

PN-480-5  
ISA 6447

STRATEGIES ON INTERNATIONAL HEALTH: THE HEALTH MODEL\*

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These remarks about "Strategies on International Health: The Health Model" will examine some of the general and underlying strategies necessary in national health systems, if various specific technical interventions are to be effective.

The Technical Content of Primary Health Care

The Declaration of Alma Ata in 1978 did not originate the concept of primary health care (PHC), but served as a springboard for advancing a movement that had been maturing for many years. It provided a central thrust for a world-wide reaction against massive bio-medical technology - a costly scientific approach that seemed to have accomplished little over the last 30 years in protecting the health of millions of people in developing countries (7).

The fresh strategy of giving top priority to primary health care has usually been defined as involving two major sets of actions. First is a series of eight technical interventions that you have all heard recited many times. These include health education, nutrition, environmental sanitation, and so on. Without elaborating these several important types of health

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\*Presented at the Colloquium on International Health and Development for the 1990s, held at Johns Hopkins University, Baltimore, Maryland, 6-8 April 1988.

service, it may simply be noted that under each of them - preventive or therapeutic - a large and diverse subset of activities would be necessary in the average community. Consider, for example, the specific activities required under the "prevention and control of locally endemic diseases" or within the "appropriate treatment of common diseases and injuries." One must bear these complexities in mind, to appreciate the importance of the second set of PHC actions, and the further health strategies to which I would like to call your attention.

The second major set of actions toward the PHC objective relate to a basic policy intended to qualify all specific health interventions in a locality. It involves community participation and intersectoral collaboration. Community participation concerns an approach to all health activities, in which local residents are invited and encouraged to participate in the development of all relevant health programs and their implementation. Every sort of health personnel would work closely with community people at all stages, rather than handing down decisions from on high.(2)

Intersectoral collaboration is a more difficult goal to attain. It means that health personnel should work as closely as possible with persons from other social sectors, such as education, agriculture, transportation, public works, industry, and so on. Everyone knows that health is enhanced substantially by these other sectors, and the objectives of other sectors are significantly affected by the population's health. There can be no explicit formula for this collaboration, but with a spirit of cooperation health workers should find many ways to support other sectors, and vice versa (3).

It is widely recognized that these background policies of PHC - community participation and intersectoral collaboration - are seldom carried out, along with the implementation of the eight specific technical interventions. Community health workers have their hands full with the concrete tasks of dispensing contraceptive pills, immunizing newborns, giving oral rehydration salts for diarrhea, or distributing chloroquine tablets in malarial regions. The latter types of technical work are all the more emphasized, in light of the "selective" PHC programs of UNICEF and USAID, in which specific tasks, such as certain immunizations or promotion of breast-feeding, are the exclusive program goals.

Beyond these major technical and conceptual contents of primary health care, there are several other strategies, seldom discussed but still essential, if a PHC program is to be effective over the years. Many studies of PHC activities, carried out by community health workers in developing countries, have led to disappointing evaluations. Again and again, the CHW has been found to be lacking in motivation and in understanding the whole meaning of PHC. He/she has often been found to do little preventive work of any type, to wait passively for patients to come to the post for first aid, to show little initiative in attracting the participation of local people in any health or environmental activity (4).

These deficiencies are symptomatic of basic difficulties in developing countries; they call for corrective actions along lines much more fundamental than the usual prescription for good PHC. May I suggest certain major underlying strategies required if the ideal of Health for All through primary health care is to be attained.

### Fundamental Requirements for Health Advancement

Regardless of the precise scope of PHC activities in an area, fundamental requirements for their effective performance should include the following:

1. Proper training of PHC personnel
2. Active supervision of community health workers
3. Stronger Ministries of Health
4. More schools of public health for training and research
5. Adequate financing of health services
6. National political commitment for health.
7. Overall orientation to national development

Proper Training of PHC Personnel. The experience of the last 10 or 15 years suggests that decent education of PHC staff takes time and proper effort. This does not mean that only physicians can provide primary health care, but it does mean that a few weeks of perfunctory lectures to some eager elementary school graduates are not likely to produce a good cadre of health workers.

The story of China's "barefoot doctor," that burst upon the world in 1971, may have misled people in many other developing countries. The young Chinese peasants, whose only prerequisite was literacy and being liked by the commune people, was trained by a physician for 3 to 6 months (5). Supporting this worker was a tightly-disciplined Communist Party organization in each commune. National norms on family planning, immunizations, nutrition, etc. provided strong guidance as did periodic refresher training at a health center or hospital. Yet when the Cultural Revolution was over in 1976, it was soon

decided to upgrade the barefoot doctor. Examinations were given to evaluate competence, supplemental instruction was provided, and those performing well were elevated to "rural doctors."

In many developing countries, the training of community health workers (CHWs) is much more superficial than that in China. Prerequisite education is seldom even primary school, and usually it is only to be literate. A survey done for the World Health Organization in 1983 found that in most countries the training period lasted between three weeks and six months. The trainers were predominantly various types of health assistant (not physicians nor professional nurses), who had little ability as teachers. Instructional manuals were seldom available. Let me quote a few lines from this WHO report:

"It appears from the study... that teachers are being selected on the basis of 'availability and expediency rather than on vocational aptitude, knowledge and motivation.' ...it was observed that trainers of CHWs who were local health personnel were not interested in training, were not clear about the policy and concept of primary health care and did not follow guidelines for training because of the lack of interest in teaching."(6)

It is obvious that most programs of primary health care require vastly improved training for PHC workers. Good training means properly prepared and motivated teachers, teaching materials that are simple and clear, adequate duration of instruction, practical field exercises, and systematic continuing education.

Active Supervision of Community Health Workers. Another difficulty frequently observed in PHC programs is very deficient supervision of CHWs. The explanation is not mysterious. In most developing countries, the Ministry of Health is organized through a pyramidal framework, in which authority starts at the national capital, and then passes to provinces, to districts, and

finally to local communities. At the level of the province and often of the district, there is usually a "medical or health director" of some type. In the vast majority of cases this is a physician, whose total background of education and experience has been in clinical medicine. Rarely has he/she had any public health training - except perhaps for a one or two-week orientation in the Ministry of Health headquarters. This clinical physician is also typically responsible for a provincial or district hospital. In fact, he usually prefers to spend most of the time treating patients in the hospital; this is the work he enjoys and feels comfortable with. The tasks of supervising CHWs in the field or even of consulting with the local supervisors of CHWs are unattractive to him. He has little time and less motivation for overseeing the delivery of PHC in the towns and villages throughout his province or district.

The fundamental problem is a lack of public health trained and socially oriented personnel in thousands of supervisory positions throughout developing countries (7). It is well known that formal medical education world-wide gives little attention to public health or community problems. Schools of public health have been developed to fill this need, but such schools are few and far between. Professional nurses with public health training and experience might be appointed to these supervisory positions in districts and provinces, but traditions of male chauvinism and medical dominance lead nearly always to appointment of purely clinical male physicians.

The need is for leadership by suitably educated and motivated public health personnel, whether they are nurses, managers, health educators, or

doctors, but not by purely single-patient oriented professionals; whatever their original discipline may have been.

Stronger Ministries of Health. Programs of primary health care or any other community health activity depend on having an adequate national infrastructure of health service organization. Ordinarily this is provided by the Ministry of Health, but it is no secret that in most countries these ministries are weak and under-funded. Because the resources and programs of the Ministry of Health are inadequate, in most developing countries studied the expenditures of people for private medical care and drugs exceed the total budget of the governmental health authorities (8). Among the central Ministries of almost every nation, the voice of health is one of the weakest in overall policy determination and in access to resources.

An Expert Committee of WHO recently addressed this issue and concluded that the weaknesses of Ministries of Health sprang from seven causes: (1) they had an inadequate or inappropriate range of responsibilities; (2) they were isolated from other components of total national health systems; (3) their authorities were excessively centralized; (4) they displayed poor management and weak leadership; (5) they were not adequately linked with other social sectors; (6) they failed to develop close ties with any population groups; (7) they had meager economic support (9).

To strengthen Ministries of Health the Expert Committee called for corresponding corrective actions: (1) the range of Ministry responsibilities should be broadened to the extent feasible; (2) if responsibilities for certain health system functions must remain separate, the Ministry should play

a coordinating role; (3) many health authorities should be decentralized, with fortification of local government capabilities; (4) management and leadership should be strengthened through training and appropriate rewards for competence; (5) intersectoral collaboration should be undertaken at the top and encouraged throughout all echelons of the Ministry; (6) community participation should be made a Ministry priority from bottom to top; (7) stronger economic support should be sought through seeking new funding sources, such as community financing or social security.

If these and other strategies succeed in strengthening Ministries of Health, one may expect that all the elements of primary health care will be more effectively provided. Likewise the health needs of urban as well as rural populations, of elderly as well as young, of men as well as women, will be addressed with appropriate efforts.

More Schools of Public Health. To prepare the health leaders and managers required - not to mention the epidemiologists, environmentalists and others the world is in serious need of far more graduate schools of public health. They are needed as training centers, but also as centers of research, consultation, and inspiration for the entire public health movement of a country (10).

The latest Directory of these schools from the World Health Organization reports that in the entire world in 1985 there were only 78 independent schools of public health (SPHs). Another 138 departments of medical schools offered some graduate training in public health, but this was limited largely to physicians and the enrollments were small (averaging 25 compared to 160 in

the SPHs) (11). The faculties of SPHs averaged 41 full-time members, compared with 17 in the medical school departments, where teaching also had to be provided to undergraduates. The SPHs of the world amount to one per 64,100,000 people; if we subtract the United States with its 23 schools, the ratio for the rest of the world is one SPH per 86,500,000 people. To offer a bit of perspective, the world's 1400 schools of medicine show a world-wide ratio of one medical school per 3,570,000 people.

One should not have to argue the urgent need for properly staffed schools of public health in all developing regions of the world. They should, of course, be open to all public health workers, even those who do not happen to have a Bachelor's degree, but have an important public health role to play. The teachers should come not only from traditional public health disciplines, but also from economics, sociology, psychology, management, law, education, nutrition, anthropology, and history.

#### Commitment to the People's Health

Earlier we took note of seven fundamental requirements for health advancement, and four fairly concrete strategies have now been reviewed. These four strategies involve technical and managerial capabilities that should be transmissible through international cooperation. One could reasonably expect bilateral or multilateral advice and consultation to improve the training of PHC personnel, to enhance the supervision of CHWs, to strengthen Ministries of Health, and to develop new schools of public health.

The three other strategies, however, are hardly amenable to external or international influence. They depend overwhelmingly on the prevailing social

policies and political ideology within the country. If certain basic policy decisions are made, the most that one might expect from an international source is some technical suggestions on how they might be carried out.

Adequate Financing of Health Services. Greater funding has been recognized as relevant for the strengthening of Ministries of Health, but its impact goes beyond this. In many countries, especially industrialized ones, substantial public expenditures are made by agencies other than Ministries of Health; this is especially true of countries with social security programs financing medical care.

Developing countries, in general, spend much less on health than industrialized countries, whether one considers total health expenditures (public and private), as a percentage of GNP, or only government expenditures. Thus, to cite just two examples, Indonesia in 1980 spent from all sources 2.8 percent of its GNP on health; in that year the governmental expenditures for health were 2.5 percent of total government spending. By contrast, the Federal Republic of Germany spent (from all sources) 8.2 percent of its GNP for health in 1983, and in 1985 the governmental expenditures for health were 18.7 percent of total government spending.<sup>(12)</sup> One must keep in mind that both denominators - the GNP and the total government budget - are much larger per capita in industrialized countries such as Germany. Expenditures for health in developing countries, therefore, constitute a relatively smaller piece of a smaller economic pie.

What can a developing country do to increase its expenditures for health purposes, in the face of overwhelming constraints in the general economy?

Some have advocated private or "user" charges for public medical services. Such an approach has been tried in several countries, with little accomplished. The great majority of persons using public, rather than private, services, cannot afford to pay very much. Collections of private charges usually contribute only 10 or 15 percent of total costs, not to mention the health inequities generated.

The mechanism of social security has been used to finance medical care in some 70 countries, half of which are low income developing countries.<sup>(13)</sup> Typically these programs start with coverage of only small fractions of the population -- people with relatively stable industrial or commercial employment -- but gradually they expand in persons covered and benefits provided. They have the enormous political advantage of raising funds from a special source, outside of general taxation, that does not compete with other public programs, such as roads, schools, or military affairs. Social security financing does not constitute a governmental or charitable "handout"; it is organized "self-help" for an earmarked health purpose. The usual urban concentration of social security programs spares Ministry of Health funds for greater orientation to rural health needs.

For rural populations, seldom suitably employed to make social insurance contributions, the time-honored strategy of the agricultural co-operative is a reasonable option. The money that rural families now spend on private payments to traditional healers, to drug-sellers and pharmacies, and to private doctors in a nearby town could be much more equitably and effectively spent in a prepaid cooperative program. Small periodic payments to the health

co-op would allow every enrolled family to be accessible to a cooperative health clinic at time of need and without financial barriers.

National Political Commitment to Health. Most of us are familiar with the remarkable health achievements of certain low income developing countries, which were the subject of a Rockefeller Foundation conference in 1985; these were China, Kerala State in India, Sri Lanka, and Costa Rica.<sup>(14)</sup> I would have added a fifth, Cuba. Many factors were judged to explain the attainment of "Good Health at Low Cost" -- education, sanitation, nutrition, clinical services -- but the common denominator in all cases has been political commitment or "political and social will," in the language of the report.

In spite of the meager economic resources, the political leadership in these countries made deliberate decisions to regard a healthy population as a goal of top priority. The several technical interventions necessary for protecting the health of children and then of adults came ahead of other societal objectives. In all four or five cases, a socialist or social-welfare ideology played a part, but in no two were the policies identical. I think that health policies in the world would make much greater progress, if they did not get hung up with labels and stereotypes.

Political commitment to health in any country can seldom be achieved overnight. Obviously political parties play a part in the process, but I suspect that visible evidence of accomplishment is more crucial. If a social situation seems hopeless, if all efforts appear to fail, a people's spirit will be broken. But if hard work appears to bring results and conditions are seen to be improving, the inspiration and motivation for further gains will be

strong. Perhaps international agencies can help in winning some short-term health victories (such as with immunizations or ORT salts), but the political commitment necessary for enduring gains depends substantially on the people and the leadership at home.

Overall Orientation to National Development. Perhaps the most difficult strategy to implement for health is that which does not focus on healthy people, but rather on the whole process of national development. It is relatively easy to advance nutrition by encouraging growth of soybeans and other protein-rich legumes, but the more fundamental task is to achieve international banking agreements, that enable countries with huge foreign debts to make adjustments so that their economies can attain stability. I am no economist, but from a common sense viewpoint, I cannot imagine how the developing countries will ever overcome their economic dilemmas without some sacrifice by the people of the affluent developed countries.

Industrial development has been the general path to social progress of almost all countries (except perhaps the handful of small oil-rich kingdoms). A few Asian countries -- such as South Korea, Taiwan, and Singapore -- have shown how concerted efforts, along with investment from outside sources, can achieve industrialization quite rapidly.<sup>(15)</sup> At the same time, the health ills, by way of occupational disorders or environmental pollution, need not occur, if management is conscious of the hazards at the outset. Repetitions of Bhopal, India need not be the price for industrialization, which is so much needed by so many developing countries.

Those of us working in international health have a doubly heavy responsibility. We must be familiar with national health systems, to help shape them along lines of maximum effectiveness, efficiency, and equity in all countries. In each country, of course, the structure and functions of the health system is constrained by the limits of socio-economic development. Secondly, since we know that health depends fundamentally on social and economic conditions in the whole society, we must be knowledgeable about the dynamics in back of those conditions. We must know enough to explain to people and to politicians that achieving good health depends not only on vaccines and clean water and breastfeeding babies and DDT-spraying of houses, but also on investments in factories, subsidies for agricultural fertilizers, construction of hydroelectric power plants, and restructuring of bank loans.

All this may seem a far cry from considering a "health model" in designing strategies for attaining Health for All. These remarks, however, have attempted to show that all specific interventions, within the orbit of primary health care, depend fundamentally on an effective overall national health system. And, furthermore, an effective national health system must depend fundamentally on a dynamically developing social order.

### Strategic Summary

In the interest of providing practical suggestions, that might contribute to U.S. foreign policy on cooperation with developing countries, may I attempt to summarize these remarks? Fundamentally, I believe, the task is to help

countries strengthen their national health systems. To work toward this objective, it would be appropriate to cooperate with countries:

- (1) in designing strategies and tactics to encourage community participation in all health programs - both in their basic policies and in their practical implementation. "Community" is intended to apply to local, district, provincial, and high<sup>e</sup> levels;
- (2) in analyzing what specific forms of intersectoral collaboration could strengthen the health system, and how the health system could contribute to the goals of other sectors;
- (3) in improving the training of community health workers with regard to (a) its technical content, (b) its conceptual foundations in relation to community relationships, and (c) the inspirational effectiveness of its teachers;
- (4) in assuring that the supervisors of primary health care workers are qualified for public health leadership roles, and not merely trained in clinical medicine;
- (5) in proposing how their Ministries of Health might be strengthened through broadening their scope of health responsibilities by (a) direct assumption of additional roles in the health system or (b) coordination of health functions performed by other agencies;

- (6) in developing local government capabilities, so that Ministry of Health authorities could be decentralized effectively;
- (7) in offering training and proposing incentives that would improve the management skills of all health administrative personnel;
- (8) in the planning and development of one or more graduate Schools of Public Health, as centers for leadership training, research, and active consultation.
- (9) in offering to backup Ministries of Health in an attempt to persuade national leaders (Prime Minister, President, etc.) of the great importance of health for overall national development;
- (10) in designing new strategies for raising funds for the health system, with special emphasis on the mechanisms of (a) Social Security applied to regularly employed workers and (b) health cooperatives applied to rural agricultural families; and
- (11) in supporting all national efforts to hasten general economic development, especially with respect to industrialization and its essential infrastructure.

These eleven suggestions are easier said than implemented. The exact form in which any of them may be applied, of course, would depend on the nature of the relationship between each country and the United States.

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