It is appropriate that this National Health Assembly, called for the purpose of planning a long-term health program for the United States, give attention to plans for international health work. The development of rapid air transportation has largely outmoded traditional methods for preventing the importation of communicable disease. Leaders in the international health field today concede that border and port quarantine must be replaced by a general direct attack on communicable diseases in their endemic haunts. Such an attack can be oriented and aided by a cooperative international organization without any loss of sovereignty by the infected nation. By joining in such organizations, a nation not only strengthens others but protects itself.

The United States of America, as a world power, has a large stake in world health and especially in Pan American health. During World War II, the United States learned, through its soldiers, that malaria, epidemic jaundice, tsutsugamushi disease, filariasis and even the venereal diseases of distant parts of the world, are of direct interest to it. Should war come again, the United States will need healthy nations as allies, able to produce and to fight for the common interest. Those familiar with the situation in Latin America realize that a firm basis for prosperity can be established only as improved health results in increased production.

As Director of the Pan American Sanitary Bureau, the relatively unknown sister of the Pan American Union, I welcome an opportunity of giving to this group of leaders from many parts of the United States part of the story of international health work in the Americas. In doing so, although a number of other organizations have participated, I shall refer only to the Pan American Sanitary Bureau, the official inter-American health organization of the 21 American Republics; to the Rockefeller Foundation, a private philanthropic institution; and to the Institute of Inter-American Affairs, an agency of the State Department of the United States.

You are all familiar with the Pan American Union and with the International Conference of American States, the Ninth of which in Bogotá has just ended. Likewise you are all familiar with the World Health Organization and have noted the reaction in this country to the announcement that the United States might not ratify its Charter before the First Assembly in June 1948. But a few of you know of the Pan American Sanitary Bureau, the dean of all international health organizations, created in 1902, nor of the twelve Pan American Sanitary Conferences which have been responsible for the policies of the Bureau. The Bureau and the Conferences now operate under the Pan American Sanitary Code of 1924, a treaty which has been ratified by all twenty-one of the American Republics. (Only in the field of health has there been such unanimity among the American nations, the Code being the only inter-American treaty to be ratified by all.) The terms of this Code and of the Constitution adopted in 1947 are such as to facilitate a future relationship of the Pan American Sanitary Bureau to the countries of the Western Hemisphere similar to that of the United States Public Health Service to the Health Departments of individual states. Although each state has its own department responsible for the health of its people, the United States Public Health Service has found ways of making most important contributions to the health of the nation. In the same way, although each of the twenty-one American nations has its health organization, there is an urgent need for the coordination of health activities throughout the continent which the Bureau cannot now attempt because of inadequate financing and insufficient staff.
When the Pan American Sanitary Bureau was formed in 1902, the principal stimulus to the development of international health work was the desire of each country to protect its own population from imported pestilence with a minimum of interruption to its commerce. It was natural, then, that the function of the Pan American Sanitary Bureau in its early years should have been limited to the collection and dissemination of information regarding the distribution of dangerous communicable disease, for the purpose of imposing indicated, and avoiding unnecessary, quarantines.

The creation of the Rockefeller Foundation in 1913 with the declared purpose of "promoting the well-being of mankind throughout the world", resulted in a radical change in the approach to the solution of international health problems. The avowed purpose of its Yellow Fever Commission was the eradication of yellow fever from the Western Hemisphere. Plans for such eradication involved making surveys to determine the distribution of yellow fever followed by active collaboration with the authorities of those countries where the disease existed.

By 1947, when the present Constitution of the Pan American Sanitary Organization was adopted, the general concept of the functions of international health organizations had come to resemble greatly the general purpose of the Rockefeller Foundation. This constitution declares that the fundamental purposes of the Organization "shall be to coordinate efforts of the countries of the Western Hemisphere to combat disease, lengthen life and promote the physical and mental health of the people."

Among the most potent factors which have led the American nations to accept the broadened concept of international health work are the long-continued collaboration of the Pan American Sanitary Bureau and of the International Health Division of the Rockefeller Foundation in the solution of administrative health problems and in the training of technical personnel. Time does not permit even a summary of the many significant activities of these two organizations, but one cannot pass over without comment the work of the Bureau in bubonic plague and of the Foundation in yellow fever. These two programs are important examples of the value of international health work.

Some years after the Rockefeller Foundation took the responsibility for collaboration in the attack on yellow fever, the Bureau undertook the solution of the problem of bubonic plague. Dr. John D. Long, a veteran of plague campaigns in California and the Philippines, came to South America during the 1920's. From the beginning, Dr. Long took special interest in the plague problem and has stimulated or carried out studies and campaigns in many countries of South America. These studies have shown that the picture of plague in South America is not a simple one, involving only man, the domestic rat and the flea, but varies widely from region to region. It has also been shown that plague can be imported on rat-free ships in the bodies of infected fleas baled up in jute bags coming from India. The crusade had many disappointments before the stigma of plague infection was removed from the records of the last of the American ports. A full decade has now passed since plague has been found in Guayaquil, but the struggle still continues in the interior of several countries. Studies are continuing in the hope that a satisfactory means of eliminating plague from rural and forest areas at a reasonable cost will be found. The achievement of the Bureau in plague has been an outstanding piece of work, often carried out under difficulties and always with inadequate personnel and funds.

Although the Rockefeller Foundation is a private philanthropic institution, it has functioned over many years as a truly international organization with reference
to the yellow fever problem. The Foundation undertook eradication of yellow fever from the Americas in the belief that this goal could be attained within a few years. On the basis of previous observation, it was believed that yellow fever would rapidly disappear from regions in which anti-mosquito campaigns were carried out in the principal cities. The Foundation undertook to collaborate technically and financially in the organization of such anti-mosquito campaigns in those regions where yellow fever was known to be present. Under this program, yellow fever disappeared promptly from the Pacific Coast of South America, from Mexico and from Central America and has not reappeared in these areas during the past twenty-five years. By 1925, it was believed that yellow fever in the Americas was limited to northeast Brazil and that the end of the disease on this continent was in sight. In anticipation of repeating in Africa the expected victory and making the world forever free of yellow fever, the Foundation split its yellow fever staff to begin the momentous studies in Nigeria which resulted in the isolation of the virus of yellow fever in monkeys, the first step leading ten years later to the development of a satisfactory vaccine for yellow fever.

But yellow fever did not disappear from the Americas, unexplainable outbreaks occurring in Rio de Janeiro in 1928, in Colombia and Venezuela in 1929, and in Bolivia in 1932. These outbreaks were not in harmony with the accepted epidemiology of yellow fever and were understood only after it was demonstrated that yellow fever is basically an animal disease involving from time to time the forest areas of all of the countries of South America with the exception of Uruguay and Chile. This jungle infection is a permanent source of virus for re-initiating urban infections.

In the investigation of yellow fever and in the protection of exposed populations through vaccination and anti-mosquito measures, the Rockefeller Foundation has collaborated in one way or another with the health authorities of all the political units of Latin America. In this collaboration, technical personnel of one nationality has repeatedly served in administrative and technical capacities in countries other than their own. The major part of funds for the yellow fever program has come from the governments concerned, all expenditures of the Foundation in over thirty years being less than eight million dollars.

Although the discovery of jungle yellow fever as a permanent source of reinfection showed that the program for the eradication of yellow fever from the Americas had been impossible from the beginning, the demonstration that complete species eradication of the urban vector, the Aedes aegypti mosquito is feasible, has led to a program for the complete eradication of this mosquito from the Americas, which will make the recurrence of the urban yellow fever of history impossible.

Between 1933, when the first local species eradication was observed, and 1940, when the Rockefeller Foundation discontinued its collaboration with the Brazilian Government in the campaign against Aedes aegypti, the city of Rio de Janeiro and six of the Brazilian states were freed of this mosquito. The program has been continued during the last eight years by the Brazilian Government, with the result that practically all of Brazil, excepting a relatively small area in the northeast, is free of aegypti.

In 1947, the Directing Council of the Pan American Sanitary Organization accepted a proposal made by Brazil that a continental campaign for the eradication of Aedes aegypti be carried out. Brazil, which has frontiers with ten political units and many seaports, might well afford to help finance eradication programs in surrounding countries to avoid the permanent expense of maintaining control services within its own borders to guard against infestations from abroad. Here we have a
striking example of a nation's inability to protect itself in health matters except through international collaboration.

The resolution making the Pan American Sanitary Bureau responsible for coordinating the activities of the American nations in the eradication of Aëdes aegypti on a continent-wide basis marks a step in public health philosophy and practice, the importance of which cannot be overstated. Certain countries of the Americas have been free of yellow fever for so long that they have lost all fear of this disease, but after full discussion all recognized the right of Brazil and of Bolivia, which has been free of aegypti for a number of years now, to insist that they be protected from reinfestation by the eradication of this mosquito in neighboring countries. Initial steps have been taken to activate the program of eradication in all of the South American countries and only lack of funds is now preventing extension of activities to the Caribbean and Central American area. Of course the United States, which is thought to present the most difficult problem of all, will be left to the last.

It is interesting to speculate on how long it will be before the United States, taking advantage of modern means of rendering cases of venereal diseases non-infectible, will eradicate these diseases from this country and in the same way as has Brazil, propose for its own protection a continental program of eradication.

The knowledge that the aegypti mosquito could be eradicated was, in 1938, an important factor influencing the decision to undertake the eradication of Anopheles gambiae from Northeast Brazil. News of the truly disastrous epidemic of malaria caused by this African mosquito in the State of Ceara had alarmed the health workers of all American nations since this mosquito anywhere on the continent represented a potential threat to all countries. At the time plans were being made by the Brazilian Government and the Rockefeller Foundation for the eradication campaign, it was gratifying to receive tentative offers of financial assistance from representatives of three other American nations should available resources prove to be inadequate. These offers were a clear indication that Brazil's neighbors preferred to fight this insect enemy outside their own borders.

The success of the campaign for the eradication of Anopheles gambiae in Brazil was of importance not only to the people of Northeast Brazil but also to the Allied cause during World War II when the United States found it necessary to develop a military air-route to Africa and the Middle East through the previously infested area. Furthermore, in 1942, Anopheles gambiae invaded Egypt from the south, with extension down the river to Asiut, only 200 miles from Cairo. Devastating epidemics of malaria occurred in 1942 and 1943, with tremendous loss of life and with a great diminution in the production of food supplies so indispensable to the war effort. Fortunately it was possible, in 1944-45, for experienced workers to apply in Egypt the methods developed in Brazil, Gambiae disappeared within eight months and has not reappeared during the past three years.

Surely it must be admitted that the yellow fever program of the Rockefeller Foundation during the past three decades has been a striking demonstration of what can be accomplished by a non-religious, non-political, disinterested organization, operating in the field of international health with adequate finances and a carefully chosen technical staff.

Shortly after the attack on Pearl Harbor, the Council of Foreign Ministers of the American States met in Rio de Janeiro and, among other actions taken, authorized bi-lateral agreements between individual governments of the American nations to pool resources for health work. Within a short time the Institute of Inter-
American Affairs was chartered as an emergency war-time corporation under the laws of the State of Delaware to represent the United States in making, and carrying out the terms of, such bi-lateral agreements. During the period 1942-1947, contracts were written with all of the Latin American Republics excepting Cuba and Argentina, involving the expenditure of some forty-five million dollars of United States funds and considerable amounts of money of the other contracting governments.

Under these contracts, special cooperative services were organized in individual countries in which United States personnel in collaboration with the national health authorities undertook the emergency solution of a wide variety of local health problems involving the organization of hospitals, health centers, schools of nursing, programs in health education and malaria control; the construction of buildings for many purposes, the installation of water supplies and sewage disposal plants and the training of personnel through special local courses and through fellowships in the United States. At no time has the Institute taken the responsibility for coordinating the efforts of all American countries for the solution of a common problem as have the Rockefeller Foundation and the Pan American Sanitary Bureau with yellow fever and plague. Rather has it identified itself in each country with local problems.

Eventually the Institute was taken over by the State Department and has been reorganized in 1947 with a Federal charter for a period of three years, with divisions of health, agriculture and education.

The work of the Institute in its early years was handicapped by the necessity of rapidly building a continent-wide program on five year contracts under emergency wartime conditions when the shortages in experienced personnel and in materials were acute. Even now, long-term plans are impossible because of the limited charter period. That the work of the Institute has been greatly appreciated is shown by the fact that, at the present time, the Institute is administering a number of projects in several countries in which the financial contribution of the United States Government is very small.

In closing I wish to leave with this group a clear picture, as I see it, of the present situation of the Pan American Sanitary Bureau. The Bureau has, in my opinion, the ideal mechanism and an unequalled opportunity for productive regional health work. It is authorized by the treaty of 1924 to collaborate directly with the health authorities of each of the American Republics, and the Constitution of 1947 in turn provides for the government of the Bureau, the determination of policies and the approval of budgets by the Directing Council, composed of technical representatives of each of the twenty-one American nations.

The two most serious difficulties the Bureau is facing at the present time are related to finances and personnel. These two problems are especially acute, since traditionally, quota contributions from Member Governments have been kept very low, while the professional staff has been assigned from the United States Public Health Service.

Adequate financing on a long term basis must be arranged before a beginning can be made on the personnel problem, but even so, this problem will be difficult to solve. Due to the personnel policy just mentioned, the Bureau is practically without an experienced technical staff of its own.

The first step towards the solution of the financial difficulties of the
Bureau was taken by the Directing Council in Buenos Aires last year in raising the annual quota of Member States from forty cents to one dollar per thousand of population, thus increasing the regular income of the Bureau from $115,000 to $290,000 annually. Knowing that this amount was entirely inadequate for the authorized functions of the Bureau, but realizing that any further increase in the quota might seem onerous to certain countries, the Council resolved to raise additional funds through supplementary annual contributions based on ability to pay, to be negotiated directly between the Pan American Sanitary Bureau and individual governments. On the basis of information regarding supplementary contributions totalling at least one million dollars which would be made by certain Latin American countries, the Directing Council approved a budget of $1,300,000 for 1948.

The interest in the Pan American Sanitary Bureau shown by the voluntary supplementary contributions of various American Republics has been most gratifying. Definite publicity can be given at this time only to the contributions of Argentina, Mexico and Salvador, which have been reported to the Bureau by the respective Governments. The Minister of Health of Argentina has publicly announced that the annual contribution from his Government would be a million and a half pesos, amounting to $375,000 annually, in addition to the regular quota of $17,000. Mexico, with a regular quota of $22,000, has appropriated and already forwarded this amount together with a supplementary contribution of $200,000 for this year. Salvador has reported a supplementary contribution of $2,000 in addition to its regular quota of the same amount.

It should interest each of you to know that although the United States contains more than half of the population of the American Republics and is in the forefront economically, no provision has been made for a supplementary contribution to the budget of the Bureau for the fiscal year 1949. As matters now stand, then, the United States will be contributing $145,000 to a budget of $1,300,000 for the official international health organization of the Americas. It is discouraging to note that at a time when the United States is making appropriations of many millions of dollars for health work to temporary organizations, no steps have been taken to meet the challenge of contributions from other American Republics in the expansion of the official permanent inter-American health organization.

The United States of America has recognized its special interest in the welfare of Latin America and has spent tens of millions of dollars through emergency bilateral agreements during the past five years. There is now an opportunity, with the expenditure of much smaller sums, to get Pan American health work on a permanent basis, with the full collaboration of all of the other American nations. In building up the Bureau, the United States is also working toward the improvement of standards elsewhere, since through the Bureau lies the best opportunity of setting a pattern for the development of regional health organizations of the World Health Organization.