

PROBLEMS IN HEALTH PROMOTION IN THE FAR EAST

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AFTER ten years' experience in public health work in China and India, and numerous inspections of public health activities in other Far Eastern countries, the justification of health measures in the face of demographic realities presents a challenge. Public health programs play an important part in efforts to develop and utilize human resources in these areas. However, these programs, while undoubtedly promoting human welfare in an immediate sense, may defeat their own ends through their tendency to contribute in the long run to the creation of new problems. This paper puts forward certain views, representing a synthesis of field experience and study, on population growth, the methods and personnel for raising health standards, and the interrelation of public health with other social fields.

The Chief Problem—Population Growth. The chief problem of the Far East which confronts all students of social science, including health administrators, is the growth of population. Population density is related to natural resources, to the actual and potential level of agriculture and industrial production, and also to the cultural environment of the people concerned. At this round table, as well as at those sponsored by the Milbank Fund two years ago, recognition of these basic facts has been apparent. Moreover, there is agreement that in undeveloped areas population problems are in pressing need of solution. In the Far East, recent and, in some areas, dramatic reductions in mortality are producing significant increases in population density. Public health measures have contributed to decreased mortality; further public health progress may aggravate the situation unless accompanied by progress in all other socio-economic fields.

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It is assumed that this gathering has an understanding of the demographic situation of the Far East. The general background was presented clearly at a previous round table. High fertility and declining death rates have in recent decades been characteristic of most of the region. Japan, which demographically occupies an intermediate position between East and West, serves as the exception to this general picture. From 1920 to 1938 birth and death rates in Japan decreased in almost parallel fashion. In general, postwar statistics indicate that growth has continued or accelerated, rather than diminished. Recent figures from Japan show moderate increases in natality over prewar years in common with the Western world. The birth rate in Japan for 1937 was 30.8 per thousand, while the 1948 rate was 33.8. The reported birth rates of Ceylon for the period 1931–1940 averaged 36.4 per thousand; this rate rose to 39.4 in 1947 and 40.2 in 1948. In India the recorded birth rate declined slightly during the war years, partly because of less efficient registration. Such changes probably represent war-time effects rather than any significant change in the reproductive pattern.

On the other hand, the decrease in mortality has been impressive in several Far Eastern areas. The rate in Japan decreased from a prewar level of 16–17 per thousand to the 1948 figure of 12 per thousand. Ceylon's death rate was reduced from 20–22 per thousand to 13.2 in 1948. Preliminary evidence from India and the Philippines suggests that mortality decreases will be observed there also.

Thus the postwar picture is one of further natural increases in the Orient. In 1948 the rate of natural increase in Japan was 2.1 per cent, while in Ceylon it reached 2.7 per cent for the year. In the opinion of many persons the time has come when public health workers must face squarely this problem of population growth and share with others the responsibility for its solution.

The Rationale of Public Health and Hygiene. How does the population growth resulting from decreased mortality affect

the position of public health work? Unless agriculture and industry are expanded to meet the needs of larger numbers of people, the effort to raise the standards of living may fail, and the existing low levels may be further depressed. The broad aims of "Point Four" programs cannot be realized if application of the programs leads to growth in population without accompanying improvements in the standards of living. There should be a justification for improved health over and above humanitarian considerations.

In most of the Far East, and the Middle East also, infant mortality rates of less than 100 per thousand live births are unusual; rates of 150 to 250 are the general rule. This represents a 15 to 25 per cent wastage of births. Another measure of the prodigality is observed in India, where 43 per cent of deaths occur before five years of age, and close to 50 per cent of the total mortality takes place before the tenth year of life. The consequent economic as well as human wastage is obvious. A system under which time, labor, and food are expended on many children who do not survive to play any role in production is certainly an inefficient one. When the average expectation of life at birth is about 30 years, as it is in India and China, the loss in economic terms must be tremendous.

Another practical argument in favor of attempts to reduce morbidity as well as mortality concerns the efficiency of labor. Two casual examples which came to my attention recently can be mentioned in this connection. The total labor costs of a certain jute company for the same manufactured product have proved greater in Bengal, India, where individual labor is cheap, than in Massachusetts, where high individual wage rates prevail. Secondly, it is reputed that bicycles produced in Great Britain could be sold in India for less than bicycles made locally, in spite of shipping expenses and the substantial wage differential between the two countries. While numerous factors enter into such comparisons, health conditions are surely a considerable force in agricultural and industrial efficiency. In an unhealthy environment cheap labor is not inexpensive in

terms of total production costs, and ill health hinders efforts to improve economic levels.

Health education should contribute to a realization of the worth of human life and to recognition of the fact that the number of survivors is more important than the gross number of births. The modern doctrine which holds health to be a positive entity rather than merely the control of disease should be extended to the Eastern world. Public health activities constitute an essential element of the total social development necessary for better agriculture and industry. Public health organizations, particularly those in the field of maternity and child welfare, provide an opportunity for acquiring a greater understanding of human fertility, an understanding which may assist eventually in the improvement and control of reproduction. By means of visual and auditory teaching and by demonstrations, public health can hasten the time when the peoples of the Far Eastern countries desire and beget smaller families.

Rights versus Duties and Responsibility for Health. In making a case for health promotion I have not cited the preamble of the constitution of the World Health Organization. This oft-quoted affirmation that "the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being" has the dual merit of disowning any spirit of discrimination and qualifying the extent of moral obligation with the phrase "of the highest attainable standard." No one is committed beyond what is obtainable under the given conditions. The standard naturally then differs for America, Europe, China or India, and is limited by the resources, individual abilities of the population and characteristic social organization of the particular area.

Illustrative of an era where human rights are very much in the foreground is the universal declaration approved by the United Nations General Assembly in December, 1948. At present this declaration is receiving implementation through a covenant. The thirty articles of the declaration include a long list

of the rights of "everyone," expounded in general terms. These rights concern equality, slavery, legal status and protection, and the various freedoms—movement, religion, thought, speech, assembly, and the franchise. Rights of employment and leisure, the standard of living, including health, and rights regarding education and cultural life are also covered. In only one place, Article 29, does the word "duties" appear. "Duties to the community" subordinate rights and freedoms to the requirements of morality, public order, and general welfare.

At the risk of being considered iconoclastic, I question whether too much emphasis is not placed on rights and too little attention given to duties and obligations. It can be argued that inherent or inalienable rights do not exist. As an instance, the right of an infant to good health cannot be exercised unless both family and community assume the responsibility of making that good health possible. Rights derive from goals accepted by the community and are subject to change as the objectives themselves evolve. Logically then, every right should be balanced by a duty designed to enable the individual and the society to achieve the desired aims. In the field of public health, for example, the right to health and medical care should specify the duty of constituted authority to restrict the individual for the health protection of others and the obligation of individuals to cooperate for the public welfare, just as the right to social security implies acceptance of, and ability to meet, taxation.

The purposes of charters and covenants on human rights are, of course, appreciated. Their function is presumably to stimulate governments to accord their citizens all just privileges and to encourage individuals to claim the rights and services due them. At the same time, however, we must take care not to foster a psychology in which the peoples of underdeveloped areas expect the rest of the world to feed, clothe, and shelter them with little effort on their own part. If the time ever arrives when food distribution is proposed primarily on the basis of need rather than purchasing power our thinking will

have to undergo sharp revision. Under a world government such a situation might develop, but until current views on sovereignty are modified, it seems unlikely and illogical. Present conditions require that national expectations and individual voices take into account duties as well as rights.

Problem of Health Personnel. The administration of health and medical programs requires trained personnel, including health officers, doctors, engineers, nurses, midwives, and other auxiliary groups. Shortages are felt in many countries of the world, but in the undeveloped areas of the Far East the needs are particularly acute. No plan for health improvement can be better than the quantity and quality of the staff which carries it out. Although the number of persons required for area health programs varies in keeping with many factors, among them the size and dispersion of the population, the adequacy of communications facilities and the nature and efficiency of the services to be rendered, the critical element in appraising a health situation or planning for action is the amount of available personnel. What can be accomplished depends for the most part on the extent of personnel resources; these should therefore be considered in defining objectives. For example, in China there are about 12,000 doctors and 6,000 nurses to serve the four hundred million or more inhabitants; the ratio is roughly one doctor to 35,000 persons. In India there were some 47,000 doctors and 7,000 nurses in the provinces of the former British India; that is, a proportion of one doctor per 6,500 inhabitants. Any program of health improvement for these two vast countries whose people constitute 40 per cent of the world's population must allow for the limitations imposed by a relative dearth of personnel.

However, personnel shortages need not prove to be insuperable obstacles. In the Netherlands East Indies we observed up to the war period a situation where a small medical staff (1,310 registered doctors, supported by auxiliary personnel) provided a well-administered service which controlled all the major epidemic diseases except malaria. Medical and hospital

facilities, at least for the cities and large towns, were fairly well distributed. These conditions suggest that a carefully chosen point of attack together with efficient utilization of what personnel there is can produce measurable results. Likewise, in Ceylon the scarcity of doctors (one to 8,000 persons) has been compensated partly by an even and effective distribution of public health and medical care. The Ceylonese government, in whose service 60 per cent of the country's physicians are employed, has been instrumental in bringing this circumstance about. In certain Oriental areas at least, it follows that state or socialized medicine, or whatever label it may be given, can meet more efficiently a larger share of the public needs than can private endeavors.

To consider areas of a different educational status, we find that physicians in the Philippines are in the ratio of one to 4,000 persons (4,500 doctors). By intensive methods of education Japan has reached a level of one doctor per 1,100 inhabitants, which signifies their expansion to Western quantitative standards. In the islands of Japan, as in some other Far Eastern countries, a small body of well-trained medical personnel exists, but the majority are of inferior quality by our standards. However, to accomplish epidemic disease control through large-scale immunization and other mass sanitary measures, highly specialized education is not required at the local levels. In such areas as Japan where mortality rates have decreased notably, the availability of health-medical personnel has been a significant factor contributing to the spread and enforcement of public health measures.

Figures on other categories of personnel, such as nurses, midwives, and sanitary workers are not presented, but in general, Far Eastern conditions vary from extreme shortage to a limited adequacy. Nurses in the Far East are generally of the servant or ward attendant type. In China, the Philippines and a few other centers, the foundation for a technical nursing profession has been laid.

Unfortunately, elaborate plans are sometimes framed during

health surveys and developed with little regard for technical staff. The available personnel may be meager, or its provision through education and training may mean a long-term pull at best. After some experience in the planning and execution of health programs in various countries, I find that I am more exasperated by over-ambitious efforts to expand health work beyond reason than I am fearful of retarded growth.

These considerations merit the attention of the planners responsible for the health part of the "Point Four" program. Progress in technical aid will depend on the quantity and quality of personnel, and application cannot exceed the numbers who are available or who can readily be prepared for the required tasks. In addition to local personnel, the implementation of "Point Four" will require foreign staff. The preliminary plans, I understand, contemplate up to 800 technical health workers. Finding such a number in this or other countries is not a simple undertaking. To obtain this number of competent workers may require borrowing from and weakening existing organizations in the more advanced countries for the sake of less developed regions. Presumably, the function of such technical staff will be to plan, to train others, and to advise local officials, rather than to assume administrative responsibility. In the selection of foreign personnel for "Point Four" activities or for any international health work, the recruitment of satisfactory individuals is a problem of importance.

The experience of the United Nations Relief and Rehabilitation Administration and other postwar agencies in sending missions abroad should be kept in mind. Without detracting from their accomplishments, we should try to do a better job and avoid the errors of the past. The finding and selection of staff, whether in health fields or in other phases of "Point Four" assistance, demands careful preparation and fixing of criteria. A screening process for technical personnel who are to serve abroad, and particularly in the Far East, should result in the selection of individuals who give assurance or promise of these general qualifications:

1. A sound education and experience in the specified field; this requisite is basic, but it alone is not enough.
2. A capacity to adjust; in other terms, a real or potential interest in the welfare of the people and country where assigned.
3. The ability and patience to live and work with the existing materials and facilities and in the environment of the chosen area.
4. Personal stability and a satisfactory domestic history. Requirements regarding health and age limits are other factors, but items 2 and 3 above are especially important. Remuneration must be sufficient to obtain the type of workers desired without being excessive; neither volunteers nor those who are attracted by inflated salaries or exaggerated allowance have proved satisfactory in the past. Security and freedom for a sufficient period to do the job assigned is another element necessary for success; that is, frequent transfers or changed assignments are hindrances to effective work.

The Hazards of Health Promotion by Modern Weapons. In today's public health armamentarium there are some new as well as some old weapons which permit a mass attack upon certain diseases by relatively small staffs. The insecticides such as DDT offer a dramatic means of reducing the morbidity and mortality of malaria and certain other diseases. In Ceylon, for example, an effective island-wide malaria control program, based on DDT spraying, has apparently reduced the general mortality by one third within a few years. This campaign was accomplished with a staff of less than 1,000 workers at an annual cost of approximately fifteen cents per capita for the seven million inhabitants. Similar programs are now in progress in Bombay and Madras provinces and the state of Mysore in India, and the mortality among population groups of several millions will be lowered.

Programs of immunization against smallpox, cholera, typhoid, and plague, combined with other sanitary measures and efficiently administered, have resulted in the disappearance of these diseases. The use of BCG vaccine against tuberculosis

is being extended on a major scale in the Orient, and this measure portends a further reduction in general mortality (if we accept for the present that this vaccine gives protection). In Japan thirty-one million persons in certain age groups have already been immunized with BCG vaccine since 1943. These activities require trained personnel, but in practice such programs can be carried out with less staff than is required for measures of personal hygiene such as maternity and child welfare, public health nursing and the health care which primarily concerns individuals. Current plans of international agencies to expand BCG activities and malaria control campaigns prompt the question of what the ultimate effect on mortality in the Far East will be.

Other modern weapons, such as the newer antimalarial drugs, sulfa drugs and antibiotics, may well contribute in time to a further marked change in total deaths. The medical staff required for distribution of these therapeutic agents and their cost are the principal limiting factors.

It is well established that provision of safe water supplies and sewerage will reduce mortality greatly. In public health practice it is an historical fact that such sanitary measures pay large dividends more quickly than other branches of health promotion. The Western world has attained improved health by means of such expenditures. The Far East is still backward in providing safe water and satisfactory disposal of excreta. When sanitary engineers and funds are available, further changes in the sanitary picture and in mortality rates can be anticipated. Again, the principal checks on modern sanitation in the Orient are trained personnel shortages and the lack of capital.

In referring to the concomitant hazards of certain public health measures, I do not imply that these measures should be withheld. Rather it is pointed out that since campaigns to reduce mortality—particularly through inexpensive mass procedures—can be successfully executed by small numbers of trained personnel with little more than passive support from

the general public, the risk exists that health improvement may outrun other phases of socio-economic development. An overall policy which assures concurrent attention to food production and the social changes which relate to fertility would seem the better part of social wisdom.

National and International Policy in Undeveloped Areas. The basic tenet guiding Western and international agencies should be that of helping Far Eastern countries to help themselves. In practice this means training of local personnel, study of local problems and the demonstration of modern methods with active participation by local people. This general policy has governed Rockefeller Foundation work for a long time. It would seem that similar motivations could and do guide the World Health Organization and the promoters of the "Point Four" program.

The stage at which a demonstration becomes a large-scale operation is not always clear. Health programs can be pushed to the point of changing the local situation to a measurable extent. At times the temptation exists to add glory for the sponsoring organization by continuing the work beyond the period needed to activate the local program. Indigenous services may move more slowly and less efficiently, but in the long run their natural pace may produce greater benefit. The foreign organization should not have responsibility for operations in a major health program.

Further, the question can be posed whether public health programs sponsored from abroad should not always be coordinated with a general plan to develop all spheres of social activity, including education, agriculture, communications, and industry. To succeed in such integrated planning is not easy, but the objective is highly desirable. These thoughts may be illustrated by considering Egypt and assuming an hypothetical situation. In this country of nineteen million people, as recorded in 1947, there is an average of about 1,400 persons per square mile of arable land. The birth rate is 40 or 45 per thousand; the general death rate averages 26 to 28 per thousand.

With modern weapons a marked reduction in the death rate of Egypt at a reasonable cost appears quite conceivable. For example, the application of a country-wide insecticidal program, given the necessary organization and funds, would result, I believe, in lowering the mortality rate to 20 and perhaps under 20. This would add approximately 150,000 survivors to the population per year. Whether the decrease in mortality would promote the welfare of Egypt is doubtful unless the program were accompanied by measures to expand agriculture and industry, to encourage migration to newly opened areas and to modify human fertility. In Egypt, none of these goals is likely to be achieved until the Egyptians themselves become convinced that they have a serious population problem and do the necessary thinking and planning to meet the situation. This case illustrates the wisdom of having international agencies refrain from large-scale operations except insofar as these assist local efforts and further over-all social programs.

In dealing with the theme of health promotion the subject of fertility has at numerous points been touched upon. My assignment does not include a discussion of this problem, but perhaps the way has been prepared for the next paper. It is my personal conviction that in the development and utilization of human resources in the Far East the major unsolved problem is presented by man's reproductive capacity.