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Today's Global Frontiers in Public Health

I. A Pattern for Coöperative Public Health *

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COÖPERATION in protecting the health of an international public is requisite in a world that has outgrown isolationism. Not only the control of disease, but also improved social and economic relationships can result when people on different sides of the street or different sides of the world work together for health, the most valuable possession of man—"the greatest commodity in the world."

The problems to be handled are not new or strange. They are the familiar problems of the community, where environmental sanitation, preventive medicine, and public awareness are fundamental for the control of disease and the provision of maximum health.

In the extension of public health its workers must be warriors but also peace-loving men. They must wage unceasing battle against unfavorable environment; but must equally work

in close accord with other human beings. Since the great scientific awakening of the 19th century, the weapons for the conquest of disease have become increasingly powerful. But public health work must be based upon coöperation as well as upon conquest. It is a sad reflection upon our civilization that the development of human relationships for the promotion of the common good has not kept pace with our knowledge of the cause of disease and specific control measures, as well as industrial efficiency and the mastery of time and space. The achievement of coöperation in the extension of public health is of more far-reaching consequence than the prevention and control of disease alone, as harmonious effort and exchange of ideas for attainment of this objective provide a sound basis for friendship and understanding.

INTERNATIONAL HEALTH
ORGANIZATIONS

International organization for health

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work may be said to have originated when, in 1851, plague and yellow fever were responsible for the first attempt of governments to agree on common action against disease. The first international sanitary convention, held in Venice in 1892, was the result of cholera epidemics in Europe. Following this, a series of international health conferences resulted in the establishment of the Office d'Hygiene Publique, in 1907, with one of its primary duties the collection and dissemination of information on the prevalence and movement of disease.

After the War of 1914-1918 the Health Organisation of the League of Nations and the Industrial Health Service of the International Labour Organisation were established. Much of the work of the Health Organisation was carried out by international committees of experts, whose function was to facilitate the coöperation of national health administrations in matters of common interest or concern. The Industrial Health Service of the International Labour Organisation was initiated to stimulate national legislation on subjects relating to health and labor.

The International Sanitary Bureau, later known as the Pan American Sanitary Bureau, was created by the First International Sanitary Conference of American Republics in 1902. The Bureau is supported by contributions from the signatory governments and stands ready to advise and assist Latin American Governments in combating epidemic diseases, in formulating sanitary codes, and in other fields of hygiene.

There are in addition other international unions or associations concerned with the alleviation of human suffering, such as the international associations on statistics, tuberculosis, child welfare, venereal disease, cancer, mental hygiene, and the prevention of blindness.

The main function of all of these official and unofficial agencies has usually been the provision of technical advice and consultation. The work of the League of Red Cross Societies and of the International Health Division of the Rockefeller Foundation has in contrast usually been based on a survey, requested by a particular area, and the initiation of a program supported, not only by a gift of funds, but also usually by national resources. The aid is always temporary and the outside agents act as counsellors or technicians.

INTER-AMERICAN COÖPERATIVE PUBLIC HEALTH PROGRAM

The conference of Foreign Ministers of the American Republics held in Rio de Janeiro, Brazil, in January, 1942, approved a resolution to the effect that the nations of the Western Hemisphere should undertake coöperative public health measures. In February, 1942, a Division of Health and Sanitation was organized in the Office of the Coordinator of Inter-American Affairs for the purpose of implementing this resolution. The Government of the United States authorized the Coördinator of Inter-American Affairs to set up a corporation known as The Institute of Inter-American Affairs to organize and supervise the Inter-American Coöperative Public Health program, administer the funds, and execute coöperative agreements with the other American Republics. The Institute of Inter-American Affairs is financed by funds appropriated by the Government of the United States.

The broad overall objective of the Inter-American Coöperative Public Health program is to coöperate with the governments of the other American Republics by means of improvement of the public health, in promoting economic stability, economic development and prosperity, to the end that there will be constantly increasing better-

ment of commercial relations between the Republics, and between the other American Republics and the United States, to the mutual advantage of the countries concerned. On the technical and professional side the objective of the program is to provide, through coöperative services, for the pooling of our knowledge of public health measures and for the better utilization in all the American Republics of all the public health resources and knowledge available to us.

The coöperative public health program is now in operation in 18 of the 20 other American Republics, that is, in Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela. A coöperative public health service is organized within the ministry or department of health, based on an agreement between the Institute of Inter-American Affairs and the government of the country. This coöperative service is financed in part by funds contributed by the Institute of Inter-American Affairs and in part by funds appropriated by the government of the country. The Institute has sent to each country a field party composed of physicians, engineers, and other technical and administrative personnel. The individual in charge of the field party, who is either a physician or engineer, is known as the Chief of Field Party. He represents the Institute in the country and is also director of the coöperative service by appointment by the government of the country. In the latter capacity, the Chief of Field Party is usually also an official of the ministry or the department of health. The public health activities to be undertaken and the expenditures of the joint funds for that purpose are all mutually agreed upon by the minister or director of health of the country and

the Chief of Field Party as representative of the Institute. All agreements are made locally between these two men, and nothing of this nature is referred to the Washington headquarters of the Institute. The work thus agreed upon is then performed by the coöperative service under the leadership of the Chief of Field Party, serving as director of the coöperative service, but under the supervision of the minister or director of health, all in accordance with the previous agreements. This kind of organization provides for full coöperation in the performance of all phases of the work.

The coöperative services are staffed by both North American and national personnel. The North American personnel are being and will continue to be gradually replaced by well trained national workers. At the present time, in the 18 countries, there are 11,083 national workers and 219 citizens of the United States employed on the program.

The Inter-American Coöperative Public Health program will continue for a varying length of time in the different countries, dependent upon the terms of the agreements made in establishing the coöperating services. In so far as can be determined at this time, the program as a whole will terminate at the end of 1948.

The Institute has been fortunate in securing the assistance of leading authorities from the United States and the other Americas for special consultation in many fields. Close liaison is maintained with numerous governmental and other agencies in the United States. These include the Pan American Sanitary Bureau, the National Research Council, the United States Army, Navy, and Public Health Service, the American Public Health Association, the International Health Division of the Rockefeller Foundation, and various medical schools and universities.

In many of the republics the Services are continuing and extending activities previously initiated by the health departments. In others, long needed programs are being introduced. A major feature of the work is the provision of increased opportunity for the utilization of preventive measures through the construction, equipping and operation of hospitals, dispensaries, clinics, and health centers. One of the long-range and most important objectives of the cooperative public health services is to assist the national departments of health to progress along modern lines, with regional development by means of modern health centers providing complete health services and directed by full-time health officers. In many of these countries, the health work is focalized at the capital towns and organization is not on a country-wide basis. More decentralization is needed in view of the widely scattered population and limited transportation facilities. The aim of the Inter-American Cooperative Health Services has been to construct, equip and operate for a period of time one or more up-to-date health centers to serve as a demonstration and model for others in the future.

The Services are also carrying on fundamental and widespread activities for improved water supply systems, for sewage disposal, insect abatement, and other sanitary measures; education of professional and lay groups in public health measures; and direction and evaluation of control measures through field and laboratory investigations. Health problems of particular areas have necessitated scientific studies by men especially trained in particular fields of research. New methods have been developed to meet local engineering problems in some places. A number of articles have been published or are in press describing some of the original work accomplished.

A detailed description of the work in

Paraguay will serve as an example of the program within one country. Similar programs are being carried out in the other countries. Paraguay is an inland country in the heart of South America, with a population of about 1,000,000. Transportation facilities are limited and the population is concentrated in widely scattered communities. Development of a system of health centers has been a major activity designed to meet the national need for decentralization of health services. Four of the five health centers provided have been made part of an already established hospital unit. The laboratory, pharmacy, and x-ray facilities of the new health centers are designed to serve the hospital as well. Headquarters are provided for public health nursing, and sanitary inspection, and clinics for maternal and child health, immunization, nutrition, dental hygiene, and tuberculosis and venereal disease control.

In the Barrio Obrero district of Asuncion, the capital of Paraguay, the first activity undertaken was the home visiting of all families in the immediate district. Over 1,500 homes were visited and records obtained on more than 7,000 people. Social, economic, and medical data were obtained on all families. Following the findings of this survey, a hookworm campaign was initiated in the district and health education concentrated on this subject. Sanitary inspectors paid house-to-house visits for collection of stool specimens, distribution of medicine, and instruction of individual families. The sanitary engineering section was occupied principally with production of a suitable type privy, privy inspection, and advice on construction of water supplies (wells and cisterns). In the survey nutrition appeared as another primary health education need. A nutrition clinic was established at the center and instruction given to the

families. A demonstration garden was planted alongside the health center to show how and what vegetables could be grown. Some plots were also available for families themselves to develop. Modern health centers of this type have now been completed and are in operation in 9 countries.

In Asuncion, the Services are constructing a Ministry of Health building, with quarters for a large health center and a public health laboratory. A leper preventorium, a leprosarium, and a tuberculosis hospital are also being built. Water supply and sewerage surveys have been conducted in the capital and work has been started on a sewerage system.

Public health education has been accelerated and expanded. Radio broadcasts are given regularly and health education conferences organized in schools, factories, health centers, and other gathering places. Medical textbooks and journals have been supplied to the Faculty of Medicine and seven of the larger hospitals. Under the training program, 19 Paraguayan physicians and other professional men have come to the United States for graduate work in public health.

As another example, the work being done at Belem, Brazil, may be cited. Here the Coöperative Service of Brazil conducts a training and research center for professional and technical personnel, including doctors, nurses, laboratory workers, and sanitary inspectors. This work was made possible only because the staff, equipment, and building of the Malaria Control Service of the Northeast and of the Instituto de Patologia Experimental Evandro Chagas, in Belem, were assigned to the Service by the Brazilian Government. A 40 bed hospital was constructed with operating rooms, obstetrical department, outpatient department, lecture rooms, laboratory, and library. This provides clinical material for research and train-

ing facilities for doctors. A three month postgraduate course at Belem in preventive medicine, public health, and sanitation is required for all doctors before undertaking work at the health posts in the Amazon Valley. In addition to its training activities, the laboratory has conducted studies on malaria, intestinal parasites, leishmaniasis, trypanosomiasis, filariasis, and routine laboratory work, such as the bacteriological study of clinical specimens, analyses of drinking water, milk, blood matching, and stool and urine examinations.

Another example of how international coöperation in public health can aid the economic development of potentially rich areas otherwise retarded by disease problems is being demonstrated at Chimbote, Peru. Chimbote has one of the best ports on the west coast of South America. In 1940 the population was 4,500. It suffered continuously from endemic malaria, intestinal parasites, and outbreaks of water-borne diseases. There was no hospital and no public water supply or sewerage system. Untreated spring water was transported by railway tank cars and distributed through the town by donkey carts.

The Government of Peru is constructing modern port facilities at Chimbote for the successful economic development of that region. The Co-operative Public Health Service of Peru undertook to improve the health conditions in the area.

Permanent mosquito control was begun early in 1943 by drainage of swamps and lagoons into the sea. A water supply system is under construction, as are sewerage facilities, a hospital and a health center. One completed unit of the hospital serves temporarily as a dispensary and clinic. Health education activities are under way.

The Peruvian Government plans to

develop this area with a steel industry; a dam for hydro-electric power, and extensive agricultural irrigation projects. These industrial developments could not materialize and flourish in the former unhealthy environment. Here health protection and economic growth are parallel.

It is felt that perhaps the most fundamental contribution that can be made for the strengthening of public health work is the provision of professional training for its personnel. Under the health training program 300 persons from the southern countries, for the most part physicians and engineers, have already been brought to the United States for study. It is planned that about 800 will be trained in the United States during the life of the program.

The development of nurses' training is receiving major emphasis in the other republics through professional schools and other public health and nurses' aide training. Sanitary engineers, inspectors, midwives, laboratory technicians, and practical nurses are being trained for more efficient service.

Not only through organized classes but also in the actual performance of the work, more professional and technical workers than ever before are gaining knowledge of the principles and practice of public health. In coöperation with the U. S. Army and the Association of Medical Colleges, physicians from the United States are in turn visiting the other Americas to obtain first hand knowledge of tropical diseases and their control.

SPECIAL PROJECTS

The Institute of Inter-American Affairs has also allocated funds for a number of special projects. Although financed by the Institute, these projects are not under the supervision of the coöperative services, but constitute separate activities. Some of them are conducted under the immediate direc-

tion of the Pan American Sanitary Bureau, such as additional public health nurses requested by the other American Republics; the visit of medical and public health experts from the other Americas to the 1943 meeting of the American Public Health Association and to institutions and cities of special public health interest; the collection of biostatistical and epidemiological information from the southern republics, and onchocerciasis studies and control in Guatemala and Mexico.

A coöperative program now under way with the United States Navy and the Institute of Indian Affairs is concerned with the special public health problems among the Indians of some of the other American Republics. A typhus fever study is being performed in collaboration with the Army Medical Laboratory and national health departments. A project for the collection of pathological specimens for teaching and study in the United States, and as diagnostic aids in the southern republics where this work is being done, is being conducted with the support of the Army Medical Laboratory, the U. S. Public Health Service, and the health departments of the various countries.

SUMMARY AND CONCLUSIONS

The constant aim of all the enlightened leaders of the nations of the Western Hemisphere is to achieve economic development and prosperity for the peoples of their respective countries. It was realized that, in order to bring about that effect, greater weight must be given to the public health, closer attention must be focused upon it, not only in the sense of controlling epidemic diseases, but also from the aspect of bringing about conditions of public health appropriate to the development of healthy people able to cope with the economic problems. It was recognized that there must be uniformity

of public health procedures and practices throughout the hemisphere. It was foreseen that all the American Republics must work together and apply in close collaboration and harmony the tested measures of public health for the mutual benefit of all.

The Inter-American Cooperative Public Health program during the 2½ years that it has been in operation has demonstrated in a realistic manner that cooperation between the nations of the Western Hemisphere in the field of public health can be attained, that it is feasible and that it is profitable for all the peoples concerned. The methods employed by the Institute of Inter-American Affairs in promoting the cooperative program are unique in many respects. Funds, personnel, and other resources of the Institute and of the cooperating country have been pooled and utilized to develop a cooperative service. The work is not performed by a foreign agency but, on the contrary, the operating organization is a cooperative service which is actually an integral part of the government of the country. While the Institute of Inter-American Affairs, operating as an agency of the Government of the United States, has initiated the program and represents the interests of the United States in the execution of the program, nevertheless, the Chief

of Field Party of the Institute in a given country deals directly with the Minister or Director of Health of that country in all matters pertaining to the operation of the cooperative service. He discusses and negotiates all the necessary agreements with the Minister or Director of Health of the country and as representative of the Institute makes all decisions without reference to the Washington office of the Institute.

Every one of the 18 cooperating countries is giving wholehearted and sincere support to the cooperative program and has been willing and eager to make available funds and personnel on a partnership basis for the execution of the program. The objectives which are being sought and which are being attained by this program are of mutual benefit to the cooperating country and to the United States, not only in terms of improvement in the public health of the Western Hemisphere, but also as most important factors in promoting economic progress and facilitating commercial relations between the United States and the other American Republics.

The demonstrable results of the Inter-American Cooperative Public Health program justify the hope that means can be found to carry on this or similar programs for many years to come.