Background Paper - IV

Community Health Trainers Dialogue

October 1991

OVERCOMING NEBULOUS THINKING AND ACTION ON MEDICAL EDUCATION IN INDIA

Debabar Banerji*

June 24, 1991

---

* Professor, Centre of Social Medicine & Community Health, School of Social Sciences, Jawaharlal Nehru University, New Delhi - 110 067.

Overcoming Nebulous Thinking And Action On Medical Education In India

Foundation of Practice of Medicine

Admittedly, human beings anywhere in the world have almost the same anatomical configurations, physiological activities and pharmacological responses. Disease causative agents cause similar pathological changes in them and they have responses to therapeutic interventions. However, it is important to note that these elements of medical sciences are used under different conditions in different communities. In any case, they form only a small component of the practice of Western medicine. They are merely the bricks of edifices that are built under different conditions. In terms of other components of practice of Western medicine, there are many fundamental differences between Western industrialized countries (i.e. the North) and the Third World (i.e. the South). The North and the South are indeed poles apart in the practice of Western medicine. Performance of a delicate heart operation by a pediatric surgeon in a sophisticated hospital in an affluent country and treatment of a severe case of diarrhoea in a child by oral rehydration by the mother in a remote hamlet in the Himalaya's underline extreme variations in the practice of Western medicine.

The difference in these two models of practice of Western medicine is in the terms of: (a) relevance of different elements of medical sciences; (b) formation of technologies that embody those elements of medical sciences; and, (c) organisation and management of the health services for the "delivery" of the chosen technology. Interplay of the complex factors associated with the prevailing ecological setting, epidemiological situations and cultural, social, political and economic conditions have brought about these major differences in the two models.

Health service development in a country like India should, therefore, be studied in terms of the cultural response to the complex process, referred to above. This response generates: (a) cultural perception of health hazards and their cultural

..2

meaning; (b) health behaviour; and (c) various forms of health technologies, practitioners and institutions, through cultural innovation, cultural diffusion and/or through purposive intervention from outside agencies. Thus, this complex process forms the foundation or the base on which the health service system of a country is built. The complex conditions forming the base determine the shape of the health service system or the superstructure and its subsequent growth and development. The base thus places a constraint on the architecture of the edifice that can be built on it.

The task before socially sensitive community health physicians in India is to become architects who have the competence to understand the basal (i.e., concerning the base or the 'infrastructure') conditions, both at a given time and in a time dimension, and use such understanding to build a superstructure which can maximise the alleviation of suffering due to health hazards, again both at a given time and in a time dimension. It may be noted that production of architects is itself a function of the dynamic interactions within the base. When there is a strong democratic movement within a socio-political system, it is conducive to the formation of more competent socially sensitive community health physicians and in larger numbers.

Sometimes, as a result of the struggle of the masses, the basal conditions may be favourable to building a stronger edifice for a people-oriented health service system; the reverse may be the case on other occasions. It may be emphasised that favourable basal conditions do not automatically lead to the formation of a stronger superstructure. A society would need a balanced team of architects, engineers, masons and other workers to take full advantage of the favourable basal conditions. The onus for attaining this balance is on the political leaders.

Efforts Towards Social Orientation

One of the significant aspects of development of medical education in India is that even before attainment of independence, both the colonial rulers as well as the leaders of the National Movement were conscious of the need for adopting a different approach in the context of the entirely different conditions prevailing in

..3

India. The concern of the leaders of the National Movement were expressed in the report of the National Health Sub-committee of the National Planning Committee (1948) of the India National Congress (Sokhey Committee). The Bhore Committee (GOI 1946), which was constituted subsequently, was much more forthright on this subject. It had very carefully discussed the central question of abolition of the licenciate programme. One of the major arguements of the majority of the members for abolition of that programme was that they visualised fundamental changes in medical education to create what they had termed as a "Social Physician". The Bhore Committee had observed (GOI 1946 : 18) that the physician of to-morrow must be:

> a scientist and social worker, ready to cooperate in teamwork, in close touch with the people he disinterestedly serves, a friend and leader he directs all his efforts towards the prevention of disease and becomes a therapist where prevention has broken down, the social physician protecting the people and the guiding them to a healthier and happier life.....
>
> A health organisation enriched by the spirit of such a medical profession will naturally work towards the promotion of the closest cooperation of the people. It will recognise that an informed public opinion is the only foundation on which the superstructure of national health can safely be built.

The inter-linkage of the National Movement and thinking on re-orientation of medical education is a very significant phenomenon. Indeed, this has given quite a distinctive perspective to the approach to medical education in India.

As early as in the mid-fifties, India had taken the bold step to bring about fundamental changes in the approach to medical education, with the upgraded departments of preventive and social medicine, expected to play the pivotal role. Subsequently, a number of commissions have sat and a number of national conferences have been held to stimulate this process.

..4

Taking note of past experience, the Group of Medical Education and Support Manpower (Shrivastav Committee) (GOI 1975), which examined medical education in the context of the reorganised health services, submitted in April 1975 a programme for immediate action. Against a background of the need (a) to relate the problem of health to poverty; (b) to provide training in health services to community representatives; (c) to strengthen primary health centres; and (d) to develop a referral service complex, the Group made many far-reaching recommendations concerning the basic content, structure and process of medical education. Essentially, the group was for the creation, by an Act of Parliament, of a Medical and Health Education Commission (patterned on the University Grants Commission) charged with the responsibility of determining and implementing a radical programme of reform in medical and health education, and with functioning as an apex coordinating agency in close and effective collaboration with the statutory national councils of health professions.

The Shrivastav Committee emphasised the need for in-depth discussions and taking of concrete steps for "immediate", vigorous and sustained implementation" in tackling important issues. These included: determining of objective of undergraduate medical education; giving it a positive orientation; reorganising pre-medical education, revising the undergraduate curriculum, including training of teachers; production of teaching and learning materials; adopting suitable teaching and evaluation methods and creating necessary physical facilities; reducing the duration of the course while ensuring improved standards; reorganising the internship programme, postgraduate teaching and research and continuing education; and, research and evaluation of health manpower needs.

The report of the Group was favourably received by the Government of India which called yet another nationwide conference of heads of medical colleges to work out details for implementing atleast some of the recommendations. The ICSSR-ICMR report, Health for All: An Alternative Strategy, further reinforced the Group's recommendations (ICSSR-ICMR, 1981). The working Group of the Planning Commission set up to work out a detailed strategy for attaining Health For All by A.D. 2000, reiterated the need for

..5

radical transformation (GOI 1981a).

These efforts are reflected in the Sixth Five Year Plan (GOI 1981b) which states that the "emphasis would be on bringing about qualitative improvement in medical education and training" which should include, at the undergraduate level, six months of compulsory internship and modifications in curriculum, training of medical undergraduates in certain fields relevant to the problems of rural health care, community orientation, etc., and encouraging private doctors to settle in rural areas through various incentives". Flowing from the ideas in the Sixth Plan, the Government of India (1983) had asserted that post-graduate education would be rationalised to effect a balance between the national requirements of specialisations and opportunities for medical graduates for advanced study. Continuing education and inservice training would be promoted. Medical research would be directed towards several problem areas like bio-medical and public health problems, particularly communicable diseases, the economic aspects of health administration and management, etc. Among the task-oriented research programmes for achieving the above objectives, would be "close and continuous studies in the area of information support, manpower development, appropriate technology, management and community involvement to ensure the reach of benefits of primary health care programmes to the rural population" (GOI 1983 : 58).

The report of the consultative group of the National Education Policy in Health Sciences (1989) is the latest document in the series. Even though it had the benefit of the hindsight of the earlier reports, it contrasts very sharply even in the process of analysis of issues, in drawing inferences and in making recommendations. It marks a new low in the quality of study of medical education in India.

Health Services, Health Manpower Development and Medical Education

One of the most significant requirements for strengthening medical education in any country is to consider it as a part of the overall approach to policies and programmes for Health Manpower Development (HMD) (WHO 1985). It is not possible to consider undergraduate medical education in isolation. It has to be seen in the background of post-graduate medical education, including education

and training of physicians and other personnel for community health work, in terms of nursing education, education for public health engineers, social scientists, health educators, communication specialists, and so forth. In turn, HMD can not be visualised without having a clear understanding of the overall health service system. Again, a health service system has to be developed on the basis of data derived from carefully conducted health systems research. Therefore, research for HMD can only be conducted in the context of Health Service Research for Manpower Development (HSMD) (Fulop and Roemer 1982).

It is not always possible to work under ideal conditions. If one has to consider medical education without having enough information concerning health manpower development and/or the health service system, it is essential to have atleast a broad understanding of the structure of the health service system and the approaches to develop other components of the required health manpower.

Even with a very broad understanding of the conditions, it becomes quite clear that defining the content of medical education is a crucial issue in medical education in India. If the contents are not defined adequately, all the other activities in the field of medical education lose a great deal of their relevance. This is because in a country like India it is totally unacceptable to interpolate the contents that have been developed in the context of the affluent Western countries. The onus for bringing about social orientation of the practice of clinical medicine and public health in India rests squarely on scholars of this country. It is in this area that medical education in India had suffered most. Even when very well researched ideas have been developed to give a different content to medical education in India, that has not been followed by the authorities concerned. This active resistance of the authorities to bring about a social orientation of the content of medical education in India is rooted in the power relations emanating from the social structure and is by far the most critical problem facing this field. The Shrivastava Committee had raised the question of content or curriculum. However, it has not realised adequately how critical this issues is in itself and in giving shape to the other elements of medical education, which are discussed below.

The consequence of the active reluctance to change the content is

that the teachers by an large have alienated themselves from the actual requirements for the making of Social Physicians visualised by the Bhore Committee. Over and above, there are very serious problems of having infrastructural facilities for providing medical education. An extreme example of almost a mockery of medical education is to be found in the establishment of the so called capitation fee medical colleges in the country. That despite their very poor infrastructure, politicians have not taken steps to curb the mushrooming of this type of medical colleges is a reflection of the socio-cultural and political conditions prevailing in the country. Weaknesses in the infrastructure is reflected in providing the so called rural exposure to the students. Unfortunately, by rural exposure it is usually meant to take students to rural areas where teachers of the medical colleges teach them about rural health. What has been the basis of the teacher's teaching about rural health? What has been the competence of the teachers to do that? What efforts have been made to develop the content of rural health teaching? Such crucial questions are seldom asked. Because of these limitations it is not surprising that the much acclaimed Rural Orientation of Medical Education (ROME) has failed so consipicuously. The same applies to the experience of involvement of social scientists in medical education.

The problems in medical education that are being seen today ought not to have been so serious had the institutions which had been specifically developed for strengthening medical education had satisfactorily performed the functions assigned to them. One example is that of the All India Institute of Medical Sciences (AIIMS) in New Delhi. One of the key mandates of the AIIMS has been to provide leadership in medical education to the country as a whole. Development of the discipline of preventive and social medicine was an integral part of that mandate. AIIMS has fallen far short of that mandate. Similarly, there has been the Indian Association for Advancement of Medical Education. They have made some brave efforts. However, these efforts were seldom followed up in the form of specific action programmes. The idea of having separate medical universities is being tried out in states like Andhra Pradesh and Tamilnadu. These Universities have not yet come out with any new directions for action. As pointed out earlier, the Consultative Group of National Education Policy in

..8

Health Sciences is the latest in this series. An analysis of the process of thinking which formed the bases of the recommendations and actions of these institutions will reveal the reasons why they could make so little contributions.

Crisis in the Medical Profession

One very unfortunate outcome of the present state of medical education in India has been the nature of socialisation of the students who go through the process of education. It is indeed difficult to imagine that the graduates who come out of medical colleges, and who join various services or undertake private practice, indeed belonged to the cream of the society at the time when they had entered medical colleges. It is a severe indictment of the system of medical education in India that it "converts" some of the brightest students of the country into such dull and unimaginative groups of the physicians, after they complete their education. As if that is not enough, they receive a very raw deal if they happen to join the health services in the union and state governments, when compared to, say, those belonging to the IAS. The product that are seen, say, 10 years after their graduation most often bears almost no resemblance to the bright young boys and girls who had been chosen for entrance into medical colleges. This sums up the real crisis in medical education and the medical profession (Banerji 1989). This needs to be attended to urgently.

The Shrivastva Committee has described the situation in the following words (GOI 1975: 38-39):

> It is widely recognised that the present system of undergraduate medical education is far from satisfactory. Despite the recommendations made by numerous Committees and Conferences, improvements in the quality and relevance of medical education have been tardy. Although the setting up of Department of Preventive and Social Medicine in the medical colleges over 15 years ago was a step in the right direction, this by itself has not met with significant success as it lacked scholarly foundations and the field practice areas have not

been adequately prepared. The stranglehold of the inherited system of medical education, the exclusive orientation towards the teaching hospital (five years and three months out the five years and six months of the total period of medical education being spent within the setting of the teaching hospital), the irrelevance of the training to the health needs of the community, the increasing trend towards specialisation and acquisition of post-graduate degrees, the lack of incentives and adequate recognition for work within rural communities and the attractions of the export market for medical manpower are some of the factors which can be identified as being responsible for the present day aloofness of medicine from the basic health needs of our people".

Reporting four years later, the ICSSR-ICMR Study Group (ICSSR-ICMR, 1981: 156-59) did not find the situation any better:

"In spite of all expansion, doctors are still largely urban-based; and their distribution between different States is uneven. Standards have improved in some institutions and some sectors, but the average has declined considerably because of the proliferation of sub-standard institutions. The medical education system and the health care delivery system have each gone their separate ways. There is little congruence between the role of the physician and the needs of society, little equilibrium between medical education and health care. Medicine is still regarded essentially as an enterprise of science and technology; the physician is the repository of all knowledge and dispensations; specialisation is the hallmark of progress; and the training ground is the teaching hospital. Recent efforts to change this unhappy situation, to produce the 'right' kind of doctor and to give a community orientation to medical education, have yet to make any meaningful impact".

Conclusion

The field of medical education reflects the paradox that exists in

..10

many other fields of socio-economic development in the country. Gunnar Myrdal had long back labelled this paradox as a "soft state" -high on rhetoric and low in implementation. It may, however, be noted that the very fact that the leadership had to take to rhetoric shows that there are pressures from the people which impel them at least to talk about social issues; there are so many countries which do not even have the rhetoric.

The critical need to bring about social orientation was being talked about by the political leadership well before India attained independence. Active steps were taken to bring about the needed changes about four decades back. However, these efforts did not bear fruits. On the contrary, the political leadership and the leaders of the medical profession have not been successful in preventing the steep decline in almost every aspect of medical education. The profession has failed even to diagnose the malady. The result is a plethora of prescriptions mainly focussing on isolated symptoms. There is little scientific efforts at a holistic conceptualisation of medical education as a complex interdisciplinary system, which, in turn, is a subsystem of the wider health manpower development. Again, health manpower development must be based on a scientific approach to health service development to meet the health needs of the people of the country. Seen against this background, the approach adopted by some key studies of medical education is nothing short of quackery. For instance, the Shrivastava Committee and the ICSSR-ICMR Working Group had advocated the setting up of a Medical Education Commission on the lines of the University Grants Commission (UGC) as a keystone of their recommendations. If they have studied the role of the UGC in relation to strengthening higher education in India, they would have been at least a little less euphoric about their recommendations. The analysis and the recommendations of the J.S. Bajaj Consultative Group provide an even more disturbing example of poor quality of thinking among top level medical educators of the country. This shows how deep is the malady that is afflicting medical education in India to-day and how urgent it is to have a critical mass of scholars who are capable of developing a more holistic and a more scientific approach to this very important problem.

References

1. Banerji, D (1989): Crisis in the Medical Profession in India, Economic and Political Weekly, Vol. 24, No. 20, pp. 1091-1092.

2. Fulop, T and Roemer, M.I, (1982): International Development of Health Manpower Policy, Geneva, World Health Organization (WHO Offset Publication No. 61), pp. 157-161.

3. Government of India, Health Survey and Development Committee (1946) : Report (Bhore Committee), Delhi, Manager of Publications, Vol.IV.

4. Government of India, Group on Medical Education and Support Manpower (Shrivastav Committee) (1975): Health Services and Medical Education: A Programme for Immediate Action, Report, New Delhi, Ministry of Health and Family Planning.

5. Government of India, Working Group on Health for All by 2000 A.D. (1981a): Report, New Delhi, Ministry of Health and Family Welfare.

6. Government of India, (1981b): Sixth Five Year Plan, 1980-85, New Delhi, Planning Commission.

7. Government of India, (1983): Annual Report 1982-83, New Delhi Ministry of Health and Family Welfare.

8. Government of India (1989): National Education Policy in Health Sciences, (Chairman : J.S.Bajaj), New Delhi, Ministry of Health and Family Welfare.

9. Indian Council of Social Science Research and Indian Council of Medical Research (1981) : Health for All: An Alternative Strategy - Report of a Study Group Set up Jointly by ICSSR and ICMR, Pune, Indian Institute of Education.

10. National Planning Committee, Sub-Committee on National Health (1948) : Report (Sokhey Committee Report), Ed by K.T. Shah. Bombay, Vora.

11. World Health Organization (1985): Report of a Expert Committee on Health Manpower Requirements for the Achievement of Health for All by the year 2000 through Primary Health Care, Geneva, World Health Organisation.

(WHO Technical Report Series No. 717).

-X-X-X-X-X-X-X-

Community Health Trainers Dialogue

Background Paper II

Collective Concerns

KEY COMPONENTS WHICH SHOULD FORM PART OF AN EDUCATIONAL POLICY FOR HEALTH SCIENCES IN INDIA

An opinion poll on the Key Components that the 'dialogue' participants feel should form part of an Educational Policy for Health Sciences in India was carried out as a sub section of the participant form.

These are collated under six sub sections :

1. Focus
2. Broad components
3. Content / skills
4. Methodology
5. Process
6. Issues

The collation will give participants a feel for the collective concerns of the group participating in the dialogue.

The list is exhaustive, covering a wide range of ideas and issues arising out of the diverse experience and perspectives of the group but the overall thrust towards a more community oriented, socially relevant, responsive, pro-people oriented educational policy is evident.

The listing is in a contextual order using original wordings as far as possible. Since who said it is not as important as what is said names have not been indicated though participants will be able to identify their contributions.

Note : These responses were received before the new Educational Policy was circulated to all participants. They not only emphasise many points covered in the Bajaj report but raise many other crucial issues which need to be discussed further at the workshop.

- - - - - -

KEY COMPONENTS WHICH SHOULD FORM PART OF AN EDUCATIONAL POLICY FOR HEALTH SCIENCES IN INDIA

FOCUS

1. Unambiguous focus on the needs of the majority (therefore appropriate focus on diseases of the poor and their causes)

2. Should concentrate on diseases which effect the poor

3. Should pay greater attention to existing knowledge in communities in order that people can become self reliant in many health problems

4. Should shift from tackling only biological causes and to look at a medical problem wholistically and tackle the root cause

5. Should shift from study of diseases only to related subjects as well, like ecology, environment, natural science, socio-economic structures of a society etc.,

6. Community Health with full involvement of local community to be stressed

BROAD COMPONENTS

7. Comprehensive health manpower development with educational strategies

8. Policy should cover training of all health personnel and their continuing education

9. Policy should build from actual Indian experience both from the government and the NGO sectors

10. Coherent vision of links between education of medical, paramedical and other health professionals

11. Relevance to local needs

12. Training in Indian systems of Medicine and of folk health practitioners should receive equal importance

13. Social orientation of doctor

14. Stress on process of education not only content

15. Close interaction between training centres and health services

16. Linkages between health care delivery and education in health sciences

17. Awareness of traditional / peoples initiatives for health / indigenous health remedies / herbal medicine

18. Integration of these initiatives into all health plans

..2

19. Alternative systems of health care to be given equal importance

20. Integration and inter relatedness of Community Health and Indian systems of medicine

21. Continuing Education should be a component of policy

22. Policy should recognise the role of research into the various aspects of education of health personnel

23. Involvement of local health practitioners and traditional birth attendants (dais)

24. Compulsory placement in rural areas before securing degrees.

CONTENT / SKILLS

25. Greater emphasis on Medical Sociology

26. Developing skills in health economics

27. Adapting management to Health Care delivery

28. Defining role of behaviour modification

29. Socio economic analysis of the country

30. Analysis of the health situation of country

31. Communication and skill development

32. For health personnel to recognise and accept the need for a multi disciplinary approach

33. To understand and be able to tap government programmes

34. To focus on functional literacy of women

35. To understand and accept that eradication of serveral medical problems are with other departments of the government

36. Concern for socio-economic cultural realities and skills to translate this concern into practice

37. Promulgation of Rational Drug Therapy

38. Planning and Management from the grassroots onwards

39. Competence in comprehesive health care, imbued with human values

40. Holistic approach to growth and development

41. Deeper study of tropical diseases and local remedies

42. Community health trainers - should be given more inputs in : legal aid; afforestation and nutrition; cooperatives; practical nutrition; preparation of lowcost teaching aids; indigenous medicines; safe remedies for basic treatment.

..3

METHODOLOGY

43. Training environment
44. Methodology of Training and Continuous learning
45. Some specialization from the very beginning (focus)
46. Involvement of all departments of health science institutions in Community health programme
47. Integration and coordination of health sciences to various other subjects
48. Health to be considered an integral part of social science
49. Training with a 'Health team approach' rather than as individual
50. Training to be 'skill' oriented predominantly
51. Orientation towards 'enabling process' rather than provision of services only
52. Promote Total Health Care and forego divisions e.g., promotive / preventive / curative / rehabilitative etc.
53. Prime importance to be given to community based health care
54. Learning should be more population based and community oriented
55. Small group - self - and community - institution and problem based learning
56. Greater emphasis on social, ethical and managerial components
57. Problem solving approach
58. Social medicine should be stressed during the clinical postings also.

PROCESS

59. Selection of medical / health professionals (community sponsorship, gender, rural bias, age etc.)
60. Broad based and liberal pre medical education (psychology, logic, philosophy, sociology etc.)
61. Pre medical guided rural experience
62. Role of the trainee
63. Reorientation of Trainers
64. Compulsory rural service before postgraduation
65. Modification of medical curricula to include practice in community medicine
66. Teacher development / reorientation in social analysis and problem solving techniques
67. Closer interaction between NGO trainers and government training centres
68. PHC's coming under ROME programme should be technically under the control of medical college
69. Examination system should be reviewed

..4

ISSUES

70. Lower level such as RMP etc., needed, area planning with regard to the number of specialists etc., only. These need to be trained

71. Create healthy environment for children

72. More needs to be a focus on all members of the health team

73. We should examine alternatives in training

74. How do we get well trained people to work and be happy

75. Reducing number of drugs to basic ones and eliminating reduplication under different brand names - hence rationalising drug use and availability.

76. Primary Health Care delivery of area drained by medical college should be shouldered by the institution

77. Privatization of medical / health science teaching institutions should be restrained

78. Decentralization of teaching institutes

79. Decentralised planning in health policy.

- - - - -

This collation is derived from the response of the following 24 participants (received as of 31st July 1991)

Dara Amar, Rajaratnam Abel, Desmond D'Abreo, Margaret D'Abreo, Pramesh Bhatnagar, Vijay Sherry Chand, C.M. Francis, Hari John, Ulhas Jajoo, Prem Chandran John, Abraham Joseph, Dhruv Mankad, Daleep Mukarji, Jose Melettukochiyil, Sujatha de Magry, Ravi Narayan, Thelma Narayan, Shirdi Prasad Tekur, Sebastian Poomattom, Amla Rama Rao, F. Stephen, Satish Samuel, Valli Seshan and John Vattamattom.

KEY CONCERNS / ISSUES WHICH ARE IMPORTANT TO REVIEW IN ORDER TO ENHANCE THE CONTRIBUTION OF COMMUNITY HEALTH TRAINERS IN INDIA.

An opinion poll, on the key concerns that the dialogue participants feel would help to enhance the contribution of Community Health Trainers in India, was carried out as a subsection of the participant form.

These are collated under eight subsections

- The Background
- Contextualising Community Health
- Exploring related issues
- Medical Education Policy
- Collating / Analysing Community Health Training experience
- Building Collectivity among trainers
- Issues arising out of community Health Training experience
- Additional issues.

This collation will give participants a feel for the collective concerns of the group participating in the dialogue.

The list is exhaustive, covering a wide range of ideas and issues arising out of the diverse experience and perspectives of the group but the overall thrust towards a more community oriented, socially relevant, responsive, pro-people oriented educational policy is evident.

The list is in a contextual order using original wordings as far as possible. Since who said it is not as important as what is said, names have not been indicated though participants will be able to identify their contributions.

= = = =

KEY CONCERNS / ISSUES WHICH ARE IMPORTANT TO REVIEW IN ORDER TO ENHANCE THE CONTRIBUTION OF COMMUNITY HEALTH TRAINERS IN INDIA.

THE BACKGROUND

01. Increasing poverty of the masses
02. Declining health situation of women and children
03. Growing communalism and religious fundamentalism
04. Ever-growing commercialization of health care system
05. The overall need for social justice
06. Disappearing ancient health patterns (practices) in rural areas (e.g. ragi to polished rice)
07. Dependency on Allopathic medicines especially injections/ tablets.
08. Neglect of rural areas by Government Health Departments / Doctors / Hospitals
09. Drugs coming within the scope of 'Industries'

The overall thrust in health care

10. To critically analyse the present development and health care system to see if it is helpful to the poorest or not; if not look for the alternative
11. To explore ways of discovering culturally relevant health information from the people
12. To make them (people) look at health problems in a more wholistic way
13. To discover ways of using alternatives to empower people especially the women and put health back into their hands

CONTEXTUALISING / CLARIFYING COMMUNITY HEALTH

14. Understanding of social realities in India and a deeper analysis of the situation
15. Exploring Community health components - curative, preventive and promotive in the local context
16. Community level workers / volunteers / their potential as primary health care provider
17. Community health in the context of people's organisations and changing health practices
18. Locating community health in the context of wider societal factors that operate in India.

..2

EXPLORING RELATED ISSUES

19. Changing life styles for positive health
20. What is scientific and relevant health care?
21. Integration of community health aspects of clinical medicine
22. Economics of Health
23. Integration of Indian Systems of Medicine with Modern medicine
24. Understanding of the economics of health / mechanics for appropriation of public finance and communication / organisation of the society
25. Lack of team work among different categories of health workers and ways of overcoming it
26. Avoidance of identity crisis between SPM / PSM / public health / community medicine / community health etc.
27. Using greater levels of behavioural sciences / psychology / communication to bring about long lasting changes in health practice among people
28. Identifying levels of demystification of medicine
29. Issue of non medical versus medical administration
30. Role of pharmaceutical MNCs in drawing up syllabus for medicine

MEDICAL EDUCATION POLICY

31. Understanding the existing situation
    - the class from where students come
    - the location of educational facilities
    - the appropriateness of curriculum and textbooks
    - the elitist and commercial nature of the products of medical schools
32. Reviewing the existing Medical / Health Education Policy from a social / economic / political context
33. Health Manpower Development - Policy exploring existing policy and the lacunae
34. Understanding Medical brain drain
35. Evaluation System should be reviewed
36. Internship should be made more effective
37. Health Management should be stressed to a large extent
38. Training in Social Sciences to be strengthened

..3

COLLATING / ANALYSING COMMUNITY HEALTH TRAINING EXPERIENCE

39. Review of training and finding out the impact of the training
40. Quality of training
41. Methodology of training in community health
42. Use of innovative methods
43. Identification of appropriate skills
44. Follow up of health workers 10/15/20 years after their training - what role are they playing / have they played in health work / what areas need strengthening / what methodologies are suitable for continuing education
45. New approaches to learning
46. Problem solving methods and approaches
47. Work experience in projects
48. Collection of experiences to modify text books / teaching materials in mainstream medical education

BUILDING COLLECTIVITY AMONG COMMUNITY HEALTH TRAINERS

49. Networking to share experiences and enhancing collectivity
50. Peer group evaluation to increase accountability and improve standards
51. Sharing experiences, avoiding duplication and wastage of resources
52. Sharing resources
53. Dialogue and sharing of experience between community health trainers
54. Develop a directory of what is available, where and for whom
55. Need to consider training at different levels
56. Regular exchange of ideas among community health trainers of different parts of the country

ISSUES ARISING OF COMMUNITY HEALTH TRAINERS EXPERIENCE

57. Community Health trainers to be clear on what being a catalyst means
58. Reinforcement of identity - community health trainees as 'social educators' first of all (attitudes, motivation, involvement)
59. To know and accept that health care is only one factor responsible for Health?
60. To have real experience at field levels by living with a low income family in the village and based on this experience to adapt their learning to give effective health education

..4

61. Population based education should be given higher priority
62. Need to consider training of trainers
63. Is there a need / role for registration / standardization?
64. Standardization of training needs with scope for flexibility
65. Communication / interactive abilities of trainers to be enhanced
66. Trainers should have field contact on an ongoing basis
67. Trainers should have awareness about politics in health
68. The Art of communication should be stressed for both trainers / trainees

ADDITIONAL ISSUES

69. The possibility of incorporating certain aspects of an alternative into the mainstream paramedical training
70. Accreditation to enhance security / recognition of trainees from a long term point of view
71. Provision of legal status to the trained
72. Provision for continuing education and capability to work upward from any level of trainee knowledge
73. Transferring NGO experience to Government
74. Sharing of experiences / methodology with government / professional groups in a spirit of dialogue
75. Interaction of community health trainers and 'the system' be it professional or government
76. Mechanics of intervention at policy level (political action)
77. Community health trainer's deep commitment to participatory approach should influence policy of health care and medical education.

- - - - -

This collation is derived from the response of the following 24 participants (received as of 31st July 1991).

Dara Amar, Rajaratnam Abel, Desmond D'Abreo, Margaret D'Abreo, Pramesh Bhatnagar, Vijay Sherry Chand, C.M. Francis, Ulhas Jajoo, Hari John, Prem Chandran John, Abraham Joseph, Daleep Mukarji, Jose Melettukochyil, Sujatha de Magry, Dhruv Mankad, Ravi Narayan, Thelma Narayan, Shirdi Prasad Tekur, Sebastian Poomattom, Amla Rama Rao, F. Stephen, Satish Samuel, Valli Seshan and John Vattamattom.

* * * * *
* * * *
*

Com H-33.4

Duplicate

~~COM H~~

IDENTIFICATION OF LEADERS

IN HEALTH EDUCATION

Mere identification and involvement of leaders in health education programmes is not enough. More important problem is to sustain their interests in the assigned responsibilities. Herein lies the skills of a health educator in creating a situation to sustain interests of the leaders.

DR. K.S. SINHA

From time immemorial leadership has played a vital role in bringing about changes in the society. It is the human nature that people want to work together for solving community problems vital for the growth of the individual in particular and of the society in general. Indeed, the entire process of socialization is based upon the human interaction and acculturation. This process involves leaders in initiating desired change for human growth.

For bringing about a change from undesirable to desirable health practices through educational process, change-agents are required. These change-agents are primarily concerned with the identification and understanding of health needs of a specific community. They rank them in order or priority, find out available resources and develop a plan of action to meet the health needs. In this process, the entire community is involved and helped to help itself.

In the present day changing pattern of living, it is of significance to understand the multi-dimensional aspects of health and disease, i.e. preventive, promotive, curative and rehabilitative. It has been found that most of the diseases can be prevented. And through the process of health education, change in the knowledge, attitude and health behaviour of the people can be brought about.

Changing pattern of leadership

However, behavioural change requires understanding of the changing pattern of leadership and the role of leaders as change-agents. It is well-known that there are various types of leaders in our community. In most of the cases, leadership shifts from situation to situation and the leadership quality or traits are not hereditary. In other words, leadership is not a personality trait and it can be acquired. Every situation has potential leaders and the leadership quality can be developed. For example, a person who has been vasectomized can prove a good leader provided he is motivated to narrate his successful experiences to his friends, relations and the community. This involves the elements of education and training to develop his leadership qualities and involve him as a change-agent to motivate the people in bringing about a change in their knowledge, attitude and health behaviour. However, in the villages of India, leadership pattern is still based upon kinship and caste-structure. This fact cannot be ignored. But such leadership is restricted to a particular segment of society. Such leaders can be involved in health education activities with clear understanding that their area of influence is limited. In our changing society, it is necessary to understand who can do what, so that all the human resources can be mobilized meaningfully to bring about desired change in health behaviour of the people.

Pre-requisites

It is essential to identify leaders in the community before they are involved as change-agents. Here, it is worth mentioning that as early as in 1949, L.D. Kelsey and C.C. Herne in their book, "Co-operative Extension Work" have pointed out that the pre-requisite for identification of leaders is to know the following :

"1. What job is to be done?

2. What characteristics and skills this job requires?

3. Where the person possessing the needed qualitifation can be found?

4. What group will support or follow the person?

5. Of the qualities he has -

(a) Which of them may be improved by training

(b) Which may not be changed materially

6. Of the qualities he lacks -

(a) Which may be developed

(b) Which may not be developed.

7. The basis on which he can be induced to work".

In 1970, Dr. S.R. Mehta in his book, "Emerging Patterns of Rural Leadership", has written that in the villages "there are possibly six distinctive areas of social life"and it is necessary"to identify leadership in each of these areas separately".

Six distinct areas are as follows

(a) Persons most influential inperforming caste activities like caste ceremonies, arranging marriages, or settling caste disputes.

(b) Persons capable and active in organizing religious ceremonies like "Katha" an "Akhandpath".

(c) Persons capable of looking after the interest of village cooperative societies.

(d) Persons worthy of acting as representatives in village Panchayats.

(e) Persons capable and active in organizing and celebrating fairs, festivals and sports.

(f) Persons capable of looking after the interest of village schools.

3/-

It is not enough to know the above mentioned criteria. It is also important to know the nature and magnitude of the health problem, and targets for education as well as services.

In some cases, targets for service as well as education may be the same; but in others, they may be different. For instance, in an immunization programme against smallpox, the service targets may be children whereas educational targets may be either the mother or the father or both.

Socio-cultural factors also play predominant role in decision-making process or selection of leaders. In certain situations, health rituals based on misconceptions and deep-rooted value system and the role of priests cannot be ignored. But at the same time the fact that has to be kept in view is that "whereever traditionalism has given way for experimentation, social change has come". Thus there are certain situations which require more than one type of leaders. The function of a health educator therefore is to understand such a situation and decide the specific type of leaders required to bring out a change in health practices. For example, in a family planning motivation programme for orthodox section of a community, it is worthwhile involving religious leaders, satisfied acceptors of family planning and symbolic leaders.

There is no denying the fact that symbolic and institutional leaders like "Sarpanchs" are very important. But, they can be more effective as change-agents provided they are also functional, i.e., possessing know-how in modern methods of agriculture. Such leaders are accepted as change-agents for diffusion of innovation. Therefore, situations must be carefully examined, taking into consideration experiences of work in a particular situation, finding out negative and positive forces at work, etc., before actually identifying leaders for their active involvement in health programmes.

Methods

Based on the field experiences of organizing health education programmes in urban, semi-yrban and rural areas through the involvement of local leaders and community participation, some of the methods adopted for identification of leaders are as follows :

1. <u>The discussion method</u> - The discussion method has been found to be an effective and simple method of identifying potential leaders. Through formal and informal discussions on any topic during group meetings on various occasions, potential leaders can be identified who can initiate discussion and take the members of the group in the direction in which they should move. But it is essential to differentiate between a mere talker and a real knowledgeable initiator. This method also provides opportunities for potential leaders to arose interest in them and bring out their talent. This method is very useful for long-term programmes.

2. <u>The workshop method</u> - In this method, a large group is divided into sub-groups and leadership emerges out in each sub-group. Through this method, a health educator can locate, over a period of time, who can take the responsibility in undertaking the desired job. In such situations, the role of health educator is that of a consultant, observer, discussion leader, etc.

3. Group observer - This is anthropological way of locating leaders. In this method, the health educator works in a community for quite sometime and makes his observation regularly. On the basis of his observations on various situations he prepares the list of potential leaders. Here, it is important for the health educator to create a siutation - where the community members do not get the impression that they are being observed. This approach is action-oriented and the selection of leaders is based upon the actions taken by the potential leaders of the community.

4. Socio-metric method - This method is a little more technical than the other methods. This method is generally used by professional health educators, extension educators and trained social workers. The pre-requisite for this method is well thought out set of questions to be asked to the members of the different sections of a community. The questions for example may be "Whom do you consult when you fall ill?", "Whom do you consult for the marriage of your daughter", "Whom do you consult for purchasing particular variety of seeds?" etc. In this way, names of influential persons are listed from different strata of a community and it is generally found that there are only five to seven common persons whose help is sought to find the solutions of various problems of different members of the community. These potential leaders are known as "initiators" or "spark plugs" for other members of the community.

5. The election method - Many times leaders are identified through formal or informal election method. In this method, the health educator involves the entire community or section of a community in giving their opinion regarding their representatives to work as change agent.

6. Seniority and past experiences - Sometimes, leaders are identified on the basis of their involvement in health and welfare programmes for the community. Experiences of working with certain persons have proved useful in preventive and promotive aspects of health. Such leaders are generally enthusiastic and energetic and in most of the cases are innovators.

The above mentioned methods of selection or identification of leaders are merely suggestive. However, selection of leaders depends considerably upon the situation and purpose for which they are selected as change-agents.

Mere identification and involvement of leaders in health education programmes is not enough. More important problem is to sustain their interests in the assigned responsibilities. Herein lies the skills of a health educator in creating a situation to sustain interests of the leaders.

Com H 33.5

Health Educ^{n} - Principles

Com H-33.5

Intro

A great deal of ill health in India & elsewhere is due to ignorance of simple rules of hygiene or indifference to them H.E. is an essential tool of community health.

Def^{n} :- It is a process which effects changes in the health practices of people & in the knowledge & attitudes related to such changes

H.E. is to make ~~them~~ people desire good health.

Aims 1) To make good health an asset valued by a community

2) To teach people how to achieve good health.

3) To encourage them to achieve it by their own action or effort by equipping them with necessary skills, knowledge & attitudes

4) To encourage the full dev^{t} & use of health services.

The focus of H.E is on people & on action.

The 1st creates an awareness of health needs & problems among people. 2nd Simply telling people about health is not enough. They must be motivated to change their habits & ways of living eg failure to accept^{n} immuniz^{n}, failure to attend A.N. clinics, failure to accept^{n} family planning. ie we are concerned with the behavior of people. H.E. aims at breaking down barriers of ignorance, prejudice & misconceptions & providing learning experiences which favourably influence habits, attitudes & knowledge relating to individual, family & community health. 3rd Providing services & facilities to improve the socioeconomic & health status will not be fully effective unless people not only make use of them but also undertake various self-help measures to improve their own health & that of the communities in which they live.

Approaches to community/public health

1. Regulatory
2. Service - no guarantee that it will be used. Failure if it is not based on felt needs. eg water seal latrines not being used
3. Educ^{n} - Involves motivation, communication & decision making. Results tho' slow are permanent & enduring. Some time should be allowed to bring about the desired change. Certain problems can be solved only thru' education eg Nutrition, infant & child care, personal hygiene, family planning.

* Process of HE – New knowledge often has to displace the old or earlier beliefs & practices. It involves the foll 5 stgs – 1) Change in knowledge eg dysentery is infection 2) Change in attitude – It can be spread 3) change in behaviour – excreta not indiscriminately disposed 4) Change in habit – latrine habit 5) Change in custom – latrine in house.

H. Education	vs.	Propaganda
1) active		Passive installation of ideas
2) Makes people think		Discourages thinking
3) Reflective behavior		Reflexive behavior
4) Develops individuality & self expression		Std pattern of attitudes
5) Behavior centred		Info^n centred

* Content of H.E.

1) Human biology – structure & functions of body (each system)
   - How to keep physically fit – need for exercise, rest & sleep
   - first aid & resuscitation
   - effects of alcohol & smoking.
2) Nutrition – to guide people how to choose optimum & balanced diet
   - to tell them about the nutritive value of various foods
   - Abt storage, preparation, cooking, serving & eating of food
   - Abt the special needs esp. for mothers & children
   - To make the best use of the available resources.
3) Hygiene – Personal – Abt bathing, clothing, washing hands & toilet, care of feet, nails & teeth, spitting, coughing, sneezing, personal appearance & inculcation of clean habits
   Shd begin at an early age & continue throughout school.
   Environmental – i) Domestic – use of soap & water, need for fresh air, light & ventilation, ~~hygi~~
   - hygienic storage of food
   - hygienic disposal of wastes.
   - need to avoid pests, rats, mice & insects
   (ii) Community – desirability of safe water.
   - benefit of drainage, clean air, good housing
4) MCH – physiological & psychological care of mothers.
   - dispel fear about the birth of a child
   - AN – diet, rest, AN care, certain ailments during pregnancy.
   - Child – feeding, weaning, clothing, hygiene & baby care, immuniz^n, prevention of accidents, burns, falls & poisoning
   - psychological aspects of child care – need for love & security
   - need for a small family & F.P. methods

If we educate the mother we educate the whole family

5) Prevention of communicable diseases:

Confine to diseases that are prevalent in the area.
- Abt the mode of spread of disease from person to person
- the need for immunization & protection of children

6) Mental Health - to enjoy relationships with others & live & work without stress. Give special care for the following:-
- mother after childbirth
- child at entry to pvt & soc school
- choosing a career - starting a new family
- widowhood. These are critical periods with many stresses — & require sympathy & understanding by social contact.

7) Prevention of Accidents:- — in the home, road & place of work

8) Use of health services - participation in national health programmes

Principles of HE. - brings together art & science of medicine & principles & practice of education. HE cannot be "given" to one person by another. It involves the teaching, learning & inculcation of habits concerned with the objective of healthful living. These are 2 way processes of transactions in human relations, between the teacher & the taught. The teacher cannot teach unless the pupil wants to learn.:

1) Interest people are not likely to listen to things that are not to their interest. A HE programme would be useless if we ask people to "be healthy" or "eat good food". We must find out the real health needs of the people i.e. "felt needs" - in such programmes people will gladly participate. Very often there are groups who may have health needs of which they are not aware esp. in India where 70% are illiterate. The H educator will have to bring abt a recognition of the needs before he proceeds to tackle them

2) Participation - based on psychological principle of active learning. Personal involvement is likely to lead to personal acceptance. E.g. group discussion & workshop.

3) Known to unknown - start where the people are & with what they understand & then proceed to new knowledge. It is a long process

4) Comprehension. - speak according to the level of understanding, always in peoples language, never use

(5) Reinforcement – "booster dose" at intervals helps
(6) Motivation – In every person there is a fundamental desire to learn – awakening this desire is called motivation. Can be helped with praise + love, rewards + punishment + recognition. This is imp in H.E. – incentives
(7) Learning by doing "If I hear, I forget, if I see, I remember, if I do, I know.
(8) Communication – on 3 planes – emotional, cultural + intellectual
9) Soil, seed + sower – people – soil, facts – seed, transmitting media sower, Prior knowledge of people – customs, habits, taboos, beliefs, health needs. Must be truthful + scientific. Media must be attractive, palatable + acceptable
10) Good human relations – friendliness + good personal qualities kind + sympathetic –
11) Leaders – we learn best from people whom we respect + regard penetrate community thru' local leaders – village headman, teach. political worker – they are agents of change – if they are convinced the implementation will be easier – leaders understand

—x—

Rules of teaching
1. Brief + to the point
2. clear speech
3. Language of the people
4. pleasant manner + informality
5. Sense of humour
6. genuine love of people + involvement

Motivation – To bring about a change of habit some motivating factors should be introduced eg i) prestige (ii) envy (iii) self satisfaction (iv) something for nothing

Steps in planning a H.E. programme
1) Know the area + your population – gather inform' abt the area + people
2) Know the problems of the people
3) Assess the resources available
4) Plan priorities, objectives + targets
5) Programming activity
6) Evaluation + revision of plan

Other points (a) Knowledge of people – their customs, traditions, habits (b) people make their own decisions about health matters – facilitate individual action (c) people learn in a variety of ways – the greater the number of ways involved the better the learning (d) H.E is only one of the factors in improving health + social conditions ie ed^{n} should be integrated with other activities or it should be an integral part of a health progr.

AUDIO-VISUAL AIDS IN HEALTH EDUCATION

1. What is an Audio- Visual Aid ?

An instrument or a device to assist the instructor in transmitting facts, skills knowledge and understanding to a learner.

Audio Visual aids are the materials and devices used in learning situations to supplement the written or spoken word in the transmission of knowledge, attitudes and increase the retentive power.

II. Value of Audio-Visual aids:

1) Help to give correct concepts or impressions.
2) Stimulate interest
3) Promote better understanding
4) Supplement other sources of learning.
5) Add to variety to teaching methods.
6) Make economy of time.
7) Promote intellectual curiosity.
8) Tend to reduce verbalism or the repetition of words.
9) Contribute to longer retention of learning.
10) Can give new concepts of things outside of the range of ordinary experience.

III Types of Audio-Visual aids:

Audio Visual aids are broadly classified as two brand division

a) Project:

1) Films
2) Film strip
3) Film Slide
4) Epideoscope
5) Overhead projector
6) Television.

cont....2

B) Non-projected aids:

1) Black board
2) Charts, Graphs, Maps
3) Posters
4) Flash Cards
5) Flip charts
6) Flannel graphs
7) Puppets
8) Models and specimens
9) Radio
10) Tape recorder
11) Folder
12) Leaflet
13) Booklet

Films:- A motion picture is a series of still pictures, taken in rapid succession, developed and finally projected combined with sound.

Advantages:

1) Provide real life experiences
2) Attract and hold audience attention
3) Combine sight and sound thus acting on two senses at one time
4) High emotional response of the viewer
5) The audience are very close to the objects, places and situations that they could not ordinarily see in their daily lives.

Disadvantages:

1) No scope for discussion in the middle
2) One way process
3) very costly
4) Needs Transport
5) If films are not produced locally, it has a limited value

Film Strip:

A filmstrip is related sequence of transperent still pictures or immages on a strip of 35 mm. film.

Advantages:

1) Lessexpensive
2) More useful
3) Can be operated by the speaker-Easy to handle
4) Can be produced to meet the local situation
5) Can be operated both by electricity as well as petromax.

Disadvantages:

1) When too long it will not be interesting.
2) Rough handling may result in damage.

Film-Slide: A slide is an individually mounted transparent picture or immage projected by passing a strong light through it.

Common size:- 2" x 2" or $3\frac{1}{4}$" x $3\frac{1}{4}$" or 31/3 x $4\frac{1}{4}$.

Advantages:-

1) Attract the attention of the audiance, and arouse interest in them.
2) Assist for lesson development.
3) Helps for review of instruction.
4) Could be prepare locally without much financial resources.

Disadvantages:-

1) Liable to be damaged in the absence of care,
2) Inproper use may cause disinterest in the audiance.

Over head Projector:

A mechnical device used for teaching purposes which could project the material as and when written.

Cont...4

Advantages:

1) The material is comparitively easy to prepare.

2) A variety of materials could be handled.

3) The instructor can face the audiance.

4) The instructor can point to or write on the material while it is being projected.

Disadvantages:

It may become difficult to use effectively if the instructor has not prepared the lesson plan.

Epideoscope:

A projected aid in which the printed material could be made use of for projection.

Advantages:

1) Easy to handle

2) Less work to the instructor.

3) Dual advantages i.e., we could use both slides and printed matter.

Disadvantages:

In the absence of electricity it cannot be used.

COM H 33.4 Date: 6/11/81

Health Education

COM H - 33.7

(1) Manual For C.H.W

a) Three Functions outlined what are these? < Simple R/ Advise / Referral

b) What Information is Lacking? How to advise/Educating more than just telling.

(2) Principles of Health Education

Why – To improve quality of life
Help people to remain healthy

What – Simple Floor mopping / Top Turning off | All aspects of Life

Where / then – Any where / Any time.
(any meeting / contact ∈ people)

Who – (People) Individual / Groups < Informal / Formal | (H. Educator) All members of team - more effective if close to people

How – Informal
Dialogue
Audio-Visual
Learning by Doing
– Experience more than theory

Date : .....

(3) Cultural Support

a) Know local beliefs/practices

b) Increase your sensitivity < Study them / Learn from them

c) Encourage 2 way process of Sharing < Learning from them / Teaching them

a) Folk media/Folk lore for presentation/examples.

(4) Creativity

From local resources/cheap simple materials

Using local talents

Encouraging initiative

—

(5) Basics

a) Paper/Tin/Board (Base materials)

b) Colouring matter - crayons/paints/veg dyes/powders

c) Glue/gum from rice flour etc

d) Cloth/needle/thread

e) Local handicrafts.

Date : .....

Methods and Media

(1) Flash Card

B & W or Coloured
Simple pictures
Local relevance/character
Locally tested
Story interspersed with facts.
Two way process.

e.g
Sore Eyes
TB

You have used these - what are the common difficulties/mistakes in using them

List out.

Date : .....

(2) Flip Charts

(3) Flannelgraph

PRINCIPLES OF HEALTH EDUCATION

COMH-33-8

COMH

(by Dr S. NAGARAJ)

I WHAT IS HEALTH EDUCATION?

"The focus of health education is on people and on action. In general, its aims are,

(i) to encourage people to adopt and sustain healthful life practices,

(ii) to use judiciously and wisely the health services available to them,

and

(iii) to make their own decisions, both individually and collectively, to improve their health status and environment"

WHO - Expert Committee - TRS series 1969: No 409, p. 8.

II PRINCIPLES OF HEALTH EDUCATION

"Principles are defined as laws, truths and bases for life — a rationale for practice" by Dr Lois Phillips

Principles stem either from science or philosophy.

Principles by nature are,

(i) Universal in application irrespective of time and place.

(ii) with two arbitrary components

— a concept component

— an action and/or application component.

~~Principles (Sem~~

Principles (some) from which health education practices emanate,

(i) ~~Sim~~ Group reflecting the belief in the dignity and rights of human beings.

(origin both science & philosophy)

(a) A knowledge of the people, their felt needs, customs and interests is basic to effective health education.

(b) Active participation of well informed public at all stages of the programme.

(c) Begin with the problem of immediate interest (Start with things that people see as important)

Start from where the people are

(d) There is capacity for significant change in ideas, attitudes & modes of living at all ages

(e) Help people make their own choices & decisions about health matters — facilitate individual action.

(ii) Group reflecting the basis in Education/Learning

(a) People learn in a variety of ways. The greater the number of senses involved the better the learning

(b) Learning is an active process

(c) All learning is motivated.

(d) Emotional involvement is essential if real changes are to be made.

(e) Leaders have influence on the attitude & behaviour of their peers.

(f) Most individuals tend to conform with the accepted standards/sanctions of their family & friends

[Source: (1) WHO Expert Committee 1950 - H. Edn. of the public

(2) Article by Dr. (Mrs) Lois Philips - A.I.I.H. & P.H. Calcutta)

(iii) Group reflecting the belief in total development

(a) H. Edn. be integrated with the other social, economic & educational efforts - an integral part of health programme

(b) H. Edn. is only one of the factors in improving health & social conditions.

(c) Working ~~with people~~ (not for people)

(iv) Others ~~[illegible]~~ Principles of Extension Education

(a) ~~Working with people (not for them)~~

~~(b) Man is a personality not by nature but by spirit~~

(b) People - have individual human personalities
- extensive mutual power
- possess emotional powers - "Matters of the Heart" (3)
- extensive capacity to develop themselves & shape their environment

(m) Heart - (3)
- capacity to feel various emotions
- capacity to resist many acts & conditions
- Desire to improve many things (c)

[redacted]

(3)

III Steps in planning ~~for~~ a Health Education Programme.

1. Knowing ~~your~~ the area & know your population

   (a) Gathering information of the area

   (b) Collection & analysis of data about people

Knowing the

2. ~~Identifying and defining~~ the problem of the needs of the ~~Programme~~ health / disease problem – magnitude, solution / approach, Ed. resistance problem – causal organs (NB symptoms)

3. Understanding of the current health & welfare programmes (closely related), details of objectives / org. / services etc

2 – see the problem of the programme

~~4.~~ 3. ~~Assessment~~ the resources

   – available & potential

   (Govt. non Govt & people (comm'y))

~~4~~. Planning – priorities, objectives, targets,

5. Programming – activities,

   H. Ed., ~~when~~, where, when, how, by whom etc.

6. Evaluation & ~~the~~ revision of the plan.

HEALTH EDUCATION

ComH-33.9

(1.) World Health organisation – Definition of Health

(2.) WHO Defn

A process which effects changes in the health practices of peoples and in the knowledge and attitudes related to such change

(3.) Aims – Threefold.

1. To ensure that health is valued as an asset in the community
2. to equip the people with skills, knowledge and attitudes to enable them solve their health problems by their own actions and efforts
3. To promote the development and proper use of health services

(4.) Approaches to Public Health / Community health.

1. Regulatory approach.
2. Service approach.
3. Educational "

(5) Health Education Vs Propaganda or Publicity

Health Education	Propaganda or Publicity
1. Knowledge and skills actively ~~acquired~~ acquired.	1. Instilled.
2. People made to think	2. Prevents/discourages thinking ready made slogans
3. Trains people to reflective behaviour -judgement before action	3. Trains in Reflexive behaviour- impulsive actions
4. Appeals to reason	4. Appeals to emotion.
5. Develops individuality personality and self expression	5. Develops a standard pattern of attitudes and behaviour

6. Knowledge acquired thru self reliant activity — Knowledge spoonfed and passive receiver

7. Process - behaviour centred — Information centred

=

(6a) Contents

i) Human biology.
ii) Nutrition
iii) Personal / Env. Hygiene
iv) Mother & Child Care
v) Prev of Comm. diseases
vi) Mental Health
vii) Prev of Accidents
viii) Use of Health Services

6(b) Learning opportunities

i) Home
ii) Educational Institutions
iii) Community

(7) Principles

a) Chinese aphorism

"If I hear I forget.
If I see I remember
If I do it I know.

b) Learning Process

1. Capacity for learning
2. Learning, an active process
3. Motivation — a) goals
   b) interest
   c) group approval
4. Content of learning.
5. Real-life experiences and understanding
6. Visible paths and goals.

Steps

i) A change in knowledge
e.g dysentery is infectious
↓
ii) A change in attitude
e.g knows and greater regard for fact
↓
iii) A change in behaviour
e.g No indiscriminate defecation
↓
iv) A change in habit
e.g latrine use — unthinking habit and no conscious decision
↓
v) A change in custom
e.g care in disposal of excreta become cultural characteristic of group

Govt.

1956 CHEB
1954 SH Ed divison
1959 State H. Ed bureaus
Directorate of Advertising & Visual Publicity
Press Infor bureau
All India Radio

c) Principles
i) Interest
ii) Participation
iii) Known to unknown
iv) Comprehension
v) Reinforcement
vi) Incentives — a) money b) reward c) fear arousal d) praise
vii) Leadership
viii) Social/cultural factors
ix) Learning by doing
x) Communication principles (slides)

(8) Practice

1. Individual — personal interview
2. Group
3. General Public

→ One way methods
a) Lectures/Talks
b) Films/slide
c) Charts
d) Flannel graph
e) Exhibits
f) Flash cards
j) Committees/Council
k) drama
l)

↓ Two way (Socratic)
a) Group Discussion
b) Panel Discussion
c) Symposium
e) Workshop
f) Institute
g) Role playing
h) Demonstration
i) Programmed instruction

↓ Mass Media
i) Posters
ii) Press
iii) Health Magazine
iv) Films
v) Radio
vi) TV
vii) Health Exhb
viii) Health Museum

(9) A V Aids — Dales 10 experiences

i) Direct purposeful experience
ii) Contrived experience — Models, specimens
iii) Dramatised " — Plays, Puppetry, role playing
Folk systems

iv) Demonstrations - Apparatus, Chalk board, Flannelgraph.

v) Field Trips

vi) Exhibits - Posters, displays

vii) Motion pictures - Films, Tv

viii) Still pictures - Slides, Flash cards, Photograph

ix) Spoken word - Radio - Taperecorder

x) Visual symbols - maps, sketches, diagram, printed material

---

(10) Guiding Principles in Planning/Implementing H.Ed Programme

1. Integration in Health projects
2. Preliminary survey
3. Study of people
4. Planning with the people
5. Survey of personnel/resources
6. Value of local leaders
7. Coop of Local med. practitioners
8. Coopr of other agencies
9. Focal point of local situations
10. Pilot studies
11. Team work
12. Health personnel as education workers
13. Role of Professional H.E Specialist
14. Financial provision
15. Priorities in spending.
16. Evaluation

Ref: WHO TRS - 89

V. Relevant Health Education: Education by Appropriate Analogy

> One cannot expect positive results from an education or political action program which fails to respect the particular view of the world held by the people... it is not our role to speak to the people about our view of the world, nor to attempt to impose that view on them, but rather to dialogue with the people about their view and ours. We must realize that their view of the world manifested variously in their action reflects their situation in the world. Educational and political action which is not critically aware of this situation runs the risk either of the banking or preaching in the desert.
>
> Pedagogy of the Oppressed,
> Paolo Friere

In the above quote by Paolo Friere, reference is made to the banking mode of education, a mode of education prevalent throughout the developing world. What is implied by the term banking is that information is deposited into a villager's mind verbatim, as if the mind were empty. This mode of education presupposes that once information is deposited it will incur interest over time. The poverty of this type of education is seen in village India today in thedividend it is yielding in the form of inertia and the compartmentalization of new ideas.

What is required is a form of education which engenders synthesis and fosters the organization of new and existing information as opposed to the compartmentalization of information into seperate spheres of reality . The process of education which is advocated evolves out of dialogue and the posing of appropriate questions which reveal and challenge assumptions. Such education necessitates preliminary investigation of the cognitive universe, the phenomenological context in which the villager lives.

One of the purposes of a community diagnosis of health study is the identification of indigenous concepts which may be used in the framing of relevant educational strategies. These strategies, rather than being based on ideas outside the villagers comprehension, are based on what is already known or questioned. In this sense, the mode of education recommended is an extension of classical modes of education which communicated knowledge conceptually through analogies and metaphors poetically orchestrated around immediate experience.

The reasoning behind this mode of education can be illustrated with reference to everyday speech. Theeeveryday speech of villagers is composed of numerous analogies, metaphors, and proverbs. To understand such speech one has to comprehend more than simply the words spoken. What is necessary is an understanding of the relationship between what is spoken about and what is being referred to. Commonly, an idea which is easily understood on one plane is used to describe an idea or istuation on another plane. By explaining something in this manner, one is able to convey knowledge within one's cognitive framework, permitting a minimum number of words to be used to convey a maximum amount of understanding; understanding facilitated by reference to what is already known thus making memory easy.

During the project, core staff experimented with analogical reasoning as means of explaining new health ideas. First, attention was focused on domains of knowledge and experience with which the villager was familiar andwhich were commonly exploited in local proverbs, analogies, etc. Then, such domains of knowledge were considered in relation to priority issues in health education. It is the opinion of the research team that it is possible to explain any common biomedical concept vis a vis indigenous concepts by maximising analogical reasoning. The examples given below may illustrate the strategy used.

1. FIELD: BODY

1.1 Nutrition:

For your rice crop, you need cow manure, green leaf, and ash, If you have less manure, your crop will have no heigh, if less gree leaf is put, the crop will be less, if less ash is put the husks will appear but inside there will not be grains. The body is like that. Fish and grain are like manure, green leaf like vegetables, minerals (iron, calcium) like ash. If you want a good crop, you must make correct balance.

1.2 Family Planning - spacing

If you plant too many paddy seedlings very close to each other, what will happen? Do they not interfere with each others growth, do you not get a poor crop? Having children close together is like that - should a mother give breast milk to one child while pregnant with another? (Culturally women(South India) think they should not continue breast feeding, but do because of a lack of availibility of milk, funds to purchase milk or benevolence particularly towards a male child.)

2. WOMAN'S CYCLE: SEASONAL, MOON CYCLE

2.1 Relative fertility in woman's monthly cycle:

If a crop is planted in the wrong season is there any benefit? A woman's cycle is like a seasonal cycle, like the moon cycle.

Menses is like amavase/amavas/ (no moon, an inauspicious time of overheat when no new work is begun)-- as the moon becomes more full toward hunime (full moon- auspicious time which is cool and linked to fertility) the benefit (labha) of acts begun is m more. Hunime in a woman is the period 10-15 days after her menses. If child is desired the seed should be planted in that season. If a child is not wanted the seed should be thrown at another time.

3. COOKING: DIGESTION

3.1 Dehydration

If you are cooking some food and there is not enough water in the pot, what happens? The food becomes dry and burns, the pot burns as well and if not removed from the fire it may become spoiled. Digestion is like cooking. If water is less in the body, the body becomes dry and begins to burn, fever comes as well as weakness. If water is not put in the stomach pot, the heat spoils the blood and a lack of water may cause a person to die.

3.2 Dehyderation and Diarrhoea

Diarrhoea is like a hole in the stomach pot--water keeps coming out and if more is not placed in the pot, the blood burns. Wather must be placed in the pot until the hold can be repaired. Repair requires medicine but even more immediately important than repairing the hold is not spoilling what is in the pot in for that is life blood.

3.3 Dehyderation and Fever

Fever is like a pot boiling without a cover. The liquid evaporates and the food (blood) in the pot burns. To reduce this problem, medicine may be given which acts as a cover for the pot(aspirin) but sometimes the problem is that the fire under the pot is too hot. In such cases, medicine must be given to reduce the fire/fuel (food) and the body must be kept cool. But most important in any kind of fever is that the water in the body be enough to prevent the blood in the stomach pot from burning.

....3.

3.4 Fontanel sinking in baby

When boiling rice, if the water becomes less what happens? Doesn't the rice in the center of the pot sink down? And then if water is added doesn't the depression come back to normal level? So it is with a baby. If the liquid in the body is less the fontanel/ netti depresses. When enough liquid is given the depressed area comes to the normal level.

3.5 Preparing Electrolyte solution

In the cooking pot, water is needed. For the stomach pot, when water is urgently needed, boiled water which contains sweet, salt, and sour is best. Salt is needed for the blood, Kara (piquant) should be reduced as this increases heat. To help digestion some sweet and sour are needed. Therfore, for every glass of water, a pinch of salt, a small amoutn of sour (lemon, local fruits) and sweet (2 sppons of jaggery, sugar, honey), are needed.

Digestion is the center and the most important process in indigenous ideology: connected to most illnesses)

4. House: Body

Insects: Germs

4.1 Many types of insects may enter a house. If one is inexperience and has much work these insects may be idisregarded expecially if the person thinks they are harmless. Then one day the person may feel some irritation, like the trouble given by bedbugs, and wonder what is the causes. By that time, many insects may be in the house and it will be difficult to get rid of them without disrupting the activities of the house. At other times, a person may not know what causes such insects to come in great numbers like oil being left on the floor attracting cockroaches. It is the duty of family andfriends to help inexperienced people learn such things, just as it is the duty of adults to instruct children which plants are foods and medicine and which are poisons.

The body is like a house, Krimi enter because the doors are left open(weakness), because something attracts them, or because the body permits them to enter thinking they are harmless guests or beggars. In the case of insects entering a house, knowledge comes after seeing and experiencing them. In the case of illness entering the body, however, Krimi (use a similar local term) which cause illness are not visible. It is not enought to tell a man that "some Krimi" cause illness," so he should not allow them in his body. The body, however, can be taught a lesson. This the purpose of a vaccination. A vaccination contains harmful Krimi made weak by poison. When these Krimi enter the body, they make trouble--but only a little trouble, not like the trouble which many would cause if they came to the body in number. They body learns how to both recognize these trouble some Krimi and kill them. Side effects, such as fever and chills are not bad; they are good signs that the body is learning to ree congnize and fight Krimi through experience. Yes, the side effects, ~~xxxx~~ as cause trouble but just as in children, sometimes an important lesson must hurt just a little. In the future, if these Krimi come they can be killed more easily and if a body has learned to recognize them by experience, it will not let them enter in number or willsweep them clear, the way a woman sweeps a house clear when she sees ants coming in number. Like sweeping, this requires a short gap in normal activity, in this cas it may cause small problems like a one day fever or diarrhoea. But better this thana big illness later, A vaccination then is a way of the body gaining Krimi anubhawa (experience)--the more anubhava for such Krimi diseases one has, the less chance of getting an illness. That is why children with less body experience

get

get a Krimi diseases more, and why once a child gets Krimi disease like chickenpox or whooping cough, his chances of getting these diseases again is less than other children. Only some krimi can be swept out of the body house, however, others are so common that the body can not prevent them from entering the house as this would be a full time job and man has other works. In such cases, man must learn what attracts such Krimi, what these Krimi do not like (e.g. smoke for mosquitoes), andhow to keep this doors closed (good hygienic diet).

---

1. Krimi is one term used by villagers to describe invisible worms.

*The diseases which should be used here are those which etiology surveys have indicated are associated with external worm/germ type agents. Ayurvedic pandits tell us, for examples, that undigested food or impure blood attracts certain Krimi. It is necessary to make these conditions less and to teach the body who are its friends and who are its enemies.

5.1 Harvest: Deliver

Fertilizer: Feeding of Woman during Pregnancy

Near the time of the harvest, if the crop looks weak 1, is that the time to think of adding manure to the field 2 So it is with pregnancy. A diffic lt delivery is often caused by weakness and lack of blood in the mother as well as the baby, At the time of delivery, it is not possible to increase blood. (unlessblood is given by transfusion- -for villagers who are aware of what a transfusion is). For this reason, it is necessary for a pregnant mother to eat blood/strength producing foods. Dhatu (a local term which refers to accumulated strength and is associated with diet) requires time to be produced and for this reason blood/strength producing foods must be consumed throughtout pregnancy.

---

1 Weakness is emphasized here, not crop size. It is commonplace throughout India for women to link large babies with difficult delivery (as well as problems during pregnancy). Rather than confront this strong attitude directly, it is better to use a culturally appropriate health education strategy and emphasize 'more blood and more strength.' Big is best is an ethnocentric approach and in any case, the size of a baby is not directly correlated with strength as villagers speak of babies whomlook big but are only full of water, indicating an undersirable state.

2 A local proverb expresses a similar idea: "when a man is thirsty, is that the time to start digging a well?"

The Doctrine of Multiple Causality

Relatively few illnesses in rural South India are associated with only one possible etiological factor. Most illnesses are thought capable of being caused by any one of several factors acting alone or in concert with others. Moreover, once ill, a villager is considered vulnerable to additional etiological factors which may prolong or compound illness making it more complex to manage or cure This is one reason why patients sometimes consult different types of practitioners simultaneously so as to remove/ manage multiple etiologicalfactors or reduce their after effects. Another factor which complicates illness classification and lay medical decision making is the fact that similar symptiom sets may be interpreted differently (as types of one illness or different illnesses) due to the onset or progression of symptoms as well as suspected etiological factors. For this reason, data presented on the etiology of illnesses in this report, although based on considerable survey and case observation research should be considered data on dominant notions of etiology not fixed ideas.

The latter point is important when planning appropriate health education strategies. It is stressed that ideas about etiology are flexible. We found that new ideas can readily be introduced in the context of dialogue when explained in terms of existing etiological concepts or perceived states of the body (based on indigenous notions of physiology) associated with the illness in question As can be seen by the list of etiological factors which follows indigenous concepts can be found for most biomedical concepts. Scope exists to define particular illness episodes in terms of alternative etiological notions (if a prevalent idea is counter-productive to health behaviou) as long as the factor attributed is not antithetical(in qualitative affect)to the type of symptoms manifested.

For examples, most itchy skin rashes among children are ambigiously labelled Kajji: 1 a condition strongly associated with over heat in the body and treated by a restricted dies (less Ushna no nanjufoods) and the application of cooling leaves. A differentiation of Kajji into different types caused by a) worms of external origin eating the skin (scabies, impetigo) and b) overheat (kwashiorkor related sking;esopms /artomlarly on the limbs, phrynoderma, vitamin A deficiency) was conveyed to villagers without much difficulty. This overt differentiation was invluable to us in communicating health education information. We were better able to explain why

1 This term is used in both South and North Kanara Districts.
2 See notes on etiology which follow and a forthcoming report on dietary restrictions during illness.

Scabies treatment required the placing of a poisonous medicinal lotion on the skin for 48 hours and the necessity for boiling one's clothing (to kill minuscule worms and to get rid of worm eggs; worm eggs being a concept known to villagers from their experience with picking lice). It also helped us to convey dietary advice in cases of malnutrition. As opposed to discounting local ideology, we planned a nutrition strategy to confront existing ideology, we about kajji caused by states of malnutrition. When a state of malnutrition. [illegible] manifested in skin lesions with pruritus, cooling foods were suggested, such as green gram and ragi, seasme oil (essential fatty a cids), and vine spinach (vegetable) protein and vitamin A) which were culturally acceptable. Accepting that one form of Kajji was caused by overheat (and designing a nutrition strategy accordingly) while differentiating Kajji into different types increased the compliance rate of those under taking scabies therapy in our makeshift first aid station and more importatnly, the credibility of our education message.

Another point to be appreciated is that what appears to be a symptoms of illness may be interpreted as a sign of some broader problem (dosha, upadra) effecting the one who is afflicted or his family unit 2. Alternative notions of the possible etiology which are dwelled upon may be related to attempts at linking causality to particular social domains (social relationships) where vulnerability or instability exists; or they may be attempts to projected resposibility away from normal interaction spheres (onto wandering spirits, inauspicious celestial effects, etc.) as a means of reducing guilt, etc.3 In other words, suspected etiological factors may be functional expressions of anxiety connected to competition, jealousy or guilt, (in respect to fulfilling obligations, role expectations, or one's duty)

To sum up:

1. Rather than underminging health education efforts, the doctrine of multiple causality accomodates new ideas and facilitates innovative health education.

---

1 Sesame oil is considered cooling in South Kanara but heating in parts of Tamil Nad. This is an example of why region-specific planning based on a knowledge of indigenous ideology is importe

2 This is especially the case if the one afflicted is the weakest or most vulnerable family member, i.e. a young child or pregnant woman.

3 For example, evil eye as well as toxic breastmilk may be associated with a case of infant diarrhoea. Obviously notions of evil eye focus.

2. Indigenous concepts of etiology complement biomedical concepts of etiology (if not logically than analogically).

3. New ideas introduced appropriately in terms of concepts which the ~~personal medical history~~ villager can relates to, facilitate both understanding and greater scope for their application of these ideas.

4. An entrance into the villager's conceptual universe, as well as personal medical history, can be gained by discussing both the classification of symptoms as partic lar illness categories and the suspected causes of an illness experience.

---

3 (cont.) attention away from the mother and feelings of guilt.

Notes on common notions of etiology and

associated symptoms in South Kanara District, Karnataka

1. Less food/ Kadime tinas/

Specifically, this refers to eating an insufficient quantity of the staple food one is accustomed to eating (in this case, rice). It is important to keep in mind that the villagers' sense of body cycle normality derives from the maintenance of a routine digestive cycle and body signs associated with this staple specific cycle 'faces consistency and regularity. urine color, timings of hunger, etc.)

2. Improper dies: /apathya/

a. taking meals erratically (among castes maintaining routine commensality patterns)

b. eating foods having properties counter-indicated in particular seasons, ~~and during~~ ikk to particular age-groups.

.....3.

in transition periods, and during illness episodes.

c. commonly, in children, giving chillies and hot curries before the age of 2.

d. commonly, in adults, eating excessively spicy foods /kara/

3. Bad blood /netter hal/

a. bad blood is thought to be caused by overheat /ushna, garam/toxidity /nanju/, loss of slepp. inappropriate eating habits, exposure to extreme weather conditions. hard work, past illnesses and powerful medicines (consumed presently or in the past).

b. Sluggishness and weakness are associated with bad blood interfering with the flow of substance in the body. This is sometimes associated with vata as well (see below).

c. Bad blood in the head and stomach is thought to be pushed out by vomitting while bad blood in the intestines and legs causes sores /pudi/

d. Wounds which become infected are associated with bad blood(an internal factor) more often than lack of external cleanliness

e. During amenorrhoea and pregnancy (a condition described as nanjiin character) impure blood which is normally

---

Research in other regions of Karnataka and a knowledge of ethnomedical literature in India, suggests that most of these factors have widespread relevance to rural areas.

expelled from the body is thought to be retained and mixed with good blood (causing bad blood.)

f. Some illnesses are ascribed to bad blood being passed on from mother to fetus or breastfeeding child.

4. Climatic changes /have mana/

Fluctuations in temperature are thought to throw the body off balance. For villagers, the healthiest time of the year is when the temperature is most constant. Climate changes are suspect especially at times of seasonal change. These times are associated with bad winds and the movement of spirits (discribed as gali or sonku)

5. Heat in the body /ushna,garam /

a. A certain amount of controlled heat is required for the maintenance of bodily processes especially the digestive process. Controlled heat is associated with strength (trana, shakti) while an exees of heat may cause and be associated with the following symptoms.

1. burning sensation in stomach.
2. burning sensation in eyes.,feet, and hand (anaemia, calcium deficiency)
3. burning sensation during urination
4. Indigestion
5. diarrhoea/ constipation/(especially dry stools)
6. blood in feces
7. redness of the skin/ rashes/ boils
8. dry cough
9. body pain. particularly back ache
10. cracking of soles and palms

11. balding/hairlessness
12. dissolving of bones: bones becoming brittle
13. dhatu loss, mental upset and confusion

b. A state of overheat (ushna) can be passed on from mother to child, through the breastmilk causing the baby to experience indigestion, diarrhoes, boils, or fever.

c. Overheat is the after (end) effect of many other etiological factors (e.g. food climate, evil eye, encounters with a spirit, mental worry). Therefore it is important to ascertain if the term is being used as a general statement or in conjunction with notions revealed by further inquiry. The most common general references to overheat is to refer to the earting foods, the feeling of hunger, or sleeplessness.

6. Excessive Coolness (tampu, tandi)

a. In terms of prevalent health (and for that matter, ritual) ideology, cool /tampuØ is needed to controlheat in the body. Generally, in reference to health, tampu is associated with with weight gain and slower digestion. Too much tampu is thought to manifest the the following symptoms:

1. excess phlegm
2. cold, runny nose, sore throat
3. wet cough
4. indigestion and constipation (fewer bowel movements as opposed to dry feces)
5. complaints that the blood has become thick and doesn't flow properly causing fatigue.
6. headache.

b. Excess cool is thought to be transferred through breatmilk causing baby to experience indigestion. cold and accumulation of hlegm.

7. Toxic substances /nanji/

a. Nanji can result from:

1. the retention of bad blood not emitted by routine body cycles (amenorrhoea and pregnancy seen as the disruption of the menstrual cycle).
2. substances consumed by the body which it cannot digest such as the unctuous juice of brinjal or drumstick (foods classified as nanju.
3. the consumption of too many sweet foods, oils, or impure foods.
4. child receiving impure breastmilk from its mother.

b. Nanji is associated with infection. pus, boils and itchiness. Nanji in the blood is thought to prolong the cure of most illnesses: particularly wounds, skin diseases and intestinal complaints. for this reqon, foods classified as nanju are not eaten during illness episodes.

c. Nanji (toxic) should not be confused with visha (poison). It ia generally believed that nanju foods are the best tasting foods tasting foods and their consumptions is common.

8. An excess of one of the three body humors (tridosha):

a. The principle of body humoreis the basis of ayurveda, the classical

system of Indian medicine. It may first be emphasised that few villagers (as well ad few vaidya , fural herbal practitioners.) know much about the principles of ayurveda. However, ayurvedic terminology and the use of ayurvedic regimens are very much part of folk medical cultures in India. While tridosha, as a principles of body physiology, is not known. the effects of humoral aggravation (the symptoms manifesting) are known andhumoral terminology is used in colloqial languages to describe the'course'of such symptoms Most commonly these 'causes' are associated with the eating of foods clssifed locally as having a quality (guna) which produces these symptoms when consumed in excess or at inappropriate times. 1 As might be imagined, interaction between laymen and learned ayurvedic practitioners 2 has caused a number of ayurvedic terms to to flow into the local vernacular where they are given local meanings. and usuage.

b. Symptoms associated with tridosha terminology:

1. Pitta

   a. nausea
   b. tasting of bitterness in mouth
   c. dizziness
   d. loss of mental equilibrium, mental upset, taking nonsense
   e. yellow urine
   f. heartburn
   g. yellowing of body / jaundice
   h. associated with overheat in the body

2. Kapha

   a. aphlegm laden cough. It may be noted that young children are thought to have a propensity toward kapha disorders and have more kapha in the body. For this reason, respiratory illnesses are often not treated in the early stages. This does not mean, however, that mothers do not try and check the excess of kapha, for a number of curative and preventive home remedies are utilized.

   b. mucus exuding from the nose, eyes, mouth, or anus (foamy stools)

   c. foaming at the mouth particularly after febrile fits among infants is linked to an excess of kapha as well as spirit attack.

---

1. The classification of foods with reference to the tridosha is more complex than this (one should consider the ayurvedic concepts of triguna , Viriya, and vipaka but for our purposes this passing reference is sufficient).

2. I will refer to these practitioners as pandits to differentiate them from vaidya practitioners who dispenses herbal medicine but do not follow a system of diagnosis and therapy.

3. Vata:

Vata is the wind (movement, motor function) principle in the body. An excess of vata is thought to cause body pain and when vata is blocked it is thought to cause stiffness in joints. Vata conditions are sometimes linked to less blood. Vata is associated with the effect of sanni planet (Saturn) and excretions from the body which are blackish in color.

...6

4. Vayu:

Vayu is associated with wind in the form of gaseousness within the body causing:

a. indigestion, flatulence

b. feeling of fullness and being stuffed up

c. feeling of breathlessness

d. fatigue, laziness

CONTAGION FACTORS / antu, pagarana /

9. gali

a. This term literally means wind. It is used to describe a spirit wind (sometimes called sonku), a malevolent wind carrying illness from one village to another, and the wind ensuing from an ill for menstruating person when he/she passes.

b. It may be noted that some illnesses associated with gali such as chickenpox or measles are thought to manifest from the stomach first not the external surface of the body. Pox fall / burundu/ on the body surface from the interior.

c. Gali is thought to cause sudden drametic symptoms usually associated with overheat or cause impurity to the blood resulting in boils, pox coming to surface of the skin etc. Specific reference to sonku is more in Ati month and is associated with sudden fever or pain.

10. breath / svasa / of a person who is ill.

11. crossing / kadapu/

An idea exists that crossing (steppin over, passing through a transition point) associates one with the malevolent qualities of the material / force crossed. Common agents cited are body excrements of the ill (faces, urine, saliva, scabs), shadows or blood of menstruating women, food fouched by the ill etc.

12. Contact with impurity /mailge, basta, made/

a. direct contact with impurities such as saliva /dalle/ or the consumption of impure substances is commonly associated with ifection and the appearance of boils.

b. contact with the pus of one who has a skin disease or diseases in which lesions manifest.

c. contact with the breath of a diseased person in life and the spirit of a diseased person after death /khale/.

d. touching the body of a diseased person or his personal effects (clothes, blankets, etc.)

13. Minuscule worms, germs / krimi, puri / keidi /

Many illnesses are attributed to be caused by worms of internal of external origin. Folk notions of physiology give functional role of worms / jive da puri/ in the digestive process. Some illnesscs are spoken of as caused by having more or less of these worms, more active or sleeping worms which for example may cause loss of appetite or improper motion. These worms are particularly suspect when a small child has a loss of appetite, is listless, vomits, is irritable, has diarrhoea, grinds his teeth, or has a bulging stomach, many other diseases, particularly fungal diseases and infected wounds are also attributed to worms. The notions of

minuscule (invisible) external worms /Krimi pudi/ which enter a body causing illness are similar to biomedical concepts of germ, virus, and are a part of the folk health culture.1 It may be noted however, that the etiological factors are associated with precipitating reasons for these external agents being attrated to particular persons or being able to enter domains (body) domain, house domain, village domain) normally protected (closed to intrusion, disruption) ritually or by substances enhancing one's positive health. This reasoning often focuses attention on states of vulnerability (due to climatic changes, lack of spirit protection, transition in one's life, states of impurity etc.) Here we find the basis for a strong indigenous concept of preventive and promotive (positive) health.

14. Hereditary factors:

This is a complex concept which may refer to:

a. illness being passed on through the bloodline of a lineage (matrilineal, patrilineal reference)

b. an illness which comes as a course or recompense to an individual or family due to non-fulfillment of obligations, sin, papa, karma etc.

c. an illness which another family member experienced in the past associated with either spirit attact by the deceased or a sign from the deceased of its presence.

---

1. The concept of external etiological factors (minuscule worms- Krimi, insects - Kita is found within ayurvedic dogma.

15. Spirits:

Each type of spirits is associated with a social domain or state pf wildness/uncontrol. Suspicion of a particular type of spirit focuses attention on imbalance or vulnerability in that domain. References to vague stars / spirits of the wild (of the forest, transition points, etc.) focuses attention and responsibility for illness away from social domains / relationships other wise suspect. Examples from South Karnara are:

a. Kule - ancestor spirit. Knowledge about the lineage of Kule effecting the afflicted throw light on friction/ jealousy in that kin group or between the kin group of the afflicted and that which the Kule represents.

b. buta -spirit of a social domain jaga/be it the family domain Kutumba village, kingdom, forest etc. A buta is a manifestation of power which can be either malevolent of benevolent depending on his this personified power is controlled. Suspicion about specific buta usually is associated with instability in domains (commonly, non-fulfillment of obligations fowards the members of that domain (alive and dead) Reference to wild or controllable buta are often associated with responsibility projecting away from the person experiencing problems.

c. naga - a snake deity associated with fertility as well as skin diseases such as leprosy and herpes zoster, eye complaints, menstrual problems, breast pain in a lactating woman and sterility. In this case, folklore has influenced the association certain illnesses with naga.

d. pide - spirit of a deceased child thought to be attracted to other children out of love or envy. The touch of pide is associated with a wide range of childrens illnesses. The pide may be a deceased family member or a roaming spirit.

e. Mari - (Bhagavti, Amma) Goddesses associated with pox diseases either inflicted out of love or anger. Goddess linked illnesses are often not spoken about as speaking of the goddess and the illness is thought to bring the goddess into presence thus spreading the disease.

Note: illnesses caused by spirit trouble are freferred to NOT as a roga (disease) but as dosha or upadra disturbances/ trouble.

16. Stars:

The illeffect of celestial bodies is commonly referred to as graha chara . The lay public does not know much about astrology. Saturn, Sanni is often associated with vata complaints, no moon with over-heat in the body and full moon with coolness and an increase in kapha. Coughting and fits are thought to increase during the period of no moon and full moon as well as as sankranti (another transitional point) andpatients report this to practitioners to aid dianosis.

17. Fate: multiple notions exist of qualified (transformable) and unqualified fate.

a. hanne baraha - predetermined fate (writing no fore - head). non- negotiable. (at birth, one's destiny is written)

b. adrishta - bad luck

c. Karma - inherited or self made sins or obligations which necessitate and bring recompense.

d. ayasu - life expectation, associated with the concept of rebirth.

e. papa - accumulated sins.

18. Evil eye - dristhi/evil eye is associated with visible signs of overheat in the body (sudden appearance of rashes, fever, unconsciousness) especially in children and pregnant women (e.e. those most vulnerable). Dristhi is also related to guilt projection by mother when child falls ill.

19. Witcheraft - associated with competition, jealousv, suppressed anger within andacross linerage and caste lines /mata/

20. Dhatu loss - dhatu is a body substances associated with positive health and vitality. Dhatu is responsible for the control. the control of desire, concentration, virility and the ability to gain weight. Commonly, dhatu is feared to be lost due to masturbation or sexual excess where if leaves the body as semen. Specific foods produce and reduce dhatu. A reducation dhatu makes one vulnerable to illness.

21. Pregnancy desires: unfulfilled desires during preganancy are thought to affect fetus development and are associated with limbs and sense organs, defects, car discharges etc.

Review of etiological factors by broad category (internal), external, moral

---

Internal:

1. Food/diet:

a. less of staple food

b. inappropriate food - season - age

c. Impure food. toxic (nanju) food eaten in excess

d. food which aggravates tridosha

e. gaseous (vaya) foods interfering with movement and body cycles

2. Excess of uncontrolled heat in the body or excess cold:

(see additional notes on the hot / cold idiom)

a. loss of feeling of balance in body/mind

b. lack of control over one's supply of vital qualitative energy

c. Interference of physiological processes resulting in blockage of basic life systems --- digestion, defecation movement of blood and energy/trana, shakti/ menstruation etc.

3. Blood becoming:

a. less

b. impure

c. thick/thin

As a result of:

1. less or inappropriate food, poor digestion
2. overheat in the body
3. over work
4. exposure to extreme climatic conditions
5. spirits
6. hereditary factor (related to moral factors -- ancesors. sin, etc.)

4. Aggravation of the tridosha:

Tridosha viewed as substances causing illness when in excess: more than a view of humors playing a necessary role in the physiological process.

a. Vata

b. pitta

c. Kapha

5. Dhatu loss:

1. overheat
2. improper diet
3. sexual excess, deviance, masturbation

6. Aggravation or suppression of intestinal worm activity in the gut, as well as reduction of optimum number of worms necessary for digestion or an increase of worms past the optimum.

7. Impurity (body or blood) due to natural processes (menstruation the blocking of natural processes (amenorrhoea, constipation, or the entrance into a state of body (delivery) or status (birth, death) transition. Associated with states of vulnerability, or states where other etiological factors are attracted.

.....10

8. Non fulfillment of pregnancy desires.

External Factors:

1. bad wind
2. Contact with those who are ill(touch, crossing them or body excretions)
3. contact with impurity
4. minuscule worms or insects
5. negative qualities of seasons, seasonal changes
6. spirit contact; curse, trouble
7. evil eye
8. witchcraft
9. effect of cerestial bodies-- stars, planets, etc.

Moral Factors:

1. notions of fate (ayasu, karma, hane baraha)
2. spirit trouble- failure to upkeep obligations/responsibility in domains of prescribed social interation (family lineage caste, village.)

INSTRUCTIONS
FOR
COMMUNITY HEALTH WORKERS

CHAPTER 10

First Aid in Emergencies

As you live within the community itself, you will ususally be the first person to be contacted by the people in your village if any accident occurs. It is, therefore, important that you should know how to give first aid in an emergency.

In all emergencies after giving first aid you should send the patient immediately to the Primary Health Centre.

10.1 Give emergency first aid for the following conditions, refer these cases to the Primary Health Centre as necessary and inform the Health Worker(Male/Female)

10.1.1 Drowning

Drowning occurs when the person has inhaled water into the lung and the lungs become full of water instead of air.

If a person who has drowned is brought to you, proceed as follows:

(i) Turn the patient face down with the head turned to one side and the arms stretched out. If a slope exists, the head must be placed downwards.

(ii) Place your hand around the patient's abdomen and raise the body to encourage the water to run out of the lungs.

(iii) Clear the mouth of weeds or any othermaterial obstructing air entry, and of false teeth, if any

(iv) Loosen the clothing around the neck and waist

(v) Apply artificial respiration using the method shown in slide FA-1. Do not stop until the breathing has been re-established for at least a quarter of an hour.

(vi) After recovery do not let the patient sit up. Transfer him/her lying on a stretcher to the nearest Primary Health Centre as soon as possible.

10.1.2 Electric shock

An electric shock is caused by a person touching a live electric wire. The signs of electric shock are as follows:

1. The patient is unconscious
2. The patient is in contact with a source of electricity

When you see a person who has an electric shock you must act promptly in order to save his life. Proceed as follows:

1. Wherever possible shut off the current
2. Free the person from the source of electricity by using a piece of wood, paper or rubber to push or pull him away
3. Give mouth-to-mouth respiration immediately as shown in slide FA -2.

Mouth-to-mouth respiration should be continued for a long time, and certainly for as long as the pulse is felt.

After the patient has recovered, examine the skin for the presenceof any burns and refer to the Subcentre for further treatment.

..../2/-

Educate the community on how to avoid electric shock by talking on the following points:

1. Ensure that all electric points are safe and that there are no exposed live wires.
2. Prevent children from playing with electric switches and sockets
3. Prevent children from climbing up electric poles

10.1.3 Heat stroke

Heat stroke results from exposure to excessive heat and sun and may occur during the hot summer months. It is more likely to occur in those who have been drinking alcohol and those who are weak.

The early signs and symptoms of heat stroke are as follows:

1. High temperature(up to 42°C)
2. Headache
3. Dizziness
4. Nausea and vomiting
5. Cramps in the limbs
6. Dry, flushed, hot skin

The patient may become unconsciousn later on. When this happens he usually dies. When you see a patient with heat stroke proceed as follows:

1. Put him in the shade in the coolest and most airy place
2. Undress him completely
3. Pour cold water over him or apply cold cloths
4. Give him cold water to drink if he is conscious

Educate the community on how to avoid heat stroke by talking on the following topics:

1. Avoid exposure to direct sunlight
2. Drink plenty of cold water with lime juice and salt if possible, during the hot season
3. Cover the head and back of the neck with a turban or towel when exposed to the sun for long periods
4. Avoid drinking alcohol

10.1.4 Snake bite

Snake bite results in punctured wounds caused by the fangs of a snake. The wounds by themselves are minor ones, but in India there are a number of poisonous snakes and hence, unless you see the snake and know that it is non-poisonous, you should always treat the bite as poisonous.

Signs and Symptoms	Treatment (see slide FA-3)
1. The patient may tell you that he has been bitten by a snake	1. Tie a piece of cloth tightly above the bite to prevent the blood from returning to the heart.
2. The two wounds produced by the snake's fangs are visible	2. With a clean razor blade, make four to six cuts 1 cm deep over the area of the bite
3. The patient may show signs of poisoning(bleeding or paralysis)	3. Squeeze the part hard so that blood flows out of the cuts.
4. The patient may show signs of shock	4. Apply potassium permanganate crystals in the cuts

Signs and Symptoms	Treatment (see slide FA-3)
	5. Apply a piece of clean gauze or cloth on the cuts 6. Rush the patient to the nearest Primary Health Centre and inform the Health Worker(Male/Female)

10.1.5 Scorpion sting

The person stung by a scorpion, usually a child, complains of severe pain at the site of the sting and shows signs of shock. A scorpion sting is poisonous and if the child is small and physically weak the sting may produce serious results.

Signs and symptoms	Treatment
1. The patient will tell you that he has been stung by a scorpion 2. The wound is red and there may be bleeding 3. Signs of shock are present particularly in small children	1. Apply a cold compress to the site of the sting 2. Treat for shock 3. Give APC tablets 4. Refer to the hospital or the PHC, if signs are severe

10.1.6 Insect stings

Bee, wasp and hornet stings occur frequently in rural areas, especially if the nests of these insects are disturbed.

Signs and symptoms	Treatment
1. There is a history of being stung by an insect 2. The site of the sting locks red, swollen and is painful	1. Apply a cold compress to the site 2. Give APC tablets 3. If the pain and swelling are severe, or if there are signs of shock, inform the Health Worker(Male/Female)

10.1.7 Dog bite

In India where rabies is prevalent, if a person is bitten by a stray dog the injury should be taken seriously.

Wounds from dog bite are infected because dirt and germs are introduced into the wound from the teeth of the dog.

Signs and symptoms	Treatment
1. There is a history of dog bite 2. There may be one or more irregular wounds	1. Clean the wound with soap and water 2. Swab the wound with antiseptic lotion 3. Apply mercurochrome to the wound 4. Always inform the Health Worker (Male/Female)

10.1.8 Accidents

An accident is an event which happens unexpectedly. The extent of the injury depends on various factors.

The accidents which you are most likely to come across are as follows:

1. Wounds
2. Sprains and dislocations
3. Fratures (Broken bones)
4. Burns and scalds

....4/-

Sometimes there may be a history given that the patient has received an injury to the head or some other part of the body but there is no visible injury. However, in these cases the patient may be unconscious, may show signs of shock or may complain of pain. In all such cases you must transfer the patient to the Primary Health Centre immediately and inform the Health Worker (Male/Female)

As a Community Health Worker you are a first aider and the aim of your assistance is as follows:

(i) To prevent immediate danger of death
(ii) To prevent the patient's condition from getting worse

In order to achieve these aims, you must remember the following rules and follow them every time you are dealing with an accident:

(i) Stop any bleeding
(ii) Give artificial respiration
(iii) Guard against shock or treat for shock
(iv) Do not remove clothing unnecessarily
(v) Reassure the patient and relive pain
(vi) Arrange for removal of the patient to the nearest Primary Health Centre or hospital

1. Wounds

A wound is a tear or break in the skin following an accident. The deeper the wound the more likely it is to bleed and to get infected as it cannot be properly cleaned. You must stop the bleeding and, as far as possible, prevent infection from occurring.

A wound may be caused by the skin being:

(i) Grazed (see slide FA-4): this is usually a superficial wound
(ii) Cut, e.g., by a knife or other sharp cutting instrument (see slide FA-5): this is usually accompanied by profuse bleeding and the deeper structures may also be cut.
(iii) Torn, e.g., by barbed wire (see slide Fa-6); or by a blunt instrument: the edges of the wound are irregular and there is bruising
(iv) Punctured, e.g., by a knife, nail or bullet: This wound is small but deep so that important organs may be damaged.

Treatment

(i) Make the patient sit or lie down
(ii) Handle the injured part gently
(iii) Wash the wound with clean water and soap. Always clean away from the wound
(iv) Remove as much dirt or foreign matter as possible
(v) Wash the wound with antiseptic lotion
(vi) Stop any bleeding by using direct pressure or by applying a tourniquet
(vii) Apply mercurochrome and dust the wound with sulphonamide powder
(viii) If the wound is gaping, apply strips of adhesive plaster to bring the edges together (see slide FA-7)
(ix) Apply a clean dressing and bandage (see slide FA-8)
(x) If necessary treat for shock
(xi) Give APC tablets
(xii) Support the arm in a sling when necessary

You must always refer the patient to the PHC in the following cases:

(i) If the wound is large and needs stitching
(ii) If there is severe bleeding

(iii) If there is shock or the patient is unconscious
(iv) If there is a foreign body embedded in the wound
(v) In all deep wounds of the chest and abdomen

2. Sprains and dislocations

These occur when a joint is twisted by tripping, or falling, or by a sudden wrench. In a sprain the joint is not displaced, while in a dislocation it is (see slide FA-9)

Signs and symptoms	Treatment
(i) Severe pain in the joint at the time of injury (ii) Swelling of the joint (iii) Bruising around the joint (iv) Reduced movement of the joint (v) Deformity of the joint (only in dislocation) (vi) Signs of shock may be present	If there is a sprain: (i) Rest and support the injured joint in the most comfortable position (ii) Apply a cold compress and bandage the joint firmly (iii) Inform the Health Worker (Male/Female) If there is a dislocation: (i) Rest and support the injured joint in the most comfortable position (ii) Treat for shock if present (iii) Transfer the patient to the Primary Health Centre (iv) Inform the Health Worker (Male/Female)

3. Fractures

A fracture is a broken bone. It may be cracked, broken into two pieces or splintered. Furthermore, fractures may be:

(i) Closed: there is no wound leading down to the bone and there is no bone protruding through the skin (see Slide FA-10)
(ii) Open: there is a wound reaching from the skin right down to the broken bone, or the broken bone may protrude through the wound (see Slide FA-11)

You must remember the following rules when dealing with a fracture:

(i) All fractures should be given first aid treatment and sent to the Primary Health Centre or hospital
(ii) Interfere as little as possible with a fracture and do only what is absolutely necessary to prepare the patient for the journey to the Primary Health Centre or hospital
(iii) Immobilize the fractured part

4. Burns and scalds

Burns are caused by dry heat such as fire, explosion of pressure stoves, petrol burns, hot metals and electrocution. Corrosive chemicals such as strong acids from batteries of cars can also cause burns.

Scalds produce the same type of injury as burns and are caused by wet heat such as boiling water, steam, hot oil or ghee and tar.

The treatment of burns and scalds will depend on whether the skin is intact or [illegible]

Signs and symptoms	Treatment
(i) History of a fall or a hit	(i) Place the patient in a comfortable position with the injured part well supported
(ii) Pain at the site or near the site of fracture	(ii) Do not remove clothing
(iii) Tenderness at or near the site of fracture	(iii) Immobilize the injured part by using a splint and bandages Always immobilize the joint above and below the frature size
(iv) Inability to move the fractued limb	(iv) Treat for shock, but do not give any drink as the patient may have to have an anaesthetic for setting the fracture on arrival at the Primary Health Centre.
(v) Deformity of the limb	(v) Refer to the nearest Primary Health Centre
(vi) Swelling at the site of fracture	(vi) Inform the Health Worker(Male/ Female)
(vii) Fracture may be felt	If the fracture is an open one in addition to the six steps mentioned carry out the following:
(viii) Movement at a place where there should be no movement	(vii) Cut away and remove the clothing over the wound and cover it with a clean dry dressing
(ix) Broken end of bone seen protruding under the skin	(viii) Stop any bleeding by applying a pad and bandage. If the bleeding is severe and comes out in spurts, apply a tourniquet.

4. Burns and scalds

Burns are caused by dry heat such as fire, explosion of pressure stoves, petrol burns, hot metals and electrocution. Corrosive chemicals such as strong acids from batteries of cars can also cause burns.

Scalds produce the same type of injury as burns and are caused by wet heat such as boiling water, steam, hot oil or ghee and tar.

The treatment of burns and scalds will depend on whether the skin is intact or only partially destroyed or whether it is completely destroyed.

Signs and symptoms	Treatment
Skin intact or only partially destroyed	
(i) The skin may be red or blistered (see slide FA-12)	(i) Wash with soap and water
(ii) Signs of shock	(ii) Apply sulphonamide ointment
(iii) Severe pain	(iii) Dress with gauze or clean cloth
	(iv) Make the patient drink plenty of fluids

....7/-

Signs and symptoms	Treatment
Skin completely destroyed	
(i) The burnt area looks raw (ii) Signs of severe shock (iii) Severe pain	(i) Cover with a clean sheet or other piece of cloth (ii) Make the patient drink plenty of fluids (iii) Rush to the Primary Health Centre

In cases where the skin is intact or only partially destroyed, inform the Health Worker so that he/she can take over the treatment of the case or advise you what to do.

10.2 Carry out procedures in dealing with accidents

1. Splints

A splint is a rigid appliance, usually made of wood or metal, which is tied to a fractured limb to support it and prevent movement from taking place at the site of fracture. Splints can be improvised by using any article which is rigid enough and of sufficient length for the purpose for which it is required. Rolled newspapers, magazines, a branch of a tree, etc., can be used for splinting in an emergency.

The body itself can be used for splinting purposes e.g. a fractured arm can be strapped to the side of the chest to immobilize it, or a fractured leg can be tied to the other leg.

Using a splint : If a splint is not used properly, it may cause damage. Therefore, remember the following points when using a splint (see slide FA-13)

(i) Make sure that the fractured area is properly supported while placing it on the splint
(ii) Make sure that the splint is well padded with cloth. This is particularly important when splints are improvised from pieces of wood which are uneven
(iii) Make sure that the splint is sufficiently long to immobilize the joint above and the joint below the fracture
(iv) Make sure that the bandages used to secure the splint have the knot tied on the splint and not on the flesh

2. Bandaging

The Triangular Bandage

The triangular bandage is usually used as follows:

(i) In first aid (for retaining a dressing, as a tourniquet, to tie on a splint, to hold the lower limbs together, or as a pad)

(ii) As a sling, when the upper limb is to be rested because of an injury or an infection.

The bandage can be used in four sizes (see slide FA-14)

You must always ensure that the knot used in trying a bandage is secure and that there is no danger of its slipping. The knot which is used is the 'Reef Knot' because the more it is tightened, the more secure it becomes. Also it can easily be undone if you want to undo the knot without damaging the bandage (see slide FA-15).

...8/-

Some uses of the triangular bandage

(i) The large arm sling (see slide FA-16)
Note that the knot is at the side of the neck and not at the back.
(ii) The hand bandage(see slide FA-17)
(iii) The foot bandage(see slide FA-18)
(iv) The elbow bandage(see slide FA-19)
(v) The shoulder bandage(see slide FA - 20)
(vi) The hip bandage(see slide FA-21)
(vii) Bandage for back of chest(see slide FA-22)
(viii) Bandage for front of chest(see slide FA-23)
(ix) Head bandage(see slide FA-24)

The Roller Bandage

The roller bandage is used to keep dressings in place. Remember these general rules when using a roller bandage:

(i) Roll the bandage tightly before you start using it.
(ii) When you start bandaging, make two or three turns on top of each other to fix the end of the bandage firmly
(iii) When bandaging a limb always start from below and work your way upwards
(iv) Make sure that the bandage is not too tight by checking that there is no numbness

Some uses of the roller bandage

(i) Bandaging the forearm(see slide FA-25)
(ii) Bandaging the hand(see slide FA-26)

3. Treatment of shock

Shock usually occurs following a severe injury, bleeding, pain or emotional upset.

Shock may occur:

(i) Immediately after injury
(ii) Within half an hour to severeal hours after injury when it is caused by loss of blood externallyor internally

Signs of shock

(i) Pallor of face and lips
(ii) Beads of sweat on the forehead
(iii) Clamminess of the skin
(iv) Cold hands and feet
(v) Shallow breathing
(vi) Rapid and feeble pulse
(vii) Vomiting
(viii) Restlessness
(ix) Vacant expression
(x) Unconsciousness(at a later stage)

The treatment of shock takes priority over any other treatment except bleeding. Proceed as follows:

(i) Lay the patient down on a stretcher or a charpoy. If neither is available lay him down on the ground on a sheet or blanket (see slide FA-27)

.../9/-

(ii) Raise the foot of the stretcher or charpoy about 22 cm off the ground
(iii) Keep the patient warm by covering him with a blanket
(iv) Avoid any unnecessary handling
(v) Stop any bleeding
(vi) If the patient is conscious give him hot tea with plenty of sugar
(vii) Splint fractures and cover wounds before sending the patient to the Primary Health Centre
(viii) Transfer the patient to the nearest Primary Health Centre or hospital

4. Control of bleeding

Bleeding or loss of blood accompanies an accident in which a wound, a fracture or damage to organs occurs.

If there is oozing or a steady flow of blood, it can usually be controlled by direct pressure on the wound(see slide FA-28).

If, however, bleeding is severe and is coming out in spurts, a tourniquet will be needed to control bleeding. A narrowfold triangular bandage, a handkerchief, a necktie, a broad belt or any other piece of material of sufficient length can be used as an improvised tourniquet.

Method of applying the Tourniquet (see slide FA-29)

The method described here refers to the use of an improvised tourniquet. Proceed as follows:

(i) Fold the triangular bandage or handkerchief to a width of 5 cm.
(ii) Apply it on clothing at the level of the middle of the upper or lower limb
(iii) Tie the free ends of the bandage in a half-knot on the outer side of the limb
(iv) Place a pencil, piece of wood, spoon, etc., on the half-knot
(v) Complete the knot to hold the pencil in position
(vi) Twist the pencil gradually so as to tighten the bandage until the bleeding stops
(vii) Use a second bandage tied around the limb to keep the pencil in the tightened-up position
(viii) Leave the tourniquet in place, but loosen it gently every 15 minutes
(ix) If the bleeding has stopped, leave the tourniquet in place but do not tighten it up again
(x) If the bleeding starts again, tighten the tourniquet and repeat steps vi, vii and viii
(xi) Go with the patient to the Primary Health Centre, if possible so that you can control the bleeding
(xii) Attach a label, or any piece of paper, to the patient's shirt showing the time when the tourniquet was applied.

Note: A tourniquet is a very useful appliance to use in the presence of open fractures of a limb.

Control of bleeding from the nose

Nose bleeds are fairly common and are due to rupture of small vessels in the walls of the nostrils. (see slide FA-30) for the method of controlling bleeding from the nose. If the bleeding does not stop refer the patient to the Primary Health Centre.

..../10/-

Control of bleeding from the palm of the hand

If the bleeding is not severe try and control it as shown in slide FA-31.

Refer the patient to the Primary Health Centre in cases of moderate or severe bleeding.

10.3 Keep a record of first aid given to each patient

Enter in your Medical Care Register particulars of first aid given to any person.

//////////

INSTRUCTIONS FOR COMMUNITY HEALTH WORKER

Treatment of Minor Ailments

When people in your area are ill, they will usually first come to you for treatment as you are living in the area. It is, therefore, important that you should know how to treat minor ailments.

You should be careful to refer cases in good time according to the instructions given. Whenever you are in doubt about the treatment, consult the Health Worker(Male/Female) or refer the patient to the Subcentre or Primary Health Centre. In the case of infants and young children, advise the parents to take the child to the Subcentre or PHC if the condition gets worse or if there is no improvement within 12 hours.

Give simple treatment for the following signs and symptoms and refer cases beyond his/her competence to the Subcentre or Primary Health Centre.

Fever

Fever can occur with many diseases and it is, therefore, important to look for other signs and symptoms accompanying the fever.

In young children high fever can often result in convulsion and hence it is necessary to control the fever as early as possible.

When you see a person with fever, proceed as follows:

1. Enquire how the fever started and how it progressed.
2. Ask about other accompanying signs and symptoms such as headache, nausea, vomiting, diarrhoea, cough, or running nose
3. Look for a skin rash
4. Enquire whether the patient has had any shivering
5. Ask if there is pain in any specific part of the body
6. If the patient is a child, note whether there is rapid and difficult breathing
7. Take the temperature

If there is fever with rigor and sweating or without any accompanying symptoms always consider it as a case of malaria and take thick and thim blood smears and give chloroquine tablets.

In addition:

1. Ask the patient to remain in bed
2. Give APC tablets
3. Tell the patient to drink plenty of fluids
4. Advise the application of cloths wrung out of cold water to the forehead and limbs or sponging the body with cold water
5. See the patient on the next day to find out whether any other signs or symptoms have developed
6. Refer to the Subcentre if:

   (i) The fever does not come down within 24 hours
   (ii) The fever goes up
   (iii) Other signs or symptoms develop
   (iv) The fever is accompanied by stiff neck, vomiting, convulsions or unconsciousness

Headache

Headache can also occur with many diseases and it is, therefore, important for you to look for other signs and symptoms when a patient has a headache.

When a patient complains of headache, proceed as follows:

(i) Ask the patient whether he has other symptoms, e.g. sore throat, earache, toothache or dizziness
(ii) Look for fever, rash, stiff neck (see Slide MA 1) discharging ears, running nose, sore eyes or vomiting.

Treat the headache as follows:

(i) Give APC tablets
(ii) Rub the forehead with methyl salicylate ointment and apply a tight band around the forehead
(iii) Treat other symptoms accompanying the headache such as sore eyes, earache, toothache, cough or cold

Always refer the patient to the Subcentre:

1. If the headache is accompanied by stiff neck, dizziness, vomiting or swelling of the feet
2. If the patient is a pregnant woman
3. If the headache persists beyond 24 hours

Backache and pain in the joints

Backache may be caused by strain or injury, or it may be the symptom of some disease. If a person complains of backache proceed as follows:

1. Ask how long the pain has been present
2. Ask whether the patient has had any injury
3. Ask whether there are other symptoms such as fever, pain in the joints or pain in the lower limbs
4. See whether there is any deformity of the spine

Treat the backache as follows:

1. Rest the joint as much as possible
2. Give APC tablets
3. Rub the back with methyl salicylate ointment or warm oil and cover with a cloth

Refer the patient to the Subcentre:

1. If the backache is accompanied by deformity or pain the lower limb
2. If the backache persists for more than three days
3. If the backache gets worse

Pain in the joints may be due to injury, infection or ageing. The joints which are most likely to be involved are shoulder, elbow, wrist, spinal, hip, knee and ankle (see slide MA 2)

If a person has pain in the joints, proceed as follows:

1. Ask which joints are painful and for how long the pain has been present
2. Note whether the joint is red hot, swollen or tender and whether there is fever.

Treat the joint pain as follows:

1. Give APC tablets
2. Rub the joint with methyl salicylate ointment or warm oil
3. Apply heat to the joint by means of:

(i) A hot water bottle or
(ii) Hot sand or
(iii) Soaking in hot water and salt

...3/-

4. Cover with a warm cloth or bandage

This treatment must be repeated three or four times during the day. Refer the patient to the Subcentre:

1. If the patient is a child with pain in several joints accompanied by fever
2. If the joint is red hot, swollen and tender
3. If there is no improvement after 2 days of treatment

Cough and cold

Cough is a common condition which is usually associated with diseases of the throat or lungs.

Whenever you see a patient with a cough, proceed as follows:

1. Ask for how long the person has been coughing
2. Ask whether the cough is dry or whether it is accompanied by sputum, or whether there is a whooping cough
3. Ask whether the patient has fever, a sore throat, pain in the chest, difficulty in breathing, vomiting, or blood-satined sputum
4. Ask whether the person has lost any weight recently

Treat the cough as follows:

1. Give APC tablets
2. Give cough mixture
3. If the cough is accompanied by sore throat, ask the patient to gargle frequently with a solution of hot water and potassium permanganate or salt
4. Apply menthol and eucalyptus oil ointment to the throat, chest and back and cover with a warm cloth
5. If the child has whooping cough, ensure that the child is:
   (i) Kept in bed
   (ii) Kept away from other children
   (iii) Given frequent, small, semi-solid or liquid feeds

Refer the patient to the Subcentre:

(i) If the cough is of more than 15 days duration
(ii) If the cough is accomanied by sputum, spitting blood, or loss of weight
(iii) If the patient has pain in the chest, difficulty in breathing or vomiting.

A common cold occurs more frequently in the rainy season or winter months and is more often seen among those who are weak and ill nourished.

The symptoms of a common cold are:

(i) Running nose or a blocked nose
(ii) Watering eyes
(iii) Headache and body ache
(iv) Fever

The patient may also have a sore throat and ear discharge.

If a patient has a cold proceed as follows:

1. Give APC tablets

...4/-

2. Give steam inhalations with menthol and eucalyptus oil ointment
3. Apply menthol and eucalyptus oil ointment in the nostrils and on the throat, chest and back
4. Give the patient plenty of fluids to drink especially fruit juice if possible
5. See that the patient, especially if it is a young child, gets sufficient nourishment
6. Tell the patient to rest as much as possible

Refer the patient to the Subcentre:

(i) If there is severe headache, toothache, or earache accompanied by profuse nasal discharge, fever and rigors
(ii) If a baby or child with a cold refuses to eat
(iii) If a child has difficulty in breathing

Diarrhoea

In diarrhoea the patient has frequent loose stools. Diarrhoea may be caused by taking food or water which is contaminated by disease germs or worm eggs, or by using dirty hands for eating. When you see a patient with diarrhoea, proceed as follows:

1. Ask how long the patient has had diarrhoea, how many stools are passed and the type of stool passed
2. Ask whether the patient has any fever, vomiting, or pain in the abdomen, or whether he has passed any worms
3. Look for signs of dehydration, viz., sunken eyes, dry mouth, wrinkled skin (see slide MA 3)

Treat the patient as follows:

1. Give bismuth kaolin mixture with water
2. Give plenty of fluids to drink
3. Give a soft diet without spices, e.g. banana, buttermilk,, arrowroot conjee, or rice gruel
4. If there is severe diarrhoea or signs of dehydration, give rehydration mixture. If rehydration powder is not available, make a solution as follows:-

(i) Add a pinch of salt and a handful of sugar (see slide MA 4) to a little over 1 litre (1 bottle or about 6 teacups) of clean water
(ii) Boil the mixture for 10 minutes
(iii) If available add the juice of half a sour lime to the solution and mix well
(iv) Keep the container covered and cool the mixture until it can be given without the risk of burning the mouth

Give the patient small quantities of this mixture at frequent intervals.

Refer the patient to the Subcentre:

(i) If there are signs of dehydration:
(ii) If the stool looks like rice water
(iii) If the stool contains blood and mucus
(iv) If worms are being passed
(v) If the diarrhoea is accompanied by fever and vomiting
(vi) If there is no improvement within 24 hours

Vomiting

In adults, vomiting may result from eating food which is infected or which does not agree with the person, or it may be the result of overeating or excessive drinking.

...5/-

In children and infants, vomiting is common and may be caused by giving the child food which is fatty, spicy or insufficiently cooked, by improper feeding techniques, or by infection caused by taking contaminated food or water. When you see a patient who is vomiting, proceed as follows:

1. Ask how long and how frequently the patient has been vomiting and what is the nature of the vomit, e.g. blood, bile, undigested food or water
2. Ask if there are any other symptoms such as pain in the abdomen, diarrhoea, constipation or fever. If the patient is a woman, ask whether her menstruation has stopped
3. Look for a rash, yellow skin and eyes, signs of dehydration, or signs of malnutrition.

Treat the patient as follows:

In adults:

1. Give magnesium hydroxide tablets
2. Give a milk diet

In children:

1. Give skimmed milk and boiled water
2. If there is severe vomiting or signs of dehydration give rehydration mixture

Always refer the patient to the Primary Health Centre:

(i) If the vomit contains blood
(ii) If the patient is dehydrated
(iii) If the patient is unable to retain anything
(iv) If the vomiting is severe and is accompanied by rice water stools
(v) If there is no improvement within 24 hours

Pain in the abdomen

Pain in the abdomen may be caused by a disorder or disease of any of the organs in the abdomen such as the stomach, intestines, liver, spleen, kidneys, bladder and, in women, the uterus. Depending on the organ involved the pain is in a different part of the abdomen and is accompanied by various other symptoms.

If you see a patient with pain in the abdomen, proceed as follows:

1. Ask how long the patient has had pain
2. Ask where the pain is felt
3. Ask whether the pain is present all the time or whether it comes and goes
4. Ask whether the pain is related to:

   (i) Taking food
   (ii) Passing urine
   (iii) Menstruation (in women)

5. Ask whether the patient has had any injury or blow on the abdomen

6. Ask whether there are other symptoms such as fever, nausea, vomiting, diarrhoea or constipation

7. Check whether the patient has yellow eyes and skin

...6/-

8. Ask whether the urine is dark brown in colour or whether it is blood stained
9. Ask whether any worms have been passed in the stool or vomit

Treat the patient as follows:

Abdominal pain associated with	Treatment
1. No other symptoms	(i) Advise milk and soft diet with no spices or raw vegetables (ii) Give magnesium hydroxide tablets (iii) Give APC tablets (iv) Give 2 teaspoons of ginger juice or 1 teaspoon of garlic juice
2. Diarrhoea	(i) Give APC tablets (ii) Treat for diarrhoea
3. Constipation	(i) Treat for constipation
4. Nausea and/or vomiting	(i) Treat for vomiting
5. Passing worms	(i) Refer to Subcentre for treatment
6. Jaundice	(i) Give plenty of sugarcane juice to drink (ii) Refer to Primary Health Centre (iii) Inform Health Worker(Male/Female)
7. Fever and vomiting	(i) Refer to Primary Health Centre (ii) Transfer patient lying down (iii) Inform Health Worker(Male/Female)
8. Passing urine	(i) Give plenty of fluids to drink (ii) Give APC tablets (iii) Refer to Subcentre for treatment
9. Pregnancy	(i) Call the Health Worker(Female) or trained dai
10. Vaginal bleeding	(i) Give APC tablets (ii) Refer to Health Worker(Female)
11. Signs of shock	(i) Treat for shock (ii) Refer to the Primary Health Centre (iii) Inform the Health Worker(Male/Female)

Constipation

A person is constipated when he is not going to the latrine regularly to open his bowels and has much discomfort and straining while passing a stool.

A common cause of constipation is carelessness about going to the latrine when the need to pass a stool is felt.

When a patient has constipation, proceed as follows:

1. Ask how long the patient has been constipated
2. Ask whether there are any other symptoms such as vomiting, abdominal pain, or fever

Treat the patient as follows:

1. Give magnesium hydroxide tablets
2. Advise the patient to drink plenty of water

...7/-

3. Advise the patient to eat plenty of fresh fruit and green leavy vegetables

Refer the patient immediately to the Primary Health Centre and inform the Health Worker Male/Female:

(i) If the patient has vomiting and severe abdominal pain accompanying constipation, Do not give any treatment.

Toothache

Toothache is a common complaint, especially in those persons who do not take care of their teeth.

When a person is suffering from toothache proceed as follows:

1. Ask for how long the tooth has been painful
2. Enquire if there is any fever
3. Look at the tooth to see if there is any decay of the tooth or swelling and redness of the gums

Treat the patient as follows:

1. Give APC tablets
2. Advise the patient to wash out the mouth frequently with lukewarm water containing a few crystals of potassium permanganate or salt
3. If cloves are available in the patient's home ask the patient to chew one with the affected tooth
4. Send the patient to the Primary Health Centrefor further treatment and inform the Health Worker

Earache

Pain in the ear is usually caused by infection in the ear or in the throat. It can also be due to the presence of wax or of a foreign body in the ear.

When a patient complains of earache, proceed as follows:

1. Ask how long the patient has had earache
2. Enquire whether any foreign body such as an insect or a solid object has entered or has been pushed into the ear and examine the ear for the presence of a foreign body
3. See if there is any discharge from the ear
4. Enquire if there is any sore throat
5. Ask if the patient has any dizziness or disturbances of hearing
6. Take the temperature

Treat the patient as follows:

1. Apply sulphacetamide ear drops in the affected ear(see slide MA-5)
   If there is any discharge from the ear, clean the ear gently with cotton wool on a match-stick(stick swab) before applying the ear drops
2. Give APC tablets

...8/-

Refer the patient:

To the Subcentre: (i) If the patient has fever
(ii) If there is no relief after 24 hours of treatment

To the Primary Health Centre: (i) If there is a foreign body in the ear (inform the Health Worker (Male/Female)
(ii) If the patient has dizziness or disturbances of hearing

Sore eyes

Sore eyes are caused by infection of the eyes or eyelids, irritation or injury by foreign bodies such as dust or thorns, or by chemicals such as pesticides.

Sore eyes are also found in children who have measles.

When a patient has sore eyes, the eyes look red, there is watering, and the patient complains of a burning sensation and pain in the eyes.

Epidemics of sore eyes spread very rapidly and you are likely to see a large number of cases at one time in your area.

If a patient has sore eyes, proceed as follows:

1. Find out how long the patient has had sore eyes
2. Ask if the patient has had any injury or foreign body in the eye
3. Take the temperature
4. Note whether the patient has any skin rash

Treat the patient as follows:

1. Clean the eyes with boiled water and cotton wool. Always swab from the side of the nose outwards (see slide MA 6)
2. Apply sulphacetamide eye drops three times a day. Place the drops inside the lower eyelid (see slide MA 7)
3. Cover the eye with an eye pad and bandage (see slide MA 8)
4. Give APC tablets
5. Keep the patient away from bright light

Referral after treatment:

(i) Transfer the patient immediately to the Primary Health Centre if there is an eye injury or a foreign body in the eye
(ii) Refer the patient to the Subcentre if there is no improvement after treatment for 24 hours
(iii) Inform the Health Worker (Male/Female) if a child with sore eyes has measles

Boils, Abscesses and Ulcers

1. Boils and Abscesses

A boil is a red, painful swelling of the skin which is very commonly seen and which is caused by infection. If it is neglected, it develops into an abscess which contains pus and has to be opened up.

The condition occurs more frequently in children who are not kept clean or are badly nourished.

...9/-

Signs and symptoms	Treatment
(i) Swelling (ii) Redness (iii) Tenderness (iv) Pain (v) Fever and headache may be present	(i) Apply pieces of cloth wrung out of hot water in which neem leaves have been boiled (ii) Keep the limb at rest (iii) Give APC tablets

Refer the patient to the Subcentre:

(i) If there are red streaks and tenderness extending beyond the boil
(ii) If an abscess forms
(iii) If there is no relief after 2 days of treatment

2. Ulcers

Ulcers or sores of the skin occur as a result of injury, infection, a poor diet, and in patients suffering from certain communicable diseases such as leprosy or sexually transmitted diseases.

An ulcer has the following characteristics:

(i) The skin is broken
(ii) The area looks raw and red
(iii) There is a discharge which may be watery or may be foul-smelling and consists of pus
(iv) The area is painful
(v) There may be fever and headache

When you see a patient with an ulcer, proceed as follows:

(i) Ask how long the patient has had the ulcer
(ii) Note if there are any signs of malnutrition
(iii) Ask if the patient has any other symptoms, e.g., fever, headache or rash or tires easily
(iv) Take the temperature

Treat the patient as follows:

(i) Clean the ulcer with cotton wool and boiled water to which a few drops of antiseptic lotion are added. Clean away from the ulcer
(ii) Apply pieces of cloth wrung out of hot water to which antiseptic lotion has been added
(iii) Apply mercurochrome
(iv) Apply sulphanilamide ointment or dust with sulphonamide powder
(v) Apply a clean dressing and keep in place with a bandage or adhesive plaster

Refer the patient to the Subcentre

(i) If there is fever
(ii) If the patient has had the ulcer for more than one week
(iii) If the patient has several ulcers or tends to get tired easily
(iv) If the ulcer is on the genital organs with or without discharge
(v) If there is no improvement after 2 days of treatment

Scabies and Ringworm

1. Scabies

This is an infection of the skin in which there is a rash or tiny cracks appear in the finger webs, the front of the wrists and elbows, the armpits, the wastline, the thighs and the external genitals. Itching is severe, especially at night.

.../10/...

Scabies is common among people who do not bathe regularly and is frequently seen in communities with poor personal hygiene. If you see a patient with scabies, you are likely to find that other members in the family also have scabies.

If you see a patient with scabies treat as follows:

(i) Bathe with soap and water using a brush to open all the cracks
(ii) While the skin is slightly wet, apply benzyl benzoate emulsion over the whole body except the head and neck
(iii) Allow the body to partly dry
(iv) Apply a second layer of benzyl benzoate on the whole body
(v) Leave the emulsion on the body for 24 hours
(vi) Bathe thoroughly with soap and water
(vii) Put on clean clothes
(viii) Repeat the treatment for three days

Note: All clothing and bedding should be washed well and if possible boiled. Refer the patient to the Subcentre if there is no improvement after treatment.

2. Ringworm

Ringworm is an infection of the skin which appears as flat, ring-shaped areas with a red border and a lightly coloured scally centre. It can occur on anypart of the body including the scalp. Ringworm is accompanied by itching.

Treat a patient with ringworm as follows :

(i) Bathe with soap and water
(ii) Break the scally centre with a brush
(iii) Apply Whitfield ointment
(iv) Wear clean clothes

Refer the patient to the Subcentre if there is no improvement after treatment.

Keep a record of the treatment given to each patient.

You should maintain a Medical Care Register in which the following information should be recorded:

(1) Date (2) Name (3) Age (4) House No (5) Symptoms/Signs
(6) Treatment given (7) Advice given (8) Referral(to whom referred)

Note: See Appendix I: Guide for the Use and Administration of Drugs for the dosages for different age groups and Appendix II: Contents of kit for Community Health Worker.

APPENDIX I

Guide for the Use and Administration of Drugs

A. Drugs for internal use

S.No.	Drug	Uses	Dosage and administration					Remakrs
			0-1 year	1-4 years	5-9 years	10-14 years	15 & above	
1.	APC tablets	(i) Common cold (ii) Sore throat (iii) Fever (iv) Headache (v) Backache (vi) Joint pains (vii) Toothache (viii) Earache (ix) Pain in abdomen	½ tablet dissolved in honey or water after feeds 3 times a day	½ tablet dissolved in honey or water 3 times a day	1 tablet 3 times a day	1 to 1½ tablets 3 times a day	2 tablets 3 times a day	Tablets should not be taken on an empty stomach
2.	Chloroquine tablets (150 mg per tablet)	(i) Malaria (presumptive treatment)	½ tablet with honey	1 tablet with honey	2 tablets	3 tablets	4 tablets	To be given in a single dose after taking thick and thin blood films. Tablets should not be taken on an empty stomach.
3.	Cough mixture	(i) Cough (ii) Sore throat	½ teaspoon 3 times a day	1 teaspoon 3 times a day	2 teaspoons 3 times a day	3 teaspoons 3 times a day	4 teaspoons 3 times a day	

p.t.o.

APPENDIX I contd.

S.No.	Drug	Uses	Dosage and administration					Remarks
			0-1 year	1-4 years	5-9 years	10-14 years	15 & above	
4.	Kaolin powder	(i) Diarrhoea	½ teaspoon 3 to 4 times a day	1 teaspoon 3 to 4 times a day	1 to 1½ teaspoons 3 to 4 times a day	2 teaspoons 3 to 4 times a day	2 teaspoons 3 to 4 times a day	(i) Mix powder in a little water in a cup and drink immediately without allowing powder to settle. (ii) Add more water to cup and drink mixture
5.	Magnesium hydroxide tablets	(i) Constipation	½ tablet with honey	1 tablet with honey	1 to 2 tablets	2 to 3 tablets	3 to 4 tablets	To be taken at bed time with water or milk
		(ii) Vomitting & Nausea (iii) Indigestion					2 tablets	Single dose to be taken after food
6.	Rehydration powder (chorosol)	(i) Dehydration	Dissolve powder in 1 litre of water and give small quantities to the patient throughout the day. In children, give 1 teaspoonful every 10 to 15 minutes.					

Note: You must be very careful in treating infants below one year of age. Instruct the mother to take the infant immediately to the Subcentre if the infant's condition get worse or if there is no improvement within 12 hours.

...3/-

B. Drugs for external use

S.No.	Drug	Uses	Method of administration
7.	Antiseptic lotion	(i) For cleaning wounds and ulcers	Add ½ teaspoon of lotion to about ½ a cup of boiled water. Place cotton swabs in lotion. Swab wound or ulcer from within outwards.
8.	Benzyl benzoate emulsion	(i) Scabies	
		(ii) Lice	
9.	Menthol and eucalyptus oil ointment	(i) Colds (ii) Coughs	Apply ointment in nostrils. Rub ointment on throat, chest and back and cover with a warm cloth Steam inhalation: Boil water in a small vessel. Add 1 teaspoon of ointment to the hot water and inhale the steam keeping the head under a towel. In the case of a small child the mother should keep the child on her lap with a towel covering the child and the steam inhalation. She should take care to prevent the child from burning or scalding itself.
10.	Mercurochrome 2%	(i) Cuts and scratches (ii) Dog bite	Wash wound with clean water and antiseptic lotion. Apply mercurochrome with a cotton swab. Apply a clean dressing and bandage.
11.	Methyl salicylate ointment	(i) Headache (ii) Backache (iii) Pain in joints (iv) Sprains	Rub ointment gently on painful area. Cover with a piece of warm cloth or apply a firm bandage. Repeat treatment as necessary to relieve pain.
12.	Methylated spirit	(i) To clean skin before taking blood for making thick & thin blood films	Take some spirit on a cotton swab. Press the left ring finger of the patient tightly so that blood collects at the tip. Swab the tip of the finger and prick the clean finger with the Hagedorn needle.
		(ii) To sterilize Hagedorn needle	Always keep the Hagedorn needle used for pricking the finger in a bottle containing methylated spirit.

APPENDIX I contd.

S.No.	Drug	Uses	Method of administration
13.	Potassium Permanganate	(i) In snake bite	Incise site of the bite, squeeze out poison and apply crystals to the wound
		(ii) Sore throat (iii) Toothache (iv) To clean wounds and ulcers	Add crystals to cold water until the water is coloured light purple Use this solution as a gargle, mouthwash, or for cleaning wounds and ulcers. The solution must be prepared fresh and used immediately.
14.	Sulphacetamide eye and ear drops(10%)	(i) Sore eyes	After cleaning affected eye with boiled water and cotton wool, instil 2 drops inside lower eyelid(4 times a day for 2 days).
		(ii) Earache and ear discharge	After cleaning affected earwith cotton wool on a match stick, instil 2 drops inside ear(3 times a day for 2 days).
15.	Sulphanilamide ointment	(i) In infected wounds and ulcers	Clean wound with antiseptic lotion. Dry with clear cotton swab a d apply ointment on wound or ulcer. Apply clean dressing and bandage.
		(ii) In burns and scalds	Clean wound with soap and water. Apply ointment on burn or scaled and cover with clean dressing.
16.	Sulphonamide dusting powder	(i) In fresh, clean wounds (ii) In small ulcers	Clean wound or ulcer with antiseptic lotion. Dry with a cotton swab. Dust powder in the wound or ulcer. Cover with dressing and bandage.
17.	Whitefeld ointment	(i) Ringworm	Bathe with soap and water and dry the s in well. Apply ointment on affected area (4 times a day for 1 week).

APPENDIX II

Contents of Kit for Community Health Worker

1. Slide (5) in slide box
2. Cloth for cleaning slides
3. Hagedorn needle
4. Pencil
5. Clinical oral thermometer
6. Graduated medicine glass
7. Scissors
8. Razor blade
9. Cotton wool
10. Gauze
11. Roller bandage
12. Triangular bandage
13. Adhesive plaster
14. Soap dish and soap
15. Towels(2)
16. Suitable containers for drugs(17)
17. Forms for reporting of blood smears
18. Franked envelops addressed to the Primary Health Centre
19. Exercise book(200 pages)
20. Diary
21. Health Education Materials(flip chart on family welfare)
22. Manual for Community Health Worker
23. Kit-bag

Medicines to be carried by Community Health Worker

For internal use

1. Aspirin, Phenacetin and Caffeine(APC) tablets
2. Chloroquine tablets
3. Cough mixture
4. Kaolin powder
5. Magnesium hydroxide tablets
6. Rehydration powder(chorosol)

For external use

7. Antiseptic lotion
8. Benzyl benzoate emulsion
9. Menthol and eucalyptus oil ointment
10. Mercurochrome 2 per cent
11. Methyl salicylate ointment
12. Methylated spirit
13. Potassium permanganate crystals
14. Sulphacetamide eye and ear drops 10 per cent
15. Sulphanilamide skin ointment
16. Sulphonamide dusting powder
17. Whitefield ointment

Additional material to be kept with selected members of the community

1. Bleaching powder in pots

An Evaluation of Community Health Workers Scheme

Technical Report – 4.

COMH-33.13

A Collaborative Study by.

1. National Institute of Health & Family Welfare, N. Delhi
2. All India Institute of Hygiene & Public Health, Calcutta
3. Indian Institute of Management, Ahmedabad.
4. International Institute for Population Studies, Bbay.
5. Indian Council of Medical Research, N. Delhi.
6. Gandhigram Institute of Rural Health & F.P., T.N.

Undertaken at the instance of Govt of India. 9 mths after the inception of the scheme.

Dimensions studied –

- processes of selection of CHW's.
- inputs viz training, medicines & drugs, Rly, honoraria
- appointment of additional MO at PHC.
- perception of its objectives & roles by officials concerned in its implementation.
- profile of selected CHW.
- perception & attitudes towards the Scheme as well as towards the selected CHW's of the community leaders, community members, PHC staff & other non-health functionaries at block & district levels

Recommendations for corrective measures to be taken have been made.

There exists clear evidence towards the acceptability of the scheme by the public at large, community leaders & other concerned health staff.

General aim & direction of the Scheme is to provide primary medical care services to the rural population based on the concept of community involvement & participation.

India

- 5,372 PHC's & 37,775 subcentres provide comprehensive health care services in rural areas. – not made significant impact on health status (Report of the Health Survey & Development committee, vol I, II, III & IV, 1946 – Delhi) Bhore
- The Multipurpose workers committee (1973) recommended training & functioning of multipurpose health workers to a pop. coverage & accessibility of care. (Report of the committee on MPW's under Health & FP. Programme, 1977. N. Delhi)
- Committee on Medical Education & Support Manpower called Srivastava Committee (1975) provided broad guidelines for a health services strategy in India. It recognised the fail – need for self education of every individual – communities responsibility for safeguarding its own health eg water, excreta, air-pollution, communicable diseases. – the multisectoral nature of health ie interrelation of economic well being, health, nutrition education & other non health inputs

PTO

To fulfil this objective it recommended the creation of large groups of part-time, semi-professional workers selected from among the community, who would be close to the people, live with them, provide preventive + promotive health services including F.P. in addition to looking after common ailments. They are self employed people + are not part of Govt bureaucracy. Di-rectly identified primary school teachers, housewives practitioners of indigenous systems of medicine, + dais as feasible resource people.

— The Rural Health Scheme by Ministry of H+FW, GOI is an extension of the above concept. "The purpose behind the scheme is to provide adequate health care to the rural people + at the same time to educate them in matters of preventive + promotive health" [Guidelines for Trg. of CHW's — Ministry of H+F.W. - N. Delhi]. The aim is to provide "simple medical aid within the reach of every citizen by organizing a cadre of medical + paramedical CHW's, of whom the trained practitioners of indigenous systems of medicine will be a part".

— Every village/community of 1000 pop" selects/represents willing to serve the community + enjoying its confid + 3 mths training in simple basic health services is given. Must be preferably below 30 yrs, must be literate + able to read + write well, preferably with a formal education at least upto 6th std. Better if the person is educated upto 10th std. He/she is called "Swasthya Rakshak" + is supervised by the community.

Responsibility of Govt is limited to provide training + technical guidance. After training, the CHW is given a Kit with common medicines for simple ailments, incl. those from indigenous systems of medicines. They are not full time health workers + are expected to perform C.H. work in their spare time for 2-3 hrs daily. During training they receive Rs 200/mth as stipend for 3 mths + a simple medicine Kit. once they commence work, they will get an honorarium of Rs 50/mth for working with the community + Rs 600 worth of medicines/year.

Tasks expected are - immunis', distribution of nutrient supplements, Rx of malaria + collection of bloodsmears, managing elementary curative needs of community.

The overall philosophy is that the health work which has hitherto been looked after largely by Govt will now for the first time, also rest in the hands of the people. The CHW being of the community will be accountable to the community who will supervise his work.

The philosophy of community involvement + participation also implies that the community would supplement the resources required for the continuation of the work & would completely take over the programme at a subsequent point of time.

Scheme introduced on 2nd Oct 1977 in all PHC's of 28 districts of the country where reorientation of manpower workers as multipurpose workers was completed + in one PHC each from the remaining districts of the country. 741 PHC's covered under first phase. 1st batch to be completed on Dec 31, 1977. Scheme accepted by all States & Union Territories except J+K, Karnataka, Tamil Nadu & Kerala.

Criticisms to the scheme were:—
- inadequate preparation
- promotion of quackery (by medical profession)
- lack of pilot studies on feasibility of scheme, esp. as there is heavy investment of public funds for its implementation

Certain basic questions eg. the scheme are:—
- What is the scope of primary health care?
- Is it possible to use non-health workers from the community for delivering selective components of health care to the rural community?
- Does such an information make meaningful alteration in the health status of the people?
- Is this approach practical?
- Is it feasible?
- Is it acceptable to the community?

The concept of voluntary paramedical health workers is not without scientific foundation. A large no. of countries all over the world have extensively employed them for this purpose with great success. Even in India, information on voluntary health workers in health care is available from over 60 experiments on alternative strategies for delivery of health care — unpublished manuscript 1978) (K. G. Rao — Alternative strategies for health care being conducted in different parts of the country & outside — "A review of experiments in India").

Despite wide variations on a number of dimensions these projects have proved beyond doubt the potential of non-health workers in the delivery of primary health care to the rural communities. In most cases they were found popular & acceptable & fairly impressive results in terms of reduction of infant mortality, increased acceptability of F.P, or reduction in nutritional disorders.

In Dec 1977 GOI asked NIH & FW to evaluate the Scheme on a national scale.

PTO.

Objectives of the scheme are (derived from various govt. documents)

a) To provide cent per cent coverage of the rural pop: of the country with the type of services envisaged to be provided by the CHW. over a period of 2 yrs.

b) To ensure community participation for the purpose of
   i) administrative supervision of the CHW
   ii) ultimate take over of the scheme by the community
   iii) To improve the utility of health services provided by the PHC complex thereby leading to increased satisfaction of the community.

The purpose of evaluation are

a) To determine organizational feasibility & acceptability of the scheme by the people, so as to enable the authorities to decide for expansion or otherwise of CHW scheme in its present form or with certain modifications

b) To collect necessary information from the state govts in so far as, operational aspects of the scheme are concerned so that necessary improvements could be made in the future

Inspite of limitations it is designed to cover several dimensions :- viz

i) perception & extent of understanding of objectives of the scheme & the roles & responsibilities of the community health workers.
ii) the process of selection of CHW's including community participation & their involvement.
iii) profile of CHW's.
iv) training of CHW's incl. its duration, content & effectiveness
v) administration & management of the scheme including inputs & logistics such as manuals, honoraria, supply of medicines, kits etc.
vi) performance of the CHW's.
vii) attitude towards & perception of the scheme by the community.
viii) acceptability of the scheme & the selected CHW's. &
ix) feasibility of the scheme.

Methodology influenced by — purpose & scope of evaluation, its collaborative nature, time constraint involved in conducting a nation-wide study, the desirability of preparing a report, highlighting among others important inter-state variations

Various aspects were broadly classified as below

1. Identification of levels of administrative setup.
2. Identification of functional areas of study.
3. Sources of data
4. Development of instruments.
5. Sample size & design.
6. Methodology for collection of data.
7. Analysis & interpretation of data.

Recommendations

- continuous dialogues / discussions with officials at various levels to dispel fears & apprehensions
- systematic efforts to reorient officials frg. at all levels, concerned i the implementation of the scheme. Use various types of media to educate people / CHW's about the scheme, its objectives & roles & responsibilities of diff. categories of functionaries in the scheme.

The scheme has certain operational objectives. The hierarchy of objectives for State, district & grassroot levels were however absent. Recommended that specific objectives of the scheme at diff. levels should be developed according to the local needs. In doing so the community leaders who were supposed to be in administrative control of CHW's should be helped in developing the same, particularly with regard to the coverage of the pop - with promotive & preventive care services & for minor ailments

— Selection of CHW's must be done by the community itself through the involvement of Village Panchayats & Gram Sabhas

— Recommended guidelines for selection :-

i) local residents who enjoy the confidence of the community with willingness to undertake health work should be the most critical criteria that should be strictly adhered to.

ii) the CHW should preferably be above 30 yrs of age

iii) females should receive higher priority over males, wherever available.

iv) those who are unemployed or engaged in certain occupations such as shop keeping should be discouraged & wherever possible ex servicemen, dais etc should get priority over others.

v) while education upto 6th std may remain as a minimum requirement, those with college or higher educational qualifications should be discouraged.

— i) all potential trainees should be trained adequately before implementation of the scheme in a PHC

ii) Adequate literature such as books, manuals, teaching aids etc should be made available to all the PHC's selected for implementation of the scheme.

iii) manuals should be supplied to all the trainees, as far as possible, during the very first week of their training so that the same could be studied + used extensively throughout the training programme by the trainers as well as the trainees

iv) Supervised field training with emphasis on preventive + promotive aspects of health care should receive higher priority. Additional inputs such as POL should be made available for this purpose.

v) As far as possible the emphasis of trg should be on Allopathic systems of medicine. other systems should be taught only when facilities for their teaching are available + where the community favoured their inclusion this might go against the basic policy of the Scheme. It is, however important that the fundings available on the subject be fully exploited in the development of training content so that it becomes relevant, need based + focussed rather than diffused.

vi) all CHW's should be exposed to periodical refresher courses to reinforce their knowledge + skills.

vii) Mechanisms such as regular monthly meetings between PHC staff + CHW's should be initiated to discuss their difficulties + explore solutions together

viii) Training programmes currently being conducted should be systematically evaluated with a view to evolve appropriate teaching methods, optimum dur. of initial training, content of refresher courses etc

— The system of procurement + supply of medicines + drugs should be designed based on methodologies of Material Management and adopted appropriately at different levels so that they reach the points of

consumption at appropriate time in appropriate quantities.

— Entrusting the village panchayats with the responsibility (of paying the honorarium of Rs 50/mth) in the long run should be considered.

— The third M.O. should preferably be appointed from those of modern system of medicine except in those PHC's where the circumstances favour MO's of other systems of medicine.

— a period of at least 2 yrs is required for development of a good CHW. during which time all necessary efforts as indicated in terms of good supervision, periodical orientation & refresher courses etc should be undertaken to strengthen the knowledge & skills, in addition to monitoring the scheme for nipping in bud some of the evils that might come into being at some places as apprehended by some.

— A simple monitoring system should be dev. for concurrent evaluation of the scheme. Further the activity of maintaining records by CHW's should be legitimized. However they should be rationalized & kept to a minimum within the framework of the information system for monitoring the scheme.

— The 741 PHC's where the scheme is currently being implemented should be streamlined & completed before the same is expanded into other PHC's. During the intervening period further expansion of the scheme should be carefully planned & executed. As is apparent from the findings of the study on the dimensions of "Training", it needs to be suitably linked with Multipurpose Workers Scheme where both should develop simultaneously because the MPW's would be a commendable source of technical guidance & supervision to the CHW in the delivery of Primary Medical Care services to the community.

— x —

VOLUNTARY HEALTH ASSOCIATION OF INDIA
C-14, COMMUNITY CENTRE, S.D.A., NEW DELHI 110 016
PHONES : 668071, 668072 ☐ GRAM : "VOLHEALTH" New Delhi-110 016

C-53

THE VILLAGE HEALTH WORKER— LACKEY OR LIBERATOR ?

DAVID WERNER

Throughout Latin America, the programmed use of health auxiliaries has, in recent years, become an important part of the new international push of "community oriented" health care. But in Latin America village health workers are far from new. Various religious groups and non-government agencies have been training *promotores de salud* or health promoters for decades. And to a large (but diminishing) extent, villagers still rely, as they always have, on their local curanderos, herb doctors, bone setters, traditional midwives and spiritual healers. More recently, the *medico practicante* or empirical doctor has assumed in the villages the same role of self-made practitioner and prescriber of drugs that the neighbourhood pharmacist has assumed in larger towns and cities.

Until recently, however, the respective Health Departments of Latin America have either ignored or tried to stamp out this motley work force of non-professional healers. Yet the Health Departments have had trouble coming up with viable alternatives. Their Western-style, city-bred and city-trained M.Ds. not only proved uneconomical in terms of cost effectiveness; they flatly refused to serve in the rural area.

The first official attempt at a solution was, of course, to produce more doctors. In Mexico the National University began to recruit 5000 new medical students per year (and still does so). The result was a surplus of poorly trained doctors who stayed in the cities.

The next attempt was through compulsory social service. Graduating medical students were required (unless they bought their way off) to spend a year in a rural health center before receiving their licenses. The young doctors were unprepared either by training or disposition to cope with the health needs in the rural area. With discouraging frequency they became resentful, irresponsible or blatantly corrupt.

Next came the era of the mobile clinics. They, too, failed miserably. They created dependency and expectation without providing continuity of service. The net result was to undermine the people's capacity for self care.

It was becoming increasingly clear that provision of health care in the rural area could never be accomplished by professionals alone. But the medical establishment was—and still is—reluctant to crack its legal monopoly.

At long last, and with considerable financial cajoling from foreign and international health and development agencies, the various health departments have begun to train and utilize auxiliaries. Today, in countries where they have been given half a chance, auxiliaries play an important role in the health care of rural and periurban communities. And if given a whole chance, their impact could be far greater. But, to a large extent, politics and the medical establishment still stand in the way.

My own experience in rural health care has mostly been in a remote mountainous sector of Western Mexico, where, for the past 12 years I have been involved in training local village health workers, and in helping foster a primary health care network, run by the villagers themselves. As the villagers have taken over full responsibility for the management and planning of their programme, I have been phasing out my own participation to the point where I am now only an intermittent advisor. This has given me time to look more closely at what is happening in rural health care in other parts of Latin America.

Last year a group of my co-workers and I visited nearly 40 rural health projects, both government and non-government, in nine Latin American countries (Mexico, Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica, Venezuela, Columbia and Ecuador). Our objective has been to encourage a dialogue among the various groups, as well as to try to draw together many respective approaches, methods, insights and problems into a sort of field guide for health planners and educators, so we can all learn from each other's experience. We specifically chose to visit projects or programmes which were making significant use of local, modestly trained health workers or which were reportedly trying to involve people more effectively in their own health care.

We were inspired by some of the things we saw, and profoundly disturbed by others. While in some of the projects we visited, people were in fact regarded as a resource to control disease, in others we had the sickening impression that disease was being used as a resource to control people. We began to look at different programmes, and functions, in terms of where they lay along a continum between two poles : community supportive and community oppressive.

Community supportive programmes or functions are those which favourably influence the long-range welfare of the community, that help it stand on its own feet, that genuinely encourage responsibility, initiative, decision making and felf-reliance at the community level, that build upon human dignity.

Community oppressive programmes or functions are those which, while invariably giving lip service to the above aspects of community input, are fundamentally authoritarian, paternalistic or are structured and carried out in such a way that they effectively encourage greater dependency, servility and unquestioning acceptance of outside regulations and decisions; those which in the long run are crippling to the dynamics of the community.

It is disturbing to note that, with certain exceptions, the programmes which we found to be more community supportive were small non-government efforts, usually operating on a shoestring and with a more or less subrosa status.

As for the large regional or national programmes—for all their international funding, top-ranking foreign consultants and glossy bilingual brochures portraying community participation—we found that when it came down to the nitty-gritty of what was going on in the field, there was usually a minimum of effective community involvement and a maximum of dependency-creating handouts, paternalism and superimposed, initiative destroying norms.

I don't have time to elaborate here, but anyone who is interested in a more detailed account of community supportive and oppressive health programming may send for a copy of a paper I presented in England last year entitled Health Care and Human Dignity.* (C-52)

In our visits to the many rural health programmes in Latin America, we found that primary health workers come in a confusing array of types and titles. Generally speaking, however, they fall into two major groups :

auxiliary nurses or health technicians	*health promoters or village health workers*
—at least primary education plus 1-2 years training	—average of 3rd grade education plus 1-6 months training
—usually from outside the community	—usually from the community and selected by it
—usually employed full time	—often a part time health worker supported in part by farm labor or with help from the community
—salary usually paid by the programme (not by the community)	—may be someone who has already been a traditional healer.

* Health Care and Human Dignity by David Werner, 1976. Available through the Hesperian Foundation, P.O. Box 1692, Palo Alto, California 94302, USA. Please send $2.00 U.S. to cover copy and postage. Also available from VHAI (C-52).

In addition to the health workers just described, many Latin American countries have programmes to provide minimal training and supervision of traditional midwives. Unfortunately, Health Departments tend to refer to these programmes as *"Control de Parteras Empiricas"*—Control of Empirical Midwives—a terminology which too often reflects an attitude. Thus to Mosquito Control and Leprosy Control has been added Midwife Control. (Small wonder so many midwives are reticent to participate !) Once again, we found the most promising work with village midwives took place in small non-government programmes. In one such programme* the midwives had formed their own club and organized trips to hospital maternity wards to increase their knowledge.

What skills can the village health worker perform ? How well does he perform them ? What are the limiting factors that determine what he can do ? These were some of our key questions when we visited different rural health programmes.

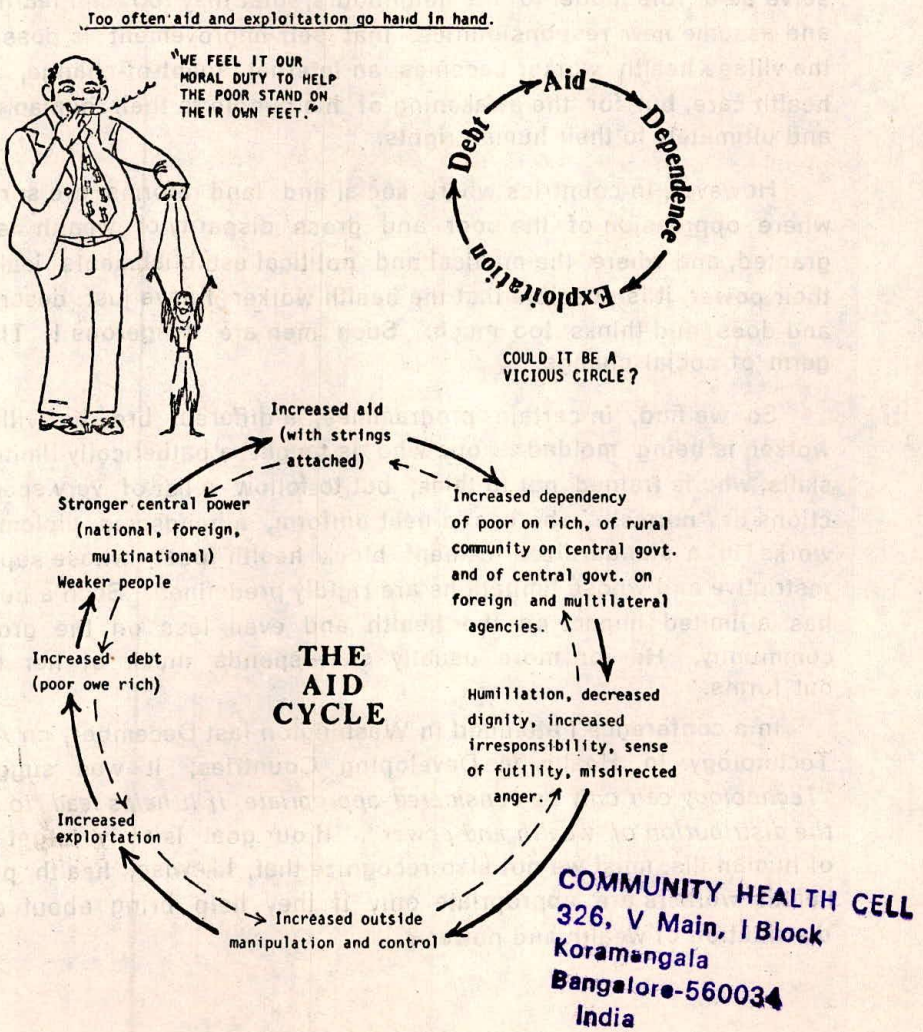
We found that the skills which village health workers actually performed varied enormously from programme to programme. In some, local health workers with minimal formal education were able to perform with remarkable competence a wide variety of skills embracing both curative and preventive medicine as well as agricultural extension, village cooperatives and other aspects of community education and mobilization. In other programmes—often those sponsored by Health Departments—village workers were permitted to do discouragingly little. Safeguarding the medical profession's monopoly on curative medicine by using the standard argument that prevention is more important than cure (which it may be to us but clearly is not to a mother when her child is sick) instructors often taught these health workers fewer medical skills than many villagers had already mastered for themselves. This sometimes so reduced people's respect for their health worker that he (or usually she) became less effective, even in preventive measures.

In the majority of cases, we found that external factors, far more than intrinsic factors, proved to be the determinants of what the primary health worker could do. We concluded that *the great variation in range and type of skills performed by village health workers in different programmes has less to do with the personal potentials, local conditions or available funding than it has to do with the preconceived attitudes and biases of health programme planners, consultants and instructors.* In spite of the often repeated eulogies about "primary, decision making by the communities themselves", seldom do the villagers have much, if any, say in what their health worker is taught and told to do.

* In Pinalejo, Honduras.

The limitations and potentials of the village health worker—what he is permitted to do and, conversely, what he could do if permitted—can best be understood if we look at his role in its social and political context. In Latin America, as in many other parts of the world, poor nutrition, poor hygiene, low literacy and high fertility help account for the high morbidity and mortality of the impoverished masses. But as we all know, the underlying cause—or more exactly, the primary disease—is Inequity : inequity of wealth, of land, of educational opportunity, of political representation and of basic human rights. Such inequities undermine the capacity of the peasantry for self care. As a result, the political/economic powers-that-be assume an increasingly paternalistic stand, under which the rural poor become the politically voiceless recipients of both aid and exploitation. (See Figure 1) In spite of national, foreign and international gestures at aid and development, in Latin America the rich continue to grow richer and the poor poorer. As anyone who has broken bread with villagers or slum dwellers knows only too well : *health of*

Fig. 1



the people is far more influenced by politics and power groups, by distribution of land and wealth, than it is by treatment or prevention of disease.

Political factors unquestionably comprise one of the major obstacles to a community supportive programme. This can be as true for village politics as for national politics. However, the politico-economic structure of the country must necessarily influence the extent to which its rural health programme is community supportive or not.

Let us consider the implications in the training and function of a primary health worker :

If the village health worker is taught a respectable range of skills, if he is encouraged to think, to take initiative and to keep learning on his own, if his judgment is respected, if his limits are determined by what he knows and can do, if his supervision is supportive and educational, chances are he will work with energy and dedication, will make a major contribution to his community and will win his people's confidence and love. His example will serve as a role model to his neighbours, that they too can learn new skills and assume new responsibilities, that self-improvement is possible. Thus the village health worker becomes an internal agent-of-change, not only for health care, but for the awakening of his people to their human potential ... and ultimately to their human rights.

However, in countries where social and land reforms are sorely needed, where oppression of the poor and gross disparity of wealth is taken for granted, and where the medical and political establishments jealously covet their power, it is possible that the health worker I have just described knows and does and thinks too much. Such men are dangerous ! They are the germ of social change.

So we find, in certain programmes, a different breed of village health worker is being molded .. one who is taught a pathetically limited range of skills, who is trained not to think, but to follow a list of very specific instructions or "norms", who has a neat uniform, a handsome diploma and who works in a standardized cement block health post, whose supervision is restrictive and whose limitations are rigidly predefined. Such a health worker has a limited impact on the health and even less on the growth of the community. He—or more usually she—spends much of her time filling out forms.

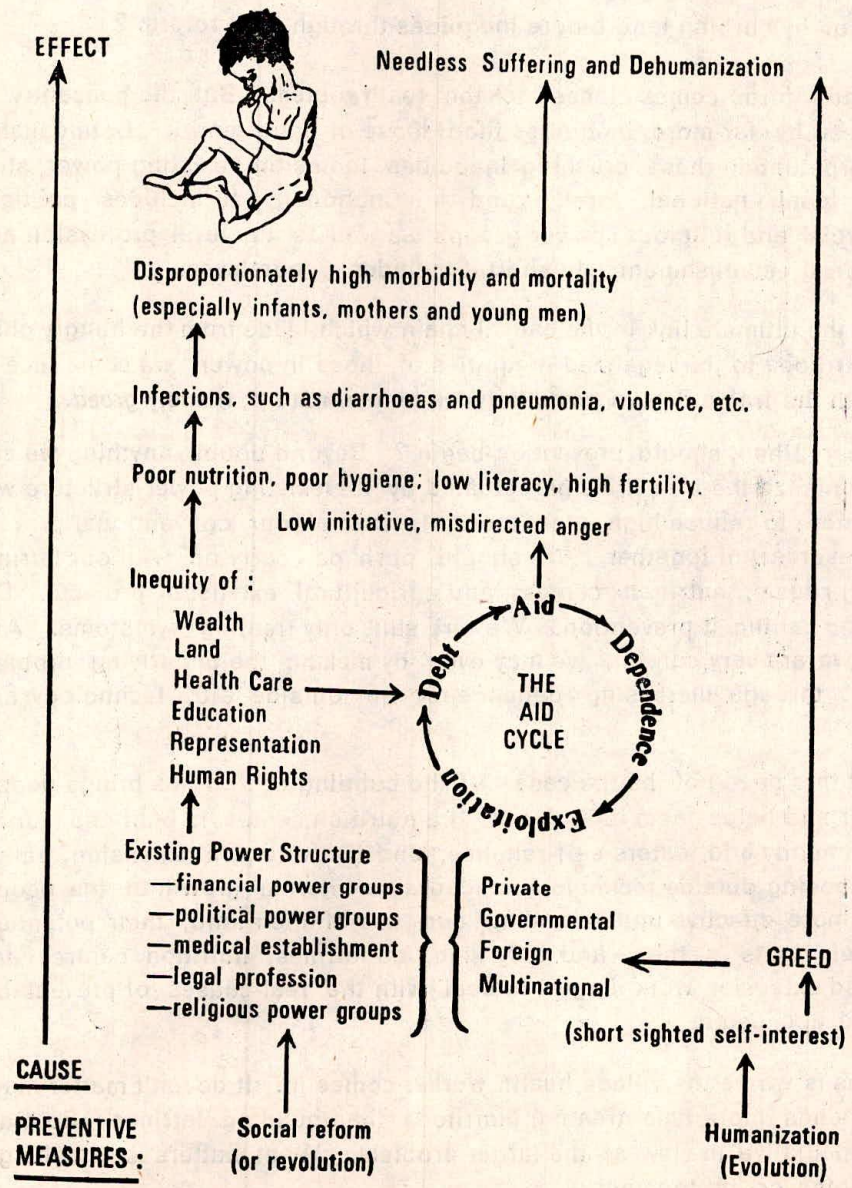
In a conference I attended in Washington last December, on Appropriate Technology in Health in Developing Countries, it was suggested that *"Technology can only be considered appropriate if it helps lead to a change in the distribution of wealth and power"*. If our goal is truly to get at the root of human ills, must we not also recognize that, likewise, health projects and health workers are appropriate only if they help bring about a healthier distribution of wealth and power ?

We say prevention is more important than cure. But how far are we willing to go ? Consider diarrhoea :

Each year millions of peasant children die of diarrhoea. We tend to agree that most of these deaths could be prevented. Yet diarrhoea remains the number one killer of infants in Latin America and much of the developing

Fig. 2

WE SAY PREVENTION IS MORE IMPORTANT THAN CURE—
BUT WERE SHOULD PREVENTION BEGIN ?



world. Does this mean our so-called "preventive" measures are merely palliative ? At what point in the chain of causes which makes death from diarrhoea a global problem (see Figure 2) are we coming to grips with the real underlying cause. Do we do it ...

... by preventing some deaths through treatment of diarrhoea ?

... by trying to interrupt the infectious cycle through construction of latrines and water systems ?

... by reducing high risk from diarrhoea through better nutrition ?

... or by curbing land tenure inequities through land reform ?

Land reform comes closest to the real problem. But the peasantry is oppressed by far more inequities than those of land tenure. Both causing and perpetuating these crushing inequities looms the existing power structure : local, national, foreign and multinational. It includes political, commercial and religious power groups as well as the level profession and the medical establishment. In short it includes ... oursleves.

As the ultimate link in the causal chain which leads from the hungry child with diarrhoea to the legalized inequities of those in power, we come face to face with the tragic flaw in our otherwise human nature, namely *greed*.

Where, then, should prevention begin ? Beyond doubt, anything we can do to minimize the inequities perpetuated by the existing power structure will do far more to reduce high infant mortality than all our conventional preventive measures put together. We should, perhaps, carry on with our latrine-building rituals, nutrition centers and agricultural extension projects. But let's stop calling it prevention. We are still only treating symptoms. And unless we are very careful, we may even by making the underlying problem worse ... through increasing dependency on outside aid, technology and control.

But this need not be the case. *If* the building of latrines brings people together and helps them look ahead, if a nutrition center is built and run by the community and fosters self-reliance, and *if* agricultural extension, rather than imposing outside technology encourages internal growth of the people toward more effective understanding and use of their land, their potentials and their rights ... then, and only then, do latrines, nutrition centres and so-called extension work begin to deal with the real causes of preventable sickness and death.

This is where the village health worker comes in. It doesn't matter much if he spends more time treating diarrhoea than building latrines. Both are merely palliative in view of the larger problem. What matters is that he get his people working together.

Yes, the most important role of the village health worker *is* preventive. But preventive in the fullest sense, in the sense that he helps put an end to oppressive inequities, in the sense that he helps his people, as individuals and as a community, liberate themselves not only from outside exploitation and oppression, but from their own short-sightedness, futility and greed.

The chief role of the village health worker, at his best, is that of liberator. This does not mean he is a revolutionary (although he may be pushed into that position). His interest is the welfare of his people. And, as Latin America's blood-streaked history bears witness, revolution without evolution too often means trading one oppressive power group for another. Clearly, any viable answer to the abuses of man by man can only come through evolution, in all of us, toward human relations which are no longer founded on short-sighted self-interest, but rather on tolerance, sharing and compassion.

I know it sounds like I am dreaming. But the exciting thing in Latin America is that there already exist a few programmes that are actually working toward making these happen—where health care for and by the people is important, but where the main role of the primary health worker is to assist in the humanization or, to use Paulo Freire's term, *conscientization* of his people.

Before closing let me try to clear up some common misconceptions.

Many persons still tend to think of the primary health worker as a temporary second-best substitute for the doctor ... that if it were financially feasible the peasantry would be better off with more doctors and fewer primary health workers.

I disagree. After twelve years working and learning from village health workers—and dealing with doctors—I have come to realize that the role of the village health worker is not only very distinct from that of the doctor, but, in terms of health and well-being of a given community, is far more important. (See Appendix)

You may notice I have shied away from calling the primary health worker an 'auxiliary'. Rather I think of him as the primary member of the health team. Not only is he willing to work on the front line of health care, where the needs are greatest, but his job is more difficult than that of the average doctor. And his skills are more varied. Whereas the doctor can limit himself to diagnosis and treatment of individual "cases", the health worker's concern is not only for individuals—as people—but with the whole community. He must not only answer to his people's immediate needs, but he must also help them look

ahead, and work together to overcome oppression and to stop sickness before it starts. His responsibility is to share rather than hoard his knowledge, not only because informed self-care is more health conducing than ignorance and dependence, but because the principle of sharing is basic to the well-being of man.

Perhaps the most important difference between the village health worker and the doctor is that the health worker's background and training, as well as his membership in and selection by the community, help reinforce his will to serve rather than bleed his people. This is not to say that the village health worker cannot become money-hungry and corrupt. After all, he is as human as the rest of us. It is simply to say that for the village health worker the privilege to grow fat off the illness and misfortune of his fellow man has still not become socially acceptable.

Forgive me if I seem a little bitter, but when you live with and share the lot of Mexican villagers for 12 years, you can't help but feel a little uncomfortable about the exploits of the medical profession. For example, Martin, the chief village medic and coordinator of the villager-run health programme, I helped to start, recently had to transport his brother to the big city for emergency surgery. His brother had been shot in the stomach. Now Martin, as a village health worker supported through the community, earns 1,600 pesos ($80.00) a month, which is in line with what the other villagers earn. But the surgeon charged 20,000 pesos ($1000.00) for two hours of surgery. Martin is stuck with the bill. That means he has to forsake his position in the health programme and work for two months as a wet-back in the States—in order to pay for two hours of the surgeon's time. Now, is that fair ?

No, the village health worker, at his best, is neither choreboy nor auxiliary nor doctor's substitute. His commitment is not to assist the doctor, but to help his people.

The day must come when we look at the primary health worker as the key member of the health team, and at the doctor as the auxiliary. The doctor, as a specialist in advanced curative technology, would be on call as needed by the primary health worker for referrals and advice. He would attend those 2-3% of illnesses which lie beyond the capacity of an informed people and their health worker, and he even might under supportive supervision, help out in the training of the primary health worker in that narrow area of health care called Medicine.

Health care will only become equitable when the skills pyramid has been tipped on its side, so that the primary health worker takes the lead, and so that the doctor is *tap* and not on *top*.

Fig. 3

TIPPING THE HEALTH MANPOWER PYRAMID ON ITS SIDE

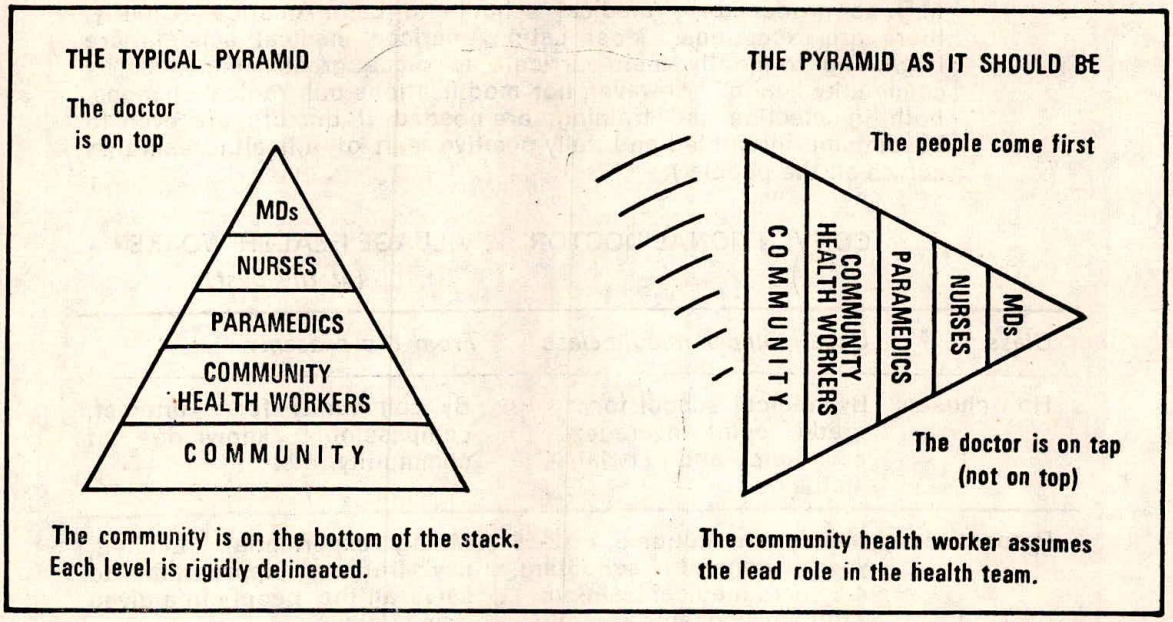


Fig. 4

The primary health worker lives and works at the level of the people.

His first job is to share his knowledge.

(illustration from the book *Where There is No Doctor* by David Werner).

COMMUNITY HEALTH CELL
326, V Main, I Block
Koramangala
Bangalore-560034
India

APPENDIX

Comparison of the Medical Doctor and the Primary Health Worker

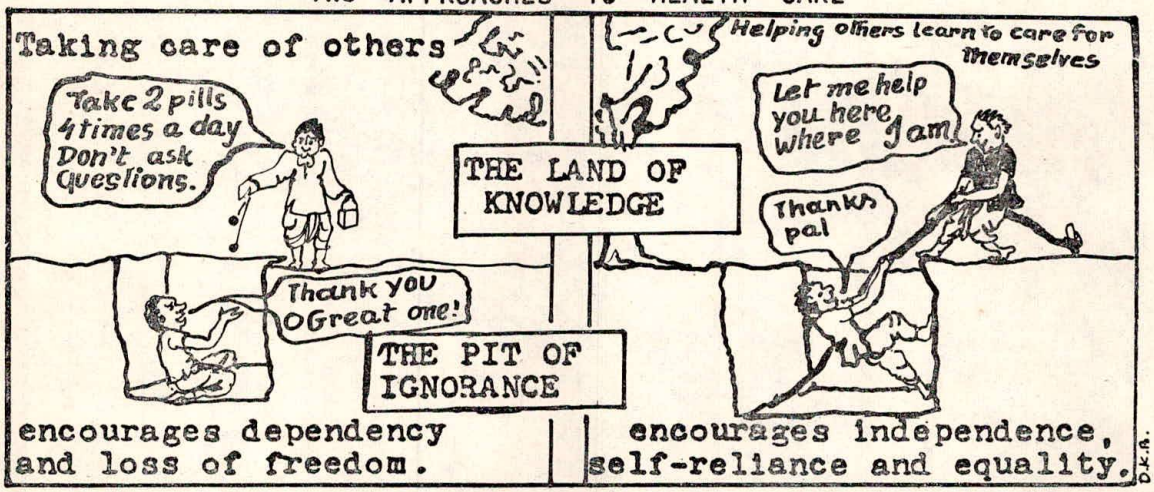
(Note : The medical doctor as described here is the typical Western-style M.D. as produced by medical schools in Latin America. Clearly, there are exceptions. Most Latin American medical schools are beginning to modify their curricula to place greater emphasis on community health. However, not modifications but radical changes, both in selection and training, are needed if doctors are ever to become an integrated and fully positive part of a health team that serves all the people.)

	CONVENTIONAL DOCTOR	VILLAGE HEALTH WORKER *(at the best)*
Class	*Usually upper middle class*	*From the peasanty*
How chosen	By medical school for : grade point average; economic and social status.	By community for : interest, compassion, knowledge of community, etc.
Preparation	Mainly institutional, 12-16 years general schooling, 4-6 years medical training. Training concentrates on * physical and technological aspects of medicine. * and gives low priority to human, social and political aspects. (This is now changing in some medical schools.)	Mainly experiential. Limited, key training appropriate to serve all the people in a given community : * Dx & Rx of important disease * Preventive medicine * Community health * Teaching skills * Health care in terms of economic and social realities, and of needs (felt and long term) of both individuals and the community. * Humanization (conscientization) and group dynamics.
Qualification	Highly qualified to diagnose and treat individual cases. Especially qualified to manage uncommon and difficult diseases. Less qualified to deal effectively with most important diseases of most people in a given community. Poorly qualified to supervise and teach VHW. Well qualified in clinical medicine, but not in other more important aspects of health care; he tends to favour imbalance; wrong priorities.)	Moreq ualified than doctor to deal effectively with the important sicknesses of most of the people. Non-academic qualifications are : Intimate knowledge of the community, language, customs, attitudes towards sickness and healing. Willingness to work and enrn at the level of the community, where the needs are greatest. Not qualified to diagnose and treat certain difficult and unusual problems; must refer.

Orientation	Disease/Treatment/Individual patient oriented.	Health/Community oriented. Seeks a balance between curative and preventive. (Curative to meet felt needs, preventive to meet real needs.)
Primary Job Interest	The challenging and interesting cases. (Often bored by day to day problems.)	Helping people resolve their biggest problems because he is their friend and neighbour.
Attitude toward the sick	Superior. Treats people as patients. Turns people into "cases" Underestimates people's capacity for self-care.	On their level. Treats patients as people.
		Mutual concern and interest because the VHW is village selected.
Attitude of the sick toward M.D. or VHW	Hold him in awe. Blind trust (or sometimes distrust).	See him as a friend. Trust him as a person, but feel free to question him.
How does Medical Knowledge	Hoards it. Delivers "services", discourages self-care, keeps patients helpless and dependent.	Shares it. Encourages informed self-care, helps the sick and family understand and manage problems.
Accessibility	Often inaccessible, especially to poor. Preferential treatment of haves over have-nots. Does some charity work.	Very accessible. Lives right in village. Low charges for services. Treats everyone equally and as his equal.
Consideration for economic factors	Overcharges. Expects disproportionately high earnings. Feels it is his God-given right to live in luxury while others hunger. Often prescribes unnecessarily costly drugs. Overprescribes.	Reasonable charges. Takes the person's economic position into account. Content (or resigned) to live at economic level of his people. Prescribes only useful drugs. Considers cost. Encourages effective home remedies.
Relative Permanence	At most spends 1-2 years in a rural area and then moves to the city.	A permanent member of the community.
Continuity of Care	Can't follow up cases becacuse he doesn't live in the isolated areas.	Visits his neighbours in their homes to make sure they get better and learn how not to get sick again.

Cost Effectiveness	Too expensive to ever meet medical needs of the poor-unless used as an auxiliary resource for problems not readily managed by VHW.	Low cost of both training and practice. Higher effectiveness than doctor in coping with primary problems.
Resource Requirements	Hospital or health centre. Depends on expensive, hard-to-get equipment and a large subservient staff to work at full potential.	Works out of home or simple structure. People are the main resource.
Present Role	On top. Directs the health team. Manages all kinds of medical problems, easy or complex. Often overburdened with easily treated or preventable illness.	On the bottom. Often given minimal responsibility, especially in medicine. Regarded as an auxiliary (lackey) to the physician.
Impact on the Community	Relatively low (in part negative). Sustains class differences, mystification of medicine, dependency on expensive outside resources. Drains resources of poor (money).	Potentially high. Awakening of people to cope more effectively with health needs, human needs, and ultimately human rights. Helps community to use resources more effectively.
Appropriate (future ?) Role	On tap (not on top). Functions as an auxiliary to the VHW, helping to teach him more medical skills and attending referrals at the VHW's request. (The 23% of cases that are beyond the VHW's limits.) He is an equal member of the health team.	Recognized as the key member of the health team. Assumes leadership of health care activities in his village, but relies on advice, support, and referral assistance from the doctor when he needs it. He is the doctor's equal (although his earnings remain in line with those of his fellow villagers.)

TWO APPROACHES TO HEALTH CARE



VILLAGE HEALTH WORKERS CAN HELP DOCTORS LEARN THE SECOND APPROACH

COMMUNITY HEALTH TEAM TRAINING PROGRAMME

PROSPECTUS

CATHOLIC HOSPITAL ASSOCIATION OF INDIA
CBCI CENTRE, GOLDAKKHANA
ASHOKA PLACE, NEW DELHI - 110001
PHONE : 310694

INTRODUCTION

Philosophy and Vision

In the light of the WHO's call 'Health for All by 2000 AD' the revised national health policy of the Government, and in line with the document by Pontifical Council Cor Unum on "the new orientation of health services with respect to primary health care', the teaching of the Church and of the recent Popes, and the statement of the CBCI from time to time, as well as in the light of this consultation, the working team of CHD of CHAI concludes that:

1. In a country like India, so vast and varied, where 80% of its population live in the rural areas and about 90% of the country's health care system caters to the need of the urban minority, a new orientation and rethinking of the whole health care system is the need of the hour.

2. Health is the total well-being of individuals, families and communities as a whole and not merely the absence of sickness. This demands an environment in which the basic needs are fulfilled, social well-being is ensured and psychological as well as spiritual needs are met. Accordingly a new set of parameters will have to be considered for measuring the health of a community such as the peoples part in decision making, absence of social evils in the community, organising capacity of the people. The role women and youth play in matters of health and development etc. other than the traditional ones like infant mortality rate, life expectancy etc.

3. The present medical system with undue emphasis on curative aspect tends mainly to be a profit-oriented business, and it concentrates on 'selling health' to the people, and is hardly based on the real needs of the vast majority of the people in the country. The root causes of the illness lie deep in social evils and imbalances, to which the real answer is a political one, understood as a process through which people are made aware of the real needs, rights and responsibilities, available resources in and around them, and get themselves organised for appropriate actions. Only through this process can health become a reality to vast majority of the Indian masses.

4. The concept of Community Health here should be understood as a process of enabling people to exercise collectively their responsibilities to maintain their health and to demand health as their right. Thus it is beyond mere distribution of medicines, prevention of sickness, and income generating programmes.

In the light of the above conclusions, we identified the exploited and the unorganised masses, particularly those in rural areas as our target group.

We intend to reach this groups through the existing health institutions in the country, especially through the member institutions of CHAI and other individuals and groups engaged in the field of people-oriented programme. In this process, possibilities of collaboration with other voluntary organisations, which up-holds similar philosophy and objectives will be explored to the maximum.

To initiate and promote Community Health programmes in India with the above vision and objectives, we have designed a 15 months course for Community Health Team Training in collaboration with the Voluntary Health Association of India. This long term programme with theoretical and field level training was initially designed by VHAI. We hope that this programme will give our participants sustained guidence and support in three ways:

1. CHAI and other resource persons will be in contact for a period of 15 months.

2. The Community Health and Team Training will emphazise team training and give priority to training several participants from a project, thus ensuring local support for each other.

3. We will train personnel from programmes which are geographically close together so that a wider regional support is provided for the participants in terms of sharing resources and experiences.

Aims and Objectives

The overall aim of the Community Health Team Training Programme is to help prepare teams to participate in the building up of healthy communities with emphasise on people's involvement using appropriate and local resources and responding to community needs.

Specific Objectives : To help participants

1. develop a broad understanding of a healthy community.

2. increase their ability to analyse the society to evolve strategies for bringing about a just social order.

3. to plan, organise, implement and evaluate their own programmes.

4. acquire relevant knowledge, skills and attitudes to achieve the above objectives.

5. build support systems within their team and at the zonal/diocesan/congregational level.

Criteria for Acceptance in the Training Programme

1. Application should be sent by the sponsoring authority to the organising body of the programme: viz. Diocese, Congregation, Action group etc.
2. Preference will be given to persons from programmes which are willing to sponsor two or more candidates for the full duration of the training.
3. There should be a written agreement between the sponsor and sponsored candidate that the candidate will continue to work in the same programme for a period of at least two years after the completion of the course. In case of transfer, due to serious reasons the person should be replaced by another, having the same basic training.
4. It is essential that the candidate have experience in working in rural areas.
5. The candidate should be able to read and write English, and should be conversant with the local language.
6. No specific professional qualification is essential.

Course Outline

I. Understanding of a healthy Community

a. concept of health, community and community health;

b. relationship between 'health' and development;

c. approaches to development;

d. understanding of community involvement and relevance of community organisation;

e. spiritual dimensions—Biblical, pastoral and liturgical;

f. study of relevant church and state documents.

II. A. Analysis of the systems & structures

— Present social, economic, political and cultural structures affecting health and other aspects of the community.

— An introduction to the various systems, their historical development and the values which are inherent.

— Relationship between the micro-level and macro-level situation.

— Analysis of the existing health care system.

B. Values and attitudes required in building a healthy society

III. To plan, organise, implement and evaluate a Community Health Programme

a. methods of analysing an Indian village.

b. methods of identifying community needs and priorities and the skills required.

c. Identification of local resources.

d. collection of information, analysis and interpretation.

e. planning a community health programme.

f. the role of the village community and team, in community health programme.

g. role of NFP in community health programme.

h. promotion of home remedies in community health programme.

i. the role of health personnel in community health programme.

j. principles and methods of evaluation.

IV. Government Programmes

a. Overall view of Government policies and programmes (at all levels)

b. Administrative structure of various services at the local and state levels.

c. collaboration of voluntary agencies with the Government schemes.

V. Introduction to communication and Training Techniques

a. Theory and principles of communication.

b. Methods and media of communication.

c. Inter personal communication.

d. Preparing low cost audio visual aids.

e. Theory and methodology of training.

VI. Basic Management skills

a. Team Building

b. Role analysis and role negotiation

c. Management by objectives

d. Tension management/counselling.

Methodology and course design

— the medium of the course will be English.

— the training programme is spread over a period of 15 months in this way :

Introductory Residential course	3 weeks	1st month
Visit by CHAI team to each participant's programme	5 days for each programme	3rd month
General meeting	5 days	6th month
,,	,,	9th month
,,	,,	12th month
Visit by CHAI team to each participant's programme	5 days for each programme	14th month
Closing seminar	1 week	15th month

1. The three week initial residential course will cover the main concepts of Community Health and Development, analysis of the structures within a village and some basic guidelines to initiate a comprehensive Community Health Programme. At the end of the three weeks the participants will set specific objectives for their work for the next five months.

2. Three general meetings will be held every three months for five days. In these meetings participants will discuss the activities undertaken by them in the interim period, receive additional inputs on a particular topic and set objectives for the next three months.

3. There will be a closing seminar for one week to evaluate the programme and to sum up the learnings of the course in the light of the participants' experience.

4. The CHAI team will visit all participants twice; once after the initial three week course and once before the closing seminar. The first visit is to help participants in:

   a. initial planning of their programme.

   b. involving the rest of their team in their work.

   The second visit is to assess the implementation of the learning of the course.

5. The participants will be expected to :

   — submit short assignments related to topics discussed in the course.

   — submit a major paper by the end of the course based on a study of any chosen aspect of the community. The subject of the study will be decided in consultation with others in their own programme and approved by the CHAI resource persons.

   — make an assessment of their own accomplishments and their community health programme before and after the training programme.

   — keep a diary on the unusual events/observations made during their village visits.

   — hold regular meetings with the rest of their team and keep minutes of each of these meetings.

Location of the Course

For the effective implementation of the programme the course will be conducted for participants working in a given geographical area eg. Diocese, District, etc.

Course Expenses

The course expenses, including the boarding and lodging of the CHAI resource team are to be met by the organising body.

Whom to contact

The Programme Director
Community Health Department—CHAI
CBCI Centre
Goldakkhana
New Delhi 110 001

Community Health Worker Scheme: A Plan for Democratisation

Mark Nichter

The Community Health Worker (CHW) scheme announced soon after the formation of the Janata party government at the Centre, while laudable in its aims, has been poorly implemented. The failure of the scheme can be traced to some serious drawbacks in the founding principles of the scheme itself.

This article, while broadly supporting the spirit and philosophy inherent in the Raj Narain scheme, proposes an alternative plan of community health service whose structure is more democratic, and whose working will be more responsive to the felt needs of the rural population.

ON April 20, 1977, Raj Narain, at that time Union Minister for Health and Family Welfare, announced the creation of a new type of Community Health Worker Scheme to increase health care delivery to the rural poor. The scheme was introduced with modification in selected districts of those states accepting the programme. Reports on the success of the scheme have been controversial. Cases have been cited where individual CHWs have been found to perform their duties remarkably well,[1] but as an overall programme, the Raj Narain Plan, while being laudable in spirit, leaves much to be desired in terms of implementation. In the words of one district health officer, "the scheme is a premature baby; its survival requires a lot of special care, but who can give that kind of care? We in the Health Department barely have enough time to supervise our own staff ... the idea is good, no doubt, but a seed is only as good as the soil into which it is put. Someone should have done some ploughing first and someone should be there for weeding".

These comments are revealing when one reviews evaluations of the scheme's implementation. Take, for example, reports submitted by the Institute of Economic Growth,[2] on the villager's perception of the CHW and CHW's pre-conception of what their role should be; or the report by the Department of Linguistics of the University of Delhi,[3] on the communicability and comprehensibility of the CHW Training Manual. It has commonly been the case that aspiring CHWs are not well informed about the scheme, many jobless opportunists are attracted to the programme as a source of imagined employment and local political leaders do not act in the interests of the community in making CHW selections. The scheme has by and large not engendered community support because local political figures and not laymen primarily constitute health committees. Manuals for instruction have been naively prepared without the knowledge of local language (particularly disease and body terminology) or the villagers' cognitive framework. This has fostered the development of health education strategies which, instead of being culturally appropriate, are a figment of some writer's imagination and preconceived notions.

The poor foundation of the CHW scheme — candidate selection, perception of the CHW role and organisation of instruction — discloses the poverty of its implementation. The same point could be made about the quality of preparatory orientation given to CHW trainers or the disinterest of PHC staff in administering the scheme, etc, but this is not the purpose of this article. Our purpose is rather to suggest a viable alternative to the existing Raj Narain scheme; a plan which may be explored in concept if not in content by health planners and concerned politicians. The plan retains, if not accentuates, the spirit and philosophy of the Raj Narain scheme, but alters the form of implementation and development.

The present plan places emphasis on preliminary groundwork preceding CHW candidate selection, training course organisation and implementation. This groundwork would include targeted community diagnosis research and greater community awareness of its role in establishing and shaping a village level primary health care resource. Without a preliminary community diagnosis of existing nutrition, health and medical ideology/behaviour, the development of culturally appropriate health education strategies is impossible. Without knowledge of community felt needs and credence paid to these needs, the initiation of genuine ongoing community support will lag far behind the expectations of health planners and concerned politicians.

The present plan calls for a greater flexibility in the organisation of local CHW programmes, increased decentralisation and deinstitutionalisation of the overall scheme, and greater community control of the health services provided for its benefit. It calls for a CHW network which is autonomous although complementary to the government medical care network. The existence of two separate interrelated health care networks will ensure that the community has an opportunity to articulate its views in regard to the type of medical services that are presently being provided. The health department, on the other hand, will have an opportunity to demonstrate the effectiveness of its programmes provided that community support is realised. Once it is initiated, community input may play an important role in the restructuring of government health activities; a role at first critical and then constructive. Moreover, the role of the CHW could emerge as that of a primary health care resource responsible to the community as opposed to another cadre of health auxiliary or doctors' assistants responsible to the health bureaucracy. If the CHW's role retains the latter status, it is doubtful that ongoing community support will be mobilised unless such support is the outcome of the personal charisma of an outstanding incumbent.

Rather than banking on one person, the plan places emphasis on the development of a strong base. Village health committees will only be able to gain widespread interest and support by the community when vested with specific powers and responsibilities which will affect the populace at large. Individual CHWs will only feel free to express community dissatisfactions and felt needs when a support system in the form of the CHW 'grand panchayat' exists. The grand panchayat will be able to amplify the voice of one village into the voice of many. The CHW will suffer the same fate as the multipurpose worker or the PHC doctor unless there is people's medical co-

operative which can ensure a reliable and continuous supply of simple medicines within the reach of the poor, demonstrate the power of co-operative action and maximise the services and training of CHW and PHC staff alike.

The plan is presented from below. Attention will first be directed toward preliminary research necessary for the planning of regional CHW programmes. Following a discussion of how a community diagnosis element may be introduced into the CHW scheme, selection of initial impact sites and the initiation of Village Health Committees is considered. Next, the concept of culturally relevant CHW training is briefly considered as well as the formation of medical co-operatives as tangible incentives for the existence of a village health committee. This discussion is followed by a model of how such a scheme might be administered if it became possible for the scheme to be disentangled from government medical service which suffers from its own organisational weaknesses, supervision problems, and resource restraints.

Organisation of Community Diagnosis Teams

Initially, a study of typical village and town health arenas in an impact taluk in each district should be conducted by a community diagnosis research team led by an experienced team leader. One research team leader for each district should receive training at a state level community diagnosis training/research centre. Candidates should be social scientists with previous research experience. Training should primarily be practical in-field instruction and instructors should have already carried out a successful community diagnosis study themselves. A procedure for community diagnosis should be followed but each team leader should have to demonstrate an ability to adapt the methodology to a different set of research conditions. Guidelines for such studies are presently being drawn up by an exploratory community diagnosis research project.[4] As experience in community diagnosis methodology increases, the state level community diagnosis research centre will be responsible for disseminating new ideas and holding workshops for team leaders.

Team leaders should be assisted by one or more social scientists undergoing apprenticeships in community diagnosis. These apprentices will become future research team leaders. They should preferably have past fieldwork experience.

Interviewer instructors should be chosen for future project work in the district from a group of interviewers selected to carry out a battery of open-ended suveys on nutrition, health and medical ideology/behaviour. Interviewers who demonstrate a good field technique, interest in community development work, self initiative and responsibility should be retained after the survey work is completed. They will work as core staff research assistants in training for positions as interviewer instructors in successive district projects. They will assist in data tabulation and follow up research as well as function as community organisers communicating to villagers in an impact zone the nature of the CHW scheme and the function and benefits open to village health committees.

The number of interviewers should be in accord with the socio-demographic make-up of the area selected for study as well as the capacity of core staff to adequately supervise their fieldworkers. Personnel should be selected on the basis of four day field trials and an interest in community development, and not merely by academic qualifications. Whenever possible, male and female candidates should be balanced. The age of the interviewer is not as important as the respect that the interviewer can elicit in the community.

The state level community diagnosis research/training centre should have at its disposal, if not on its staff, a nutritionist, and epidemiologist, a pediatrician, an applied linguist, and a tropical disease technical advisor. Formal links should be established between the centre and health related research centres, departments of social and preventive medicine, etc. Post-graduate candidates should be encouraged to utilise the data collected by research teams and thus take part in analysis work as part of their graduate study. This will acquaint them with the facts of rural reality and bring to light new aspects of behaviour patterns. At the same time advice offered by these researchers on data to be collected can serve to improve the quality and breath of field research undertaken. Each district should, moreover, have honorary medical advisors appointed to assist the community diagnosis research team and later the CHW training staff and CHW grand panchayats.

Community Diagnosis Research

Research into the following topics should be undertaken by local teams. The variables of class, caste, education, age, and locale (interior village, progressive village, town) should be taken into account when these variables are relevant.

Local concepts of physiolyogy, work cycles, economic cycles, weights and measures system.

Local concepts of physiology.

Prevalent notions of disease etiology and contagion.

Illness terminology and classification including the signs and symptoms associated with folk illness categories. Also, all notions of illness transformation and progression into different categories of illness states.

Local preventive, and promotive health measures.

The nutritional context: (a) foods available, season, cost; (b) means of preservation; (c) maximisation of available foods in different seasons; (d) qualitative food classification and their influence on diet during illness, pregnancy and post partum; and (e) child feeding practices.

Present medical behaviour in relation to the utilisation of home remedies, indigenous medicines and doctor's medicines.

Illness specific patterns of resort in the use of co-existing pluralistic therapy systems and reasons for such patterns (economic, social, cultural, etc) among rural and town populations.

Survey data on health expenditure by the lay population.

A spot map of all existing health manpower residing in the impact zone.

Felt health and development needs expressed by social groups residing in the survey area, as well as data on attitudes toward the Community Health Worker Scheme, and the construction of village health committees.

Selection of Impact Sites

Community Diagnosis staff members should initially disseminate information about the CHW scheme towards the end of their study period when surveying felt needs. After concluding initial research work they should spend additional time in a pre-chosen impact zone explaining the scheme to villagers lying within a given economic status ceiling.

It is essential that voting members of the VHC should fall within a fixed economic ceiling approximating the economic capacity of the majority of people living in the area. Wealthier villagers, it is reasoned, will provide for their own health needs regardless of the existence of CHW and VHC. Inclusion of wealthier villagers will, moreover, increase tangential political acti-

vity and influence peddling. However, wealthier villagers may be invited to attend the VHC and become members of the village medical co-operative, particularly if they are service minded. Moreover, it should be the VHC's prerogative to choose a person of any income status as a CHW for the village.

On the basis of the response generated, researchers should prepare a list of those villages showing most interest in the scheme. From this list, villages displaying the greatest degree of social cohesion and the least number of existing health resources should be selected as impact villages. Community diagnosis team members should visit these villages and arrange for well publicised public meetings so that the populace can air its views on how a village health committee should be chosen and organised. As a means of initiating discussion at these meetings, community diagnosis staff should present their findings on this subject from the felt needs survey undertaken. Villagers, at the meeting, should be told the benefits of entering the programme as well as the responsibilities of the community. Incentives would include training for a local candidate in first aid and promotive health, a small supply of basic medicines to be administered to the poor, and seed money for the establishment of a medical co-operative. Responsibilities of the VHC would be the formation and bi-monthly meeting of a village health committee, assistance in the evaluation of CHW performance and management of the local medical co-operative.

Ideally, a short film could be made in each socio-linguistic region realistically depicting the life, training, and duties of the CHW and the organisation of the VHC and medical co-operative. Such a film would be a good means of gathering the rural populace. It could be accompanied by talks with CHWs from existing programmes.

The selection of members of a VHC should follow the mandate decided at the public meeting. At the time of choosing the health committee, terms of membership should be established and a procedure should be set up for the public review of village health committee activities.

It is advisable to organise VHC and train CHWs in stages. Initial impact villages should not be grouped together but should be situated amidst two to four uncovered villages. These other villages will have an opportunity to see the scheme in action and if the scheme is successful, uncovered villages will request inclusion into phase two programmes instead of having to be sold the idea. Moreover, experience has proved that initial CHW candidates are often unemployed and think that the post will lead to permanent employment. It will soon become clear that such is not the case and candidates in phase two may be of a more appropriate type. The weeding out of opportunists will thus become easier in progressive stages of the scheme.

Training

It is strongly suggested that trainers should not be PHC staff members. There are many reasons for this. PHC staff are already overworked, and it is rare to find a PHC doctor who feels that he can adequately supervise his existing staff let alone assist in the training and supervision of another cadre of workers. Moreover, the popularity of the scheme will initially be greater if it is dissociated from the PHC. Initial contact with PHC staff will create the wrong impression that the CHWs are junior members of the PHC staff. At all times, it should be stressed that the role of the CHW and PHC staff are complementary.

It would be better if a mix of interested house surgeons desiring to enter government service and a few respected rural practitioners be selected as trainers. These trainers should be given guidance and support from district health educators, departments of social and preventive medicine in nearby medical colleges, and members of a district level CHW steering committee. House surgeons are considered to be a good choice as trainers, as CHWs will be less intimidated by them than by established doctors. These younger doctors, it is reasoned, will be more accessible to CHWs who will view them as a source of technical knowledge.

Before being able to train CHWs, the prospective trainers must undergo an orientation course. This course should be broken into three sections. First, trainers should read a copy of the report submitted by the community diagnosis team. A few days of discussion and dialogue should follow organised by the community diagnosis research team. Next, the house surgeons should undergo a two week live-in period with members of the community diagnosis team. They should not practice medicine during this period, but rather enter into the cognitive universe of the layman by attending interviews, carrying out a few surveys, and engaging in dialogue with indigenous practitioners. Prospective trainers should undergo a brief training course in the organisation of lesson plans and the medical context of the CHW programme. The curriculum of the training course should be flexible enough to accommodate the recommendations of prospective trainers following their field orientation and the expressed felt needs of villagers elicited by community diagnosis team members. Of particular importance here is patterns of resort data in respect to preferred forms of treatment for specific diseases. CHWs should receive training in appropriate allopathic and alternative therapies in accord with the preferences of the local population. Where no clearly effective preferred therapy type is known, CHWs may be trained in the eclectic administration of both allopathic and indigenous therapies enhancing the patient's chance of recovery.

Community diagnosis team members should play an active part in the latter stages of the training course. They should assist by helping trainers anticipate reactions to new ideas. It is imperative that CHW education courses prepare prospective CHWs to confront existing ideas which either clash or support modern health ideology. Informed educational strategies should be planned accordingly.

Training should encourage the maximisation of locally available resources and manpower. Ideally, the CHW should become a liaison between local sources of therapy and specialist services. CHWs should be encouraged to enter into referral networks of their local health arenas and provide triage service as opposed to competing with existing practitioners. They should be seen as a source of assistance and not as a competitive threat. In this regard, CHWs and project staff should become familiar with local practitioners, explain their purpose and ask for their assistance. Where deemed appropriate by the community, local practitioners can be asked to be honorary members or advisors to the VHC.

It should be made clear from the beginning that CHWs are not being trained as doctors' assistants or extenders. Their work should be defined as primarily involved with preventive and promotive health. The early treatment and recognition of minor ailments, which can develop into major diseases if neglected, should be presented as one aspect of preventive health. However training in first aid should not overshadow training in nutrition, and practical means of enhancing environmental health. Specific suggestions on

the alteration of diet and improvement of health habits can be made after data collected by community diagnosis staff on existing dietary and health habits has been reviewed by the CHW training staff.

Training courses should be organised during months when essential agricultural operations are not taking place. Initial training should be of short duration, preferably no longer than four weeks. After this, CHW novices should start a first aid station in their village. For three months, the CHWs should attend weekend courses geared toward specific skills as a means of upgrading their knowledge. CHWs should be encouraged to suggest topics for these weekend courses. First aid should be initially stressed because it is doubtful that villagers will listen to the advice of the CHWs until they prove their worth. Gradually, the emphasis of CHW training should be directed towards nutritional and environmental health issues. Ongoing education after the third month should be available upon request from a CHW grand panchayat.

The training of a second batch of CHWs in phase two should benefit from the experience of phase one. Trainers should better be able to anticipate difficulties and unforeseen subject areas demanding increased attention. Moreover, CHWs from phase one should play an instrumental part in the reorganisation of training material and in the training of colleagues in the field. Members of the CHW grand panchayat should have the power to replace ineffective training staff.

Location for training courses should be strategic in accord with transport facilities. Whenever possible, training courses should be in rural settings, having no oppressive connotations. For this reason, panchayat halls, temples, and schools are more advisable than PHCs or taluk board hospitals.

Evaluation of CHWs

After training of the first batch of CHWs has been completed, novices should undergo a three month trial period during which time they should be given weekly supervision and support by members of the training team and the community diagnosis team. Once a weak for at least two months, one trainer should visit the village thus demonstrating ongoing support. This will also give the CHW a chance to ask practical questions about specific cases. Evaluation of CHWs should be based on observation of their fieldwork and not by written examinations.

The village health committee should evaluate the work of CHWs in terms of their interest in work, availability, and general community opinion. If the VHC is not satisfied with the CHW's performance, they may request that the CHW return the allocated medicine kit and find an alternative candidate for the next training period. All cases of dissatisfaction should be investigated by community diagnosis fieldstaff during phase one and later by the CHW grand panchayat to minimise cases of petty jealousies.

CHW novices who have undergone the three month trial period to the satisfaction of the VHC and their trainers will become members of a taluk level grand panchayat of CHWs. This panchayat will have the responsibility of suggesting and planning additional 'short-term training courses. It should exercise the right to call to the medical officers attention PHC personnel whose work is not deemed up to standard by village health committees. Complaints may be addressed to the ADHO when they pertain to the work of PHC doctors and senior health staff. This would be the case when senior staff do not pay credence to cases referred by CHWs. A procedure for airing grievances is essential if an effective triage system is to be established between CHWs, PHC field staff, and medical personnel.

Experienced CHWs who have undergone considerable additional training and who have proven themselves in the field may be asked to take part in the evaluation of junior CHWs and to become advisors or assistants for CHW trainers during new training courses.

Village Health Co-Operative

The village health committee should initially be given seed money for the establishment of a medical co-operative. Drugs stocked will vary with the requirements of the community, storage facilities, distance to formal sources of medical care and supplies, medical personnel residing in the area and the level of training of the CHW. If the CHW is the only medical resource, medicines stocked should reflect the disease specific training sessions attended by the CHW as arranged by the CHW grand panchayat or CHW training staff. It should be possible for specific CHWs to gain knowledge of particular diseases if these diseases are chronic, especially if the villagers have no recourse to medical assistance at present. Therefore, the medicine content of co-operatives will vary. Provision should be made for purchasing the initial supply of basic medicine. This amount may be increased for the purchase of additional drugs if trained personnel exist to administer them and if the community provides a percentage of the seed money towards the purchase.

Funds, and not medicine, should be supplied to medical co-operatives, in order to give each community a chance to manage its own supplies, so that each community is not dependent on the government medicine distribution system which has its own drawbacks. Moreover, villagers question the efficacy of government medicines due to past experiences, which may in reality have had more to do with dosage and supply than quality. In any case, grand panchayats should purchase large stocks of medicine from reputable sources. If reordering periods fall outside a village's time of need, such a village will be in a position to order drugs locally for the duration. District steering committee representatives should give guidance to CHW grand panchayats about the ordering of drugs, generic names, and reputable sources.

Medicine is to be sold to villagers at cost, or if the VHC deems it appropriate, at a slight profit margin. These medicines may be recommended by a local CHW, a PHC staff member, or be prescribed by private or government doctors. Medicine supplied by the government to CHWs in kit form (Rs 600 yearly) may be used for the very poor (as defined by the village health committee) or as initial doses of medicine to be issued by the CHW during field visits and to be followed up by medicines purchased by the patient.

The CHW grand panchayat should work jointly with the BDO in procuring ready supplies of local medicines, available organic supplements which can be preserved and locally produced tonics, nutrition supplement biscuits, etc. If there is tremendous felt need among villagers in some regions for tonics, which on the commercial market are overpriced and of a higher strength than is required, small-scale industry grants should be awarded to local parties to meet this felt need. These grants should be sanctioned by the CHW grand panchayat and BDO after the local mixture has been approved by a nutrition expert. Moreover, subsidies should be awarded for the procuring and distribution of seeds and seedlings of those plants which are high in the vitamins and minerals deficient in the area. CHWs should have access to a supply of food supplements for cases of severe protein and calorie malnutrition such as exists for school feeding programmes.

The medical co-operative should be initiated only after a village health committee has been formed, a CHW has undergone both training and an initial three month trial period, and a place

for the storage of medicine provided by the VHC has been approved by the CHW training staff. The prices of all medicine should be posted in public and records of co-operative sales should be open for public inspection and should be submitted quarterly to the CHW grand panchayat. A charge for treatment by CHW (10 to 20 paise) may be fixed by the village health committee for those who can afford to pay.

CHW Grand Panchayat

Six months after their initial training and successful evaluation, CHW novices should become members of a taluk level grand panchayat. This panchayat should meet monthly to plan new training courses, reorder essential medicines for medical co-operatives, hear grievances, and discuss new health information and plans for community health programmes. The panchayat should be a whole day affair with the morning being reserved for a general metting attended by CHWs only, and the afternoon reserved for a general meeting with the members of the block development office and community diagnosis staff, the ADHO and senior PHC staff, and other advisors. The grand panchayat should not come under the control of the health department but be an interdependent body attached to the BDO and supervised by the district steering committee representatives. It should have at its disposal a part time typist and accountant.

Replication

CHWs from impact villages should each familiarise the populace of two neighbouring villages with the scheme and assist the leaders of these villages in the planning of meetings towards the formation of village health committees. They should be assisted by the community diagnosis team now in its last stage of work in the taluk. The CHW grand panchayat should suggest changes in the training curriculum and should plan on playing an active part in the field training of new candidates. They should offer support to new candidates in much the same way as community diagnosis staff did in phase one.

The second batch of candidates should be trained no sooner than five months after the training of the first batch of CHWs has been completed allowing time for an initial evaluation of phase one activities, the creation of a grand panchayat, and the introduction of medical co-operatives.

With the start of phase two, some sixteen months after the initiation of the scheme, core staff from the community diagnosis staff should split into two or three groups depending on the number of team leaders undergoing apprenticeship. The team leaders should choose one interviewer from the present project as an assistant-cum-interviewer/instructor. Interviewers having potential as instructors should be retained as core staff after the completion of the initial four-month survey conducted by local interviewers. They should assist senior core staff in their various activities associated with the formation of village health committees and the development of educational strategies for CHW training.

New research teams can be dispatched to nearby districts or taluks requiring individual community diagnosis studies in accord with differential socio-cultural conditions. The differences between taluks should be considered by core research staff when entering a district so they can estimate the radius of relevance of their survey findings. New research teams should arrange meetings between potential impact villages and experienced CHWs in areas where the scheme is already in progress.

Administration of CHW Scheme

A state level steering committee should oversee the development of the CHW scheme. The steering committee should comprise the state health minister and health secretary (who should act as committee co-ordinator) and at least two health education experts from departments of social and preventive medicine in state medical colleges, two social scientists representing the state level community diagnosis research training centre, two nutrition experts, an expert in indigenous medicine and members of voluntary agencies supporting different aspects of the CHW scheme or similar alternative health care delivery programmes. The Committee should be backed up by a staff of three public health officers with health planning and management experience recruited through the civil service. Each of the three public health officers should eventually be assisted by an experienced community diagnosis team leader. A staff of accountants responsible for the administration of medical co-operative funds and supplies, and clerical staff responsible for dissemination of information pertinent to the CHW programme should also provide backup.

The central steering committee should have two district level staff officers in each district covered by the scheme. These officers should eventually be recruited from former CHW (medical) training staff. They should be assisted by two to four former community diagnosis interviewer trainers. The role of these representatives and staff should be to oversee the planning of training courses and regional CHW grand panchayat activities. They should, moreover, be responsible for the selection of CHW trainers and organisation of CHW training schemes.

A community diagnosis research training centre should be established in each state and should come under the control of the health secretary. The purpose of this training centre will be to train project leaders in field and impart administrative skills necessary for initiating regional community diagnostic studies. The centre will be rural based and its initial goal will be to train one team leader for each district in the state. These leaders will then train future team leaders who will work in other taluks through an apprenticeship system. The centre should be a repository for regional data bases on nutrition, health, and medical ideology and behaviour. The centres should sponsor and co-ordinate ongoing research and should take an active part in the field evaluation of the CHW scheme as it proceeds during different stages of development. It should also assist in the evaluation of other national and state level community welfare schemes. This would provide an in-field feedback mechanism which would facilitate community expression, in as much as regional research teams are primarily composed of local candidates whose job it is to move within the community.

The work of CHW should be complementary to that of PHC field staff. However, a CHW is responsible to the community not to the health bureaucracy. PCH staff may request the assistance of CHWs in planning vaccination campaigns, disseminating information about family planning camps, etc. At no time, however, should PHC staff members have the authority to pressure CHWs into fulfilling targets or participating in campaigns without the expressed consent of the CHW grand panchayat. CHWs should have the mandate to request PHC staff to participate in vaccination camps which they organise and to take part in village health committee sponsored programmes such as first aid courses, children's weigh-in days, etc. Local PHC staff should attend village health committee meetings when requested, and PHC senior staff members should attend bi-monthly afternoon meetings of the CHW grand panchayat and a CHW grand panchayat liaison committee should be set up to co-ordinate the joint activities of the two complementary health resources. Most importantly, the CHWs, the PHC field-

staff and government doctors must work together in forming a medical lifeline, a triage system from the village to the hospital.

Some Conclusions

How difficult would it be to carry out the envisioned scheme on the ground? While comments cannot be made about implementation on the state level in respect to the health bureaucracy, a few comments can be made concerning the feasibility of implementation at the local level. These comments are made on the basis of three years of ethno-medical analysis of rural health arenas in South India by the author, numerous discussions and interviews with Indian colleagues, and a ten-month exploratory community diagnosis project recently conducted in the North and South Kanara districts of Karnataka.

Community diagnosis teams, it was found by experience, could construct data bases of essential health ideology and behaviour patterns within the time frame prescribed. They were able to generate relevant dialogue about community felt needs and propagate the concept of the CHW and village health committees. This was only possible after first gaining the confidence of the community by their hard work, culturally appropriate method of asking questions, and their ability to demonstrate the benefit of co-operative action in other spheres.

A broad cross-section of villagers surveyed overwhelmingly favoured CHW scheme's autonomy from the PHC, the idea of a local medical co-operative, the concept of a CHW charging 10-20 paise per service and the waiving of such charges to those in dire need as defined by the village health committee.

In areas having different socio-demographic patterns, ideas about who the CHW should be (age, sex, married/single), how the CHW should be selected (open meeting, by caste leaders, by panchayat, etc) and how a village health committee should be constituted (membership, terms, etc) were significantly different, thus laying emphasis on the need for a flexible CHW implementation scheme to meet the needs of the people concerned.

Regional trends exist in respect to the different types of medicine villagers prefer for a variety of common illnesses (of biomedical as well as ethno-medical origin). The populace expressed a desire for CHWs to be trained in medicine according to their preferences when feasible. If such medicine proved to be non-effective they noted that this would soon become clear and CHWs could be requested to provide alternative forms of medicine.

Potential CHWs expressed a general preference to be instructed by young doctors as opposed to established doctors who they perceived as being distant from them.

Interviews with final year medical students from several medical schools revealed that many of those young doctors who once considered rural practice (for two years or more) were now cold towards the prospect primarily because (a) of the ambiguity of what rural work entailed, (b) rural work was generally perceived as sitting alone in a rural clinic without a reliable supply of basic medicines, (c) in respect to government service, the amount of paper and administrative work was overwhelming. It may be noted that many of these students had visited or talked to PHC doctors about the reality of village work. When confronted with the concept of the CHW trainer, many young doctors considered the idea good and expressed interest in the programme. To our surprise, many particularly liked the idea of gaining initial orientation and experience by spending time in a rural area with community diagnosis team members who would act as their guides, and direct them to priority areas of consideration.

Interviews with district health and PHC staff revealed that they were only too happy to disentangle themselves from the added burden of administration and supervision of the CHW programme. All senior staff members interviewed noted that it would be better to focus their attention on clearing up their own house before accepting new responsibilities. While some staff members spoke favourably of the philosophy of the CHW programme a large majority had serious doubts and misgivings about its worth (aside from the issue of implementation) and could not be considered as the most appropriate motivators for the scheme. Many doctors still felt that the scheme was misconceived and that what was really needed was more mobile units and PHC workers.

With respect to the last comment, a few words may be said about the misconceived notion that increased coverage by PHC staff will improve the quality of health care. Recently the Karnataka government carried out a 'total health care scheme' in model villages in each district. PHC staff was increased to the optimum, mobile clinics (or temporary sub-centres) were established, and PHC staff attempted to mobilise community support by approaching 'local leaders'. While government reports were full of self praise, investigation by project staff found the programme to have had little positive effect on the community and in fact to have had a number of negative ramifications. The most serious ramification was a further loss of credibility by the health department and increased suspicion of government health programmes which provided sporadic health activity without continuity of care. The services of government staff were not maximised (although the presence of a doctor was welcomed) because staff were perceived as outsiders scrambling for targets while having no responsibility to the community. The issue then is not simply greater coverage but more responsible coverage of rural areas facilitating the organisation of a workable triage system.

Qualitative measures used for the evaluation of programme did not reflect the reality of government health activity in the villages. Let me cite an example. Checking vaccination statistics (which are generally grossly exaggerated), project staff found that less than 20 per cent of villagers receiving vaccination in a sample of 300 households had any idea of what vaccinations they had received. None had received explanations about the way in which a vaccination worked or what its purpose was outside of being told it was 'good for health'.[5] This finding from 'model total health care villages' was cross checked in villages where PHCs were located and where ongoing activities had been present for many years. The same results were found.

The last point highlights the need for both community diagnosis and public participation in the evaluation of government health services. In order for the government health service to evaluate and plan its activities in the best interests of the community, it is obvious that local feedback is necessary. At present, the occasional spot visits by the DHO and ADHO do not provide the kind of feedback which is required for evaluation purposes. PHC fieldstaff continue to exaggerate the extent of their work and are reluctant to critically evaluate the programmes for fear of reprisal for not reaching targets or satisfying the statistical interests of their superiors. It is time that we look beyond statistics as a measure of the value of the present health services. A qualitative dimension must be added to regional health planning and the evaluation of programme outcomes; and the community diagnosis team and CHW could provide this dimension if some degree of autonomy

COMMUNITY HEALTH : THE SEARCH FOR AN ALTERNATIVE PROCESS

(The Indian Experience)

A basic reading List

1. Health services and Medical Education.
   Report of the Group on Medical Education and Support Manpower, (1975)
   Ministry of Health and Family Planning, Government of India, New Delhi. (gratis)

2. Alternative approaches to Health Care
   Indian Council of Medical Research, (1976) (gratis)

3. In Search of Diagnosis - Analysis of present system of Health Care
   (Ed) Ashvin J. Patel
   medico friend circle, (1977) $1.20

4. An Alternate system of Health Care Services in India - some proposals
   (Ed) J. P. Naik.
   Indian Council of Social Sciences Research, (1977)
   Allied Publishers Private Limited, New Delhi. Rs 10.0 $?

5. Teaching Village Health Workers - a guide to the process
   (a teaching kit in three parts)
   Ruth Harnar, Anne Cummins. (1978)
   Voluntary Health Association of India, New Delhi $3.00

6. Manual for Community Health Workers
   Ministry of Health and Family Welfare (1978)
   Government of India, New Delhi. (gratis)

7. Moving closer to the Rural poor
   H. Volken, J. Gonsalves and S. Kaithathara.
   Indian Social Institute, (1979) $1.50
   New Delhi.

8. Where There is no doctor - a village health care handbook
   David Werner's book revised for India

C. Satyamala $3.30
Voluntary Health Association of India, (1979) Reprinted 1986

9. Evaluation of Primary Health Care programmes
(numerous case studies from all over India)
Indian Council of Medical Research, (1980) gratis

10. Health for All - An Alternative Strategy
Indian Council of Social Sciences Research and Indian Council of Medical Research Study group. (1981)
Indian Institute of Education, Pune. $6.50

11. Health Care Which Way to Go? - examination of issues and alternatives
(Ed) Abhay Bang and Ashvin. J. Patel. (1982)
medico friend circle. $1.50

12. Learning from the Rural Poor
- experiences of Mobile orientation and Training Team.
H. Volken, A. Kumar and S. Kaimalhara. (1982)
Indian Social Institute, New Delhi $1.50

13. Poverty, Class and Health Culture in India
Volume I
D. Banerji (1982)
Prachi Prakashan, New Delhi $25

14. Health Care in India
George Joseph, John Desrochers, Mariamma Kalathil
Centre for Social Action, Bangalore, (1983) $0.40

15. Practising Health for All
(Ed) David Morley, Jon Rohde and Glen Williams.
Oxford University Press, (1983)
(Four Indian Case Studies) $3.60

16. A manual of Learning exercises - for use in health training programmes in India
Ruth Harnar, A. Chynn Zelmer and Amy E. Zelmer.
Voluntary Health Association of India, New Delhi (1983)
$0.85

17. Science as Social Activism
Kerala Sastra Sahitya Parishad, Trivandrum (1984)
$?

18. Health and Medicine - Under the Lens
(Ed) Kamala J. Rao.
medico friend circle, 1985 $1.90

19. The makings of health services in a country
- postulates of a theory
D. Banerji
Lok Paksh, New Delhi, (1985) $1.50

20. Health and Family Planning Services in India
- an epidemiological, socio cultural and political analysis and a perspective
D. Banerji
Lok Paksh, New Delhi (1985) $ 40

21. Development with People
- experiments with participation and non-formal education.
(Ed) Walter Fernandes
Indian Social Institute, New Delhi (1985) $ 3.00

22. Social Activists and Peoples Movements
(Ed) Walter Fernandes $ 3.00
Indian Social Institute, New Delhi (1985)

23. Health and Power to people - the theory and practice of community health

Medical Service (Special Issue) Vol. 43, No 2. (Feb-March 1986)
[official house journal of Catholic Hospital Association of India), New Delhi (gratis)

24. Taking Sides - the choices before the health worker
- C. Satyamala, Nirmala Sundharam, Nalini Bhandr.
Asian Network for Innovative Training Trust (ANITRA)
Madras, (1986) $10.0

25. Community Health - the Search for an alternative process
Community Health Cell Team,
Centre for Non Formal and Continuing Education.
Bangalore (1987) (Will be out in March 1987)

Sources

A- Voluntary Health Association of India — Nos – 3, 5, 7, 8, 10, 11, 12, 14, 15, 16, 18, 21, 22
40 Institutional Area
South of I I T.
NEW DELHI – 110016

B- Lok Paksh — Nos – 13, 19, 20
Post Box 10517
New Delhi – 110067

C- Publication Section — Nos 1, 6
Ministry of Health and Family Welfare
Government of India
Nirman Bhavan.
New Delhi -

D- Publications Section — Nos 2, 9
Indian Council of Medical Research
Ansari Nagar
New Delhi – 110016

E - Catholic Hospital Association of India. — Nos 23, 24
P. B No 2126
157/6 Staff Road (Opp. Cantt. Workshop)
Secunderabad – 500003
Andhra Pradesh- India

F- Allied Publishers Private Ltd. — No. 4
13/14 Asaf Ali Road.
New Delhi – 110002

G- Kerala Sastra Sahitya Parishad — No 17
Parishad Bhavan
Trivandrum – 695037
Kerala

H Centre for Non Formal and Continuing Education — No 25
Ashirvad

—

(For MSCHDC Seminar)

Critical analysis of Western Medical (technological) Hospital oriented model of Health Care, Education and Research and Reflections on Alternatives:
- A reading list -

1. Medical Nemesis - The expropriation of Health
   Ivan Illich. (1975)
   Ideas in progress: Calder Boyars Ltd, London.

2. Limits to Medicine
   (revised and enlarged version of Medical Nemesis)
   Ivan Illich (1976)
   Marion Boyars, London.

   (Translations in French, German, Italian, Spanish, Dutch, Swedish and Norwegian)

3. The Mirage of Health: Utopian Progress and Biological Change
   Rene Dubos (1959)
   Anchor Books, New York

4. The Role of Medicine - Dream, mirage or Nemesis
   Thomas McKeown (1979)
   Basil Blackwell, Oxford.

5. Confessions of a Medical Heretic
   Robert S. Mendelsohn. (1979)
   Warner Books, USA.

6. Medicine Under Capitalism
   Vicente Navarro (1976)
   Croom Helm Ltd, London; Prodist, New York.

7. Toward a Man-Centred Medical Science
   Volume I of a series on A New Image of Man in Medicine
   (Ed) Karl-E. Schaefer, Herbert Hensel, Ronald Brady (1977)
   Futura Publishing Company, New York

8. Towards a New Concept of Health
   Volume III of a series on A New Image of Man in Medicine
   (Further details see No 7)

9. Medicine out of Control – The Anatomy of a Malignant Technology.
Richard Taylor (1979)
Sun Books, Melbourne

10. The Medical Industrial Complex.
Stanley Wohl (1984)
Harmony Books, New York.

11. Crisis, Health and Medicine, – A Social Critique
Vicente Navarro (1986)
Tavistock Publications, New York, London.

12 Health Crisis 2000
Peter Oneill (1983)
(For WHO Regional office for Europe)
William Heinemann Medical Book Ltd, London.

Reading list (Contd.)

13. Effectiveness and Efficiency.
Cochrane, A.L
London, (1972)

14 The need for a new Medical model
Engel, George. L.)
Science, 8th April 1977, 129-36

15. Medical Hubris: a reply to Ivan Illich.
Horrobin, David.F
New York & Edinburgh, 1977

16 The Diseases of Civilization - Why we need a new approach to medical treatment
Brian Inglis,
Granada Publishing Limited, London 1981,

17. The Second Sickness: Contradictions of Capitalist Health Care
Waitzkin, Howard
The Free Pess, New York, (1983)
Collier MacMillan, London

18. Alternative Medicine: A Guide to Natural Therapies
Stanway, Andrew
Penguin Books, England, (1986)

19. Inequalities in Health. - The Black Report
Black Douglas, Morris.J.N, Smith, Cyril, Townsend Peter
Penguin Books (1982)

20. The Struggle for Health - Medicine and the politics of underdevelopment
David Sanders, Carver Richard.
MacMillan Education Ltd, London (1985)

B.C.G Policy in India

An overview of its evolution and implications (1951-1986)

Hospitals and Community Health

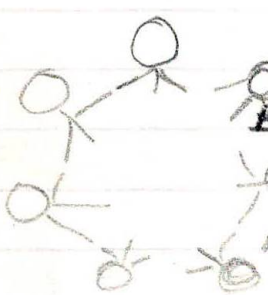
The Indian Experience — A Check list

1. Regional Responsibility / Location.
2. Functional links with other levels of health care particularly peripheral centres.
3.

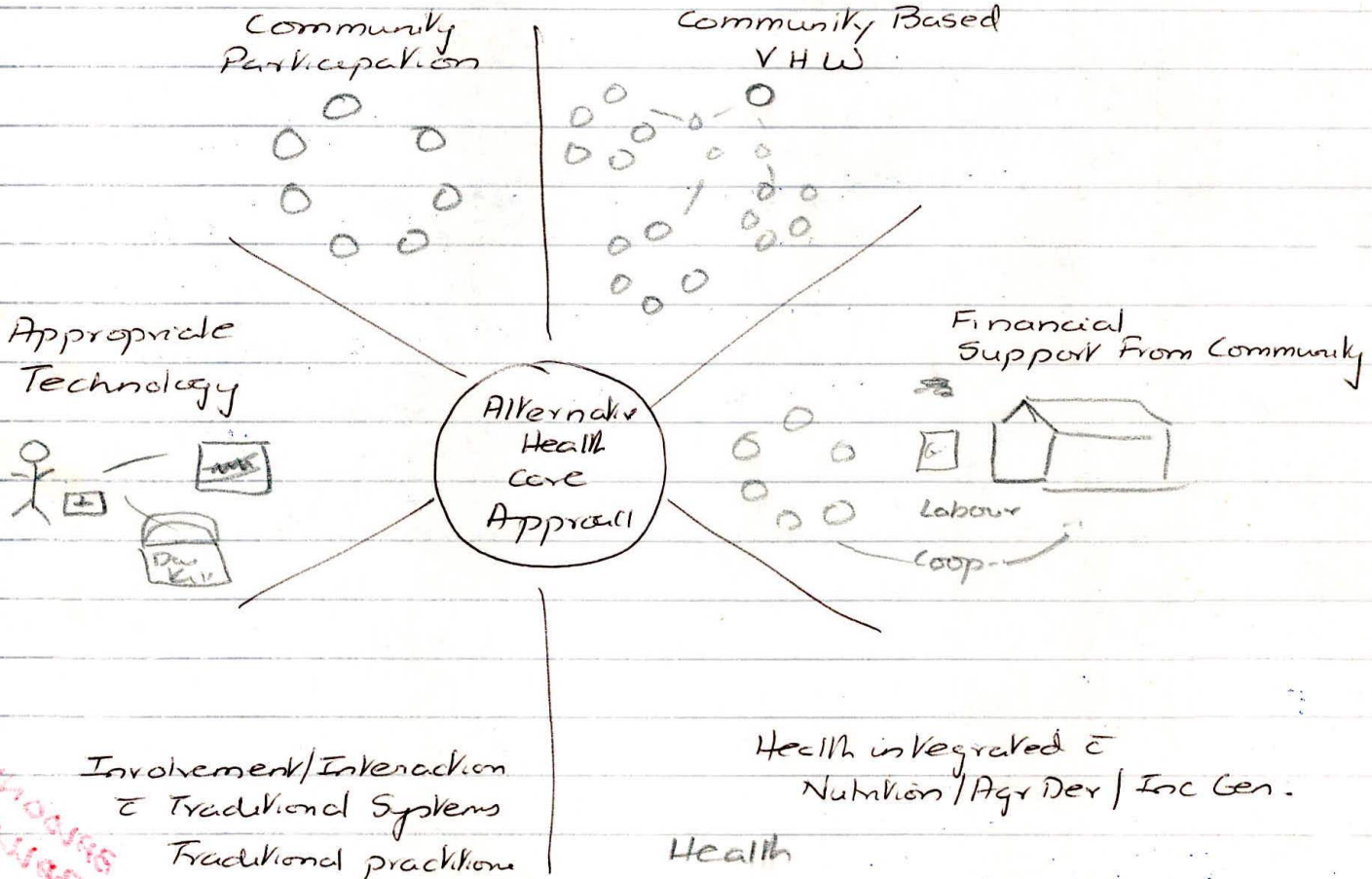
RESEARCH	INTRACELLULAR DISEASE OF HUMAN MICROSCOPIC	BALOONIST UNI- SOCIETAL
	MOLECULAR BIOLOGY IMMUNOLOGY	SO·
		SOCIAL PROCESSES
EPIDEMIOLOGY	DISEASE FOCUS	SOCIAL PROCE
	SINGLE FACTOR	MULTI FACTOR
	RISK IDENTIFIC	PROCESS IDENTIFICA
IMMUNITY	VACCINES AGAINS DISEAS PROD	IMMUNITY AGAINST HALF TRUTHS OF MEDICAL ADVERT. CONSUMER SOCIE.

BALOONIST
BALLOON IST

SEARCH



	MEDICAL MODEL		HEALTH MODEL
~~EMPHASIS~~	INDIVIDUAL	—	COMMUNITY
	PATIENT	—	PERSON
FOCUS	ANTI DISEASE/DEATH		PRO LIFE/~~[illegible]~~ LIVING
DIMENSIONS	PHYSICAL /PSYCHOLOGICAL		PHYSICAL PSCHOLOGICAL SOCIO-CULTURAL SOCIO POLITICAL ECOLOGICAL TRANSCENDENTAL
METHODS	CURATIVE DRUGS TECHNOLOGY		HEALTH PROMOTION HEALTHY LIVING HEALTHY SOCIAL PROCE


Community Participation
Community Based VHW
Appropriate Technology
Financial Support From Community
Alternative Health Care Approach
Labour
Coop
Involvement/Interaction & Traditional Systems
Traditional practitioners
Health integrated & Nutrition / Agr Dev / Inc Gen.
Health + Nutrition + Agr Dev + Inc G
Doctor
Village Health Work
Mod: Auxil
Herbalist
Healer

The Community Health Approach

The search For an Alternative Process.

1. ✓ Baloonist or Intracellularist - Denis Burkitt

2. ✓ 1948-76
   a) ✓ Model of Health Care - Western Model -
   b) ✓ Overall achievements.

3. Assessment
   a) ✓ Shrivastava Report
   b) ✓ Health For All

4. 1970s - Phenomena
   a) Alternative Health Care Approaches
   b) Dimensions of Alternatives

5. 1977 - Paper
   1982 Trip
   1984-1986 Study Reflection
   ] Understand CH as an evolving process.

6. Dimensions of CH

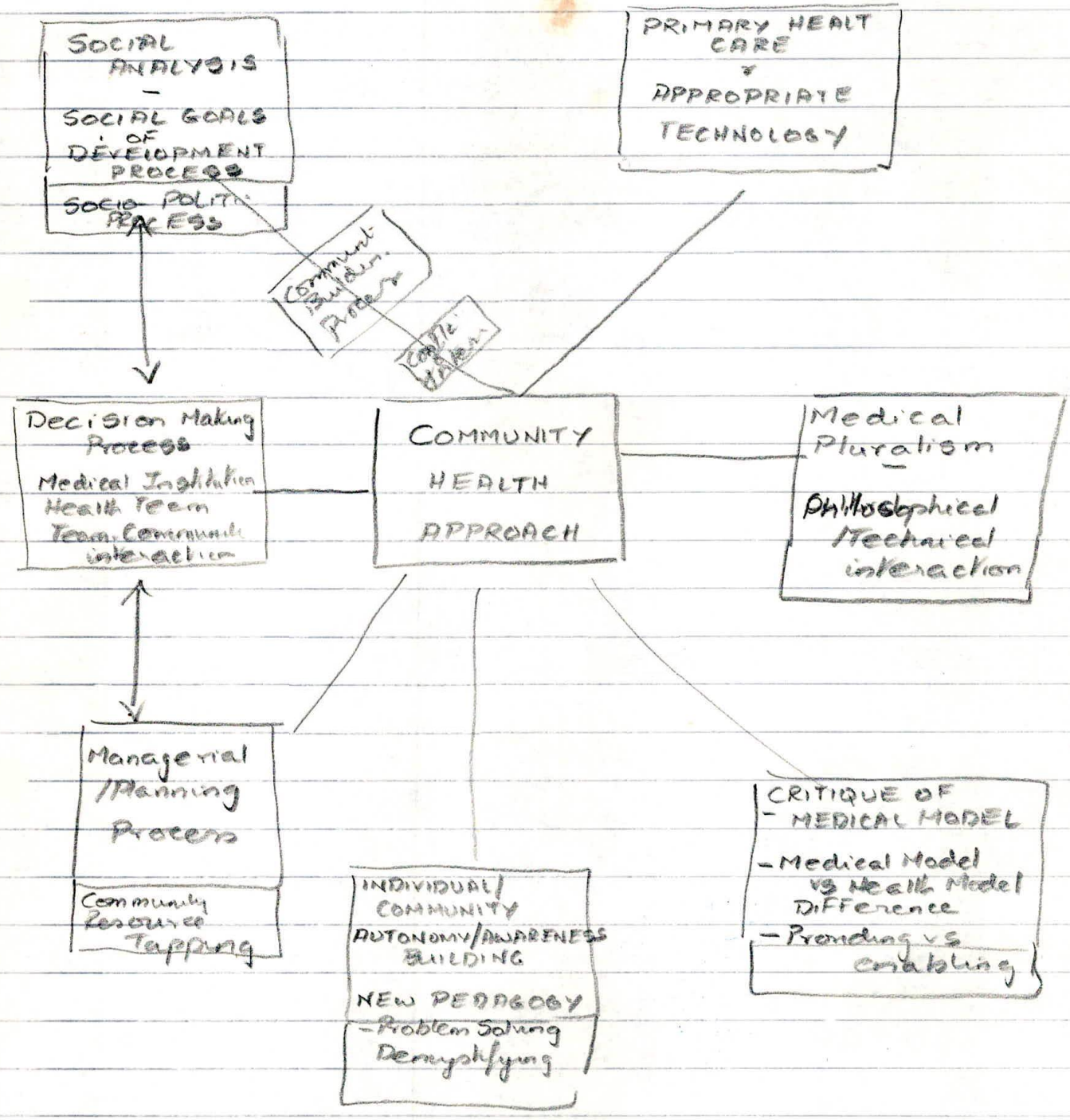
7. Factors Beyond CM/PHC

8. 1980's phenomena. - VHAI/CHAI/CMAI SHR/mfc | Trg programmes | CH overview

9. Relevance to Western Model. —

Critical Issues in Development

arising out of the Indian Experience


SOCIAL ANALYSIS
SOCIAL GOALS OF DEVELOPMENT PROCESS
SOCIO POLITICAL PROCESS
PRIMARY HEALTH CARE & APPROPRIATE TECHNOLOGY
Decision Making Process
Medical Institution
Health Team
Team Community interaction
COMMUNITY HEALTH APPROACH
Medical Pluralism
Philosophical
Technical
interaction
Managerial /Planning Process
Community Resource Tapping
INDIVIDUAL/ COMMUNITY
AUTONOMY/AWARENESS BUILDING
NEW PEDAGOGY
- Problem Solving
Demystifying
CRITIQUE OF
- MEDICAL MODEL
- Medical Model vs Health Model Difference
- Branding vs Enabling

AHRTAG

1. Pyramid vs circle.

2. North South divide or dialogue.

3. Academic vs Experiential. = Experts vs Initiators

∴ Participatory ethos — Team
- clients.
- partners

5. Medical vs Social Model.

6. Developing country/Tropical Health vs UK NHS/Developed Country Health.

7. ARI/DD/AIDS → PHC Newsletter

8. Reductionist view vs Baloonist view

9. Facility vs Participant in process

10.

DD

ORT → water supply
↓
? Antidiarrhoeals
↓
? Land Reforms

AIDS

- Social Marketing vs Education For Health
- Deeper causes
- 'Racist' connotations

Ritual Mutilations"

Canada - Health Protection branch of the Department of National Health and welfare responsible for developing an integrated programme to protect the public against
- unsafe foods, drugs and cosmetics
- medical instruments and equipments.
- fraudulent drugs and devices

6th Report of WHO on world Health Situation

=

'Community Health' - the quest for an alternative

> The health worker must decide whether to join the labourer and peasant in a common struggle for radical social change. Or whether, in the charitable and therefore "safe" posture, to stand above them, distributing the largesse of health services, "alternative" or otherwise.
>
> – From Rakku's story.

Introduction: Ill health in the ultimate analysis is a direct product of an unjust socio-political system which results in poverty and inequality of resources and opportunity. An assault on ill health must therefore inevitably become part of a development and social change process which seeks solutions for the issues of social injustice, of which illness or disease is but a symptom. This seldom takes place in practice, ~~however~~ for many reasons, not the least of which is the confusing of 'health' with 'medicine' and the emphasis on health care being ~~seen as~~ a providing process' rather than an enabling process'.

This emphasis has its historical roots in the 'medicalisation' of the ~~concept~~ of health that we have witnessed over the last many decades. If health has to mean what the World Health organisation defined 'as a state of complete physical, mental and social well being and not merely the absence of disease

or disability' then activities and services with health as their goal must be much more than the prescribing of medicines; much more than the diagnosis of illness using sophisticated technology in order to prescribe more medicines. Health activities must include preventive, promotive and rehabilitative activities; health education and demystification of medicine; popularisation of health producing activities and attitudes; programmes to strengthen the people's traditions of self care; attempts to increase the individual's autonomy over his own body and finally awareness building and an organisation of people and communities to get the means, the opportunities and the supportive structures that make health possible.

Medicalization of Health

What we see around us today, however leaves little doubt that health has ~~[illegible]~~ come to be used as synonymous with medicine and health care as synonymous with doctors, drugs and hospitals. This attitude is fostered by the established conspiracy between the medical profession, the pharmaceutical industry and the growing medical technology industry which converts 'health' into a commodity and promotes, advertises and sells it in the pursuance of a profit motive. The signs of this growing conspiracy are seen conspicuously by ~~certain~~ the following trends in our society:

- the phenomenal increase in hospitals and dispensaries
- the increasing commercialization of practice and the recent entry of the corporate sector into what was traditionally the cottage ~~or home based~~ industry of private practice

- The unbridled growth of the pharmaceutical industry (we produce over 30000 formulations in this country when the Hathi committee recommends that 116 drugs is all that we need to run our health services.)
- The mushrooming of capitation fees taking medical colleges
- ~~Mercenaries among physicians~~
- The well established doctor-drug producer axis which exploits people through the promotion of ~~over~~prescription of an abundance of drugs.
- The continuing political rhetoric of more doctors, more hospitals, more medical colleges and more specialists means more health. (an oft repeated slogan heard at the foundation stone laying ceremonies of our medical institutions and at the inaugural and valedictory functions of professional medical conferences)
- The increasing evidence of excessive and unnecessary laboratory investigation and equally unnecessary surgery.

and so on. All this unashamedly in the name of the people's health.

An anti-health value system.

Through these trends not only does health become mistaken with medicine but institutions and teams internalise a value system which becomes counter productive to health itself. Enough has been written on the characteristics of this value system which include among others a dependency creation, a compartmentalization and an organ-centredness, a hierarchical decision making, a mystification and professionalization, an encouragement of consumerism, iatrogenesis both clinical and social and ultimately a

dehumanisation. - all of which are patently anti-health. Medicines rather than generating health begins to generate ill health and the ultimate vicious cycle is established - Ill health - medicines - more ill health - more medicines. No wonder the ICMR/ICSSR report on Health for all - an alternative strategy warns that "there is always a dangerous turning point at which the over production of drugs and doctors creates a vested interest in the continuance or expansion of ill health. It is not generally recognised that we are dangerously close to this explosive point."

Health situation - an expert assessment

establishment of a
Not withstanding the vast network of institutions (service, educational and research), the reduction in mortality rates, the increase in life expectancy at birth, the control of smallpox cholera, plague and malaria and the gigantic expansion of the maternal and child health services especially family planning ~~on a gigantic scale~~ (probably our only achievements) the disparities and weaknesses of our health system are even greater. The ICMR/ICSSR report lists these out as
- a health care system which has no roots in the culture and traditions of the people and relies almost exclusively on the imported western model.
- A service based on a curative approach in urban hospitals, a bias which has not changed inspite of the establishment of PHCs and rural dispensaries
- A service which benefits mainly the upper and middle classes and fails to reach the bulk of the poor, especially rural poor.

- A health delivery system devoid of any participatory element and hence increasing the dependency of the people.
- A service whose costs are exorbitant.
- The failure to integrate health with overall development.
- Little dent made on the massive problems of malnutrition and environmental sanitation.
- Woefully high rates of mortality among women and children.
- No programme of health education worth the name.
- Health itself having a very low priority in the planning process and getting an investment about half that of education which itself is given a step-motherly treatment.

All this led the ICMR/ICSSR expert committee to categorically state that "a linear expansion of this model and the consequent pumping of more funds into the system will merely add to the existing waste and make the ultimate solution of our health problems more difficult. We are also convinced that mere tinkering with the system, through well meant but misguided efforts, as better training, better organisation or better administration, will also not yield satisfactory results. This is precisely what has been done during the last thirty years; and the meagre results obtained, is a strong pointer to the futility and wastefulness of continuing the same policies".

The quest for alternatives

Though this assessment of the situation ~~is~~ is slowly becoming accepted ~~in~~ in some of the higher decision and planning levels in the country, today, the social disparities and the health needs of the masses has all along challenged and stimulated individuals - doctors, nurses and others to search for alternatives which not only are more suited to the lives and needs of the large majority of the people but which are also more committed to health promoting activities and attitudes. Starting mostly from the early seventies a growing number of health care projects have developed in the country which may loosely be grouped under the title of alternative health care projects or community health care projects. Most if not all were rural based projects concentrating on illness care initially, but moving on gradually to activities and programmes much beyond illness care. For most of the initial decade, these experiments, nearly always, developed independent of each other though in the eighties these have inspired similar attempts elsewhere. There has also been a growing networking through which perspectives gained, lessons learnt and new ideas evolved are shared. The focus of study of each of these has often been to see them as innovative models created by highly motivated charismatic health leaders - and consisting of good ideas worthy of emulation. On the contrary it would be more realistic to see them as a generic response of socially sensitive individuals reacting creatively to local realities. The project

mentality has also often overshadowed the recognition of 'process' in these efforts.

The component of 'alternatives' ~~It may not have been out of place to have listed out~~ here case studies of actual ~~projects all over the country. However~~ Much has been written on many of them and hence giving a detailed list of sources would suffice (see reading list). What is more important however is to identify the broad components of health care emerging in these alternatives.

1. An attempt to integrate health with development activities

Recognising ill health as the product of poor nutrition, poor income, poor housing and poor environment many health projects have gradually got involved with agricultural extension programmes, water supply and irrigation programmes, housing and sanitation schemes, income generation schemes and basic education including non-formal and adult education programmes. Similarly many rural development projects which had some of the above components have added a health dimension to their activities.

2. Preventive and Promotive orientation

Many of these health projects have moved beyond the medicalised concepts of health symbolised by the distribution of drugs to activities - individual and group - that prevent illnesses and promote health. Immunization programmes, maternal and child health care, environmental sanitation, nutritional supplementation and nutritional education, and school health programmes, chemoprophylaxis ~~and so on~~ are the commonest among them. A strong component of health education is a

characteristic of most of them. This education has in many cases been demystifying and deprofessionalising thus increasing both the individuals and the communities autonomy over health activities.

3. Search for an appropriate technology

Many projects have evolved medical care and health technologies that are more appropriate to the health needs of the very poor. The emphasis is not only on it being low cost but also on it being more culturally acceptable, demystifying, and more within the operational capabilities of local people and health workers. The range of appropriate technology varies from dai kits, to nutrition mixes produced from locally available foods, an indigenous MCH calender, a locally manufactured lower limb prosthesis, bangles and tapes to measure nutritional status of children, low cost sanitation options, home based oral rehydration solutions, herbal medicines and home remedies from the backyard or kitchen.

Many of these ideas have been adaptations of ideas developed outside the country and many have been recognition of the usefulness of ideas already part of the local culture.

Two additional areas of technological appropriateness which have been experimented with in many of these projects is

a) Communication - Attempts have been made to use low-cost media alternatives, like flashcards and flipcharts and also to adapt and involve local folk media and traditional cultural forms of communication like puppetry, ballads, kathas, Street Theatre and song and dance (nachna) particularly

in tribal areas.

b) Recording/Evaluation Techniques - many projects have evolved simple methods of recording, quantifying and keeping track of health activities or resources utilized by the health workers. These are geared to the capacities of the local people (if they are patient retained) or to the capacities of local health workers. Many are geared to get over the constraint of illiteracy.

4. Promotion and utilization of Local health resources

Local health resources include local family based traditions of health and self care as well as traditional systems of medicine. Many health projects have created positive relationships with local dais or birth attendants, traditional healers, folk medicine practitioners, and practitioners of the indigenous or traditional systems of medicine. This relationship has very often gone beyond a mere association to a sharing of knowledge and skills and an adaptation or acceptance of some of the medical and health practices by the projects themselves. Promotion of herbal medicines and home remedies is an important aspect of many of these projects.

5. Training of village based health cadres

Training of local representatives of the village in basic health care activities, minor ailment treatment, recognition of illnesses needing higher levels of care, nutrition, environmental sanitation, communicable disease control, mental health and so on has been probably the most characteristic feature of most of these projects. The selection methodology, the training methodology, the expected skills

and scope of training have varied from project to project but the most important result of such a trend has been the conscious demystification of health issues and the creation of better informed, village based individuals who are available to help the people in their times of crisis. Depending on the orientation of the trainers themselves such village based health workers need not necessarily be 'lackeys of the existing health services' but can well be and have often become 'liberators of their people'. In many projects once health workers have been trained to understand, plan and decide on health matters, certain leadership qualities are generated so that gradually issues wider than health are tackled as well. Only recently I heard about a group of women health workers in a fishing community who organised the people to protest against the local bus system which refused to allow women baskets of fish in the bus to the market. to carry their fish catch in baskets to the market. In some plantations women health workers called link workers have recently emerged as local union leaders. Such situations are not at all unusual.

6. Increasing Community Participation

In addition to training village level health workers many of these projects have attempted to involve villagers in the planning and decision making processes through the organisation of local village health committees consisting of formal and informal leaders. Many have involved local youth groups, mahila

mandals, teachers, religious leaders, and farmers associations and cooperatives in health work

This is a very important trend but has often become an expression of rhetoric rather than real participation. Two prerequisites are essential if this 'community participation' has to be a genuine process of enabling people to take responsibilities for their own health services.

i) Firstly the involvement of all sections of the community. In the stratified set up of the village with certain groups always dominating and exploiting certain other groups this ~~can~~ must often also mean a more purposeful and even exclusive involvement of the more disadvantaged and oppressed sections of the village

ii) Secondly the openness of the team to learn from the people and their own experience of life. This would means a dialogue on more equal terms where the people are involved in all aspects of planning and decision making and not just expected to participate in programmes organised by the 'health team'.

7. Initiating Community Organisation

The qualitative difference from (6) is only one of emphasis. Many projects have themselves initiated or catalysed the development of youth clubs, mahila mandals, farmers associations and cooperatives recognising the need for local organisations to participate and sustain health activities. It is therefore not just involving the existing organisations in the community if there are already some but

seeing this step as a pre-requisite and hence being involved in their initiation and their growth.

8. A quest for financial self sufficiency

Many projects have concentrated on the ~~concept of community participation particularly~~ the dimension of financial participation of the community. These projects have concentrated on generating local finances to run and support some or all of the health activities. The experiments have ~~ranged from~~ included health insurance schemes; ~~to~~ adding health functions to dairy and other cooperatives; graded payment of services according to family income and so on. Experience has however cautioned that an exclusive pursuit of this objective can often result in the exclusion of the very section of the community ~~which~~ need the health services the most.

9. Education for Health

Many projects have introduced health issues in their ongoing adult education and non-formal education programmes. This process does not only help to further demystify the health issue but has often served as the starting point for individual or group action. As people discover the causes of the illnesses they experience, and identify the roots of it, within their own social situation, they are then prepared to do something. School health programmes where teachers and high school students are

oriented to do something about their own health, the health of their families and their communitys health share the same ~~goals~~ vision.

10. Conscientization and Political action: There are some projects where the health teams based on their own experiences have begun to show a deeper ~~awareness~~ understanding for issues of conscientization and recognise the need to support political action especially those of peoples movements and mass organisations. This support may be through the organisation of health activities particularly for the members of such movements or the addition of health issues on the agenda of peoples struggles. In the south especially the demand for a provision of a water supply has often become a rallying point.

Community Health is not community medicine.

To summarise then, the state of the art of alternatives in Health care in the country includes health integrated with development activity; a preventive and promotive orientation, a search for appropriate technology; promotion and utilization of local health resources including herbal medicines and traditional systems of medicine; training of village-based health cadres; promoting community participation and community organisation; a quest for economic self sufficiency; and a commitment to conscientization and socio-political change processes.

Does this constitute Community Health? A personal quest ~~for~~ ~~to~~ to discover an answer to this question took my wife

and I around parts of the country in 1982, visiting many community health and development projects. We spoke to doctors, health workers, developmental activists and others about field level realities; about the successes and failures of micro-level projects ~~and grass root action~~; about the strengths, ~~and~~ weakness, opportunities and threats of grass root health actions; and about the emerging networks and the future; about the problems of team work; about personal motivations - ~~religious~~ ideological, religious or otherwise.

One of the most important insights we got from this rich feed back was the difference between 'community health' and 'community medicine' and this was more than a matter of semantics. We understood for the first time that all these alternative health trends' setters though often ~~clubbed together as~~ labelled as 'community health projects' were not all 'community health oriented'. ~~but were~~ Most often they were extensions of the hospital system in organisation, method of functioning, team work and hence should rightly be labelled ~~be probably~~ called community 'medicine' projects. True to their medical roots many of these projects, for instance, continued to ~~prescribe~~ distribute not only drugs but vitamins, vaccines and food with the same dependence creating mentality. Their teams were heirarchical and in the absence of participatory decision making even within the teams, the claims of community participation seemed hollow. The water-tight divisions of responsibilities,

The compartmentalization of health, development and educational activities, the professionalization, the clear distinction between the 'providers' and the 'users', the quest for efficiency and cost effectiveness, the preoccupation with targets ~~and health indices and measures~~ all belied their overall commitment to health as a community building process. Consciously or unconsciously they had internalised the value system of the hospital and even though on a superficial overview they ~~may~~ appeared to be different from hospital medicine a deeper evaluation of the projects showed that they were just community based extension of ~~the~~ medicalised form of health. ~~that has been described earlier.~~ This was because most if not all the ~~community health/medicine~~ projects initiators had a professional medical or nursing background and therefore this ingrained ~~attitude of~~ professionalism, superiority, sense of inborn leadership and 'knowing all' attitude was difficult to discard?

~~On the other hand~~

Due to this orientation therefore many projects we saw had built up highly organised ~~structures both in brick and in large~~ systems of health care delivery ~~extension teams with the paraphernalia of~~ vehicles, sophisticated gadgets and others ~~and so on~~ cut off from the lives of the poor people in their own communities. They were bureaucratic, project oriented, and at best no better than government health efforts except that they were more efficient, more organised and probably more cost effective – but no less irrelevant.

Towards a new value system.

On the other hand there was a small but growing number of projects or interventions

that had teams committed to the process of socio-political change, identifying their health activities as collaborative efforts in the overall process. They were identifiable by a commitment to a real democratic, decentralised involvement of people in decision making; a commitment to demystification and awareness building through non-formal group methodologies; a commitment to work through and support peoples own organisations; a concentration on the human element of the effort not on the structural or material; a clear understanding of their role as catalysts not 'service providers' or project organisers; and a commitment to trying to internalise most of these attitudes and value system within their own team's functioning.

An equally important development, raising some cause for optimism was that even in the so called community medicine projects mentioned earlier this change of value system was beginning to take place encouraged by frank team evaluation and openness to feed back from the people.

What then is community health?

Based on this overview therefore it would be not out of place to attempt a definition of what "Community Health" should be.

~~Starting from the definition in the new vision of CHAI I would like to extend it further.~~

"Community health has been defined as a process of enabling people to exercise collectively their responsibilities

to maintain their health and to demand health as their right" This definition could be extended further by adding that the community health process would involve increasing the people and communitys own autonomy over their own health and over the organisations that can prevent ill health and promote health. The process would include ~~involvement management of all~~ the concepts of present day Primary Health Care – minor ailment treatment, village level workers training, appropriate health technology, promotion of herbal medicine ~~remedies~~ and home remedies, nutrition and environmental sanitation, community participation and organisation but would essentially be a democratic participatory community building process.

The process would invariably increase local tensions since any process aimed at increasing the participation and the organisation of the underprivileged and poor (which has to be part of any process towards greater social justice) will be opposed by the status-quo factors and exploiting sections of the community.

Rooted in the people and committed to ~~as an evolving~~ a ~~process~~ of health building through the peoples own actions and struggles, ~~all~~ all those committed to community health would support and participate ~~and energise~~ in the process, even as it goes beyond health issues. Projects, structures, health activities would then be means to an end – not the end itself. Such projects ~~Readiness~~ would then be willing to even disband ~~to abandon them,~~ ~~or abandon~~ programmes if they become counterproductive to the wider struggle or abandon them in favour of more relevant approaches

~~Is such a process of community health possible? Is such a process taking place?~~ Are there signs of such an ~~evolving~~ alternative? ~~Taking place~~ evolving in the country

~~Such a process is hardly consciously evolving today~~ but the trend is implicit in ~~certain~~ not conscious but implicit in many developments in recent years which are possibly creating the right social milieu for such an evolution. The delay has been due to a double failure. A failure of community health projects to see themselves as part of a larger ~~part~~ socio-political change process in society and the failure of political activists, mass organisations and peoples movement to recognise the value and true meaning of health. Yet probably a beginning is being made

Is community health possible?

Bang and Patel (5) have described this as a conflict between two schools of thought. "One school feels confidently that the panacea for the health problems of the people has been found. It is the alternative approach of health care usually meaning utilization of non-professionals and appropriate technology in health care delivery... Another school is equally confident that the only real cause of all health problems of the people is the present economic system and nothing can be and should be done to solve these health problems unless the present economic-political system changes by revolution. The first leads to ill-founded euphoria... (the second) to inactive cynicism towards the burning health problems of the people."

~~What are these trends?~~

Positive trends.

Firstly there is a growing army of villagers and lay workers who have been trained as health workers both by government

and non-government voluntary agencies. Whatever the quality or orientation of training, taken in the overall a phenomenal process of demystification of health problems has already been initiated.

Secondly there is a growing number of individuals - development activists or political activists who are beginning to recognise the non-medical dimensions of health and are including it in their action programmes.

Thirdly there is a growing body of health knowledge which has become part of the syllabi of adult education and non formal education in the country. Science education experiments have also introduced health aspects into the innovative curricula developed by them.

Fourthly People oriented science movements like the Kerala Sastra Sahitya Parishad and the Lok Vidnyan Sanghatana (Maharashtra) and many other smaller forums are actively taking up health issues in their awareness building programmes, in their jathas and their exhibitions.

Fifthly there are a series of evolving people's movements around forest issues, environmental issues, other social issues which have 'health of people' as an intrinsic component though not always well recognised.

Sixthly there is an evolving interest in the trade union movement, the womens movement and other mass movements about the importance of health issues and the need to include them as components of the wider struggles.

Seventhly even within the medical and nursing

professional and institutional networks there is a growing sensitivity to the needs of linking health activities with the broader issues of social change and not to see them as a narrow technical or professional enterprise.

Finally even expert documents on health in the country are beginning to ~~neglect~~ echo this challenge. The ICMR/ICSSR report clearly states that the conditions essential for success of the Health for all goal is "to reduce poverty, inequality, and to spread education; to organise the poor and the underprivileged groups so that they are able to assert themselves; to move away from the counter productive, consumerist western model of health care and to replace it by the alternative based on the community."

Negative factors

However there is no cause for unbounded optimism. The trends favouring the evolution of the community health alternative are definitely there but the trends opposing and most often neutralising the gains made are equally there and probably stronger.

Medicalisation, professionalization, and the consumerist orientation of health care is increasing and is symptomatic of the overall situation in the country.

Many so called health projects are mushrooming all over the place goaded by foreign funding agencies vying with each other to invest in the alternative; or by industrial houses as part of the rural

development oriented income tax benefits; or by professionals interested in involvement for prestige, status and power and for many other objectives counter to the spirit of community health. This band-wagon nature of the growth of 'alternative health care' out of context of social analysis, understanding of peoples needs and insensitive to social change process is going to be rather counter productive.

A lack of adequate networking among the ~~serious and~~ committed community health catalysts - to share perspectives, support each other, evolve a common understanding of a highly complex situation is ~~quite~~ a ~~major~~ serious lacunae.

Finally the ability of the existing exploitative socio-political system, the bureaucracy, the health planners and the decision makers to internalise the ideas and experiments in jargon and rhetoric but defeating the spirit of the process is phenomenal and rather confusing. ——

But the process must go on! ~~and will go on~~ ~~go on~~. As Banerji ~~puts it aptly~~ invites that "a system that actively encourages a change process which promotes involvement of all segments of the population in the development of health services and in their implementation ... is an essential pre-requisite for setting up any meaningful alternative health care system for India. A campaign for active promotion of a people-oriented alternative health care system thus in fact becomes a potent tool for pressing for change in the political system.

As a result of this democratization, medical technology is subordinated to the interests of the community. The health services system is demystified, deprofessionalised, debureaucratized and decommercialised to provide

better services for the masses?
Will community health activists bring this about?

Further reading

1. Alternative Approaches in Health Care
ICMR, 1976.

3. Evaluation of Primary Health Care Programme
ICMR, 1980.

2 An Alternative system of Health Care Service in India - Some proposals
J.P. Naik, ICSSR, 1977.

4 Health for All an Alternative Strategy
ICSSR/ICMR, 1981.

5 Health Care Which Way to Go?
examination of issues and alternatives
Abhay Bang & Ashwin Patel
MFC anthology, 1981

7 Health Care in India
George Joseph, John Desrochers, Manamma Kalathil
Centre for Social Action 1983

8 Rakku's Story: Structures of Ill health and the source of change
Sheila Zurbrigg
Centre for Social Action, 1984.

6 Appropriate Technology for Primary Health Care
ICMR, 1981

To sum up the evolving Community health approach is an attempt to bridge the 'ill founded euphoria of the alternative health care deliverers' and the inactive cynicism of socio-political activists about the role of health care and to bring the two groups together if possible in a common endeavour. All committed serious community health activists have to seriously face up to this challenge. Are there efforts bringing this about? ___

Com/133-

STANDARDS, LEGISLATION AND ENFORCEMENT ISSUES

Mr. D. Ryan

Mr. Ryan began by saying that considering the severity and global nature of the problem, we need a joint project of global dimension incorporating the partnership of both the Govt. and Private sectors.

He spoke about how the issue on lead poisoning and prevention had progressed over the years.

- In 1990 there was an initial focus on health hazards related to lead.
- In 1992 a plan was developed that raised the priorities for lead.
- In 1994 the first international conference that focused on source control and prevention of poisoning was held.

Mr Ryan said that he was amazed at India's clarity & consensus on project Lead Free and that it had accepted it as a serious problem. He said that while planning strategies at the national level, priorities have to set among the source, but also cautioned that all the sources are equally important. He also said that policy making isn't very smooth in India and that it is also held back by other problems which compete for resources.

Mr Ryan said that we need to have a realistic picture of what success looks like and give our strategies enough time(10 to 15 years) to bear fruit.

He gave a list of 7 strategies to tackle the problem.

1. To expand base:
   - To recruit potential allies like the computer industry, religious groups, teachers and universities so as to muster enough support to convince the government.

2. Press Strategy:
   - The press has a tremendous capability to put pressure on the government and hence there is a need to keep it engaged regarding the lead problem

3. Education Strategy:
   - To educate people as well as policy makers regarding the lead menace so as to convince them.

4. **Strategic use of Leaded Gasoline:**

5. **Local crisis strategy:**
   - The need for local support as the problem is widespread.

6. **Trans-national strategy:**
   - The need to make strategies broad based covering many countries through an alliance network.

7. **Boldness strategy:**
   - The courage to be wildly creative and design ways like instituting awards to the first oil company that produces unleaded gasoline.
   - Controversies regarding law suits on behalf of victims also increase awareness.

Regarding resources, he suggested that organisations headed by people who can bring together doctors and scientists should be formed and action plans prepared.

He concluded by saying that he was optimistic and confident that a movement powerful enough to place lead poisoning on the national agenda and hold the government and industries responsible would come out very soon. He finally praised Dr. George for creating an opportunity for such a movement.

DEVELOPING AND IMPLEMENTING A NATIONAL PLAN-

DISCUSSION POINTS

Dr.A.GEORGE

The goal of this conference is to develop and implement a plan to get rid of lead in a developing country like India and some of its neighbours. This includes plans to prevent and treat all aspects of lead toxicity. The solutions should be practical and not theoretical.

In our effort to find solution this conference will enable to transfer knowledge in to some practical plans that could be implemented with limited resources our country has. These plans should give maximum results with minimal expenditure, so that too much resources are not wasted. As the Government is not a total solution to any problem, this plan should include the active participation of various citizens from various constituencies in lead prevention program.

There is no need to wait for another study as the present study shows that almost 50% of urban population have high blood lead level. Time has come for us act.

LESSONS LEARNED FROM ENVIRONMENTAL POLICIES FROM OTHER COUNTRIES THAT COULD BENEFICIAL TO ESTABLISHING A NATIONAL LEAD PREVENTION PROGRAM

BY

Dr. WILLIAM A.NITZE
USEPA

The USEPA recognizes the necessity of getting Lead out of the environment not only from gasoline but also from all other possible sources. Citing the Thai example he called for a global phase out of lead. Even in countries where unleaded gasoline is used, the level is considerably high and despite public awareness no acceleration in preventive measures has been undertaken. More than 80% of children (3-5 years) have blood lead levels above the acceptable limit set by WHO. Emphasis was made on all sources of Lead exposure with a special mention on the cottage industries.

Children are more susceptible to lead poisoning and it results in neurological, metabolic and developmental defects. During 1976-1993, there has been a dramatic drop from 88% to 4% in blood Lead levels among children (1-5 years) in USA. The drop correlated with the use of unleaded gasoline but even then, 900000 children <6 years still suffer from the adverse effects of lead poisoning. Even though the sources were identified, the problem has not been eradicated.

The USEPA believes in regional cooperation in Lead Phaseout programs all over the world. Training has been given in Argentina, Chile, Ecuador, China, Central and Eastern Europe by USEPA. Environmental ministers from the G7 Nations plus Russia adopted a declaration for Protection of Children from Environmental Threats laying out domestic and International Policies for implementation of concrete steps to solve the problems.

He concluded his talk by urging all countries to take the relevant and necessary political decisions for Lead Phaseout and reassured of US technical assistance for the same.

Workshop 1

Screening standards, laboratory requirements and coverage in a National Program was conducted by the George Foundation on day 3 of the international symposium on lead poisoning and prevention.

The following persons and participants discussed the issue;

Dr. R Kaufmann, Mr. A Frost, Dr. P. Parsons, Dr. Chaudhary.- Webb, Dr. R. Reigart, Dr. R. K. Chaudhary, Dr/. W. Matson, and Dr. T. Venkatesh.

Dr. R. Kaufmann was the coordinator.

The workshop was attended by a good number of delegates. The following conclusions were made during the workshop and presented by Dr. Venkatesh.

- National screening program is appropriate for India at this stage, after seeing the incidence of lead poisoning in various parts of India presented by TGF during the conference.
- The panel felt that cord blood at the time of childbirth should be evaluated for blood lead level as a national program and should appear in the birth certificate. Apart from this during the first and subsequent immunization visits blood lead levels of the child should be evaluated to monitor the risk of exposure. Schools should insist on the above information at the time of admission
- Targeted screening was recommended to the high-risk group irrespective of age.
- Toddlers in urban environment especially if located closely to lead based industry should be considered as a high-risk group. Other risk factors should include parents' profession etc.
- Irrespective of cost it was recommended that every child should undergo blood lead test. The use of ASV/ portable lead care system was recommended for screening.
- It was suggested that testing should be carried out during visits for immunization.
- With regard to personnel and training existing lab staff to be exposed to the method as it appears simple and precise. All to undergo training in one of the established centres.
- With regard to the accuracy and precession it was recommended to adopt uniform methodology and quality control samples in all centres.
- Mass education to be taken up through mass media and involving popular cine artists in program similar to pulse polio campaign. Apart from this NGO's , child to child educational program, ICDS, parent teacher meetings, symposiums and seminars to be used a media.
- Following suggestions were made for developing guidelines for blood lead screening to all developing countries.

1. Increasing level of awareness through highlighting the adverse effects of lead toxicity through publications. Various levels of awareness at National, State, Taluk, Institutional, and family levels.
2. Training facilities to the concerned to be made available at both Governmental and NGO's level.

WORK SHOP ON PUBLIC HEALTH POLICIES ON TREATMENT PROTOCOLS AND AVAILABALITY OF SERVICES.

The session started at 11.00 a.m. and ended at 3.50 p.m.
The participants were:
Dr. Markowtiz
Dr. X.M Shen
Dr. S Tandon
Dr. T Rozema
Dr. SJS Flora.
There was active participation from the audience
Treatment plan for childhood lead poisoning in India –By Dr.Markowitz

1. Identification
- Based on symptomatology
- Based on targeted screening high risk groups
  Biochemical assessment-blood lead, EP

2. Identifying sources of exposure-responsibilities of government to do assessment and enforce elimination

3. Education- at all levels beginning with physician who are experts educating peers educating public health nurses, community outreach workers and parents and all Indians.
- Information handouts, videotapes, television and conferences

4. Chelation-should be: safe effective at removing lead, easy to administer, inexpensive.
- Available drugs: EDTA, BAL, D-PEN
- Needed drug: DMSA
- CDC regimens
- Relative costs D-PEN >EDTA, ?BAL, DMSA

5. Adjuncts: iron, calcium, ?magnesium, zinc,B-vitamins, vitamin C? fat?

6. The behavior modification: cleaning changing clothes, teaching non hand to mouth behavior

7. Follow up depends on initial blood level 1-3 months

8. Support services: coordinator of care
Medical care
- Nutritional support
- Social services
- Medical services

9. Laboratory supports

10. Centers:
- for training
- for resources (laboratory, expert personnel)
- research

SUMMARY OF THE WORKSHOP: MONITORING ENVIRONMENTAL SOURCES, SETTING STANDARDS AND LEGISLATION

Members present : Dr. B. Sonawane
Dr. J. Schwartz
Mr. D.C. Sharma
Dr. R. Par
Mr. Carter Branden

The following were discussed:

1. **Key sources of exposure include:**

- Milk
- Infant Formulae
- Spices
- Food Stuff
- Water
- Cosmetics
- General Dust
- Local industry
- Cottage Industry
- Food colours
- Pottery
- Cooking Utensils
- Petrol
- Paint
- Fly Ash
- Recycling Plastics

2. **Who is responsible for what?**

- **Food stuff:** Agmark is responsible for setting standards for the food supply. Under the Director General of Health Services the Prevention of Food Adulteration Act (PFA) is responsible for the various standards of food stuff.

- **Cookware:** There is no standard set and there is no regulatory agency which is monitoring the standards of cookware. The Bureau of Indian Standards (BIS-similar to ASTM) has a few specifications for products and not for the production process. But these are not strictly adhered to.

- **Water:** There are about 30 parameters, which are looked into by the Technical Advisory Committee. They have to decide whether the waste water has to go to the surface or to a river. This can be under the control of the Central Pollution Control Board (CPCB) or the State Pollution Control Board (SPCB).
  Regarding drinking water the Local Government can be the advisory committee and set a policy control. The same standards have to be implemented for both urban and rural areas.

- **Air:** This comes under the control of Central Pollution Control Board (CPCB)

- **Soil:** This also can come under the control of Central Pollution Control Board (CPCB).

3. **What do we know about the level of lead in various sources and their contribution to human exposure?**

   - Information is available with the industries and also the State Pollution Control Board (SPCB) but not easily accessible.
   - Information regarding most of the small industries may not be available.
   - Most of the organized outlets of pollution comes under the Central Pollution Control Board (CPCB).
   - Ultimately impact of all these pollution sources on human beings and the link between exposure and toxicity has not yet been arrived at.
   - There is some limited data which is available but some more data needs to be collected.
   - Not much of data is available regarding rural areas.
   - Data regarding lead levels in milk is very much limited.
   - Some suggest to do all the studies once again and look at the lead levels in various sources.

To conclude the following **key recommendations** were put forward by the committee:

- Identify need for some additional data especially regarding **lead level in milk, tap water, etc.**
- Need for epidemiological studies to **identify important sources.**
- Need for **coordination of data**
- Need for **regulatory agencies** with respect to **cookware, pottery etc.**
- Need for establishing a **National task force** involving the following:
  - Government
  - Industry
  - NGO's
  - Citizens
- A **National/State Web site** providing information regarding lead levels and toxicity should be setup and the same should be monitored by the established National task force.

IV) WORKSHOP ON EFFECTIVE IMPLEMENTATION OF LEADED FUEL PHASE OUT IN INDIA

PARTICIPANTS:

1) Ms M. Lovei - Moderator
2) Mr P. V. R. Ayyar
3) Dr. C Prakash
4) Mr S. N. Jha
5) Mr Muralikrishna

Commitment :

There was common agreement among all participants about the need to phase out lead from gasoline as soon as possible in India.

Production of ULG:

The oil industry in India is committed to stop the use of lead additives by April 1st 2000.
Necessary arrangements have already been made to produce ULG.

Fuel Quality Issues:

The refining industry agreed to mutual consultation with the association of the Indian Automobile manufacturers, bureau of Indian Standards and others about future fuel quality requirements including total aromatics, RVP and other fuel properties. The oil industry is planning to decrease the benzene content of gasoline from 5% to 3% by 2001, but no specifications have been set yet on limits on total aromatics.

Impact of ULG on vehicles:

Vehicle manufacturers have confirmed that ULG can be used in new as well as older vehicles. Test conducted confirm that no serious problems are encountered with regard to valve seat recession.

Vehicle manufacturers, in collaboration with the oil industry will continue monitor the performance of old vehicles running on ULG. They are confident of finding answers to potential problems which may be encountered.

Public Education:

Vehicle manufacturers will undertake to disseminate this information through publications, booklets, instruction manuals.

DAY 3.

SUMMARY OF PANEL DISCUSSION ON. " WORKER SAFETY AND HEALTH AND REGULATORY ENFORCEMENT".

PANELISTS:
1. Dr. M. Hernandez
2. Dr. T. Matte
3. Dr. Li Zhu
4. Dr. D.J. Parikh
5. Dr. H.N. Saiyed

MODERATOR: Dr. G. Noonan
Environmental Scientist
US Centers for Disease Control and Prevention.

The panel started with introduction of respective panelists and subsequent presentation.

1. Dr. M .Hernandez presented three case studies from Mexico

i) A large print shop following the minimum hygiene recommendations where the employers did not provide minimum health facilities like showers, masks, gloves etc., which is regulated under Mexican law.

ii) Radiator repair shops with similar findings described above and the intervention at this level will need education and training.

iii) Traditional ceramics which operates under a very poor environment, generally family operated. Mexican government has issued a norm prohibiting the use of this type of pottery for cooking or consuming foods. The norm is adequate but it will be impossible to comply.

He closed his presentation with points regarding issue and application of norms.

2. Dr. T. Matte spoke about the challenge of cottage / informal industries . Studies of cottage lead acid battery repair/recycling operations show that they can cause chronic lead intoxication in adults and when located on residential premises, severe acute poisoning in children. Conventional means of exposure control are not practical in these operations and education to change work practices can probably only have limited impact. Such operations at residential premises are probably inherently dangerous for children. Contamination from past operations may render sites hazardous even after operations cease. In Jamaica , the economic viability of cottage operations was due to in part to high tariffs on imported batteries, high battery prices, and a lack of incentives for organized recycling. This suggests that in addition to efforts to educate operators in safer work practices a mandatory deposit/refund system to increase the percentage of batteries recycled in the formal sector might be effective. Each type of cottage industry needs to be studied to understand pathways of exposure and identify potentially viable interventions.

3. Dr. Li Zhu spoke about lead poisoning in china . He was referring to the government which recruited him in 1980's and 1990's to protect women from poisoning. He was mentioning about the ignorant people building new houses next to the battery factory and when they were asked , they said they have no idea why they shouldn't build new houses next to the battery factory. The battery manufacturers too worked with zero personal protection and the workers, owners, managers and manufacturers and others who are involved with this type of work should be educated. In the country side China, 20 years ago 80% of the population was involved with farms and because of the change in attitude now 80% of the population is involved with industries. Industries too are more towards making profits where no money is spent on occupational health programmes.

4. **Dr. D.J. Parikh** described some sources of lead exposure in small scale cottage industries in India like battery re-conditioning and accumulating shops, welding shops, garage shops where workers and children are working in a very pathetic conditions, in small work places and are exposed to lead fumes / dust. These units are not covered under the Indian Factories Act and ESIS (Employees State Insurance Scheme). Their safety, health and hygiene conditions are very poor. However, he said that the big and organized industry like smelting and refining, pigments, paints, printing etc., covered well by the regulatory authorities. They do have certain engineering control technology and personal protective equipments to minimise the lead exposure. He feels that much more is required in these units for control and prevention of lead hazards. The factory inspectorate of each state are supposed to inspect and monitor these industries and advise them to keep the lead levels within the prescribed threshold limit value. (TLV) and suggest remedial measures to minimise the risk of lead in these industries.

He brought out the following issues that had to be included in the recommendation.

i) Awareness and education related to the lead hazards / poisoning (through audio visual means) in local languages for workers working in small scale cottage units and small shops.

ii) Hazardous small shops and cottage units should be covered under the Factories Act.

iii) A need for environmental cum medical survey in such units where lead levels are very high.

5. **Dr.H.N.Saiyed** first introduced about regulatory provisions to deal with Occupational Health & Safety in India. He mentioned that there is a Factories (Amendment) Act 1987, to safeguard the health and safety of workers in all hazardous occupations including lead exposure. Under "Model Factory Rules" there is special schedule to deal with certain work processes involving lead exposure. The major features of the Act and rules are as follows:

i) The workers and surrounding community have right to know about the health hazards from the work process

ii) Pre-employment and periodical medical examination of workers including estimation of blood lead levels and environmental lead levels and keep the levels below the permissible lilmits.

However, the enforcement is poor because of lack of infrastructure in the factory inspectorate which includes lack of equipments, trained man power and necessary chemicals,. Moreover, the factories Act is not applicable to small and cottage factories which are more hazardous and there is problem children's exposure, because many of them run by the families in their own houses causing exposure of more susceptible population like children and pregnant women (fetus).

Recommendations:

i) Strengthening of Factory Inspectorate to enforce the existing law – the industrial hygiene laboratory of each state should have equipments and other infra-structure necessary for measurement of lead levels

ii) Education of general population and workers about "Right to Know"

iii) Campaign to educate workers regarding health effects of lead including that on children and importance of "carry home exposure" and its adverse effects on susceptible population like fetus and young children.

VI)

WORKSHOP ON ROLE OF MINISTRIES OF HEALTH AND ENVIRONMENT: NATIONAL AND STATE

PARTICIPANTS:

Dr. S. Cummins
Dr. I. Romieu
Dr. Jagadeeshan
Dr. R.K.Chandoke
Dr. S.P.Reddy

Moderator: Dr. H. Falk

The workshop questions were prioritized and the most important of them were discussed.-

What are the major elements that must be included in the plan (consider primary and secondary prevention and treatment, research, training, environmental and worker protection, education and outreach, etc.)?

Following were the suggestions made:

1. Define the role of different agencies and their responsibilities
2. Inter-agency co-ordination
3. Standards and regulation
4. Professional and public education and awareness
5. Include specific activities with time-line
6. Strengthening local implementers
7. Build inter-national and inter-sectoral resources
8. Utilize outside advisory groups and stake holders
9. Packaging the plan
10. Budget considerations

VIIE)

Workshop on Role of NGOs, Foundations and Private Sector

Moderator: **Dr. C. Petrowski**

Panelists: **Dr. H. Needleman**
Dr. P. Nair
Mr. J. Rochow

The session started with two panelists presenting their experiences and personal opinions on the role of NGOs. Mr. J. Rochow introduced his organization "Alliance to end childhood lead poisoning," and expressed his view on NGOs role to advocate a lead poisoning prevention program, to participate in policy development and program planning, to monitor and evaluate program implementation and to set up a network of NGOs in different countries at different levels (e.g. National and Local)

Dr. P. Nair emphasized strategies in preventing lead poisoning particularly related to Indian society. He advised that the solutions for prevention of lead poisoning should be culturally compatible, recognize the economic realities of the country, and be sustainable in the long term. He also stressed on the use of oxygenated gasoline instead of leaded gasoline.

The panel was open for discussion:
To develop a plan for the implementation of a national program for lead poisoning prevention and treatment in developing countries and which should be

1. Feasible
2. Sustainable.
3. Culturally acceptable.

The First Question:
What NGOs and foundations currently in India might be interested in lead poisoning prevention and why? How can their interest be engaged?
NGOs was considered in a broad sense to include hospitals, unions, community groups, religious organizations, and women groups.

Possible pit falls for NGOs were recognized as

1. Duplication of effort
2. Fragmentation of activity/ resources
3. Isolation (especially in rural areas).

NGOs can be engaged by

1. Sending mailings to NGOs.
2. Use environmental NGOs directory.
3. Use core groups to engage smaller organizations.
4. Use existing networks.

The Second Question:
What proportions of private sector in India might be interested in lead poisoning prevention and why and how can their interest be engaged?
Private Sector that can be used in lead poisoning prevention were sorted out which included computer industries, professionals (Doctors, engineers, lawyers etc.), film industry and media regarding industries that use or produce lead, NGOs need t find out what issues are of industry. Some may be potential allies. These people can be engaged by:

1. Use of exhibitions and meeting by industries
2. Use occupational health groups

The Third Question:
What community organizations can participate in lead poisoning prevention activities?
The answer for this question won't be discussed here since it was already covered in the previous discussion.

The Fourth Question:
What contribution could be made by NGOs and foundations? At what levels local or national?

- To be in a position to coordinate and monitor
- To assist in determining priorities for monitoring
- To network with international counterparts
- For resource mobilization, information dissemination, education and training.
- To advocate education efforts.
- As a bridge between people and Govt.
- To use their expertise on other issues e.g. immunisation to help launh poison prevention efforts at grass root level.
- To assist in determining priorities for monitoring
- To focus on cottage industries
- To translate economic benefits to general population
- For public interest litigation

The Fifth Question:
What special contribution could be made by the private sector? At what level local or national?

- To use private organizations to develop specific control
- To support research
- To explore alternative to use of lead products
- To encourage public awareness
- To interact more directly with politicians
- For environmental and social auditing
- For occupational health activities.
- To encourage industry to publicize good practices.
- Help access resources

- Implement Govt. policies.

The Sixth Question:
What is the best mechanism for coordinating NGO, foundation and private sector activities with government initiatives?

- Complicated issue
- NGOs to organize themselves and develop activities.
- To engage private sector, Govt. and other partners for prevention.

General Comments:

- To recognize three levels of prevention.
  1. Personal e.g. avoiding traditional medicines.
  2. Political e.g. legislation
  3. Implementation of policies.
- Need for National Level Centre point that can help co-ordinate activities of various NGOs.
- NGOs should not address lead in isolation, need to consider other problems as well.

Attachment with specific groups:

- Hospitals and universities
- Unions
- Rotary and Lions
- Environment and Women Groups
- Consumer Forums
- Political Groups?
- Professional Societies
- Women and Youth Groups.

20. Source:

Holland WW, Stewart S. (1990). Screening in health care; benefit or bane.
Ch.1: Screening: a general view.
Ch.6: Screening in adult women.
London: The Nuffield Provincial Hospitals Trust.

1 SCREENING: A GENERAL VIEW

Some knowledge of the principles of screening and of what it entails in practice should form part of the intellectual equipment of all concerned with the control of disease and the maintenance of health.
(WILSON AND JUNGNER, 1968)

INTRODUCTION

THAT MEDICINE AND HEALTH CARE HAVE PROGRESSED dramatically since the beginning of this century can be seen by glancing at the subjects of papers in the *British Medical Journal* over the years. In 1900 the concerns were with topics such as Convalescent Homes for Soldiers, The Mechanical Origin of Carcinoma, Deaths from Diarrhoea, Rifle shooting as a National Past-time, the Insane and their Treatment. In 1940, the *BMJ* contained papers on topics such as Drug Traffic in Egypt, Chemotherapy of Gonorrhoea in Women and Children, Anthracite Dust and Tuberculosis, and Portable Apparatus for Electrical Convulsions. But even in 1968, the year of publication of the Nuffield Provincial Hospital Trust's collection of essays entitled *Screening in Medical Care: Reviewing the Evidence*, volume one of the *BMJ* contained only three references to screening —one in relation to anaemia in non-pregnant women, one on glaucoma, and one on phenylketonuria.

Since then screening has become an extremely popular concept. Advances in medical skills and technology, together with increasing knowledge about and expectations of health care among the public bring us into a very different health arena in 1990 from that in 1968 let alone 1900. The concept of screening in health care—that is, actively seeking to identify a disease or predisease condition in people who are presumed and

19.

Changing belief in iridology after an empirical study

Paul Knipschild

Department of Epidemiology and Health Care Research, University of Limburg, PO Box 616, 6200 MD Maastricht, The Netherlands
Paul Knipschild, MD, *professor of epidemiology*

Br Med J 1989;299:491-2

Many empirical studies test the validity of a hypothesis. Their results have an impact on the reader's opinion. My paper on iridology presented evidence against its validity as a diagnostic aid.[1] I report the results of an inquiry into how doctors' beliefs in iridology changed when they were confronted with this evidence.

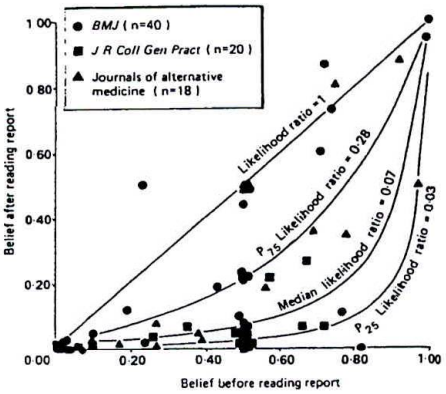
Subjects, methods, and results

I performed the inquiry among the first authors of recent papers in the *BMJ*, the *Journal of the Royal College of General Practitioners*, and three journals of alternative medicine (*British Journal of Homoeopathy*, *Allgemeine Homöopathische Zeitung*, and *Acupuncture and Electro-therapeutics Research*). In all, 100, 40, and 60 authors respectively were invited to state their belief in iridology by indicating, as a percentage, their belief in the hypothesis that "for certain diseases iridology is a useful diagnostic aid" on a visual analogue scale three weeks before the paper on iridology was published.[1] To prevent bias I selected only authors who did not know me, and all of the information was gathered by post.

Of the 200 authors contacted, 83 responded. The paper was sent to them with the request to read it carefully and afterwards reassess their belief. Five of them did not reply in spite of two reminders. The response rate was therefore 39% (40%, 50%, and 30% for authors of papers in the *BMJ*, *J R Coll Gen Pract*, and the journals of alternative medicine respectively).

The figure summarises the data on the 78 respondents. Fifteen authors (10 of papers in the *BMJ*, four of papers in *J R Coll Gen Pract*, and one of a paper in a journal of alternative medicine) who did not believe in iridology before they read the report (belief <10%) did not change their opinion after reading it. Three of the four who believed strongly in iridology initially (belief >90%) also did not change their opinion. Most respondents, however, were less decided before they read the report. Thirty eight (20 of papers in the *BMJ*, 11 of papers in *J R Coll Gen Pract*, and seven of papers in the journals of alternative medicine) were uncertain (belief 40-60%) before reading the report, but two thirds of these (14, nine, and three respectively) did not believe in iridology (belief <10%) after reading it.

Four authors indicated that their belief before reading the report was 0% and one that his belief after reading it was 100%. The paper's impact on the 73 other authors was expressed as a likelihood ratio, which was calculated by dividing the odds of belief after reading the report by that before reading it. For example, if a reader's belief changed from 60% to 10% the likelihood ratio=(0·1/0·9)/(0·6/0·4)=0·07. The median likelihood ratio was 0·07, with the second quartile=0·03 and the fourth quartile=0·28. The curved lines in the figure that represent these likelihood ratios fitted reasonably well with the data, especially at beliefs below 60% before the report was read. The median likelihood ratios for authors of papers in the *BMJ*, *J R Coll Gen Pract*, and the journals of alternative medicine were 0·06, 0·06, and 0·17 respectively.



Belief in iridology as a diagnostic aid among 78 authors of papers in "BMJ," "J R Coll Gen Pract," and three journals of alternative medicine before and after reading a report that gave empirical evidence against its validity. Curved lines indicate median, second quartile (P_{25}) and fourth quartile (P_{75}) likelihood ratios

Comment

I restricted the inquiry to authors in medical journals as they may be better able to judge empirical evidence. The respondents' beliefs and their propensities to change them may have been different from those of the authors who did not respond. Regression to the mean was not a problem, especially among the authors who reported a previous belief in iridology of about 50%: their change to strong disbelief was impressive. Participation was lowest among doctors of alternative medicine. The report's impact on such doctors was large but less pronounced than that on other doctors (likelihood ratio closer to one). In general the likelihood ratio seemed to describe the results reasonably; its usefulness for measuring the longer term impact of a publication needs further study.

1 Knipschild P. Looking for gallbladder disease in the patient's iris. *Br Med J* 1988;297:1578-81.

(*Accepted 16 May 1989*)

presume themselves to be healthy—is one that now has wide acceptance in our society. In this chapter we would like to take a general view of screening, what we mean by it, what principles we should apply to it, and what criteria should be used for evaluation.

McKeown (1968) defined screening as medical investigation which does not arise from a patient's request for advice for a specific complaint. Screening so defined may have one or more of three main aims and the requirements for its acceptance may be quite different in each case. First it may be the subject of research, for example in the validation of a procedure before it is introduced more widely; secondly, it can be used for the protection of public health—sometimes compulsorily—to identify a source of infection as, for example, with the search for the source of an outbreak of food poisoning; and thirdly, screening can have as its main aim a direct contribution to the health of individuals. It is with the third aim of 'prescriptive' screening that we will deal mainly, although not exclusively, in this book.

SCREENING FOR PREVENTION

Screening stands apart from traditional medicine in that it seeks to detect disease before symptoms present and before an individual decides to seek medical advice. Screening therefore carries considerable ethical responsibilities since it contains the potential to move an individual from the state of supposing himself or herself to be healthy to the state of having some disorder or potential disorder. As Rene Dubos (1960) has pointed out, complete freedom from disease is almost incompatible with the process of living. But we must be sure that screening is not being used to identify conditions that are either untreatable or insignificant since at either end of this spectrum lie anguish and anxiety. As Wald and Cuckle (1989) state:

> Screening must be principally concerned with the prevention of disease and the recognition that it is only worthwhile screening for disorders which lend themselves to effective intervention.

Simple and obvious as this may sound, it is by no means always the case although it is, in our view, fundamental to the integrity of the screening process.

To screen or not to screen?

Opinions in the health professions on the value of screening remain mixed. Enthusiasts point to the potential for reducing morbidity and mortality. There has been a resurgence of private screening clinics which advertise general health screening programmes for men and women. The new contract for general practitioners in Britain (Health Departments of Great Britain 1989) takes its cue from this consumer-led phenomenon and includes a 'lifestyle check' for newly registered patients, despite the lack of evidence for the efficacy of this. Particular pressure groups and lay groups, together with the media, may excite a public demand for screening for a specific condition, often on the basis of personal experience unsupported by scientific evidence. One fundamental point, raised in the preface to the previous Nuffield Trust book on screening (1968) and which remains very relevant today, is the possibility of well-intentioned doctors, patients, and pressure groups leading a kind of crusade against a particular disease or diseases and persuading governments to provide a screening service before a comprehensive and scientifically respectable assessment of its benefit is available. In these circumstances the act of screening runs the risk of acquiring respectability almost by virtue of its existence. There is, it seems, a tendency to assume that if you are screened, all will be well. That is a damaging and dangerous fallacy and every screening proposal must be rigorously examined against clear criteria. In the United States, where law suits have been filed against physicians who failed to detect cancer on screening, there has been a marked increase in defensive medicine.

Opponents of screening cite that harm it can do in terms of misuse of limited resources, over or misdiagnosis, overtreatment, and the provocation of anxiety and fear. Skrabanek (1988), for example, has re-stated recently his view that 'screening healthy people without informing them about the magnitude of inherent risks of screening is ethically unjustifiable.' Results of one recent study have shown a significant increase in psychological distress in healthy adults who have been screened for coronary heart disease risk factors (Stoate 1989). This author emphasises that advocates of screening tend to assume that the process has only two possible outcomes—benefit or no effect. The possibility that it may actually cause harm is largely ignored. Stoate further argues that

> the debate about who to screen and for what conditions should be widened to take more account of its effect on a person's mental state and subsequent behaviour.

The balance of opinion today seems to lie somewhere between the extremes of enthusiasm and doubt in a cautious and rigorous approach to screening practices and proposals.

Chamberlain (1984) has summarised the benefits and disadvantages of screening and these are shown in Table 1. The benefits are clear. Some patients identified will have an improved prognosis because of early intervention. Disease identified at an early stage may respond to less radical treatment. There should be savings in health service resources by treating diseases before they progress. Those with negative test results can be reassured.

The disadvantages of screening are more complex. They include longer periods of morbidity for patients whose prognosis is unaltered in spite of diagnosis, and overtreatment of insignificant conditions or abnormalities that are identified. In a randomised study of steelworkers with diastolic pressure greater than 95 mmHg, Haynes and colleagues (1978) found that absenteeism from work increased after they had been told

TABLE 1. *Benefits and disadvantages of screening**

BENEFITS	DISADVANTAGES
Improved prognosis for some cases detected by screening	Longer morbidity for cases whose prognosis is unaltered
Less radical treatment which cures some early cases	Overtreatment of questionable abnormalities
Resource savings	Resource costs
Reassurance for those with negative test results	False reassurance for those with false-negative results
	Anxiety and sometimes morbidity for those with false-positive results
	Hazard of screening test

*From Chamberlain (1984) and reproduced by kind permission of the author and publisher.

they had hypertension. 'The increase in illness absenteeism bears a striking relationship to the employee's awareness of the diagnosis but appears unaffected by the institution of antihypertensive therapy or the degree of success in reducing blood pressure.' There are resource costs in finding more illness—in terms of the screening tests themselves, the manpower resources, and the subsequent management of whatever is found. There is the certainty that some individuals with false-negative results will be given unfounded reassurance. Conversely, those with false-positive results will be subjected at the least to needless anxiety and at the worst to unnecessary and disfiguring surgery. Finally there is the question of possible hazard from the screening test itself.

Thus screening should be a hard-headed professional exercise rather than a form of evangelism. Stringent examination of the practice of screening and its implications is essential in any society which takes the health of its citizens seriously. 'The mere existence of unrecognised cases of illness is, by itself, insufficient reason to screen. Disease has many faces, and the hunt is not benign' (Berwick 1985).

Cost, resources, and audit

It is an inescapable fact that, under the present or any foreseeable system, we cannot do everything we might wish in terms of health care. Screening is costly in terms of man hours required to run the programmes, carry out the tests, and act on the results. Limited numbers of skilled professionals are available and this is a problem that will increase in severity as the current demographic changes lead to a smaller workforce. With the explosion of expertise and technology, things are now possible in medicine and health care that were in the realms of science fiction 20 years ago. We have an increasingly informed (and sometimes misinformed!) public who, when made aware of what can be done, expect that it should be available for them and their families. As in other areas of life, we are moving away from the simple quantity issues—routine health care available to all—to the far more complex quality ones—the best and most advanced health care available to all. There is an important change in emphasis from need-led to demand-led health care which has very wide implications. People are also developing a mistrust of high-technology medicine and are demanding more attention to their complex emotional needs.

It is vital, therefore, that there is a proper assessment of the resource implications of any screening or prevention proposal both in terms of primary and of secondary workload, and that screening is included in medical audit. This implies the examination of whether effective, recognised screening has been undertaken as well as consideration of unnecessary ineffective screening procedures. In the South-East London Screening Study (1977), for example, it was found that multiphasic screening increased the work of general practitioners by 10 per cent without a corresponding benefit in health terms. Where a screening test is recommended and available, as for example with screening for cancer of the cervix or breast, this should be considered during the normal medical audit procedure.

Self-responsibility

A properly informed public is a vital and often forgotten ingredient in any analysis of screening. The recent Government White Paper *Working for Patients* recognises this as one of its central themes (Secretaries of State 1989). One of the major weapons in preventive medicine today has to be the persuasion of individuals to take more responsibility for their own health, to seek and accept information on health-damaging and health-enhancing forms of behaviour, and to cooperate in appropriate screening programmes. It is necessary also to keep a sense of balance in the idea of self-responsibility for health. Certainly individuals should be prepared to take reasonable responsibility for their own health. But, given the strong economic, social, political, and environmental influences largely outside the control of the individuals they affect, governments cannot avoid a large measure of collective responsibility for the health of their citizens. It is important too to seek a balance on health awareness. Morbid pre-occupation with health can cause as many difficulties as a lack of awareness of health-damaging behaviours, although, as Acheson (1963) has pointed out, there is little evidence to support the view that the examination of apparently healthy people will turn us into a nation of hypochondriacs. One of the problems with screening is that it does tend to focus on disease rather than health, and it also creates a 'safety-net' philosophy of reliance on the ability of the health professions to identify and solve health problems.

At last in Britain we do seem to be moving towards a more positive concept of health rather than illness, but there is a long way to go. The United States Government has recently set out a list of 21 National Health Objectives for the year 2000 and these are shown in Table 2. They certainly reflect the more aggressive American approach to health care and prevention. At first glance they may also seem too general to be of value, and of course screening is only relevant to those conditions that can be treated. But we in Britain must

TABLE 2. *US Public Health Service national health objectives for the year 2000*

1	Reduce tobacco use
2	Reduce alcohol and other drug abuse
3	Improve nutrition
4	Increase physical activity and fitness
5	Improve mental health and prevent mental illness
6	Reduce environmental health hazards
7	Improve occupational safety and health
8	Prevent and control unintentional injuries
9	Reduce violent and abusive behaviour
10	Prevent and control HIV infection and AIDS
11	Prevent and control sexually transmitted diseases
12	Immunise against and control infectious diseases
13	Improve maternal and infant health
14	Improve oral health
15	Reduce adolescent pregnancy and improve reproductive health
16	Prevent, detect, and control high blood cholesterol and high blood pressure
17	Prevent, detect, and control cancer
18	Prevent, detect, and control other chronic diseases and disorders
19	Maintain the health and quality of life of older people
20	Improve health education and access to preventive health services
21	Improve surveillance and data systems

consider such an approach in order to work towards some cohesion in health care and create a concept of national health priorities, as advocated more than 10 years ago by Stone (1977). There have been recent moves towards this so far as health education and public health are concerned. In England, the Health Education Authority (1989) has recently published a Strategic Plan for the next five years with the objective of ensuring that by the year 2000 people 'are more knowledgeable, better motivated, and more able to acquire and maintain good health'. The Authority designates seven main programmes for health education during the five-year period of the plan (1990–95): HIV/Aids and Sexual Health; Look After Your Heart; Cancer Education; Smoking Education; Alcohol Education; Nutrition Education; Family and Child Health (including immunisation). And the report from an independent multi-disciplinary committee entitled *The Nation's Health: a Strategy for the 1990s* states the belief that a public health strategy should be directed towards three overall health goals—longevity, a good quality of life, and equal opportunities for health (Smith and Jacobson 1988). Members of the committee identified 17 priority areas of action as shown in Table 3. While they claim there is sufficient evidence to merit action in each of these areas, they concede that the evidence is stronger in some cases than others. On the basis of six criteria, they selected 11 of the 17 priorities for which they believe plans for action can currently be justified. These can be grouped into the two main categories of lifestyles for health and preventive services for health, as shown in Table 4. We do regard the setting and stating of national priorities for health as extremely important and will return to this in the final chapter.

TABLE 3. *Priority areas of action in public health strategy**

NUMBER	PRIORITY
1	Reduction of tobacco consumption
2	Promotion of a healthy diet
3	Reduction of alcohol consumption
4	Promotion of physical activity
5	Promotion of road safety
6	Promotion of health at work
7	Effective maternity services
8	Child health surveillance
9	Early cancer detection
10	High blood pressure detection and prevention
11	Reduction of psychoactive drug misuse
12	Services for the elderly
13	Maintenance of social support
14	Promotion of dental health
15	Promotion of a healthy sexuality
16	Adequate income
17	Safe housing

*From *Strategic Plan 1990–95* and reproduced by kind permission of the Health Education Authority.

TABLE 4. *Eleven currently justified priority areas of action in two categories**

LIFESTYLES FOR HEALTH	PREVENTIVE SERVICES FOR HEALTH
Tobacco	Maternity
Diet	Dental health
Physical activity	Immunisation
Alcohol	Early cancer detection
Sexuality	High blood pressure detection
Road safety	

*From *The Nation's Health: A Strategy for the 1990s*. Reproduced by kind permission of the Editors and the King Edward's Hospital Fund for London.

SCREENING AND HEALTH PROMOTION

Screening today is increasingly and inextricably linked with health promotion. One of the major advances in today's concept of screening has been to recognise that it must be concerned not only with identification of disease in its early stages but also with identification of certain types of behaviour which may lead to the development of disease—for example, cigarette smoking, misuse of alcohol, unbalanced or inadequate diet. Some will argue that this is exclusively health promotion and is not the province of screening. But in the context of modern health care it is essential to escape from the compartments of the past and consider health as a whole and the person as an entity rather than as a series of interconnected organs any of which can be diseased in isolation. Thus we will also look at various health promoting activities which have not been traditionally regarded as screening but which fall within the view of screening in prevention as mentioned earlier. One of the strengths of the 1990 contract of service for general practitioners is its emphasis on illness prevention and health promotion as part of routine medical service (Health Departments of Great Britain 1989). Many questions need to be addressed to ensure that screening is used, not as a political football, but as a useful, reliable

instrument to improve health care and reduce morbidity and mortality.

In this monograph, we will try to examine the present status of screening in health care in the United Kingdom with research examples as appropriate from elsewhere. We will go on to suggest some ideas for the development of screening in the future, drawing on experience in the United States where the concept of positive health is much more firmly established and where the US Preventive Services Task Force has recently published its *Guide to Clinical Preventive Services* with an assessment of the effectiveness of 169 interventions. We will begin by restating the definitions and principles of screening and its evaluation.

DEFINITIONS

The United States Commission on Chronic Illness Conference on Preventive Aspects of Chronic Disease defined screening as 'the presumptive identification of unrecognised disease or defect by the application of tests, examinations, or other procedures which can be applied rapidly. Screening tests sort out apparently well persons who apparently have a disease from those who probably do not. A screening test is not intended to be diagnostic. Persons with positive or suspicious findings must be referred to their physicians for diagnosis and necessary treatment' (Commission on Chronic Illness 1957).

Various types of screening were defined by Wilson and Jungner (1968). Mass screening is the large-scale screening of whole population groups. Selective screening describes screening of certain selected high-risk groups in the population. Multi-phasic screening encompasses the administration of two or more screening tests to large groups of people (Wilson 1963). Surveillance implies long-term observation of individuals or populations. Case-finding is usually taken to mean screening of patients already in contact with the health

service for the main purpose of detecting disease and bringing patients to treatment. The term 'early disease detection' is used to refer to all types of screening in a general sense.

It is important to emphasise the difference between screening where groups of people are invited to attend to be tested and 'opportunistic' screening (Sackett and Holland 1975) where the patient has initiated the health contact and the opportunity is taken to suggest various other appropriate tests, such as the measurement of blood pressure. Since these discussions, it has become apparent that asking simple questions about health behaviour identifies individuals who are at risk and can therefore be legitimately considered under the definition of screening. A good example of this is in chronic bronchitis where the only valid screening test is the question 'do you smoke?' (Colley 1974; Holland 1974).

PRINCIPLES

Despite all the changes in our approaches to health care over the last two decades, the basic principles of screening or early disease detection remain and we make no apology for repeating them here. In reviewing the vast accumulation of publications on screening in recent years, it is obvious that the term is still being used to describe very different processes and without reference to certain fundamental principles.

Wilson and Jungner (1968) summarised these principles as follows:

1. The condition sought should be an important health problem.
2. There should be an accepted treatment for patients with recognised disease.
3. Facilities for diagnosis and treatment should be available.
4. There should be a recognisable latent or early symptomatic stage.

5. There should be a suitable test or examination.
6. The test should be acceptable to the population.
7. The natural history of the disease, including latent to declared disease, should be adequately understood.
8. There should be an agreed policy on whom to treat as patients.
9. The cost of case-finding (including diagnosis and treatment of patients diagnosed) should be economically balanced in relation to possible expenditure on medical care as a whole.
10. Case-finding should be a continuing process and not a 'once for all' project.

Cuckle and Wald (1984) have summarised the basic requirements of a screening programme under eight aspects and these are shown in Table 5.

TABLE 5. *Requirements for a worthwhile screening programme**

ASPECT	REQUIREMENT
1 Disorder	Well-defined
2 Prevalence	Known
3 Natural history	Medically important disorder for which there is an effective remedy available
4 Financial	Cost-effective
5 Facilities	Available or easily installed
6 Ethical	Procedures following a positive result are generally agreed and acceptable both to the screening authorities and to the patients
7 Test	Simple and safe
8 Test performance	Distributions of test values in affected and unaffected individuals known, extent of overlap sufficiently small, and suitable cut-off level defined

*From Cuckle and Wald (1984) and reproduced by kind permission of the authors and publisher.

In the interests of simplicity we have grouped these screening principles into four categories.

Condition. The condition sought should be an important health problem whose natural history, including development from latent to declared disease, is adequately understood. The condition should have recognisable latent or early symptomatic stage.

Diagnosis. There should be a suitable diagnostic test which is available, safe and acceptable to the population concerned. There should be an agreed policy, based on test findings and national standards, as to whom to regard as patients, and the whole process should be a continuing one.

Treatment. There should be an accepted and proven treatment or intervention for patients identified as having the disease or pre-disease condition and facilities for treatment should be available.

Cost. The cost of case-finding (including diagnosis and treatment) should be economically balanced in relation to possible expenditure on medical care as a whole.

EVALUATION

Evaluation of screening is of vital importance and has too often been neglected in the establishment of screening programmes. Screening for cancer of the cervix in the United Kingdom, which we will deal with in more detail in Chapter 6, is one example of a programme that was started without proper provision for adequate scientific evaluation. Once again we make no apology for repeating the list of seven criteria which Cochrane and Holland (1971) suggested for assessment or evaluation of any screening test.

1. Simplicity: a test should be simple to perform, easy to interpret, and, where possible, capable of use by paramedical and other personnel. With increasingly

complex technology certain screening tests, particularly for example in the antenatal and neonatal periods, can only be performed by doctors.

2. Acceptability: since participation in screening is voluntary, a test must be acceptable to those undergoing it.

3. Accuracy: a test must give a true measurement of the condition or symptom under investigation.

4. Cost: the expense of the test must be considered in relation to the benefits of early detection of the disease.

5. Precision or repeatability: the test should give consistent results in repeated trials.

6. Sensitivity: the test should be capable of giving a positive finding when the person being screened has the disease being sought.

7. Specificity: the test should be capable of giving a negative finding when the person being screened does not have the disease being sought.

As Wilson (1963) has stressed, one of the main objections to screening is that tests have frequently been used without knowledge of their scope and limitations. In the early days of screening matters were simpler. The natural history of the conditions being sought, such as tuberculosis and syphilis, was well understood and lines of treatment were clear. The emphasis now is on chronic diseases about which much less is known, and the area of uncertainty is greatest in those conditions which take many years to develop and in which there is no clear boundary between the healthy and the diseased. 'Unless the ground is first cleared by epidemiological studies, it is difficult to see how harm by indiscriminate screening can be avoided' (Wilson 1963).

THE PRESENT MONOGRAPH

Because of the immense scope of the subject, we have divided the present monograph in terms of life-cycle.

We have divided a life-cycle into six screening segments as shown in Table 6. Segment I includes the antenatal and neonatal periods and infancy. Segment II deals with childhood. Adolescence and early adulthood, segment III, covers the years 12 to 24. Segments IV and V contain adult men and women respectively, and segment V relates to old age.

TABLE 6. *Life-cycle screening segments*

SEGMENT	STAGE OF LIFE	AGE RANGE (yr)
I	Antenatal, neonatal, infancy	−1
II	Childhood	1–11
III	Adolescence and early adulthood	12–24
IV	Adulthood (men)	25–64
V	Adulthood (women)	25–64
VI	Old age	65+

Of course no such classification can be altogether satisfactory and there will be gaps, overlaps, and anomalies. The principles for screening and the criteria for its valuation are, as we have described, well-established and clear. Our working definition of screening is that it entails inviting an individual for an examination which may identify a condition at a stage when it can be treated effectively to inhibit or retard its development. At some stages of life, however, our definition of screening has been stretched a little to cover what purists might consider to be routine clinical practice. Thus in Chapter 2 we include mention of measurement of blood pressure or examination of fundal height of the uterus during pregnancy which some will claim is simply good medical practice rather than screening. In Chapter 3, the problem arises as to what is screening and what is surveillance with the danger of trying to assess surveillance activities by screening criteria. Given the broad objectives of health care in this age group—the identification and if possible

correction of any physical, mental, developmental difficulties and the establishment of good health habits for the future—we would claim that both screening and surveillance are relevant and necessary and too great an insistence on the distinction between them is unrealistic in practice. In Chapters 5 and 6 we have had to make arbitrary decisions on where to include certain conditions such as diabetes, psychiatric disease, and indeed coronary heart disease which affect both men and women.

Because we believe that screening today must attempt to consider the whole person, with the emphasis on health rather than disease, the life-cycle approach, despite its imperfections, is the most practical and realistic. We will consider the present status of screening in each life-cycle segment in certain major diseases or conditions. A number of conditions, such as neuroblastoma and ovarian cancer, have been excluded either because the problem is small in population terms or because there is as yet insufficient evidence of benefit. Other conditions, most notably tuberculosis, are omitted because screening has achieved its objective.

The book is not intended as a comprehensive review of screening for the specialist in any particular field of medicine or health care. Nor is it intended to be a British version of the *US Preventive Services Task Force Report* (1989) which was the product of over four years of intensive efforts by a panel of 20 medical and health experts. Our aim has been to try to pull together the academic and practical strands of screening to provide information for average practitioners, both general and specialist, who can use the text and references to examine in greater detail the basis of our conclusions and draw their own. The book is intended also for health service managers and members of Health Authorities and Boards to try to provide an overview of the current position in screening and highlight some of the present deficiencies and potential strengths of the system.

In considering the state of screening for prevention and health care in the United Kingdom in 1990 two factors seem to stand out. The first is that the has been a clear move away from the concept of general or multiphasic screening which was fashionable 20 years ago. The emphasis now is increasingly on opportunistic screening, screening of high-risk groups, and—with the new contract for general practice—screening for prevention, and this is surely a more sensible approach both in human and financial terms.

The second factor is that there remains wide variation in the provision and standard of screening services throughout the country with too little in the way of quality control or scientific evaluation. There are of course honourable exceptions to these criticisms and some very effective screening is being carried out, as will be shown in subsequent chapters. It is, however, imperative in the next few years that clear national guidelines and standards for any programme of screening are established and monitored and that any screening procedures being continued or started are scientifically evaluated. The designation of one senior person with responsibility for screening in each Health Authority area would be a major step forward in improving co-ordination and efficiency.

In 1971 Cochrane and Holland wrote:

> We believe that there is an ethical difference between everyday medical practice and screening. If a patient asks a medical practitioner for help, the doctor does the best he can. He is not responsible for defects in medical knowledge. If, however, the practitioner initiates screening procedures he is in a very different situation. He should, in our view, have conclusive evidence that screening can alter the natural history of the disease in a significant proportion of those screened.

Thirty years on we would contend that screening by itself can provide no answer to anything. Only if it is carried out efficiently and humanely, leads to an improved outcome in those concerned, and is properly monitored and evaluated should it be contemplated.

REFERENCES

ACHESON, R. M. 'Thoughts on a service for the pre-symptomatic diagnosis of disease'. *Public Health* (1963) 77:261–73.

BERWICK, DONALD, M. 'Scoliosis screening: a pause in the chase'. *Am J Publ Hlth* (1985) 75:1373–4.

CHAMBERLAIN, JOCELYN, M. 'Which prescriptive screening programmes are worthwhile?' *J Epidemiol Comm Hlth* (1984) 38:270–7.

COCHRANE, A. L. AND HOLLAND, W. W. 'Validation of screening procedures'. *Br Med Bull* (1971) 27(1):3–8.

COLLEY, J. R. T. 'Screening for Disease. Diseases of the lung.' *Lancet* 1974, ii:1125–1127.

COMMISSION ON CHRONIC ILLNESS. *Chronic illness in the United States.* Volume 1. Prevention of Chronic Illness. p. 45. Cambridge, Mass: Harvard University Press, 1957.

CUCKLE, H. S. AND WALD, N. J. 'Principles of screening'. In *Antenatal and Neonatal Screening.* N. J. WALD (ed.) Oxford: Oxford University Press, 1984.

DUBOS, RENE, J. *Mirage of Health.* London: George Allen and Unwin, 1960.

HAYNES, R. B., SACKETT, D. L., TAYLOR, D. W., GIBSON, E. S. AND JOHNSON, A. L. 'Increased absenteeism from work after detection and labelling of hypertensive patients'. *New Engl J Med* 1978, 299:741–4.

HEALTH DEPARTMENTS OF GREAT BRITAIN. *General Practice in the National Health Service. The 1990 Contract.* August 1989.

HEALTH EDUCATION AUTHORITY. *Strategic Plan 1990–1995.* London: HEA, 1989.

HOLLAND, W. W. 'Screening for Disease. Taking stock'. *Lancet*, 1974, ii:1494–7.

MCKEOWN, THOMAS. 'Validation of Screening Procedures'. In *Screening in Medical Care: Reviewing the Evidence.* Oxford: Oxford University Press for the Nuffield Provincial Hospitals Trust, 1968.

SACKETT, D. L. AND HOLLAND, W. W. 'Controversy in the detection of disease'. *Lancet*, 1975, 2:357–9.

SECRETARIES OF STATE. *Working for Patients.* White Paper. CM 555. London: HMSO, 1989.

Screening in Medical Care: Reviewing the Evidence. Oxford: Oxford University Press for the Nuffield Provincial Hospitals Trust, 1968.

SKRABANEK, PETR. 'The physician's responsibility to the patient'. *Lancet* 1988, 1:1155–7.

SMITH, A. AND JACOBSON, B. (eds). *The Nation's Health. A Strategy for the 1990's.* A report from an Independent Multidisciplinary Committee chaired by Professor Alwyn Smith. London: King Edward's Hospital Fund for London, 1988.

SOUTH-EAST LONDON SCREENING STUDY GROUP. 'A controlled trial of multiphasic screening in middle age'. *Int. J. Epidemiol.* 1977; 6:357–63.

STOATE, HOWARD, G. 'Can health screening damage your health? *J Roy Coll Gen Practit* 1989,39:193–5.

STONE, DAVID, H. 'Priorities for prevention: a discussion paper'. In *Framework and Design for Planning. Uses of Information in the NHS. Problems and Progress in Medical Care. Essays in Current Research.* London: Oxford University Press for the Nuffield Provincial Hospitals Trust, 1977.

US PREVENTIVE SERVICES TASK FORCE. *Guide to Clinical Preventive Services.* Baltimore: Williams and Wilkins, 1989.

WALD, NICHOLAS AND CUCKLE, HOWARD. 'Reporting the assessment of screening and diagnostic tests.' *Br. Obstet. Gynaecol.* 1989, 96:389–96.

WILSON, J. M. G. 'Multiple screening'. *Lancet* 1963, ii:51–4.

WILSON, J. M. G. AND JUNGNER, G. *Principles and Practice of Screening for Disease.* Geneva: World Health Organization, 1968.

2 ANTENATAL AND NEONATAL SCREENING

> New methods of screening ... hold out the hope that, with only the rarest exceptions, every fetus that is carried to term will be born alive with the prospect of surviving into adult life physically and biochemically whole.
> (SIR RICHARD DOLL, 1984)

INTRODUCTION

THE MONTHS BEFORE BIRTH AND IN THE FIRST YEAR OF life are those in which most individuals receive more attention from the health care professions than at any other time during their lives. As Muir Gray (1984) has pointed out, most screening services available during this period are based on sound scientific research and have been developed rationally. The initial development of a particular technique has normally been experimental, as a clinical trial, with careful evaluation and monitoring. These services have therefore been developed in a much more satisfactory way than many other current screening procedures which were introduced during the 1950s and 1960s when enthusiasm was more evident than evaluation (Holland 1974).

ANTENATAL SCREENING

Screening at this stage of life relies increasingly on the use of complex technology and sophisticated equipment. The advantages of this are that potential problems can be clearly identified. The use of scans rather than vaginal examinations is less invasive and unpleasant for the woman as well as providing fuller informa-