Contextualising Plague
A Reconstruction and an Analysis

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A reconstruction of the plague epidemic glaringly portrays the dichotomies in public health and provides lessons for the future of its practice in this country. The classical approach, which is mainly sanitarian, at best reduces epidemics to an endemic status. If public health is to go beyond this truncated objective, then it calls for a systemic understanding of the problem which would involve evolving a multi-pronged strategy firmly entrenched in the socio-economic context.

NOW that the frenzy of the plague has waned, it is time to analyse the socio-economic and political factors that are responsible for the epidemic and the human suffering it caused. The recent outbreak of plague cannot be viewed independently of the recurrent epidemics of communicable diseases from different parts of the country, claiming thousands of lives. The immediate impression that remains in one's mind is the fear and pathos of human suffering and the half-hearted response of the administrators and politicians in dealing with the situation. What is fairly evident is that the government was much more concerned about the economic losses incurred, the poor image presented of India by the western media, the effect it would have on exports, the tourism industry and the possible withdrawal of investments by multinational corporations. Given these concerns, the government was more preoccupied with retrieving India's image abroad and failed to use the principles of epidemiology to assess, control and provide relief to alleviate human suffering.

This paper looks at the resurgence of epidemics over the 1980s and locates the plague epidemic by the state, based on newspaper reports and some interviews, in order to explore the complexity behind its inefficient handling. Finally, the politics of plague and its consequences are explicated.

I
Resurgence of Communicable Diseases

Over the last decade, a number of epidemics have broken out in different parts of the country, resulting in thousands of deaths. The number of such outbreaks seem to be on the increase and is fast becoming a part of the disease profile of this country. A number of reports have appeared in newspapers about the repeated outbreak of epidemics but these very often do not get reflected in the official statistics. Outbreaks of cholera and gastro-enteritis have been reported from Jammu and Kashmir, Madhya Pradesh, Delhi, West Bengal and some North Eastern states. In Jammu and Kashmir alone, there were 250 deaths due to gastro-enteritis. Infective hepatitis has claimed several lives in Delhi and a few years ago an epidemic of Japanese encephalitis claimed hundreds of lives in Tamil Nadu and West Bengal. Several districts in western Rajasthan are under the grip of malaria. According to reports this epidemic of malaria has claimed over 500 lives and over 60,000 positive cases of this disease have been detected from this region. The worst affected districts are Bikaner, Barmer, Jaisalmer and Jodhpur.[1] While some epidemics get reported, many have gone unnoticed. The deaths due to blood dysentery in Bastar district of Madhya Pradesh and cerebral malarial deaths in Bikaner district of Rajasthan two years back are cases in point. Thus many of the epidemics that have occurred like kala azar, cholera, gastro-enteritis, malaria and now, plague have essentially become endemic diseases.

Deaths due to these epidemics often do not get reflected in the official statistics. This is due to inadequacy of the health information system which results in under-reporting and in some cases even non-reporting of certain diseases. This is a serious lacuna of the system. Despite these limitations, the trends in number of cases and deaths for certain communicable diseases, based on official statistics are revealing. The number of reported cases and deaths due to malaria and kala azar has been showing a steady increase. According to the *Health Information Bulletin* brought out by the ministry of health in 1992, the maximum number of malaria cases per year were reported between 1971 and 1976.[2] After its resurgence, deaths also started rising from 1974 onwards. From 1977 the number of malarial case registered a decline, but the number of deaths continued to rise till the mid-80s. Table 1 shows that though the incidence of cases seem to have stabilised over the mid-80s, the apparent control over the number of deaths is being lost. The current outbreak in Rajasthan confirms this.

Although the problem of kala azar is mainly limited to Bihar and West Bengal, more than 76 per cent of the cases reported are in Bihar.[3] The number of cases and deaths due to this disease from 1977-88 shows a consistent rise. Diseases like malaria and kala azar are showing a resurgence despite elaborate national programmes for their control.

The data on incidence of cholera and deaths due to it indicate that there has been little change in the status of this disease since 1986. Until 1987, the ministry provides data on cholera, gastro-enteritis and dysentery (Table 2). From 1988 onwards the categories include cholera and acute diarrhoeal diseases and from 1991 the report only includes cases and deaths due to cholera. Given the large number of cases of dysentery it could not possibly be included in the reporting of acute diarrhoea for the years 1988-91. For the years 1988 and 1990, according to the ministry reports, there were 82,60,946 cases and 7,290 deaths, 95,79,738 cases and 8,633 deaths due to acute diarrhoea, respectively. The deaths due to acute diarrhoea was 35 times that of cholera deaths in 1988 and 99 times the cholera deaths in 1990. The significance of this omission is self-evident.

Of the total cholera cases reported, about 88 per cent were reported from the coastal states of West Bengal, Orissa, Andhra Pradesh and Tamil Nadu. Even Delhi, the capital city with all its amenities has been witness to a steady increase in cholera cases and deaths. Since 1983 there has been a steady increase in the number of cases of gastro-enteritis. In 1988 there were 14,712 cases and 624 were confirmed cases of cholera with 181 reported deaths (Table 3). In the *Health Information of India*, 1989, however, the recorded deaths were reduced to eight.

II
Plague, 1994

There has been no case of reported plague in India since 1967. A few local epidemics were suspected but never officially acknowledged.[4] The dwindling resources for public health led to the closure of most surveillance units. Despite warnings by the Plague Surveillance Unit in 1989 endemic states did not improve their surveillance systems. Maharashtra had in fact completely closed down its surveillance unit. The signals

of alert by the 17th Inter-State Plague co-ordination meeting in 1993 thus went unheeded even though they were based on the findings that rodent positivity for plague infection was rising.

The earthquake in Latur became the turning point. There were rat falls and increase in the number of fleas in Mamla village from where the first case was reported. By mid-September Beed district was reporting bubonic plague. It spread to the surrounding areas, yet all these were insufficient for the authorities. They did not take nature's warning seriously. The continuous rain in Surat and the floods in Tapti inundated localities and killed cattle, the carcasses of which were scattered around the town. This could not be passed off as a 'natural disaster' even by the administrators and politicians.

By September 20 deaths from plague had already become a reality. From the inundated areas near the Tapti it spread to the rest of the city and forced people to flee. An exodus of about 1 million people out of the 2.5 million population was reported. Rifts between Surtis and non-Surtis, the moneyed who could run away and the poor who were trapped, the administration and its workers were all rooted in the fear of the dreaded disease and the suffering of its victims.

Two things that left an imprint on the history of public health in India were the acute misery and the blind fear despite the availability of curative as well as preventive technologies. Second, the total collapse of health administration. But for those dedicated few who stayed and suffered with their patients, the majority of the personnel preferred to take leave or run away: For those who have consistently argued that the existence of technology is reason enough for being optimistic about the future, this should provide some food for thought.

Many explanations have been offered for the calamity in Surat. It is said that the fast growth of the city, its expanding slums (just next to the opulent mansions of the diamond merchants) its inadequate infrastructure and the additional strain of lack of resources for civiv services were at the root of the disaster.

The succumbing of Surat is thus explained by its inadequate infrastructures manned by an apathetic, indifferent and callous administration. What is not explained is the behaviour of the capital city. While Bombay managed to step-up its surveillance and took the possible precautions against plague, Delhi continued with its false sense of security. Even though it was clear that the fleeing population from Surat was headed in all directions, the Delhi administration chose to ignore the threat.

Delhi Epidemic

While the city administration was still trying to get its act together, three suspected cases were admitted to the Infectious Diseases Hospital (IDH), two coming from Gujarat and one from Bombay. Of these, two admitted on September 25 tested positive and heralded the onset of the plague epidemic in Delhi. To control its spread, apart from the booths at railway stations and other entry points, ten zonal plague control rooms were set-up in the city. All hospitals were directed to refer suspected cases to IDH. A list of dos and don'ts was published. Voluntary groups were also called upon to educate the public in addition to the various official committees and meetings at the state and central level.

Taken aback by the calamity, the health secretary and the Director General of Health Services came up with the typically bureaucratic response. While Mehta, the chief minister of Gujarat, denied the diagnosis of plague in Surat even when people were dying, the central health bureaucracy too were reported to have made a press statement that cases tested sputum negative could be called plague.[5] Some others raised the issue of diagnosis, included WHO's non-acceptance of the haemagglutination test as confirmatory. Fortunately, at that time the director of the National Institute of Communicable Diseases (NICD) clarified that a negative sputum is possible in a partially treated case. He also clarified that haemagglutination test may not be as sensitive as the fluorescent antibody test but it was reliable. The latter was expensive and needed costly reagents. Though it was reported that the government had ordered the required reagent from a Colorado-based US manufacturer through the WHO and it had arrived, no information was available on its use in actual diagnosis.

On Monday, September 26, Ram Sumer, the first case of bubonic plague was admitted to IDH. The laboratory confirmations of Ram Sumer's ailment hit headlines on September 29. By then the total cases of plague had risen to 35 and admissions to IDH had started increasing at an alarming rate. The possibility of bubonic plague only added to this pressure. When four patients left the hospital against medical advice on grounds that the conditions in the hospital were inadequate, the image of the government got its first beating. Police force was mobilised to get back the absconding patients, and armed police also guarded the gates of IDH to ensure that no one left the hospital without a formal discharge.

The government of Delhi invoked Section 385 of the Delhi Municipal Act 1957, under which plague has been declared a dangerous disease. The act empowered the government to forcibly shift persons suffering from plague to an isolation hospital and file criminal cases against those who go against the provision of the act. After this, there were reports of not only police harassment and patients being lifted from their homes without attendants but also of suspecting neighbours calling control rooms to report non-existent 'cases'. The use of force came easy to an administration that knew no other way to reach out to people.

By September 30 it was clear that not all cases of plague in Delhi were from outside. Of the 66 cases suspected till 29th, 26 were permanent residents of Delhi. Of them 17 had neither visited Surat nor met anyone from there. Of the 66 cases 25 were from Surat, three from Bombay, two from Ahmedabad and one each from Noida, Muzaffarpur and Chandigarh.

Another critical factor was that according to the reports, "all patients from Delhi had symptoms of bubonic plague with well developed buboes in the groins and high fever. Lung infection in all these cases was minimal".[6] A follow-up of this report, later confirmed by the IDH personnel, pointed out that out of the 69 cases among the residents of Delhi till October 11, 37 were indigenous. Of these 37, 14 had palpable lymph nodes. However, none were fulminant. Except for the confirmation of one case, reports for the others are not yet available. Clinically, the diagnosis of bubonic plague cannot be ruled out and it is only reports of the buboe aspirate that will confirm the diagnosis. All these cases were serologically positive for plague.

With this scare the drive for cleaning the city was intensified, the Rajan Babu TB Hospital located next to IDH was directed to make 500 beds available to IDH for admitting suspected plague cases. Efforts

Table 1: Notified Cases of Cholera, Malaria, Kala Azar and Japanese Encephalitis

Year	Cholera		Malaria		Kala Azar		Japanese Encephalitis	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
1986	4211	71	1792167	323	14079+	47+	-	-
1987	11423	224	1663284	188	19179+	77+	9080	1596
1988	8957	215	1854830	209	22739	131	16384	3304
1989	5044	72	2017823	268	34489	497	22263	3511
1990	3704	87	2018783	353	57742	606	16757	2984
1991	7088	150	2120472	421	61438	869	11995	2290
1992	na		na		na		9051	1685*

+ Figures only from Bihar Chief Malaria Office, Swasth Bhawan, Patna; * Uptill November 1992.
Source: GOI, CBHI, Ministry of Health and Family Welfare, *Health Information of India*, New Delhi, 1993.

(3)

were also made to make tetracycline capsules available in the market. Despite this, hoarding and profiteering continued and pharmaceuticals made their profits out of the widespread fear of plague.

Table 4 shows the numbers of suspected and diagnosed cases in Delhi. The largest number of patients were admitted between September 30 and October 4. After this, a significant decline in admissions indicated that the peak was over. Till October 11, a total of 69 cases were diagnosed as plague.

The ultimate picture of spread that emerged is one where except for some clustering around one to two kilometres of IDH, the rest of the cases were scattered. None of the better off or posh localities were affected. For example the scattered cases came from Mangolpuri, Madangir, Okhla, Munirka, Mohammadpur, Nangloi and Shahadra. The areas affected around IDH were from Malkaganj, Azadpur, Jahangirpuri, Santnagar and Mukherji Nagar. The key factors affecting the course of the epidemic appear to be the scare which led to early reporting and timely treatment and extensive use of tetracycline.

By October 3 plague was overshadowed by political violence. Media attention shifted to Uttarakhand and from the head-lines plague receded to the inner pages and then into the cradle of the weekly magazines. It appeared as if plague was no longer a problem. The health ministry officials, who otherwise express tremendous concern about information education and communication (IEC), never actually set up an independent information system. The shift of media's attention was therfore to their advantage and they did not have to answer uncomfortable questions. The questions however, remain.

Administrative, Professional and Political Response

It was only when people from Surat started trickling in, that the administration woke up to the possibility of a danger. A 'red alert' was declared on September 23. It essentially meant setting up booths on airports, railway stations and bus stops for checkups, alerting the embassies and advising sprays. The Delhi chief minister's contribution to plague control was setting up a committee to supervise anti-plague activities under the chairmanship of the chief secretary. The directorate of health services set up its own cell to monitor plague in the country. It was expected that the two would co-operate as far as Delhi's requirements were concerned. IDH was spruced-up to receive cases from all over the city and NICD was to do the epidemiological monitoring and laboratory testing.

The events over the next ten days as they unfolded revealed that petty political competition preoccupied the Central Authorities and the Delhi state's first political rulers. The All India Institute of Medical Sciences (AIIMS) an autonomous institution directly under the health ministry, ignored the state government's directive to refer all suspected cases to the IDH. Only when two of the AIIMS patients died of plague on 25th, the hospital authorities were forced to acknowledge their reservations. They are reported to have said that they were waiting for a formal letter. The hospital was then instructed by the union health ministry itself not to admit patients suspected of plague and to refer them to IDH. When AIIMS did refer Susheela Devi, a patient who had tested positive for plague on Friday, the hospital did not provide her an ambulance and she never reached IDH. It was only later that Delhi's health minister thought of instructing hospitals to ensure requisitioning of CATS ambulance to send patients to IDH. Doordarshan continued to show the garbage dumps in different parts of the city as a visual critique of the Delhi state authorities. It was obvious to the viewers that rubbish collected over years of neglect could not be cleared overnight.

The Delhi government on its part kept on complaining, that their hands were tied as "the centre does not allow us to provide sanitation and develop juggi clusters and unauthorised colonies".[7] According to M L Khurana, such a directive was 'absurd' and disastrous for the city. He may be absolutely right but it was surprising that it took a plague epidemic to make him see the obviousness of his statement. That he had not bothered to take up this issue earlier and was only now planning to write to the prime minister (*Pioneer*, October 2) reflected the degree of his interest in the welfare of 40 lakh people living in jhuggi-jhopris and unauthorised colonies.

The five-day drive for cleaning the city taken up by the Delhi government lacked a long-term perspective. It only meant removing garbage from one locality to another. The centrally-located VIP areas got the maximum attention while the peripheries of the city collected more garbage. The most crucial actors in recycling and reducing the quantity of garbage – the rag-pickers – were banned from touching it! It was reported that they tend to spread garbage hence the police was alerted, informed and told to check rag-pickers. No one bothered to explain how garbage was critical for the spread of pneumonic plague or was Delhi really threatened by bubonic plague? Why garbage piled was better than garbage recycled by the rag-pickers, and which was more dangerous, burning piles of plastic bags emitting carcinogens or the possibility of taking tetracycline in case of plague?

There was, however, news of the government exploring possibilities with garbage recycling foreign companies for setting up plants in India. If the non-functional Dutch plant in Delhi is any indication, these technologies offer no solution to the problem of garbage disposal.

Despite of red alert, till as late as September 29 a truck load of people were reported to have come into the city from Gujarat. The check-posts were obviously ineffective or inadequate. It was without any prior notice or explanation that the schools were closed on September 30. The explanation later offered was that surveillance of children was difficult and they were more susceptible. However, no attempt was made to stop the immunisation drive where hoards of children were collected. Those in charge of the immunisation campaign went around advising parents to bring in their babies even if the child had received a dose two weeks back. This might be the strategy of a 'pulse programme' but could this be rational under the threat of a plague epidemic?

In addition to the above, the medical community contributed to the confusion through its own lack of confidence. Not only did they advise different doses of antibiotics, different modes of isolation and differed on the most effective drug, some also considered it wise to raise technical issues regarding the existence of an epidemic, the accuracy of tests being carried out at NICD and its acceptability to WHO. According to NICD, antibody fluorescent tests could not be performed on all cases as the reagents were expensive and unavailable. A number of suspected cases coming from Surat had already taken antibiotics and that too made

Table 2: Cases of Dysentery and Gastro-Enteritis in India

Year	Dysentery		Gastro-enteritis	
	Cases	Deaths	Cases	Deaths
1982	8995226	2551	1015175	4076
1983	8274724	2513	1095944	5796
1984	8469834	2370	143844	6688
1985	8742177	1937	1441411	4996
1986	7658399	1583	1220237	3580
1987	8741081	2109	13338594	2109

Source: NIHFW, National Programme for Control of Diarrhoeal Diseases, New Delhi, 1988.

Table 3: Cases of Gastro-Enteritis and Cholera in Delhi in 1980s

Month/Year	Gastro-enteritis Cases	Confirmed Cholera Cases	Deaths
July 1983	8,260	–	67
July 1984	9,967	–	123
July 1985	8,805	128	80
July 1986	8,141	157	90
July 1987	6,372	57	115
July 1988	14,712	624	181

Source: VHAI, *Civic Neglect and ILL Health: A Brief Inquiry into the Cholera Epidemic in Delhi*, New Delhi, 1988.

(4)

...ching the diagnosis difficult. In such conditions using strict technical definition actually amounted to negating the existence of plague.

Through this chaos the central health minister and the director general of health services kept telling the public that there was no cause for concern as they found everything 'satisfactory' and 'under control'. Instead of realising that 30 per cent of the suspected turned out to be positive where there should have been none, they chose to emphasise that 70 per cent patients reported as suspected cases of plague, proved negative. The government, according to them, had done its best. The ministry officials were reported to have said that 'vested interests' were responsible for the panic within, and over-reaction outside the country. While the health minister chose to keep quiet on the issue, his deputy, Ghatowar was given the task of defending the ministry.

Ghatowar made the best of a bad job and made a few revealing statements. These clearly reflect the anti-people attitude of the government. According to him, "in a country with financial constraints like India we cannot always adhere to whatever the experts suggested as ideal". He claimed that the experts had not warned them of a 'high risk factor'. It is obvious then that the findings of the PSU, the warnings of the meeting of Inter State Plague Coordination Unit and NICD fell on ears that had already decided to be deaf.

The confusion created by the 'experts', the inadequacy of practical knowledge of plague among most doctors and the fact that there were till October 1 only 23 positive cases, emboldened the government to underplay the calamity. The central government's representative Ghatowar was reported to have said that "Plague, gastro-enteritis, cholera are not extinct either in India or in countries such as the US, China, Peru, African states, etc. Gastro-enteritis is a natural phenomenon arising out of contaminated water, bad sanitation, so why ask us, ask the rural development ministry, the urban development ministry – we are doing our best to cure the afflicted."[7] Thus he did his best to make plague look common place, took no responsibility for prevention but only for cure and pretended as if the failure of other ministries was not the government's concern!

The officials and the politician showed greater concern for dwindling business export of food and garments, the "image of India abroad" and the inflow of international capital rather than human suffering and deaths. The Export and Manufacturers Association secretary is reported to have said that the term plague has a historical connotation for our European partners and they panicked.

There was pressure too from the smaller business in the capital. The season of festivities was good for their business. 'Puja pandals' had been erected and markets were overflowing with unsold goods. Perhaps under this pressure, schools closed on September 30 were reopened on the October 4. This decision was taken on October 3. It is obvious from Table 4, that there was no significant change in the reasons given by the directorate initially for closing schools. To add to the disarray, private schools were allowed to remain closed while the government schools mostly located in the less privileged and less cleaner surroundings were ordered to reopen!

Once the schools reopened plague disappeared from the front pages of daily newspapers. Delhi resumed its false posture of normalcy. Thus, even though 306 new cases were admitted as 'suspected cases' till October 6 – bring the total such cases to 514 according to Delhi's chief minister (*Pioneer*, October 6) – the health minister claimed that the "disease has been checked".

WHO too came to government of India's rescue. All through it reminded the press that plague never was eradicated even in the US and that it was curable. It offered its 'expertise' but never commented on the need to gear up the infrastructures through which any experts were expected to function – Indian or foreign.

In brief the lethargic reaction of health administrators, its contradictory acts and statements, inability of most professionals to rise up to the challenge, the obvious efforts of politicians to underplay the problem became so obvious that even the middle class lost its confidence and panicked.

Under pressure of this panic and the need to retain some credibility with its international donors, the government took some measures and was duly rewarded. The US and the European Community took a lenient view of the epidemic. Whether it was to let their saleable goods flow into the Indian market or to build a political alliance against its perceived ideological opponents (the Islamic bloc) or because of superior infrastructures which ensure strategic preventive intervention is a matter of detail. The real issue is that their benevolence gave the Indian politician yet another chance to get away with murder.

The cinema halls reopened on September 10 to soothe the short memories of its residents. For the final burial of the event, an expert committee was set up. Even the press has been attacked for its exaggerated reporting. In short, Delhi has done all it could, to muddle through the plague epidemic. Its actions become unenviable when seen against the enormous resources that it consumes compared to the states of Gujarat and Maharashtra (Table 5).

In 1991-92 Delhi received 717.6 lakh more than the whole of Gujarat. In the following two years this gap became much larger. Similarly, while Maharashtra (including Bombay) received double the amount of resources in 1991-92 as compared to Delhi, in the year 1992-93 the actual allocations were revised. For Delhi, it rose and for Maharashtra it declined thus further narrowing the gap between Delhi and Maharashtra as a whole. Despite Delhi's wealth, poverty of initiative, lack of administrative cohesion, absence of a well-worked out strategy, public health incompetence and the callousness of its political elite are glaring.

Some Issues

The epidemic has abated but it has certainly not disappeared. While the political leadership will have to assess the helmsmen it chose for public health, a few simpler administrative lessons have to be learned. For example:

(i) Public health activities require large but active organisations. If the system is not geared to go into full action when required then it loses its public health significance as it is overtaken by events.

(ii) Though it appears to be simpler and cost-effective to centralise services, the trouble with the strategy is that it increases the risk of infection, makes patients travel long distances and is inconvenient to their families.

(iii) Burden of care on NICD and IDH would have been lessened if the city's premier medical colleges and other specialist hos-

Table 4: Reported Cases of Suspected Plague in Delhi

Date	Daily Admissions at IDH	Cumulative Total Suspected Cases	Cumulative Total Tested Positive
September 24	1	1	–
September 25	2	4	–
September 26	2	7	2
September 27	4	17	
September 28	13	37	20
September 29	19	80	22
September 30	119	199	23
October 1	189	388	–
October 2	374	437	25
October 3	115	572	38
October 4	91	645	44
October 5	70	755	50
October 6	62	822	50
October 7	49	–	–
October 8	22	1003	54
October 9	6	–	–
October 10	12	–	–
October 11	–	–	69

Note: Cumulative suspected cases from October 4, 1994 are obvious underestimates as the daily admissions at IDH alone add up to more than the cumulative cases reported for a day. This may be due to non-inclusion of discharged patients.

Source: *The Times of India*, *Hindustan Times*, *Statesman* and IDH reports.

pitals had been mobilised. Instead of simply criticising the working of these two hospitals they could have been used more efficiently.

(iv) An effective public information system should have been in existence. Information of admitted and discharged patients on a daily basis along with maps of affected areas would have helped people practise prescribed dos and don'ts better.

(v) Though the media did its best to publish information, they at times overdid it and contributed to the scare among the newspaper readers. They, however, cannot be blamed, for it was the responsibility of the administration to provide detailed, adequate and correct information on a regular basis.

(vi) Last but not the least, drug control of market outlets could have been effective from the very beginning instead of being an after thought.

The epidemiological issues that arise out of the plague epidemic are crucial both for understanding the epidemic and developing a strategy for future. The first and foremost is the diagnostic issue. If plague in Delhi was bubonic, then it has serious implications. It means that Delhi too is carrying a mild or moderate epidemic in its rodent populations which needs to be identified and handled along with their fleas. It also partially disprove the assumption that Delhi was affected because of the Surat exodus.

The indications are that plague was bubonic and the pneumonic manifestations in those cases were secondary. It could be due to the high rainfall, relatively lower temperatures and other climatic conditions in which case it would be with us for some more time.

To ensure the above, rat fall studies and flea index become indispensable. NICD is said to be conducting such studies but the results are still awaited.

The confusion regarding diagnosis is very critical. The level of sophistication increases reliability of detection, but this must not be allowed to become an excuse for rejecting cases in the present situation.

Social dimensions of the epidemic need to be focused upon. The vulnerability of the poor, the implications that excessive fear generated in the middle class, the politics of suggestions such as wearing masks in the buses, instructions to admit all cases irrespective of the clinical picture and the Municipal Act, 1957 are some such issues which lead us to examine the very scaffolding of our mega cities.

III
Understanding Chaos

There have been two popular responses to the disaster. First, that the cuts in the health budget have brought down investments in this sector from 3.3 per cent in the first two Five-Year Plans to 1.7 per cent in the Eighth Five-Year Plan and these need to be increased. Second, that public health services have been undermined and need to be strengthened. These twin problems of dwindling resources for health and declining standards of public health are intimately linked with (a) structural adjustment policies, (b) the evolution of public health in India, (c) the patterns of urbanisation. We briefly review here, each of these areas.

Structural Adjustment

The liberalisation policy of the present government has resulted in the cut-back of investments in certain sub-sectors of health. This trend began even prior to the official acceptance of structural adjustment and investments in health sector have since been gradually declining. From the mid-1980s onwards the government has been cutting back on medical and public health with increased outlays for family welfare. During the Sixth Plan there was some effort to increase outlays for communicable diseases while the investments in curative services remained stagnant. It is during this plan period that for the first time the government acknowledged its inability to provide the required medical services. It introduced the idea of opening up medical services to private and voluntary organisations in order to supplement government services.

The Seventh Plan not only strengthened the policies of privatisation of medical care but in fact raised allocations for family planning by 9 per cent. During this period the investments in medical care remained stagnant and for communicable diseases, it actually registered a decline.[10]

During the early 1990s (1990-91) the health budget was slashed by Rs 32.9 crore and it was communicable diseases which really bore the brunt of this cut-back. Even supporters of the new economic policy were quick to point that the indiscriminate cutback on health would further marginalise the poor. During 1992-93, the outlay for health was increased by 60 per cent over the previous year (Table 5). Much of this increase was due to a 34 per cent increase for AIDS control with Rs 58 crore being invested for this disease alone. There was also a marginal increase for tuberculosis but much of the outlay was to be spent on importing a new set of drugs for its treatment. Merely importing newer drugs without strengthening the infrastructure will neither improve coverage nor ensure regularity of treatment which is critical to the Tuberculosis Control Programme.

The Blindness Control Programme also registered increased outlays. According to the government, the emphasis of this programme is on cataract surgery[11] and investing in superspecialist services rather than treating ophthalmic infections which are the second major causes of blindness, specially among the younger age group. Between 1991 and 1992, the investments in kala azar showed a decline of 3.4 per cent and in 1993-94 it was merged with malaria control. There was almost a 13 per cent increase in 1993-94 outlay for malaria but this included outlays for kala azar and Japanese encephalitis as well. Even leprosy which was to be 'eradicated' as per the recommendations of the Swaminathan Committee Report[12] registered a decline in its proportionate share of allocation despite a marginal increase in actual budget.

While reading these plan outlays, two things have to be kept in mind. Firstly, a large chunk of loan from World Bank to the health sector has been tied to the AIDS programme. Secondly, the over emphasis on AIDS has undermined other communicable diseases control programmes. What seems to be fairly evident from the trends is that the priorities of the government do not match with the existing patterns of disease in the country. Their concern for the National Programmes for the major communicable diseases is declining while others are gaining priority.

Evolution of Public Health

To understand this we have to see how public health practice and content was shaped in India: Why education and training of public health could not be rejuvenated? And why most diseases of poverty are slowly sliding down in the national agenda? A myriad of factors influenced the content of public health as it evolved in India. (i) Like all other professions of that time, public health too was guided by the interests of the British. Its concerns were safety of the army, a select British population and the natives wherever profits were at stake. For example: when revenues were threatened, special committee was set up to examine the possible connection between canal irrigation and malaria.[13] This was followed by the first

Table 5: Annual Budget Outlay

(Rs lakhs)

Year	1991-92		1992-93		1993-94	
	Total	MNP	Total	MNP	Total	MNP
Delhi	4935.61	–	6500	–	7209	–
			(6707)			
Gujarat	2936	1270	4093	1650	4132	1650
Maharashtra	6164	4150.76	8367	6000	10604	4741
			(6433)	(4019)		

Source: Annual Plan 1993-94. (Figures in brackets are revised outlay.)

search' project to control malaria in Mian mir.[14] Similarly, public health measures for large religious congregations were initiated despite the well known reluctance to increase government expenditure, because the profits of private railways companies were linked with promotion of pilgrimage by the natives.[15] Unlike sanitary movements in Britain, the socio-economic conditions and living standards of the people of India never became central to public health. At best practitioners were the army medical doctors who later manned the Indian Medical Services (IMS). The first formally trained public health practitioners in India thus got their field training under these IMS doctors who were competent technically but did not concern themselves with the social dimensions of epidemiology. The 'superstitious native' with his unfathomable peculiar traditions was held responsible for the failures for public health efforts while all successes were the achievements of modern medicine and its practitioners.

The culture of the professionals was carried into the national programmes of independent India. They were visions of technical supremacy which would compensate for the lack of social change. The skills needed for midway correction through competent monitoring were found lacking perhaps due to sudden reduction of the professional manpower after the British doctors left.

The foreign 'experts' entered the scene and the glamour of technology made entry of many vertical technocentric disease control programmes easy. Malaria was to be controlled through DDT, small pox through mass vaccination, leprosy through dapsone and filaria with hetrazan therapy. Except for small-pox, which was eradicated after a shift of strategy[16] in the early 70s, all other programmes proved inadequate. Their failures are not the result of resource constraints alone but of inadequate and inappropriate strategies. In the case of malaria, it took us two decades to realise that it was wrong to create population based eradication units. The essential factor should have been "the terrain and the topography". It was accepted that without an efficient basic health services, malaria control was not possible. It was also acknowledged that conceptualisation of the programme as essentially a rural activity was incorrect.[17] Even then the programme continued till 1974 when it was finally modified into a National Malaria Control Programme with much lowered ambitions.

The other glaring example of poor strategy building is in Leprosy. A National Control Programme was converted into an eradication programme in 1982 by the Swaminathan Committee. To any student of public health it is obvious that the decision was political and not based on scientific knowledge or operational research. The excuse was that multidrug therapy reduces the period of treatment and increases the possibility of intercepting transmission. The working group headed by M S Swaminathan knew that the treatment "effectiveness as a tool for achieving early control or eradication of the diseases is yet to be established". Yet, they launched an expensive programme and the public health experts went along with them. Only after successive failures some acknowledged that the strategy was ill conceived.[18] Over time then, public health not only failed to build upon the foundations laid by the first generation of its practitioners but it also failed to retain what little epidemiological base they had built. Inclusion of socio-economic dimensions into an epidemiological approach remained a far cry.

After the country became independent, IMS was dismantled while IAS continued. As health remained a state subject, the experience of public health at grass roots levels remained state bound and the centre depended upon medical colleges and other central institutions for its public health leaders. A series of director generals with backgrounds in paraclinical (anatomy, physiology, pathology) and clinical subjects such as orthopaedics brought the status of 'professional in public health' to a level where they were easily dominated by the IAS officer[19] who invariably had a broader experience. The bureaucratic control by itself, however, continued to lack public health competence. With the failure of various health programmes, a new category of professionals emerged and these were the health management experts. Unfortunately, these shifts in the professional control at the top did not contribute to any appreciable improvement in the working of the programmes.

Reported failures in public health efforts led to a shift in emphasis whereby instead of controlling diseases among people through a broad-based strategy, the emphasis shifted to controlling people themselves – in terms of numbers.

The Sixth and Seventh Five-Year Plans integrated various programmes into the general health services. This integration, however, was limited to the lower echelons while at the top Family Planning remained the priority. Such an integration put the entire lower level infrastructure on a platter and offered it to the Family Planning Programme. Instead of strengthening basic services, integration actually weakened them. Peripheral institutions worked for Family Planning targets at the cost of all other public health activities.

Along with liberalisation, medical care was opened up to private and non-governmental sectors. This led to stagnation and undermining of public hospitals as they faced cuts in their budget allocations and loss of their competent manpower to the private sector. Thus the undermining of secondary level support structures made achievement of effective primary health care even less plausible. In other words, public health in India has suffered due to its substance which constrained its practical success and undermined its essential infrastructures. Resources do play an important role but along with resources the practice and content of public health has to be emancipated.

Medical Education

The relevance of medical education in shaping public health is self evident. Bhore Committee in 1946[20] visualised the 'basic doctor' as a socially sensitive medical professional competent in providing elementary health care. However, the history of evolution of medical education in the country reveals that not only have doctors been the blue-eyed boys in a health team, their education and training also continued to be heavily influenced by western models of education.

There is sufficient evidence to show that in early 20th century, policies of influencing medical education in third world countries were consciously followed by the US through its technical and financial support. In China, the argument to train personnel to meet the needs of the country was used by the Rockefeller Foundation to support medical education that trained elite professionals essential to 'westernise' the country. This strategy in fact replaced the foundation's previous support to missionaries.[21]

Similar export of western professionalism to Asia is also recorded by Goldstein. Not only was aid linked to reforms in medical education but also by creating elite institutions for medical education and insisting on supporting only those, a process of weeding out all other practitioners and doctors from positions of power and dominance was set in. This led to a generation of physicians who were conscious of their own professional dominance and exercised it to become one with the "international community of scientists".[22] These elite physicians were trained to exercise their autonomy against their responsibility to the society. They did this through the ingrained 'clinical mentality' which teaches them to do what they think is best for a single case without a thought for its implications for the society at large or even for the family.

In India this conflict started with the British Medical Council (BMC) in the late 19th century. The issues were of curriculum, language of instruction, training in obstetrics and integrated education of allopathy and traditional systems in medical schools.[23] The medical colleges of independent India continued with their curriculum which were evolved under the guidance of BMC. Here too, Rockefeller Foundation made its inroads by offering aid and technical assistance. Indian doctors were no different from those

of Thailand and China in their concerns. Majority of the medical students came from landowning and professional classes[24] and hoped to practise clinical medicine.[25]

Concern for this was expressed by an official committee on Health Services and Medical Education in 1975. It recognised the necessity to restructure the entire programme of medical education and acknowledge India's failure to produce the basic doctor "who occupies a central place among the different functionaries needed for the health services".[26] It recommended a UGC type of body for medical education to monitor the needs of the country and assess the required changes in medical education.

Another official effort was made by Bajaj Committee which produced an outline of a National Education Policy in Health Sciences in 1989. Full of contradictions, the document could not but concede the government's failure to reduce the bias in favour of elite medical education, its inability to train other paramedical professions and initiate proper health manpower planning.[27] It called for the constitution of a medical commission to regulate medical education but could not come up with any concrete suggestions for shifting the emphasis in training from specialities to basic doctors and of strengthening public health training.

As a result of this reluctance to intervene actively, the government in fact protected the structures that it had evolved to be a part of the international market for professional skills. India's educated elite specially its doctors continued to be more or less integrated into the global economy and thereby enjoyed the benefits of higher salaries. "The condition of integration into this international market was the possession of internationally negotiable qualifications" and this implies lack of relation to local needs.[28]

It is not surprising then that the initial efforts of independent India to build departments of preventive and social medicine within medical education met the fate that they did. These departments were required to deal with the challenge of highlighting 'local needs' of the vast populations and find socio-technical solutions to them. Reasons behind the failure of these experiments in medical education were many. Firstly, practising public health experts were few and the demonstrative capabilities of the faculty were extremely limited as no links were developed between teaching departments of medical colleges and public health practitioners in the health care system at different levels. At best these departments could provide some exposure to real life situations of cities and villages. This, in absence of any demonstrative effect of the success of public health often convinced students of its futility.

The absence of any excitement and challenge contributed to a vicious cycle whereby the less successful came to PSM. Only after the banning of ECFMG, an examination for screening foreign medical graduates, which restricted the possibilities for migration did good medical students pay any attention to the subject. But that was only for the purpose of leaving the country *en route* the WHO to be in the same salary brackets as their seniors.

These departments failed to link their teaching with that of other departments and hence became islands in medical colleges isolated from the rest. Their inadequacy in developing epidemiology as a discipline in the Indian context made their isolation a natural event. They could strive for recognition only by becoming the victims of the larger malady – competition for international acceptance. Therefore, instead of emphasising local specificities, and seeking socio-technical solutions to India's public health problems they were the first to accept and propagate 'knowledge' that emerged out of the international centres of public health. The Indian 'experts' thus joined hands with the international 'experts' in propagating purely technological solutions to all public health problems. The ancient wisdom that most of our diseases are rooted in the poverty of the people[29] was ignored.

Lastly, the inclusion of social sciences in medical curriculum was reduced to absurdity under these conditions. The recommendations of ICMR/ICSSR committee went totally unheeded and the doctors continued to be trained to think that they alone knew what was best for their patients! This assumption came easy to a set who represented the social elite.

National Priorities in Public Health

India's population control programmes are yet to be integrated into its health services and hence continue to drain it. Even within the health sector, priorities remain lopsided. As we have seen the diseases which have continued to kill and maim the most (such as diarrhoea, respiratory infections, malaria and kala azar) are getting less and less attention. Those which are replacing them (like AIDS, blindness) are largely the concerns of either the developed nations or of India's elite.

The reason for this gradual shift is not far to see. There is no denying the fact that India over the past four decades has built its infrastructures including a health care system. The focus of the infrastructure, especially for water supply, sanitation, housing, transport, electricity and public distribution system is in urban areas. Even within the urban areas the disparities are obvious. The larger share of the total national expenditure is enjoyed by a small elite.

These basic amenities are taken for granted by them and never seen as part of a comprehensive public health infrastructure. As a result, two things happen. Firstly, when they think of public health they visualise only medical technology-based interventive programmes such as immunisation and oral rehydration. Secondly, only those diseases which they experience become their priorities. Absence of emphasis on others does not bother them. Their logical demands are hospitals, well equipped tertiary case for heart diseases, blindness, cancer and other non-communicable diseases. Greater access to curative institutions and adequate supply of drugs in the market satisfies them.

The health administrators, policy-makers and politician who largely come from these sections of the society are no different in their thinking. They have also learnt their lessons from history that the diseases of the poor cannot be tackled by technology alone. The only time they are concerned about this set of diseases is when they are themselves threatened. The mindless disposal of garbage by the plague hit capital's administrators, the Municipal Corporation of Delhi's (MCD's) epidemiological laboratory's full time involvement with monitoring a single disease, the handling of the Cholera epidemic in 1987 are exampes of such concern. The rest of the time they concentrate on.

(i) Removing slum dwellers from amongst them and creating safer spaces for self-protection.

(ii) Devising schemes for educating the poor to be healthy without any basic amenities.

(iii) Investing more resources in their part of the city to beautify and keep at bay the threatening poor.

(iv) Convincing themselves that there is little that can be done for the increasing menace of death and disease among the poor who are blamed for their ignorance and reluctance to benefit from modern service.

Implicit in this attitude is the shift of responsibility from the state to the people. At best the state make some resources available to non-governmental organisations to run some rudimentary form of urban basic services. Like poverty, mortality and morbidity from diseases of poverty too are now seen as prices that have to be paid for 'national development'. It is not surprising then that these diseases are gradually losing the priority they once enjoyed.

Protests against the present policies are rare for reasons already discussed. Firstly, the knowledge and practice of public health itself has been undermined to an extent that understanding of issues at popular level is simplistic. Secondly, in a socio-economic milieu, where both the urban elite and the middle classes see its interests tied to the process of economic liberalisation and global integration, indiscriminate import of technology is seen as a positive step towards development. Thus hi-tech and tertiary institutions are welcomed and class issues

and primary health care are seen as 'primitive' concepts.

The most tragic is the silence of those who suffer. They remain quiet not only because of their helplessness, their negative experiences of raising their voices and their over burdened lives but also because of their perceptions. The glamour of technology and the acceptance of living from one crises to another pushes them into dreaming of that technology. They accept hunger, shortages and lack of services in everyday life but in a crisis, they aspire for what they privileged classes have. Thus they become easy prey to the propaganda that more sophisticated hospitals mean better health care. For the professional, the fact that the poor seek technology becomes reason enough to propagate their own model of technocentric health care. With the poor on their side they let public health degenerate with impunity.

IV
Issues for Urban Health

The noteworthy feature of urbanisation in India is the increasing concentration of people in mega cities, industrial cities and towns. The share of population of class I cities in the total urban population rose from 22.9 per cent in 1901 to 60.4 per cent in 1981. Another conspicuous feature is the fall in the proportion of urban population in the small and medium towns.[10]

In exclusively industrial cities like Surat, metropolitan-cum-industrial city like Bombay or the capital city like Delhi, a large share of the concentrations and additions in the population consist of migrants. The characteristics of such migrants and the population, of course, varies depending on the economy of the city. The functional specialisation of cities is an important determinant of the characteristics of the population and quality of life in cities. The industrial classification of migrant workers by rural and urban residence shows a higher proportion of rural migrants in primary and secondary sector activities, and urban migrants in tertiary activities.[11] In million plus cities, the sex ratio of migrants is in favour of males. The problem of living space in the metropolitan cities probably acts against female migration. It also gives an indication of the type of job opportunities in such cities which are male-biased.

The pattern of urbanisation in India raises several issues for a public health policy especially in the light of the outbreak of plague.

First is the issue of economic organisation of cities in India, whereby increasingly the emphasis is on concentration of industries rather than dispersal which lead to human concentrations and the miserable conditions under which many city people live now. The concentration of industries in cities like Surat, periphery of Delhi, Bombay, Kanpur, etc, results in large-scale migration of people from other urban and rural areas. It is possible to see the modern industrial city as a human failure, a monster which does not lead to any improvement in total human welfare. "Most modern cities are easily perceived as dreary, grey wastelands housing dreary, grey, dehumanised people working as cogs in a machine which seems to destroy much of what is good about life".[12] The modern industrial city may add to material wealth, and perhaps with the changing economic scenario this is what the state needs, but it destroys the very essence of human life. The people in such cities live under miserable conditions, similar to the well-documented stage of industrial revolution, now conveniently forgotten. The conditions of life in such cities, the nadir of which is the outbreak of epidemics, should enable the planners to re-examine the pattern of urbanisation in India.

This does not, however, mean that human well-being is a mirage in such cities. This leads to the second issue of quality of life of people in cities as against growth. This is related to the availability of basic services such as health, drinking water, sanitation and other utilities apart from housing, and transport. There are isolated cases where even in big cities some degree of efficiency was introduced for maintaining at least a minimum level of civic order. It has to be recognised that utter neglect and callousness of the state is responsible for much of the urban decay.

The case of Delhi, which is the national capital, is a classic example of such neglect apart from Surat, of course. This neglect has to be located in the dichotomous organisation of the city itself, the garden city for the ruling classes and the elite and the shanty towns for the deprived. The growth rate of Delhi, in line with the pattern of urbanisation in India, is however much more startling. The decennial growth rate between 1971 and 1981 was 53 and between 1981 and 1991, 50.64. After 1961, the growth rate continues to remain around 50. The density of population in Delhi, similarly, is very high. In 1991, it was 6,319 as against the all-India average of 267. It is estimated that by 2001, Delh's 10 million population will rise three-fold or more.

As the ruling classes rebuild the city for themselves, erect skyscrapers and beautify their surroundings, more and more migrant labour is brought in to accomplish this. However, regarding health services, availability of basic services like water, sanitation, housing, etc, there is a clear demarcation between privileged Delhi and deprived Delhi. There are 44 resettlement colonies with a population of three million and 480 or more unauthorised colonies with more added every year.[13] It is estimated that at least 53 per cent of the total Delhi population is living in subhuman conditions. While these subhuman population is needed for maintaining the cozy structures of the upper classes, there is total lack of human concern to provide the basic services to them.

Surat, similarly, has been one of the fastest growing urban centres in Gujarat. While Gujarat's urban population growth was 3.5 per cent per annum in the 80s, Surat grew from 9 lakh in 1981 to 1.49 million in 1991. It has now crossed two million and 28 per cent of these lives in slums. Unprecedented growth of small-scale industries in the unorganised sector has significantly contributed to the rise in population.[14]

The civic amenities have not kept pace with the rapidly expanding population of this town. According to a survey about 80 per cent of the slum households do not have sanitary facilities. Even before the outbreak of plague, malaria and hepatitis have claimed a number of lives in this town. It is fairly evident that in a town which is largely dependent on migrant labour, the municipality can afford to ignore the needs of this class as they are not permanent residents of Surat. The municipal government has failed to meet the changing needs of the city.

The reports of the plague epidemic in both Surat and Delhi captured the fear and panic that people experienced. The major toll of this epidemic was borne mostly by the poor. In Surat, majority of the reported deaths were from the slums in the low-lying areas of the city. From various newspaper accounts what is fairly clear is that certain areas of Surat were worse affected than others although even the wealthier pockets were not spared. Mostly slums in the low-lying areas, near the banks of the Tapti were badly hit reporting a number of deaths. Ved road, Katargaon, Rander, Sanjay Nagar and Rajiv Nagar of Udhna industrial area, Ruderpura and Limbayat were the worst affected. According to descriptions of these areas, the people who resided here were labourers who where employed in the export earning diamond and textile industries. Surat is famous for these two major industries which are both export-oriented and earn crores in foreign exchange. Majority of the labour force of both these industries is constituted by young male workers from different parts of the country. The diamond industry employs craftsmen mainly from Rajasthan and the diamond cutters and polishers belong to Saurashtra. These workers live in slums like Ved Gaon and Katar Gaon. According to the deputy collector there are two lakh migrant labourers in Surat and some of them did flee from Surat to their respective states when the epidemic broke out.

In Delhi, the majority of the plague cases were reported from resettlement colonies. This broadly replicates the pattern observed during the cholera epidemic in 1988. Most

of the cholera deaths occurred in the resettlement colonies and juggi-jhompri clusters in Delhi. Similarly even during the plague epidemic, it is in these places where basic civic amenities are lacking that cases were reported.

Even when the rulers are threatened by epidemics, the complexity of the issues of urban decay are not realised. The measures to control the spread of plague, for instance, was entirely focused on a single-pronged strategy of removal of garbage rather than visualising epidemics as a result of the ongoing decay of urban systems. It seems the earlier outbreak of cholera in Delhi has not provided any lessons.[35]

When the Delhi administration tried to 'clean up' the city of garbage, most of the efforts were concentrated in the middle and upper middle pockets of the city with a token effort in the slums. There were reports of uncleared garbage in areas of the slums in Delhi even a week after the announcement of cleaning drive.

The third issue which needs to be highlighted is the migratory patterns in the national context. As mentioned earlier, a large proportion of urban agglomerations consist of migrants. This adds a new dimension to the national policies on public health. Although it is easier to find the reason for the large-scale fleeing of people from Surat at the first information of an outbreak of plague in the fear of disease, it actually is a reflection of the all-round decay coupled with the poor state of civic amenities in the city. It represents the lack of faith of the people on state-run machinery.

However, it was the upper and middle classes who managed to use any means possible to move out of Surat. According to the railway officials nearly 75,000 tickets had been issued for Ahmedabad, Bombay, Baroda and Bhusawal. The officials of the district administration who were making announcements asking people not to leave the city were the first ones to send their families home!

In an entirely different context of malaria, the Madhok Committee had drawn attention to the large aggregation of labour in construction projects which had sprung up all over the country. It pointed out that special efforts should be made to provide adequate provision for health and sanitation as a legitimate charge on construction projects.[36] As far as Delhi is concerned, this is an important lesson where a large population of migrant labour is engaged in construction activities. The lesson from plague is that migration which forms an inherent characteristics of urbanisation in India calls for an urban renewal with added emphasis on these sections which produce material wealth. Their isolation and quarantine must give way to an awareness of their problems.

Conclusions

The reconstruction of plague epidemic glaringly portrays the dichotomies in public health and provides lessons for the future of its practice in this country. It is evident that the classical approach, which is mainly sanitarian, at best reduces epidemics only to an endemic status. If public health has to go beyond this limited, truncated objective then it calls for a systemic understanding of the problem. This would involve evolving a multi-pronged strategy firmly entrenched in the socio-economic context. Notwithstanding the fact that this would be a harder option, with the duration between epidemics becoming shorter and the black signal of plague, it could be assumed that the state would initiate positive actions rather than gild the pill. The real challenge for public health at this juncture is to rise above the garbage.

Notes

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ABSTRACT

RESURGENCE OF INFECTIOUS DISEASE

Dr. T. Sundararaman

One of the most significant achievements of developed nations have been in the control of communicable diseases. Modern public health in India had its origins as part of the effort against epidemics but the motives of a colonial administration imposed major constraints limiting its success. Newly independent India undertook the 'war' against these diseases with renewed vigour and by the mid-sixties there were significant decline in a number of major diseases. Since the seventies however, there has been a steady resurgence of infectious diseases. Malaria, Kala azar, Cholera, Gastro-enteritis, tuberculosis, typhoid are all increasing and fast changing to more drug resistant forms. New infections like Japanese encephalitis and AIDS have also become major public health problems. The present national disease control programmes suffer from being vertical, fragmented, centrally planned, bureaucratically administered programmes that seek narrow technical solutions to essentially social and ecological problems. The controversy over whether it was a plague epidemic or a plague - like epidemic illustrates the concept that if a suitable ecological niche is available 'a germ will rise to the occasion.' The approach to the control of communicable diseases needs to be based upon a better general standard of nutrition, sanitation and education of the population. This needs to be supplemented by integrated local level planning for health backed by good epidemiological centres and disease surveillance, as well as where needed, inputs from research. The active participation of the people in planning and implementing disease control programmes is crucial to sustaining success. Panchayats need to be made capable and transformed to facilitate participatory local level planning and implementation of disease control measures.

THE RESURGENCE OF INFECTIOUS DISEASE

A HISTORICAL INTRODUCTION:

One of the most impressive achievements of developed societies is undoubtedly the control of communicable disease. In most developed countries mortality from infectious disease now accounts for less than 20% of overall mortality as compared to over 60% in developing countries.[1]

To a large measure the development of a science based public health has played the central role in this

Speaking of the achievements in public health, Sir Winslow in his landmark address [2] given in 1925 classifies the main historical process in the development of modern public health into 3 major periods. First is the period from 1820 to 1860 which he calls the great sanitary awakening - a period when the link better general sanitation and health was established. In one famous study, Snowden, one of the pioneers of this period demonstrates how in an area in London where 2 private services were supplying drinking water drawn from the Thames, there was a much higher cholera incidence in those who had consumed of that water brought by one of these two services. This particular service collected its water downstream of the sewage exit and changing the site of water collection was able to bring down the incidence of cholera dramatically.

Second is the period from 1860 to 1900 - where beginning with the work of Pasteur and Koch there was an explosion of knowledge about mechanisms of infection - what Winslow calls the bacteriological era. This period saw a redoubled effort at sanitation especially in public engineering works as well as in developing vaccines as a preventive measure. To Winslow, speaking in 1925 the third era (which was the then current era) was where public health centered around public education. The object of public health had already begun shifting from infections to all diseases. The control of non-communicable diseases by changes in life style started gaining prominence too. Other authors have called the third era as the era of social medicine.

In the 1930s came the chemical era when drugs like sulphonamides and chemicals like DDT became available. With these developments, morbidity started falling even further and by 1960s many sources were now describing it as the conquest of infectious disease. [4] It has been repeatedly emphasized by a number of authors that though the development of modern chemotherapy was a major step forward, it had little to do with the control of infectious disease at the level of public health. The incidence of infectious disease had already started coming down under the impact of better nutrition, a major expansion of public engineering works for sanitation and better housing.[5]

PUBLIC HEALTH IN BRITISH INDIA

The situation in India has some parallels and some marked contrasts. Public health became a major issue in India largely as a result of colonial considerations. One of the main impediments the British faced in governing India was the very high susceptibility of the white race to the Indian germs. One may indeed have to be thankful for this, for otherwise, (according to Crossby) like what happened in the North America or Australia where the indigenous people were relegated to becoming a few scattered tribes living off reservations, [6] our race may also be have been similarly marginalised.

that respected no class or race barriers, like the plague or smallpox or cholera or malaria were the most feared.

As modern medicine became more successful in its understanding of disease and in its ability to control disease, colonial authorities also saw the distinct possibility of the use of medicine to further their interests - to legitimize their rule and to win approval for it. So modern public health as it was initiated in India had a distinctly paternalistic air about it - an explicit attitude of 'helping the ignorant natives to be clean and healthy'.

It is interesting to note that many official histories of modern medicine and public health tend to fail to see the reasons why infectious disease had achieved epidemic proportions in these times - both in Europe of the eighteenth and early nineteenth century and in colonial India. They do not recognize or gloss over the role played by the pauperization of the peasantry, the frequent famines, the unplanned urbanization with its attendant over crowding and lack of sanitation. Most such versions project what may be called 'victim-blaming' - "the people are unhealthy because they have bad habits, are unclean and ignorant. Unless they change there is no hope. At best what we can do is education?" It may be noted that diseases like cholera and plague are well known over history but they achieve major public health dimensions only in specific social contexts. And official reconstructions of history of public health, especially but not only those, authored by the British, remain silent on this.

The other major lacunae in the understanding of public health is the assumption that prior to the advent of the Indian Medical Service as instituted by the British there was no indigenous tradition of disease control or treatment or that what existed was hopelessly 'unscientific' & 'primitive'. A lot of even progressive literature talks of the 'complete absence' of western notions of sanitation and the necessity of having to impose these on a reluctant public - completely failing to see what culture specific sanitation practices were already existing. Even in prevention, scholars of subaltern history have now documented how there was a widespread practice of inoculation to provide prevention against small pox and how the British led vaccination programme had to use every means to drive off this to replace it by its prescription.

This brief background of the origins of Indian public health policy is important to understand two specific features that have dogged all subsequent practice of public health. One feature is the bias that all public health programmes share, is a failure to see people as active rational participants. Health is always something that needs to be given from above, using a military style pattern of command. People cannot be expected to understand and take initiatives. It has to be done on their behalf. The military metaphor, the talk of conquest has never been far from any major public health programme. The second feature is the elitist bias now seen as a focus on urban curative services and personal prophylaxis rather than societal level preventive measures, and an universal access to basic curative services.

THE BHORE COMMITTEE REPORT - INDEPENDENT INDIA'S HEALTH CHARTER:

It is in this backdrop that we must study the control of communicable diseases in independent India. In 1945-46, just at about the same time that the Bombay Plan was being written, a national commission was set up under the Chairmanship of Sir Joseph Bhore called the 'Health Survey & Development Committee'. This 25 person committee submitted a 4 volume report which is itself a landmark in the history of public health. (8) In many ways it anticipates the Alma Ata Declaration of Health for All by 2000 AD a full 32 years before. In one of its most powerful paragraphs it sums up the causes of the low level of health in India...

> " The maintenance of public health requires the fulfillment of certain fundamental conditions, which include the provision of an environment conducive to healthful living, adequate nutrition,

the availability of health protection to all members of the community, irrespective of their ability to pay for it, and the active cooperation of the people in the maintenance of their own health. The large amount of preventible suffering and mortality in the country is mainly the result of an inadequacy of provision in respect of these fundamental factors. Environmental sanitation is at a low level in most parts of the country, malnutrition and under nutrition reduce the vitality and power of resistance of an appreciable section of the population and the existing health services are altogether inadequate to meet the needs of the people while lack of general education and health education add materially to the difficulty of overcoming the indifference and apathy with which the people tolerate the insanitary conditions around them and the large amount of sickness that prevails."

(Report of the Health Survey & Development Committee, Vol.IV para 6)

The Bhore Committee report was also unequivocal as to the basic philosophy on which a national health policy should be based. To quote:

"12. We have indicated above certain dark shadows in the health picture of the country. If it were possible to evaluate, with any degree of exactness, the loss India suffers annually through avoidable waste of human material and the lowering of human efficiency through malnutrition and preventible morbidity, the result would be so startling as to arouse the whole country and create and enlist an awakened public opinion in support of the war against disease. According to one authority the minimum estimate of the loss to India every year from malaria alone lies somewhere between 147 and 187 crores of rupees. A nation's health is perhaps the most potent single factor in determining the character and extent of its development and progress and any expenditure of money and effort on improving the national health is a gilt-edged investment yielding immediate and steady returns in increased productive capacity.

13. In drawing up a health plan certain primary conditions essential for healthful living must in the first place be ensured. Suitable housing, sanitary surroundings and a safe drinking water supply are pre-requisites of a healthy life. The provision of adequate health protection of all covering both its curative and preventive aspects, irrespective of their ability to pay for it, the improvement of nutritional standards qualitatively and quantitatively, the elimination of unemployment, the provision of a living wage for all workers and improvement in agricultural and industrial production and in means of communication, particularly in the rural areas, are all facets of single problem and call for urgent attention. Nor can man live by bread alone. A vigorous and healthy community life in its many aspects must be suitably catered for. Recreation, mental and physical, plays a large part in building up the conditions favourable to sound individual and community health and must receive serious consideration. Further, no lasting improvement of public health can be achieved without arousing the living interest and enlisting the practical cooperation of the people themselves."

To achieve these goals the Bhore Committee drew up specific recommendations which they classified under the heads of a long term programme and a short term programme. The long term programme was in essence the building of a 3 tier district level health organization with the smallest unit catering to 10,000 to 20,000 population. The entire network was to be staffed by a cadre of full time health professionals who would be banned from private practice.

The short term programme written for the first two five year plan periods, envisaged the immediate setting up a skeleton of primary and secondary units and special health service for mothers and children, school children, industrial workers as well as for special services for dealing with the more important diseases prevalent in India, such as malaria, tuberculosis, venereal disease, leprosy, mental

would be done at once using the existing structure of the health services. These were the intentions that led to the first vertical health programme of the fifties. Impressed by their visible achievements, and backed by foreign administration and aid this was to become the dominant approach to communicable disease control. In contrast the long term programme was never given the priority and even today, 50 years later it remains a long term programme.

DEVELOPMENTS AFTER INDEPENDENCE:

After independence however the main thrust of the public health programme became focussed on what is called the vertical health programmes.

In the yearS that followed the following programmes came into being.

1. *National BCG Vaccination Programme 1951
2. Family Planning Programme 1952
3. National Water Supply & Sanitation Programme 1954
4. National Leprosy Control Programme 1954
5. Filaria Control Programme 1955
6. *National Sexually Transmitted Disease Control Programme, 1955
7. *Trachoma Control Programme 1956
8. National Smallpox Eradication Programme 1962
9. National Goitre Control Programme 1962
10. National Tuberculosis Control Programme 1962 (called District Tuberculosis Programme)
11. National Programme for Prevention of Visual Impairment & Control of Blindness Programme 1956
12. *Universal Immunization Programme, 1978
13. National Diarrhoeal Disease Control Programme 1983
14. National Guineaworm Eradication Programme 1983-84
15. National AIDS Control Programme, 1987
16. National Diabetes Control Programme, 1987
17. Child Survival & Safe Motherhood Programme 1991.

It is not as if the primary health structure did not expand - it did but at a much lower rate than anticipated. In the last 10 years the PHC structure has advanced more rapidly but its functioning remains far from adequate. To a large part the PHCs remained confined to providing a minimal outpatient curative services and manipulating family planning targets. For the control of infectious disease health policy has always relied on the vertical health programmes.

With the notable exception of the national smallpox eradication programme almost all the other major national disease control programmes have the same or a similar course. From a very high incidence in the early fifties these diseases either declined dramatically as in the case of malaria or kala azar or more gradually as in the case of tuberculosis or leprosy to its lowest level - some time between the late sixties and early seventies - only to see it rise again in the eighties and nineties.

The most well-known example is of malaria and the National Malaria Control Programme. From an estimated incidence of 75 million cases and 0.8 million deaths before Independence to 0.1 million cases with no deaths by 1964 - malaria promised to be one of the most astounding successes. But by early seventies it was rising again and by 1976 it had reached 7 million cases. The National Malaria Eradication Programme as it had been enthusiastically renamed now reverted to calling itself the 'Modified Plan of Operation'. The impact of this scheme brought the incidence down to a more stable

2 million cases per year at which rate it has remained reasonably stable over the last 15 years (Though with small but worrying upward trend). What is more worrying however is that the death rate from malaria has started climbing upwards from 1973 and continue to do so to this day. (Reported deaths over 500 annually are probably only a fraction of the actual deaths). The major factor underlying this is the shift in the malarial species from the more benign plasmodium vivax to the malignant plasmodium falciparum. Increasingly this plasmodium falciparum is drug resistant as well. Today there are tribal pockets where almost 50% of people test positive for malarial parasites. Clearly there is a crisis here in public health but a response to this crisis situation is just not there [11, 12, 13]

TABLE - I Malarial Incidence

Year	Positive	P. falciparum cases	Deaths	API
1961	49151	-	-	-
1965	99667	-	-	0.21
1976	6467215	753713	59	11.24
1981	2701141	589591	170	4.11
1982	2182302	551057	187	3.22
1983	2018605	600964	239	2.93
1984	42184446	655454	247	3.08
1985	1864380	607822	213	2.57

Let us take the case of kala-azar - a severe systemic infectious disease which if untreated proves fatal. The infection is caused by a protozoan and spread by the vector 'sand-fly'. This disease too disappeared in the sixties but by 1977-78 was back in epidemic form. In 1991 there was an epidemic outbreak with an estimated 25,000 cases (official figures 77,101) and a mortality rate of 5-10 per cent. It still remains widely prevalent in large parts of Bihar & West Bengal and the worst news is this - the protozoan is increasingly turning resistant to all drugs. Even as of today the cost of treatment is about about Rs.1,500 (five courses of a drug at Rs.250 per course of 20 injections). Some forms of kala-azar require so many course that it may cost over Rs.15,000 per patient. The newer drugs needed are likely to be even costlier.

The experience with filariasis, another mosquito-borne infection is similar - with the difference that incidence of infection never came down at all. It continued to rise despite the national filariasis control programme all through the post-independence decades.

TABLE II

ESTIMATED POPULATION (IN MILLIONS) RESIDING IN ENDEMIC AREAS, THE MF CARRIERS AND CHRONIC FILARIASIS CASES AT DIFFERENT POINTS OF TIME.

Year	Population Residing in Endemic areas			M.F. carriers	Chronic filariasis cases
	Total	Rural	Urban		
1963	25.00	----------	Data incomplete	----------	----------
1962	64.24	40.16	24.08	5.30	4.40
1970	136.30	84.91	51.39	11.30	8.00
1976	236.14	174.53	61.16	18.00	14.00
1981	304.10	221.92	82.18	21.74	15.84
1989	374.00			25.00	19.00

Another classic example of this pattern is what is happening with cholera. Cholera was one of the largest killers of the last century and remained so in the early part of this century too. Despite considerable efforts no successful vaccine has been possible, partly because the strain of causative bacteria changes so often. Nevertheless with greater public awareness cholera epidemics have become much less common and the overall incidence of cholera and mortality from it has also significantly declined over the first three decades since independence.

It is difficult, due to the absence of comparable data to talk of what is the situation in the last two decades. However one notes that mass epidemics of acute gastroenteritis not due to the cholera germ but due to a number of other germs - enteropathogenic, E-coli, entero virus, etc now occur. Some of these epidemics are associated with considerable mortality also. Witness for instance the 1976 epidemic of gastroenteritis in West Bengal that affected over 2 lakh people and is estimated to have caused over 3000 deaths [16]. Such epidemics of gastroenteritis are a common feature every summer and during the onset of monsoons in most parts of the country. To make matters worse cholera itself is back. In October 1992, an uncommon strain of cholera designated 0139 Bengal broke out in Madras and in neighbouring districts and by December 1992 it accounted for 95 per cent of cholera cases in Calcutta [17]. This strain has subsequently spread world wide, and especially in South and Central America where the disease has been absent for decades, epidemics took place recently. Even today the incidence of the disease remains high. Dr. Jacob John of CMC Vellore calls this the 'eighth pandemic of cholera.'

Alongside these epidemics of cholera and gastroenteritis are an endemic prevalence of other infectious disease - all of which are spread by the feco-oral route (also known as water-borne diseases). All of these diseases spread by feces of an infected person gaining access to new individuals mainly through contamination of drinking water but also due to lack of personal or social hygiene. Amongst these diseases worms account for a great part of the morbidity. Hepatitis (jaundice) and typhoid [19]. also account for major part of water-borne disease.

Reliable epidemiological data on these diseases are hard to come by but estimates put prevalence of worm infestation at about 70% of the population. For typhoid the lowest estimates would put it at three lakh cases per year. Again the important thing to note about typhoid is this - the typhoid bacillus has increasingly become resistant to most drugs so far used against it. Whereas it would earlier respond

to a course of chloramphenicol at a cost of Rs.25 or so per course now the main drug used is ciprofloxacin which is almost Rs.200 per course. And if the typhoid bacillus turns resistant to ciprofloxacin as is likely and indeed perhaps already happening the cost of treatment may go upto over Rs.2000 with the next generation of antibiotics.

The outbreak of plague and the curious controversy, as to whether it was plague or not that shook Surat, has a similarly interesting moral. It does not, in the eventual analysis, really matter whether it was the plague bacillus itself or not. If it spread like plague, if it killed like plague if it responded to treatment like plague it ought to be quarantined and managed like plague ! Indeed the possibility that it was not the plague bacillus at all is much more interesting. Could it be that one can propose a theory that - in infections, given a suitable environment an organism could rise to fill the gap ? This principle of the 'ecological niche' is well established in pest management in agriculture, but we need to see how far it is true to the behaviour of infectious diseases. Simply put all living organisms whether micro or macro are inter-linked by an intricate series of interactions, especially the food chains. Various organisms compete for available resources in any niche in this web and this determines their numbers. Now if one organism is eliminated, another organism grow to fill this niche. In a situation of a total failure of sanitation and overcrowding and unchecked rodent population the rise of a plague-like disease is only to be expected.

The most outstanding success of medical science in this century is undoubtedly the eradication of smallpox. We must at one level understand that this eradication was made possible by a number of unique factors. One small-pox is a very contagious disease with a short incubation period, a very visible disease phase and with relatively little sub clinical infection and has no animal reservoirs. The strategy of surveillance and containment with well planned use of vaccination against all potential secondary exposures to a detected case could thus yield dramatic results. It will be difficult to find other such convenient diseases. And even in the poxes or exanthematous fevers like smallpox, chickekn-pox, measles, etc. One does not know whether in the long run these diseases will stay eradicated. Or will other similar exanthemus become public health problems. Though such a statement is quite speculative, we must remember that history has seen many epidemics of pox fevers which from accounts of their clinical presentation do not fit in with the currently known poxes.
Thus we can see that the control of cholera does not mean the control of acute gastroenteritis. And the drug resistant form of malaria, kala-azar and tuberculosis also demonstrate the limitation of curative treatment as a strategy of public health.

It is in the background of these questions that one must also look at the rise of new infectious diseases. Take Japanese encephaletitis for instance. Before 1960s it was almost unknown in India. In the mid seventies the first major epidemics took place. Now a number of epidemics have taken place and the annual spike in incidence during the onset of the monsoons and its steady annual death and disability contribution no longer causes much comment (20). Why did this occur? We know that all the elements of the disease transmission chain - mosquitoes, herons, pigs, man were all available before but why an epidemic only now? Could it be that changes in the pattern of chemical use led to changes in insect-predator patterns that favoured multiplication of these mosquitoes ? Is there a relationship between Japanese encephalitis spread and the bringing of new areas under paddy cultivation in the

Or take for instance Kyasnoor forest disease (in Shimoga district of Karnataka) (21). Clearing of forests clearly led to a disturbance of ecological balance that shifted the tick from its usual mammalian hosts (monkeys) to man.

Of course by far the most dangerous epidemic now catching on is the AIDS epidemic. Everyday an estimated 6000 people world wide get infected. By mid-1994 over 4 million cases of AIDS are reported

to have occurred and over 2 million are dead. By 2000 AD this figure is likely to reach 8 million dead and 30 to 40 million infected. Some sources put the world figure at 100 million. Sexually transmitted disease was never really controlled though it could be cured effectively. Now a form has arisen where cure is difficult to achieve !

And with the spread of AIDS another disease that we have never been very successful against has taken on a much more dangerous form - tuberculosis.

Tuberculosis afflicts 1.5 per cent of India's total population; (22) the patients number 12.7 million of which 7.4 millon are infective. Every year half a million Indians die of tuberculosis and 1 million cases are added. All this despite the fact that the quality of drugs available to treat this disease have dramatically improved over the last three decades. Today among serious public health thinkers there is almost a sense of panic as multi drug resistant tuberculosis cases emerge as a public health problem. Already in all of Europe & USA tuberculosis has risen - in the city of New York for example by 150 per cent in one year ! And most of these cases are multi-drug resistant.

In India the problem of multi-drug resistance has not reach such dimensions, but by all past experience any major epidemic contagioun of the developed world even if soon controlled in its source becomes the developing world's major problem. Unless we can act decisively to prevent it, one is likely to witness a major emergence of MDR tuberculosis within India also in a major way in the coming decade.

We can sum up this discussions of trends in the incidence of infectious disease to say that

a) the last few decades have witnessed dramatic decline in a few major infectious diseases as compared to the pre-independence period e.g., malaria smallpox;
b) the decline in the disease was maximal in the sixties or early seventies, thereafter these disease have made a spectacular comeback though they are still well below the pre-independence levels.
c) Again, a number of diseases like filariasis, diarrhoea and tuberculosis, existing vertical control programmes have just failed to work.
d) A number of new infectious disease are now rapidly emerging or have already emerged as major public health problems.

A CRITIQUE OF VERTICAL HEALTH PROGRAMMES

Obviously we are in a far from satisfactory position. One needs to review the main philosophy of the control strategies utilized to understand what has gone wrong. We shall discuss two illustrative case studies to underscore our central position. Our central position is that the main reason for this resurgence is the construction of communicable disease control programmes as vertical health interventions. Such vertical health interventions depend on a programme of action decided centrally and implemented through a bureaucratic chain of command. Such a vertical health intervention provides little room even for local adaptation and much less for community participation. Necessarily therefore it depends on it success on a few simplistic technological solutions that can be applied uniformly and extensively and is capable of being directed and monitored centrally. Though these vertical health programme claim to be in the spirit of the Alma Ata declaration the central political concept of this declaration is that 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* at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination,". The vertical health programmes nowhere envisages community participation

except to some exent in its administration.

In contrast to the Alma Ata declaration's approach, this the philosophy for the vertical health programmes is much nearer to the paternalistic approach to public health of earlier colonial times, significant traces of which can be seen even in the Bhore committee report. The main features of a paternalistic approach is basing one's policy on the premise that people cannot look after their health needs. It has to be done on their behalf, often without their consent by those who know. This approach can be seen to manifest itself in the choice of technology and strategy that the various vertical health programmes have taken.

Let us see the example of malaria:

The National Malaria Control Programme was launched in 1953. A central directorate was set up and corresponding departments were created in the state and district levels and provided with staff dedicated fully to malaria control.

The central strategy of the programme was, at field level - a one point strategy - spray DDT. DDT was liberally sprayed and adequacy of spraying monitored by an elaborate programme of monitoring activities and disease surveillance articulated in the language of the military. The results were so encouraging that in 1958 the programme was renamed the National Malaria Eradication Programme and further intensified. Mass treatment of all fevers with chloroquine was also instituted in an attempt to interrupt malarial transmission further. By 1965 and 1966 the incidence of malarial deaths had dropped to zero and the cases of malaria were down to a few thousand. But by 1970 the incidence curve was sharply rising. One reason given for this is that malaria eradication just lost administrative priority being no longer a major health problem. Benign neglect and a premature satisfaction was according to this interpretation the cause of the relapse. If the rising costs of insecticides and if the resurgent mosquito and plasmodium was developing drug resistance - why that could not have happened if the administrative laxity had been avoided.

It is difficult to argue on theoretical grounds that it is not so. One only notes that any programme that has such a top-down approach inherently becomes much more vulnerable to administrative laxity and it is almost impossible as any General knows to sustain a 'war' indefinitely.

An alternative approach could have been a much greater decentralized, locally planned participatory initiative. Thus for example in urban south Madras where malaria is holoendemic, accounting for roughly 40,000 of the 80,000 cases that annually occur in Tamil Nadu the approach must focus on open wells, overhead tanks and all fresh water collections even in garbage cans or tyres in the roadside shops or in tree hollows! But no government can do this. It needs a vast social mobilization.

On the other hand in tribal Orissa where one of the highest malarial incidence in the world exists the vector breeds in the safety of the forest pools and streams. Here perhaps mass chemoprophylaxis done at the same time as a spraying operation with perhaps the large scale introduction of impregnated mosquito nets would help. Or perhaps biological methods may help. And of course every hamlet must have a malaria monitoring unit run by local people ! To an administrator asking for this to happen is suggesting the impossible. He would rather place emphasis on a newer insecticide and more staff. What one is suggesting is not that newer insecticides or better administration may not be needed but unless one undertakes the social mobilization and the local level participatory planning that is necessary no such technical solution can be sustained.

There is resistance to such a suggestion from not only the administration but some sections of the

technocracy too. To these technical people there is a worry that such an approach underestimates the role of science and technology in the conquest of disease. The biological control of vectors is possible they argue. The malarial vaccine is just around the corner. What one needs is more inputs in science and technology. Tropical disease research has just not attracted enough attention and such arguments as advanced in this paper may be used conveniently to scuttle research even further.

To them one has to reply that one is not talking of downscaling research. Indeed it needs much higher investment. But one must start looking closer at the research questions being addressed. One must examine carefully the strategies for which technology is being developed. Are these strategies capable of sustaining their achievements ? Are they capable of democratic control ? Do they allow for local flexibility ? Do they sufficiently respect the ecology of disease and their social nature ?

And no one need fear the downgrading of science. Social mobilization for such a purpose necessarily means a much wider dissemination of scientific understanding, a much wider application of scientific principles than has been hitherto possible. For example unless every school child in south Madras knows to identify mosquito-breeding sites and destroy them the malaria epidemic here (which has persisted over nearly a century) stands little chance of being eradicated.

If we look at most of the other vertical health programmes we can see this same reliance on technological bullets sprayed through a bureaucratic chain of command to be at the heart of programme design. Thus in filaria and kala azar control it was DDT spraying, in goitre control it is universal iodisation of salt, for Vitamin A deficiency related blindness it is to give prophylaxis to all children, for leprosy it is case identification by search teams and drugs to those identified. Of course where such simplified technological bullets are just not available these programmes have made no impact. Thus diarrhoea disease control programmes confine itself to stocking and distributing ORS packets which even theoretically cannot be expected to prevent diarrhoea (though it is an essential measure to stop deaths).

Even the family planning programme, India's largest and most prestigious vertical health programme reflects this trend of exclusive reliance on technological bullets. First it was a drive for loop insertions, and then it was a push for vasectomy. Later still, these were given up up and the stress came to be on tubectomy, especially laproscopic sterlisation. Each time targets were at least claimed for some time and then that particular drive just failed. The birth rates remained high declining by less than 1 per 1000 over a a whole ten year period.

TUBERCULOSIS CONTROL - THE STORY OF A DISTRICT LEVEL INTEGRATED PROGRAMME:

Whereas programmes like malaria, kala azar, AIDS, leprosy, smallpox have all depended on a complete bureaucratic chain of command there are notable exceptions to this strategy. The National Tuberculosis Control Programme, known as the district tuberculosis control programme, envisages district level planning and full integration with the primary health centre. The Tuberculosis control programme envisaged that the microscopic examination of spuctum of those seeking medical help for chronic couch and then ensuring their regular drug treatment would be the cornerstone of TB control. The District Tuberculosis Centre would organise this in some 40-60 health institutions - PHCs, dispensaries, hospitals - fully horizontally integrated. The diarrhoeal diseases control programme and maternal and child health programmes are also PHC based. Despite a more methodical planning the TB programme has not done any better. The reasons for this are to do with the way a PHC is structured and functions. Understanding this is important because with the evident failure of most vertical health programmes, today the emphasis is on integrating the functions of the vertical health programmes with the PHC. This in practice means that all the field level functions of these programme have to be carried

out by the mutlipurpose health worker/or ANM or equivalent. The vertical structure extends only from Delhi through the state headquarters to a designated district medical officer for each of these programmes. Below this level it is all stated to be integrated. But such integration often means only an allocation of functions on paper.

At the village level only one of these 16 vertical health programmes is currently functional and has a significant outreach and that is the family planning programme. In Tamil Nadu and a few more states the mother & child programme especially the immunization component also has some effectiveness. The other programmes are accorded such low priority, that they just do not take place. Tuberculosis for example needs a massive social effort at case-finding and an intensive participatory monitoring effect to ensure case-holding. At present only a small percentage of cases are discovered and patient compliance (case-holding) for a complete course is in the range of 45 per cent. Within this 45 percent due to periodic drug shortages adequate coverage reaches even fewer people. In a sense tuberculosis control more than any other disease control is a true reflection of the efficacy of the entire health system of the country - both preventive and curative. And by that score card we have fallen far short of what we could have achieved.

What could turn the tide against tuberculosis. Any successful strategy against tuberculosis would provide clues to an approach to all infectious disease. Or in other words - what should be our response to the resurgence of infectious disease.

A STRATEGY AGAINST INFECTIOUS DISEASE

The first and most important requirement is a higher level of nutrition of the population. Resurgences of disease, especially of a disease like tuberculosis is often only a mere indicator of the malnutrition and dismal living and working conditions of the people. Whereas at the individual level curative care is a must, if this is not integrated into a strategy of prevention this same curative care is only going to lead to the emergence of MDRT (multi-drug resistant tuberculosis).

Other than nutrition the single most important input is general sanitation with special reference to safe drinking water and safe disposal of human excreta and other wastes. A situation of poor sanitation provides breeding grounds for vectors and allows transmission of a wide variety of germs. Curative or even preventive measures (e.g., cholera or typhoid vaccines) against these germs will not provide any sustainable improvement unless the niche is made unavailable.

The third pre condition for health is a much higher degree of education and health awareness available today. In the main health education means providing a much higher degree of access to information on health - by posters, by booklets, through the electronic media, in school curriculum and so on. But beyond mere transfer of information health education must also mean questioning existing cultural norms or patterns of living and social mobilization to create new cultural norms or provide support for changes in life styles.

These three aspects - nutrition, sanitation and education (health awareness) taken together form one cornerstone of any public health policy that hopes to improve the health status or even just to contain infections. Improvements in all three require policy changes at various levels but policy changes alone will not be adequate. A much more important component, especially for ensuring sanitation and education is a well planned social mobilization effort.

The other cornerstone of public health policy has to be development of local level (district level, taluk level) health planning which is assisted by a mechanism of good epidemiological surveillance. Without a mechanism of continuously monitoring disease incidence, infectious disease control is not possible

to sustain. The National Health Policy Document talks of setting up a chain of epidemiological cum sanitary stations throughout the country but to the best of our knowledge nowhere has this work even begun. At present almost no district or PHC has epidemiological data of diseases in their area. Much of the existing resources are therefore spread thin instead of being able to focus it where it is most needed. When an epidemic occurs there is no capability to either trace the source or to cut off its spread. Performance of control programmes also become impossible to monitor without such data. And above all the local community cannot be informed nor any attempt at local level planning be made.

Such local level planning can only emerge with the development of capabilities with bodies of local self governance to understand the nature of health problems and to plan for their control.

These are not profound original statements. This concept that local bodies need to play a role has been with us almost since 1880s when the bodies of self-governance were first mooted by the British primarily to control the then raging epidemics of cholera, typhoid, smallpox and later (1892) plague. But what British administrators then and Indian ones now had in mind for local bodies was the deconcentration of power - the handing down of certain administrative functions which were impossible to do from above. What is really needed however was the decentralization of power - passing of capabilities and the power to plan downwards too. Even this limited deconcentration of power to panchayats never took place. For reasons of politics every time the decentralized holistic approach lost out to the vertical bureaucratic one. And this continues to this day. The promise of spectacular results with a short time, the support from international organizations and western countries for programmes that yield immediate visible results and the cultural gap between providers of health services and the broad mass of the people will continue to fuel this trend to depend on purely technological solution administered from above rather than integrated solutions planned below.

Let me conclude with a quotation from D. Banerjee, Professor emeritus of social medicine in Jawaharlal Nehru University the most outspoken and consistent critique of the vertical programmes over almost half a century.

> "It is worth noting that in the history of public health in western countries virtually no vertical programmes have been employed to combat communicable diseases. Changes in ecological conditions brought about by socio-economic development have been the principal factors which led to control or eradication of communicable diseases in these countries (Mckwown 1976). Even in the recent instance of control of poliomyetitis with the help of the vaccine, the vaccination programme had been a part of the activities of the local health authorities. It is interesting to examine why those who never had a vertical programme in their own countries have been so fervent in advocating such programmes in Third World countries (Walsh & Warren)"

IS FAMILY PLANNING EMPOWERING OR COERCIVE ?

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Is Family Planning Empowering or Coercive?

Looming as a menacing idea over the last two centuries, to congeal into one of the most powerful and abiding myths of our times, is the reproductive profligacy of the poor. Indeed, as it went on to recommend a family planning programme for the country, the Bhore Committee noted:

> The classes which possess many of these undesirable characteristics are known to be generally improvident and prolific. A continued high birth rate among these classes, if accompanied by a marked fall in the rate of growth of the more energetic, intelligent and ambitious sections of the population, which make much the largest contribution to the prosperity of the country, may be fraught with serious consequences to national welfare.[1]

The empirical fallacy of this myth, both historically and cross-culturally and contemporaneously in India, has been commented upon by Krishnaji in a host of publications.[2] In this paper I present some findings from my study in three villages of an average performing Primary Health Centre in the relatively prosperous and agriculturally dynamic Mandya District of Karnataka to tangentially throw light on the question we are discussing.

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A family is defined, at a point in time, as a co-resident domestic group comprising the reproductive unit of husband and wife and their offspring, either natural or adopted, who

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[1]. Government of India, *Report of the Health Survey and Development Committee*, Government of India Press, New Delhi, 1946.

[2]. Including, among them, "Agrarian Structure and Family Formation: A Tentative Hypothesis", *Economic and Political Weekly*, Vol.XV, No.13, 1980; "Poverty and Family Size", *Social Scientist*, Vol.9, No.4, 1980; "Poverty and Fertility: A Review of Theory and Evidence", *EPW*, Vol.XVIII, Nos.19-21, 1983.

commonly shared the same kitchen. The study population comprised 670 such families. Table I presents the data on the distribution of families by size in relation to class.

Table I. Distribution of Families by Size in Relation to Class.

Family Size Class		1-4	5-9	10-14	Total
Primarily Exploiting Labour					
Landlord	No.	16	31		47
	%	2.4	4.6		7
Rich Peasant	No.	117	141	3	261
	%	17.5	21	0.4	39
Primarily Self Exploited					
Middle Peasant	No.	40	37	1	78
	%	6	5.5	0.1	11.6
Small Peasant	No.	18	11		29
	%	2.7	1.6		4.3
Primarily Exploited					
Poor Peasant	No.	63	48	2	113
	%	9.4	7.2	0.3	16.9
Landless Labour	No.	66	47	3	116
	%	9.9	7	0.4	17.3
Non Peasant	No.	15	10	1	26
	%	2.2	1.5	0.1	3.9
Total	No.	335	325	10	670
	%	50	48.5	1.5	100

% proportion of total families

What is extremely important to note is that 50 per cent of the families in this primarily agrarian population comprised up to four members alone. This goes against the grain of most common sense assertions regarding the family size of agrarian populations. The second most significant finding is that it is in the primarily exploiting classes, viz. the landlord and the rich peasant, that a larger family size of five to nine individuals was more prevalent.

Table II presenting the proportionate distribution of families by size in each class and

the mean family size serves to highlight the differentials.

Table II. Mean Family Size and Proportionate Distribution of Families by Size in Relation to Class.

Size Class	1 to 4	5 to 9	10 to 14	Mean
Landlord	37.04	65.95		5.02
Rich Peasant	44.82	54.02	1.14	4.76
Middle Peasant	51.28	47.43	1.28	4.55
Small Peasant	62.06	37.93		4.66
Poor Peasant	55.75	42.47	1.76	4.42
Landless Labour	56.89	40.51	2.58	4.33
Non-Peasant	57.69	38.46	3.84	4.38

What the data presented in this table reveals is that with declining class status, the proportion of families with a smaller size increases. The primarily exploited classes, viz. the poor peasants and the landless labourers, had the largest proportion of families comprising up to four members. The difference in the proportion between these classes and the landlord and rich peasants was statistically significant.

It is interesting to note that the landlord class has the largest mean family size. The mean family size declines as we go down the class hierarchy; it is lowest among the landless labourers.

The size of a family, it is well known, is dependent upon the following factors: selective migration, fertility and mortality. One of the most striking findings of the 1991 Census is that there is a dampening of rural-urban migration; indeed dependence on agricultural employment may well have increased over the previous decade.[3] This attests not so much to the absence of push factors in the rural economy as perhaps the weakening of pull

[3]. Kulkarni, Sumati, "Dependence on Agricultural Employment", *EPW*, Vol.XIX, Nos.51-52, 1994.

factors in the urban economy. Nevertheless the import of this finding is that we may discount selective out-migration as a factor to explain these observed differentials in family size.

A number of mechanisms have been postulated through which the comparative fertility of the poor would be lower. These include a higher age at menarche, a larger number of anovulatory menstrual cycles, longer post-partum amenorrhoea due to prolonged breast feeding, pregnancy wastage, still births and so on.[4] An index of fertility that can be utilised, albeit as a proxy for fertility rates, is the Children Ever-Born Ratio. This is given by the following formula:

$$\text{Children Ever-Born Ratio} = \frac{\text{No. of Children Ever-Born to Married Women in an Age Cohort.}}{\text{No. of Married Women in the Age Cohort.}} \times 100$$

Table III presents the data on the distribution of this ratio in the study population.

Table III. Distribution of Children Ever-Born Ratio in Relation to Class Groups.

Age Class	11-15yrs	16-25yrs	26-35yrs	36-45yrs	Total
Class I	61.53	201.85	395.78	556.52	333.55
Class II	66.66	184.00	420.00	625.00	322.23
Class III	93.75	206.66	375.00	503.92	315.13
Non-Peasant		144.44	290.00	533.00	296.00
Total	72.54	192.99	386.02	548.66	324.86

Class I = Primarily Exploiting
Class II = Primarily Self-Exploited
Class III = Primarily Exploited

Although the differences among the class groups are not statistically significant given the nature of this study and the sample size, it is indeed quite arresting that women among

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[4]. Gopalan, C., and Naidu, A.M., "Nutrition and Fertility", *The Lancet*, Nov.18th, 1972.

the classes primarily exploited have a lower level of fertility than the other peasant classes as revealed by the children ever-born ratio. Indeed in the age cohort of women 36-45 years, towards the end of the reproductive life span, the difference in the ratio between the classes primarily self-exploited and the primarily exploited assumes statistical significance.

An index of the mortality of infants and children, again as a proxy for infant and child mortality rates, is the Child Survival Ratio. This is given by the following formula:

$$\text{Child Survival Ratio} = \frac{\text{Total No. of Infants and Children Ever-Born Surviving Among Married Women in an Age Cohort}}{\text{Total No. of Married Women in the Age Cohort}} \times 100$$

Table IV provides the data on the distribution of this ratio in the study population.

Table IV. Distribution of Child Survival Ratio by Cohorts of Married Women in Relation to Class.

Age Class	11-15yrs	16-25yrs	26-35yrs	36-45yrs	Total
Class I	61.53	184.25	344.21	443.47	284.56
Class II	66.66	170.00	360.00	504.16	275.72
Class III	93.75	178.88	291.80	374.50	250.30
Non-Peasant		144.44	220.00	450.00	248.00
Total	72.54	178.21	322.04	430.00	270.03

Class I = Primarily Exploiting
Class II = Primarily Self-Exploited
Class III = Primarily Exploited

What this reveals is that among the peasantry as a whole, the child survival ratio decreases with decreasing class position. The differences in the ratio between the primarily exploiting classes and the primarily exploited in the age of women 26-35 years is statistically significant as indeed is that between the primarily self-exploited classes and the primarily

exploited. In the age cohort of 36 -45 years also the differences between the latter classes assumes statistical significance. In other words, the poor peasants and the landless labourers in these age cohorts had the least chances of child survival among the peasant classes.

To sum up, the data presented here indicate that the primarily exploited classes, the poor peasants and the landless labourers, the "poor" who constitute close to 40 per cent of our population, had a lower family size. This is governed not only by a heavier mortality load borne by these classes but also apparently lower fertility thus largely substantiating Krishnaji's hypothesis.[5]

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It is not as if the findings presented here are entirely novel. The truth is that data such as these have been largely ignored in a flood of Neo-Malthusian fact and fiction.

To conclude, family planning may well represent empowerment to persons in the classes primarily exploiting labour. Assured of access to resources, employment, incomes, educational skills, nutrition, a relatively better endowed environment, access to health services -- and thus child survival, access to family planning services would widen reproductive choices for well being. Indeed they may empower both men and women. On the other hand, for those primarily exploited, family planning and the question of reproductive choice, in the absence of child survival and all its accoutrements, may represent not just mockery of poverty but, as policies are implemented in our country, coercion.

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[5].Krishnaji, N., "Poverty and Family Size" *op cit.*

COST OF MEDICAL CARE
Issues of concern in the present scenario

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This paper examines the financial aspects of various components in the health care delivery system of the country. It attempt's to highlight some of the major issues of concern that need to be addressed in the present economic scenario.

The health care sector in India has come of age. There has been a tremendous amount of growth in terms of physical size, investments, expenditures and utilisation of health care services. Unfortunately, it continues to be maldistributed and the average quality of services, not commensurate with what it is capable of achieving. There is an absence of a holistic approach for the provision of services which has led to a lack of comprehensiveness. Health planners and policy makers among others have failed to take a holistic picture of the health services in the country. They failed to take into account the role, functions, size, investments, distribution of the private health sector which was operating and growing by leaps and bounds. Recent studies conducted bring out that for indoor care around 50 percent and ambulatory care (out-patient) nearly 70 to 80 percent of people utilize private health facilities in the country **(NSSO 1989, Duggal and Amin 1989, Kannan et al. 1991, NCAER 1992, George etal. 1994).** Compared to state expenditure on health the private household expenditure is nearly four to five times more than that of the state. Today, the nation knows very little about a sector which is consuming 80 percent of health expenditure and being utilized by majority of the people in the country.

This has been inspite of the fact that the Bhore committee in 1946 had set out a detailed plan for the development of health care services in the country. This plan was well studied, comprehensive and suited to Indian conditions. It recommended that the resources for health should be increased by three times of that existing then. Health services were to be provided universally to all free of cost. It gave greater emphasis to rural areas in correcting the wide rural-urban disparities. **(Bhore Committee, 1946)** If implemented fully in a time period of twenty-five to thirty years the level of health services would have improved in a substantial manner spread proportionately all over the country. This would have made the private health sector dispensable. The first and second health ministers conference after independence accepted the Bhore committee's recommendations in principle only, citing lack of resources as a major constraint. The first five year plan made some effort on the recommendations of Bhore committee, but subsequently there was no mention of the committees recommendations.

Components of health care services in the country

India's health care system is characterized by a mixed ownership pattern. To compound this plurality of provision, there are different systems of medicine- Allopathy, Ayurveda, Unani, Siddha and Homeopathy. There are three major groups in the provision of health care and consumption of health resources in the country. These are the public sector, private health sector and thirdly the households who utilize the health service constitute the largest constituent who spend on health care.

The public health sector consists of the central government, state government, municipal & local level bodies. Health is a state subject and therefore the primary responsibility of providing health services vests with the concerned state government. However the central government does contribute in a substantial manner through grants and centrally sponsored health programs. There are other ministries and departments of the government such as defense, railways, police, ports, mines etc. who have their own health services/schemes and institutions that provide care for their own personnel. For the organised sector employees (public & private) provision for health services is through the Employee's State Insurance Scheme (ESIS).

The private health sector consists of the 'not-for-profit' and the 'for-profit' health sectors. The not-for-profit health sector includes various health services provided by non government organisations (NGO's), charitable institutions, missions, trusts, etc. Health care in the for profit health sector is provided by various types of practitioners and institutions. The practitioners range from General Practitioners (GPs) to the super specialists, various types of Consultants, Nurses and Paramedics, Licentiates. Registered/Rural Medical Practitioners (RMPs) and a variety of unqualified persons (quacks). The practitioners not having any formal qualifications constitute the 'informal' sector and it consists of tantriks, faith healers, bhagats, hakims, vaidyas and priests who also provide health care. The institutions falling in the private health sector range from single bed nursing homes to large corporate hospitals, and medical centres, medical colleges, training centres, dispensaries, clinics, polyclinics, physiotherapy and diagnostic centres, blood banks, etc. In addition to these, the private health sector includes the pharmaceutical and medical equipment industries which are predominantly multinational.

Issues to be addressed

Privatisation and liberalization characterize the new economic policies being pursued in the country. It is in this context that we have to view the various dimensions and aspects of health care costs. These are, majority of the people living under extreme poverty conditions, non-availability of basic amenities for the majority of the people, poor nutritional status, impoverishment due to health, poor availability of public services, presence of a dominant and unregulated, unaccountable private health sector along with strengthening of market forces and helplessness of the consumer against various odds.

The Finances of the Public Health Sector

The Indian constitution in it's Directive Principles of State Policy has vested the state with responsibility for providing free health care services to all citizens. In the present scenario the state is abdicating its role of providing health services to the people. There was no attempt post-independence to radically restructure health care services inspite of the recommendations of the Bhore Committee Report. On the contrary, aspects contributing to inequality were strengthened; for instance, under funding of public health services, concentration of medical services disproportionately in the urban areas, production of doctors for the private sector, financial subsidies by the State for setting up private practice and private hospitals.

Under-funding

The investment by the public sector for health care has been inadequate to meet the demands of the people. The State has over the years committed not more than 3.5% of its resources to the health sector. The budgeted expenditure for 1994-95 was at 2.63% of total government expenditure which is the lowest ever. As a percentage to Gross Domestic Product (GDP) it has been around 1 percent only, woefully short of the World Health Organisation's (WHO) recommendation of five percent.

Further when we calculate per capita expenditure we find that the state spends a meager amount of Rs 60 per year (1990-91) on health. At today's market prices providing all the above services free of cost requires much more expenditure than that is spent presently. Raising this to 5% of GDP would mean an additional expenditure of Rs. 175 billion. This sounds like a lot of money. But given a population of 860 million it works out to only Rs. 260 per capita. At present day prices this amount is equivalent to 35 kgs. of wheat or 40 kgs. of rice or 7 kgs. Of ordinary edible cooking oil or an ordinary rail ticket between Bombay and Calcutta at a little less than a well known medical consultant's fees for a single consultation or 9 GP consultations or 11 days wages of an organised sector industrial worker or 15 litres of petrol. This is not a very extraordinary demand. Given a political commitment, financing of the health sector along with other social sectors needs to be substantially strengthened because ultimately it is these provisions that become the foundation for improvement in the quality of life. **(Duggal R, Nandraj S, Shetty S, 1992)**

Expenditure on health has not kept pace with increase in government expenditure. Under structural adjustment there has been further compression in Govt. spending in an effort to bring down the fiscal deficit to the desired level. Analysis of data by National Institute of Public Finance and Policy gives evidence for this compression which has taken place over the last decade. It shows the state's share in health spending has increased from 71.6% in 1974-82 to 85.7% in 1992-93 and that of the grants from centre declined drastically from 19.9% in 1974-82 to 3.3% in 1992-93. Further the breakdown of central assistance to states reveal that central programmes or centrally sponsored programmes are the most severely affected. The Share of central grants for public health declined from 27.92% in 1984-85 to 17.17% in 1992-93 and for diseases programme from 41.47% in 1984-85 to 18.50% in 1992-93 **(NIPFP, 1993).** The investment by the state in the health sector is very small both in the overall economy as well as within the public domain.

Rural-urban disparity

It has been clearly shown time and again by various studies that the rural-urban disparities in terms of health infrastructure is wide and should suffice to show where the state's investment in health sector is going. Analysis of state expenditures on health reveals that between 70 to 80 percent of the investment and expenditure goes to 30 percent of the population in urban areas. For instance, in 1991 of all hospitals and beds in the country only 32%, and 20% respectively were in the rural areas i.e., 0.57 hospitals and 20.2 beds per 100,000 population in rural areas as compared to 3.5 hospitals and 238 beds per 100,000 population in urban areas. **(CBHI, 1992)** This is inspite of the fact that urban areas also have access to other public and quasi-public health facilities such as municipal and other local body hospitals and dispensaries, ESIS and CGHS for industrial and government workers and so on. Most municipal bodies spend between one-fourth to one-third of their budget on health programs whereas rural local bodies don't spend anything significant on this account **(NIUA 1983, 1989).**

There is utter neglect of rural areas in provision of medical care services. The State took up the responsibility of preventive and promotive health services and left the curative care largely in the hands of the private health sector. The poor in the villages were given inferior health services in the name of Primary Health Care, National Programmes etc. For the rural population there is very little provision of state funded curative care though the major demand of the people is curative care. Studies conducted bring out the fact that PHCs are grossly underutilized primarily because they are inadequately provided (staff, medicine, equipment, transport, etc.) and because the entire focus of the health program through PHCs is in completing family planning targets **(ICMR 1991, Gupta JP, et.al 1992, Ghosh B 1991).** The loss of faith in the public health sector has provided the private health sector an opportunity to thrive and make its presence felt as the sole provider of curative care in the rural areas.

Mis-placed priorities

The state funding for health care as seen above is very meager and insufficient to meet the needs of the population. Within this meager amount available the state's prioritization and allocation of health expenditures are misplaced. The major emphasis of the state health program has been on population control. From among its various developmental efforts the population control program stands as the most priority activity the Indian state has pursued with a zest bordering on obsession. The under development and poverty of the country is blamed entirely on its population growth rate. Family planning is the single largest plan health program swallowing more than half the plan resources for the health sector. Over the year's expenditure on family welfare program has increased at a very fast pace. From an annual average expenditure of Rs 4.40 million during the second plan (1956-61) it went upto Rs 49.80 million in the 3rd plan period (1961-66) and further to Rs 235 million during the plan holiday (1966-69). **(Duggal R, Nandraj S, Shetty S, 1992)** It went on increasing at a rapid pace in the consecutive plan periods. Family planning expenditures are spent mostly in rural areas through the PHCs and sub centres. On as average each PHC spends around Rs 200,000 to Rs 300,000 on family planning. Besides the allocation of resources it uses the entire infrastructure and human power to meet the targets of its programme. This has resulted in a neglect of other health programs but also the discrediting of the rural health services as a family planning services. This has made the entire rural public health service defunct. Inspite of such large quantum of funding the FP programme has

been a miserable failure. The Total Fertility Rate continues to remain around 4.5 per women and the growth rate has remained near constant for the past three decades at around 2.2 percent per annum.

Shifting priorities

Another area of concern is the expenditure incurred by the state on diseases control program. At present there are around 15 national diseases programs functioning in the country. These are for diseases and illness like TB, malaria, filaria, leprosy, diarrhoea, blindness, STD, mental health, cancer, etc. The latest addition is AIDS. These programmes were funded and sponsored by the centre. Every plan period brought out a new national diseases program. The policies and priorities to various diseases programmes kept shifting. The shifting priorities within the diseases program was more due to the international pressure than the diseases profile of the country. The union government has played a far more significant role in the health sector than demanded by the constitution. It has pushed various national programs in which the states have had very little say in deciding the design and components of the programs. The states have acquiesced to programming due to the central government funding that accompanies them. The expenditure on this programme across the various plan periods has been between 12 to 13 percent of the total health expenditure except during the 1955-65 period when expenditure on malaria was over one-fourth of total health expenditure. On an average only Rs 7 per capita per annum is spent on diseases program. Low priority, under-funding and shifting priorities for diseases programmes persist in spite of an increase in morbidity and mortality due to various diseases. The share of central grants for diseases program declined from 41.47 percent in 1984-85 to 18.50 percent in 1992-93. The decline of expenditure on diseases program has been considerable in the states of Assam, Karnataka, Madhya Pradesh, Punjab, Rajashtan, West Bengal, Bihar and Orissa. **(State Government Budgets, Various Years).**

Health Finances to support Salaries

Though the reach of the public health services is very limited it supports a very large bureaucracy from the union capital down to the PHC level. The support for this elaborate bureaucracy and line workers forms a major chunk of the states health budget. This fiscal control by the centre and top heaviness of the health organizational structure has made administrative costs of the health ministry's programme phenomenally high. For instance, as of March 1991 the rural areas the State was employing 311.455 line workers (doctors, nurses, pharmacists, paramedics) and 293.400 support staff (clerks, wardboys, drivers, surveyors, etc.). It may be noted that these were 39% less than the stated requirement for the existing health infrastructure in place **(DGHS 1991).** The Central Ministry of Health employs over 30,000 persons. The figures for the States is not available but it must be a whopping amount considering the fact that health services are a State-subject !. Analysis of the expenditure on health in Maharashtra during 1990-91 shows that out of a total expenditure of Rs 1767.13 millions on public health account, 43.40 percent was incurred on direction and administration, this is addition to the expenditure on salaries under each program head. Diseases control programmes accounted for 35.23% of total expenditure under public health account. Out of a total expenditure of Rs 31.56 millions on filaria control, malaria Rs 372.51 millions, cholera Rs 19.03 millions, leprosy Rs 130.17 millions it was seen that 74%, 66.66%, 86.21% and 78.87% went into salaries respectively. **(Demand for grants ,Govt of Maharashtra, 1992).** Salaries take away an exceptionally large proportion of expenditure leaving very little for drugs and supplies. The major expenditure on the public health sector is incurred to maintain a huge army of personnel employed rather than on the provision health services.

State funding for the private health sector

The state directly or indirectly supports the growth of the private health sector at the cost of public resources. The areas where the state support is clearly evident is production of doctors for the private health sector. The other areas are financial assistance for setting up private practice, hospitals, diagnostic centres, pharmaceutical manufacture etc. through soft loans, subsidies, tax and custom duty waivers, income-tax benefits etc.

The expenditure on medical education was around 11 percent of total health expenditure in 1992-93 as compared to 5 percent in 1950-51. Nearly 16,000 doctors are being produced every year from some 140 medical colleges in the country. Until recently the role of the private sector in medical education & training of

this human resource was very limited. At today's prices on an average each doctor costs the state around Rs 500,000 (for a five year period) and each medical college costs about Rs 80 million per year. Though the state spends a fairly large proportion on medical education the state services are unable to fill in the vacant position. Between two thirds and three fourths of those qualifying from public funded medical colleges practice in the private sector. That means for every 3 doctors the government trains for its own health services it also trains 7 doctors for the private sector at public cost. A further distressing fact is that out of every 100 doctors who go into the private sector 40 migrate out of the country. This is a gross injustice to the poor people in the country who have contributed their mite in training these doctors. Thus the massive investment made by the state from public resources is not only drained away but those who have gained from this exploit the very people who have contributed to their acquiring skills by charging them exorbitantly, thereby making huge profits in the bargain.

The Finances of the Private Health Sector

The private sector has grown to be the most dominant one in the health sector. The share of the private health sector is around 4 percent of the Gross Domestic Product as compared to the government spending which is less than one percent. The share of the private health sector at today's prices works out to between Rs. 16,000 crores and Rs. 20,000 crores per year. India probably has the largest private health sector in the world **(Duggal R, Nandraj S., 1991).** This sector has expanded greatly in the post independence period, especially in the eighties. This is because the state did not take seriously the responsibility of regulating, monitoring and making the private health sector accountable. Due to the unregulated nature of this sector the data available is inadequate and often inaccurate.

It has become all the more important in the current context where the private sector is being encouraged to actively involve itself in almost all sectors of the economy. In the new lexicography of Indian economics privatisation and liberalization are the new panacea for ills in the economy. The structural adjustment policy which is being pushed by the World Bank and the International Monetary Fund (IMF) along with other bilateral and multilateral agencies, has helped expedite this process. The World Bank team's paper on 'Health Financing in India' and the 'World Development Report 1993' advocated a similar approach for the health sector.

The unchecked growth of the private health care and its absolutely unregulated functioning in India has made profiting from human misery a big business. It will not be an overstatement to say that due to the predominance of the private health sector, the Indian health care market has turned out to be a largely supply-determined market.

There are various irrational and unethical practices being followed. The major concern is how to make profit in the shortest possible time. Health has become a healthy business. The trend in the private health sector is towards irrational therapeutics, overcharging, subjecting patients to unnecessary tests, investigations, surgeries, and over prescriptions for monetary reasons, their highly commercial nature among others. Only recently attention has been focused on the serious anomalies with regard to the functioning of private health sector. This was possible because a number of cases of medical malpractice and negligence filed in the court of law by the victims and their relatives. It is also due to the role played by different consumer organisations in raising awareness on the various issues related to the care being provided by the private health sector.

Irrationality of Charges

There are not enough studies conducted on this vital aspect of the charging practices. Due to the secretive nature of the private health sector functioning there is not enough information available. Not many of them maintain proper books of accounts. With regard to the nursing homes and hospitals the charges are diverse and mind boggling. The charges include consultation fees, charges for bed, nursing, operation, operation theater, various investigations and disposables used, for medicines, etc. In many it has been observed these charges are levied by different entities ; for instance the Doctor conducting the operation would be different from the one

who owns the nursing home, the anesthetists who is present his/her's charges are different. The charging practices in the private health sector more often is purely based on a profit motive. The charges levied are arbitrary, irrational and without any proper basis. There are no restrictions or guidelines for fees and amounts charged by the practitioners, hospitals, nursing homes, diagnostic & therapeutic centres, medical centres, corporate hospitals etc. in the country. It varies in terms of place of practice, demand in the area, years of practice put in by the doctor, competition among them, understanding between them, etc. It is left to the whims and fancies of the providers in the private sector to charge as much as they like. The charges are never displayed openly. The consumer does not know how much s/he would be charged when visiting the providers in the private health sector. **(Nandraj S, 1994)**

Earnings of the practitioners and hospitals

As there is insufficient information on the charging practices we have looked at the earnings of the doctors and nursing homes operating in the private health sector. The earnings of the doctors have been studied only recently. A study undertaken by FRCH in Bombay city found that a GPs net income, on an average, works out to Rs 16,560 per month. **(George A, 1991).** Another study conducted in Delhi found that on an average the net income of a GP practicing in a clinic or residence was Rs 24,290 p.m., and a graduate gynecologists income was found to be Rs 28,910 p.m. With regard to those having post graduate qualifications in medicine, the average income was found to be Rs 27,880 p.m., for general surgery Rs 37,870 p.m.; and for gynecology Rs 53,870 p.m. With regard to that of the ones running nursing homes with graduate (MBBS) qualifications, their net income per month was Rs 73,650/ and the ones having post graduate degrees had earnings going upto Rs 79,960. **(Kansal S M, 1992).** The high income of the doctors & nursing homes has been extracted by making illness an industry. Many patients and their family members have been pauperized during the course of treatment from the private health facilities.

Standardization of charges

There is no standardization of fees charged. In a study conducted by Medico Friend Circle (MFC), for the question regarding standardization of fees charged by the doctor, it was found that 65% of them felt that there should be some form of standardization of fees charged by the doctors. The study also found that nearly 76% of the doctors did not give a receipt for the payments made, only 24% of them gave receipts after being asked for it. **(Medico Friend Circle Bombay Group, 1993, Draft Report).** Despite having one of the largest private health sector in the world, providing 70 percent of care in India, the fact that it should function practically unregulated is a matter of grave concern. There is no rationale behind the level of fees charged by them and the law of market operates. Majority of the people utilize the services of the private health sector but have, little or no control on the quality or pricing of the private health services.

Unethical practices

The rising costs of health care are also due to the irrational and unethical practices resorted to by the private health sector. One of the major reasons of irrational practices among doctors is due to the fact that they are supplier induced demands.

The use of unnecessary injections is quite well known due to the strong financial incentive. In a study conducted in Madhya Pradesh it was found that out of 884 illness episodes which received medicines along with injections, 86.09% of them received it from the private health facility. **(George, A, Shah, I. Nandraj, S., 1993, FRCH).**

Cut Practice/Kickbacks

Referrals are often made to specialists and laboratories for a kickback. Over production and competition among doctors in the private health sector has led to harmful competition among them and has made them create unnecessary demand for their services amongst the people. For specialized treatment like hospitalization and investigations, the GP would refer the patient elsewhere. For referrals made, a part of the fee charged to the patient is given to the referring doctor. A GP/consultant gets a cut if s/he refers a patient to a consultant, hospital/nursing home, laboratory, diagnostic center etc. In Bombay, the cut-ratio is as high as

30 to 40 percent of the fees charged. In some towns of Maharashtra informal associations of doctors have standardized the ratios of cuts to be given. Cut-practices inevitably leads to unethical and unnecessary investigations, referrals, hospitalization, high costs, etc. Those doctors who want to practice ethically and rationally cannot survive in this atmosphere.

Unnecessary surgeries and investigations

Private hospitals tend to perform unnecessary investigations, tests, consultations and surgeries. Due to the fact that surgeries are profitable many of them conduct them rampantly without any regard for the patients well being. The KSSP study revealed that 31 percent of deliveries were by cesarean section. More significantly 70 percent of the hospitals where cesareans were routine were privately owned. **(Kannan et.al)** The Mangudkar committee in Maharashtra found that the average rate of cesarean childbirth in private hospital was 30 percent as compared to government which was only 5 percent. The private hospitals on an average in Bombay charge anywhere between 10,000 to 20,000 for a cesarean delivery. Ultrasound investigations, amniocentesis, epidural anesthesia etc. are done unnecessarily more often since the facility is there and there has been an investment made on it.

There are other forms of unethical and irrational practices carried out by the private health sector for economic reasons. In many hospitals there is pressure on the doctors to ensure that the beds are occupied all the time and the equipment in the hospital are utilized fully. Many hospitals fix the amount of 'business' a physician/surgeon has to bring. Many of the private hospitals refuse admission to patients unless a certain deposit is not paid before hand. This is inspite of the fact that the patient may be serious or an accident victim. It is also well known that there is demand for more money especially when the patient is vulnerable (operation). Many big hospitals in the private health sector use the facade of registering themselves as trust hospitals. This is done with a view to get various benefits from the state and escape the provision of various taxes.

The business of health

A rather new feature in the health care delivery system is the entry of corporate hospitals. These hospitals cater to only the rich class of people. The cost of treatment in these hospitals is beyond the reach of common person. During the last one and half decades the growth of corporate hospitals has been at very fast pace. In 1983, the first corporate hospital in India was set up in Madras. It was established by Apollo Hospitals Enterprise Ltd. (AHEL), which recorded a turnover of Rs 11.48 crores and a net profit of Rs 1.66 crores in 1988. Many corporate houses and non-resident Indians have recently joined this enterprise. Several large business houses in addition to their regular business have diversified into the field of health. Some of those who have entered are the Hindujas, Escorts group, Standard Organic group, Surlux Diagnostic Centers, United Breweries group, Goenkas, Birlas and the Modis. This is due to the realization that health could also be transformed into an industry with such desirable features as: a large and available market of illness, access to a ready qualified and trained labour, and the new miraculous state of the art medical technology. They also boast of the latest diagnostic and therapeutic facilities. In a span of two years 1984 to 1986, over 60 diagnostic centers have entered the market with an investment of over Rs 200 crores in sophisticated equipment. Today Bombay has 13 body scanners. Delhi has 11, Madras has 8, Calcutta has 3, Hyderabad has 2, Pune has 3 and Ahmedabad has 3. **(Jesani. A & Ananthraman S. 1993, P 82)**. Surlux Diagnostics Ltd. with five centers in India had declared a dividend of 19% during 1988. The United Group owns over 32 body scanners and 14 brain scanners in the country **(Indian Express, May 18th, 1989)**. Suffice to say that with the rise of the corporate sector, the cycle in health care does not start with a trained medical person and a sick person in search of each other, but with an investor in the share market in search of profitable investment : the availability of newer medical technology and a market in medical care being merely an attractive form of investment **(Phadke A, 1993)**.

Health finances of the Households

The households constitute a major component in terms of expenditure and utilisation of the health services. The various studies conducted have brought out the fact that the households spend a substantial amount on health care and the poorer class spends more on health care in terms of their proportion to consumption expenditure and income. The criteria used for defining classes in these studies differ, but then no comparisons are possible if we insists on academic sophistry. A study conducted in two backward districts of Madhya Pradesh, in 1991 showed that the per capita expenditure incurred by the household on health worked out to Rs.299.16 per year with 73.85% of the expenditure going into doctors fees and medicines. The percentage of consumption expenditure works out to 8.44%. The upper class spends only 3.91% of their consumption expenditure, while the lowest and lower middle classes spend as much as 7.91% and 9.9% respectively on health. **(George, A, Shah, I. Nandraj, S., 1993).** Kerala Shastra Sahitya Parishad (KSSP) which undertook a study in rural Kerala in 1987 found that the per capita cost per year incurred by the household on health was Rs. 178.33. The percentage of the reported income spent on health was found to be around seven percent. Comparing it across class it found that the lowest class spends as high as 14.36% of their income on health as compared to the highest class which spent only 4.36% of their high incomes. **(Kannan, K.P., Thankappan K R,** Raman Kutty V, **and Aravindan K P, 1991).** A study conducted in Jalgaon district of Maharashtra brought out that the per capita expenditure on health was found to be Rs. 182.49 per capita per year, 7.64% of total consumption expenditure and 9.78% of reported income were spent by the household on health care. Out of this total per capita expenditure, 68.50% of the expenditure goes into practitioners fees and medicines. **(Duggal, R., Amin, S., 1989).** National Council of Applied Economic Research (NCAER) conducted an all India study in 1990 brought out that the average household expenditure for treatment worked out to Rs. 142.60 per illness episode in urban areas and Rs. 151.81 per episodes in rural areas. **(NCAER, 1992).**

The findings make it evident that a substantial financial burden of the household is borne for meeting health care needs. Households spend between 4 to 7 times of what the state spends on health care services. This certainly is not a happy state of affairs, since such expenditure on health care would mean cutting down on the food consumption of the households. This gains significance when we realize that nearly half of the country's population does not have enough resources to meet their food requirements, and worse still the capacity to earn it the patient happens to be the sole earning member. Given this socio economic situation in the country the purchasing power becomes a crucial factor. As we know the accessibility of the public health service is poor especially in rural areas of the country. The private health sector becomes unaffordable for the vast majority of the poor in the country. There is impoverishment of the lower class or middle class due to illness which could be of a chronic nature or that involving hospitalization or surgery. The high cost of health care makes the poor more marginalised. There is a need to question the commodification of health care, the dominant role of the private health sector and as a result spending a enormous amount of money on health care.

Conclusions

The broadest possible platforms should be created for bringing in some amount of change in the health sector. The states allocation need to be questioned. The underfunding of medical services is matter of serious concern. The need for more resources and greater decentralisation has to be taken up on a priority basis. The priorities within the health sector need to be changed drastically. More funds need to be made available for the rural areas, especially with regard to curative services. Increasing support for population control needs to be questioned. There should be additional resources especially for non-salary expenditures, reducing wastage and improving efficiency by better management practices and setting up of proper referral systems. There is a need to use the existing resources more efficently and effectively.

There is hardly any regulatory intervention or interference of the government in the private sector and on the health care market. Even the few existing laws and regulations are either toothless or not implemented at all. People's dissatisfaction with the private sector and their disillusionment with the medical establishment is

quite high. There is an urgent need for regulation and monitoring of the private health sector. Through licensing and other means the proper geographical distribution should be done. Legislation should be enacted where there is no legislation.There should be regular prescription and medical audits and the renewal of licence should be dependent on it. The findings of the various studies on earnings of the medical profession shows that it is one of the best paid professions. Large sections of the population have become pauperized due to the large sums of money spent on private health care. With regard to charges and fees there should be standardization of fees charged by the practitioners and fixation of reasonable charges by hospitals and nursing homes, diagnostic centres, investigations for the services provided. These should be displayed prominently in a conspicuous place.

There is a trend of favouring user charges/fee-for services for public health services. This should be counted as in the present socio economic conditions the poor would be hit the hardest. Additional revenues specifically for the health sector could be generated through additional tax on degrading health products such as cigarettes, liquor, pan masala etc. Those with a capacity to pay especially in the organised sector, middle and rich peasantry and other self-employed should be made to contribute for health care services. This could be through insurance and other pre-payment programs. In India no single system can work. What we would need is a combination of social insurance, employment related insurance for the organised sector employees, voluntary insurance for other categories who can afford to pay and of course tax and related revenues.

There should not be any kind of payments done at the point of provision of care since they are unfavourable to patients. Payments should be made to providers by a monopoly buyer of health services who can also command certain standard practices and maintain a minimum quality of care - payments could be made in a variety ways such as capitation or fixed charges for a standard regiment of services, fee-for-service as per standardised rates, etc. The move towards monopoly purchase of health services through insurance or other means and payment to providers through this single channel is a logical and growing global trend. To achieve universal access to health care and relative equity this is perhaps the only alternative available at present, but this of necessity implies the setting up of an organised system and for this the State has to play the lead role and involve the large private sector within this universal health care paradigm if it must be successful. **(Duggal R, 1995).**

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DRUG PRICING , IS IT JUSTIFIED ?

Dr W.V.Rane

Under the 1995 DPCO, drug units are entitled for 18 per cent post tax return on net worth if bulk drugs are manufactured from the basic stages, as against 16 per cent in the 1987 DPCO. This rise the drug manufacturers can claim justifiably. The bulk drug units making 6-APA and 7-ADCA intermediates for synthetic penicilline will now have to source penicillin G from local manufacturers to the extent of 70 per cent of their requirement. This government policy shows a clear shift in favour of domestic penicillin G manufacturers. An inevitable outcome of the tilt towards domestic manufacturers of Penicillin G will be likely price increase of semysynthetic penicillins like ampicillin, amoxycillin and cephalexin.

The drug industry and trade had come to an agreement to increase the trade margins for decontrolled drugs in phases, starting from July 1. The government has decontrolled a total of 67 bulk drugs and their formulations under DPCO 1995 and the chemists are entitled for a higher margin for these products. The agreement provides for a 2 per cent increase in trade margins at 18 per cent to retailers from July 1 for all formulations of drugs which are outside the price control under DPCO 1995. The wholesale trade will get a margin of 9 per cent.

A further 2 per cent increase in the retail trade margin and a 1 per cent hike in wholesale margin will be effected from January 1996 in the second phase. With these increases the retail margin will be 20 per cent and wholesalers' margin will be 10 per cent for all decontrolled drugs. This makes a total of 30 per cent for drug retailing and wholeselling.

Express Pharma Pulse (June 29, 1995) says " A 30 to 40 per cent rise in the prices of most of the decontrolled drugs is expected from July 1995, with the agreement between the drug industry associations and pharmaceutical trade to hike trade margins taking effect. A further 60 per cent increase in prices of these drugs is likely from next year. An estimated Rs. 25 crore is expected to be collected by AIOCD (All India Organisations of Chemists and Druggists) from the drug Units" . In short the drug industry and the trade decide amongst themselves how much should be extracted from the consumers and the government takes a position of silent spectator.

Normally 10 per cent free scheme is offerred by many drug companies throughout the year, but from Table-1 you can find the additional per cent free schemes that are offerred.

Table - 1
Free Schemes

Manufacturer	Brand name	Scheme	Per cent fr
Amazon	Coldin Tab	10 + 6	60
	Zolgin Tab	10 + 5	50
	Ibunova Tab	10 + 6	60
Brown & Burk	Eldopar Cap	10 + 5	50
Micro Labs	Renitab 150	10 + 4	40
	Microflox 250/500	10 + 4	40
	Microdine Oint	10 + 5	50
Plethico	Gentamycin 10 ml	7 + 5	71.43
Mac Labs	Genman 2 ml	10 + 5	50

From Table 2 we find that nearly 20 per cent of the product and 28 per cent of the products and packs have increased the prices. The break-up of the price rise shows that 11.17 per cent have shown a rise of less than 1 per cent, 5.32 per cent a rise of 10 to 20 per cent, 3.83 per cent a rise of 20 to 30 per cent, 2.30 per cent a rise of 30 to 40 per cent and 1.00 per cent a rise of 40 to 50 per cent. But strangely enough 3.80 per cent show a rise of over 50 per cent. Some of this rise may be of bigger packings. This has been the usual practice of the drug companies to increase the prices of different packings of products at different times.

41 products show a rise of over 100 per cent and 11 of xx these are ophthalmic products of Bell Pharma. The top position is taken by Gesicaine, a local anesthetic of S.G.Pharm with a rise of 221 per cent and followed by

Glucagon- hypoglycemic attack-Torrent-200 per cent
Hematrine- Iron preparation -Sandoz -148 per cent
Daktacort-Antifungal -Ethnor -147 per cent
Epsolin- Anticonvulsant -Cadila -145 per cent
Depsonil-Antidepressant G.Ph -144 per cent
Septopal- Antibiotic -Merck -139 per cent
Nutrisan- Nutritional -Sandoz -121 per cent
Alludrox Gel- Antiacid -Wyeth -114 per cent
Myambutol- antituberculous-Cyanamide - 114 per cent
Corex - Cough mixture -Pfizer 109 per cent
Testanol-25 -Hormone -Infar -108 per cent
Lanoxin - Cardiac . B. Wellcome -105 per cent
Dilantin- Anticonvulsant-Parke Davis -105 per cent
Endrine- Nasal decongestant -Wyeth -104 per cent

10 products show a rise between 90 to 100 percent, 7 products between 80 to 90 per cent, 17 products between 70 to 80 per cent, 10 products between 60 to 70 per cent, and 33 products between 50 to 60 per cent. In this group the most commonly ~~used products are~~ commonly used products are Arovit - vitamin, Neosporin skin ointment, Incidal-antiallerg , Zeet- cough mixture, Prenatal-nutritional, Cordinal - anti-convulsant, Sodium antimony gluconate- Kala azar, Algipain - Pain Balm, Xylocaine- anesthetic, Efcorlin-nasal drops, Diabinase- Diabetes, Paraxin-antibiotic, Nebasulph-antiseptic Triaminic- cough mixture, Arovit-vitamin etc. Pfizer has increased the price of their tetracycline by going generic. Gardinal, the most effective and cheapest anti-convulsant has increased the price by 50 per cent. The drug controller has shown it's incapacity to force the chemists to stock and sell this most commonly used anticonvulsant.

Table - 2

Category-System	No. of products showing a per cent pricerie 0-10	10-20	20-30	30-40	40-50	Over 50
Alimentary	28	10	4	1	2	2
Cardiovascular	27	22	12	10	3	9
Central Nervous	49	30	11	13	4	20
Musculo-skeletal	17	5	7	4	6	3
Hormones	31	13	13	4	2	9
Genito.urinary	13	9	6	1	2	3
Infections	110	22	22	12	5	17
Nutrition	65	29	19	12	7	18
Respiratory	20	12	9	5	-	9
Ear-Nose-Throat	1	5	2	2	2	6
Eye	10	6	4	3	5	17
Allergic	4	2	4	3	4	2
Skin	27	12	15	11	2	11
Others	1	14	10	2	2	11
Total (3607)	403	192	138	83	46	137
Per centage	11.17	5.32	3983	2.30	1.28	3.80

In June 1993 the prices were marginally decreased, but the same were increased from December 1993 onwards and were maximum by June 1995. The comparative figures presented here are from MIMS December 1993 to Septemeber 1995. 5.32 per cent of the products have shown marginal decline in prices and the maximum decline is from norfloxacin, ciprofloxacin, famotidine omeprazol, rifampicin etc. The real price rise began from June 1995 and hecneforth more and more products will rise the prices.

In September 1994, the government of India , Ministry of Chemicals and Fertilizers, Department of Chemicals and Petrochemicals announed modifications in Drug Policy 1986. Under clause 22.7.2(iv):Span of Control: it says " Government will keep a close watch on the prices of medicines which are taken out of price control. In case, the prices of these medicines rise unreasonably, the Government would take appropriate measures, including reclamping of price control." Now that 67 drugs have been decontrolled, it becomes the responsibility of voluntary organisations to keep a track of price rise and force the government to take appropriate action

Under clause 22.7.3:Ceilijg Prices: it says " ceiling prices would be fixed for commonly marketed standard pack sizes of price-controlled formulations and it would be obligatory for all, including small scale units, to follow the price so fixed.% Now in this category we will try to study the prices of two most commonly used drugs paracetamol and aspirin. The ceiling prices fixed and notified by Governmer of India under DPCO 1987 and continue to be in operation under DPCO 1995 are as follows:(Order No. 672(E) 14-9-1992)

Paracetamol 500 mg per tab. strip 10 T @ Rs. 2.74
125 mg per 5 ml. Syp 60 ml @ Rs. 7.04
150 mg per ml drops 15 ml @ Rs. 6.58

Thr actual prices as prevalent today are:

Calpol (B.Wellcome)	500 mg tab	10 T	Rs. 4.12	+50.36%
	125 mg per 5 ml	60 ml	Rs.11,67	+65.77%
Crocin (Duphar)	500 mg tab	10 T	Rs. 3.98	+45.26%
	125mg per 5 ml syrup	60 ml	Rs.10.78	+53.13%
	150 mg per ml drops	15 ml	Rs. 7.34	+11.55%
Metacin (Themis)	500 mg tab	1o T	Rs. 3.13	+14.23%
	125 mg per 5 ml syrup	60 ml	Rs. 8.21	+16.62%
	150 mg per ml drops	15 ml	Rs. 7.42	+12.77

(Metacin prices are not increased, but they may increase the same soon).

From these prices we can see that the popular brands of paracetamol prices are 65.77 to 11.55 per cent more than the ceiling price fixed by the government. The Calpol tablet priee has been increased by 40 per cent and syrup by 56 per cent and Crocin tablet has been increased by 35 per cent and syrup by 31 per cent. This price rise does not seem justifiable.

Another way of cercumventing the rules and regulations is to make drug combinations. One such example is Fortagesic of Win-Medicare. It contains Paracetamol 500 mg and Pentazocin 15 mg per tablet. Fortwin 25 mg pentazocin costs Rs. 2.73 per tablet and Crocin 500 mg paracetamol tablets costs Rs 0.40. So 500 mg paracetamol and 25 mg pentazocin can cost Rs.3.13

But Fortagesic with 15 mg pentazocin and 500 mg paracetamol costs Rs. 4.95 per tablet. Win-Medicare has another combination product of paracetamol 450 mg + chlormezanone 100 mg costing Rs. 2.50 per tablet.

Now the ceiling price of aspirin formulation (per order No. 12(E) of 4-1-1988 is as follows:

Aspirin 300 mg per tablet strip of 10 Tabs @ Rs. 0.64

Actual prices are as follows:

Apidin (IDPL) Aspirin200 mg +++	10 T	Rs. 2.42
Colsprin (Reckits) Aspirin 325 mg	10 T	Rs. 1.92
Disprin (Reckits) 350 mg +++	10 T	Rs. 2.00
Mioropyrin (Nicholas) 350 mg +	10 T	Rs. 2.37
Winsprin (Win-Medicare) 324 mg	10 T	Rs. 3.73

The brand prices are more than the ceiling prices from 482.81% to 200 per cent. Besides none of these products confirm to the standard formulation of 300 mg aspirin. This shows the efficient working of FDA's in allowing irrational formulation. How can these increased prices be justified ?

And to top this all, the drug companies have marketted small dose aspirin as anti-coagulants for profphylaxis in cases of increased risks of blood clotting.

Government ceiling price of 300 mg aspirin10 T is Rs. 0.64

ASA 50 (German Remedies) 50 mg aspirin per tab 10T 6.00

Aspicot (Concept) 80 mg aspirin per tab 10 T 2.20

How can the government allow 9.38 times (938%) the ceiling price to ASA 50 and that too price rise of 24.00 per cent. If we can compare all the ceiling prices and find wide discrepancies that can be reported to the government.

Most of the expectorants (Benadryl, Bro-zedex, Cineryl, Corex, Deacos, Lupihist, Mit's linctus, Protussa plus, Solvin, Soothex, Sovental, Triaminic, Tristina, Zedex and Seet) have increased the prices, ranging from 20 per cent to 220 per cent. Like-wise vitamin formulations (Aquasol-A, Arachitol, Arovit, Becosules, Beetrion, Beplex, Betonin, Bivinal forte, Citravite, Cobadex forte, Hexavit, Hovite, Hycibex, Macreberin, Pedic, Polybion, Stresscaps, Sukcee, Viseneral, Vitneuron etc.) ; minerals (Calcium-Sandoz, Cital, Citralka, Coslyte, Electral, Electrobiob, Filibon, Macalvit, Nutrisan, Ostocalcium etc), iron preparations (Dexorange plus, Fefol, Fessovite, Hematrine, Hepatoglobin, Imferon, Phosphonin, Tonoferon etc) and nutritional products (Bayers tonic, Hemiphos, Kinetone, Livogen, Neogadine elixir etc) have increased the rates.

In the antituberculous products, ~~exhaustion~~ ethambutol, and pyrazinamide prices have increased. In the antibiotics

tetracycline and chloramphenicol rates have gone up. Hormones hace always increased the rates and this time Aquaviron ~~xxxx~~ (without B12), by 41.36 per cent, Lynoral by 56 per cent, Orgalutin by 47 per cent and Testanon by 108 per cent have increased the rates. Most of the anticonvulsants like Dilantin, Epilex, Epsolin, Eptoin, Garoin, Mysolin, Valparan alkalets , and gardinal have raised the rates. Sedatives and antidepressants have never stopped hiking the rates.

Some of the newer entrants of drug manufacturers have become intelligent enough to market only tablets - so that capital investment is less or one can get the tablets compounded on loan licensse, for vague indications- where doctors cannot complain that there are no results, and at a very high price so that there is no need to ask for increase in rates. One such example is Sordia who has introduced following products.

Convdrsyl	- antihypertensive	10 T @	Rs.201.47 1od
Daflon-500	cardiac	10 T	158.64 1 bd
Diamicron	antidiabetic	10 T	90.40 1 bd
Flavedon-20	cardiac	10 T	90.40 1ods
Isomeride	antiobesity	10 C	88.81 1 bd
Natrilix	antihypertensive	10 T	37.10 1 0d
Ponderax	antiobesity	10 C	77.22 1 od
Survector	antidepressant	10 T	119.96 1bd
Trivastal LA	anti-parkinson	10 T	141.55 1-4

For such products and for such high introductory rates the question of justification does not arise.

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An over view of Current Drug Policy and Implication of Recent Policy Changes

Amitava Guha

Need of a Drug Policy:

Necessacity of a drug policy for nations was felt not very long ago. It was the industry who used to determine production,price and availability of drugs in a country. For the purpose of health care many national governments had been spending considerably from their scanty available funds. Accountability of such expenditure arose in view of the deteriorating health situations. Many countries expressed that unless of an appropriate policy,nation's fund goes into wests while the health of the industry grows. It was also found that the pharmaceutical business had become international and large Multinational Corporations (MNCs) dominated global production of drugs. Many developing countries felt helpless in developing proper policy under the pressure of Drug MNCs. In the developed countries, the government and the insurance companies had to develop some strategies to minimise expenditure on health for which guidelines were developed. Though not comprehensive, but the guidelines rendered certain restrictions on the drug production and its use.

In the WHO forum, various questions like appropriate use of drugs,large influence of industry and availability of drugs were raised. It was felt that in absence of a national drug policy with certain definite minimum necessary decisions, health care facilities can not serve real purpose. WHO had developed a guideline of drug policy for the developing nations. Nirobi conference of WHO held in 1985 and 39th World Health Assembly held in 1986 decided to prepare a guideline for establishing national drug policy. A group of experts finalised the guidelines in 1988.

Parameters of Drug Policy:

While introducing the guidelines, the Expert Committee expressed that : **"A vital requirement is that governments should exert the political will necessary to formulate and implement a drug policy. Lack of political will, even more than lack of resources, has been a decisive factor in the failure of some countries to ensure adequate provision of drugs and vaccines."**

The guideline provides us a balanced frame work of social, economical and therapeutically acceptable measures those are required for majority of the developing countries. The essential parameters described in the policy guidelines are briefly as follows:

1. Components of a drug policy
2. Specific legal issues
3. Information and promotion
4. Appropriate drug use
5. Self medication
6. Health education
7. Monitoring and evaluation
8. Financial resources
9. Research and development
10. Technical cooperation between countries

The guidelines emphasised the need of a legal framework to take into account not only the policy objective but also administrative, social, and health infrastructure, the available

manpower, and other resources. The legislation must also specify the sanctions that will apply in the event of failure to conform with any provision of the act. Sanctions must be enforced if the policy is to function effectively. There should be regulatory control in several urgent areas. The drug control administration should not confine to licensing, quality control, manufacturing standards, etc which are very much concerned to production, but it should be responsible to control information dissemination and sales promotion also. A registration authority must be developed by establishing increasing levels of control in the areas of collection and evaluation of informations available on all drugs for their registration or granting licenses for production and marketing in the country. There should be regulatory control for cost and pricing for drugs for the benefit of the consumers. Based on the codes to be developed in prescribing, professionals and health workers can meet the gaps in manpower need and availability of drugs.

Considering safety, quality, efficacy and cost, the guideline suggests that due importance be given in choice of drugs. There should be limited and adequate number or of drugs in the list based on the criteria of selection of essential drugs. The list may also contain traditional drugs available in the country. A country should always attempt to build up step by step a viable pharmaceutical industry for production of all the listed drugs with the aim of achieving self reliance.

There shall be efficient system for quality assurance of drugs for monitoring the entire process from the acquisition of a pharmaceutical raw material to its conversion into a finished product. The policy should be equipped with suitable legislation and effective regulatory system. Technical systems for enforcing good manufacturing practices, establishing of required quality control laboratories and drug testing laboratories is also an important component. To operate different elements of a drug policy, trained technical, administrative and health care personnels are to be developed.

The policy needs to include certain specific legal policies like drug patenting and policies on brand/generic names. Use of drugs are greatly influenced by information and promotion. The policy should prepare a system of collection and dissemination of unbiased information. Complete disclosure of all kinds of informations on drugs should be available to the prescribers and consumers. Regulatory agency should be developed for monitoring all promotional activities.

To envisage appropriate use of drugs, the policy must provide suitable measures in the areas of training and refreshing the knowledge of practitioners and para-medical stuff. System of health education will enable proper implementation of the policy. Health education at the level of schools and at home would include basic concepts of drug use and information of specific therapy. "Openness and effective communication are basic to the success of a drug policy. Public participation in the design and implementation of such a policy will foster the effective use and control of drugs." (**Guidelines for developing national drug policies** - WHO)

As an ongoing process, the policy should provide the scope of monitoring and evaluation of all the drugs marketed. Review of therapeutic value, quality and prices at least every five years are necessary. A mechanism for post marketing surveillance and monitoring of adverse drug reactions can determine the rationale of a drug and can avoid large disaster. Information on drug utilisation pattern are also required for deciding the production pattern and providing steps of inappropriate use of drugs.

Health problems vary in countries. Research and development of drugs are essential features of national strategies to meet the challenges of health problem. Research may involve fundamental research in molecular biology and chemistry, immunology and biotechnology, industrial research to convert scientific knowledge into technology. pharmacological and toxicological studies, clinical and field trial of drugs and vaccines. It is not necessary to start research in all areas at a time. Consumer groups can be encouraged to study peoples' attitude to prescribed drugs and self medication.

Analysing the policy situations in the 104 countries, WHO presented a dismal situation. Only 25 countries have somewhat policies but no country has a comprehensive drug policy. Among the ten parameters defined in the guideline, India has the credit of well established drug production system but did nit feature in any of the other parameters. It is evidently clear that India has given prime importance to industry and the drug policy in India had always oriented around the interest of the industry.

Drug Policies in India:

Two decades ago and eight years before WHO, the Committee on Drugs and Chemicals (Hathi Committee) defined almost all the criteria described in the guidelines of developing drug policy prepared by WHO. Interestingly, none of the drug policies in India could follow the recommendations of the Hathi Committee in totality. Contrarily, whatever good recommendations were taken up in the past policies, there have been systematic removal of them at the instance of industry. First drug policy was developed in 1978 which was basically formulated on some selected recommendations of Hathi Committee. Previous to this, we have a strait jacket formula on pricing provided by Drug Price Control Order (DPCO),1970.

Drug Policy,1978:

Distinctive features of the Drug Policy,1978 was that it had pronounced that the policy would consider development of indigenous pharmaceutical industry with main emphasis to public sector and national sector drug industry. The policy considered the following areas mainly: production, pricing, quality control, research & development, developing of drug authority. Main criticism against the policy was that while preparing the policy, the government had ignored the recommendations of Hathi Committee in respect of the health aspects. The policy had not considered the following:

1. Nationalisation of the multinational corporations in drug industry.
2. Taking measures provided for dilution of the foreign equity of the multinational corporations to 26 percent.
3. Taking over the diluted foreign equity by the financial institutions of the government.
4. Measures for weeding out the hazardous and irrational drugs.
5. Preparing the list of essential drugs for the country.
6. Specific measures for encouraging the small scale sector.
7. Reducing the prices of essential drugs.
8. Use of all essential drugs in generic names.
9. Curbing the unethical marketing practices.
10. 50% of the bulk drugs produced be supplied to non associated formulators.

Drug Policy,1978 had certain favourable consequences to the national sector drug industries with the help of which companies in this sector had developed to the extent

that they have been successful in competing the MNCs. Even today, Indian companies rank equally with the MNCs in sales turnover.

The Government never implemented a large number of decisions declared in the drug policy either due to pressure from the industry or due to lack of political will. Some of them are as follows:

1. Each manufacturer should produce essential drugs 20 per cent of their total turn over.
2. Diluted equity of the MNCs be purchased by the public finance institutions.
3. All manufacturers of drugs from intermediates and penultimates shall commence manufacturing from basic stages within two years.
4. Enforcement of ratio parameters of bulk drugs and formulations.
5. Measures to remove court injunctions on price control mechanism.
6. Obligatory research expenditure for MNCs having turn over of more than Rs. 5 Crores per annum to the extent of 20 per cent of their net block.
7. Establishing a high level committee on drugs and pharmaceuticals.

Drug Policy, 1986:

There was significant failure of the government even in implementing the drug policy resulting into lack of availability of essential drugs and vaccines, rise of prices, spurt of number of irrational drugs, proliferation of substandard drugs, etc. This policy diluted many regulatory controls provided in the .78 policy. Number of drugs exclusively preserved for Public and Indian sector companies was slashed by delicensing of 94 bulk drugs and by waiving of licenses from another 90 bulk drugs under the guise of broadbanding. Role of public sector was clearly diminished and the objective described it as ~important role' which was considered as 'leading role' in '78 policy. The objective of developing self-reliance in drug production has given up. Ratio parameter for bulk drug to formulation was tapered down according to turn over.

Conceding to the demands of the industry, the government marginalised the price control span on drugs. It not only reduced the number of drugs to be put under price control list, but increased the profit margin also. The system of compensating loss due to import of bulk drugs through Drug Price Equalization Accounts was abolished. The only good decision taken through this policy was to discontinue Loan License system though it remained non implemented till now. The drug policy'86 was known to be a move toward a retrograde direction from that declared in '78 policy.

Drug Policy 1994:

The government introduced a bill in August, 1992 titled as **Modifications in Drug Policy,1986**. Without waiting for the conclusion of the debate which generated much heat in the Parliament, the Government through a cabinet decision declared new drug policy on 14th September,1994. This decision virtually declared end of our national drug policy. It was stated that over all changes in the old policy was required to suit the liberalisation policy of the government and new perspective generated in signing the World Trade Organisation (**WTO**) agreement. Except three, out of fourteen decisions announced in the policy, all are concerned exclusively to the industry. It is agein established that the drug policy had never been policy for the people but a policy for the drug industry.

As far as the implementiation of policy guideline of WHO is concerned, it is obvious that India do not qualify in most of the parameters. Despite, the offficial stand of India in WHO is different. The government representative in the World Health Assembly held in May'94 drclared that India has implemented allthe policy guidelines of WHO. Smae year, in seminer co-sponsored by WHO at Delhi, the Drug Controller of India announced that except implementation of 'Criteria for Ethical Marketing Practices, all the policy guidelines are implemented.

Implication of the Recent Drug Policy:

Production control:

The government decided to abolish industrial licensing system from almost all the bulk drugs. The market size of pharmaceuticals had increased to a very large extent. There is a very little need of import of any formulations as most of the bulk drugs required are available . The trend that have manifested in the recent years shows that production of bulk drugs in the country is less than import. Production data of the recent years are - in Rs. Crores

	1991-92	1992-93	1993-94
Bulk Drug	900	1,150	1,320
Formulations	4,800	6,000	6,900
Export	1,231.30	1,410.30	1,781.40
Import	807.30	1,100.00	1,440.00

*(**Source:** Financial Express:31st August,1995)*

From one policy to the other, it is observed that production control has been gradually weathered. The role of MNCs in production of essential drugs have been minimal. **Table - 1** shows that bulk of the sales of MNCs in India has been generated from sales of irrational formulations. A study of the monitored 58 bulk drug production shows that the tendency of the MNCs in bulk drug production has been substantially reduced.(See Table-2).

The government have reduced the duties and levies in imported bulk drugs ignoring the fact that it would adversely affect the Indian bulk drug producers. In the last two years, a number of bulk drug manufacturers have stopped production due to proliferation of cheap bulk drugs in our country. The MNCs have neither upgraded their technology nor introduced new technology. Most of their plants are old, though production capacities have been increased but they have failed to compete cheaper bulk drugs produced abroad. The other factor precipitating to this situation is that due to relaxation of production control and import control, bulk drugs are dumped in the country in artificial cut prices. Prices of the imported bulk drugs were raised after the indigenous manufacturers were compelled to close down their production plant. Country's self reliance in drug production is being converted to import dependency.

Research and Development:

In all the drug policy declarations, it was stated that due stress shall be given in R & D sector. So far, the government have failed to take any effective steps for obligatory

investment in R & D. In reality, several MNCs have closed their R & D establishments here. Ciba Geigy, Boots, Hoechst, Rohne Poulenc are such examples. Investment in R& D in this industry is now less than 2 percent of sales turn over and R & D department in the Plants of the MNCs are the smallest among all other departments. Future development of production of new drugs would be through biotechnology route. Even though there is no dearth of expertise and infra structure, Indian R & D houses are afraid of the terms of WTO agreement which has clamped stringent clauses in genetic science research. Indian research houses have been successful in developing process technology of almost all essential drugs. With the enforcement of product patent system, scope of future development of process technology will also be stopped

Price Control

The pricing structure provided in the drug policies have been a severe eye sore for the industries whowanted total decontrol of prices. The span of price control has been narrowed down very sharply form one policy to the other. The details are as follows.

Policy	Number of Drugs under control
DPCO,1970	**All Drugs**
DPCO,1978	**378**
DPCO,1986	**164**
DPCO,1994	**73**

Only argument so far furnished by the policy formulators as to selection of drugs under DPCO is that they want market forces to control the prices of drugs. Unlike any other commodities, drugs do not depend on the choice of the users. It has been admitted by the Chairman of Glaxo India Labs.,Mr.G. Thomas that - "What people do not realise is the cost of manufacturing a drug is hardly twenty percent of price you pay. It is very low part of the cost of the drug. Thw main cost of the drug, cost of research which can be upto fifteen percent and the major cost is sales and distribution." (From the text of the speech at the meeting of CII,March,1992)

As against the claim of the industry that they earn only 3 recent profit, it is surprising that the share value and mobility of shares of the industry has remained always high.

Growth of Profits of Top Drug Companies

COMPANY	SALES		GROWTH%		PROFIT		GROWTH%		DIVIDEND	
	'92	'94	'92	'94	'92	'94	'92	'94	'92	'94
Ranbaxy	177	688	33	22	12	79	61	71	25	40
Glaxo	276	551	22	28	11	32	-19	49	18	27
Hoechst	118	351	2	23	6	32	57	136	20	25
Sandoz	97	290	24	1	4	22	65	3	16	25
Alembic	89	262	3	65	3	5	33	1	16	—
Cipla	73	244	14	24	9	24	27	21	30	32
Pfizer	65	214	13	25	4	20	8	86	10	30
Dr.Reddy's	60	175	80	31	11	33	331	23	35	30
Boots	51	154	27	18	6	16	9	23	34	38
Parke Davis	51	137	10	7	3	17	-17	13	20	35
Industry		**2004**		**24**		**115**		**48**		

Big pharmaceutical companies were detected to earn profit flouting the DPCO and even the order of the Supreme Court. Though they have agreed before the Supreme Court that they would pay to the government the excess profit earned by over charging, but it was not kept and the companies for years together, continued flouting court order. Not only this, the government had allowed these companies to increase the prices of the drugs which were over charged. Example of some of the cases are given in **Table - 3**

Government's statement in this respect is that "The liability of 67 cases amounting to Rs. 245.38 crores has been worked out and has been communicated; the details of which are given in Annexure-I. Out of this, Rs.18.27 crores had already been recovered. 11 cases have already been finally resolved so far." The cases referred so far are those upto 1989 after which, the over charging had not stopped and the excess profit accumulated are there very high. The companies had not paid this excess amount but took the liberty of showing them in their balance sheet for tax exemption. " Only M/s. Glaxo Labs Ltd. has shown in their balance sheet their liability towards Drug Price Equalisation Account. No income tax has been shown to have been paid on this amount by the company." **(Lok Sabha question No.3807 12th August,1986)**. There is a large sum of money to be available from the drug companies which shall be enough to met the expenses for setting well net drug control machinery. Instead, the government has decided that to set up National Drug Authority estimated amount of Rs. 130 crores will be required which sill b realised by imposing cess of 1 percent on the drug industry's turn over. (Business Standard; 30/8/95)This amount be certainly realised by the industry from the consumers.

The feeble element of price control will be gradually given up by the government in course of time. Within one year the government has decided to drop two drugs - doxycicline and pentazocine from the list. Moreover, there will be no scope of enforcing any price control on the newly introduced drugs any more.

Impact of Patents Act Change:

The Government had introduced Patents Amendment Bill, 1995in March, 1995. This is a step towards changing the existing Indian Patents Act, 1970. Aiming to please the U.S. drug multinationals who have been threatening India for retaliation under the U.S.Trade Act, the bill provides unlimited facilities for MNCs than sought for in th WTO Agreement. The bill proposed granting of exclusive Marketing Rights (EMR) to the patent holder for a period of five years on marketing and distribution of drugs. This is worse than the product patent. There will be no need to take separate patent if any drug is patented in any member countries of WTO. This will allow dumping of irrational and hazardous drugs in the country. No national company will be able to manufacture or import any new drugs. It will be slowly under the mercy of MNCs who will, according to their desire bring new drugs and price them at their own like.

The MNCs in India had not invested much in the past and had shown a passive response to the government's liberal policy. A number of them had either sold their plants or reduced manufacturing activities. In recent times no new drugs are manufactured by them in their plants but are fully importing formulations from the parent countries. The price of these drugs are to be paid in dollar terms. A vial of Acychlovir or anti hepatities vaccine costs Rs.1,400 now.

Due to the long patent protection time, 20 years of product patent and 20 years of process patent, there will be no scope of manufacturing them in the country as most of the drugs become obsolete much before when are replaced by new drugs. India will have to depend on import completely for new drugs. No law, like DPCO or any of the provisions of the Drug Policy would be applicable on the import. On the contrary the government will be compelled to further relax/ withdraw whatever restrictions are still applicable.

Conclusion:

There are many more areas where the recent policies turned blind eyes to act . Some of them are issues like banning of drugs, rampant misuse of loan license system, use of generic names for essential drugs, monitoring of production of bulk drugs, reduction of taxes on essential drugs,etc. The steps taken by the government in the past in these areas have been very helpful to the industry. Government is determined to intensify these kind of action.

The task of organisations involved in the health/ drug action has therefore, become more difficult. This meeting can decide to evolve a real drug policy aiming restoration of self reliance in the production and research of drugs of different systems. A campaign programme based on the alternative policy be launched throughout the country.

TABLE - 1

PRODUCTION PATTERN OF MULTI NATIONAL CORPORATIONS

THERAPEUTIC GROUP	TOTAL MARKE	SHARE	BRANDS	MNC	%
VITAMINS	3458234	1910011	14	1845100	96.60
SYS. & TOP. STEROID	2123464	1020635	7	945745	92.66
NUTRIENTS & MINERALS	1636445	595471	6	524347	88.06
COUGH & COLD & ANTI ALLERGIC	3773211	1606917	15	1291994	80.40
ANTI-INFLAM./ANALG. ANTISPASMODIC	4134327	2265906	17	1499601	66.18
OBS & BALMS	480169	409675	4	266145	64.96
ANTACID etc.	2599181	1431440	12	845101	59.04
ANTI ANAEMIC	1454285	615755	5	289610	47.03
DIABETES, CVS., EPILEPSY, etc..	4226096	1348542	14	563277	41.77
ANTI ASTHMATIC	1235405	275871	3	110959	40.22
ANTIBACTERIALS	12541714	7618188	52	2249402	29.53
ANTI PARASITIC/DIAR.	2368646	675649	7	173699	25.71
ANTI T.B.	1776963	1045456	8	186550	17.84

TABLE -2

SECTORAL PRODUCTION OF BULK DRUGS(1989-90)
(figures as percentage of total prodn.)

DRUG	MNC	INDIAN TOP 20	PUBLIC SECTOR	OTHER INDIAN
ANTIBIOTICS				
Penicillin	-	34.6	38.7	26.7
Cloramphenicol Palmitate	(Production mainly in Small Scale Sector)			
Tetracycline	15.5	-	42.5	42.0
Ampicillin	-	56.9	6.5	36.6
	(significant production also in Small Sector)			
Erythromycin	25.9	66.0	-	8.1
Amoxycillin	-	81.6	0.7	17.7
Gentamycin	-	-	100	-
Cloxacillin	-	100	-	-
Phenoxymethyl Penicillin	-	-	100	-
Cephalexin	-	99.6	-	0.4
SULPHA DRUGS				
Sulphamethoxazole	(over 50% production in Small Scale Sector)			
Sulphadimidine	0.1	-	99.9	-
Sulphacetamide	-	-	76.9	23.1
Sulphaguanidine	-	-	-	-
VITAMINS				
Vitamin A	86.5	-	13.5	-
Vitamin B1	-	-	100	-
Vitamin B2	-	-	100	-
Vitamin B12	-	100	-	-
Vitamin C	-	36.1	-	63.9
Vitamin E	100	-	-	-
Folic Acid	-	-	100	-
ANALGESICS/ANTIPYRETICS				
Aspirin	-	-	-	100
Paracetamol	(Production mainly in Small Scale Sector)			
Ibuprofen	75.8	-	-	24.2
Baralgan	100	-	-	-
ANTI T.B				
Streptomycin	-	-	46.5	53.5
PAS & its Salts	(over 50% production in Small Scale Sector)			
Thiocetazone	-	100	-	-
INH	(Production mainly in Small Scale Sector)			
Rifampicin	(over 50% production in Small Scale Sector)			
Ethambutol	-	90.4	-	9.6
Pyrazinamide	(Production mainly in Small Scale Sector)			

SECTORAL PRODUCTION OF BULK DRUGS(1989-90)
(figures as percentage of total prodn.)

DRUG	MNC	INDIAN TOP 20	PUBLIC SECTOR	OTHER INDIAN
ANTI PARASITIC				
Chloroquine	34.2	7.1	17.6	41.1
Metronidazole	(over 50% production in Small Scale Sector)			
Tinidazole	(over 50% production in Small Scale Sector)			
Dilaxonide Furoate	22.3	-	-	77.7
Furazolidone	(Production mainly in Small Scale Sector)			
ANTI DIABETIC				
Chlorpropamide	42.5	-	-	57.5
Tolbutamide	17.2	-	-	82.8
Glibencamide	100	-	-	-
Insulin	100	-	-	-
ANTI ASTHMATIC				
Ephedrine	-	-	-	100
Salbutamol	11.8	-	-	82.2
Terbutaline	-	-	-	100
Theophyllin	-	40.5	-	59.5
Aminophyllin	-	-	-	100
CARDIOVASCULAR DRUGS				
Propanolol	(Main production in Small Scale Sector)			
Digoxin	100	-	-	-
Methyl Dopa	-	-	9.1	90.9
Frusemide	100	-	-	-
ANTI HELMINTHIC				
Piperazine	(over 50% production in Small Scale Sector)			
Mebendazole	(over 50% production in Small Scale Sector)			
Pyrental Palmoate	49.4	50.6	-	-
TRANQUILISER/ANTI-CONVULSANT				
Phenobarbitone	-	-	100	-
Diazepam	(over 50% production in Small Scale Sector)			
VACCINES				
Triple Vaccine	14.9	-	-	85.1
Tetanus Antitoxin	-	-	28.1	71.9
Dip. Antitoxin	-	-	-	100

ource: Amit Sen Gupta, New Drug Policy: Not the Right Prescription; Economic Times:24/9/94

TABLE - 3

EXCESS AMOUNT PAYABLE TO GOVT. ON ACCOUNT OF DPEA

COMPANY	EXCESS PROFIT	AMOUNT RECEIVED
Supreme Court Case Companies:		
1. Cyanamid	1320.52	100
2. Hoechest	7780.80	312.10
3. John Wyeth	506.92	45.00
4. Merind	2391.72	--
5. Pfizer	87.61	43.80
6. Franco India	14.42	1.42
7. Tamilnadu Dhada	37.97	--
8. Anil Starch	12.77	--
9. S.G Pharmaceuticals	205.36	--
10. Ethnor	10.19	10.19
Other Companies:		
11. Glaxo India Ltd.	7178.00	819.00
12. Sarabahi	20.00	20.00
13. Sandoz	74.68	37.34
14. Pfizer	179.83	49.00
15. Parke Davis	1466.15	--
16. Abbott	182.38	91.19
17. Burroughs Welcome	191.15	-
18. Lyka Labs.	678.73	--
19. Warner Uindusthan	106.36	65.49
20. Boehringer Knoll	97.74 ?	--
21. Carews	710.24	--
22. IDPL	336.45	--
23. Krupa Traders	20.48	--
24. IDPL	37.30	--
25. A.P.Chemicals	25.43	--
26. Maladi Drugs	116.30	--
27. Lupin Labs.	21.03	--
28. Bayer India	107.37	--
Total	23019.90	1584.54

Source: Rajya Sabha; Unstarred Question No.4331 dt:25/08/93

Prescribing practice of Doctors and Unethical marketing practice.

A paper presented at the AIPSN seminar, New Delhi. Nov.5-7,1995
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"I would like to know what type of patient has a disease than what type of disease the patient has." (Hippocrates).

Introduction.

Modern medicine is a miracle indeed! The advances made in the past 50 years in diagnostic tests, "designer drugs" and in surgical and other interventional procedures are mind boggling. Take the case of coronary artery disease as an example. John Hunter, the famous anatomist of 19th century had said "My life is in the hands of a scoundrel who chooses to raise my temper!". He had coronary artery disease and it was he who coined the term angina pectoris to describe the symptom; however, there was no effective remedy and true to his words, he died suddenly during an altercation. But now you can pinpoint the blocks in the arteries and correct them by plastic or surgical procedures. With such great advances in operative and anesthetic skills, it is even possible to do any life saving surgery on a growing baby in its mother's womb.

Killer infections like small pox have been eliminated from this planet and many others have been rendered preventable. The advances in antimicrobials have made it possible to save people from certain death. Advances in rehabilitation have made lives of thousands of disabled person more dignified and acceptable. Advances in understanding the mechanisms of chronic diseases and in designing specific drugs for them have revolutionised the management of high blood pressure, peptic ulcer, diabetes, asthma, epilepsy etc. In fact, the greatest discovery of 20th century in terms of simplicity, effectiveness and millions of lives saved is not CT Scan or Bypass Surgery, but salt-sugar solution (oral rehydration therapy) for treatment of diarrhea.

Public Dissatisfaction- a paradox ?

The painful fact is, as medicine became more and more advanced, so did public dissatisfaction with it! This seems paradoxical until one realises that it is not scientific advancement but humanistic medicine that results in a satisfactory doctor-patient interaction and a harmonious health provider - client relationship.

This is mainly because of the dehumanising effect of pursuit of scientific medicine at the expense of humanism. GPEP report (1984) of USA has strongly recommended that its medical colleges should train its future doctors in humanistic medicine also. About 90% of health problems in the community are minor and self

from the West. Often considers anything ancient as quite rational and sound, and resists or belittles attempts at scientific inquiry into the traditional practices.

If we have to usher in a new system of health care that is just, equitable, optimum and non-exploitative, then all the players have to necessarily change in the right direction.

THE ROLE OF HEALTH ACTIVISTS

Health activism is necessary to bring the players together for the common cause of providing rational health care.

The activists should realise that -

1. Health care seeker (patient) is not a consumer but a co-provider of health for self.
2. Health care is a co-operative venture and not a commodity transaction.
3. Care-seeker should be empowered with questions to ask a care provider before consenting for treatment.
4. Campaign for `health needs' as against `health wants', a campaign to promote primary health care and family practice and a campaign to know the common health problems targeted at the public will pave way for inexpensive and non-exploitative health care.
5. Campaign for a well rounded medical education including humanistic medicine and family practice is an urgent need of the hour.

The health activists should-

6. Organise a multi-disciplinary group of scientists to develop evaluation instruments to assess the influence of placebo, Hawthorne and factor-x effects on health and healing and to put together training modules on these healing processes for medical curricula to render them scientifically acceptable rational practices.

7. Promote critical and unbiased media output that truly empowers the people with relevant knowledge; counter any media efforts to the contrary by effective monitoring and follow up action.

8. Follow the example of consumer groups of the West in publishing unbiased Guidelines on products and services including drugs, diagnostic tests and treatment procedures. These should have high visibility and high impact.

9. Monitor the health care industry including hospital services and campaign for Quality Assurance.

10. Campaign for banning of hazardous drugs and practices (like foetal sex testing).

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(A useful ethical self test before accepting anything from the Industry: "would I like to have these arrangements be known to my patients or my peers?" If the answer is negative, then it is unethical to accept it.)

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(The total purchase of medicines from five retail shops during the entire month of October 1993 amounted to Rs.10,32,360. Of this, 45% (by value) was purchased based on doctors' valid prescriptions, 34% based on doctor's old prescriptions (without revalidation), 11% by patients' self-order and 10% by the drug store sales person's recommendation. The overall figure shows that about 21% was purchased without doctor's prescription. The extent of direct purchase of medicines is a cause for concern.)

9, 10 } Annexures 1 & 2

initiated by IOCU, Penang are examples of efforts in this direction.

Fourthly, consumer education and people empowerment to expect and get access to rational and quality health service as a matter of right. This will be the most effective socio-political strategy but the most difficult and daunting one too.

JIPMER strategy

At JIPMER, Pondicherry, one of the premier medical colleges, we have an ERDU network of motivated faculty from clinical disciplines and pharmacology. "Catch them young, but catch them anyway" is our philosophy.

Undergraduate training: During the first clinical year, the department of pharmacology conducts two seminars - one on how to analyse promotional literature and ethics of promotional gifts. The second is on "Adverse Drug Reaction (ADR)" monitoring.

During internship orientation course, a multi-disciplinary team conducts a workshop for three days. On medical promotion, we show a video "push, promote or educate" (source: IOCU) showing the manipulative behaviour of a drug representative to influence a general practitioner. The interns then comment on the skit, using the 'WHO list of ethical promotion' as a guide for focused discussion. They also view the video 'IN THE NAME OF MEDICINE' (source: VHAI/IMA) and get quite powerfully motivated. On day 3, the whole session covers rational drug therapy and ADR monitoring in the form of group exercises.

We have found that the immediate impact on interns is quite high - about 90% to 99% show positive changes. This reduces to about 60% by the end of internship. There is obviously a need for reinforcing these topics repeatedly.

CME for GPs: Our ERDU team has similar CME modules varying from 90 minutes to 4 days covering various issues on rational drug use. For small groups, the workshop methodology works well. For large groups, we use "panel discussion forum" for a better impact than lecture or symposium. We have conducted programmes on rational use of antibiotics, analgesics and anti-hypertensives.

Patient/consumer empowerment: In these days of corporate medicare, exploitation of gullible patients is a major scandal. We have therefore formed an NGO to link up with various consumer groups to promote the cause of citizens' right to health care.

CONCLUSION:

"In the race for quality, there is no finish line". It is true of our efforts as an ERDU team. We welcome further collaboration and alliances with like minded groups to promote the cause of rationality.

Presentation from Rational Drug Campaign Committee, on the 50th Anniversary of the Bhore Committee Report with the slogans "Health for All Now" and "Critical and constructive appraisal of the Indian Public Health Policy".

- By Dr. Naresh Banerjee.

Chairman, Rational Drug Campaign Committee.

A1. Introduction :

1.1. I thank the All India Peoples' Science Network and the Delhi Science Forum for taking up this right opportunity to organize and to host the conference for health professionals and activists, on the occasion of the 50th Anniversary of the Bhore Committee Report (published in 1946).

1.2. On behalf of the Peoples' Relief Committee and The Bengal Medical Relief Coordination Committee with the assistance of late Dr. B.C.Roy, I had the privelege to be a member of the team to submit memorandum to the Bhore Committee in the year 1945 at the height of the great post famine mass scale epidemics in Bengal. At that time people had very little access to rudimentary outdoor health care facilities. Acutely ill patient could not be admitted in the Govt. hospitals as 50% of the hospital beds were kept reserved for the victims of Air raid and war emergency.

1.3. During the great Bengal famine and post famine epidemic. About 25 lakhs of people died of starvation and about 30 lakhs of people died of epidemics (as estimated by Prof. P.C.Mohalanobis & Prof. K.P.Chattapadhya) of malaria, cholera, small pox, tuberculosis, bronchopneumonia, tetanus, diphtheria, measles etc. All these were due to shortage of food, potable water, poor sanitation, lack of treatment facilities, preventive health care and medicines.

2. **Background Note**

2.1. "The Bhore Committee Report of 1946" and "Health for All by 2000 AD" of W.H.O. - UNICEF in 1978, all these did not come out overnight, they have got a long history of development of health care system.

2.2. From the very begining of the primitive human society man evolved various methods of health care to take care of their health in cases of illness, injury, natural calamity and child birth.

2.3. Procedures adopted and progress made in the struggle for existence, better existence and better way of life through human labour and intelligence brought about by the productive forces with social evaluation with changing production relation, in primitive clan society, slave society, feudal society, capitalist society - with phases of capitalism to imperialism.

2.4. - Similarly in the field of medicine from wrath of supernatura power, various types of magic remedies, superstitions of magic craft, witc craft, animal/human slaughter to treat acute illnesses were practiced. Hot & Cold therapy, herbal remedies were considered as remedical measures, ar gradually developed a discipline of social science, from an individual ar to social art for remedies.

2.5. Science has advanced much more rapidly in comparison to the slc development of social progress with varying degrees in various parts of th world to keep pace with the development of latest remedial measures, diagnostic and therapeutic medicines, tools and gadgets.

2.6. - Social, economic, administrative and political conditions have set up barriers to make available to the common people latest advancement i various fields of medicine and surgery due to their inability to pay for i , or due to social, religious, cultural and tribal taboos and prejudices and lack of health consciousness.

A.3. **Glorious heritage of Indian Medicine** -

3.1. Since the onset of Indian Medicine overcoming the past legacies an assimilating the positive features, about 3000 years B.C. i.e. about 500 years ago, the Indian medicine developed with help and guidance of Rishi Indra, Sankaracharya, Dhanwantri, Charaka, Sushruta, Jiboka etc. till 160 A.D. & this had been the golden chapter of the Indian medicine, and durin this time were published famous treaties - Charaka Samhita, Sushruta Samhita. The Indus valley civilization with excellent development of health care system and the Ankarbhat temples of Kampuchea are examples of golde days of Indian Health care system (Rahul Sankirtanya).

3.2. Subsequently, due to repeated foreign invasion, gradual foreig domination in various parts of the country, with mixing up of various type of socio-economic, religious, cultural and political set up, all these created multifaceted social, economic, religious, cultural and political contradictions. All these adversely affected the progress of Indian syste of medicine, which suffered from contradictions, stagnation and decay.

3.3. As an inevitable outcome of all those constraints, the India Medicines along with Ayurveda, Siddha, Unani System of Medicine failed t keep pace with the developing scientific capitalist system of medicine from the womb of feudal system in keeping with the progressive development o scientific system as an outcome of industrial revolution.

3.4. From 2nd half of 17th century till 2nd half of 19th century the scientific system of medicine was gradually dominated by the British i major parts of India except in a few places by the French, Portuguese an Indian system of medicine.

3.5. In the first part of 19th century the English people started setting up of medical schools. These doctors were posted in the health centres, the subdivisions and District Head Quarters Army and Police barracks, indigo planters, to serve the colonial interest of health care for the Army Police, Administrators, Merchants and Native Agents supervised by the British Surgeons, ignoring the health care of the common people of our country, who were the major victims of illnesses and epidemics. The sc

called modern system of medicine was introduced for perpetuating and strengthening foreign domination in our country.

A4. **Efforts before achieving Indian independence** –

4.1. In 1938 about a decade before India achieved freedom, when Netaji Subhash Chandra Bose – President, Indian National Congress did set up a National Planning Committee with Jawaharlal Nehru as Chairman, and a sub committee for formulating national Health Policy was constituted for improvement of the Health Service in the country, which should be preventive oriented and rural oriented as the people of the rural areas are under served and under privileged.

4.2. In the Health sub committee of the National Planning Committee persons like Dr. B.C.Roy, Dr. A.R.Ansari, Dr. Santak Singh Sokhay, Dr. Jivraj Mehta, Dr. N.N.Joysooria, Dr. Khan Saheb Hakim Ajmal Khan, Col. J.K.Kripalani, Dr. J.C.Roy, Col. S.Abdur Rehaman, Dr. G.V.Deshmukh were included. The subcommittee submitted its interim report on 31st August 1940 highlighting 13 points concerning health care of our country, summary of which are noted below :–

4.2.1. To improve the health condition of the people priority should be given to raise nutritional standard by improving the balanced food with atleast 2400 calories for an adult and it should be increased for those doing hard labour as suggested by the League of Nations.

4.2.2. India should adopt a health care system with integration of preventive and curative health care under single administration.

4.2.3. Such integrated health care system, preservation and maintenance of such health care should be under state control and responsibility.

4.2.4. For proper functioning of such health organisation importance should be laid on research in the fields of prevention, diagnosis, treatment of diseases and also for development of modern & indigenous system of medicine.

4.2.5. In view of pancity of qualified medical men and women in the country to set up large number of training centres to increase the number of qualified doctors rapidly.

4.2.6. Along with the above to set up large number of training centres for large number of health workers, they should be trained in elementary care to tackle the practical health problems in the community, first aid, personal and community hygiene. There should be one community health worker per 1000 population to be attained within 5 years period.

4.2.7. Within next 10 years there should be one medical man or woman for every 3000 people and 1 bed for 1500 people. Ultimately there should be one qualified male or female doctor per 1000 people and one bed for every 600 people with adequate provisions for maternity cases.

4.2.8. Medical and Health organisation should be so devised with social obligation and proper organisations set up to offer free service to the people by whole time medical officers. In each medical teaching institution a chair should be set up for social training of the medical students in

medicine and national health.

4.2.9. Adequate steps should be taken to make India self sufficient in production of drugs, biological products. surgical and diagnostic instruments and apparatuses and other medical supplies.

4.2.10 A pharmacopeal committee should be formed to draw up Indian Pharmacopea. To organise research in drugs and phytochemicals that are being commonly used in our country.

4.2.11. All secret remedies propagated in the market not disclosing the compositions and contents shall not be allowed to be marketed.

4.2.12. No individual or firm, Indian or foreign should be allowed to hold patent rights for any substance useful in human and veterinary medicine.

4.2.13. Attempts should be made to absorb practitioners in Ayurveda and Unani system of medicine into the state Health organisation by giving them further training in modern scientific medicines. Medical training in every field should be based on scientific methods.

Regarding other systems of medicine i.e. Homeopathy, Naturopathy it is essential to undergo training in modern scientific medicines in all its aspects.

Concluding Note :-

It is very significant that such people oriented, preventive oriented integrated with curative and promotive health care system with integration of various system of medicine with scientific up dating. Training of large number of medical and paramedical people did set up an ideal before the doctors, and health workers. Some of the points recommended by the Health sub committee were incorporated in the Bhore Committee and in the National Health Plan's but not implemented as yet.

B.1. Bhore Committee Report -

1.1. - The "Health Survey and Development Committee" was set up by the British Govt. in 1943, completed its report in 1946.

1.2. During 1943 at the height of Indian National movement for freedom from the British Colonial rule. This committee had the advantage of getting some guidelines from the National Health sub committee, welfare state movement of the Beveridge committee in U.K., and developments social health service in USSR, Dr. Boris Ognave the biggest partner of the antifascist war, Dr. Henry Sigerist of John Hopkins Institute of U.S.A..

1.3. The Health Survey and Development committee members will 30 as follows -

i. Sir Joseph Bhore - Chairman
ii. Dr. R.A.Amesur
iii. Dr. A.C.Banerjee
iv. Dr. A.H.Butt
v. Dr. K.V.Chandrachud
vi. Dr.(Mrs) D.J.R.Dadabhoy

vii. Dr. J.B.Grant
viii. Dr. M.A.Hameed
ix. Gen. Sir Bennet
x. Sir. Honry Holland
xi. Sir Fredrick James
xii. N.M.Joshi
xiii. Lt.Col(Miss)H.M.Lazarus
xiv. Pandit L.K.Maitra
xv, Dr. Lakhanaswami Mudaliar
xvi. Dr. U.B.Narayan Rao
xvii. Dr. Vishanath
xviii. Maj.Gen. W.C.Paton
xix. Dr. B.C.Roy
xx. Mr. P.N.Sapru
xxi. Col. B.Z.Shah
xxii. Dr. B.Shiva Rao
xxiii. Mrs. K.Sufi Tayabji
xxiv. Dr. H.R.Wadhwani.
xxv. Dr. K.C.K E Raja - Secretary

Joint Secretaries -

xxvi. Dr. M.Ahmed
xxvii. Capt. A.Banerjee
xxviii. Dr. K.T.Jungalwala
xxix. Mr. Man Mohan
xxx. Dr. S.Rama Krishnan

I.4. Summary of the guiding principles of the Bhore Committee were -

a. No individual should fail to secure adequate medical care because of his inability to pay for it.

b. Modern medicine demands progressive development of medical science - both short term and long term with development of various types of medical diagnostic and therapeutic, gadgets and also for prevention of diseases should be made available to all, with special emphasis for the rural people who are mostly under served. They suffer from various calamities and epidemics.

We are highly indebted to the vast rural peasants who provides our food and commercial crops, they should be given due priority in the field of health care, to these sections of people who suffer from various diseases.

4. - Health care with integrated-preventions, promotive and curative care to ensure maximum benefits to infants, children and mothers. They should be provided with adequate food pure water to maintain health and prevent epidemics.

5. - People should be taught general education alongwith health education on personal hygiene, breast feeding of new born babies. These people should undergo training in domestic and environmental sanitations disposal of waste, alongwith potable water supply.

6. - Health service must be placed very near rather close to the people to

ensure maximum benefit with suitable flexibility of medical and paramedical man power, medicines and equipments. The extention of health care shall primarily include delivery of mothers by trained midwife with sanitation measures.

7. - Medical educations should be extended upgraded alongwith nurses and paramedics for providing progressing health care coverage upto furthest periphery of human habitation. One medical college for 5 to 10 million people.

8. - Centraly, All India Institute of Medical Science with all the disciplines of medical science should be set up with development of research facilities for training research cadres, for training of the medical teachers. Similar set up can be started in the various states, to keep pace with the latest advancement of medical science.

9. - Medical education should be social oriented. Need for fullest cooperation and understanding is very vital for the success of the both preventive and curative health care alongwith propagation of health education.

10. - The Health set up should be democratised, decentralised with involvement of local peoples organisations and representives including women to generate self help among the local people alongwith survey of illness, to identify the causes and sources of infection, and local methods to do away with, and to involve in family planning and child immunisation and suitable measures for disposal of waste.

11. - Suggested to introduce gradation of Health Care delivery units based on population coverage and administration set up - within two decades with 5 yearly development plans, state/district/sub division(talum), block, primary health centres, subsidiary Health Centres etc. with special emphasis for malaria, s.t.d., tuberculosis, cholera, leprosy, kalaazar, tetanus, diphtheria, small pox, filaria etc. The nearest medical college should serve as super referal hospital.

12. - Set up for primary health centres have been laid down as follows by Bhore Committee - (no single medical officer unit was suggested)

Medical Officers	- 2
Public Health Nurse	- 4
Nurse	- 1
Midwives	- 4
Trained Dais	- 4
Public Health Inspector	- 2
Health Assistants	- 2
Pharmacist	- 1
Clerks	- 2
Inferion Servants	- 2

13. Details have been worked out in following chapters -

I. Introduction
II. Modern trends in organisation of health service
III. Long term health service for the people

IV. Short term Health service for the people
V. Nutrition of the people
VI. Health Education.
VII. Physical Education.
VIII. Health services for the mothers and children
IX. Health services for the school children
X. Occupational Health including Industrial Health.
XI. Health services for certain important diseases - malaria, tuberculosis, small pox, cholera, plague, leprosy, veneral diseases, hook worm, filariasis, guinea worm, mental diseases and mental deficiency, disease of the eyes and blindness prevention.
XII. Environmental Hygiene.
XIII. Housing - Rural and Urban
XIV. Public Health Engineering - including water supply, general sanitation, control of insects - mosquitoes, rodents, river;ponds & flood water pollution.
XV. Quarantine - seggregation.
XVI. Vital statistics.
XVII. Organisation and Administration.
XVIII. Professional Education - medical, general and post graduate, nursing, pharmacists, various grades of paramedical education, dental education ect.
XIX. Medical research - training and institutes should be set up.
XX. All India Institute of Medical Sciences.
XXI. Drugs equipments and other requisite manufacture and supply
XXII. Indigenous system of medicine to be developed
XXIII. Regulation of the responsibilities of the medical profession to serve the community.
XXIV. Employment of demobilised Medical Men.
XXV. Establishment of committee to maintain standards of medical education, both undergraduate and post graduate.
XXVI. Population problem - Family Welfare Programme.
XXVII. Alcohol in relation to health.
XXVIII. Institution for medical library service
XXIX. Medical Legislation
XXX. Financial Implecation of health programme
XXXI. Employment of persons who have reached super annuation.

C. 1. Present Day Health Problems of India -

1.1. India is the 2nd largest populated country of the world after China, with population of 91 crores in July 1995. Growth rate is about 16.8 million people per annum, almost equal to the population of Australia and New Zealand taken together. Birth rate is 29 per 1000, death rate is 8.5 per 1000. [1992]

1.2. There is 16.5% of the global population inhabitating on only 2.6% of global land area in India with a burden of 22% of global morbidity (various types of illnesses), 31% of global illiteracy with 2.8% of the global drug production, out of which 1.8% drugs are irrational and hazardous, about 15% to 20% of the diseases are drug induced in our country.

1.3. In India, about 50% of the people are below poverty line, 1.6 million die within a year of their birth, mainly due to lack of preventive medicines and sanitation. 60% children are born under weight due to poor

nutritional status of the mothers. 74% of the people live in villages. Infant mortality rate is as high as 65 per 1000. Literacy rate is about 60% amongst male 38% amongst female, 94 women per 1000 male. Only 45% of the people have access to potable water. Govt. of India failed comply with Mar-de Plata resolution on water decade ending in 1990. About 25% to 30% people have got access to modern drugs in 1993 that also partially. Due to new Industrial and finance policy alongwith modification of Drug Policy (1986) and Patent Act of 1970, the drug prices are going up sharply. The new DPCO reduced span of price control on 73 drugs only and raised the MAPE to 100% on those drugs under control, rest including most essential drugs are not under restriction on production, price control, and export import control are sharply going beyond the reach of common people, dominant under the grip the mu ti and monopoly houses.

1.4. Though 72% people live in villages, 28% people are in cities and urban areas but 70% of the health care resources are spent for urban areas, inspite of the fact that rural people are major victims of various diseases and epidemics. There are very few doctors/nurses to man the rural health centres with scanty supply of medicines and other facilities.

Socio Economic deterioration and lack of political will -

1.5. With inflation and price hike in essential commodities, rising unemployment, high rise in foreign loan, about 40% of the total budget are being spent for debt services. Not taking steps against corruption, dehoarding of millions of crores of black money, devaluation of rupees etc. have placed India in 134th position out of 178 nations of the world, as a result health budget of both central and state govts. have been pruned alongwith lack of social and rural oriented motivation, amongst the health workers and lack of determined political will on the part of the Govt. for betterment of Health care of the people.

1.6. Inspite of basic guidelines enunciated by the ~~[illegible]~~ National Health sub committee, fundamental basic guidelines enunciated by the Bhore Committee. Later on World Health Organizations Alma Ata declaration of "Health for all by 2000" in 1978 with 10 points programme for implementations. With major emphasis on implementation of primary health care a key to the solution of the problem. The Govt. of India has accepted to abide by the directive of Health for All by 2000 AD, inspite which the Govt. of India has failed to implement any of the 10 conditions till to day.

1.7. - Under the existing conditions of our country it is not possible for the Govt. of India to implement "Health for All by the 2000 AD" mainly due to its lack of political will with positive determination and anti-people socio economic policy alongwith negative move for privatisation of Health Care gradually, rather commercialization of Health Care.

D.1. **The way out -**

D.1.1. The key slogan of the seminar "Health for All - Now"

It has to be realised that without a determined political will of the Govt. in power backed by the socio-economic and other logistic support alongwith active involvement of the people with organised broad based mass campaign Such slogan could not be implemented or realised, rather it will remain as

a gimmick, to hoodwink our people.

Critical assessment of National Health Policy of India

D.1.2. On healthy mandays labour output of our people working in the fields and factories economy of the country alongwith its social edifice mainly depends. But the health care of these people are being neglected in the main.

D.1.3. "Health" does not mean mere absence of disease and infirmity but total physical, mental, economical and social wellbeing.

D.1.4. The broad outlines of the national health policy for the people of our country should be to implement a system of comprehensive positive health care system with provision for promotion of health prevention of disease, prompt diagnosis and treatment in case of illness or injury alon with facilities for restoration of health, and rehabilitation in normal means of livelihood. Such health care should cover all sections of people in all stages and facets of life from mothers woumb to tomb. It should cover every individual without any discrimination of his social, economic, religious status, political affiliation, caste, creed, colour of the skin and other constraints.

D.1.5. Formulation of such comprehensive National health policy and its implementation has been criminally neglected during the last 4 years of our national independence by our national planners and political leaders governing our country. Inspite of the fact, that even after receiving clear cut guide lines from the National Plan Health Sub-committee in 1946 extensive health plan formulation suggesting positive pragmatic steps for implementation by the Bhore Committee in 1946 and WHO-UNICEF — lma Ata declaration of "Health for All by 2000 AD" in 1978 with its 10 points guide lines for implementation, to which Govt. of India is a signatry for implementation in our country, by 2000 AD.

D.1.6. The drafters of our Indian Constitution ignored the peoples' inherent right to enjoy good health and to receive proper health care, which should have been incorporated into the fundamental rights chapter of our constitution instead of placing it under non obligatory directive principles of the state.

D.1.7. The Govt. of India did set up several commissions and committees only to shelve their recommendations for good after each election to noodwink the easily gullible people of our country and at the same time did not fail to point the accusing fingers to the doctors, paramedics and people for their non-cooperation.

D.1.8. Our National planners and political leaders of the National Plan Committee have ignored the importance of Peoples' Health Care improvement as a positive measure for the economic growth of the country by the way of the man day loss due to sickness and maximising the economic growth through the output of healthy man days labour, and have failed to incorporate "Right to health care" in the fundamental rights chapter of our constitution.

D.1.9. The doctors, nurses and the paramedical staff have failed to realise the importance of their service to the society by playing an effective role as a leader in the health care movement team to fight out the anomalics and

constraints created by the socio-economic and bureaucratic constraints in discharging social and professional obligations to the people at large. Rather a section of profession is still under the spell of affluent western countries outlook of commercialisation of health care, building up personal economic and service carrier thereby creating increasing gap between the profession and the people, often exploiting the people under the garb of health care.

E. Implementation of Health Policy

E.1. Implementation of comprehensive Health Policy cannot be taken up in isolation. It is vitally integrated and inseparably linked with the various facets of the socio-economic system of our country. This is dependent on provision of adequate food, potable water supply, suitable clothing, proper housing with moderate degree of sanitation along with disposal of waste, basic education with health education, viable employment, adoption of measures against environmental pollution, preventive measures against communicable diseases etc.

E.2. Success of Implementation depends on total integration with the National development programmes starting from ending feudal back log with radical land reform, and to do away with colonial legacies, development of agricultural production and animal husbandry augmentation. At the same time massive development of industrial production with improvement of industrial relation. Crash programme to ensure potable water supply. To ensure basic education alongwith health education, with development of hygienic habits. Improvement of roads and communication, social service and other essential infrastructure.

E.3. Constraints in the way of implementation should be removed. Within the present socio-economic, political and legal fabric it will be an uphill task to overcome all these constraints within a short time unless and until all sections of people are properly organised and united with determined political will to remove the constraints. To begin with to start changing the direction such as proper utilisation of existing resources, to develop work culture, decentralisation of power, democratisation with involvement of the people through their respective mass organisations, local panchayets and civic bodies to do away with the lopsided planning and half hearted implementation, maladministration, bureaucratic bungling, corruption, theft, indiscipline etc.

The present direction and orientation of the health policy should also be changed from urban to rural oriented, from individual to community, from major emphasis on curative to preventive, with due priorities for emergency cases, babies, pregnant and nursing mothers, old, invalid-handicapped etc. The health administration should be controlled by the medical men having training in administration and not by the non-technical bureaucrats, inviting participation of the local people for local planning and implementation.

E.4. At the same time proper allocation for Health Budget is very vital. Bhore Committee and WHO suggested allocation of 10% of the National budget should be earmarked for health sector. But Govt. of India is gradually reducing financial allocation for Health.

Economic and Political weekly of 3rd June, 1995 reports -

YEAR	HEALTH EXPENDITURE PER CAPITA IN RUPEES	EXPENDITURE IN HEALTH IN MILLIONS OF RUPEES	EXPENDITURE ON PREVENTIVE HEALTH-CARE IN MILLIONS OF RUPEES
1989-90	120	103	103
1990-91	127	100	98
1991-92	119	95	87
1992-93	116	94	83

This is causing very serious set back in development of health care in the face of increased inflation, increasing incidence of diseases like malaria, tuberculosis, diarrhoeal diseases, gastro-enteritis, kalaazar, viral diseases, aids, cancer, infant and maternal mortality, under weight babies, increasing incidence of accidental injuries on roads, railways and other transports and various types of industrial accidents, anti social and terrorist activities, natural calamities, etc.

E.5. To meet all these Health problems it is essential to set up suitable health infrastructure starting from remote rural areas to urban areas including big cities. All these are manned by inadequate number of staff - doctors, nurses, pharmacists, midwives, other group of paramedical staff and shortage of medicines. There are no doctors in many remote areas, doctor population ratio is 1 doctor(qualified) for 3000 to 6000 people in rural areas, where as 1 doctor for 500 to 700 people in urban areas. Medical-paramedical manpower picture is upside down. Dr. K,N.Rao reported that there should be atleast 2 paramedics per doctors, but there are nine paramedics per doctor. Moreover 70% of the health care expenses are done for urban area to cater to the needs of 26% of the people living in urban areas and only 30% of the health budget is spent for 72% rural people, most of them are poor, under nourished and are major victims of illnesses and epidemics with scanty supply of potable water. So reallocation of health budgets needs urgent revision to make it people oriented, rural oriented and needbased.

F. **Medical Education**

F.1. The national health policy document published by the Govt. of India in 1985 states in the chapter "Medical and Health Education", it has been mentioned that effective delivery of Health Care services would depend very largely on the nature of education, training and appropriate orientation towards community health of all categories of medical and health personnel and their capacity to function as an integrated team ..." ..." is reviewed in terms of national needs and priorities and curriculum and the training programmes should be restructured to produce personnel of various grades of skill and competence who are professionally equipped and socially motivated to deal with effectively the problems within the existing constraints. Towards this end it is necessary to formulate separately a "National Medical and Health education policy" which :-

i. sets out changes required to be brought in the curricular contexts and training programme of medical and health personnel of various levels or functioning.

ii. takes into account the need for establishing the extremely essential interrelations between functioning of various grades,

iii. provides guidelines for production of health personnel on the basis of the realistically assessed manpower requirement and,

iv. ensures that personnel of all levels are socially motivated towards rendering community health services.

Even after one decade since 1985 nothing has been done by the Govt. of India to formulate a separate Medical and Health Education Policy or its implementation.

F.2. Objectives of the medical education of our country should be to train up adequate number of basic doctors suitable to tackle devitality, morbidity, mortality due to communicable and endemic diseases prevailing in our country alongwith promotive, preventive, curative and rehabilitative health care with maximum care for the poor and underserved section of the community. Their training should be patient oriented and directly field practice oriented with adequate flexibility and adaptability to satisfy the health care needs of the people in rural and urban areas, fields and factories, sites of production, construction and human habitation.

F.3. We need large number of basic doctors with adequate clinical acuman to diagnose and treat common diseases prevailing amongst people without the help of sophisticated diagnostic and therapeutic gadgets. They should also be trained in those gadgets whenever available. The doctors alongwith other sections of paramedics and local people and panchayets shall have to play the role of a leader in the field of health care. These teams should involve and educate the local people how to safeguard their own health, domestic health, community health, environmental health, immunization and family welfare programme etc.

F.4. During the last 47 years the Govt. of India has failed to introduce such type of basic doctors, inspite of recommendations of Bhore Committee, Adarkar Committee, Mudaliar Committee, Kothari Committee, Gani Committee, Srivastava Committee, Sokhey Committee, Duraiswami Committee, K.N.Rao Committee, Hathi Committee etc. most of the recommendations of the committees were not taken up for consideration.

F.5. Present day medical educations are curative biased, urban based, mostly theoretical, disease oriented than patient oriented, isolated from the people and their health problems, and society at large. The present socio-economic conditions prevailing in our country is mainly responsible for creating half baked doctors, specialists and superspecialist diploma and degree oriented, without any field practice training as hospital housestaff, rural oriented in rural health centres, directly getting admitted into postgraduation immediately after internship, to make them qualified [redacted] medical quacks. They are motivated to convert health care as a trade with too much dependence on medical gadgets and flourishing nursing homes charging high fees. They are fit far affluent sections of

about a dozen metropolitan cities of India or for export to the affluent foreign countries. Moreover there is no system of ongoing medical education to update their knowledge, nor there are any facilities for basic research in various disciplines of medicine.

F.6. The undergraduate medical course should be of 5 years duration followed by one years internship to get temporary registration, followed by one year residential house staffship in a teaching hospital, followed by 2 yrs. compulsory rural service to get permanent registration to secure permanent jobs, independent private practice, or to go for post graduation and super speciality.

F.7. Within a week of selection by the P.S.C the doctors shall have to undergo one year training concerning various administrative and other aspects of health service like I.P.S., I.A.S. There should be an I.M.S. service cadres with equal facilities like other services.

F.8. Special arrangements should be made to update their knowledge and re-registration after every 5 yrs. till the age of 65 yrs. after undergoing compulsory refresher courses as per schedule.

F.9. Medical teachers should be a separate stream. Besides postgraduation they shall have to undergo medical teachers training in various disciplines alongwith research project training in various disciplines [redacted] and modern medical training methods. They shall have to accompany students during field practical training. They should be provided with incampus residence and other essential facilities.

G. Paramedical Education

G.1. There are great shortage of various grades of paramedics, nurses, pharmacists, dentists, radio technicians, laboratory technicians, medical computer, physiotherapists, multipurpose health workers, opthalmic technicians, dental technicians, O.T. nursing, mental health nurse, medical instrument technicians etc. So large number institutions shall have to be set for training various groups of paramedical technicians with facilities for updating their training.

G.2. These Paramedical Training Institutions could be set up attached to medical colleges, or technical colleges, or district or upgraded hospitals.

G.3. There should be compulsory first aid training for the G.D.A., other hospital staff, ambulance van driver. Training should be arranged for hospital cooks with food values in diet, proper storage, preservation of food, serving the food to the patients without outside contaminations.

H. Drugs & Pharmaceuticals

H.1. Drugs are one of the most essential part for the treatment of patients and also for prevention of diseases. The Hathi Committee in 1975 gave clear cut guidelines regarding Drug Policy and development of Pharmaceutical industry, identified 117 essential drugs needed for India and restriction of Fera equity not more than 40% etc.

The Indian Patent Act of 1970 is a definite landmark in development of Drug Industry, to make our country self sufficient in drug technological development, introduced product patent not process patent, patent period 5 to 7 years only.

H.2. In 1979-80 it was assessed that to fulfill drug needs as an essential component of Health for All by 2000 AD, India will require about Rs. 16,000 crores worth of essential drugs at the price level of 1979-80. But due to inflation, deficit financing, devaluation of Indian Rupees, heavy drainage of funds due to Debt Services, adoption of new economic and industrial policy, fera equity participation of 51% or above, modification of 1986 Drug Policy and adoption new DPCO 1994, amendment of Indian patent act, membership of the World Trade Organization by the Govt. of India. India shall have to manufacture essential drugs to the tune of Rs. 40,000 crores by 2000 AD to meet health need of the people besides export.

H.3. Growth of production of Bulk Drugs and formulation in India during the last 5 years. Source - Annual Report of the Dept. of Chemicals and Petro Chemicals - 1994-95 :

Y E A R	BULK DRUG RS. IN CRORES	FORMULATIONS RS. IN CRORES
1990-91	730.00	3840.00
1991-92	900.00	4800.00
1992-93	1150.00	6000.00
1993-94	1320.00	6900.00
1994-95 (Estimated)	1518.00	7935.00 (8,250.00) 31st March'95.

The figures refd. above shows that it will not be possible to produce 40,000 crores of Rupees in worth of drugs by 2000 AD. Moreover Rs. 1781.40 crores worth of Drugs were exported in 1993-94 including Bulk Drugs and formulation.

H.4. In India there are over 70,000 drug formulations in the market, hardly 10,000 of these are rational. The World Health Organization has identified about 250 to 300 drugs with which 95% of the common diseases prevailing in our country could be treated. The Govt. of India should set up due priority to manufacture these drugs. In this respect key role should be played by the public sector, and national sector, small, medium and big shall have to be involved. All drugs should be in generic names. Over Rs. 400 crores are being spent annually in creating brand names, which is being included in the price structure of the drugs.

H.5. **Research and Development**

This is very vital but most neglected. Research Expenses on drugs :

Y E A R	RUPEES IN CRORES
1991-92	80
1992-93	95
1993-94	125

Research is very vital in the sphere of Drugs, more so due to emergence of new diseases and flare up of old endemic and epidemic diseases. Due to new economic and industrial policy indigenous researches will be crippled.

The Govt. shall have to put major emphasis on research. Particularly India should be proud to posses over 1600 plant species of medicinal value and 250 species posses aromatic value. So greater importance should be given on phytochemical research as was suggested by Acharya P.C.Roy and Dr. R.N.Chopra. Research in genetic Engineering, biotechnology has assumed greater importance.

H.6. Drug prices are going high day by day due economic and industrial policy, modification of 1986 Drug Policy, New D.P.C.O, Amendment of Patent Act Bill, joining World Trade Organization and unconditionally accepting Intellectual Property Rights, general agreement in Trade and Tariff, Trade related investment measures. All those have led to price rise in essential drugs from 25% to 250%. The drug coverage has already down from 35% to 15% of the people.

H.7. Indigenous development of therapeutic and diagnostic machinery and various other instrument, for scientific research equipments has assumed greater importance alongwith training of personnel to man those equipments and also to repair those when out of order. Over Rs. 1000 crores worth of sophisticated machines lying out of order.

H.8. **Drug Induced Diseases**

Over 20% of diseases in our country are drug induced due to hazardous drugs and irrational prescribing habits. So all the hazardous drugs should be banned. There should be special training course in the undergraduate education on clinical and applied pharmacology and adverse drug reactions centres should be set up in various parts of the country.

After graduation ongoing education on latest advancement in drugs with its bioavailability, pharmacokinetic and pharmacodynamic properties alongwith adverse drug reactions study.

In a recent survey made in China published in "Qwen Hui Bau" on 28/8/95 from Sanghai, quoting Public Health Dept. figures - "For the last few years due to intake of wrong medicine about one lakh ninety thousand people die annually....."Every year on an average twenty lakhs of people are being admitted into hospitals for taking wrong medicines, without knowing adverse

drug reactions, lethal doses or stopping the medicines before recovery...."

Of late Govt. of India has suggested setting up of adverse drug reaction study centres in 5 places excluding eastern India. These centres have not been started as yet, no protocol have been fixed till now.

I. Concluding Suggestions

I.1. Policy decision of the Govt. of India with determined political will with constitutional obligation for incorporation in the fundamental rights.

I.2. To incorporate and integrate health sector with the national development plan with increased financial and other logistic support with involvement of people and peoples' organisation at every level of decision making of planning and implementation.

I.3. Medical and paramedical manpower development in various discipline with due social motivation to man the health delivery units - New PHC, PHC, Block Health Centres, Rural General Hospitals, Subdivisional and district Hospital, Medical College Hospitals, Super specialist Hospitals, Hospital for Children, Maternity, Tuberculosis, Mental diseases, Leprosy, Cardiology, Traumatology, Cancer, Infectious disease etc.

I.4. Integrated preventive health care with child immunisation, potable water supply, provision for adequate nutrition, disposal of waste, sanitation domestic and environmental and ecological.

I.5. Mass education drive alongwith elementary health education for all. Education regarding promoting of health and precautionary measures against preventable diseases. Education regarding food values and food habits alongwith food preservation and protection from contamination.

I.6. All essential drugs both preventive and therapeutic be made freely available to all those who will be in need, of good quality at an affordable price, with provision for free supply to the indigent.

I.7. To ensure viable employment for all in various means of livelihood with abolition of child labour.

I.8. Special measures to be adopted for industrial health and other occupational diseases and accidents with regular health check up for them.

I.9. The tenpoint Alma-Ata declaration are as follows :

i. It realizes 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.

ii. The existing gross inequality in the health status of the people particularly between developed and developing countries is of common concern to all countries.

iii. Economic and social development is of basic importance to the fullest attainment of health for all. The promotion and protection of the health of the people is essential to sustained economic and social development and contributes to a better quality of life and to world peace.

iv. The people have the right and duty to participate individually and collectively in the planning and implementation of their health care.

v. A main social target of governments, international organizations and the whole world community in the coming decade should be "Health for All by 2000 AD". Primary health care is the key to attaining this target as part of development in the spirit of social justice.

vi. Primary health care is essential health care based on practical, scientifically sound and socially acceptable methods and technology accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development. 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.

vii. Primary Health Care :

Addresses the main health problems in the community, providing promotive, preventive, curative and rehabilitative services accordingly;

Includes 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;

Should be sustained by integrated, functional and mutually-supportive referral systems.

Relies, at local and referral levels, on health workers, including physicians, nurses, midwives, auxiliaries and community workers as applicable, as well as traditional practitioners as needed, suitably trained socially and technically to work as a health team and to respond to the expressed health needs of the community.

viii. All governments should formulate national policies, strategies and plans of action to launch and sustain primary health care as part of a comprehensive national health system and in coordination with other sectors.

ix. All countries should cooperate in a spirit of partnership and service to ensure primary health care for all people. In this context the joint WHO/UNICEF report on primary health care constitutes a solid basis for the further development and operation of primary health care throughout the world.

x. An acceptable level of health for all the people of 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.

I.10. All these as suggested above cannot be implemented in adopting resolution, holding professional or selective convention.

- We shall have to launch country wide broad based mass movement unitedly with all sections of people, professional and mass organisations, N.G.O's, peoples Representatives in Parliament, Assemblies and Pahchayets for a prolonged period to winover the demands of peoples health care as suggested above.

ACTIVITIES OF COMMUNITY DEVELOPMENT MEDICINAL UNIT

Activities :

Community Development Medicinal Unit (CDMU) is engaged in promoting Rational Use of Drugs (R.U.D.) and ethical prescribing and therapeutics. The major way of achieving this, is through regularly organizing seminars, trainings, orientation courses, involving active participation from various professionals like doctors, paramedicals pharmacists, nurses, universities, drug activists, non governmental organizations and institutes. This activity is taken up through C.D.M.U. Documentation Centre. The hallmark of CDMU Documentation Centre is collection and dissemination of unbiased drug information to people from all walks of life, and it has attained national importance and is enjoying an international accolade, by being in active networking and collaboration with similar organizations, through exchange of drug bulletins, newsletters, journals and other relevant information.

Currently, CDMU Documentation Centre is focussed on, and has initiated a series of Training Programmes on "Rational Use of Drugs". The programmes encompass different topics, relevant to the main theme like - (a) Diarrhoea and role of O.R.T., and R.U.D. in diarrhoea, (b) Mother & Child Health, Safe Motherhood, Immunization and relevant R.U.D., (c) Malaria - its cause, preventive aspects, rational therapy for malaria, (d) Rational use of Antibiotics, (e) R.U.D. in Acute Respiratory Tract Infections.

For training purposes, CDMU has a good collection of audiovisual aids, on topics relevant to our training. Training programmes have been, and are being successfully conducted in different parts of West Bengal. In November and December, a series of programmes have been fixed up in Tea Gardens of North Bengal. CDMU Documentation Centre has slowly updated and expanded its journal and book sections, facilitating the catering of information to different scientific streams. CDMU also has a prized collection of Press Clippings of all health-care related topics, from all leading newspapers published in India. CDMU Documentation Centre provides access to information on request, regarding Adverse Drug reactions, Iatrogenic diseases, doubtful drug combinations, drug regimens and a variety of medical topics. Reknowned experts from faculties of different medical colleges provide their help at all times. W.H.O. has published in its "Essential Drug Monitor" - a news journal, the name of CDMU's "Rational Drug Bulletin" as an internationally recognized source for information relating to R.U.D.

CDMU Documentation Centre has plans of diversification, by introducing prescription audit services, and a regular Adverse drug reaction monitoring centre.

Its membership is open to all individuals/institutions interested in this field.

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Structural Adjustment Programmes and the Pressures by International Agencies on Health Policies

(Dr.) Amit Sen Gupta

The World Development Report 1993 is the most comprehensive document of the World Bank regarding the Health Sector as a whole, and in that sense embodies the basic understanding of the Bank towards this sector. In this paper I shall try to critically analyse the essential formulations being made in this document, as well as attempt to project the implications of these formulations on the future development of health infrastructure in developing countries.

Before embarking on this task, however, it would be useful, first, to take a look at the specific juncture at which the World Bank has chosen to make its views on the Health Infrastructure public, in such great detail. Structural Adjustment Policies, now being enforced in the country have been in force in many Third World Countries (mainly in Africa and South America), for a fairly long period - in many cases over a decade. Such policies, thus need to be viewed in a global context, specifically in the context of the attempt by developed market economy countries to gain access to the growing markets of Third World Countries. These policies attempt to encapsulate the 'free market' ideology as a guiding principle, and are designed to place the 'market' in a central position of dominance, where it would act as the principal, if not sole, arbitrator of all processes. At a global level such a position is extended to encompass the concept of 'free trade' - a concept that has been captured in its full essence by the GATT treaty of 1994.

What Lies Behind the Safety Net

The World Bank has obviously has had time to analyse the effect of its Adjustment Policies in the countries which started on Adjustment policies around 1980. One fact that obviously must have leapt to the eye was the 'rolling back' of many gains of the previous decades, however insubstantial they may have been, in the areas of Health and Education. As a result of the adjustment Policies, at the behest of the Bank, many of these countries had drastically reduced resource allocation in these areas. The 'danger signals' from these countries were, for example, echoed by the UNICEF in the following manner : "For the first time in the modern era, a subcontinent is sliding back into poverty. The number of families in sub-Saharan Africa who are unable to meet their most basic needs have doubled in a decade. The proportion of children who are malnourished has risen." [1] The UNICEF went further in squarely blaming such conditions on the debt burden imposed by the Bank's Policies on these countries, noting : "The total inhumanity of what is now happening is reflected in the single fact that even the small proportion of interest which Africa does manage to pay is absorbing a quarter of all its export earnings and costing the continent, each year, more than its total spending on the health and education of its people." [2] and further, "Great change is in the air as the 1990s begin. . .

And great change is needed if a century of unprecedented progress is not to end in a decade of decline and despair for half the nations of the world. In many countries poverty, child malnutrition and ill-health are advancing again after decades of steady retreat. And although the reasons are many and complex, overshadowing all is the fact that the governments of the developing world as a whole have now reached the point of devoting **half of their total annual expenditures** to the maintenance of the military and the servicing of debt. [3]

The report essentially accepts its complicity in the process of this slide back when it says, "Because cuts in government spending are usually central to an adjustment program, health spending is likely to be reduced. In many countries early cuts were indiscriminate and failed to **preserve those elements of the health system with the strongest long term benefits for health**."(emphasis added)[4] Having accepted that its Adjustment Policies were responsible for rather unpleasant fallouts in many countries, the Bank found it necessary to suggest certain remedial measures. These measures, had to be of the kind which did not fundamentally endanger the Bank's Adjustment policies in these countries, but which at the same time could initiate some sort of 'disaster management'. The Bank hence starts talking of a 'safety net' for the poorest, who are feeling the brunt of the Adjustment policies most acutely. The term used is in itself interesting, implying as it does the hazards associated with the Adjustment Policies, thereby requiring the use of a safety net. The WDR 1993 is essentially a prescription for setting in motion the erection of this safety net.

The nature of the safety net the Bank wants in position is not determined by any altruistic concerns for the victims of its Adjustment Policies in developing countries. Rather, they are an extension of the very same concerns which led the Bank to push for the Adjustment policies in the first place. In the seventies, the capitalist world was going through a crisis of its own leading to a sharpening of inter-imperialist contradictions and thereby a greater urgency was felt for carving out Third World markets. The precise mechanisms tailored to efficiently carve out the 'global cake' was pushed through in the recently concluded GATT agreement. But much earlier, the World Bank, working as the 'battering ram' of the capitalist world, had moved to initiate policies - called Structural Adjustment Programmes - that, it hoped, would make markets of the Third World freely accessible on one hand, and at the same time would bring an element of stability in these markets for long term exploitation.

Let us see how, in more concrete terms, the kind of thrust these policies would like to have in a country like India. In the schema of seeking out markets in the Third World, India occupies an almost unique position. The 'middle class' consumer market in the country is estimated to cater to a population of around 100 million - i.e. larger or comparable to the total market in the largest countries in Europe and about 40% the size of the entire domestic market of the United States. There is thus a special interest in 'prising' open the Indian market for various global players to exploit. In order to nurture this market it is also necessary to increase extraction of surplus value from the 800 million who do not constitute a part of this potential market. This is precisely what is sought to be achieved through Structural Adjustment Policies that have been initiated in the country - by way of fiscal austerity measures designed to cut Govt. spending and subsidies in social sectors, reduction in direct taxes, increase in administered prices, deregulation of the labour market, etc. In other words, policies designed, on the one hand, to increase the paying capacity of the target population in the potential market and, on the other hand, to keep the rest of the populace at a level of mere subsistence.

However, as noted earlier, the signals emanating from the countries that had taken up Structural Adjustment Programs in the early phase, were disturbing for the Bank. Disturbing not because of its actual effects, but because the effects threatened to totally disrupt the stability of these countries, and thereby of their markets. Markets in Sub-Saharan Africa and in some countries of South America almost ceased to exist due to widespread dislocation of local economies. The safety net formula was hence required to bring back a semblance of stability in these countries, and had to be extended to countries now going in for Structural

Adjustments, so as not to repeat the past experience.

The safety net formula can thus be also seen as a partial strategic retreat of the earlier World Bank prescription of total withdrawal of the State from all social and infrastructure sectors. While the Bank continues to pursue its policies geared towards private takeover of other infrastructure sectors like Power, Telecommunications etc., in the area of Health and Education it has had to do make certain concessions to the logic of state support. However such concessions are grudgingly advanced, and in fact are responsible for the large variety of inconsistencies contained in the Report. The attempt is still to formulate a package which involves **minimum** state involvement, as the intent is not to make provisions for comprehensive health care that required, in the words of the Alma Ata Declaration of 1978, "All governments should formulate national policies, strategies and plans of action to launch and sustain primary health care as part of a comprehensive national health system and in co ordination with other sectors. To this end, it will be necessary to exercise political will, to mobilise the country's resources and to use available external resources rationally."[5] The WDR 1993, in sharp contrast, believes in the necessity for a political will to restrict health care access when it says, "As policymakers try to reach compromises, they must deal with powerful interest groups ..... and strong political constituencies, including urban dwellers and industrial workers."[6]

Thus essentially the report is an attempt to formulate a package of interventions, and push for a policy that can sustain the overwhelming number of people in a developing country at a level of mere subsistence. Anything beyond this is anathema, and is strongly disapproved of in the Report. For, after all, the Report is designed to keep state support at a minimum and not to provide health care. This is stated in so many words, "Adoption of the main policy recommendations of this Report by developing country governments would .....**and also help to control health care spending**. Millions of lives and **billions of dollars could be saved**. (emphasis added) [7] But even to make provisions for such a package requires State support, and this is where the Report goes into a series of convoluted reasonings to work out a comprehensive set of rules for state intervention. In order to do so the report also goes through the exercise of compartmentalising health into a series of 'nuggets', to which it assigns scores with a novel computing system called DALYs (Disability Adjusted Life Years). The whole exercise is to reduce health to a series of mathematical calculations to determine which interventions 'optimise' returns. To this end the report states, "When governments become directly involved in the health sector - ..... policymakers face difficult decisions concerning the allocation of public resources. For any given amount of total spending, taxpayers and, in some countries, donors want to see maximum health gain for the money spent. An important source of guidance for achieving value for money in health spending is a measure of the cost-effectiveness of different health interventions and medical procedures - that is, the ratio of costs to health benefits (DALYs gained). [8] It is interesting to note here the Bank's concern for the taxpayers, as ultimately this is the constituency, or in other words the market, that the Bank wishes to address and nurture.

Cost-effectiveness is important for the World Bank as it candidly admits, "Using cost-effectiveness to select health interventions for public financing **does not necessarily mean spending the most resources where the burden of disease is greatest**. Instead, it means concentrating on the interventions that offer the greatest possible gain in health per public dollar spent." (emphasis added) [9] It is such an

approach that impels the report to exhort the use of iodised salt for endemic goitre but abhor 'government action in nutrition'. The report clarifies this - "There is a strong case for government intervention to improve health by improving nutrition, but not for interfering generally in food markets, except in extraordinary conditions such as famine. Government action in nutrition has often been wasteful because it has duplicated what private markets do and has paid too little attention to the causes of poverty and to cost-effective measures that improve families' knowledge and capacity to feed themselves adequately." [10] The calculations to justify this is simple if one understands the World Bank's logic. Salt iodisation requires little resource inputs, and the costs can easily be passed on to the consumers. But actual intervention to raise nutrition levels would interfere with the market - a cardinal sin as far as the World Bank is concerned. So a hands-off policy is recommended, except in times of famine. Under more 'normal' conditions governments can limit their intervention to telling (and not providing) people what they should eat. Intervention in nutrition would attract the World Bank's ire as it is not cost-effective and 'distorts' the market, irrespective of the fact that protein-energy malnutrition affects an estimated 28% of children and iodine deficiency goitre affects 7% (an overestimation by some accounts).

The fragmentation of health into discrete components, to facilitate calculation of DALYs, reinforces a model of health care that has its roots in technological determinism. It follows from the belief that technological solutions can be applied piecemeal to health problems of a community, to the virtual exclusion of social and economic determinants. Thus the belief, for example, that governments can fulfill their objective of controlling diarrhoeal diseases by efficiently distributing Oral Rehydration salts, without intervening in provision of safe drinking water. While not discussing more details of such an approach, already in vogue in many countries including India, it would probably suffice to point out that this approach is a necessity as far as the World Bank's compulsions are concerned, rather than a logical need.

Retreat of the State

The need to repeatedly emphasise that state intervention, and thereby resource inputs, should be kept to a minimum, has led the report to take strangely contradictory positions. While reiterating that public funding of health care needs to be reduced, the report is forced to contend with the fact that in most developing countries such funding is abysmally low. It thus grudgingly admits, "Adoption of the package in all developing countries would require a **quadrupling of expenditures** on public health ....There (in the poorest countries), paying for an essential package will require a combination of increased expenditures by governments, donor agencies, and patients and some reorientation of current public spending for health." (emphasis added) [11] But the crux lies in mobilising the extra resources to quadruple spending on health. No answers are offered, except for references to good work being done by Non Governmental Organisations (NGOs) and the possible help by donor agencies. Except in Sub-Saharan Africa, such aid accounts for, 1.5% or less, of the total spending on health in developing countries and even the report does not visualise any major increase. NGOs are dependent on either foreign donors or government funds, or act as a part of the private sector. The World Bank is obviously caught in a contradictory situation, and has no solutions to offer.

The report is on much firmer ground, in terms of internal consistency with its other positions, when it argues for increased involvement of the private sector. The intent is at least transparent and consistent with the need to reduce public sector involvement in health care. The report thus argues for private sector takeover in most

areas not covered by the Bank's minimum package. This, it is posited, would increase 'efficiency' and 'consumer satisfaction'. There is a clever piece of argumentation which shows that public funding is already low in most developing countries, and a formal role for the private sector, with the state acting as a regulator of the market for health care, will only work towards making the present system more efficient. The report argues in this vein, "People often pay dearly for supposedly 'free' health care. Recent household surveys in India, Indonesia and Vietnam indicate that each visit to a government health centre actually costs patients two to three times the amount of the low official fees. Bribes aside, the indirect costs such as transport and the opportunity cost of time spent seeking care are substantial. Since patients are already paying for supposedly free or low-cost health-care, new user fees, when accompanied by reduction in indirect costs and improvement of services, may increase utilization." (12)

The private sector is portrayed as the paragon of efficiency. Efficiency is a term difficult to quantify in the area of health care. The report obviously equates efficiency with fast turnover, easy accessibility and possibly, consumer satisfaction. Whether these considerations really go towards improvement of the quality of health care is however a debatable issue. The report for example lauds the performance of private practitioners working in the slums of Bombay thus - "Competition among health providers in developing countries can improve the quality of services as perceived by patients and thus increase consumer satisfaction. .....competition among private physicians in the slums of Bombay, for example, is intense, with private practitioners offering convenient evening hours, short waiting times, and readily available drugs to win patients from other private practitioners and from public clinics." (13) Contrast this with innumerable studies on private practice in India, which has shown that practitioners chronically overcharge, use too many drugs and use inappropriate medicines, not to speak of various reports of malpraxis. One study says, "...private physicians serving the urban poor in the slums of Bombay have grossly inadequate awareness about the treatment regimen of leprosy.." and further that, "..(they) do not consider standard drug regimens in treating patients suffering from pulmonary tuberculosis. The drugs which were used were found to be three times more expensive than the standard regimens." (14) The situation is probably best summed up in the following terms : "Its (the World Bank's) implication continues to be that markets can do little wrong and that all economic growth is necessarily to the good ..... Government intervention in the economy, on the other hand is always regarded as guilty until proven innocent." (15)

Impact on Infrastructure Development

Let us now turn to what is possibly most fundamental to the position of the World Bank - the need for the state to withdraw from areas of infrastructure. It has been discussed earlier how in the area of Health the Bank feels compelled to slightly dilute its position, but regardless of that, this remains an overriding concern in the Report. It is a position that needs to be addressed at a generic level, because the Bank's position is dictated not by concerns of feasibility but by ideological considerations. These ideological considerations necessitate that the Bank make a case for a global push in developing countries, for the state's withdrawal from areas of infrastructure. Yet, it is a germane question, whether such areas are at all amenable to market forces, and if so at what stage. As has been pointed out, "It is common knowledge that savings/ investments (and labour productivity and incomes) are low in a developing country. There is no 'market demand' for basic infrastructure services. This is where Adam Smith's famous argument in favour of the

State - erecting and maintaining those public institutions and those public works, which, though they may be in the highest degree advantageous to a society, are however, of such a nature that the project would never pay the expense to any individual or small number of individuals, and which it therefore cannot be expected that any individual or small number of individuals should erect or maintain - becomes obviously relevant." (16)

It would be interesting here to examine in some detail the kind of spending that is done by countries on health care and the percentage of such spending that is borne by the public sector. The following table gives the comparative figures :

Income and Health Spending in 34 Selected Countries (countries with population >20 million in 1991)*

COUNTRY	GDP PER CAPITA	% of GDP SPENT ON HEALTH	% OF PUBLIC SHARE	COUNTRY	GDP PER CAPITA	% of GDP SPENT ON HEALTH	% OF PUBLIC SHARE
TANZANIA	100	4.7	68.1	TURKEY	1780	4.0	37.5
ETHIOPIA	120	3.8	60.5	ALGERIA	1980	7.0	77.1
BANGLADESH	220	3.2	43.8	IRAN	2170	2.6	57.7
ZAIRE	260	2.4	33.3	SOUTH AFRICA	2560	5.6	57.1
NIGERIA	300	2.7	44.4	VENEZUELA	2730	3.6	55.6
INDIA	330	6.0	21.7	ARGENTINA	2790	4.2	59.5
KENYA	340	4.3	62.8	BRAZIL	2940	4.2	66.7
PAKISTAN	400	3.4	52.9	MEXICO	3030	3.2	50.0
SUDAN	420	3.3	15.2	SOUTH KOREA	6330	6.6	40.9
EGYPT	610	2.6	38.5	SPAIN	12450	6.6	78.8
INDONESIA	610	2.0	35.0	UK	16550	6.1	85.2
PHILLIPINES	730	2.0	50.0	ITALY	18520	7.5	77.3
MOROCCO	1030	2.6	34.6	FRANCE	20380	8.9	74.2
SYRIA	1160	2.1	19.0	CANADA	20440	9.1	74.7
COLOMBIA	1260	4.0	45.0	UNITED STATES	22240	12.7	44.1
PERU	1285	3.2	59.4	GERMANY	23650	8.0	72.5
THAILAND	1570	5.0	22.0	JAPAN	26930	6.5	73.8

Source : Calculated from data in World Development Report, 1993.

An analysis of this data shows very clearly that countries with higher income levels spent a larger percent of Gross Domestic Product on Health and, further, these countries also have a significantly higher percentage of these costs paid for by the public sector. Thus what we have here is a clear illustration of the fact that developed countries have been consistent in following the logic that development of health infrastructure requires state funding. Yet the Bank tells us, arguably at the behest of these very same countries, that in order to accelerate economic growth developing countries must cut public spending on health infrastructure. This is however not a novel method of argumentation any more - we have heard similar logic being put forward in the pressure being put on developing countries to change consumption patterns in order to reduce the threat of 'Global Warming' while the global North can merrily continue its unsustainable consumption pattern.

So the Report has a series of recommendations designed to operationalise the withdrawal of the state, like reduction in support to medical education, research activities, tertiary care etc. To legitimise this the report cleverly 'uses' the terms of discourse common among public health professionals and social and community health activists. Concern is expressed for

poor communities and women, and a case is sought to be made for reduction in tertiary care expenditure so that the same could be reallocated for primary health care. The issue which it skirts in the process is that infrastructure development does not take place piecemeal. There are certain minimum facilities that need to be built up, irrespective of their level of deployment. Thus for example, it is not feasible to have primary health care exist in a vacuum without tertiary facilities also being set up. In fact the report itself contains reference of previous infrastructure development in developing countries having helped in partially tiding over the disastrous consequences of Adjustment Programmes in many countries, when it says, "....especially in the earliest adjustment programs, recession and cuts in public spending slowed improvements in health. This effect was less than originally feared however - in part because **earlier expenditures for improving health and education had enduring effects**." (emphasis added) [17] Yet the final prescription is to cut down on infrastructure development, if not totally withdraw from it.

The concept of targeting is used to argue for the narrowest possible base of beneficiaries for the minimum package suggested by the Bank. The principal villain, that we are told, needs to be excluded in this exercise is the organised working class - a section which finds repeated mention as being responsible for garnering too many benefits of government supported programmes. One may argue about the truth in the specific charge made against the organised working class, but it should be understood that the Bank is also making a specific political point. While a market demand does not ordinarily exist for infrastructure development, organised sections of the working people can and do orchestrate such a demand. This has been so in all developed countries at various points in their history, and infrastructure development in these countries has been accelerated by such organised demands - in addition of course to the real needs of their ruling classes. Thus if the Bank today is seen to be harsh on these sections, such an attitude is also designed to stifle islands of organised demand for infrastructure development in developing countries.

Finally, the report also indicates how donor agencies would and should modulate policies of developing countries and give them the 'desired' direction. A veiled threat is implied in the following assertion - "Countries that are willing to undertake major changes in health policy should be strong candidates for increased aid, including donor financing of recurrent costs."[18]

Future Trends in India

India's situation in terms of spending of Health Care is different from most developing countries on two counts. At 6% of GDP spent on health care, India spends more on health care in percent terms than most developing countries. At the same time, at 21.7%, public spending of the total expenditure on Health Care, India is one of the lowest in the world, both in actual terms as well as in percentage terms. Health spending in India is thus already heavily distorted in favour of the private sector. There are signs that the distortions will further sharpen as India embarks on a 'corrective' course under the tutelage of the World Bank. On the one hand trends of charging fees in public health facilities have started gaining ground, and the emphasis on 'Vertical Programmes', i.e. programmes designed to follow the World Bank's piecemeal, cost-effective return based approach, is being strengthened. The Indian government receives a pat on its back on this count in the report - "In India, where state governments account for more than three-quarters of total public spending for health, the central government is attempting to act as a catalyst for more cost-effective resource allocation by earmarking its funds

for immunization, treatment of leprosy and tuberculosis, and AIDS control." [19] The message is clear - the central government is valiantly trying to cover up for the 'wasteful' state governments. In its recruitment policies too the government is looking for avenues to cut down on infrastructure, a step which too the report finds cause to comment favourably upon - "In India the Ministry of Health is planning to hire 8,000 workers for a leprosy control project on a per diem basis rather than engage them as civil servants with virtual lifetime guarantees of employment. [20] *(Note : This is part of a Rs.302 crore World Bank project in 66 endemic districts for Leprosy Control. It is a nice illustration of how donor agencies, while providing only a small part of health care costs, can determine policy directions.)*

On the other hand private medical colleges are sprouting and there is a proliferation of private facilities catering to the 'high end' of the market, or one can argue the only actual market that exists for health care. The movement is towards creation of islands of 'excellence' in general conditions of subsistence existence. However, how far such islands are sustainable in the absence of government supported infrastructure is a moot point. It has not happened in any country till date, to the limited exception of the United States, though even there the extent of public funding is as high as 44% of total health care costs.

Conclusion

A lengthy conclusion is not being attempted here, as the inferences are fairly simple to draw. At the risk of repetition, it may be mentioned that the WDR 93 is a fire-fighting measure drawn up by the World Bank, after the feed back received about the disastrous consequences on health care of Adjustment Programmes in many countries. Having set out to do so, the report appears to have had to contend with too many contradictory impulses. Thus, while setting out to work out the case for a 'safety net' the report ends up in re-emphasising the virtues of state sector withdrawal from health care. In other words it only manages to reiterate the same policies which had compelled it to think of the necessity for a safety net in the first place. Strangely, this is being attempted in the background of the fact that developed countries show little signs of actual dismantling of health infrastructures, which are publicly funded, in their own countries. India, has chosen to follow the World Bank's logic. It is to be seen how long such a logic, and its attendant fallouts can be sustained.

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8) Ibid, p. 5

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(Note : This is a slightly modified version of a paper presented at a Seminar on World Development Report 93 : Investing in Health, held at JNU on Dec.8-9 1994 and organised by the Centre for Community Health & Social Medicine.)

Towards Alternatives of Health Care

Every man aspires to be healthy. From time immemorial man has been interested in trying to control diseases. The medical men, priests, traditional practitioners, herbalists, magicians and others, all ~~xxxxxx~~ undertook in various ways to cure man's disease and or to bring relief to the sick. In India all the systems, from ancient era to modern time, all are in practice in the society, simultaneously. Health care systems of various forms starting from Governmental system, private sector, non-Governmental Voluntary organisations, even individual endavours are in vogue.

The practice of clinical medicine worldwide is based on diagnosing and treating illness as they affect individual patients. In India, as in other developing countries, the majority of diseases and major diseases are from variety of infections or communicable diseases. This means that the diagnosis and treatment process for individual patients is being applied to a wide range of diseases caused by micro-organisms, which are always present in the community & surrounding environment. In other words they are continually circulating within a community. A particular patient who suffers from a disease at one particular point of time is cured by using suitable medicines. This implies that the process is quite effective for that particular patient. However the disease still remains in the community level - it is not prevented or eliminated. The community itself remains infected though the one individual has been temporarily improved or cured. However, the environment has not changed and neither have the conditions under which the community lives. So the disease occurs against often in the same individual who was treated and cured earlier.

It is not difficult, therefore to understand why the clinical medicine approach by itself has not been shown to have had a significant impact upon the health status

indices of populations suffering primarily from communicable diseases.

In contrast, "Primary health care" an approach evolved over the last two decades, has proved somewhat effective within these same population. Primary health care differs from clinical medicine in two fundamental ways a) its scope is much broader, b) it is based on promoting a co-operative relationship with the community, where it is attempted for implementation. Clinical medicine focuses on pathological conditions afflicting individuals, primary health care broadens that focus to include pathological conditions that persists in the communities as a whole. Where clinical medicine actively diagnoses and treat patients who are 'Passive recipients", Primary health care involves and collaborates with individuals and communities as a whole in learning to actively diagnose and treat themselves.

Irony is that though philosophically Primary Health care system is accepted by the Government, little is done on this aspect. Monetary allocation for health is being curtailed in successive five year plans. In Planned budget is always meger in respect of demand of the population. It is interesting to note that the bulk of the planned budget of health of both the union and the State Governments is expensed on constructions and maintenance of buildings, administrative costs, ~~and~~ wages of employees and on curative aspects, Very little ~~sum~~ amount is actually utilised for preventive and promotive health care. Institutionalised approach for advancement of medical science and technology is beyond the reach of vast majority of the population of the country. As a result till today only 20% of our people have access to modern medicine and 84% of health care cost is borne privately.

The slogan "People's Health in people's hands" has today received universal support. The Government's statement of Health policy recognises this position while stating "Also over the years, the planning process has become largely oblivious of

the fact that 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 the various health and related programmes", unfortunately there is a basic lack of clarity of the concept of community participation. Another misconception is to view the rural communities as homogeneous units. As a result there is no clear vision regarding how community participation can be ensured in vast tracts of rural India which is divided on the lines of class, caste and religion. The tendency is to solicit support from the village "sarpanch" or other influencial members of the village which is most areas means landed sections and often high caste.

If the planning is done in proper way, the result is encouraging. The example of Comprehensive Rural Health Project started in 1971 can be sited for review. Dr. Rajnikant Arole and Dr. (Mrs.) Mebella Arole started it in a small town Jamkhed in Maharastra. The husband and wife team initially conducted discussion with villagers and found that health especially preventive health was a relatively low priority for these marginal, subsistence farmers. They were more interested in getting enough food, safe drinking water, stable housing and clothing. Aroles decided to focus first on these "felt needs of the community". Young farmer's groups and Mahila Mondals (Women's groups) were organised. These groups were taught by Project staff. They began to spread information and impart training in a wide range of community development programmes. These programmes included new seed variety introduction, guarenteed bank loans, promotion of cottage industry skills and sinking tubewells.

At the same time, the project also started a medical clinic and later a 30 beded hospital. These facilities effered treatment on a sliding scale fee-for service basis. They quickly became heavily utilised by all strata from villages surrounding Jamkhed.

The experience of Sahid Sib Sankar Seva Samity, a Voluntary organisation of District town Burdwan in West Bengal, is also very glittering. Here also the Voluntary Health Workers including women from the whole district come for training of the basic health needs of the people. As these volunteers work in their community in the arena of simple curative care, services for mother and child health and family welfare, antenatal and perinetal care, safe delivery, immunization, nutrition by at hand available foodstuff as well as an array of health education and community development activities the b are of tremendous success. It is estimated that they are able to handl 80% of the illness episodes from the villages. They also run health clinics as a referral centre for curative aspects. The more complicated cases are referred to Burdwan Medical College.

Many similar activities are going on in different part of the State. The experience gathered from these activities, planning is bein made by Paschim Banga Vigyan Mancha to conduct a Planned activity in the State. A pilot project has been conducted in Katulpur Block in the District of Bankura. Five Blocks have been selected in Bankura District for this sort of work. Attempts are being made to conduct this activity in atleast one block of every district, by constituting District level and Block level co-ordinating body, with other organisations.

Health activist volunteers are being selected from the community where they reside. A sizeable section of them are women. They are being trained with health and related problems under the leadership of their team leaders, selected by them amongst themselves. They are conducting surveys with the population. The basic objects of survey are to identify the health and related problems of that area. With the help of Panchayet and local youth, women, club, peasent and other organisations and effective individuals, a local level health action plan is formulated. Local level interventions are yielding prompt results. Attempts are being made to utilise the Governmental facilities, which are ought to available for these people as effectively as they may be. In other words demands are being generated and specified from the people and pull the Governmental machinery

solve the problems as far as practicable. The community has to take responsibility in certain aspects to build up and to maintain the facilities required for them. People, who are properly educated and motivated , also actively participate to achieve their their health needs. Some of them become active against addiction, superstition etc. A large section of people express their interest in knowing about the management of preventable noncommunicable diseases. Continuous health education programme is essential to sustain the spirit in them.

Total literacy, land reforms, generation of work for all, proper distribution of food and nutrition, proper housing, safe drinking water, sanitation, maintenance of proper environment, mental and physical recreation, fighting against superstition , proper and prompt treatment of ailments, health education etc. have a role in improving the situation of the community as well as the nation. Improvement of the conditions prevailing now can generate self reliance. For this reason, ~~proper~~ justified funding is to be properly planned.

To sum up, for any tangible change in the field of health, radical redemarcation of priorities in the whole health care delivery system have to be initiated . Proper scientific approach is to be taken. Hard political decision to greatly increase spending on Primary Health care is to be taken. For the Primary Health Care system to function adequately, it has to be made answerable to local bodies. This in turn would require steps to democratise the functioning of the Panchayat system and much decentralisation of administrative and fiscal powers. In the absence of such measures, 'Health for all by 2000 A D ' will only be a slogan, not a programme translated into action.

Presented by -

Dr. Kuntal Biswas,

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Health as a Peoples Movement

Dr.Vijay Kumar & Dr.M.V.Ramanaiah AP Jan Vigyan Vedika

People did participate in health movements prior to the PSM or other health activist catalysed movements. They fought with the bureaucracy and political structure to provide them with a hospital and, if a hospital is already there, for more drugs and doctors' regular functioning. They are absolutely correct in doing so as they believe in a concept: 'Disease, doctor, drugs.' This is believed in not only by the common man but also by common doctors and other intelligentsia, the bureaucracy and local politicians. The real concept of health which the PSM propagates is limited to a very few.

The WHO says that health is a positive concept and depends most of the time on issues other than drugs, doctors and diseases -- such as drinking water, sanitation, nutrition, housing etc.--and people do demand these things as ordinary needs. An extra flavour in understanding these needs as health related is yet to catch up to the imagination of the masses.

90% of the people are criticizing the functioning of the existing governmental health infrastructure and more than 90% of the people are against closing them down and handing over to private people. 80% people are ready to pay something to the govt. according to their income for the services which they get from the govt. health infrastructure. The sample studies conducted by the State Institute of Health and Family Welfare (SIHFW-AP) with the help of Jan Vigyana Vedika clearly indicates the above feelings of the people.

It is against this background that health is consciously included in the post-literacy activities in the name of 'Arogya Deepam' or Light of Health in Nellore District. Nearly $2^1/_2$ lakh people are included in this in 100 villages and hamlets.

The salient features of the programme are:

1. The organization is provided by the literacy network upto grassroot level. District level programme groups and academic groups are formed.

2. Finances are provided by the Ministry of Family Welfare, GoI through BGVS and Dept. of Family Welfare, Govt. of AP. Equal amount is contributed by villagers as cash apart from other help.

3. Initial sensitization is over in all the villages in which the 110 villages covered by IPP IV are also included and committees formed.

4. Training programme for all the organisers has taken place at various places.

5. The villagers themselves conducted the survey, consolidated it, prepared the village health plan and conducted the health festival.

The Survey This is one of the most important aspects of the programme.

a) the village health group ('dalam') takes the responsibility, divides the households amongst itself, gets training on how to do the survey as many technical aspects are

involved.

b) the villagers give personal information including on issues such as abortions, child deaths etc. In one sense the entire information collected is the property of the people and it has to be handed over to them.

c) The survey is consolidated in the presence of the dalam and also discussions are held with village elders.

Village Health Festival

a) The plan is prepared by the dalams at the village in the presence of activists and elders based on the survey details. The district academic group assists.

b) The plan which is unique for the particular village differs from that of other villages in many aspects.

c) At the same time, it stimulates the plan of other villages as there are many common problems.

d) the data and village health plan which belong to the villagers is put to them in a public meeting i.e. the Village Health Festival.

e) there would be a qualitative change in the mood of the entire village when they come to know the health scenario of their own village. They feel so much for the infant deaths and communicable diseases. They cut a sorrowful smile when they hear about the incidence of worm infestation. Lots of suggestions follow and the final test for the village is over: it is decided then and there itself how the health plan is to be implemented.

Village Health Plan Broadly the plan divides all the health related problems of a particular village into three parts.

1. The issues that can be tackled by the villagers themselves without govt. help.

2. the issues that require govt. help

3. the issues requiring long drawn out battles against the government.

The details of the plan often include:

a) immunization
b) drinking water and sanitation
c) health education
d) nutrition
e) training of village health activists
f) tackling islands of disease

Among all these issues, the last requires some explanation.

Village Health Activists These are the activists, 2 per 500 population, 1 male

and 1 female, selected by the dalams and approved by the Village Health Festival. They are given residential training for 15 days in a hospital where obstetric work is adequate. These two apart from giving first aid act as academic wing of Arogya dalam. The training costs are paid by the villagers. The money is collected from each household. This strategy is taken up consciously because at any point of time the Govt. may withdraw its support to the programme as was done during the Anti-liquor Struggle. There is a criticism that they may become quacks. All precautions are taken in the training. The training material is in the process of production after experimentation and field tests. This is graded material and skills required for health activists.

Islands of disease To our surprise, we found 100 cases of malaria in a village of 500 people. 180 cases of leprosy in a village of 600 people....The present approach of the govt. system is not noticing this problem and acting upon it. In arogya deepam this is specifically tackled and pressure mounted on the govt. to provide 'minimum curative package'. Unless these islands are tackled the statistics remain high or low but we speak always about the averages but not specific cases or villages.

Not an alternative structure The entire structure that is created is not an alternative to the existing health infrastructure but an aid to that and also a pressure group over it.

To conclude It is possible to create a peoples health movement and bring about attitudinal change where people do not think about health. It is possible to generate demand not only on the present health infrastructure but on various other issues like drinking water, nutrition, land and minimum wages, housing etc not only as mere needs but as health needs also.

It is possible to generate enthusiasm amongst the village youth and involve them in health related activities.

The only problem in this is that there is no end to the programme and the health in scientific terms is related to various aspects of society right from our traditions to the present socio-economic situation. We speak about this theoretically but when it comes to the point of 'movement' a lot of antagonism is expected from the existing socio-political institutions.

I feel that the peoples movement for health is going to be the alternate at the present tragic situation of peoples health where almost all the communicable diseases have started a resurgence and the others have become more virulent.

The Govt. of AP appointed a team to study and evaluate the Nellore programme so that it may be replicated in other districts of AP. But as far as Nellore is concerned, this is only a beginning and the real task is ahead.

AROGYA DEEPAM

CONSOLIDATION STATEMENT.

NELLORE.

DISTRICT: NELLO

		Information Received So far (4)	House Holds			Population			Latrines	
	es ed		SC/ST (5)	Others (6)	Total (7)	Men (8)	Women (9)	Total (10)	Possessing (11)	Non-Possessing (12)
Non-Possessing (12)		32	2394	3105	5499	11328	11177	22505	180	5319
5651		30	770	2907	3677	9773	9460	19233	21	3656
6741 ~~6750~~		12	346	1233	1579	4197	4082	8279	38	1541
1558		6	232	712	944	2148	2145	4293	6	938
1280		16	502	1304	1506	4501	4001	8502	2	1804
1007		10	713	1540	2253	4790	4673	9463	42	2211
282		16	429	2171	2600	6605	6282	12887	12	2588
362	13	13 ~~15~~	578 ~~485~~	1881 ~~1449~~	2459 ~~1933~~	5918 ~~4606~~	5661 ~~4419~~	11579 ~~9025~~	66 ~~88~~	2393 ~~1895~~
2022		26	2057	2915	4971	10559	10349	20908	529	4443
1373		27	1941	883	2824	5460	5397	10877	12	2812
~~5858~~ 5980		10	970	1841	2811	6368	6333	12701	30	2781
		20	2305	2580	4893	10233	10051	20284	83	4810
		15	976	1001	1977	4228	4104	8332	50	1927
		9 ~~8~~	897 ~~857~~	639 ~~619~~	1536 ~~1476~~	3073 ~~2387~~	3138 ~~2798~~	6211 ~~5185~~	26	1510 ~~1170~~
		9	249	553	802	2063	1977	4040	5	797

AROGYA DEEPAM

CONSOLIDATION STATEMENT

DISTRICT :

Name of the Mandal (2)	No. of villages selected (3)	Information Received so far. (4)	House Holds.			Population			Latrines
			SC/ST (5)	Others (6)	Total (7)	Men (8)	Women (9)	Total (10)	Possessing (11)
6. CHILLAKUR	32	32	3451	2243	5694	12156	12023	24179	6
T. P. GUDUR	~~73~~ 74	74	~~2912~~ 2946	~~3968~~ 4175	~~6760~~ 7121	~~13415~~ 14195	~~13095~~ 14053	~~26740~~ 28248	~~340~~ 380
ANANTHA SAGARAM	12	12	650	938	1588	3618	3545	7163	30
MUTHUKUR	12	12	810	489	1299	2668	2585	5253	19
DUTTALUR	12	12	133	885	1018	2712	2581	5293	11
OZILI	3	3	193	91	284	549	556	1105	2
VAKADU	2	2	172	195	367	742	798	1540	5
SANGAM	8	8	730	1355	2085	4462	4435	8897	63
NAIDUPET.	6	6	994	473	1467	3154	3137	6291	94
TOTAL:	~~410~~ 412	~~411~~ 412	~~25438~~	~~35250~~	~~61548~~	~~135156~~	~~132703~~	262469	~~1561~~
			25438	36109	61547	135520	132543	268063	1749

ARCGYA DEEPAM

CONSOLIDATION STATEMENTS.

DISTRICT - NELLORE

S. No.	Mandal	U. S.	Total immuni - 3rd.	Partial immuni - 3rd.	Non-immuni - 3rd.	Non - immunized.				Warm infestations. (Round worms)
						B.C.G.	Polio	DPT	Measils	
17.	T. P. Gudur	2599 ~~2438~~	1760 ~~1662~~	617 ~~598~~	222 ~~178~~	340 ~~322~~	281 ~~267~~	282 ~~287~~	814 ~~759~~	202 ~~192~~
18.	Muttukur	570	387	120	63	77	76	76	183	78
19.	Anantha Sagaram	784	133	444	207	381	232	232	624	73
20.	Dutalur	431	247	134	50	122	57	54	168	51
21.	Ozili	97	63	19	15	15	12	12	33	14
22.	Vakadu	186	154	6	26	4	10	21	26	6
23.	Sangam	795	451	156	188	76	124	61	288	97
24.	Naidupet	577	372	138	67	117	67	67	205	15
	TOTAL:	27230 ~~26184~~	~~15859~~ 15959	~~8648~~ 8533	~~2327~~ 2738	~~5160~~ 5251	~~3340~~ 3453	~~3421~~ 3485	~~10580~~ 10755	~~2880~~ 2928

AROGYA DELPHINI

DISTRICT - NELLORE

Consolidation Statement.

Name of the Mandal	Under 12 years	Under 5 years	Last year Born Children			Deliveries		Deaths below 1 year			Deaths in last year under 1-5 years deaths			One to Diarr-hea.	One to Prolon-ged fever	One to Jaun-dice	Absentia
			M	F	T	At Hospital	At House	M	F	T	M	F	T				
(1)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(33)
Dakkili	762	419	51	51	102	15	344	2	1	3	–	–	–	–	–	–	26
Chillakur	4236	2754	243	256	499	1061	1693	25	25	50	3	5	8	–	–	–	334
T. P. Gudur	6840 ~~6663~~	2599 ~~2435~~	245 ~~241~~	196 ~~180~~	441 ~~421~~	1159 ~~1087~~	1440 ~~1338~~	12 ~~11~~	14	26 ~~25~~	3 ~~2~~	4	7 ~~6~~	14 ~~13~~	8 ~~7~~	6 ~~5~~	87 ~~82~~
Ananta Sagaram	2051	784	70	62	132	219	565	3	1	4	3	2	5	2	2	5	16
Muthukur	1144	570	48	52	100	329	241	4	4	8	2	1	3	–	–	–	20
Duttalur	1385	431	35	47	82	108	323	1	–	1	1	–	1	2	2	3	13
Ozili	305	97	12	6	18 ~~18~~	24	73	–	–	–	–	–	–	3	–	–	4
Vakadu	451	186	10	10	20	85	106	–	–	–	–	–	–	–	1	1	6
Sangam	1924	795	83	83	166	421	374	2	6	8	–	4	4	–	–	–	12
Naidupet	1608	577	38	31	69	220	357	3	1	4	2	–	2	8	–	7	21
TOTAL	65937 ~~64686~~	27230 ~~26104~~	2315 ~~2326~~	2409 ~~2349~~	4765 ~~4675~~	10889 ~~10618~~	16286 ~~15089~~	141 ~~138~~	152 ~~150~~	293 ~~288~~	50 ~~48~~	48 ~~47~~	98 ~~95~~	77 ~~74~~	66 ~~65~~	50 ~~49~~	1237 ~~1236~~

CONSOLIDATION STATEMENT

Mandal	U.5.	Total immunized	Partial immunized	Non-immunized	Non-Immunized.				Worm infestation (Round worm)
					BCG	Polio	DPT	measles	
(2)	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)	(43)
Venkatachalam	2122	1214	839	69	341	259	314	764	234
Varikuntapadu	2153	603	1497	53	848	316	320	1550	203
Udayagiri	959	680	279	—	109	194	113	313	165
Kaligiri	445	268	158	19	77	44	44	190	37
Kondapuram	970	595	318	57	82	95	105	319	93
Bogolu	1105	685	156	264	292	193	193	410	187
Mairipadu	1335	657	469	209	463	167	167	628	419
Atmakur	1068	314	599	155	289	162	191	509	230
Buchi	1913	1462	390	61	230	207	206	544	153
Vidavalur	1141	693	408	70	144	86	92	461	206
Nellore Rural	1226	712	405	109	291	133	133	511	156
Manubolu	2027	1249	585	193	304	196	224	778	129
Kota	880	482	217	181	203	204	204	388	42
Chittamur	644	403	165	76	129	77	78	230	31
Dakkili	419	302	50	67	119	46	95	137	21
Chillakur	2754	2073	364	317	198	215	201	682	86

DISTRICT - NELLORE

CONSOLIDATION STATEMENT.

Name of the Mandal	Under 12 Years	Under 5 years	Last year born children			Deliveries		Deaths Below 1 year			Deaths in last year						Abortio
											1-5 year Deaths			Due to Diarr-ohea.	Due to Prolon-ged fever	Due to Jaun-dice	
			M	F	Total	At Hospital	At Home	M	F	T	M	F	T				
(2)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(33)
Venkatachalam	5751	2122	111	93	204	92	1196	20	19	39	11	8	19	20	6	5	117
Varikuntapadu	5159	2153	224	259	483	472	1681	10	12	22	2	2	4	2	—	2	74
Udayagiri	2410	959	87	98	185	323	636	—	2	2	1	1	2	—	3	—	36
Kaligiri	667	445	44	39	93	187	258	2	1	3	1	2	3	—	—	—	15
Kondapuram	2376	970	70	99	169	296	674	3	6	9	1	1	2	—	—	—	34
Bogolu	2544	1105	72	71	143	325	780	8	7	15	1	—	1	—	—	—	26
marripadu	3499	1335	133	132	265	530	805	5	4	9	1	2	3	5	3	2	37
Atmakur	2911 ~~2219~~	1068 ~~822~~	104 ~~78~~	115 ~~89~~	219 ~~167~~	476 ~~364~~	592 ~~455~~	8 ~~6~~	8 ~~6~~	16 ~~12~~	3 ~~2~~	1 —	4 ~~2~~	3	2	—	60 ~~46~~
Buchi	5133	1913	164	196	360	1321	592	4	9	13	1	—	1	1	—	1	59
Vidavalur	2895	1171	112	112	224	455	716	6	11	17	2	5	7	5	7	16	61
Nellore Rural	3234	1226	104	104	208	491	735	8	5	13	3	3	6	1	1	—	56
manubolu	5038	2027	161	145	306	764	1263	10	10	20	5	2	7	4	31	1	90
Kota	2136	880	86	94	180	366	514	1	3	4	3	4	7	1	—	—	25
Chittamur	1475 ~~1153~~	644 ~~503~~	58 ~~45~~	49 ~~40~~	107 ~~85~~	316 ~~196~~	328 ~~257~~	4	3	7	1	1	2	6	—	1	28 ~~22~~

UNDERSTANDING THE HEALTH WORKERS
A POTENTIAL FOR CHANGE

Dr. T. SUNDARARAMAN

She goes by many names. In some places the earliest name is still in use - A.N.M. - Auxiliary nurse midwife. And now the term most commonly used is Multipurpose Health Worker, Female - MPW(F) and Multipurpose Health Worker, Male - MPW(M). Indeed this term and concept had been in use in two states Karnataka (Mysore) & West Bengal, till 1953 but was disbanded, as the mood in the fifties & sixties were all in favour of separate unipurpose workers for different programmes. It took another committee (Multipurpose Workers Committee 1973) and a further 10 years of confusion to get back to this name.

These changes in name and nomenclature also reflect changes in policy and perceptions. One important reason for the reversion to multipurpose worker concept is the recognition that maintaining a separate cadre of unipurpose workers for various vertical health programmes (malaria worker, filaria worker, leprosy control worker, ANMs etc.) was neither financially nor functionally a sound proposition.

However we must recognize one significant policy shift that occurred in 1977. The village level health worker or community health worker was introduced as the centerpiece of public health delivery. This was partly out of a realization that though the deficit in trained doctors was being overcome, the elite urban orientation of the doctor would not be broken. Compulsion did not help. Doctors resented it and both training and disposition made it difficult for them to cope with rural health needs. Mobile clinics too had not succeeded. The name 'community health worker' (CHW) was later changed to C.H.V. - community health volunteer. In 1981 this was again modified to 'the term village health guides.

The philosophy underlying the community health worker idea is of community control. In providing the background of this programme when it was launched the Ministry of Health and Family Welfare had stated (Govt. of India 1977a) :

"No conscious and adequate efforts have so far been made to involve the community in taking care of itself and seeking assistance when such assistance is needed. As a result, the community has tended to become servile and it has to depend on assistance when such assistance was provided. The community should become conscious of what

it can do itself and when to call for assistance ..... that improvement cannot be brought about merely by increasing the doctors or the output of medicine but by making each individual realize the need for simple steps in sanitation, prevention, promotion etc. of health activities, some of which make remarkable changes in morbidity and mortality pattern in our country".

To achieve this goal the community health worker was to be chosen by and from the community and provided with the wherewithal for handling minor ailments, thus serving as a link between the PHC and the community and providing the much needed health education to the village population. For this work the government committed a sum of Rs. 600 towards honorarium and another Rs. 600 for a medical kit - for the whole year. The responsibility for getting the best out of the CHW lay with the community itself - with a promise of full support from the government. This scheme never really took off. A few states officially declined to even attempt it. Most of those who attempted it concluded that it was not a workable idea. At present the scheme is all but given up.

It is in the background of these discussions on the basic philosophy of the health worker that the multipurpose health worker force began to be built up from the mid eighties. The multipurpose workers were to replace the multiplicity of field level unipurpose workers of various different schemes - malaria worker, smallpox vaccinator, ANM, leprocy worker etc. Today it is estimated that there are about 2 lakh multipurpose workers. Though this force is clearly seen as part of the government staff and distinct from the community health worker or village health guide scheme, the concept underlying the community health worker is relevant to the functioning of the multi-purpose health workers.

WHO ARE THE ANMs?

All ANMs are women. Multipurpose workers (male), are also important but tend to be less often recruited and play a lesser role as compared to the women. In Tamilnadu for example there are 8,000 female health workers in about 8,000 sub-centres catering to about 5,000 population each. In contrast there are only about 4,000 male health workers and they cater to 10,000 population. The administration percieves them (the male MPW) today as unionized and unwilling to work but persistent in increasing demands. The thinking is to look for ways to abandon the male worker altogether and go for a female-only workforce. The female multipurpose worker in

contrast, is widely appreciated as hard working and to quote a senior health official the only person doing anything in public health. (Much of what we say for ANMs in this section applies to them also, but we have chosen to focus on the female MPW or ANM). Most ANMs come, attracted by the security that the job brings - a regular salary and other employment benefits. In rural areas, this is one of the few well paid jobs open to women-comparable to that of a school teacher. ANMS in most parts of the country draw basic salary ranging from Rs.700 p.m.to Rs.1200 p.m. with a net take home pay of between Rs. 2000 to Rs. 3000 p.m..

The average age of starting work for most ANMS was 22.7 according one study done in Maharashtra.

Even though the qualification needed was a 10th standard degree it was found that in the last decade more and more women with college education were looking at this occupation seriously. In the absence or other job opportunities the demand for this job grows. The Maharashtra study showed that a smaller population of higher caste women opt to be ANMS, whereas there is a larger proportion of SC, STs, Christians and Muslims. Often women who are single, widowed or separated also opt for this vocation.

This composition of the ANM workforce has its advantages for they would be more willing to reach out to another section. However it also does imply that a better quality of support is needed to enable their functioning.

The functions of the ANM:

The major function of the ANM may be listed as follows:

a) Provide motivation and education for the family planning programme. Fulfill their quota for sterilization, as well as for oral pills and distribution of condoms.

b) Immunize all babies

c) Maintain records of all pregnant women and new born babies. Maintain the growth to health card for infants and under five children.

d) Carry out almost all aspects of antenatal care especially distribution of iron-folic acid.

tablets. Assist at delivery and render post-natal care.

e) Carry out the entire child health programme activities especially on diarrhoea, control of acute respiratory infection, nutrition education, vitamin A prophylaxis etc.

f) Health education

g) Disease surveillance

h) Conduct school health programmes

i) Carry out almost all the functions of the vertical health programmes that need to be done at the village level - tuberculosis and leprosy control, blindness control, malaria control, filariasis control and so on.

j) Render basic curative services.

k) Look after local sanitation aspects especially distribution of bleaching powder and disinfecting wells & overhead tanks with it.

l) Form mahila health committees, village committees etc. to ensure effective health education and community participation.

This impressive list of functions is ameliorated by two facts. One is that in most areas some functions like application of bleaching powder (often pompously referred to as control of epidemics) and malarial control operations are seen as the male MPWs function and the ANM is relieved of this. The second important aspect is that an ANM has only about 500 to 1000 households to look after. If it is located without too much spread, this is not an unmanageable proposition. It would mean identifying and attending on about 150 pregnant women and infants in a year and this would involve visiting 4 to 5 villages regularly in an area of about 3 Sq. Kilometres.

In practice however most of these functions remain on paper. In well administered programme the first 4 functions - FP, immunization, maintaining records of pregnant women and new born children , and provision of antenatal care may get realized. In many cases only FP or not even that, gets realized.

DIFFICULTIES & BOTTLENECKS :

Why is this so?

The answers lie in four main areas. One reason is her status within the health services.

The second is her status as a woman, often doubly disadvantaged by her caste, her low income family background and her marital status - single, widowed, divorced etc.

The third is problems of logistics.

And the fourth is the structure of the health services itself.

STATUS IN HEALTH SERVICES

Within the health services, the multipurpose health worker, far from being the community's organiser and voice, becomes the last rung in a hierarchy. The buck stops with her. She is posted to a sub-centre , with usually no support , and no system of rewards or recognition for services rendered , and it is upto her to achieve all the targets. No one else is accountable.

Also, often there are large vacancies and ANMs are required to hold addl charge of vacant posts, making the task and the jurisdiction unmanageable.

She is under pressure to perform, especially in high priority areas. Often cases of salaries or permanent positions being withheld for months till sterilization

targets are met are heard. As a result ANMs often pay extra out of their own salaries to motivate or transport patients at their own cost (in the absence of the PHC jeep) for sterilization operations.

Her concentration on family planning work bestows her with a low standing in the community. Her advice on curative care is seldom sought and due to lack of drugs, training or back-up services is seldom valued. Indeed in a number of ways, doctors tend to run down their curative abilities.

THE ANM AS A WUMAN

The ANM is a woman. Quite often she is single, separated or widowed.

The popular connotation of a nurse has always had a stigma. And her having to speak about spacing methods, use of condoms, fitting copper T etc., make her an easy target of eve-teasing and sexual harassment - from both village heads and youth.

The ANM is dependant on the community for a home to stay, for water etc. There have been cases where the sarpanch has demanded the transfer of an ANM because she warded of his sexual advances or where local youth have thrown stones on her home at night, thus terrorizing her.

Cases of rape and murder of ANMs, especially while walking long distances from one village to another is known.

The popular image of ANMs as a loose women, the stigma of a nurse, the problem of a transferable job, all make marriage offers more difficult. These have also been sources of marital discord amongst already married ANMs!

So often, the ANM finds herself alone and vulnerable. Her family cannot shift when she is transferred. Her job too requires her to work alone! The village community does not own her and the health services does not back her.

PROBLEMS OF LOGISTICS:

Very often the ANM finds that she alone 'mans' the sub centre. The MPW male is missing (as the male MPW are paid out of state funds their vacancy position tends to be higher). The ANMs 500 to 1000 households may be in one village or even 3 or 4 nearby villages but often, especially in tribal areas can be spread out in 10 to 15 hamlets over a wide area. Then mobility becomes a

problem. Even a monthly visit to each hamlet becomes difficult. And quite often she stays in a nearby town and even visiting her field area takes time!

In a low literacy, backward area, in a population of 5000, there may be over 200 pregnant women and over a 1000 under 5 children. Without any organized support from the community this can become an impossible task. If children are mobilized to one place for immunization by community members, or pregnant women come to meet her during her visit to the hamlet (as is possible in an anganwadi centre), her task is quite feasible. But if she has to persuade every case, meeting them all individually at their homes with no local support, the task is impossible.

One must also remember that for a number of reasons - vacancies, improper sub centres or PHC distribution, isolated hamlets or failure to create new sub centres or PHCs where needed - a considerable part of the population may be outside any planned programme intervention. Though this problem must be viewed in the context that even where there are staff they do not function as expected, nevertheless uncovered hamlets are a problem that need to be attended to. Quite often these areas are just assigned on paper to an MPW !

THE STRUCTURE OF THE HEALTH SERVICES

Eliciting community support, making the health worker the community's representative, is all well said, but has proven an elusive goal.

For one the village is not a homogenous entity. If appointing the health worker without community involvement and from outside it creates problems, giving the community a role often means that only influential vocal sections make the choice based on sectional considerations.

Moreover the training is provided often by ill-motivated, ill-prepared minor bureaucratic functionaries of the medical establishment who are supposed to teach the health workers how they should teach the community.

The leadership that this cadre needs can seldom be provided by a medical doctor, himself having little orientation to community mobilisation, or even sympathy for the MPW's problems.

Goals like integration of indigenous system are stated but neither their training nor their daily leadership is in any position to provide inputs in such areas.

A concept like decentralisation of the health services so important to this programme have never even been understood by an overwhelmingly hierarchical top-down approach to health care. Every programme envisages a completely mechanical implementation of packages prepared centrally - providing little room at all for any creative contribution of either the community or the health worker.

Today when there are an estimated two lakh women in this cadre spread across the country there is an urgent need for a fresh look at the whole problem.

There is a case for hope. There are instances of many ANMs who have proven themselves as primary health workers and village communities which have reciprocated by taking her as their own, providing her support and protection and honoring her. Examples from all over the world and from NGO groups have also reiterated that a potential exists.

STRATEGIES FOR INTERVENTION

The 4 cornerstones on which a strategy of intervention must be constructed are.

a) Building up the morale of the health worker force.

b) Building up a mechanism of providing support to the multipurpose health worker.

c) Building up the links of the health worker force with the community. This implies a changed understanding of the role of the community and its organized forms vis-a-vis the health worker's role and the role of the health establishment in the delivery of health care.

d) Building up the capabilities of the health worker force - with specific reference to the ability to identify local community's needs and to respond to them.

POINTS FOR ACTION

To realize the above policy cornerstones we suggest a number of actions from which the district officers may draw depending on their own preferences and the situation of his or her district. There are only some possibilities based on experience from here and there. The list could be much longer.

a) Training : There is a major scope for intervention

here. Is training today didactic? Does it talk down to the health worker? Or is it participatory? Does it build up her self confidence and self-esteem? Are the trainers motivated? Do the trainers share a commitment, even a passion for health care? Do the trainers understand the concept of health worker as empowering a community?

To many NGOs who are working in the area of health, these are not new concepts. In fact, this is the central axis of their work. As NGOs they have limitations in expanding their work. But a persuasive district officer can get their help for conducting the training programme. Their help is needed not only for fresh trainees, but even more important for in-service training. To listen to the health worker's problems, sympathise with them and help them and district officials evolve concrete action points to overcome their obstacles, NGOs can help.

In the absence of NGOs (or even in their presence using them) one needs to evolve a well-oriented, committed team of trainers - a team made of persons with a feel for the problems on the ground. Make this team responsible not only for training the health workers initially but providing in service support to those so trained for at least a year or so. And make them at least partly accountable for the results that the health workers deliver. There are training institutes coming up for health workers in many district. One needs to pay attention to them to ensure that they can play their role. But one will probably still need to involve NGOs in the training process.

b) Building up morale has been done by district

officers spending more time with this section of health personnel and participating in their functions.

Schemes of rewarding health workers who have achieved good community support (not just targets) or made good innovations or taken fresh initiatives will also change their own image. The positive experiences of such health workers should be highlighted not only amongst them but in the community as a whole.

Even publicity managers and media, must consciously create a new image for the health worker instead of merely emphasizing a mystical doctor. For example the fact that a good health workers' village level interventions saves far more suffering and deaths than a doctors must be widely known to the community. The concept of health worker as first level curative intervention is one message that will evoke considerable resistance especially from doctors but in many areas this message is needed.

c) Measures to support the health worker are very important. One has to have a special mechanism by which grievances of health workers especially sexual harassment or hostility from the community can be listened to sympathetically and discreet yet firm action taken. Special efforts to ensure she has a place to stay in the village, that her basic needs are met (e.g. there is a toilet in the house), and her personal problems are understood are important. The success of many NGO led CHW programme is largely due to this. But do the present supervising structures of the health worker understand the need for such support?

Support should also extend to the concept of her curative and related functions. For example when she refers cases of acute respiratory infection does the PHC doctor run down her prescriptions or praise it? Is a feedback provided for her to learn?

Since such support may not be possible in today's prevailing work atmosphere, some reaching out from the district level, however symbolic will go a long way. A grievances day for health worker's perhaps? Special lectures by suitable eminent persons - a NGO doctor activist or a Gandhian social worker? The possibilities are many. Once the need is recognized, much can be done.

d) Support is not only from the health department and the district collector. How does one organise support from the community? How does one make the community own her?

Partly by creating a demand for her services. This requires social mobilisation, an understanding of what are the determinants of health and disease and the role the health worker plays. Kalajathas and songs - yes. But has a meeting been organized in the village attended by a senior person (collector? medical officers? doctor? B.D.O.?) which has introduced the health worker and her role? Did the village decide to honor her when there were no cases of, say, polio last year? Did the collector tactfully suggest it to the gram panchayat chairpersons to do so? (Or perhaps he had to thrust the idea down). Indeed do panchayat leaders known about the health worker's role and the role of panchayat members in supporting as well as monitoring her work. What are the measures taken to build a rapport at least between the elected women members and the ANM? To build a relationship of partnership! Not that the ANM passes on family planning quotas to them (as horror of horrors many states have started doing thanks to the nature of bureaucratic innovation (Avoid)). Nor that the panchayat members or chief starts making demands and filing complaints immediately. But a sense of partnership! One can start with participatory one day workshops at the sub-block (PHC?) level for a cluster of gram panchayats, to be attended by the women members of these panchayats, the ANM and the medical officer.

e) But beyond such administrative measures' is a conceptual one. The health worker as a community's spokesperson - as a change agent! Not the person who kicks the cat (sic - Bureaucracy is a series of kicks, the last person kicks the cat!) (Avoid!). But as a person who initiates actions and plans on behalf of the community. The health

pyramid is to stand inverted, the community tells the health structure what it needs. The health structure does not deliver health in packages on behalf of the people.

In practical terms this translates to a single point of action. Building the health worker's capabilities to understanding the felt needs of people, going beyond it to understanding the real needs and its relationship to needs as people perceive them. It mean a health worker being able to formulate the most appropriate strategy or local action plan including the ability to choose from different available technological options.

Is this too much of a demand at the present stage? As an immediately achievable target - yes. But as a direction - not so. Even being able to maintain a simple but comprehensive register of her 500 households and their health status can be transformed from a boring chore, that it is now, into a tool of planning which it was meant to be - if this concept is understood. Gathering health information exists today as a delineated task but it never happens for there is never any use for such information gathered. Indeed a health worker has in some states to fill over 18 registers. But what use are these registers and forms put to? Delhi is too distant for any feedback. Only if it is a part of local planning can it make sense to collect so much information.

Today the panchayat laws after the 73rd constitutional amendment requires an annual village plan to be submitted. May be no one is serious about it. But can such an register lead to a village health plan? Why not take the amended laws seriously? At least in a few panchayats?

Admittedly this is a challenge of the future. But for a young, committed district officer the building up of such local capabilities constitutes the real worthwhile challenge. Not the achieving of targets set up in some back room in Delhi or worse at the World Bank HQ at New York!

A PROPOSAL FOR CHANGE - REDOING THE CHW PROGRAMME

Today a situation exists. Multipurpose health workers exist as the lowest order in a hierarchy. They exist isolated from communities. They exist as obedient servants not as creative individuals. How does one begin the change?

A concept tried out earlier was that of community health workers or village health guides and link volunteers or

health volunteers. The concept was of one health volunteer or link volunteer for 20 to 30 houses and one CHW (Community Health Worker) or VHG (Village Health Guide) as she is termed for each hamlet or village. The role of these community health workers and health volunteers was to use the catchy phrase of the 1977 document, to place People's Health in People's Hands'.

The scheme was a non-starter in many ways. For one they were unpaid workers, doing this work part-time as social service. At best they were paid a paltry sum of Rs.50 per month and provided with a very minimal medical kit which hardly served the purpose. More crucial, the recruitment, training and deployment and support to these volunteers were left to the health department and neither the PHC doctor nor the other government personnel at that level had any conception of how to go about implementing this. Indeed to expect the health bureaucracy by itself to deliver, given its own track-record and motivation at the village level was wishful thinking. Finally the whole programme took place in an environment where the local community were not sensitized or prepared to undertake their new role and utilise the community health worker for this. Schemes based on volunteers cannot take place in the absence of any social mobilisation effort. One can learn a few lessons in this regard from the total literacy campaigns.

Before the total literacy campaigns were launched, the KFLP programme of the adult education departments based its literacy delivery on a cadre of Rs. 100 per month paid volunteers, with careful arrangements to provide supervision and adequate logistic management. But this 'animator' was never able to arouse much enthusiasm or cooperation from the community. In contrast the TLCs threw up tens of thousands of volunteers who without any honorarium whatsoever were able to give new life to adult literacy work.

The difference in the approach lay in the fact that the recruitment and deployment of volunteers in the total literacy campaign was done not as part of a government type scheme but as a people's movement. To be effective the volunteers had to see themselves not as part of the government mechanism but distinct from it. They were to be articulating community concerns, not merely implementing a government scheme. The leadership for this force was provided by a district level organisation created for this purpose - where both NGOs and the

government participated as partners. Only in those districts where the NGOs leadership was effective did the programme succeed.

Similarly if the health volunteers are to be recruited, trained and deployed by the health department there is little chance of success. But if this could be done by an NGO or at least a specially created leadership which understands voluntarism, success is much more likely. Again like the total literacy campaigns if recruitment, training and deployment of the health volunteers is done as part of a major social mobilisation campaign built around a theme of people's empowerment, there is a much greater chance of success.

One also needs to create a small but committed structure of full-time persons who can monitor the programme provide support to these cadre and help them enhance the community's role. All these 3 essential ingredients of a TLC campaign - a major social mobilisation campaign, and a full-time committed support and monitoring provision need to be tried out in the health context too.

The relationship of the MPW with this community health worker in this new approach must be clearly understood. Health volunteers are not under the MPW. They are channels through which MPW's can reach out to the community. Especially in far flung areas and in backward areas with high morbidity & mortality rates such an assistance is essential for a MPW to perform even her most basic functions of maternal and child care and family planning. If on the other hand, one is serious about MPWs realising all their functions as currently understood, then without such a force assisting her, it is inconceivable that anywhere she will be able to do justice to all her tasks. Utilisation of existing PHC resources requires such channels of interaction with the community.

This fresh approach to the community health workers is necessarily tentative. There are however a few pilot

programmes on in this area which not only build around this concept but also hope to use this health volunteers to sensitise and involve the panchayats, especially the women members, so that the gains of the campaign can be sustained.

Before we conclude we must note that in a sense this is not a new concept at all. The book People's Health in People's Hands' edited by Dr. S. Antia (published by FRCH, Pune) lists over 10 examples of major health programmes which have used precisely this approach with good results. It is only a question of studying these examples and thinking into how to handle the problems posed by replication of these efforts on a wider district level or block level scale. Besides in most of the NGO success stores quoted in this book the NGO has basically taken over all primary health care functions by providing a parallel structure for primary health care in that area. Neither most NGOs nor the government would want this to be the main form of public health delivery for the country. The alternative approach recommends creating a parallel structure only for a temporary period to sensitize the local self-government bodies and the community using the community health worker as the vehicle for doing this. Subsequently the local self-government bodies must be equipped with both the capabilities and resources to plan for their health and the community health worker must be supported by these bodies with their structure.

Health For All - Now: Changing Global Perceptions Since the Alma Ata Declaration of Health For All by the Year 2000

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Health For All - Now
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Contents

A. Introduction

When wailing, poverty stricken parents were burying their new born infants and young children by the millions, they were reassured that health was their fundamental birth right; that primary health care was the key to solve all their problems; it was low cost, participatory and empowering. In the same breath they were told to wait for 22 years to achieve that elusive goal of health for all. **What self-conceited and presumptuous arrogance to assume that a mother, whose young child was dying in her hands because she had no access to a few cents worth of piperazine, should care about what would happen in 22 years!**

In September 1978, the World Health Organization (WHO) in collaboration with the United Nations Childrens Fund (UNICEF) organised an International Conference on Primary Health Care in Alma Ata, USSR. The participants noted with great concern the deteriorating health status of vast sections of people and expressed the need for urgent action by all governments, all health and development workers and the world community to protect and promote the health of all the people. The Conference concluded with the Declaration of "Health for All by the Year 2000". This Declaration proclaimed that primary health care (PHC) was the key to achieve Health for All by the Year 2000.

The Alma Ata Declaration of 1978 was doomed to fail the moment it was born when the words "by the year 2000" was added. The 22 year long interval took away in totality the urgency of the problems facing over a billion people. National governments and international agencies became complacent. Action gave way to rhetoric - rhetoric that began during the International Conference on Primary Health Care in Alma Ata. It is interesting to recall what Mr J.P. Yadav, the Indian representative to the Alma Ata Conference said. Among other things he stated,

> "... It is important that health care should not mean provision of all the sophisticated health facilities to a few and denial of even the basic essentials to many... The health scene in most of the countries of Asia and Africa suffers from severe distortions. It is painful to say so, but this is the truth, the harsh truth. The city gets the best, the village the least. In India over the years we have built magnificient hospitals. All of them are in the cities... **But we are now laying greater emphasis on primary health care in rural areas - on narrowing the gap between the village and the city, between the health `haves" and `have-nots'. The new direction which we have given to our health programmes seeks to take basic health care to the doorsteps of the people in the villages!(1)"**

These admirable sentiments and noble ideals were the solemn promises made by the official Indian Government representative to the world community in 1978 - promises that would transform the lives of the vast sections of suffering and poor Indian children, women and men. The promise was that the Indian Government would give a new

direction to its health care services, formulate and implement a national health policy based on PHC as outlined in Alma Ata in 1978.

What has happened to the promise of greater emphasis on primary health care in rural areas in order to narrow the gap between the village and the city, between the health "haves" and "have nots"? What has happened to the promise of a new direction which was supposed to be given to the Indian health programmes to take basic health care to the doorstep of the people in the villages?

The answers to the above questions are contained in a critical analysis of empirical data on the health situation in India in 1994. This was reported in the journal, *Health for the Millions*, November-December 1994, published by the Voluntary Health Association of India, New Delhi. The report, among other things, states:

> **"The health scenario of the country is in an abysmal state, notwithstanding the islands created by the five star private hospitals and nursing homes. In spite of the Parliament adopting the National Health Policy in 1983, the health situation in the country today is a cause for deep concern. There is considerable consternation in the minds of health and development experts as well as NGOs and other organisations involved in the promotion of health care at the grassroots level. The present day "Epidemic of Epidemics" is a reflection of the extreme deterioration of health services resulting in the failure to provide effective preventive and curative measures. The recent episodes of plague and malaria and the defunct health care delivery system in half of the country causing immeasurable hardships to millions of people in the country have ominus portents."**

Neither India nor any other country represented at Alma Ata, has fulfilled even a part of the promises the official representatives gave to the world community.

Since 1978, enormous numbers of documents have been published on PHC. But people had different interpretations of what PHC was although the original description of PHC as recorded in the Alma Ata documents is quite clear and transparent as the following paragraph shows:

> "Primary health care is essential 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 that 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

the community with the national health system, bringing health care as close as possible to where people live and work.(2)

Perhaps the particular section of the above statement which made PHC a non-starter was, **"... it forms part of the overall social and economic development of the community."** This statement was based on the enormous amount of both historical and contemporary evidence that major long-term improvements in health and survival are not, to any large extent, determined by medical care or specific health interventions. To the contrary, far-reaching improvements in health result from social, economic, and political changes. These changes lead a community or a nation to an improved standard of living, fairer distribution of resources, more adequate returns for the work people do, and fuller assurance that the basic needs of all people will be met. For example, tuberculosis was controlled and almost eradicated in Western Europe long before specific antituberculosis drugs were introduced. However, tuberculosis continues to be a major public health problem in developing countries even though there are potent drugs to treat tuberculosis.

It is quite clear that PHC as it was defined in Alma Ata implied a very fundamental social revolution. Unfortunately for some people there is only one meaning for social revolution and that is communist take over! Therefore, there have been efforts to undermine the implementation of PHC as agreed upon by all member states of WHO at Alma Ata.

The Alma Ata Declaration was based on the fact that ill health and malnutrition among the poor are biological manifestations of a socio-economic disease.

Factors such as:
- foreign debt;
- international and national income maldistribution;
- exploitation of the primary (agricultural) sector;
- the commoditization of agriculture;
- overt or hidden under-employment or unemployment;
- illiteracy particularly female illiteracy;

and an array of other factors are some of the macrocauses of this socio-economic disease.

Poverty rather than any microbe or parasite is the key vector of ill health and malnutrition.

The above list of macro-elements does not mean that there are no micro-components in the causal chain which need correction; and they are more intimately and easily seen to be directly related to ill health and malnutrition.

B. **National Response to the Alma Ata Declaration**

PHC as defined in the Alma Ata Declaration was never implemented in any of the WHO Member States since the task of implementing was entrusted with the medical establishment. The reason for non-implementation was given in an article in an issue of the WHO journal *World Health* in the early eighties. **The writer compared the implementation of PHC services by the medical establishment to landlords given the responsibility to implement land reforms.**

At Alma Ata it was unanimously agreed that one of the first initiatives towards introducing PHC would be to shift resources from the urban, hospital-based high technology curative services to PHC services in the rural areas where majority of the people lived - people who were in urgent need of PHC because they were the ones who were poor and fall ill more often than the minority of affluent people in urban areas. **The concept of PHC, with people having a major role in health promotion and taking an active role in decision making was seen as a challenge to the medical profession who feared that PHC would demystify medicine, jeorpardize its authority and threaten its absolute monopoly over health care.**

The fact that developing countries were not implementing PHC prompted Dr Hafden Mahler, former Director-General of WHO to issue a challenge to these countries in 1983, five years after Alma-Ata (3). **"If you take a group of doctors from medical schools throughout the developing countries and put them through an examination on PHC, then the overwhelming majority would fail."** This was Mahler's challenge. Medical schools in developing countries took the easy way out and ignored the challenge. He added a postcript to this challenge - **"In theory you can have PHC inspite of doctors. But in reality we, the doctors will always win if we decide to fight PHC. Because we have developed this conviction that we are God's chosen representatives on earth." No one seemed to have read the postcript.**

In implementing PHC, the medical establishment gave its own definition:

- Health for All became health care services for all
- Health care services were then equated with primary medical care and
- Primary medical care was defined as the first contact medical care

This simplistic definition and implementation has resulted in a situation where paramedicals provide "PHC" services to the poor in the rural areas and highly specialised consultant clinicians provide the same "PHC" services in the teaching and tertiary hosptials to the affluent sections of the population in the cities.

Dr Mahler gave additional reasons why PHC was not introduced in any country.

"PHC as conceived in Alma Ata failed because of doctors - too many doctors - and because doctors practice inappropriate medicine. Health of millions may be

at risk because of doctors. Doctors may be one of the main factors holding back progress in the health of poor countries."

These were the startling facts presented in the World Health Organization's *"Progress in Primary Health Care: A Situation Report"*, published in 1983 on the fifth anniversary of the Alma Ata Declaration. This report brought together information from 70 countries containing 64 percent of the world population.

The report had this to say about doctors in India, **"... In India, doctors' inability to understand the importance of prevention and hence their lack of interest in the various health programmes, is to a large extent responsible for the inadequacy of rural services."**

WHO believes that what is needed is inexpensive preventive methods rather than the kind of drug-centred technology practised by some members of the medical profession.

C. International Response to the Alma Ata Declaration

In retrospect it would seem that the major focus of the international response to the Alma-Ata Declaration was the **successful attempt to completely separate the macro causes of a social disease of which ill health and malnutrition are the biological manifestations, from the micro-elements in the causal chain which needed correction.** It was into the micro-elements that international agencies and donors put all their expertise and resources - vertically implementing selected components of PHC such as growth monitoring, oral rehydration, breastfeeding and immunization, provision of food and family planning. There were referred to by the acronym GOBI-FF and UNICEF began implementing them globally in developing countries.

Unfortunately all the interventions under GOBI-FF do not seem to have made any dent in the global problems of ill health and malnutrition.

Therefore, again in retrospect, it is also clear that attempts to solve problems which are caused by socio-economic factors, through purely technological interventions are doomed to failure. And this failure will be even more certain when these technological interventions are top-down and people have no participation in the decision making. A classical example is oral rehydration therapy (ORT) which has been described as potentially the most important advance this century.(4)

Numerous studies have shown that home made cereal-based gruel is in many circumstances the most effective therapy for children with diarrhoea. This was the management of diarrhoea routinely used by all the cultures in the South for centuries. Cereal water was also used as weaning food in the homes of millions of poor families around the world. It is cheaper, more acceptable, more consistently available and more effective in reducing dehydration, stool volume, vomiting and weight loss from diarrhoea than is the standard WHO sugar-based formula - oral rehydration therapy (ORT).

Unfortunately with the introduction of modern medicine into these cultures, the management of diarrhoea was medicalised, mystified, institutionalised and commercialised. The production of aluminium-foil packets of the WHO formula has grown into a multi-million dollar industry.

Initially, ORT packets were distributed by UNICEF and governments to mothers free of charge. But as the demand grew, so did the expense, to the point where ORT consumed too much of the countries' national health budgets. With the IMF demanding cuts in public spending in order to maintain the servicing of foreign debt, most poor countries could not sustain the increasing costs of ORT packets. They yielded, under pressure from advocates of privatization, to go commercial.

As a result in many developing countries several brands of ORT packets and drinks in a variety of flavours are being marketed. But all these are beyond the reach of the poor. And yet the experts are asking themselves why the worldwide ORT campaign has fallen so far short of its goals. **These experts have still to learn how a potentially empowering health technology, when introduced top-down, without adequately considering all the socio-economic constraints can fail and worst still, be transformed into yet another means of exploiting the poor.**

How did the separation of the macro and micro determinants of ill- health and malnutrition come about? It could probably be traced to a 1979 article in the *New England Journal of Medicine* by Drs. Julia Walsh and Kenneth Warren which proposed a programme of "selective" PHC which would focus on a smaller more attainable set of objectives.(5) From this was born, much later, the concept of the UNICEF sponsored Child Survival Revolution which focussed on four basic health interventions designed to save the lives of millions of children each year.(6) Food and family planning FF were added later to the original four-growth monitoring, oral rehydration therapy, breastfeeding and immunisation - GOBI.

With all due respect to UNICEF, there is great concern whether GOBI-FF and the Child Survival Revolution really address the root causes of child misery in the world. There is also great doubt whether the goal of health for all by the year 2000 can ever be achieved through GOBI-FF and Child Survival Revolution, which completely ignore the operative parts of the Alma Ata Declaration - **"... PHC is essential care based on socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of development in the spirit of self-reliance and self-determination."**

ORT is a good example which demonstrates that GOBI-FF violates the PHC concept. **Home made cereal gruel was a socially acceptable technology, easily accessible and always available in the community. The wheel was in place. The only thing necessary was to help roll the wheel. Instead, enormous resources were put into re-inventing the wheel. In the process the new wheel designed first became oval**

and then assumed a square shape and is now stuck and refuses to move. The experts are wondering why the ORT campaign has fallen short of its goals.

How can people living in absolute poverty take the prime responsibility for the health of the individual and family just through GOBI-FF?

How can people in absolute poverty make choices such as:

- lighter workload and more food during pregnancy;
- long term commitment to breastfeeding;
- adequately feeding a child during illness;
- using packetted ORT;
- child spacing;
- overall food availability for the family.

All of the above are linked to a state of poverty. Decisions on lifestyles are severely limited for the poor who lack access to minimum income. They live unhealthy lifestyles because they are poor.

Poverty has increased in spite of the decades of UN sponsored development programmes. Table 1 shows the percentage share of the poorest 20 percent of the world population in global opportunities expressed in terms of trade and economic activity in 1960-70 and 1990. This group has become poorer in the intervening period.

Almost all the poor people live in the South (Table 2). Poverty in the South is due to the fact that, among other things, the advanced industrialised countries control world output and trade (Table 3). This table shows that about a fifth of the world's population consumes over 75 percent of the world's resources.

Table 1: Percentage share of the poorest 20 percent of the world population in global opportunities expressed in terms of economic activity

	Percentage share of the poorest 20 percent in economic activity	
	1960-70	1990
Global GNP	2.3	1.3
Global Trade	1.3	0.9
Domestic Savings	3.5	0.9

Source: Human Development Report 1993, UNDP

Region	Number of poor (millions)		Percentage of population below poverty line	
	1985	1990	1985	1990
All developing countries	1,051	1,133	30.5	29.7
South Asia	532	562	51.8	49.0
East Asia	182	169	13.2	11.3
Sub-Saharan Africa	184	216	47.6	47.8
Middle East & North Africa	60	73	30.6	33.1
Eastern Europe	5	5	7.1	7.1
Latin America & the Caribbean	87	108	22.4	24.9

Source: World Development Report 1992, World Bank.

Table 3: World output and trade

Countries	Population (million)	Percentage share of total GDP	Percentage share of total exports
G7	650	65.9	54.8
G23	1200	76.2	73.9
Developing countries 138	4100	23.8	26.1

Source: World Bank 1990 estimates, World Bank.

G7 countries: Canada, France, Germany, Italy, Japan, UK and US.
G23 countries: Advanced industrialised countries (includes G7).

GOBI-FF is a watered down version of the original Alma Ata Declaration and depends on effectively applying technical solutions, top-down, to outstanding health problems but completely fails to address the social, economic and political causes of the very same health problems.

UNICEF has de-politicized the Alma Ata Declaration to make it more acceptable to funders from the North. In doing so it has limited, from the outset, the potential to bring about real and lasting changes to the health of poor children.

At best GOBI-FF is an international effort to drastically reduce the number of children under five years who die or are disabled each year from common preventable diseases. It has ignored the fact that low cost strategies, which are culturally acceptable and

affordable are already available. If these are "socially" marketed, they can be expected to reduce morbidity and mortality.

But the question which has not been raised or answered is:

- saving the lives of children for how long?
- and for what future?

If we fail to raise and answer these questions we will end up like the person who sees a baby drowning in a river, jumps in and saves it, then sees another baby in the river and then jumps in and saves it and then sees a third... That person is so busy saving babies that he does not see or look upstream to realise that there is a man throwing babies into the river!

As mentioned earlier, attempts to solve problems that are fundamentally social, economic and political in nature exclusively through technological interventions are doomed to failure.

How does growth monitoring help a malnourished child whose parents are too poor to buy food for the child? Causes of malnutrition are poverty and repeated episodes of diarrhoea and infectious diseases. Do we focus on the social causes or the biological causes or both? The former involves working towards empowerment, equity and social change. The latter involves technical interventions such as immunization and ORT. Clearly both should be integrated within a comprehensive approach - the PHC concept. But unfortunately UNICEF has opted for the purely technological top-down approach.

UNICEF estimates that for every one hundred dollars spent, one child's life is saved. This indicator is deceptively simplistic. It does not take into account the more important set of quality of life indicators. We do not know how these children, who have been saved, are living; nor do we know whether these children are dying at an older age. Or do we need to have yet another indicator - U10MR (under ten mortality rates) - to find out what is happening to the children saved by GOBI-FF?

Without changing the forces that give rise to and maintain poverty and an inequitable control over most resources, health promotion efforts will be very limited in their effectiveness. GOBI-FF and the Child Survival Revolution cannot therefore, be "the engines to drive PHC to the far corners in every country" as the USAID administrator wanted us to believe (7).

There are two other aspects of GOBI-FF which need to be examined:

- It has been estimated that women provide more health care than all the world's health care services put together. Yet this easily available and abundant resource has no role in GOBI-FF, except of course as passive recipients of contraceptive drugs and devices.

- The role of drug multinationals and private enterprise in GOBI-FF as producers of ORT packets, mass marketing specialists and suppliers of drugs and vaccines.

D. People's Health after the Alma Ata Declaration

1. Five years later

The WHO report published on the fifth anniversary of Alma Ata refers to the extent of the tragedy measured in human suffering and death - deaths that could have been prevented by PHC.

- Half a million mothers die during childbirth each year in South-East Asia and Africa.

- One hundred and twenty-two million infants are born each year. Of these about 10 percent or over 12 million infants will die before their first birthday. A further four percent or approximately five million will die before their fifth birthday.

2. Ten years later

UNICEF's State of the World's Children, 1989 stated,

> "The 1980s is `the Decade of Despair'. Both in underdeveloped countries and in the USA the gap between rich and poor is widening. Progress towards the international goal of Health for All has virtually stopped and in many countries has been reversed. For the world's poorest people, average incomes have dropped by 10-25 percent. More than one billion people - or one out of every five - live in a state of absolute poverty. In the 37 poorest countries, spending on health has been reduced by 50 percent and on education by 25 percent. In over 50 countries primary school enrollment has been falling."

An article in an issue of WHO's World Health Forum stated, "The prospects for achieving HFA by the year 2000 AD have seemingly dimmed in the face of deteriorating world economic conditions" (8). An article in a later issue of the same journal posed the question, "What is the international climate of support for HFA?" The answer given was, "All too often it is ice-cold."(9)

3. Fifteen years later

The World Development Report, 1993, by the World Bank states,

- The poor lack access to basic health services and receive low quality care. Government spending for health goes disproportionately to the affluent in the form

of free or below-cost care in sophisticated public tertiary care hospitals and subsidies to private and public insurance.

- In middle income countries, the bulk of the population, especially the poor, relies heavily on out-of-pocket payments for health care services.

- Public money is spent on health interventions of low cost effectiveness while critical and highly cost-effective interventions remain underfunded. In some countries a single teaching hospital can absorb 20 percent or more of the budget, even though almost all cost-effective interventions are best delivered at lower level facilities.

- Much of the money spent on health is wasted: brand-name pharmaceuticals are purchased instead of generic drugs, health workers are badly deployed and supervised and hospital beds are underutilized.

4. Before and nine years after GOBI-FF

The following two excerpts, taken from UNICEF's "The State of the World's Children" reveal the mortality and morbidity figures for children in 1982 and 1992.

(a) Every day of this last year more than 40,000 young children have died from malnutrition and infection. And for every one who has died, six now live on in hunger and ill-health which will be forever etched upon their lives...

... To allow 40,000 children to die like this every day is unconscionable in a world which has mastered the means of preventing it. (The State of the World's Children, 1982-83).

(b) A quarter of a million of the world's young children are dying every week, and millions more are surviving in the half-life of malnutrition and almost permanent ill health.

This is not a threatened tragedy or an impending crisis. It happened today. It will happen again tomorrow. (The State of the World's Children, 1992)

Infants and young children continue to die in equal numbers in 1992 nine years after GOBI-FF, as in 1982. And several millions continue to survive in utter misery in 1992 as they did in 1982.

Can any one prevent children dying in such large numbers?

PHC as defined in Alma Ata offers the only solution. There is no second-best approach.

E. Challenge to NGOs

Seventeen years after Alma Ata and after the enormous resources that have gone into the various interventions in the name of PHC we do not see any dent made in the incidence of global poverty, ill health and malnutrition. Over one billion people live in absolute poverty; about 2.5 billion people live without any regular access to even a few basic essential drugs.

The tragedy is that PHC was never implemented the way it was defined in Alma-Ata.

It can be implemented, IF:

i. We agree that what we need for PHC is not extra resources but change in attitudes. Whatever resources are available, if they are used in the spirit of social equity, we move towards Health for All - Now.

ii. We accept that micro-interventions in PHC will succeed only when the macro-policies are implemented concòmmitantly or in advance. These are the interventions that tackle the socio-economic causes of ill health and malnutrition. They include equity oriented development policies such as:

- land reform;
- small farmer credit;
- price incentives for food producers;
- subsidization of agricultural products;
- labour intensive agriculture with high priority for food crops;
- equitable food distribution schemes;
- female literacy.

iii. We revise undergraduate and postgraduate medical curricula and train doctors with the motivation and skills to provide PHC and to accept the challenge Dr Mahler posed to our medical schools in 1983.

iv. We encourage our universities and research institutes to change their interests in research. In addition to developing technological solutions to combat the recurrent biological manifestations of the social disease, our scientists and research workers should put more effort and resources into research that will provide lasting solutions for the economic, social and political causes of ill health and malnutrition.

How can we make all the "IFs" come true?

At national levels, there is no concern for social equity in governments' health policies. People have lost faith in multilateral aid through international agencies or bilateral aid with strings attached.

There is therefore, an urgent need for a new approach to mobilise the interests, commitments and resources of a broader constituency of support for the poor. It is quite clear that the current approaches have failed. There is a need to move with different partners, to find different sources of support and to use different mechanisms to bring all possible pressure to bear on the problem.

A new and interesting development is taking place all over the world. Socially-conscious people from different walks of life, disillusioned with the apathy of their governments in tackling urgent problems, are organising at the grassroots level to plan and implement development strategies to improve the lot of the underprivileged. Substantial contributions to health and well-being have already been made by this non-governmental sector. Many NGOs (non-governmental organisations) in the South have pioneered several health related development projects which meet the needs and enhance the participation of the communities they seek to assist and which recognise the role and needs of women in the development process. More importantly these programmes are all sustainable. The major thrust of these is to alleviate poverty by empowering people to improve their own lives.

Literally thousands of socially-oriented indigenous groups exist in the South. All these groups provide some form of PHC to vast numbers of people who have no other sources of help. These groups are waiting for additional ways and means to apply their energies and leadership. Social and political activism is not new, but it can be put to new use at local, national, regional and international levels. This will enable concerned individuals and groups to bring their views and the power of the people to bear on ineffective, misguided and exploitative officials and agencies.

The Consumers International Regional Office for Asia and the Pacific in Penang (CI ROAP) is planning to provide an international forum for the non-governmental sector to meet, share experiences and plan future strategies. This international forum will take the form of a People's World Health Assembly (PWHA) tentatively scheduled for 1997.

The need for the PWHA arose because governments and inter-governmental agencies seem to have ignored the commitment made at Alma Ata in 1978. Since then the member states of the World Health Organization (WHO) meet each year in Geneva to plan strategies, draw up action programmes and revise old strategies to achieve this goal. In spite of the enormous efforts and resources that went into these World Health Assemblies, we seem to be nowhere nearer this elusive goal. UNICEF's GOBI-FF programme has not touched the root causes of poverty and ill health.

It is clear that the World Health Assemblies, as a world forum of health policy makers, have not succeeded in changing significantly health care policies that would be directed mainly to the poor majority.

What we need is an alternative world forum for health NGOs to discuss and promote their views for achieving more equitable health for people and for organising concerted

action. Hence the People's World Health Assembly which will bring together community leaders from around the world who have been working with people providing relief, direct health care, education, research and policy development.

The People's World Health Assembly will provide:

- a political statement to the world, that the agenda for better health lies in the hands of people, and people's organisations and that governments have, by and large, failed to meet peoples' needs.

- opportunities for the national, regional and global NGO health communities to analyse and evaluate the accepted and frequently pronounced health strategies.

- opportunities for the national, regional and global NGO health communities working on various aspects of health care provision to act in cohesion.

The major objectives of the Assembly are to:

a. look at the Alma Ata Declaration on Primary Health Care and examine why the various components of the Declaration have not been implemented in most of the member states of WHO.

b. on the basis of the Alma Ata Declaration, prepare a programme of action for the NGOs.

c. prepare a strategy and activities for a campaign to urge the governments in the South to take definitive steps to implement the Alma Ata Declaration on PHC.

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