Man's Emergence Toward Health

By HENRY VAN ZILE HYDE, M.D.

ONE of the signal honors of public health is an invitation to deliver the annual Winslow lecture. I am fully cognizant of this and deeply appreciative. All of us, I am sure, could tell of acts of friendship that have been extended to us by Professor Winslow and Mrs. Winslow, and we could tell, as well, of the stimulation and inspiration that we have gained from both of them. I had the good fortune to practice medicine in Syracuse, N. Y., a city known throughout public-healthdom as "A City Set on a Hill." I entered practice there shortly after Professor Winslow's book of that title was published, a book that revealed to me an exciting new area of interest and action, an interest which later became my career. So it is with a feeling of gratitude and warmest friendship, which has grown through the years, that I address you in honor of Dr. Winslow.

My title, "Man's Emergence Toward Health," may seem ambitious, but it grows from a feeling that builds up in one, unconsciously and quite inescapably, while traveling about the world in these days with an eye focused on health. We have tended to look at our business of public health as a small business, circumscribed by our own municipal environment, or, perhaps, our State or national environment, but since World War II public health has grown beyond these limits. There is a movement under way in health which constitutes one of the great facts of our time, a force that is shaping world events now and for the long future. We as public health workers must recognize this force in our own field, understand it, and guide it, for any great force loose in the world today can be used to build freedom or, on the other hand, to build tyranny.

Dr. Hyde, chief of the Division of International Health, Public Health Service, and United States member on the Executive Board of the World Health Organization, delivered the Winslow lecture at Yale University, March 28, 1955.

Universal Swing Toward Health

The story of the development of public health in northern Europe and in the United States is known to most of you. It is a story told by the public health historians and particularly well, of course, by Dr. Winslow. As historians and philosophers view the progress of man, some see it as a slow upward crawling interrupted by frequent backward slippings. Others see it as a series of explosions, each related to some new basic discovery such as fire, cultivation, domestication of animals, the discovery of iron, or the harnessing of atomic energy. The development of public health appears to take this latter form, an explosion which, indeed, is modeled on the ultramodern design of the mushroom cloud—in shape but not in effect. The vertical stem of the cloud is the explosion in time—public health history. It is a very, very short history as you know, occurring almost entirely within two, or at the most, three generations of public health leaders.

Short as is the vertical stem of the public health explosion, we are witnessing today the equally dramatic lateral expansion of the mushroom cloud. Prior to World War I, public health activity in great areas of the world, if extant at all, existed mainly for the protection of the colonizing forces, for the governors of men, not for man himself. Today, in contrast,

we see a profound and universal swing toward health for all men who people the world.

Evidence of man's explosive emergence toward health is seen in the current mass attack on communicable disease in the underdeveloped areas, in the widespread development of increasingly competent national health services, in the establishment of extensive networks of rural health centers and in the intensification of international action in the health field.

One of the most impressive and significant phenomena of our times is the mass control of certain diseases, even to the point of eradication in vast areas. The reality of this accomplishment strikes one with great impact on visiting the affected areas of the world; the scope of it is tremendous.

In 1948 the incidence of malaria was estimated at 300 million cases per year. Recently, the World Health Organization has announced that 243 million, or almost one-half of the 552 million people living in malarious areas, are now protected against malaria. In dealing with such figures we are speaking of one-fifth of the population of the entire world. In India 125 million of the 200 million persons exposed to malaria are now protected. Italy, Greece, Iran, Thailand, Ceylon, the Philippines, Formosa, Venezuela, and Brazil are among the countries that have taken similarly important strides in this field. The nations of the Western Hemisphere, not satisfied with mere control of this disease, decided in Santiago, Chile, in October 1954 to act in concert actually to eradicate malaria from the entire hemisphere, and it is anticipated that this astounding feat can be accomplished within the next 8 years. Likewise, a recent World Health Organization malaria conference held in the Philippines resolved that eradication, rather than control, must be the objective in Asia.

On a somewhat lesser scale, yaws, which is a particularly crippling and disfiguring chronic infection, presents a similar example of accomplishment in mass disease control. Within the last 6 years 35 million people have been examined for yaws, and 8 million have been treated. As recently as 1950, 50 percent of the total population of Haiti and an even higher percentage of its rural population suffered from

PHILIPPINES—A nurse from a rural health center visits a barrio under her jurisdiction. Her work and that of others like her is slowly replacing the work of the herbolarios and primitive jungle practitioners.

this disease whereas a recent survey following an intensive nationwide campaign showed only 0.03 percent of a sample rural population infected. Under the program presently being conducted in Indonesia, where there are an estimated 20 million persons infected with yaws, the target is 1 million examinations per month expected to reveal 83,000 clinical cases which will be given the required treatment.

The scope of the work that is under way is further attested to by the international program of vaccination against tuberculosis with BCG vaccine. Since 1947, while the experts have continued to debate the exact value of the vaccine, 101 million children, or approximately 10 percent of the world's children under 19 years of age, have been tested for tuberculin sensitivity, and 43 million of the negative reactors have been vaccinated.

Even in the face of such massive accomplishments, the expanding mushroom cloud of the health explosion would have little substance in the absence of a sound basic health structure. The availability of effectively organized and competently staffed national and local health services capable of thoughtful planning and able to reach the people is, of course, the essential ingredient of permanent accomplishment. Mass control of disease is pointless, except as a transient satisfaction, unless there are services available to maintain the achievement. Therefore, the element of greatest significance in the present movement—that which Dr. Winslow would consider most fundamental—is the widespread establishment of such services.

Organizational progress both centrally and at the community level is being made in many countries. Eight of the governments of the Western Hemisphere have elevated their health departments to the rank of cabinet ministries within the decade. These ministries, as well as the health departments that exist elsewhere, are being manned to an ever-increasing extent by well-trained personnel. During the past 12 years, at which time the Institute of Inter-American Affairs gave the lead in establishing international governmental fellowships, more than 1,700 fellowships have been awarded to Latin American professionals by the institute for study of various phases of public health in the United States. During the years 1947–54 the World Health Organization awarded 4,356 foreign fellowships on a worldwide basis.

The flow of foreign fellows being placed by the Public Health Service under a variety of programs for training in the United States is shown in table 1. This is, of course, additional to the fellowship programs of the private foundations and of governments themselves. In

Table 1. Foreign fellows programed by the Division of International Health, Public Health Service, 1951–55

Area	1951		1952		1953		1954		1955		Total
	United States programs[1]	WHO[2]	United States programs[1]	WHO[2]	United States programs[1]	WHO[2]	United States programs[1]	WHO[2]	United States programs[1]	WHO[2]	
Western Hemisphere	46	14	53	32	111	36	135	44	134	40	645
Europe	88	6	94	25	65	50	21	16	27	20	412
Near East, Africa, and Southeast Asia	23	10	85	17	95	21	81	16	98	10	456
Far East	93	10	154	28	274	31	288	27	247	30	1, 182
Total	250	40	386	102	545	138	525	103	506	100	2, 695

[1] Includes Mutual Security Administration, Technical Cooperation Administration, Institute for Inter-American Affairs, Foreign Operations Administration, European Cooperation Administration, International Cooperation Administration of the Department of State as well as programs under High Commissioner of Germany, Supreme Commander Allied Forces in the Pacific, Public Law 759, 81st Cong., 2d sess. (government and relief in occupied areas), Public Law 265, 81st Cong., 1st sess. (Finnish war debt), and Public Law 402, 80th Cong., 2d sess. (Smith-Mundt Act).

[2] The Public Health Service assists in programing only a part of the total number of WHO fellows in this country.

several of the countries, such as Brazil, Mexico, Chile, and Lebanon, training is being bolstered by new schools of public health that have been established or, as in the case of the Philippines and India, old ones that have been recently strengthened.

New and essential basic organizational units, such as divisions of public health nursing, environmental sanitation, sanitary engineering, health education, vital statistics, training, planning, and so forth, are being established within health departments and ministries. Twenty-three of thirty-seven of the less highly developed countries, for instance, today have a nurse serving in the ministry of health at the national level as shown below:

Nurse at national level: Brazil, Chile, Colombia, Costa Rica, Dominican Republic, El Salvador, Formosa, Haiti, India, Indonesia, Iraq, Israel, Korea, Lebanon, Liberia, Mexico, Panama, Paraguay, Peru, Philippines, Thailand, Uruguay, Venezuela.

No nurse at national level: Afghanistan, Bolivia, Ecuador, Egypt, Ethiopia, Guatemala, Honduras, Indochina, Iran, Jordan, Libya, Nepal, Nicaragua, Pakistan.

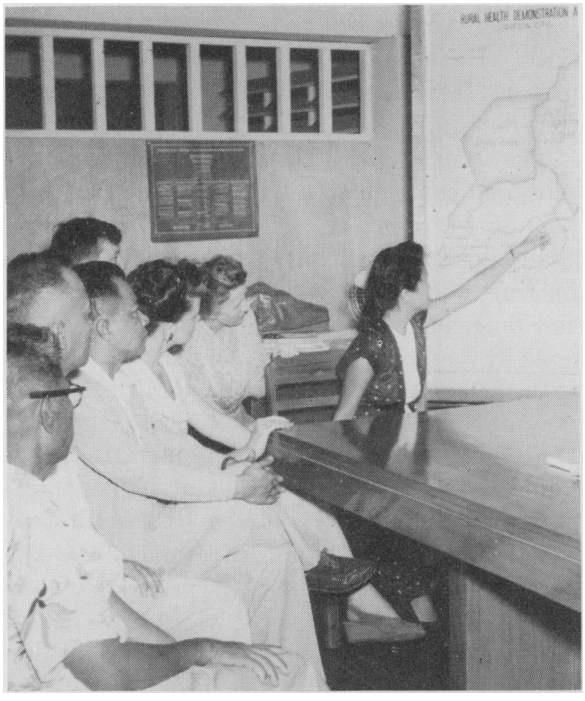
It is of particular significance that the first category includes a number of countries in which women were in deep purdah until very recently. The demonstrated value of nursing has over-ridden the prejudices and attitudes of many ages.

As part of the development of more effective services, there is a movement toward the progressive decentralization and expansion of health administrations, bringing them into closer relationships with the people they are designed to serve. Such movements are particularly conspicuous at the moment in Iran, Iraq, the Philippines, Brazil, and Mexico. Rather extensive formalized plans covering various periods, usually 5 years, are under way in a

Table 2. Rural health centers in certain countries

Country	Population [1]	Type and number of centers
Thailand	20, 000, 000	720 rural health centers. 91 first class (physician, nurse, etc.). 629 second class (sanitary inspector, midwife).
Egypt	21, 935, 000	153 rural health centers. 151 rural social centers with health services. 80 child welfare centers with health services.
Philippines	21, 440, 000	956 rural health units (all types, various stages of staffing). 81 demonstration rural health units of United States type.
Indonesia	78, 163, 700	2,432 government polyclinics. 234 private polyclinics.
Pakistan	75, 842, 165	188 rural health centers.
Taiwan	8, 617, 000	344 rural health stations. 22 county health centers.
Haiti	3, 227, 000	3 rural health centers.
Iran	20, 253, 000	3 large mobile health units (Caspian region, Teheran, Tabriz). 8 completely equipped demonstration health centers from which operate 25 small mobile units.
India	372, 000, 000	5,840 rural dispensaries.[2] 1,695 urban dispensaries.[2]
Brazil	57, 098, 000	1,950 official public health services: 1,280 general. 670 specialized.
Colombia	12, 108, 000	103 health centers (physicians, nurses, etc.). 306 health stations (sanitary inspector). 15 mobile units.
Mexico	28, 850, 000	1,277 rural health services: 528 centers of hygiene and medical care 463 clinics of medical service 163 dispensaries 103 first-aid stations 20 vaccination offices.
Uruguay	2, 525, 000	123 polyclinics. 18 departmental clinics. 29 auxiliary clinics.

[1] From United Nations Statistical Yearbook, 1954. [2] Provided for in 1955–56 plan.



PHILIPPINES—A rural health specialist points to a demonstration area where Philippine personnel are being trained for service to families residing in remote areas of the islands.

number of countries—either as separate health plans, as in the case of the $75 million 5-year health plan in Iraq, or as a major segment of a general development plan, as is the case in Iran, India, and Pakistan.

The far-reaching character of the present movement in health is evidenced best by the rapid expansion of networks of urban and rural health centers which are penetrating remote areas and blanketing much of the world. While providing varying degrees of medical care, which they must in the areas in which they operate, they are increasingly providing preventive services with trained auxiliaries assisting the professional personnel. Quite surprisingly, it is not possible to find and present any substantial data on this dramatic development; even the nomenclature is muddy. There is in this a serious gap in our knowledge that needs to be closed. The spotty information that can be found is presented in table 2. Increasingly, such centers are becoming integrated into total community development programs, which encompass services designed to improve agriculture, education, and the total village economic and social structure. At the moment this desirable trend is conspicuous, particularly in Mexico, Egypt, and India.

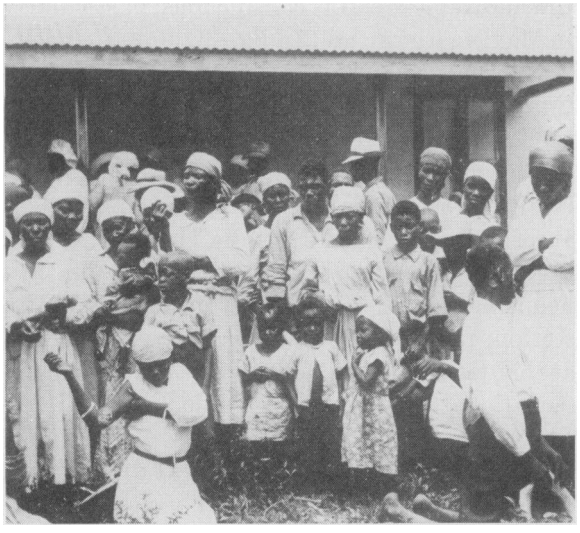
International cooperation, as a field of action, presents dramatic evidence of the momentum of the health movement on a world basis. Before World War II there was limited activity in international health carried on by the International Office of Public Health in Paris, the Pan American Sanitary Bureau in this hemisphere, and the League of Nations health section, the work of these organizations being, at that time, restricted almost entirely to the international exchange of epidemiological information.

However, the League of Nations did embark, in a small way but with great vision, on programs for the development of international standards for drugs and biologicals, the improvement of health statistics, the development of standards of human nutrition, and the provision of technical assistance to governments in the development of their own health services. Through its survey and advisory health missions to Greece, China, Bolivia, and other countries, it became the pioneer in the field of international technical assistance which has expanded so greatly in many fields since World War II.

Emergence of WHO

From these origins sprang the World Health Organization. It is not the world equivalent of the health department located in the cellar of the county building. From the standpoint of membership of sovereign nations, the World Health Organization is the largest official international structure ever built by man, with a membership of 80 states as compared with the United Nations, for instance, which has a membership of 60 states. Staffwise, with 1,307 employees, it is the largest agency within the United Nations orbit, except for the United Nations itself. On the world scene, therefore, health is, today, one of the "big shots" of intergovernmental action. This represents explosive progress.

The health budget of the League of Nations never exceeded $400,000, of which only $200,000 was contributed by governments. During the interwar period the total annual governmental



HAITI—Yaws patients wait for treatment at a clinic.

contribution to international health work, including contributions to the International Office of Public Health in Paris and the Pan American Sanitary Bureau, never reached $300,000, with the United States, which was not a member of the League, contributing only $6,000 to the world program and $60,000 to the hemispheric one each year.

This provides some measure of the extent of governmental interest in health so short a time ago. In contrast, the World Health Organization budget, financed entirely by contributions from governments, is now at the level of $10 million. In addition, WHO gives leadership and direction to health programs it undertakes jointly with the United Nations Children's Fund and the United Nations Technical Assistance Program. Its total annual resources, direct and indirect, are, therefore, in the neighborhood of $15 million.

Governments established the World Health Organization because of their recognition of the need for international cooperation and assistance in health, yet, in 1948, when the World Health Organization stepped onto the world stage and offered technical services to governments, there were few takers. Most governments wanted supplies and nothing less tangible. The scene has changed rapidly with the growth of understanding, and today the World Health Organization has technicians in almost every country in the free world. In 1954 alone, it was engaged in 329 major projects in 75 countries. Its most pressing problem is that of meeting from its available resources the requests that flow in.

The World Health Organization activities represent common action through international pooling of resources and skills. The United States is supplementing these activities by conducting a cooperative international technical assistance program in health, which is administered by the Foreign Operations Administration with the support of the Public Health Service, the universities, and other private agencies. (On July 1, 1955, the Foreign Operations Administration was abolished, and its technical assistance activities taken over by the International Cooperation Administration of the Department of State.) This is the program widely known at one time as point 4, which has a health component operating at a level of $26 million per year. Taking this into account, the total contribution of the United States to international health work, made directly and through the international agencies, now ranges around $40 million. This is a far cry from the $66,000 of only 10 years ago.

The Demand for Better Health

Recognizing that there has been a great acceleration in the tempo of health development, one wonders what the underlying factors are that have brought it about. The fundamental factor is a demand from the masses for better health, growing from the demonstration that health can be obtained at a reasonable cost through techniques now available. The realization that ill health is avoidable has penetrated to the remotest areas, creating a political force of local, national, and international significance.

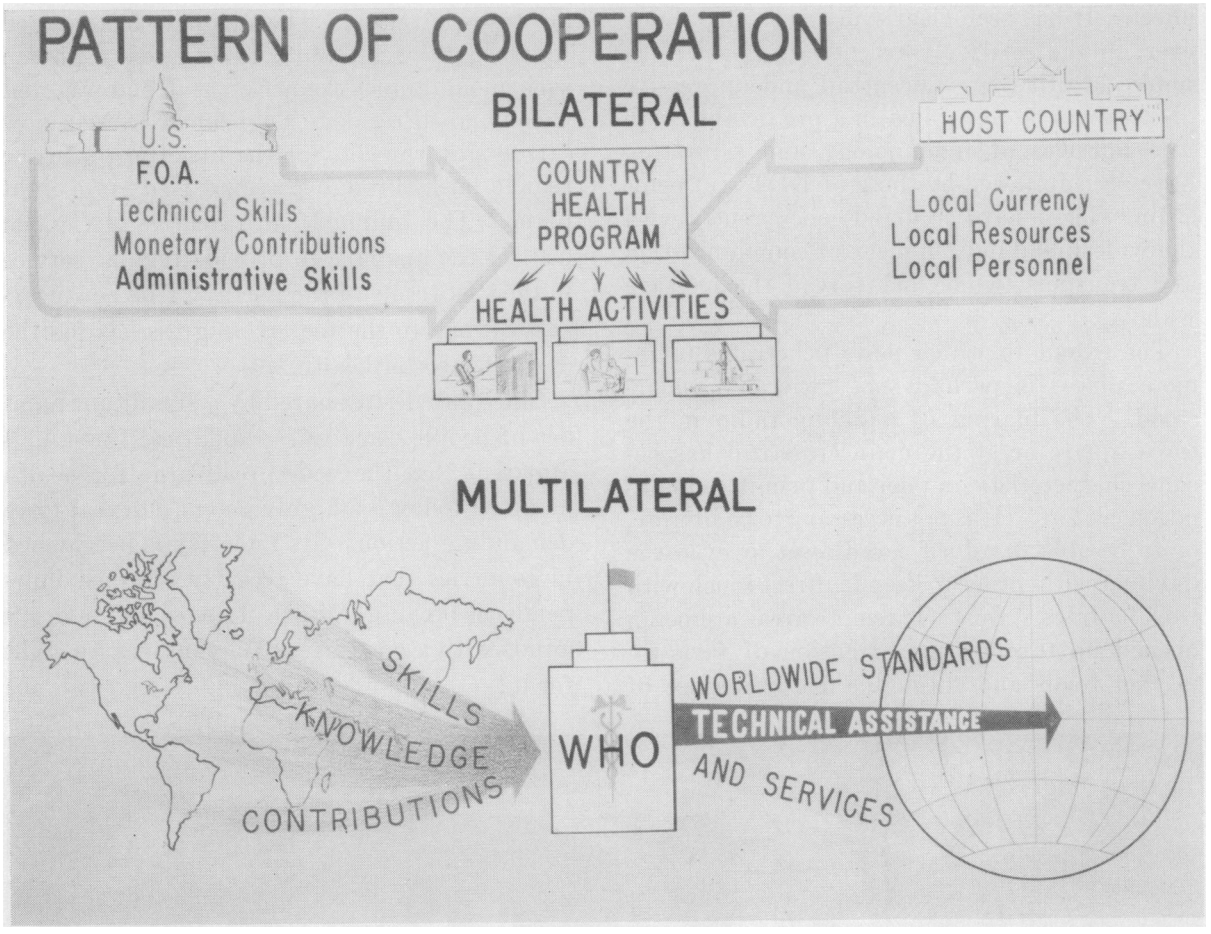
The demand for health is based fundamentally, of course, on the innate animal desire for relief from pain and suffering and the equally innate instinct to protect one's offspring. Through the milleniums, efforts to modify pain and suffering have been made through sacrifices to many gods, through attempts at avoidance by haruspicy, through incantations and the taking of strange mixtures. None of these efforts had a consistent

effect. It has been clearly demonstrated, however, in the relatively recent era of scientific public health that widespread and oppressive diseases can be controlled in a predictable way. The miracles of immunology and sanitation have been followed by those of DDT and penicillin. These have occurred concurrently with the widespread development of communication and transport, which has spread the message widely.

The extent to which news penetrates to remote places is perhaps not generally understood. The blaring of a public radio in the town square or at the main crossroad has become characteristic in poor and primitive population centers. It is not necessary to be literate, or to be able to afford a radio set or even the day's paper in order to keep in direct touch with world affairs. Further, remote areas are being opened up through the extension of farm-to-market roads and through the routine use of air transportation. The airplane has knitted together the scattered and isolated towns in such mountainous countries as Honduras and Colombia. President Tubman of Liberia now carries government, for the first time, into the remote bush through personal visits in a light plane. The Indian Health Service of Canada utilizes the airplane to provide regular service in the vast tracts of the north. This new nearness of man to the foci of progress has fed the desire for better health.

Since any desire shared by a significant number of people constitutes a political force, it is apparent that the widespread urge for health manifest today is a highly potent political force demanding action. Its intensity is heightened in countries that have recently attained independence because self-rule is associated in men's minds with a good life. Why, otherwise, fight for it?

THAILAND—Assistant director of a malaria control unit demonstrates mechanism of spray guns.



Such different men as Magsaysay, Nehru, U Nu, Mohammed Ali, Soekarno, and Kotelawala, who in common are leaders in newly independent countries, have initiated extensive national activity in health in a conscious effort to satisfy this expectation. Others, new in power, in countries with a long tradition of independence, such as Pibul Songgram in Thailand and Paz Estenssoro in Bolivia, have likewise stepped up health activities with a view to achieving stability and combating subversion. The communists utilize this same force in order to accomplish their ends. John Ridley, who accompanied Clement Attlee on his visit to Red China, has reported at some length in the *New York Times Magazine* (August 29, 1954) on the manner in which health is being employed to strengthen the hand of the present government there.

Internationally, the same political factor is at work. Here it is a matter of the cumulative force of the health demands of the total of the world's population. As the antipodal forces of freedom and tyranny clash on the world scene, each is trying to gain the adherence of the masses and using either health promises or performance as one means of doing so. We, for our part, have promoted and supported health measures through the World Health Organization, the Pan American Sanitary Bureau, the United Nations Children's Fund, the International Cooperation Administration, and the Colombo Plan for Cooperative Economic Development in South and Southeast Asia. On the other side, it has been largely a matter of false promises.

It is a generally accepted tenet of modern political philosophy that peace can survive only in the presence of economic growth and stability. There is increasing acceptance of the additional fact that a sound economy cannot be built upon a sick population. Professor Winslow has made a major contribution to this area of thought in his monograph on "The Cost of Sickness and the Price of Health," which was published in 1951 by the World Health Organization, and which has had wide influence

here and abroad. The relationship of health to economic development, which has been so clearly set forth by Professor Winslow and dramatized particularly by the modern story of malaria, has attracted the thoughtful attention of those who shape world affairs and has given health work much of its present momentum.

A lesser factor contributing strength to the international movement in health is the fact that protection against exotic disease in the face of modern transportation speeds has required a positive approach rather than the negativism of traditional quarantine. This positive approach has taken the form of international assistance in the control of disease at its source. In his account of Mr. Barr and the innocent introduction of smallpox into the United States, Dr. James S. Simmons has given us in "Public Health in the World Today" a compelling story of the need for this approach.

As contrasted to narrow nationalism, the growing recognition of the world as an essential whole provides the milieu within which health action spreads rapidly and widely without too great reference to artificial boundaries. Interrelatedness has replaced isolation, and there is a true sense of mutual responsibility for the state of the world at large.

In the free world, this sense of mutual responsibility is not motivated by political or economic opportunism alone. Much deeper and more meaningful forces underlie today's internationalism. The moral concepts that have shaped our own American freedom are known throughout the world and are inspiring today's movements toward freedom. The Declaration of Independence is not solely a United States document but a world platform; Lincoln is not a local figure but a world hero and a universal symbol of faith and hope. We can easily recall how the Atlantic Charter and its four freedoms electrified us only a few years ago. We wish to make good on those promises.

We cannot indeed sidestep moral responsibility for preventing disease because we know, with Thucydides, that "the true author of the subjugation of a people is not so much the immediate agent, as the power which permits it, having the means to prevent it." And we are the ones who have the means to prevent disease.

The moral drive underlying international action does not stem solely from political philosophies or from guilt but from a deeper root that underlies philosophy and guilt. It is perhaps a fortunate thing that the power and the wealth and a large measure of the greatly needed technical skills are in the hands of those whose religion drives them to share their substance. The medical missionary is a forerunner in spirit, more than in technique, of the official international programs in health.

Where can we derive more immediate satisfaction of our moral urge than in the field of health, sharing our resources in order to solve the massive immediate human problem touching every man? Freeing man from the burden of disease so that he might have flight of spirit satisfies the requirements of today's moral urge as well as any immediate material goal. Whether programs are labeled health, agriculture, economic development, or technical assistance, the improvement of man's daily life is their goal, and, directly or indirectly, they must bear upon man's health.

All of this is of particular importance to us as workers in public health. We cannot think of peace as a problem solely for the diplomat or the statesman, nor of economic development as a problem for the economist alone. The emergence of man toward health constitutes a fact of our times within our own sphere of responsibility that is very truly affecting the future of mankind. India will never again be what it was yesterday, nor will Brazil, nor Mexico, nor Haiti, nor Indonesia, nor any country in the so-called underdeveloped belt.

We, as professionals in the field of health, have the primary responsibility for assuring that this great force, which is expressing itself with explosive rapidity, is utilized to the fullest extent in the furtherance of freedom and the establishment of peace. It is encumbent upon us not only to recognize it but to understand it much more deeply than we do today. As in the case of any great force, it can be used well or badly for good or for evil. Its proper use is our particular and inescapable world responsibility. May we discharge it wisely and for the betterment of all mankind.