainment of this goal calls for far-reaching social and economic changes as well as reorientation of health care delivery systems. In the last several decades great strides have been made in improving socioeconomic conditions in the developing world, but prospects for 'Health for All' by 2000 remain remote. The World Bank's *World Development Report* graphically illustrates this phenomenon [1]. Average annual growth rates for low and middle income countries have remained around 5% for the last 20 years and distribution of income continues to be severely skewed. At this rate of change, hundreds of millions will persist in absolute, dire poverty after the end of this century bereft of the minimal social and economic conditions associated with health.

Within this context, the efforts to specifically improve health, that is, decrease the burden of illness, particularly of those most in need must be appreciated. The resources available for these efforts are small relative to the sums spent in other sectors of the economy. Governments apportion on average only 3–5% of their budgets on health; individuals and households probably spend one to four times as much [2–4]. Bilateral and multilateral aid amounts to a small additional percentage compared with these amounts, but these expenditures are sizable, for example, American expenditures for health-related programs for developing nations through public and private agencies total at least five hundred million dollars annually.

Government and individual expenditures have tended to concentrate on curative services rather than preventive ones that may have a greater impact on overall health or influence life expectancy. These services usually reach only those who live in close proximity, thereby missing a substantial proportion of the population. Even in areas in which health service are accessible, utilization has frequently been low [5]. Large scale health programs have frequently had less impact than expected probably because they are inaccessible, underutilized, understaffed and unstocked or the services are incorrectly provided.

With the limited resources available, difficult decisions must be made concerning the priorities for their use. This paper addresses several topics involved in making these choices including the methods for determining priorities and ensuring effectiveness of resource use.

PRIORITIZING

When planning health services with the primary goal of reducing the burden of sickness and death as efficiently as possible using the available resources, information is needed concerning the prevalence, mortality, morbidity, and feasibility and cost of control for each disease of importance in the area under consideration. This method for prioritizing may be applied either to whole populations or to specific target groups such as wage earners, pregnant women, children, etc,

Initially, collection of reliable data on burden of illness includes checking the routine reporting systems, hospital and clinic records, prior disease control programs, medical schools and other health related agencies [6, 7]. Routine reporting systems frequently have marked deficiencies and data must be verified and supplemented from other sources [8]. Special population surveys can provide more accurate determination of disease and incidence and prevalence, but can be costly and time consuming; therefore, careful consideration must be made about the importance and the need for the information in decision making [9]. Developing a reliable ongoing surveillance system is imperative to define priorities, monitor progress and refine future health planning and directions.

After identifying the major causes of disease, their prevalence, incidence, morbidity and mortality, within the population under consideration, the efficacious, feasible and cheapest control measures for each of these should be identified. Several recent books have reviewed these [10, 11]. Finally some estimates of cost-effectiveness in terms of cost per death averted or years of life saved must be made to compare these possible interventions. The estimate may vary depending on the target group and the ecology of the area under analysis. In 1979, Walsh and Warren identified the following high priority diseases for control globally: diarrhea, measles, malaria, whooping cough, neonatal tetanus [12]. Since then the major change in ranking is probably acute respiratory infection. Recently, the effectiveness of inexpensive antibiotics for respiratory infections used according to simple algorithms has been corroborated [13]. Other advances that may be valuable in specific circumstances are vitamin A supplements, hepatitis B vaccine and ivermectin for onchocerciasis.

Increasing the utilization of the proven efficacious control measures that can improve health with the least cost becomes an evident priority.

Economic, political, and community interests may influence these decisions on the use of health resources. Control of an illness may be important for tourism, livestock production, agriculture, or industrial development. Donor agencies may only offer specific programs.

USE OF TECHNOLOGY

Health services programs have frequently had less impact than expected for a variety of reasons [5, 14, 15]. In discussions of health care planning, some individuals have denigrated the concentration many programs have placed on the introduction and utilization of specific methods and technologies [16]. 'Technological fixes' seem to substitute for attention to the overwhelming problems of poverty and to the lack of many of the underlying requirements for good health and may seem to fail as a consequence. In addition, some technological innovations have had unexpected detrimental results. Irrigation systems have sometimes markedly increased schistosomiasis prevalence and intensity. Drilling wells and trypanosomiasis control have resulted in desertification from overgrazing by livestock. Nevertheless, technological advances have led to improved living conditions; for example, improved seed and fertilizer use has markedly increased food production and availability. Improved water pumps have increased irrigation and access to better water supplies. Family planning efforts are essentially efforts to increase utilization of specific technologies: condoms, pills, sterilization, injections, etc.

Agriculture and family planning provide examples of the requirements for the successful introduction of new technology. None of these technologies were immediately used by the entire population nor had much effect until they were correctedly used and support systems for them were developed. Community support and evidence of the results from the use of these technics were closely intertwined. In agriculture, the household may not have appreciated an improved standard of living from use of the new seed until supplies of seed were stable and established, fertilizer was available in the required quantities, agricultural extension workers were available to answer questions and instruct in proper technics, irrigation systems provided water in the quantities at the times needed. Field preparation, sowing, fertilizing, watering, weeding or field maintenance had to occur according to a fairly detailed plan, harvesting, and then transport systems were needed to distribute and market the product. All together a complex system, but one that has been increasingly utilized with outstanding results in many parts of the world. Technological advances continue among seed and other agricultural products to lessen the complexity of the support system needed for increased food production and make these new products more readily available. For example, some of the newer seeds require less water or have less stringent fertilizer requirements or are resistant to more of the pests and plant diseases.

Family planning programs present another example of how technologies shape the distribution system and, in turn, the success of the program is essentially determined by population-based utilization of these technologies. Family planning technologies are relatively few in number and simple compared to health services: condoms, pills, sterilization, IUDs, and others. To ensure utilization among the target groups within the population has required multi-faceted programs involving field workers, community commitment, social marketing, individual and multimedia health education; TV, radio, movie, and other communication media campaigns, linkages with individual and community incentives. In addition, successful planning, management, transport, logistics, distribution, supervisory and financial systems, among others have been worked out to provide the contraceptives and support the trained personnel. Nevertheless, it has become evident that the effect of these efforts for education and individual and community commitment are frequently short-lived, and therefore, must persist if family planning acceptance rates are to rise or continue at a high level. Unquestionably, family planning acceptance increases with education, socioeconomic development, health services and improvement in other sectors of family and societal life [17, 18], but acceptance rates can increase even in areas where these do not improve.

In conclusion, the utilization of new agricultural and family planning technologies required a large investment in management, financial and communication systems. Health intervention are frequently more various and complex than these and need a similar support system for impact.

IMPEDIMENTS FOR EFFECTIVE HEALTH SERVICES

The impact that health services can have in improving life-expectancy depends on several factors: (1) efficacy of the interventions provided, (2) diagnostic accuracy of the health worker to correctly identify the disease for which the interventions are available, (3) health provider compliance to correctly provide the intervention or health practice, (4) patient compliance to correctly use it (in the case of oral rehydration solution, to correctly mix and administer in the home), and (5) coverage, that is the extent to which the efficacious manoeuver, technology or services are appropriately utilized by all those who would benefit from them [19].

Underlying these factors are management, administrative, financial, political and community support requirements to ensure accessibility to well-trained health workers who are fully supplied with accurate diagnostics and active drugs.

A number of small scale primary health care projects have resulted in substantial reductions in infant and child mortality [20, 21]. Other projects, particularly those funded in part by donor agencies, have resulted in little or unknown health improvement [15]. A number of obstacles have been identified which frequently interfere with the effectiveness of primary health services.

The elements of projects which have aided in success include: easily accessible and well-covered population, prior well-established relationship between the providers of care and the community, concentration on a small number of key interventions, easily accessible referral hospital, sustained funding, comprehensive surveillance system, good leadership, and established supply systems [20, 21].

In contrast, several recent evaluations of donor funded programs and community health worker programs have identified a number of common shortcomings [14, 15, 22]:

1. *Uneven distribution of health services.* Physicians and nurses tend to concentrate in the cities. To achieve effective coverage of the population, large numbers of less skilled personnel need to be carefully trained, and these health workers require continuing supervision, drugs, and supplies and accessible support and referral service. Otherwise utilization of their services is low and turnover of these workers is high.

2. *Lack of appropriate technology.* Several diseases that are major causes of morbidity and mortality in parts of the developing world have only toxic, lengthy, relatively ineffective, or expensive drugs and control methods available. Research in these diseases has increased with the last several years and within the next decade new vaccines and drugs may be available for many of these diseases that can be integrated into the expanding programs for immunization.

3. *Drug supplies.* Supplies of drugs are frequently erratic and expensive maring the effectiveness and the credibility of community health workers. Better mechanisms for assessing drug requirements, for ordering, for procurement, for storage, and for distribution can result in substantial savings plus improved effectiveness of the health systems.

4. *Management of health resources.* Particularly rural health programs involve the manning, supervision, supplies, and maintenance of widely dispersed facilities. Frequently the administrative chain is weakest at the district and local levels. The management of the system requires not only supporting facilities and personnel but also decisions about priority and resource allocation that are based on the health needs of the population. Skill in using information systems and epidemiologic perspective are needed for planning, implementation, evaluation and supervision, but these skills are rarely part of the curricula.

5. *Financing of health services.* Health must compete with other pressing developmental needs for the extremely limited public resources. Governments and donor agencies are increasingly wondering how even the present level of services can be sustained not including new or future programs [2–4].

6. *Surveillance.* An up-to-date population census and careful recording of vital events particularly by the community health workers' aides in identifying high risk groups and insuring their participation in the health system and diagnoses the community's changing health needs. Such a system is valuable to assure coverage and as a tool for monitoring and evaluation.

Several donor agencies and international organizations have recognized these deficiencies and have begun appropriate research and training programs. The World Bank, with several other agencies, is examining methods for improving management and logistics. The United States Agency for International Development has funded several programs for applied and operational research in health care financing, diarrheal disease, and immunization. The World Health Organization has begun a program to strengthen district level health services management. The Independent International Commission examining priorities for health research and funded by several donors has identified management and systems analysis as one of the areas of importance [5]. With these and other efforts underway, the impediments to effective health services hopefully will be decreased shortly.

In summary, the lack of impact on health of large scale health programs that have provided selective interventions is probably related to an inadequate recognition of the importance of community and political involvement and of the necessary social, cultural, financial, management and administrative underpinnings. With political and community commitment and involvement, success is possible. Consider the success in Turkey and Colombia for societal mobilization following recognition that many of the well-known causes of disease as polio, measles and tetanus are preventable with vaccines. When these factors are involved as in the recent UNICEF efforts for GOBI (Growth monitoring, Oral rehydration, Breast feeding and Immunization) some impact can be appreciated. In the words of the *New York Times* editorial 28 December, 1986 entitled 'The firepower of kindness', UNICEF's efforts combined with those of governments and other international agencies have resulted in "Tangible evidence that a practical program can make a difference" [23].

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THE EVOLUTION OF SELECTIVE PRIMARY HEALTH CARE

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Abstract—This paper traces the evolution of the selective primary health care (SPHC) concept, from its presentation at a meeting in Bellagio, Italy, and its subsequent publication in the *New England Journal of Medicine* in 1979. It reviews the early debate between those in favor of selectivity and those in favor of comprehensive primary health care (CPHC). While this debate was going on, a breakthrough in terms of implementation came with UNICEF's launching of its Children's Revolution in 1982/83, promoting four specific 'social and scientific advances' for improving the health and nutrition of the world's children. They were growth monitoring, oral rehydration therapy, breastfeeding and immunization. Meanwhile the interest of a number of people for achieving 'Health For All' by targeting for action an essential short list of diseases was the impetus for another conference in 1985, Good Health at Low Cost. Through analysis of the achievements of four societies (Cost Rica, China, Kerala and Sri Lanka) efforts were made to define further a prioritized health development strategy, and a number of measures were identified as helping countries achieve good health. While some have argued that SPHC and CPHC are irreconcilable and diametrically opposed, this paper suggests that both SPCH and CPHC are both acceptable. Technology has its place. The field of view of SPHC has enlarged drastically, from individual diseases to the role of other sectors such as education and agriculture. The concept of SPHC has broadened to accept Rifkin's and Walt's assertion that "developmental processes need further exploration and research strengthening capabilities within countries". But research effort should not be an either/or: the development of technology is as important as research into developmental processes.

PRIMARY HEALTH CARE

In September 1978, the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) convened a conference at Alma-Ata, U.S.S.R. at which the seminal concept of health for all by the year 2000 was proclaimed. The means of achieving this laudable goal was through primary health care (PHC) which was defined as at least:

> "education concerning prevailing health problems and the methods of preventing and controlling them; promotion of food supply and proper nutrition, an adequate supply of safe water and basic sanitation; maternal and child health care, including family planning; immunization against the major infectious diseases; prevention and control of locally endemic diseases; appropriate treatment of common diseases and injuries; and provision of essential drugs" [1].

In April 1979 John Knowles, President of the Rockefeller Foundation held a meeting in Bellagio on Health and Population in Development. Knowles was concerned with the policy options within the health sector, specifically, "those that will succeed" [2]. The principal working paper for the meeting relied largely on multiple regression analyses comparing life expectancy and infant mortality rates with a variety of health, economic and social indicators. The main conclusion of the paper was that "health inputs and sanitation facilities were less able to explain variations in levels of life expectancy than were social factors" [3].

SELECTIVE PRIMARY HEALTH CARE

The combination of the very broad approach to health of Alma-Ata, and the conclusion of the Bellagio paper that health inputs were relatively unimportant, led to an attempt to disaggregate the components of the mortality and morbidity rates in the developing world in order to determine the role of specific medical interventions, which could be applied at a reasonable cost to rapidly decrease infant and child morbidity and mortality. As was stated:

> "Traditional indicators, such as infant mortality or life expectancy, do not permit a grasp of the issues involved, since they are actually composites of many different health problems and disorders. Each of the many diseases endemic to the less developed countries has its own unique cause and its own complex societal and scientific facets."

This was the core concept of a paper entitled 'Selective primary health care: an interim strategy for disease control in developing countries', presented at Knowles' Bellagio meeting and subsequently published in the *New England Journal of Medicine* in 1979 [4]. The major infectious diseases of the South were listed in the order of their importance based on prevalence, mortality and morbidity. The crucial ingredient of feasibility of control in terms of the effectiveness and cost of available interventions was then considered and the diseases were placed into three priority groups—high, medium and low. Four interventions were then established as the core of a program to improve health in many parts of the developing world. This core could be modified on the basis of local needs and concerns and on the state of the health care delivery systems. The measures suggested were immunization, oral rehydration, breastfeeding and the use of antimalarial drugs. The paper concluded that until comprehensive primary health care (CPHC) can be made available to all, effective services aimed at the few most important diseases (selective primary health care—SPHC) may be the best means of improving the health of the greatest number of people. It was clearly stated that this approach would be an interim measure and that it would in no way preclude the use of any other health or intersectoral measures for fostering the well-being of the people of the South.

The idea of SPHC seemed to have relatively little impact at the meeting in Bellagio either when it was originally presented or at publication in a special issue of *Social Science and Medicine*. The Introduction to that issue made no reference to SPHC emphasizing only CPHC [5]. In contrast, publication of the concept of SPHC in the *New England Journal of Medicine* elicited a spate of critical letters, several of which were published under the rubric of 'Selective health care for developing countries' [6]. Furthermore, in 1982 *Social Science and Medicine* published two papers entitled 'Selective primary health care: old wine in new bottles' by Oscar Gish [7] and 'Selective primary health care: is efficient sufficient?' by Peter Berman [8]. Gish was concerned that the original SPHC did not directly address the nature of the wide development process and lacked a social science perspective. Berman concluded that SPHC is not a relevant or desirable alternative for most countries. He felt that the efficacy of medical technology should be balanced with individual needs and social context, all at a cost countries can afford. Replies from the authors of the original paper were included as well as a commentary by Mack Lipkin. The latter concluded that, "Planners interested in the health of populations, I would think, would welcome this debate. It can do nothing but make choices more rational and thereby serve the interests of the people" [9].

In the meanwhile, concern was voiced at the WHO concerning three apparently negative aspects of SPHC: that it involved technology, that it was essentially a vertical program, and that it did not respond directly to the concerns of the people. In order to provide a forum to discuss these issues the Rockefeller Foundation (RF) in collaboration with WHO convened a small discussion group in February, 1983 in Bellagio entitled 'Control of communicable diseases within primary health care' to try to reconcile any differences, real or perceived. A consensus report was prepared, the conclusion of which was:

> "Primary health care should respond to all of the health needs of the community, but priority should be given to those interventions that will rapidly reduce mortality and morbidity at the least possible cost. The strengthening of an infrastructure capable of responding to the priority problems offers a particular challenge for bringing us closer to the goal of health for all" (unpublished document).

During this period a book on SPHC was being edited by Julia Walsh and the author in which subject experts prepared in-depth presentations of the optimal strategies for dealing with each of 23 major infectious diseases, and malnutrition. Each paper was published in *Reviews of Infectious Diseases*; they were subsequently gathered together in a book published by the University of Chicago Press. Discussions with WHO during this period led to a change in title of the completed work to 'Strategies for Primary Health Care: Technologies Appropriate for the Control of Diseases in the Developing World' [10]. In his foreword to the book Halfdan Mahler, Director General of WHO noted that the authors had "brought together, under one cover, up-to-date information on the most prevalent communicable diseases in the developing countries and on modern technology for controlling them." He noted that:

> "These diseases result and persist because of a combination of adverse socioeconomic and environmental conditions, undernutrition, lack of understanding of the determinants of health and ill health, social apathy, and highly inadequate health services. The control of these diseases, which is one of the essential elements of primary health care, requires attention to all of these factors" [11].

The concluding chapter of 'Strategies for primary health care' by W. Foege and D. A. Henderson was entitled 'Management priorities in primary health care'; it also broadened the concept of SPHC [12]. They stated that "our problem is not a paucity of ideas, techniques, or effective prevention and treatment for improving health. Rather, given the embarrassment of riches in terms of things that can be done, the question is one of appropriate stewardship of scarce national and international resources. What are the next steps that, in the short run, can provide the best health returns and, at the same time, provide the optimal foundation for mid-range and long-term health activities?" They noted that:

> "No simple formula exists for selecting priority programs, but governing considerations are based on (1) the major disease problems and the possibilities for prevention, control, or treatment; (2) the existing medical activities and resources; (3) the skills and abilities ultimately needed in a fully developed primary health care system and how these might be fostered; and (4) experience of programs successful in improving health indexes."

This echoed a previous publication in the *New England Journal of Medicine* by John Evans *et al.* entitled 'Health care in the developing world: problems of scarcity and choice' [11]. The authors began by stating that "In any circumstances, but particularly in these, the strategy to improve health must be selective. Success will depend heavily on correctly identifying the most important problems in each population group, selecting the most cost-effective interventions, and managing the services efficiently." In addition to technical feasibility of the interventions suggested, Evans added political and administrative feasibility. He concluded that:

> "few developing countries have the institutional capability to select health interventions on the basis of expected health impact, least cost, and feasibility of implementation, and to integrate independent facilities, practitioner, and disease-specific programs into a more coherent, economical, multipurpose system. A high priority should be given to strengthening the capability of administrators, physicians, and other personnel in positions of leadership in the health system at central and local levels in order to develop a population perspective in the analysis of health problems, a cost-effectiveness attitude toward the use of resources, and management skills appropriate for a human-services organization. More efficient management of health services is only one aspect of the problem. It is equally important to mobilize communities and individuals to take a more active role in promoting health and in financing health services, rather than to rely passively on a government system."

A REVOLUTION FOR CHILDREN

While all of the above were 'merely words', a major breakthrough in terms of implementation came with

UNICEF's declaration of *A Children's Revolution* in 1982/1983 [12]. This was based on "social and scientific advances" which now offer four vital new opportunities for improving the nutrition and health of the world's children—oral rehydration therapy, universal childhood immunization, the promotion of breastfeeding and growth charts.

> "For all four actions the cost of the supplies and technology would be no more than a few dollars per child. Yet that could mean that literally hundreds of millions of young lives would be healthier. And within a decade, they could be saving the lives of 20,000 children each day. It is not the possibility of this kind of progress that is now in question, it is its priority."

In May 1983 Jonas Salk and Robert McNamara met with James Grant, Executive Director of UNICEF to suggest that immunization should be the spearhead of the UNICEF initiative. The heads of other major international agencies, beginning with WHO were approached and in March 1984 another meeting was held at Bellagio sponsored by WHO, UNICEF, The United Nations Development Programme (UNDP), the World Bank and the Rockefeller Foundation entitled 'Protecting the World's children: vaccines and immunization within primary health care' [13]. At the conference a 'Task Force for Child Survival' was organized to coordinate the massive effort to immunize the world's children. It was sponsored by the five agencies and William H. Foege, formerly director of the Centers for Disease Control, was appointed as its head. At a subsequent meeting in Cartagena a year and a half later progress was reported [14]. The goal of achieving a high degree of childhood immunization by 1990 appeared to be within reach, especially with commitments by India and China. The Pan American Health Organization has established the goal of eradication of polio from the western hemisphere and the idea is spreading to the rest of the world like a pandemic. The degree of cooperation and collaboration between WHO, with its 'Expanded programme on immunization', and UNICEF with its 'Universal Childhood Immunization', reinforced by UNDP with its emphasis on cooperation among UN agencies, and the World Bank with its interest in cost-effectiveness is both remarkable and heartening.

Foege and Henderson described the importance of this initiative on many levels:

> "Immunization programs respond to problems that are almost universal in the developing world, and can, in a short time, reduce childhood mortality and morbidity. In addition, successful immunization programs may improve nutritional status, providing benefits beyond the target diseases. Immunization programs are easy to institute and provide a positive benefit-to-cost ratio, thereby saving money beyond the investment in the program. Because the number of vaccines will continue to grow (malaria, leprosy, rotavirus, etc.) opportunities exist to control many of the major infectious diseases over the next two decades. The development of an immunization infrastructure is one of the most important primary health care priorities existing today" [10].
>
> "Not only do immunization programs meet the criterion of dealing with major health problems (building on existing resources and responding to the experience of successful health programs), they also contribute to the general skills and abilities desired in primary health care programs. Surveillance, evaluation, management, logistics, outreach, development of community support, interaction of local and national abilities, integration of vertical and horizontal structures, and use of fixed-site and mobile resources are inherent in successful immunization programs" [10].

As soon as the greatly expanded immunization program is well on its way to incorporation within the primary health care infrastructure, it is important to add other high priority interventions. At the Cartagena meeting Fred Sai and Michael Merson discussed the addition of family planning and diarrheal disease control [14].

GOOD HEALTH AT LOW COST

The concept of selectivity and the development of priorities on an intersectoral level was presaged by John Evans in his Shattuck lecture.

> "Sri Lanka and the state of Kerala in India and the People's Republic of China are examples of countries that have attained a life expectancy close to the level in the industrialized world with income levels in the range of the least developed countries. The achievements may be explained in part by the public priority given to literacy, food and health and by special features of social and political organization" [11].

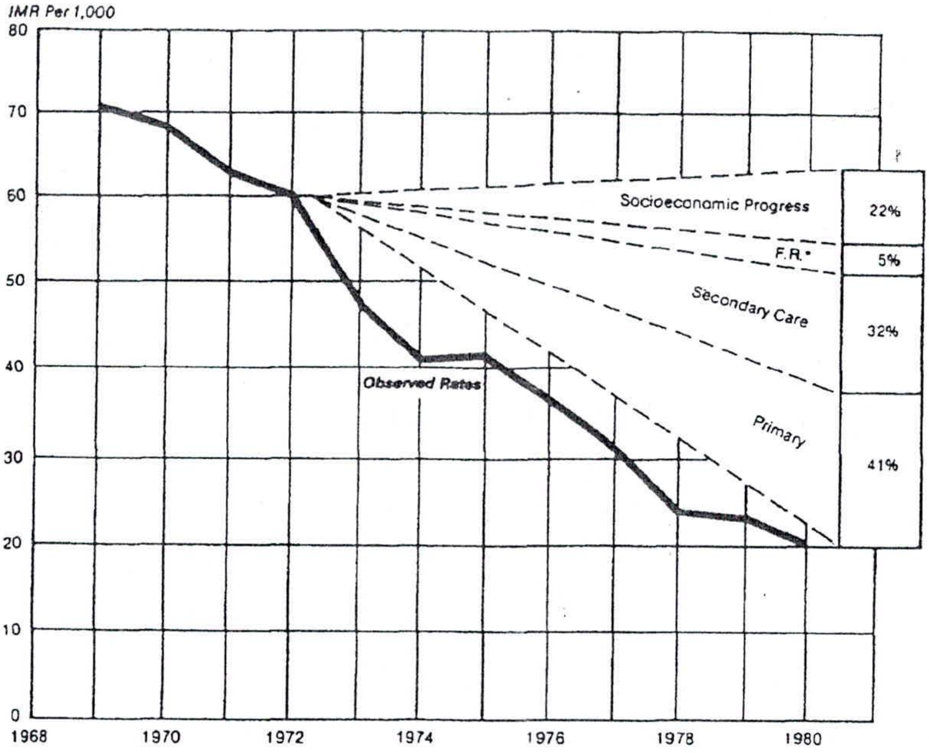
In April 1985, a meeting was held at Bellagio entitled 'Good Health at Low Cost' in which health administrators, economists and demographers from China, Sri Lanka, and Kerala state reported on their success in achieving life expectancies of 65 with GNPs per capita of about $300; Costa Rica reported a life expectancy of 75 with a GNP somewhat over $1000. The Editor's Preface to the proceedings of the meeting stated that: "The impetus for this conference emerged from the interest of some of us in developing a global strategy for achieving 'Health for All' by targeting for action an essential short list of diseases." This led to efforts to go further by defining a prioritized health development strategy through analysis of the achievements of four remarkable societies on the intersectoral level [15].

Remarks at the end of the conference noted that a basic theme had been stated by John Caldwell:

> "One just can't wait for affluence. ... When this meeting was being planned the approach fostering affluence was widely supported. Thus, for the last decade at least there has been a model for health in the developing world which can be called the Northern paradigm. The evolution of good health in the developed world of the North, had been related, particularly by McKeown, to the process of development, i.e. the growth of a literate population living in spacious housing provided with piped water and sanitary facilities and supplied with the fruits of industry and agriculture via good roads and communication facilities. The allopathic medical system which gained ascendency in the North had little to offer prior to the late 1930s or early 40s. Therefore, the governments of the developing world, aided and abetted by multilateral, bilateral and nongovernmental aid agencies have been attempting to institute the Northern model of health. The cost of this approach is staggering" [16].

In contrast, after examining the results presented at the conference, the participants unanimously adopted the following recommendations:

> "The four states which have achieved 'good health at low cost' have all clearly made a political and social commitment



*F.R. – Fertility Reduction

Fig. 1. Costa Rica: factors in the decline of the infant mortality rate (IMR) according to the model of multiple regression, 1972–80 [18].

> to equitable distribution throughout their societies. Given that commitment, three additional factors appear to have played a major role in their success as measured principally by a marked decline in infant and child mortality rates, resulting in a commensurate increase in life expectancy approaching that of the developed world. These factors constitute recommendations for program-development in other countries:
>
> A. Equitable distribution and access to public health and health care beginning at the primary level and reinforced by secondary and tertiary systems.
>
> B. A uniformly accessible educational system emphasizing the primary level and then moving to secondary and above.
>
> C. Assurance of adequate nutrition at all levels of society" [17].

The specific and remarkable role of health interventions *per se* is illustrated in the chart provided by Costa Rica delineating the factors responsible for the steep decline in infant mortality rates from 1970 to 1980 (Fig. 1).

In contrast to the Northern paradigm described above, the measures adopted by Sri Lanka, Kerala, China and Costa Rica themselves were characterized at the conference as 'the Southern paradigm'. It was noted that while the Northern approach must and will continue to operate gradually, bringing the fruits of development, the Southern approach can provide vastly improved health at a more rapid rate, which in its turn will contribute to development [16].

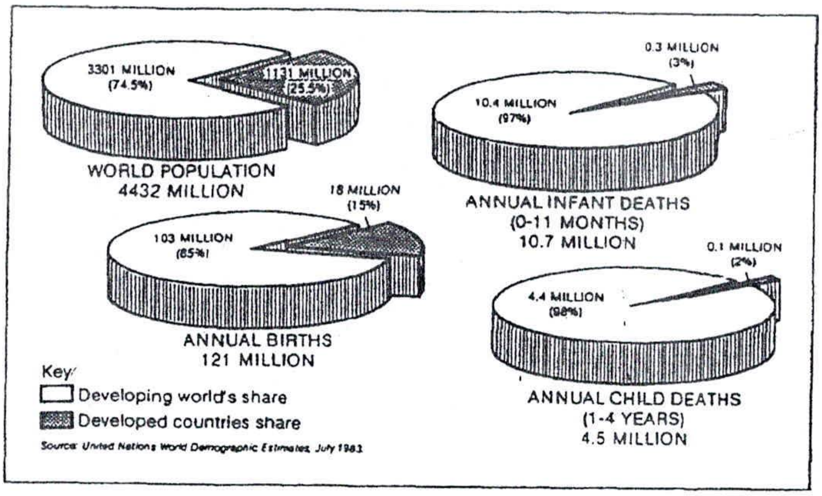
Fortuitously, the results of the GHLC conference coincided with a rapidly developing WHO program called 'Intersectoral action for health' which was to be the subject of the 'Technical Discussions' at the World Health Assembly in May 1986. In preparation for that event WHO and the Rockefeller Foundation held a meeting in Bellagio in March 1986. In the report of that meeting [19] and also at the Assembly itself the necessity to develop priorities in the intersectoral area itself was emphasized.

> "In most countries today the climate is conducive to a re-appraisal of development strategies, not the least because diminishing resources are forcing the countries of the South, in particular, to move away from the historical pathways of the North. The need to find less expensive and more cost-effective ways of achieving multiple goals is leading development planners and decision makers in the key economic and social sectors toward intersectoral, 'home grown' strategies targeted particularly toward the vulnerable groups, above all because equity pays off. The trend is likely to continue, since when an idea's time has come, not even those who are the most passionately opposed can stem the tide forever" [19].

CPHC AND SPHC ARE IRRECONCILABLE

A recent paper by Susan Rifkin and Gill Walt entitled, 'Why health improves', stated that CPHC and SPHC are both 'irreconcilable' and 'diametrically opposed' [20]. Another publication, entitled, 'Technocentric approach to health', has claimed:

> "that there is an ominous similarity between the spread of a highly malignant cancerous tumor and the promotion of the technocentric approach by western countries, particu-



Source: *United Nations World Demographic Estimates, July 1983*

Fig. 2. The developing world's share of population, births and deaths [22].

larly the U.S.A. It started almost innocuously in the form of a very poorly formulated report.... There were so many flaws in the paper written by J. A. Walsh and K. S. Warren that one felt confident that nobody would take a second look at the conclusions these authors drew" [21].

The same author in another context quoted in Ref. 20 described several reasons for his concern about the promotion of the SPHC approach for Third World people. It:

> "1) negated the concept of community participation with programmes planned from the bottom up; 2) gave allocations only to people with priority diseases leaving the rest to suffer; 3) reinforced authoritarian attitudes; 4) had a fragile scientific basis; and 5) had a questionable moral and ethical value in which foreign and elite interests overruled those of the majority of the people."

As Lipkin said in his commentary in a previous discussion of SPHC, "the debate between Walsh and Warren and the critics fit Pilowski's dictum: The better the ideas around the more acrimonious the debate" [9].

At face value it appears that SPHC and CPHC must be reconcilable as the former was never claimed to be more than a small and in many cases interim part of the broad concept of PHC. Two of the strongest critics of SPHC, Rifkin and Walt, however, base their arguments essentially on the fact that advocates of SPHC "see health improvements as a result of programmes based on medical and technological interventions" but advocates of CPHC or PHC "see health as a process dependent on individual knowledge and choice, of which medical intervention is only one, and often not the most important, input". Another fundamental difference is temporal, in that "advocates of programmes (SPHC) expect relatively immediate and visible results". "Those who accept process (CPHC or PHC) expect that radical health improvements will only come after a long period in which changes must occur on both levels of social, economic and political structures, and on the level of individual and community perceptions" [20].

Why not accept both! To reject technology until society has undergone major development makes inevitable the consequences which James Grant detailed so well in his series of reports on 'The state of the world's children'. Figure 2 shows the developing world's share of population, births and deaths. This graphic depiction is illustrative of the high death rates in the developing world accompanied by high birth rates [22]. Africa is the present paradigm for this dichotomy. Figure 3 shows why the children die in many parts of the developing world [22]. These figures were confirmed by a recent intensive study of global and regional mortality patterns by cause of death.

> "Roughly four in every ten deaths in developing countries are attributable to infectious and parasitic diseases. The highest percentages of deaths due to these diseases occurs in Africa (49%) and the lowest in North America (3.6%)" [23].

Many of these deaths can be relatively easily and cheaply averted by modern and not so modern technology. Future technology, given the quantum leap in the ability to produce new vaccines and drugs due to the development of molecular biology, shows particular promise. All of this not only concerns children but the health of mothers and the working man as well.

If the 'process' advocated by Rifkin and Walt, "which, is still difficult to define, [but which] reflects the existing social, political and economic conditions of individuals in communities at a given time and place," is allowed to proceed at its measured pace we must consider the consequences.

NATURE AS DEMON

The lead editorial in the *New York Times* on 29 August, 1986 with the above title poses the essential question:

> "There's a dual lesson here for those who sentimentalize Mother Nature and demonize human technology. Those who are farthest from the jungle are most likely to idealize the impersonal workings of the rain forest.... To African villagers or Asian peasants, nature is not a friend but a hostile force to be propitiated.... If the Green Revolution has created food for millions, it is because science has tamed

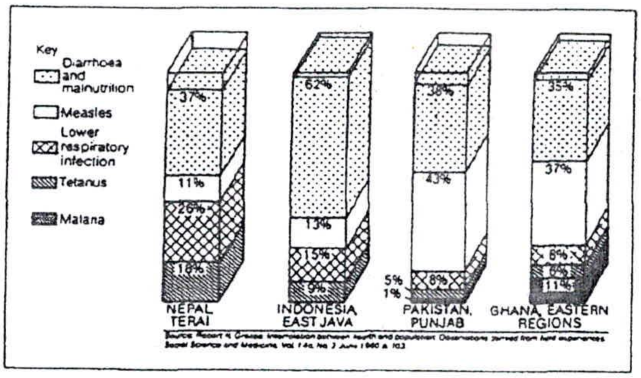


Fig. 3. Why children die: percentages of infant and child (ages 0–4) deaths due to preventable diseases in selected countries [22].

nature. If more Third-World children survive infancy, it is because man-made medicine has prevailed over nature. Technology, when misused, poisons air, soil, water and lives. But a world without technology would be prey to something worse: the impersonal ruthlessness of the natural order, in which the health of a species depends on relentless sacrifice of the weak. Nature remains what it was to Tennyson, 'red in tooth and claw'" [24].

The result of the unavailability of 'technology' was strikingly depicted in a superbly controlled study of two Nigerian villages by Orubuloye and Caldwell. These villages, one with good medical facilities (Ido) and the other with no facilities other than the traditional ones (Isinbode) were well matched. The two survey sites were culturally and geographically as similar as possible and their social and economic indices showed no great differences except in the provision of medical services. The results are graphically shown in Table 1. The authors conclude that:

> "continued mortality decline is really not a matter of overcoming ignorance but providing a sufficient density of health services of reasonable calibre. Without such services in the neighborhood, Isinbode would have probably averaged an improvement in the longevity of its population of less than 0.1 per annum. For almost three quarters of the period a very similar rate of change probably took place in Ido, but over the last dozen years the new health facilities have probably accelerated that rate to almost one extra year in expectation of life at birth for every year elapsed" [25].

Table 1. Mortality levels and differentials derived from retrospective data on vital events during the 12 months preceding the survey*

		Ido	Isinbode
(1)	Deaths under one year of age reported per thousand births during year preceding survey	99	288
(1a)	Expectation of life at birth associated with the infant death rate recorded in (1) according to the 'North' model tables (years)	52	24
(2)	Deaths 1–4 years of age reported per thousand births during year preceding survey	99	171
(2a)	Expectation of life at birth associated with the child death rate recorded in (2) according to the 'North' model life tables (years)	46	30

*Modified somewhat from Table 4, Ref. [25].

Another key question is the relative effectiveness of modern versus traditional technologies. Evans noted that the use of chemotherapy for tuberculosis in blacks in New York City and Maoris in New Zealand has shown that advances in medical technology can be very effective in reducing mortality promptly without any preceding improvements in living standards [11]. In contrast, Nyazema in his paper entitled 'Herbal toxicity in Zimbabwe', reported high mortality rates from poisoning due to traditional remedies in hospitals in Africa. He described a series of traditional remedies which have very severe side effects, and noted that none of the traditional healers interviewed believed in documenting their practice, but 90% were aware that some of their remedies were toxic [26].

That health services can even have a marked effect on reducing mortality in the developed world has recently been shown by Poikolainen and Eskola. In Finland, in the period 1969–1981, deaths 'amenable' to medical intervention, including infectious diseases, fell by about 65% while those due to 'non-amenable' causes fell by about 26% [27]. Such gains would be far greater in the developing world, and there is no reason, on the basis of effectiveness and cost, why they should not.

THE ART OF THE POSSIBLE

'The art of the possible' is the title of a recent paper by a wise and distinguished scientist from India, V. Ramalingaswami [28]. If one heeds his admonitions it seems that the PHC, CPHC and SPHC are indeed reconcilable. SPHC has evolved, but its central concepts of establishing priorities on the basis of effectiveness, of cost in a resource constrained world, and of equity remains constant. The field of view of SPHC has enlarged drastically, however, from individual diseases to the role of other sectors such as education and agriculture. It is of crucial importance to the whole endeavor that the populations be educated. A World Bank Staff Working Paper on the effects of education on health has stated that "the evidence on the significance of the relationship is unequivocal" [29]. The conferees at 'Good Health at Low Cost' were all deeply impressed at the effects of primary education on good health as a crucial element of demand when the supply was available through primary health care. Education is essential at every level so that informed choices can be made from the individual to the government. Halfdan Mahler put it so well in his preface to 'Strategies in Primary Health Care':

> "I hope that the book will be used widely and that the information it contains will be studied carefully. This will help each country decide, in the spirit of self reliance that characterizes primary health care, which diseases deserve priority attention and what measures are most appropriate to control them under the local circumstances" [10].

The concepts have broadened to accept fully Rifkin's and Walt's assertion that "it is the developmental processes that need further exploration and research strengthening capabilities within countries" [20]. But why make it either/or by adding "this is where the research effort should be placed rather than in the development of technology" [20]. We can certainly have both, because the cost of good research, whether in the natural or social sciences is relatively low. As stated in a recent report entitled The Rockefeller Foundation in the Developing World:

> "it is the equitable distribution of benefits to end-users that fulfills the promise of science and technology in the development process. This is the philosophy against which the Foundation's science-based efforts are to be measured—not just food production, but fewer hungry and malnourished people; not just powerful vaccines, but control and elimination of diseases; not just improved contraceptives, but increased reproductive choice and safer family planning" [30].

All methods to achieve this goal will be utilized, from the technical to the social.

As a means of ending this discussion in a way which reconciles CPHC and SPHC the words of Ramalingaswami are most appropriate. In his paper 'Health without wealth' he stated that:

> "Health is both a major pathway to development as well as an end-product of it. We need to harmonize and balance the two approaches to development—that of economic growth and that of fulfillment of human needs. It is futile to conceive of the health system functioning outside developmental processes in general. While overall development, the fulfillment of basic needs, and improved standards of living are essential to a sustained improvement in a population's health and well-being, much can be achieved by the determined application of appropriate technology for the control of specific diseases and the primary health care approach, even while the slow process of a rise in living standards is taking place" [31].

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GOBI VERSUS PHC? SOME DANGERS OF SELECTIVE PRIMARY HEALTH CARE

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Abstract—This article enters the debate concerning comprehensive versus selective primary health care by focussing on UNICEF's 'child survival revolution'. It is argued that UNICEF is dangerously mistaken in believing that its present emphasis on selective primary health care is a precursor or 'leading edge' of comprehensive primary health care. The approach of UNICEF—diffusion of a package of technologies by campaigns organized from the top down—is more likely to undermine the social basis for comprehensive care.

The kinds of implementation UNICEF has chosen in order to minimize costs and maximize impact on child mortality, namely 'social marketing' via mass media and massive, *ad hoc* delivery systems seriously undermine the development of grassroots organization among parents and primary health care workers. Indigenuous, local organizations are distorted and limited to conduits of a delivery system. Needs are defined outside the communities affected. In addition, UNICEF's so-called revolution has in common with other selective approaches an ideology accepting as inevitable the health effects of economic crisis in the 1980s, further undermining the confidence of local groups and health workers who might otherwise conceive of their desire to control health conditions as a right.

The UNICEF interventions popularly known as GOBI-FFF are 'targetted' at individuals, in particular 'ignorant' mothers. As such they are especially destructive to the process of group formation and self-organization of the poor around their just demands for water and sanitation, land, shelter, and employment. This article concludes that UNICEF's GOBI should either be abandoned or integrated into comprehensive primary health care programs that put parents and local workers in control and that emphasize continuing political struggle for health rights.

TWO VIEWS OF UNICEF'S 'GOBI'

UNICEF presented in its 1982–83 report on 'The state of the world's children' the outlines of a 'Child survival revolution'. This 'revolution' was to be based on widespread adoption of a small number of cheap, assessible and simple techologies. These technologies were aimed at conditions that are responsible for a large proportion of present infant and child mortality in the third world, while leaving other conditions and the wider conditions determining access to food, shelter and sanitation untouched. UNICEF's 'revolution' thus had much in common with other forms in which *selective* primary health care (SPHC) has recently been distinguished from more *comprehensive* primary health care (PHC) [1–4]. In the case of UNICEF's selective approach, the technologies are referred to as a 'GOBI'. The acronym 'GOBI' is made up of the first letters of the phrase describing each of four elements in a package of interventions on behalf of children: Growth monitoring, Oral rehydration therapy in case of diarrhea, Breast feeding (as opposed to early weaning and/or bottle feeding), and Immunization.

In its simplest form, UNICEF's argument for GOBI is compelling and has a lot in common with arguments heard in favor of SPHC. The argument runs as follows: (1) Financial and human resources for primary health care in poor countries are scarce and *growing scarcer* due to the recent decade of international financial crisis. (2) Simple, low cost, widely accessible technologies for saving children's lives exist. (3) Means for popularizing these technologies at low cost also exist. (4) Therefore GOBI should be implemented as a priority *now*. The hidden premise, sometimes discussed explicitly, is that PHC as envisioned only as recently as 1978 at the Alma Ata Conference [5] is too costly and taking too long to implement. In particular, the emphasis on people's access to means of acquiring basic needs such as food and shelter and the emphasis on local control of health programs are criticized as being unrealistic goals.

This line of reasoning can be questioned on a number of grounds, but even without an elaborate critique it is apparent that two possible relations between GOBI and PHC can be inferred. In more general terms, it is possible to think of any form of SPHC relating to PHC in either of these two ways.

First, GOBI could be interpreted as an attempt to speed up the process of establishing PHC. Thus GOBI would be seen to be complementary to PHC, providing some of its more important technical 'content'. GOBI's success in saving lives would provide satisfaction in communities and commitment to wider change that would make it easier for them to support the grassroots structures of PHC financially and otherwise. GOBI would be seen, in this view, as the 'leading edge' of PHC [6, p. 6].

A second interpretation is that GOBI constitutes the negation of the participatory and community-based ideals of PHC, not their complement or precursor. This view recognizes two opposing forms of 'basic needs approach' (BNA) [7]. The 'strong' BNA encourages people to define their own needs, to organize themselves to demand access to the means to satisfy these needs, and to struggle to overcome political and other obstacles to satisfying these locally-defined needs. The 'weak' BNA imposes an external, expert definition of need on the community.

Local organization is encouraged only insofar as it is necessary to make 'delivery' of the good or service possible. Conflict and struggle are neither encouraged nor understandable within the universe of the 'weak' BNA. According to this second interpretation, SPHC in general and GOBI in particular belong to the 'weak' BNA. They are delivery approaches that negate more participatory and conflictual approaches to people getting what they think they and their children need.

For instance, in theory groups of parents can monitor the growth of their children, produce oral rehydration mixtures (salt, sugar, water) in their own homes, speak to one another about the importance of breast feeding. In fact, the national-scale campaigns launched so far in support of GOBI actually preempt these local potentials. Television and other coordinated media blitzes extoll prepackaged oral rehydration salts. In most cases these are prepackaged in distant capital cities. Breast feeding is 'sold' via radio and television with slogans coined outside the affected communities, possibly by the same foreign advertising agencies that had previously sold infant formula and bottle feeding. Immunization, dependent still on a 'cold chain' and considerable logistical preparation, continues to come from 'the top down' but now in massive and possibly unrepeatable campaigns. Little is done to build confidence in people's ability to do positive things about health together, where they live, rather attention is systematically turned toward the 'center' from which wisdom about the breast, magic salts and vaccine issue.

UNICEF BEFORE GOBI

In order to judge these opposing interpretations of GOBI, it is helpful to review UNICEF writings on PHC before GOBI came on the scene. UNICEF was one of the first international agencies to shift from sectoral health concerns to a comprehensive approach which was called "planning for the needs of children" [8, 9]. Throughout the 1970s UNICEF emphasized the importance of 'participation' [10]. In fact, just before GOBI was unveiled, UNICEF was still distinguishing between a 'narrow definition' of PHC and a broader interpretation in very much the same terms used to distinguish the 'weak' and 'strong' BNAs above. Thus PHC would recognize "certain values and principles as requisites of good health care" including the following [11, p. 37]:

1. *Equity and justice.* The basic right of every individual to health implies the reduction of gaps between those who have access and those who do not to health and other resources necessary for maintaining health—such as income, food, employment, education . . .
2. *An overall development strategy that gives high priority to social goals in addition to economic ones.*
3. *People imbued with a strong sense of self-reliance and control over their own lives exercising responsibility over their own health.* The role of governments and agencies is not to act in the people's behalf to 'deliver' health, but rather to support their efforts and take joint responsibility for health.
4. *The emergence of a new international economic order coupled with a new international development strategy.*

In its report on the world's children for 1980–81, UNICEF highlighted three lessons it claimed are to be learned by reassessing several decades of development work [12, p. 5]:

1. Economic growth is a necessary but not sufficient condition for the elimination of poverty.
2. Policies aimed at directly meeting the needs of the poor are a more promising way forward than reliance on the trickle-down of growth.
3. The redistribution of resources and incomes implied by such policies need not detract from, and may even enhance, the prospects for economic growth itself.

Suddenly, however, these lessons seem to have been discarded.

CHILDREN IN DARK TIMES

UNICEF's report for 1981–82 is entitled 'Children in dark times' and catalogs a "slowing down of progress" in child welfare despite agreements on PHC [13]. Whereas infant mortality had been falling steadily:

> "for the past five years, it has barely flickered. Average live expectancy, which increased by seven or eight months a year in the 1960s and early 1970s, is now increasing by only two or three months a year. School enrollment rates, which again rose by a regular four or five per cent a year up to the mid-1970s, now seems to have reached a plateau" [13, p. 2].

"In short", UNICEF summarizes, "the optimism of the 1960s which gave ground to the realism of the 1970s has now receded even further to make room for the doubt and pessimism which seems to be settling into the 1980s."

Africa is singled out as a prime example [13, p. 12]: The tenth successive year of declining food production per capita, food shortages, massive refugee movements.

This was the year before GOBI emerged, the year after UNICEF had reported hopefully that 'lessons' had been learned from the critique of growth-oriented development strategies, and that as a result infant mortality could be brought down to below 50 per thousand in all countries by the year 2000. Thus 'Dark times' is a transitional statement and can be read for early signs of three major lines of thought. These include, first and most destructively, the reassertion of a belief dating from earlier decades that poverty is 'natural'. Second, the new line of thought develops an ahistorical and idealistic notion of a 'safety net' as the answer to the 'natural' growth of poverty, ordinary parents' helplessness in its face, and the framework with in which GOBI will be seen to function. Finally, technology emerges as the linch pin of or substitute for a minimal safety net. Analysis of these characteristics explains why GOBI and other SPHC strategies are not compatible with broader social goals embodied in PCH and why, in practice, implementation of the one blocks development of the other.

The 'naturalization' of poverty [14]

UNICEF invokes world economic crisis as a fact of life, something that has 'happened' to poor nations and to poor people. An 'adverse external environment' is likely to raise the number of the absolutely poor to one billion by 1990, we are told [13, p. 2], with no suggestion that what is 'external' to some is the comfortable 'internal' (domestic) economic environment to others experiencing financial boom. Economic crisis is assumed to 'strike' from somewhere 'out there' such as 'natural disasters' (e.g. drought, flood, earthquake) are thought to 'occur'. The only concession to the existence of a complex interaction between society and nature seems to be the commonly projected image of 'too many poor people' pressing nature too hard. The only hint that nations or classes like landlords or workers might be conscious agents in conflict are the common platitudes that poor nations have 'mismanaged' industrialization, debt, marketing, etc. and that workers and peasants in Africa and elsewhere have ceased to produce the way they used to.

Subsequently UNICEF added some 'Fs' to GOBI, including 'family spacing' and 'female education' in a way that considerably strengthened the naturalization of poverty [15, 16]. Population growth is seen as a cause, not a symptom of poverty. This is a 'natural' cause. Addressing this 'cause' with female education (the woman's 'ignorance' being yet another 'natural' cause of poverty from within this point of view), the more difficult social causes can be bypassed.

PHC was crystallized as an approach at a time when there was wide agreement that the causes of poverty were nonnatural and that social justice was a requisite for health. By naturalizing poverty once again by its emphasis on external, uncontrollable economic forces, population growth, and female ignorance, UNICEF locates health action wholly outside the realm of socio-economic rights and responsibilities.

A safety net or 'a floor under poverty'

In the 'dark times' described by UNICEF, parents have been deprived of power to protect their children. Rather than question why this is so and whether it is a tolerable state of affairs, UNICEF observes that in such situations 'the community' has to take up the responsibility for children [13, p. 2–3]. And if the local community is unable to meet the needs of children, "then the responsibility extends to the national and international community". While this reasoning sounds sensible and humane, taken together with the 'external' and 'natural' interpretation of poverty just discussed, what is implied is a dangerous acceptance of increasing powerlessness of the poor parent in the national scheme of things and of the poor nation state in the global order.

In the 1970s, the emphasis had shifted to at least the rhetorical acceptance of 'empowerment' of the poor as the way forward. Parents, peasant farmers, workers, women were encouraged to organize themselves and to demand the power they needed to achieve a decent standard of living. Various international meetings such as ILO's World Employment Conference in 1976 and FAO's World Conference on Agrarian Reform and Rural Development in 1979 had clearly asserted the right of poor people to organize. At that point, the historical initiative was on the side of the 'strong' BNA. Ten years later, discussion of a minimal 'safety net' leaves little doubt that the initiative has been lost to resurgent technocracy and the 'weakest' possible interpretation of 'basic needs'. It is simply accepted that the "local community is unable to meet the needs of its children". UNICEF no longer seeks to aid the process of empowerment of that local community but merely to put "a floor under poverty" [17, pp. 39–51].

Technological substitutes for even a minimal safety net

'Dark times' foreshadows GOBI and the other technological packages that have been added by discussing control of mortality from diarrhea. We learn that earlier talk of 'safety nets' was not serious. First UNICEF distances itself from the universality of the historical form in which European, North American and some Latin American workers won social welfare concessions in the 1940s, "a safety net woven from the strands of minimum wages, unemployment pay, sickness benefit, and family allowances" [18, p. 21]. We are told that under present conditions it is unrealistic to hope for even "a more elementary safety net of minimum food entitlements, primary health care, elementary education, safe sanitation, and clean water". Instead, GOBI is the "even more basic, more modest, and more immediate goal" [18, p. 21].

Technology has become the 'basic, modest, immediate goal' for a long list of agencies in the 1980s. Fuel-efficient charcoal and wood-burning stoves, improved mud construction techniques, agroforestry and a hundred more 'appropriate technologies' have become a substitute for social transformation. Means have taken the place of ends. Are we really supposed to believe that oral rehydration therapy is an acceptable substitute for the clean water which would prevent diarrhea, to which parent and child have a right?

BUILDING ON 'SOCIAL BREAKTHROUGHS' OR BLOCKING THEM?

UNICEF's 1982–83 report, 'New hope in dark times', beings by asserting the necessity of 'streamlining' UNICEF practice 'against the headwind' of world recession [6, p. 2]. This refers not only to the necessity of reorganizing UNICEF and rationalizing its 'basic services strategy' in order to bring "more benefits to children for every available dollar" [6, p. 12]. The application of the lessons learned from inefficient and failed projects was discussed in the prior report and was presumably underway.

The year GOBI was announced seems to have been one of ideological streamlining as well as UNICEF. The 'Children's revolution' is a minimal package in the face of the failure of parents to achieve a revolution in the power relations determining health and a failure of poor nations to win a New International Economic Order.

It is not at all that UNICEF ignores grassroots organization. Quite the contrary, it terms "social breakthroughs" the growth of "community organizations, paraprofessional development workers, primary schools and the primary health networks, the peoples' movements ..." [6, pp. 6–7]. *Despite* the rapid growth of such grassroots institution, parents have lost the power to protect their children against the "headwinds of world recession". So UNICEF proposes to use this newly achieved level of mass organization differently: "These social breakthroughs are the missing link between the know-how of science and the needs of people" [6].

A key question is how grassroots organizations are understood by an agency backing GOBI or any other form of SPHC that formulates its limited package of interventions outside of the local situation and mobilizes resources to diffuse that package campaign-style at national scale. One clue is UNICEF's frequent reference to the 'success' of Asian campaigns to introduce high yielding varieties of rice and wheat and family planning campaigns [19]. The model implied is of local organizations as conduits or delivery points. The kind of 'participation' involved has been called "instrumental" rather than "transformative" [20]. People's participation is invoked as acceptance of the package, as recipients of the 'message' but not as transformers of their own situation.

How can the grassroots be encouraged to transform the conditions of poverty when these national campaigns depend entirely on the goodwill and infrastructure controlled by a national elite whose interests are at stake in preserving the status quo? In both symbolic and practical ways the power of national structures of dominance are reinforced in these campaigns. Thus when airforce helicopter gunships that have been known to terrorize peasants appear ferrying vaccines, a message is communicated about power. In practical ways, the GOBI approach reinforces centralized urban hierarchies that have been shown to block rural development.

In Honduras, for instance, UNICEF decided to 'package' its oral rehydration campaign in sophisticated ways and to advertise them with television because "mothers were very strongly predisposed towards treatments with sophisticated urban image" [18, p. 54]. Thus foil-wrapped sachets of oral rehydration salts rather than the use of home-made salt and sugar solution was adopted for the campaign. But is this consistent with long-term alternatives to an urban-elite image of development? Such urban cultural bias has been argued to be part of the problem, not part of the solution [21]. It is partly responsible for disastrous shifts in diet and child-care style such as the shift from locally-produced staple grains to imported wheat for bread [22], greatly increased cigarette consumption [23], and the popularity of bottle feeding [24]—all recognized health problems.

In much of the third world dependency on internal markets has grown dramatically in the last 20 years. Now, at a time when the World Bank and the IMF are insisting that governments remove subsidies on consumption and cut back on public expenditure, the poor are highly vulnerable because of their dependency on the market. UNICEF itself has documented the fact that these 'economic adjustments' fall heaviest on women and children [25], and food riots in Mexico, Brazil, Sudan, Zambia and Ghana suggest that the poor have done supporting research. In this light, it is clearly damaging in the long run to introduce even a useful life-saving technology like oral rehydration therapy in a way that *reinforces* market dependency, urban bias, and an urban-elite image of development through centralized packaging of the salt/sugar mix.

By 1985, only six UNICEF-sponsored national and rehydration therapy programs used the 'cottage industry' approach to decentralized packaging and distribution. Another 33 were urban-based [18, p. 3].

Social-marketing

It is media-technology and the manipulative social psychology developed while 'selling' the Green Revolution in the 1960s that receive most attention from UNICEF as social breakthroughs rather than the self-organization of the poor. ". . . [I]n a world where information technology has become the new wonder of our age," writes UNICEF's Executive Director [19, p. 3], "shamefully little is known about how to communicate information whose principal value is to the poor." Such a statement makes a series of assumptions that would require justification but do not receive it in UNICEF texts.

First, it is assumed that the most useful thing about which to communicate is technical information, 'messages' distilling the useful, simple technologies of which people have been ignorant. Others, however, still seem to believe that it is most useful to communicate about relationships such as those governing access to land and income for promoting health [26–28].

Second, there is the assumption that communication *to* ignorant people *from* people with 'know how' is what is required. This overlooks the cardinal importance of groups of people *sharing* knowledge and discovering the usefulness of knowledge that had been denigrated by the colonial encounter [29–31].

Third, it is assumed that 'information technology' is the missing key to communication. However, it has become a commonplace of pedagogy that the best communication takes place between two people of similar backgrounds, status, etc. in face-to-face encounters [32]. One of the lessons of the Green Revolution, but apparently not one recognized by the proponents of GOBI, is that useful information spreads with extraordinary speed by word of mouth.

UNICEF's chosen information technology is referred to as "social marketing" [19, 33]. Social marketing focusses on *products*, not on *processes*. The product can be immunization, use of oral rehydration salts, family planning. The 'product' to be sold in the social market place via mass media may be a complex package of products. Nonetheless, the product exists quite independently of the day to day *process of problem solving* in households and communities. What are the limitations of such an approach?

First, communication is 'one way'. The chance that the product or package of products is modified though 'feedback' through the communication process is very small. Where there is such feedback, it must come through precisely the decentralized, participatory programs that are in danger of being cut back by ministries infatuated with the 'quick fix' social marketing seems to offer.

Second, the ability to tap local knowledge and skill is virtually zero. At a time when more and more authors are discussing the reservoirs of 'ethnoscience' still untapped in villages and squatter settlements all over the world, it is ironic that a method of 'communicating' with the masses that cuts the state or development agency off from such knowledge should be named a 'new imperative' by one UNICEF consultant [33].

Third, and even more troubling, the social marketing message is 'targeted' at individuals. 'Mothers' are sold oral rehydration salts or IUDs. 'Farmers' are sold new varieties of seed. At a time when there are many other social and economic forces tending to fragment extended families, neighborhoods, and 'self help groups', it is alarming that the force of electronic media should also fragment. A 'process' orientation works against fragmentation, situating possible 'solutions' to 'problems' in the growing understanding of wider social relations by homogeneous groups. For instance, small 'homogeneous self help groups' of divorcees and widows in Lesotho grow to understand their socio-economic marginality and find viable income generating activities in this context [34]. Health improvements for children in these woman-headed households come as secondary effects of increased income. Broadly speaking, PHC as defined in Alma Ata can be interpreted in this way. Ministries that cut back expenditures on such participatory, empowering work because social marketing appears 'faster' or more 'cost effective' cut the tap root of the newly sprouting 'community' at the increasingly fragmented and class-polarized grassroots.

CONCLUSION

Dangers of selective primary health care

Elsewhere SPHC has been criticized for claiming too much for a handful of technologies [35, 36], for evaluating the costs and benefits of health and disease in too narrow an economic framework [37, 38], and for thinly disguising and justifying reductions in public finance for health care in countries feeling the pressure for IMF mandated 'adjustments' [7, Chap. 4; 39].

This brief paper has called attention to another criticism. Despite claims that UNICEF's GOBI can be seen as the 'leading edge' of PCH, it has been argued that implementation of GOBI and other SPHC packages acts, in fact, to undermine the process of local definition of needs, local organization to share knowledge and to struggle for health rights. GOBI does this in several ways.

1. Indigenous, local organizations are distorted and limited in their potential for channeling protest and health demands by their conversion to mere conduits for the delivery of the GOBI package.

2. The effectiveness of local organization is further undermined by the individualizing orientation of GOBI elements and their implied model of disease causation focusing not on social causes but on ignorance and faults in individuals.

3. Both these effects are compounded by the tendency for GOBI implementation to reinforce the status symbolically and importance practically of the central state, the urban hierarchy and the structures of dominance, often including national police and military authorities that are drafted in for logistical help during national immunization campaigns.

4. Reliance on a limited concept of 'social marketing' and on electronic media for campaigns further compounds the previously mentioned effects.

5. Finally, GOBI gives the state and international agencies an excuse for accepting the necessity of cut backs in social expenditure, and accepting the way in which the lack of justice in the international economic system is causing parents to lose control over the conditions that determine the health of their children. The excuse is that this is all the product of an 'adverse external environment', and that GOBI amounts to the best available realistic measure under such circumstances.

6. The ideology of acceptance and resignation in the face of the 'adverse external environment' can only serve to discourage parents and grassroots workers who would otherwise demand more and organize politically to *take* more.

Is GOBI useful at all?

There is no doubt that UNICEF's emphasis on immunization and oral rehydration therapy have saved many children's lives over the last few years. Were those children subsequently killed by another disease of poverty not targetted by GOBI's selective approach? If they are still alive, what future do they face? If GOBI's implementation actually undermines the radical grassroots organizing that alone can direct demands and struggles for the power to control health, would it be better not to have GOBI?

The alternative to answering 'yes' is to conceptualize a 'social' GOBI that would be the technical content of a locally determined initial process, truly the 'leading edge' of PCH. However, careful note should be taken of the word 'initial'. Appropriate phasing is essential to the long-term construction of popular support for the more comprehensive, more empowering form of PHC launched by the Alma Ata conference. If GOBI-like starting points were chosen flexibly with groups of parents to whom the results of regionally-specific epidemiological surveys were presented for discussion, one would be building long-term foundations for PHC while also moving dramatically against the five or six conditions that account for 80% of child death in the third world [40].

Care would also have to be taken that whatever the form of the initial GOBI-like interventions, they reinforce the social character of the struggle for child survival. Rather than reinforcing individualistic behavior and dependency on the central state, GOBI-like interventions *could* be implemented by groups of parents and in such a way that the status and role of local community health workers and traditional birth attendants are reinforced.

There should be no illusion about the acceptability of such an alternative to agencies as tightly united in defence of established economic privilege as are most states and most of the international development apparatus. In the 1980s the conditions of profitability leave less room for officially sanctioned propular agitation for the right to food and to health. As the screw of 'economic adjustment' is turned in dozens of third world countries, it is better from the point of view of the international agencies to be able to say "we tried PCH, complete with its encouragement of grassroots struggle for rights, and it was too slow, too costly, and inefficient". The truth may be that however efficient that earlier PHC approach may have been, any major development approach that emphasizes local articulation of political demands such as the demand for health will be officially rejected in the climate of the 1980s.

One should also guard against idealizing comprehensive PHC. Much of the criticism directed against it is valid. What this paper questions is whether the 'cure' (e.g. selective PHC) is worse than the 'problem'. Comprehensive PHC has, in fact, been slow in taking shape after Alma Ata, and there have been numerous distortions and misuses of institutions dedicated in name to popular control of health [39, 41]. The ideal of community participation has seldom been achieved [7, Chap. 2; 42 ,43]. In fact, Barker and Turshen find that "many proponents of comprehensive primary health care . . . routinely reduce PHC itself to a depoliticized and technocratic strategy" in any of the following ways [39, p. 84].

1. Think[ing] PHC is equivalent to provision of basic health service, being really the sum of a list of technical measures which might add up to a second-rate service provision in areas inhabited by the poor, but which leave ignored, and therefore intact, the curative services available to a privileged few;

2. Ignor[ing] the consideration that good health is probably more contingent on overall development than upon the health sector, and choos[ing] to ignore PHC's emphasis on community participation, with its underlying threat of mass struggle;

3. Look[ing] to traditional medicine or intermediate technologies as ways of letting the state off the hook, by providing a shabby alternative to the equitable redistribution of health care resources;

4. Enthusiastically propound[ing] community participation and self-help alone as the path to PHC, thereby necessarily failing to address the question of the role of the state, and by implication failing to recognize the issue of equity.

Nonetheless, the goal of 'health for all' is unlikely without the kind grassroots organization envisioned in earlier notions of comprehensive PHC, whatever fate these visions may have had in practice. It is hard to imagine growing nearer the goal of 'health for all' without such relatively self-reliant local organizations whose demands become more militant even as the privileged in all countries refuse to accede to changes in the distribution of resources and insist on more of the same.

The chief danger of SPHC is that it helps to slow or to divert the growth of local organizations capable of articulating these demands for change at an historical turning point that can only lead to change or to disaster.

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