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O far this round-table discussion has assumed a character which I must confess I failed to foresee. Therefore, please forgive me if I try to give rather more weight to some aspects while only lightly touching upon others, which I had deemed more relevant.

I feel I should start with some definitions. Professor Cathcart, the pioneer nutritionist, always taught that this should be done no matter how carefully the subject matter already had been defined.

First then, I would like to define "health." The Preamble to the Constitution of the World Health Organization, which is the international specialized agency of the United Nations charged with responsibility for health, says:

Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.\(^2\)

This international definition will satisfy any national ideas, no matter how advanced. I shall describe something of the evolution of this concept of health, and explain the significance of it, the other relevant aspects of the Constitution of WHO, and the potentialities of today as they stand ready for mobilization for better health in undeveloped areas.

The definition of "undeveloped areas" is not so easy. Because I belong to that Commonwealth which formerly rejoiced in the somewhat uneasy possession, directly or indirectly, of a major part of the "undeveloped areas" I may be forgiven for having held the belief that, for the present and for some considerable time to come, such areas are unlikely to suffer from "overpopu-

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If properly planned development is carried out, the question of overpopulation seems even more remote. However, I may have been mistaken in my estimates, but I believe I am right in saying that history has so far shown that rising standards of living are always accompanied by declining birth rates.

Before discussing any specific health problems of undeveloped areas, it is desirable to explore the route by which we have arrived at our present attitudes towards health as seen nationally and internationally. The evolution of an international attitude to health was a prime prerequisite to the conception of the WHO. I shall endeavor to trace this evolution by a short historical analysis, in the course of which process there should emerge a picture of the philosophy underlying the WHO.

If this story of the gradual development of ideas on public health be traced out in any average national context, one clearly sees several successive but necessarily overlapping phases of technical development with their attendant and resultant professional and public attitudes.

First, there was the steady improvement in general sanitation, water and food supplies, housing, and facilities for the isolation of communicable diseases. The day had yet to come when isolation hospitals were to become places for effective treatment of sufferers rather than for their isolation from the public. This phase might well be described as the Phase of Fear, and more than one cynic has remarked that cholera was then the best friend of the Public Health Officers.

Next came the phase of true preventive medicine, with the gradual growth of satisfactory techniques in bacteriology, immunology (vaccines and sera), epidemiology and vital statistics. Here also we find the first demand for preventive services to look after the health of school children, certain classes of workers, mothers and children. The rise of services for the tuberculous is a good example of ideas in this phase.

Then, and partly concurrently, came the very rapid advances in medicine, released from the bondage of its empiricist limitations, and free to develop on a comparatively scientific basis.
This has brought us to the present quite remarkable pitch of technical and pharmacological competence in our dealings with disease, infectious or noninfectious. The potentialities of these developments for human welfare are enormous, and this phase is well reflected in the world-wide knowledge of some of the significance of such words as "Sulfas," "D.D.T.," "Penicillin." It should be realized that this stage is in its youth and large-scale international research would vastly expand it.

Latterly, we have seen a remarkably rapid spread of a realization by the medical profession and the public alike, of the full value of the social viewpoint to all aspects of health. As a result, the enlightened practitioner in every field of health now sees his responsibilities commence before disease, whether individual or communal, physical or mental, has manifested itself. He sees his responsibilities cease only after the individual or community is once again living in a manner which can be regarded as normal.

All this progress, technical and philosophical, implies a different and much more profound concept of man's environment as a factor affecting his health, and we see this in the establishment of chairs of Child Health, Industrial Health, and Social Medicine. Man's environment can no longer be lightly discussed in terms of units of plumbing or so many persons per square mile.

During this stage we have also seen the rise of scientific nutrition to a foremost place among the manifold responsibilities of progressive health administrations. The part played by the Milbank Memorial Fund in pioneering this remarkable innovation is not sufficiently recognized.

We are all fairly well aware of developments of this nature. We may use slightly different terminologies, or we may even have differing ideas about the scope or the chronology of the phases of health work, but I am sure we will agree that among that small fraction of the world's population which inhabits developed areas, any failure by an administration to provide health services broadly in accord with the above-mentioned
flow of ideas would certainly evoke immediate disapproval from the public and the leaders of the medical profession. But I wonder if we are really aware that only about 12 per cent of the world's population is receiving any large proportion of such services?

This leads us to examine, in the same way, the growth of an international conscience on health matters. We find that it has followed substantially the same pattern. It was to be expected that progress would not be so rapid as it was in the most progressive national scenes. It was natural that more emphasis was placed on epidemiology, quarantine, statistics, certain technical problems (such as narcotic drugs), and, latterly, some of the social aspects of medicine, to the relative neglect of treatment. But the pattern generally was the same. The gradual realization of the potentialities of the scientific and social techniques available to the national health administrations, allied to the concurrently and consequently developing conscience concerning the underprivileged, led to the broad, socially defensible, humanitarian viewpoint so ably stated in the Constitution of the WHO, where the only intolerance expressed is for failure to apply the measures available.

It is, however, interesting to note that the Phase of Fear, now largely departed from the public health scene in reasonably advanced communities, still retains a foothold in the Preamble of the Constitution of the WHO which says, after the definition of health:

Unequal development in different countries in the promotion of health and control of disease, especially communicable disease, is a common danger.

But this is but a last glimpse of the Lazarette and the Quarantine Hulk and the true attitude is clearly shown in the remainder of the Preamble:

The enjoyment of the highest attainable standard of health

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3 From publications of the Health Section of the League of Nations.
4 Constitution of the WHO, July 22, 1946, p. 3.
is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition.

The health of all peoples is fundamental to the attainment of peace and security and is dependent upon the fullest co-operation of individuals and States.

The achievement of any State in the promotion and protection of health is of value to all.

Healthy development of the child is of basic importance; the ability to live harmoniously in a changing total environment is essential to such development.

The extension to all peoples of the benefits of medical, psychological and related knowledge is essential to the fullest attainment of health.

Informed opinion and active co-operation on the part of the public are of the utmost importance in the improvement of the health of the people.

Governments have a responsibility for the health of their peoples which can be fulfilled only by the provision of adequate health and social measures.\(^5\)

and the Objective:

The objective of the World Health Organization . . . shall be the attainment by all peoples of the highest possible level of health.\(^6\)

Before drawing the necessary parallels with the movements of international conscience which produced the United Nations itself, it is convenient to mention some of the viewpoints which are the logical results of the workings of this conscience in the modern medical officer. With particular reference to the problems of undeveloped areas he is likely to say:

1. From now on, for all practical purposes, if humanity so decides, it can rid itself entirely of historic scourges such as typhus, malaria, venereal disease, smallpox, and plague. A further series of diseases including cholera, enteric and others can be deprived of most of their power to hold men at their mercy.

\(^5\) Ibid., p. 3.

\(^6\) Ibid., p. 3.
2. Perhaps the most widespread and serious disease affecting mankind—with the possible exception of some of the less spectacular psychoses—is malnutrition. It predisposes to an impressive array of diseases and ill-health. It is surely quite intolerable that malnutrition shall be permitted to continue to prejudice the health of at least 85 per cent of the population of the globe.

3. The present state of partial sickness which passes for health in most of the inhabitants of undeveloped areas can be changed to a genuine, positive state of health, with the corresponding improvements in productivity and self-respect. In passing—it is insufficiently realized that the apathy and ne'er-do-well character attributed to so many dwellers in undeveloped areas is, in fact, due to malaria, hookworm infestation, malnutrition, tuberculosis, or all of these, often allied with the demoralization produced by exploitation.

4. In the light of present-day knowledge and the results of past experience, when an area is to be developed, the health officer and his sanitary engineer, assisted perhaps by a psychiatrist, should move in on the heels of the prospector, and not along with the fever van and the mortician, after the damage has been started, as has been all too frequently the rule. With the mechanism available today for integrated approach to development, no failures to make use of this technique can be tolerated.

5. Many areas which might readily be regarded as unsuitable for development because of some health hazard to man or his flocks, can now be made perfectly healthy if the health work is coordinated in the commencement into the plans for development. A good example is the Ground-Nuts plan for development of large tracts of East Africa as an intensive producer of the scarce edible oils. These areas are infested with Tsetse fly. The clearance of forests will largely remove this risk. This scheme is under a so-called Crown Company in which the Government, the natives and Lever Bros. are partners. All health work and relationships with natives are the responsibility of Professor Har-greaves, the well-known psychiatrist.

These sample statements will give some idea of the attitudes resulting from modern philosophy on health matters as they will be shown by the health officers of today. There can be no
doubt these officers will insist upon being accorded a full voice in any development of undeveloped areas.

The upsurge of international conscience, the health manifestations of which are to be found in the Constitution of the WHO, had its main political fruit in the setting up of the United Nations. That section of this conscience, which showed itself as abhorrence of past inequities in the treatment of the inhabitants of undeveloped areas, resulted in the establishment of many special organs of the United Nations designed to prevent future recurrence of past errors, to make full and coordinated use of the technical and social knowledge now available or, at the minimum, to give due and authoritative international publicity to such matters.

Mr. Benson of the U.N. Secretariat, Trusteeship Division, will be able to tell you in detail about the Trusteeship Council, which deals with trust and mandated territories (population about 14,000,000) and the Special Committee on Transmission of Information under Resolution 73 (e) of the Charter, which concerns itself with colonies (about 180,000,000 population). These may be expected to act as formidable sounding boards, and I am sure their frequently lengthy deliberations will be for the ultimate welfare of those who dwell in certain undeveloped areas. However, we should not forget that only a proportion of dwellers in undeveloped areas come within the purview of these organs of the U.N. By far the largest numbers live in undeveloped areas which are sovereign states. International publicity for conditions in those areas does not appear likely to be quite so effective.

Mr. Weintraub has described the many economic commissions and conferences, central and regional, of the United Nations which will soon be meeting all over the world, in implementation of the promise of the Charter that development shall no longer go unplanned.

It should be pointed out that these organs of the U.N. are

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7 Information supplied by the United Nations Secretariat—the population sizes are only estimates and probably err on the low side.
basically technical advisers, consultants, "prodders," and publicists. There is no doubt that their best results will be in raising the standards regarded as attainable in their respective fields, throughout the world.

The specialized agencies of the U.N., of which the WHO is one, are in a different category but they are in the closest possible relationship with these various organs of the U.N.; are called upon by the delegates to commissions, the Secretariat, and others, for advice and information; and will certainly be called upon for action within their fields of special competence.

**How is this Relationship Expressed in Practice?**

Chapter II of the Constitution of the WHO, which states its functions, among a great many other statements, directed it

a. to act as the directing and co-ordinating authority on international health work;
b. to establish and maintain effective collaboration with the United Nations, specialized agencies, governmental health administrations, professional groups and such other organizations as may be deemed appropriate;
c. to assist Governments, upon request, in strengthening health services;
d. to furnish appropriate technical assistance and, in emergencies, necessary aid upon the request or acceptance of Governments;
e. to provide or assist in providing, upon the request of the United Nations, health services and facilities to special groups, such as the peoples of trust territories;
g. to stimulate and advance work to eradicate epidemic, endemic, and other diseases;
i. to promote, in cooperation with other specialized agencies where necessary, the improvement of nutrition, housing, sanitation, recreation, economic or working conditions, and other aspects of environmental hygiene;
j. to promote cooperation among scientific and professional groups which contribute to the advancement of health;
n. to promote and conduct research in the field of health;
o. to promote improved standards of teaching and training in the health, medical, and related professions;
p. to study and report on, in cooperation with other specialized agencies where necessary, administrative and social techniques affecting public health and medical care from preventive and curative points of view, including hospital services and social security;
q. to provide information, counsel and assistance in the field of health;
r. to assist in developing an informed public opinion among all peoples on matters of health;8

And Chapter III, Article 8, states:

Territories or groups of territories which are not responsible for the conduct of their international relations may be admitted as Associate Members by the Health Assembly upon application made on behalf of such territory or group of territories by the Member or other authority having responsibility for their international relations.9

From this, you will agree, it is fair to say that the WHO has a clear responsibility to peoples in undeveloped areas and its relationships are defined.

It is worthy of note that other specialized agencies have marginal responsibilities in the field of health. For example:

1. International Labor Organization Industrial Medicine
2. Food and Agriculture Organization Rural hygiene, nutritional education
3. United Nations Educational, Scientific and Cultural Organization Medical libraries, natural sciences, and teaching methods in health education

Still others have responsibilities in fields which definitely impinge upon health. For example:

8 Constitution of the WHO, Chapter II, Article 2, p. 4.
9 Constitution of the WHO, Chapter III, Article 8, p. 5.
Now let us take a few sample health problems which confront all undeveloped areas and see in what way this unprecedented international machinery can be mobilized.

There is now available a considerable fund of national experience in developing health services for undeveloped areas which are part of otherwise developed territories. For example, experience with provision of reasonably good standards of rural medical care in such diverse regions as Denmark, the Highlands and Islands of Scotland, the Prairies of Saskatchewan, and the collective farms of the Soviet Union, has shown that it is usually necessary for the Central Government to intervene. This had long been recognized in the case of environmental hygiene. All the knowledge gained by these countries can now be pooled and mobilized.

One problem which usually proves very intractable is the supply of medical personnel: doctors and auxiliaries. There is vast experience available in this field; from the quite highly developed medical schools of Indo-China to the very elementary native peasant officer who acts a kind of health activator in certain states of South America; from the quite adequately trained "Feldshers" or Assistant Physician Health Educators, so widely used in the U.S.S.R., to the "Native Dressers" used on the Gold Coast of Africa. All this experience must be made available to all administrations along with public exhortation and encouragement for its utilization. The native practitioner, if adequately trained for the job he has to do, will usually prove superior to an imported product of the same standard. I have
been told by Soviet health administrators that their proudest day in their work for backward areas was when they were able to give the people fully trained medical personnel of their own nationality, language, and customs. Then progress was rapid.

I would like to dwell a little on this essential feature of all work in such areas. The people must be educated to self-activation in health and sanitary matters, and this must be done within their own context. The problems of grafting on as much as possible of western hygiene to native medicine, with its background of empiricism, religion, and magic, must be carefully studied. This can best be done by giving the natives of these countries every opportunity to assimilate all that is useful to them by study grants and fellowships.

A further result of international intervention in these matters will surely be an increase in the sense of responsibility of the native official. When he feels that an international body is looking after his interests, that he is no longer entirely a pawn in the game, and when he is able to see the gradual rise in standards of administration that will inevitably follow the full use of the new international machinery, the native official will become a formidable power for good in his own land.

I have said little of the work and possible future of the great international foundations and other non-governmental organizations in the field of health, since this audience will be familiar with their histories. I would like to say that the WHO is specially charged with the working out of satisfactory relationships with them. The Interim Commission has already corresponded with no less than 117 international non-governmental organizations functioning in the field of health. There are probably at least five times this number of active national non-governmental organizations of international significance. Here is an immense fund of international experience and skill which only awaits a suitable catalyst to become available to all. The WHO can act as this catalyst.

So, to sum up:

We have reached a stage in the development of the interna-
tional health conscience without which any integrated development of undeveloped areas could never be regarded as successful.

There is now an international mechanism composed of the organs of the U.N., the specialized agencies, and the non-governmental organizations.

The U.N. disposes of services in all spheres which abut upon or influence health in these areas, so that for the first time we have the opportunity of an integrated approach to the problems of undeveloped areas, of which health is the major constituent. The health aspects can be directed by medical officers, imported and native, trained in the necessary broad social viewpoint, and they will be able to work in collaboration with experts in the fields which Mr. Weintraub has broadly defined in his paper.

These arrangements are unique, and it is to be hoped that they can be financed. It has been said that intelligent expenditure on health projects is the best investment possible, but I do not know whether such a statement would be regarded as valid for action by the Bank or the Fund. I would certainly suggest that any development plan which does not qualify under the health standards suggested above should reasonably be regarded as a bad risk. It would certainly be a bad risk ethically, if not financially.

I do not know whether it is possible to make out a sound financial case for expenditure on health, in terms of figures of increased output and lowered absenteeism of the working population, in undeveloped areas, but I do believe that such a case has been amply demonstrated as sound in highly developed industrial operations. So there is surely no justification whatsoever for insisting that the inhabitants of undeveloped areas shall undergo those trials and sufferings which experience has clearly indicated as unnecessary, undesirable, and financially unsound in the territories which were earlier developed.