

in Guayaquil (See the *Boletín* for Sept., 1941, p. 892), which will serve the whole Republic.

It is high time that we undertake to solve our problems, because isolation does not fit in with other civilized communities. Peoples should maintain a mutual understanding and aid each other. We hope that the efforts of all the countries who are doing their best to progress during this crucial period of history, will be crowned with success. The Continent of Peace ought indeed to outstrip in its hygienic advancement and safeguards, the other continents which are engaged in self-extermination. Great benefits await us under the firm leadership of our Governments and the discipline of our people, who will not fail us in the work of community and solidarity.

Funds.—Public health budgets have been progressively increased. The conservation and defense of human capital has been at all times and in all countries the chief concern of Governments. Despite great difficulties, the Ecuadorian health budget has finally reached 2,300,000 *suces*. While this figure does not reach the amount proposed by the Third Pan American Conference of National Directors of Health, it at least represents an earnest effort toward improving the sanitary condition of the country. The amounts appropriated for public health in Ecuador have risen from 220,000 *suces* in 1922 to 263,006 in 1925, 591,080 in 1930, 773,000 in 1935, 2,031,440 in 1940, and 2,300,000 in 1941.

General and Infant Mortality.—The general deaths have varied from 51,584 in 1928 to 44,385 in 1930, 46,193 in 1935, and 62,183 in 1940; and the infant deaths from 14,984 to 13,881, 14,361, and 18,839, respectively. In 1940 the principal causes of death were: whooping cough, 7,134; malaria, 4,847; tuberculosis, 2,263; dysentery, 1,199; measles, 814; typhoid, 405; tetanus, 207; syphilis, 80; hookworm, 65; smallpox, 42; plague, 14; and leprosy, 13.

PUBLIC HEALTH IN EL SALVADOR

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The Public Health Service of El Salvador came into existence at the turn of the century, with the promulgation of the first Sanitary Code, on May 30, 1900, during the Presidency of General Tomás Regalado. The distinguished physician, parliamentary orator, and author, Dr. Rubén Rivera, was at that time Minister of Government. In accordance with the Code, the first Superior Council of Health was appointed on July 23 of that year. Its members included the eminent physicians Drs. Tomás G. Palomo, surgeon; Carlos Bonilla, clinician, teacher of future generations, writer, and poet; and Francisco Guevara, physician, pharmacist, and outstanding surgeon.

Some time before this the small Office of Vaccination and Public Hygiene, composed of a medical director, a clerk, and an office boy, had been established, and it was incorporated into the new Council.

The work of the Council could not be very far-reaching when supported by budgets as low as 9,660 *colones*. But on July 24, 1920, it entered into a new phase of growth with its transformation into the Department of Health, as the result of amendments to the Sanitary Code. This was during the Presidency of Sr. Jorge Meléndez, and the Under-Secretary of Government, the distinguished lawyer, Dr. Arturo Argüello Loucel, contributed greatly to the establishment of the Health Service on an autonomous basis.

Dr. Luis V. Velasco, renowned clinician and respected professor, was made the first Director General of Health, in which capacity he made constant efforts to further sanitary organization, contributing his personal influence, his patriotism, his warm friendship with Dr. Argüello, and his proverbial dedication to the study of medical advances.

The Fourth Inter-American Sanitary Conference, held in Costa Rica in 1909, at which El Salvador was represented, greatly stimulated the public health progress of the country, as the result of the guiding principles and broad aims set forth in its resolutions.

An event of major importance was the arrival of Dr. Carlos A. Bailey to organize, under the auspices of the Rockefeller Foundation, the Uncinariasis Bureau, which was to carry on a campaign against this damaging parasite throughout the Republic. This organization functioned at the expense of the Foundation from November, 1915 to September, 1924, at which time its support was taken over by the Government of El Salvador. The work was continued for many more years, always in close cooperation with the New York offices. There followed at later intervals the campaign against yellow fever and the improvement of the drinking water supply of the Capital by the application of liquid chlorine.

The most fruitful result of the cooperation with the Rockefeller Foundation has been the training of Salvadorian public health personnel, with its consequent influence on the public health progress of the country.

The period of organization under Dr. Velasco, was followed by trials in one field and another, which little by little have given the public health department the character, significance, extension, and support which it deserves, in accordance with modern ideas and the consequent improvements. The turning over to a Hygiene and Sanitation Fund of 5% of municipal revenues has contributed to this progress.

Among the important developments which should be mentioned are: the establishment of the Model Health Unit at Santa Tecla, and the later ones at Santa Ana and San Miguel; the creation of the Department of Tuberculosis, with complete X-ray equipment; the increasing use of the Public Health Nursing Service as a valuable aid in case-finding both in tuberculosis and in the campaign against venereal diseases, with the cases found being given standard treatment; and, finally, the organization of child welfare work on a large scale including pre-natal, natal, and post-natal services, recreation clinics, midwife regulation, puericulture and pediatric clinics, and school hygiene.

The most outstanding activity is the malaria control campaign, attacking one of the basic public health problems of the country. A preliminary survey, and a later very complete study, describing in detail the situation in the whole country with the exception of two small towns, serve as the foundation for the work. In it El Salvador has had the ample, generous, and efficient aid of the Rockefeller Foundation, which meets half the cost of the indispensable sanitary engineering projects in the most heavily afflicted districts, and provides technical supervision. The projects in San Miguel are almost finished, and those of Usulután and Sonsonate are to begin immediately. The decrease in the death rate from 1924 to 1940, and especially in the last three years, speaks well for the work of the Public Health Service.

Urgent needs.—The most urgent task for the future is to develop amply and completely the interesting work which has already been undertaken.

Funds.—The general budgets for health expenditures in El Salvador have varied from 27,560 *colonos* in the fiscal year 1901-1902, to 22,400 in 1905-1906, 30,260 in 1910-1911, 60,620 in 1915-1916, 152,050 in 1920-1921, 197-120 in 1925-1926, 369,120 in 1930-1931, 210,000 in 1935-1936, and 388,126 in 1940-1941. The averages

by periods have been 23,784 *colonos* in 1901-1911, 60,398.80 in 1911-1920, 180,026.66 in 1920-1926, and 293,948.06 in 1926-1941.

Population.—The population of the Republic has increased from 1,287,395 inhabitants in 1924, to 1,459,594 in 1930, 1,597,564 in 1935, 1,744,535 in 1939, and 1,787,930 in 1940.

General mortality.—The total number of deaths has varied from 33,047 (25.7) in 1924, to 31,490 (21.6) in 1930, 38,884 (23.7) in 1935, 31,656 (18.1) in 1939, and 31,242 (17.5) in 1940.

Infant mortality.*—1930, 10,329; 1935, 8,617; 1939, 8,289; 1940, 9,019.

Causes of death.—Malaria: 1924, 3,189 (248); 1930, 3,115 (213); 1935, 4,470 (280); 1939, 3,418 (196); 1940, 3,325 (186); diarrhea-enteritis, under 2 years: 1,821 (141), 2,467 (169), 3,587 (225), 2,349 (135), and 2,791 (156) respectively; tuberculosis: 478 (37), 529 (36), 765 (48), 743 (43), and 698 (38.5); pneumonia: 766, 661, 1,414, 1,918, and 1,674; measles; 119, 350, 1,315, 1,863, and 1,276.

THE EVOLUTION OF PUBLIC HEALTH IN GUATEMALA

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History.—The history of medicine in Central America was in the beginning the history of the plagues, obstacles, and catastrophes which confronted Governments in their efforts to safeguard their people. The construction of hospitals and asylums to meet immediate needs, was the first public health development described in the ordinances and chronicles of the past century. At that time, public health and hygiene were not branches of an exact science, based on social, epidemiological and mathematical principles, but consisted of ordinances, suggestions, or regulations issued by the authorities of the Central-American Federation, through its municipalities.

The oldest Central American public health ordinance is that published under Title II, Law V, No. 314, October 2, 1839, of the First Book of Laws of the National Sovereignty, which read as follows:

"Article 28.—In the case of pestilence, all proper measures to relieve the necessities of the people shall be taken.

"Art. 42.—The Sanitary Police are empowered to deal with matters of correction and security; they shall be strictly obligated to prevent and remove anything which may prejudice public health; they shall see to the cleaning of the streets, plazas, and markets, watch over the quality of foods of all kinds, and shall effectively bring about the drying up or drainage of stagnant or unhealthy pools of water.

"Art. 45.—In cases of pestilence, the Municipalities shall immediately report to the *Corregidor* of the Department, but this shall not relieve them of the duty of immediately organizing Boards of Health and of providing assistance to the inhabitants."

Population.—Another early undertaking was the appointment of a Committee for the taking of the First Census of the Republic. In 1825 the State of Guatemala, in the Central American Federation, had 318,215 inhabitants; in 1893 the country had 1,364,678; in 1903, 1,842,134; in 1921, 2,004,900, and in 1940, 3,284,189.

The population of Guatemala has increased, therefore, one million in the last 20 years, a fact which demonstrates more than any other, the progress realized thanks to its present wise laws and regulations and to its cultural and scientific relations with the United States and Europe. The advance of the public health sciences, the eradication of yellow fever, the quarantine of ports and international

* Stillbirths have been excluded from deaths from 0 to 1 year.