

THE INTER-AMERICAN COOPERATIVE HEALTH AND SANITATION PROGRAM

By HAROLD B. GOTAAS, C. E., M. S., Sc.D., FAPHA

President, Institute of Inter-American Affairs

A new pattern for international cooperation in development of one of the world's few unlimited and non-competitive resources—Good Health—has been devised and put into operation in 18 of the American republics.

It is known as the "Servicio Pattern"—a method of translating government agreements into direct cooperation between peoples. Its design was inspired by the extraordinary session of foreign ministers of the American republics at Rio de Janeiro in January, 1942. Need of it was deeply etched in the minds of statesmen at that conference by the onrush of totalitarian aggression so disastrously punctuated by the sneak attack at Pearl Harbor.

The Rio conferees resolved that adequate public health and sanitation standards should be raised throughout the hemisphere as a first line of defense against global war. This decision took quick operational form in cooperative action programs between the United States and eighteen of the other republics. The cooperative effort continues. More than 1,000 activities employing over 11,000 persons engaged in promoting the elevation of basic health, and that is the same as saying basic economy, are in operation today as rallying points for the peacetime solidarity of the American neighborhood.

All this was stimulated by the war. But the action could not have been so galvanic had there not already existed tradition and machinery upon which to anchor the needed supplementary effort. The tradition of common cause in the hemisphere had been handed down in numerous inter-American conferences through the 116 years following Simon Bolivar's first congress of American nations at Panama in 1826. In this century of relationship the inter-American tradition had crystallized as a symbol of orderly and peaceful solution of international questions.

Part of the machinery set up to keep the tradition alive was the Pan American Sanitary Bureau. Organized in 1902 this organization has done excellent work as a consulting body, carrying on epidemiological and scientific studies and publishing a monthly bulletin and other educational material. As a medium for the joint study and exchange of information on health problems, the Sanitary Bureau has kept men of science of the American republics in touch with one another. Thus action did not have to wait upon information when the already enlightened delegates of the 21 American republics at Rio agreed that economic development and wartime defense must pivot upon good health

and sanitation. Many of the projects of the inter-American cooperative health service have been designed and directed by the Pan American Sanitary Bureau. Recommendations and plans of the Sanitary Bureau and of the individual republics have been effected by the Cooperative Health Services to supplement national programs.

Close liaison is maintained with numerous governmental and other agencies throughout the Americas. These include in the United States the Pan American Sanitary Bureau, the United States Public Health Service, the Departments of War and Navy, the National Research Council, the International Health Division of the Rockefeller Foundation, professional associations and schools of public health, medicine and engineering.

The Rio de Janeiro Conference proposed in particular that the American republics take steps to deal with health problems, either individually or through bi-lateral or multi-lateral agreements. The resolution suggested that cooperative action be undertaken in accordance with the ability of the separate countries to provide raw materials, services and funds.

Chiefly because of the close cooperation called for among the governments of the Americas and urgent wartime phases of the work, the Servicio operations became governmental undertakings.

The Congress of the United States voted an appropriation and authorized the formation of the Institute of Inter-American Affairs, with power of attorney to administer funds and execute cooperative agreements with the other American republics. The Institute functions as an agency of the Office of Inter-American Affairs, for cooperation with the other Americas in solving health, sanitation and food supply problems. The principal objective of the Institute of Inter-American Affairs is to cooperate fully with the governments of the other republics in executing practical measures and procedures to improve the public health and to stimulate a more adequate food supply for the people. Thus it digs down to fundamentals in the promotion of economic development and economic stability. Good will and international understanding are naturally important by-products of these operating programs. Inter-American cooperation reaches into the hospital, the home, and the field. It becomes a people's program.

The first Institute field party, including a physician, an engineer, a business manager, a disbursing officer and a lawyer, was assembled in Washington in February, 1942, and the first country program initiated early in March. It was only a matter of months, following the Rio resolution, before health and sanitation agreements were in operation in 17 additional republics. Food production field parties swung into action in nine republics.

Financing of the operations was undertaken jointly. At first, and where Servicio activities were intimately linked with concentrations of a military or critical materials character, the United States hastened progress with needed financial backing. But this was of short duration. Soon the other republics began to assume more and more of the financial responsibility, depending primarily on the Institute for technical assistance and Servicio supervision. Citizens of the other American republics who know that "health makes wealth" are legion and the Servicios now stand as evidence of the largest cooperative health, sanitation and nutritional campaign yet undertaken among independent nations.

Not only that, but inter-American cooperative technicians take pride in the fact that the Servicio plan has become a vitalizing part of the Good Neighbor policy as a whole, another living organism in the structure of the Pan American community.

As a working plan for regional elevation of basic economy elsewhere in the world the Servicio system has received the studious attention of numerous delegates to the United Nations Organization and in various instances has been suggested as a plan to be pursued.

Certainly it offers unprecedented opportunity for the exchange of ideas, techniques and experience. In the Servicio health workers from the United States and from the other American republics plan and achieve together. This method is considered to be one of the most valuable contributions to the advancement of public health in the hemisphere.

When an international agreement is reached through regular diplomatic channels the cooperative service, called in most instances "Servicio Cooperativo Inter-Americano de Salud Publica" is formed. It becomes part of the government of the host nation. The terms of cooperation, the establishment of the Servicio, and the general emphasis for the work to be undertaken are set forth in an initial international agreement between the host government and The Institute of Inter-American Affairs of the United States. This agreement establishes the duration of the program and the schedule for contribution of funds. A stipulated sum of money is deposited to the credit of the Servicio by the two cooperating governments. The schedule for financial support is designed to have the host government steadily increase its financial contributions as Institute funds decline. In this way the host government steadily raises to a higher level its appropriations for public health.

The basic personnel for the field party from the United States are usually a physician and a sanitary engineer, one of these serving as chief and the other as associate chief of field party, a public health nurse and a business manager. Depending upon the extent of the operations, personnel may include additional doctors, engineer, nurses, architects, entomologists, hospital administrators and accounts. Directive, consultant and technical personnel for the field parties are provided by both the Division of Health and Sanitation of the Institute and by the health department of the Republic.

The roster of field personnel of the Servicios demonstrates how very little is required of one nation which sincerely desires to help others help themselves. United States technicians number 200 while more than 3,000 are nationals of other republics. This nuclear force directs an army of about 8,000 unskilled workers on actual cooperative projects.

The Chief of Field Party serves as representative of the United States empowered to act for the Institute, and as an officer of the local government empowered to direct the health and sanitation program of the Servicio.

The Servicio functions as an integral part of the National Department of Health. Its activities are planned to further development of

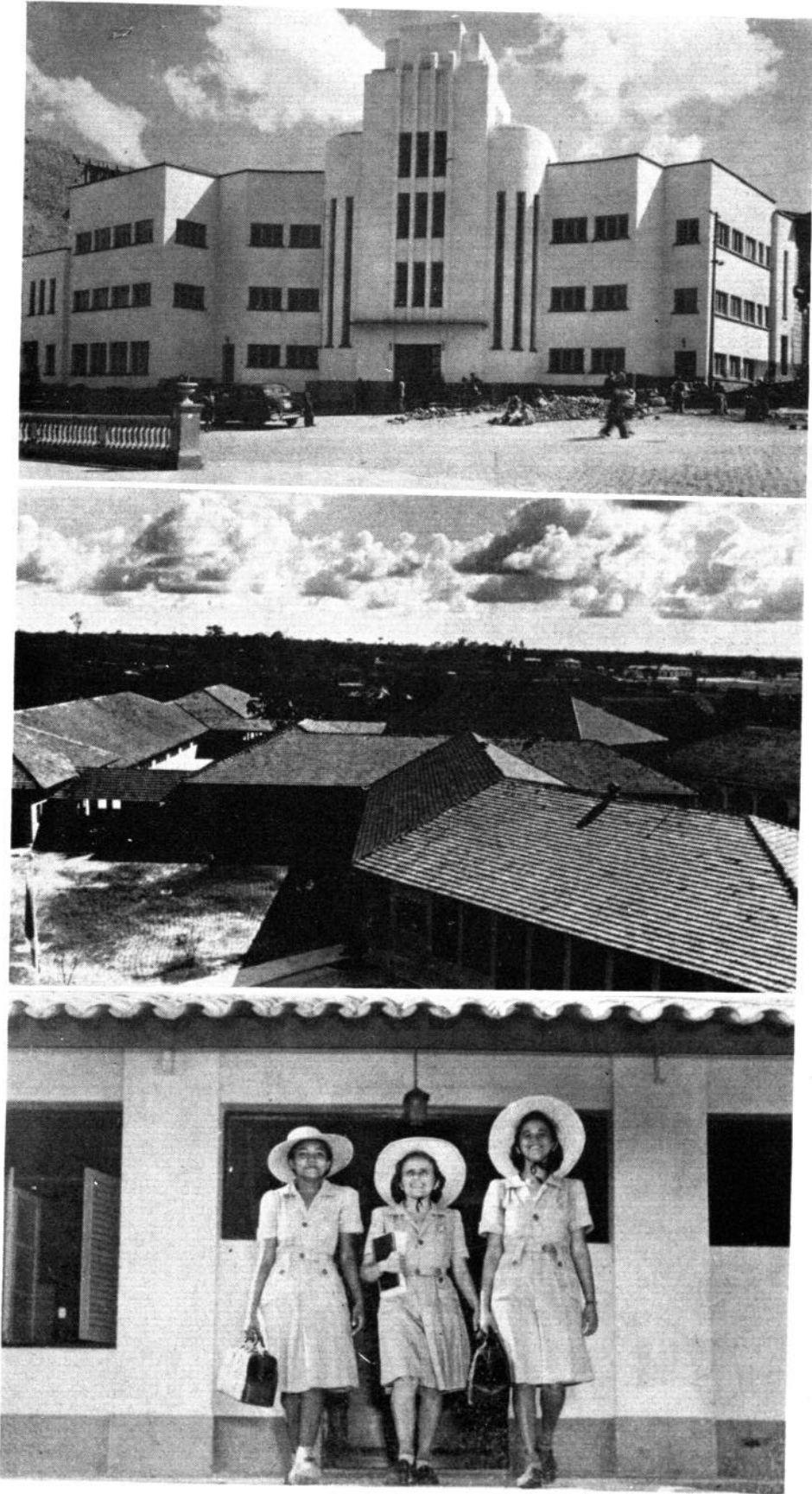


FIG. 1.—(a) (Upper) Health Center and Ministry of Health Building, (b) (Center) Hospital Construction; (c) (Lower) Nurses Aids.



FIG. 2.—(a) (Upper) Health Center; (b) (Center) Health Clinic; (c) (Lower) Nurses

the health activities of the ministry and not to compete with it. All projects are carefully studied. An agreement as to the exact nature of the work to be performed is reached between a representative of the national government and the Chief of Field Party, acting as representative of the Institute of Inter-American Affairs.

This agreement sets forth all of the available information concerning the particular problem or project at hand. Then the Chief of Field Party, acting as director of the local Servicio, carries out the project. In many places the Servicios continue and extend activities previously initiated by national health departments, while in other countries new work has been introduced.

Many projects were undertaken where critical materials were produced and in areas strategic for hemisphere defense. Health services, usually including malaria control, sanitation and some medical care, have been supplied to workers and their families to further the production of rubber, cinchona, sisal, quartz, mica, tin, copper and other needed materials. Health services have been provided in construction of railroads and highways. The result has been thousands of man hours saved, and human lives protected. This means, in turn, valuable ground prepared for economic advances, better national production and greater national consumption of imported articles that go into better and healthier living.

In addition to this work the Cooperative Health Services have supplemented and extended existing activities and introduced new patterns in the provision of plans for immediate and long-term disease control.

The Institute of Inter-American Affairs has also authorized the allocation of funds for a number of special projects. These are not under the supervision of the Servicios but constitute separate activities, many of them under the immediate direction of the Pan American Sanitary Bureau, such as fellowships in military medicine; the visit of medical and public health experts from other Americas to the meeting of the American Public Health Association and to institutions and cities of special interest; the collection of biostatistical and epidemiological information from the southern republics; and numerous health programs for miners and other workers in strategic areas.

The long-term public health campaign conducted through the Servicios includes construction, rehabilitation, or extension of water supplies, excreta disposal, malaria drainage and other sanitation of the environment; increased opportunity for the utilization of therapeutic and preventive measures through the construction, equipping and operation of health centers, hospitals, and dispensaries; field and laboratory investigations; training of health personnel in local courses and in the United States, and health education of the lay public.

Sanitation.—Sanitation activities include simple basic community sanitation conducted largely from health centers, water supply, and sewage disposal. Environmental sanitation has been one of the most important avenues to the attack on the infant mortality problem. Privies or sewers for the safe disposal of excrement prevent reinfection of people through polluted water, food or soil in a contaminated environment. Projects sponsoring simple sanitation have been very

effective and inexpensive in the camps for migrant rubber workers, workers on the Inter-American highway, and Rio Doce Valley railroad, construction in mining areas, in small villages and on sisal plantations. Basic environmental sanitation, elementary but fundamental to disease prevention, is the foundation upon which future advances in public health must be built in most of the smaller cities, villages and rural areas of many of the other Americas.

Water supply development is one of the most important problems in the American republics. Because of the expense of water supply construction and the scarcity of equipment and materials locally, the cooperative health program has generally been limited to small supplies which could be provided economically and toward planning, investigating and advising on future water supply. The American republics are making long range plans for safe water supplies, and as materials become available, extensive development in this field is expected.

Sewerage has been an important part of the various programs of the Inter-American health services. There are two main reasons for this, first, the removal of soil pollution was considered a very important phase of the work and second, most of the necessary materials were available or could be developed locally.

In centers where public water supplies existed, sewerage was often the next proper step toward creating a sanitary environment. Sewage treatment has been largely limited to small septic tank or Imhoff tank installation at camps and places where pollution of water supplies was hazardous, since municipal treatment plants are not as urgent a health measure as many other facilities.

A few incineration and sanitary fill projects have been started for garbage and refuse disposal. As a rule sanitary fill is more economical and more satisfactory than incineration since the climatic conditions are such that the ground is never frozen. Sanitary markets and abattoirs have been built in a few centers where food problems were critical.

Health Centers.—One of the most important cooperative activities has been the construction, organization and staffing of health centers in fifteen countries. The health centers are staffed with full time personnel whose interest is in attacking the disease problems of a group of persons rather than supplying only definite treatment. However, there is not a sharp dividing line between preventive and curative services, particularly in health centers at interior places where the *Servicio* physician is often the only one in the community. In most instances the objective of the health center is the establishing of complete health programs which depend upon coordinating preventive and curative aspects. The centers are planned to provide clinics and facilities to deal with maternal and child health services, tuberculosis and venereal disease control, malaria, immunization, laboratory investigation, general sanitation, community health education and other health problems of the specific community. There are headquarters for nurses and sanitary inspectors. In some instances, dental clinics, X-ray rooms, pharmacy and community auditorium are provided.

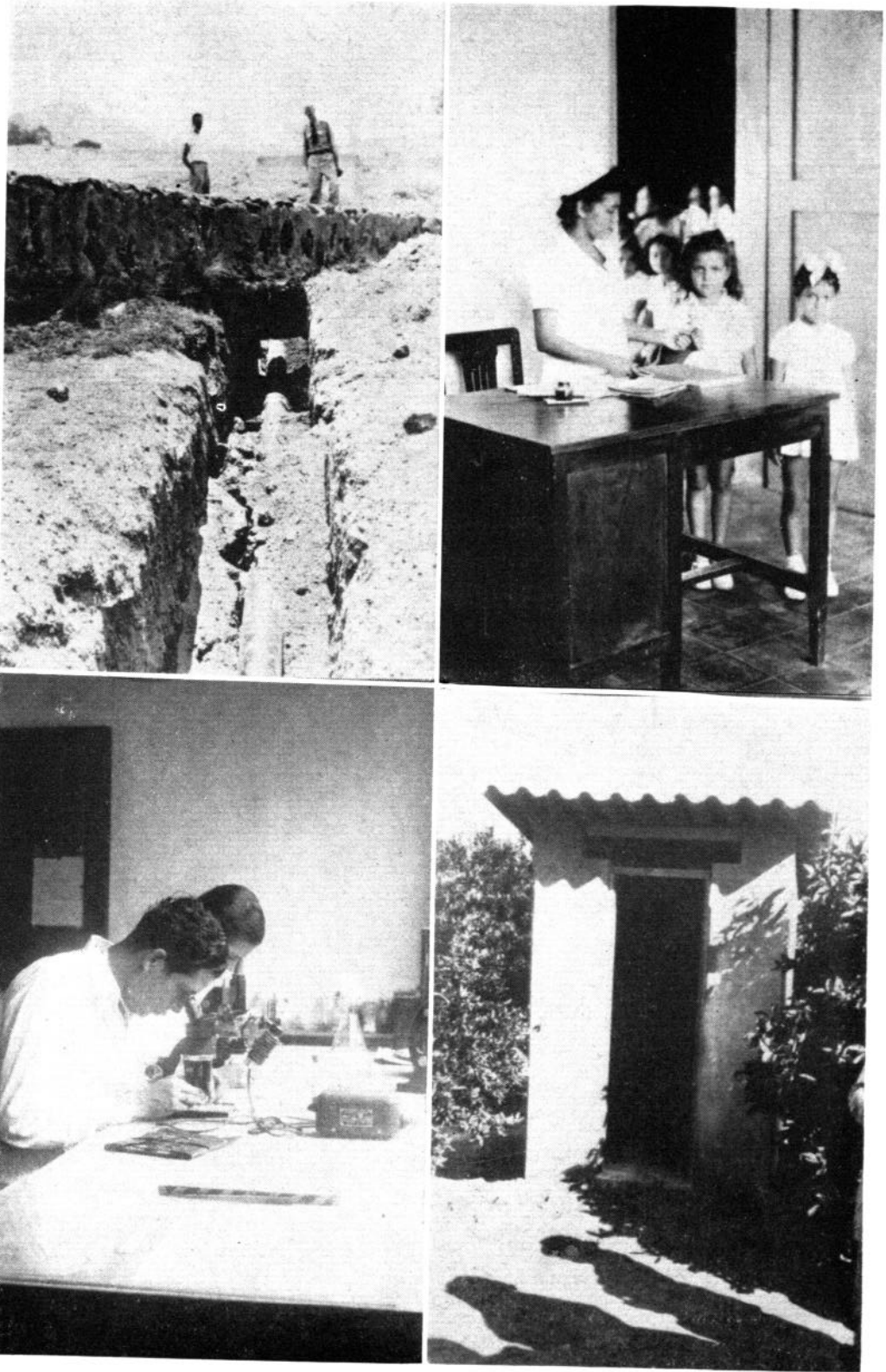


FIG. 3—(a) (Upper left) Water Supply; (b) (Upper right) Health Education. (c) (Lower left) Laboratory; (d) (Lower right) Privy.

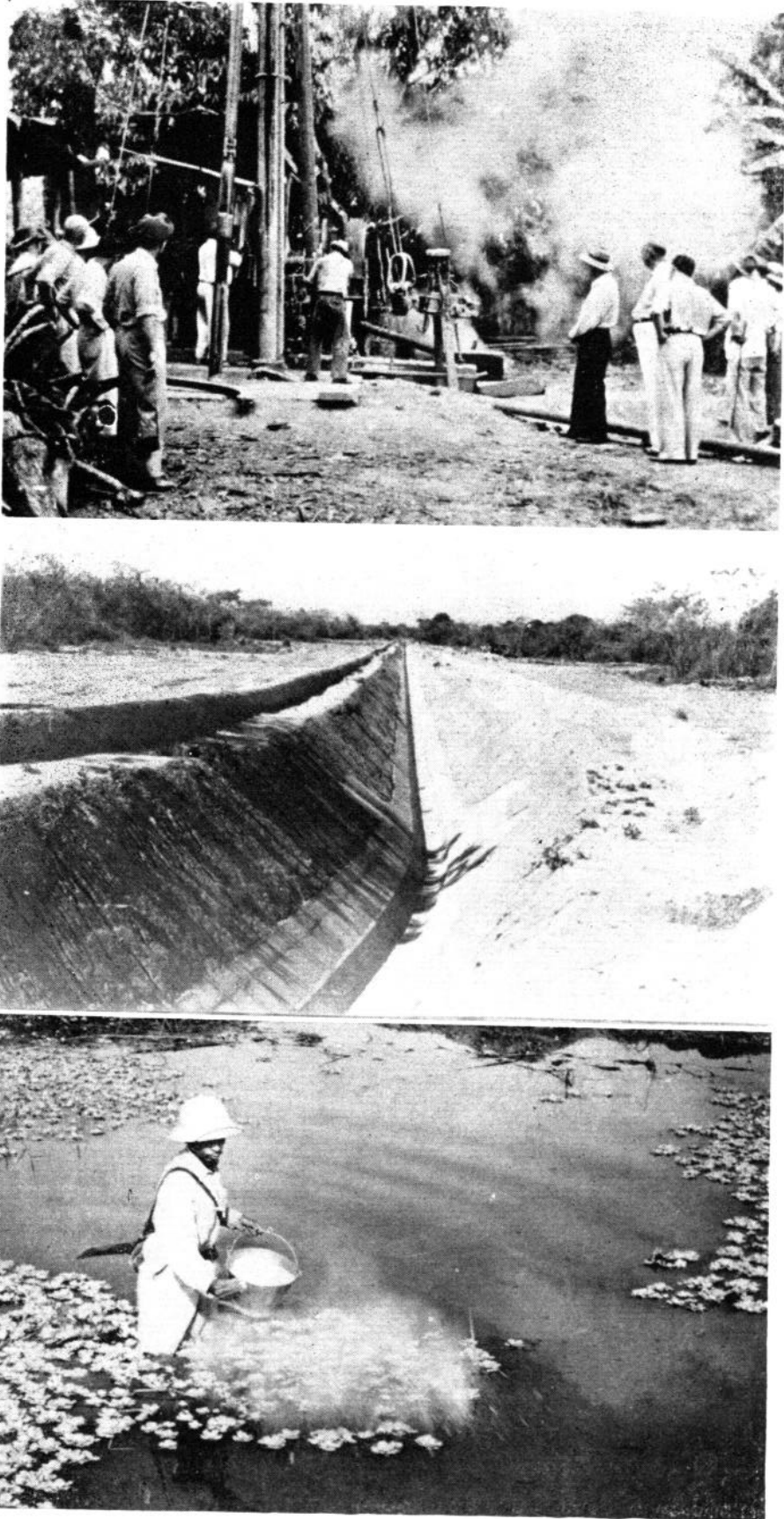


FIG. 4.—(a) (Upper) Well; (b) (Center) Permanent Mosquito Control; (c) (Lower) Temporary Mosquito Control.

Hospitals and Dispensaries.—Hospital or dispensary construction is under way or completed in 13 of the republics. In addition to buildings, other services are being provided for improved in-patient medical care such as sanitary facilities and surgical, laboratory and X-Ray equipment. Many of these hospitals are located in places where the medical care and hospitalization problem was acute and often serve as institutions to provide better training for medical and nursing personnel. Dispensary launches are operated on some rivers to provide medical care for rubber workers and small communities. Mobile dispensaries were operated to provide medical care for workers on the Inter-American Highway.

Field and Laboratory Study.—The important contributions of laboratory and field investigation are being increased by the provision of facilities and personnel training in many of the cooperating republics, as well as by the use of services provided either by local existing laboratories or by those operated as a part of the cooperative program. Public health laboratories are being constructed in five countries. Better diagnostic facilities will be available as a result of much of the hospital construction and, in many areas, as an important function of the cooperative health centers.

Training and Education.—Probably the aspect of the program which will have the most far reaching effects on the public health of the hemisphere is that of training professional health workers. Since the final success of any public health program depends upon the number and caliber of qualified personnel in a country, the Servicios are sponsoring the training of selected physicians, engineers, nurses, health educators and other health workers who are devoted to their people and the cause of public health.

The provision of training programs for professional workers in these republics has as its primary objective the encouragement of specialization in public health fields, to make available the services of an increasingly large and valuable group of well trained experts throughout the Americas. The Pan American Sanitary Bureau and the Rockefeller Foundation have done much pioneer work in this field. The Division of Health and Sanitation of the Institute is supplementing their activities by extending opportunities to increasing numbers of public health workers for training in their specialties. A total of 677 persons from the other republics had already come to the United States by January 1, 1946, under the auspices of this program. Their courses of study include training in schools of public health, engineering schools, medical schools, hospitals, and other health institutions and in urban and rural health organizations. Travel grants are allotted them to observe the functions and activities of public health departments and other organizations in the United States.

Paralleling training in the States, larger training programs are being carried forward in the different republics. An important phase of the program is the provision of nurses' training or organization of schools of nursing in nine countries, with provision of or addition to buildings, equipment and staffing. Together with this long-term cooperative

program, short courses in practical nursing are also provided. Short courses of instruction are being given locally in many of the countries to physicians in charge of full-time health centers, to sanitary engineers and inspectors and laboratory technicians. Instruction is given by the staff of the Servicio in collaboration with local health department or hospital staffs.

Health Education.—Health education of the lay public is essential to the public health program. Organized campaigns are under way or are being planned in all of the republics. Regular radio programs are broadcast, health films shown and articles published in newspapers and periodicals. Pamphlets are distributed to selected groups throughout the countries. Health posters are displayed in many public places.

Malaria Control.—A primary objective in this health crusade is the subjugation of malaria,—the greatest health problem in the tropical and semi-tropical areas of the Americas. The annual morbidity is estimated at approximately 9,000,000. The debilitation and destruction caused by this scourge severely hamper the development of natural resources. Throughout most of the other American republics relentless war is being waged upon the mosquito and the parasites which it disseminates. Control projects are usually preceded by entomological and engineering surveys; studies on incidence by obtaining splenic and parasitic indices; and the proportionate distribution of the species of malaria plasmodia. Special laboratories have studied and compiled information on the different Anopheles vectors and examined thousands of blood smears. Engineering activities include the construction of dikes and tide gates, drainage, ditching, filling and temporary larvicidal work around important cities, transportation centers, airfields, areas frequented by military personnel and strategic material areas. Experimental use of DDT is being extended. Suppressive drug therapy and treatment with resultant control are effected by the distribution of atabrine tablets from health centers and medical posts, especially where mosquito control measures are not economical or satisfactory. Control measures have been initiated in 126 localities within 14 of the republics. Diagnosis and medical treatment have been made available for the control of malaria among workers in many areas of regional development and among railroad and highway workers.

Many areas, rich in iron ore, quartz, mica and other minerals, are in areas where resources could not be fully developed without extensive health and sanitation programs to combat malaria and other diseases. Advice has been given as to location and arrangement of labor camps and the supply and supervision of sanitary facilities. Cooperative control measures have helped the development of production.

Intestinal Parasites.—The intestinal diseases are a serious problem in most of the other American republics. The provision of safe water supplies and sewage

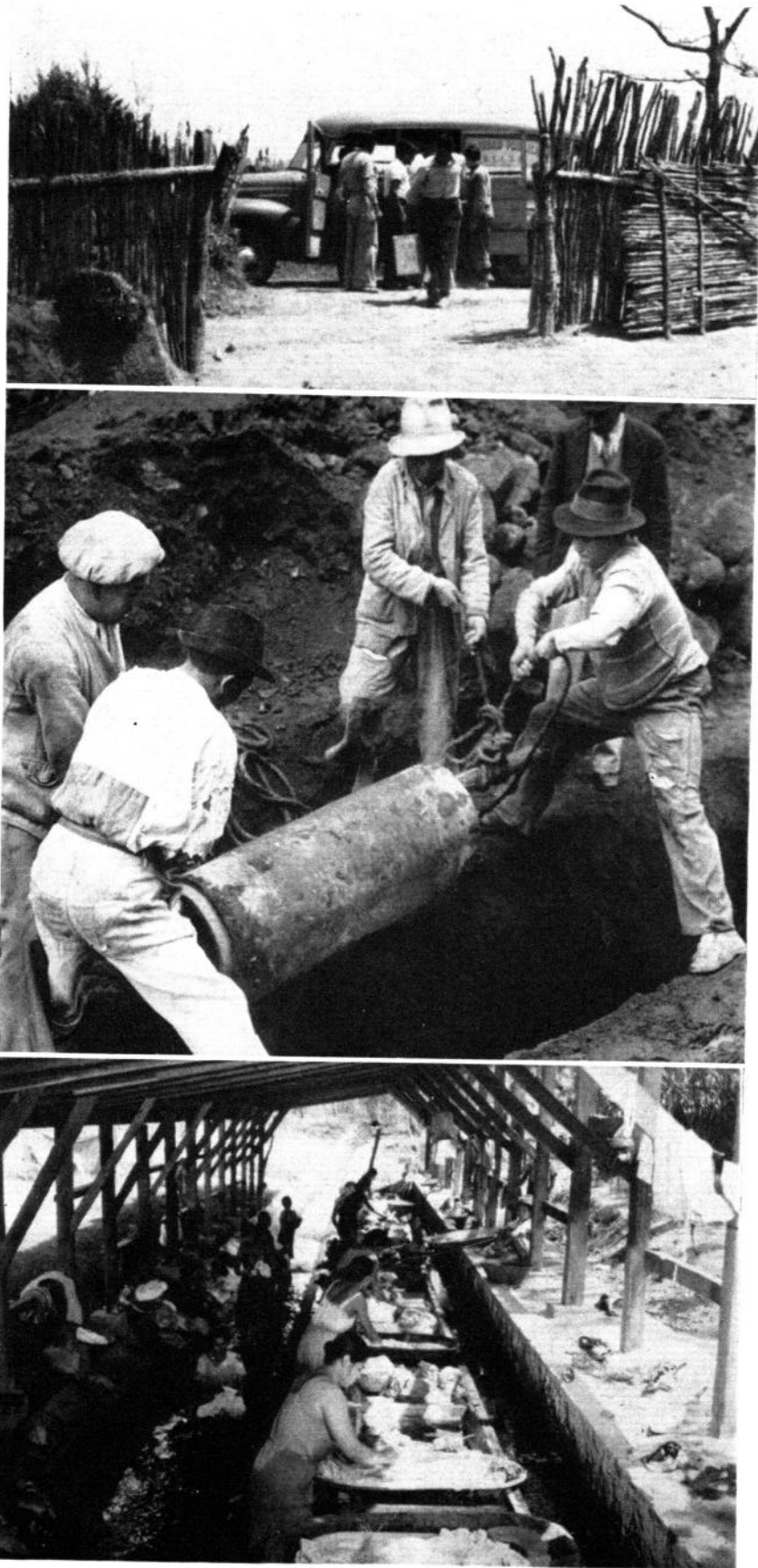


FIG. 5—(Upper) Typhus Control; (b) (Center) Sewerage System; (c) (Lower) Laundry.

disposal is a major means of combating this health hazard. These measures are supplemented by services directed principally through health centers and dispensaries for surveys of infested areas, health education programs and mass treatment of infested persons. Intensive campaigns have been directed against hookworm in some areas. The entire population of these areas is examined for hookworms, hexylresorcinol is administered and its distribution supervised and the construction of sanitary privies stimulated and subsidized to a small extent, in addition to an endeavor to make general the wearing of shoes.

Tuberculosis.—Tuberculosis is of serious import throughout the American Republics, with mortality rates that in some areas are reported to exceed 500 per 100,000 population. A special concern of the health centers everywhere, and in some instances of concentrated campaigns, tuberculosis control activities consist of case finding, education, study of contacts, provision of visiting nurses and organization of record systems, supplemented by the construction of tuberculosis sanatoria.

Other Diseases.—An important activity of an anti-yaws campaign is the training of local personnel to assist in the organization and operation of rural treatment centers. Typhus fever, plague and onchocerciasis study and control have also been carried out in conjunction with the Pan American Sanitary Bureau and National Departments of Health. Cooperative projects for the study and control of venereal disease, schistosomiasis, filariasis, Chagas's disease and tropical ulcer have been conducted. Leprosaria and preventoria are being built.

Infant Mortality.—All types of the work are involved in the approach to one important problem, that of infant mortality.

The high infant mortality in some areas is an immediate challenge. The Inter-American Cooperative Public Health Services have been intensively applying every means available to modern public health practice to bring healthy babies into the world and keep them well. It is recognized that the infant death rate, like that for tuberculosis, is based upon a complex picture of social indices that include the general standard of living as well as more specific factors such as sanitation, education of the mother in the care of the baby, available health services, nutrition, and numerous other related causes. While it is believed that all phases of the Cooperative Public Health Program contribute to the welfare of mothers and children, the Services have attacked the infant mortality problem most directly by means of the health center. In the 77 health centers constructed or equipped, and the 72 now being operated by the Services in 15 countries, maternal and child health clinics are provided where mothers can get instruction and assistance in prenatal, delivery, and postnatal care. Physicians, visiting nurses, laboratory workers, and sanitary inspectors work in the health center and the homes of the people it serves.

Sanitation is absolutely essential for the control of the enteric diseases, a leading cause of infant deaths. In some cities water supply and sewerage systems

have been supplied. Improved sanitation in numerous other areas has resulted from additional wells and pumps, sanitary privies, laundries, markets, incinerators, slaughterhouses, and other sanitary facilities.

It is believed that better education of the mother in the care of the baby is essential for the reduction of deaths due to all of the leading causes. Through the health education campaigns now being conducted in 16 countries, every effort is being made to acquaint the mother with the causes and prevention of disease and the proper care of the baby. Through the health centers and their personnel, supported by all types of propaganda media, the saving of infant lives is being stressed.

The most up-to-date scientific methods known in the United States for the saving of infant lives are being studied here and applied by the fellowship students upon their return to their own countries. In addition, short courses for the training of hospital and visiting nurse aides, sanitary inspectors, laboratory technicians, and other subsidiary personnel are being given locally under the auspices of the Servicios. In one country 1,377 midwives have been trained in the rudiments of delivery care.

In the Servicio system, the community of American nations now has a vehicle for transforming cooperative thinking on health, and nutritional matters and their attendant long range training problems, into direct action programs. It is a tested mechanism of operation for the extension of international cooperation as a fundamental of the progress of civilization. The emphasis on preventive medicine and environmental sanitation offers American nations closely knit by the airlines, the prospect of disarmament at the source of hitch-hiking insect vectors and disease germs which incubate in passenger conveyors.

Disease-ridden areas are opened to cultivation and development by Servicio methods. The Servicio becomes everywhere the starting line or community growth, increased purchasing power, greater international trade. Because good health is a limitless and non-competitive resource, the Servicio programs become rallying points for men of good will whose work is dedicated to the ceaseless growth of friendship and understanding among the peoples of the Americas.

PLAN INTERAMERICANO COOPERATIVO EN HIGIENE Y SANEAMIENTO (*Sumario*)

Describe en este trabajo la labor intercooperativa de saneamiento e higiene llevada a cabo por el Instituto de Asuntos Interamericanos, conforme a una resolución aprobada en la reunión de Ministros de Relaciones Exteriores, en enero 1942, y utilizando para ello fondos concedidos por el Congreso de Estados Unidos. A fin de llevar a cabo las obras convenidas creáronse en cada país organismos llamados por lo general Servicios Cooperativos Interamericanos de Salud Pública. Las obras emprendidas han comprendido saneamiento en general, y principalmente en forma de creación o mejoramiento de abastos de agua, cloacas, construcción de centros de salud, hospitales y dispensarios, concesión de becas, lucha antipalúdica, antituberculosa y antiverminosa, campaña contra la mortalidad infantil, y educa-

ción higiénica. Contra ciertas enfermedades, como tifo, peste, y oncocerciasis, los trabajos se realizaron en cooperación con la Oficina Sanitaria Panamericana. El propósito de los distintos Servicios ha sido invariablemente fomentar el desarrollo de las colectividades y acrecentar las posibilidades económicas y el comercio internacional.

NOMENCLATURA CENTROAMERICANA DE CASOS DE SÍFILIS*

Sífilis Adquirida	Primaria	Chancro:	{ Genital, extragenital o perigenital.
		Linfadenitis	
		Estado Pre-serológico:	{ Investigación ultramicroscópica positiva por <i>Treponema pallidum</i> .
		Estado Serológico:	{ Reacción serológica de la sangre positiva. Técnicas de fijación del complemento y floculación.
	Secundaria	Activa:	{ Roséola. Placas mucosas, etc.
		Visceral:	{ Manifestaciones viscerales recientes.
		Recurrente:	{ Lesiones muco-cutáneas. Relapso serológico, etc.
		Latente Precoz:	{ Menos de tres años de duración. Ausencia de lesiones activas. Reacción serológica de la sangre positiva o negativa. L. C. R. normal.
	Terciaria	Cutáneo-Mucosa:	{ Leucoplasias. Gomas, etc.
		Osea:	{ Osteítis. Osteo-artritis gomatosas, etc.
		Cardio-Vascular:	{ Aortitis. Aneurismas. Insuficiencias valvulares, etc.
		Nerviosa:	{ <i>Meningo-vascular</i> : Hemiplejía, etc. { <i>Parenquimatosa</i> : P.G.P. y Tabes, etc. { <i>Asintomática</i> : L.C.R. anormal.
Visceral:		{ Manifestaciones viscerales tardías.	
Latente Tardía:		{ Más de tres años de duración. Ausencia de lesiones activas. Reacción serológica de la sangre positiva o negativa. L.C.R. normal.	

* Ponencia presentada ante el Primer Congreso Centroamericano de Venereología por el Dr. J. Amador Guevara.