

A SUMMARY OF PUBLIC-HEALTH ACTIVITIES IN PORTO RICO FOR THE YEAR 1926-27 *

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The main activities of the Department of Health appear thoroughly discussed under the different headings, but I shall make a brief summary of the most important individual reports which deserve special comment and criticism.

Preferent attention has been given to the organization of municipal health units of which two are functioning at the present time, one at Río Piedras and one at Yabucoa. These units follow the most modern methods and their establishment lays the foundation for the general reorganization of local public health work throughout the Island. In view of the fact that the municipalities share the expenses this brings a closer cooperation between the municipal community and the Insular Government, although the management of said institutions is absolutely under our control. The main feature, from the educational standpoint, is that both the rural and urban zones are included, together with the medical inspection of the public schools. The Municipal Health Unit of Río Piedras is classed as a model of its kind in every particular and it is being practically used as a school for the training of public-health workers, including physicians. A survey is being made at the present time so as to extend this work to other localities. The scope of activities is included in the corresponding chapter.

Your attention is particularly called to the work accomplished by the Division of Public Health Education which was established during the past year. The head of this division was entrusted with the organization of twelve teachers' institutes, in cooperation with the Department of Education and the Department of Agriculture and Labor. The Island was divided into twelve artificial divisions, in such a manner that each division should contain about two hundred rural teachers and the municipalities selected were the following: Río Piedras, Caguas, Cayey, Utuado, Ponce, Mayagüez, Arecibo, Aguadilla, Humacao, Guayama, Yauco, and Bayamón. Although preferent attention was given to rural sanitation along the lines of hookworm control, nevertheless, public-health work in general, from

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the practical standpoint, was also brought before the attention of the teachers. Great pains were taken to present the subjects in a clear and concise way so as to give the teachers the idea that they were acting as classroom students. A written examination was given at the close of the public-health session, the papers were corrected and a rating was assigned to each teacher.

A lengthy report on malaria is submitted to your consideration, as all the data furnished are the result of actual work carried out by the personnel of the Bureau of Malaria Control. It contains valuable information on research work, particularly on the feeding habits of the two common species of mosquitoes of Porto Rico, *Anopheles Albimanus* and *Anopheles Grabhamii*. Also a study of the best methods of mechanical protection and the influence of irrigation on the incidence of malaria. This Bureau is today our training school, both from the scientific and from the practical standpoints, for public-health workers who want to specialize in malaria, adding to our plan of work a knowledge of agricultural methods, as it is well known that sugar-cane cultivation in Porto Rico is intimately associated with the prevalence of malaria, particularly on the coastal plains. The increase of 348 deaths which appear on page 140 is apparently due to a better diagnosis of the disease by the practicing physicians.

The study of the report of the Bureau of Rural Sanitation, which gives preferent attention to the problem of hookworm control, furnishes very valuable and interesting data, as follows:

Latrines constructed during the year.....	20, 792
Latrines constructed in previous years.....	86, 326
	107, 118
Latrines constructed to date.....	107, 118
Treatments administered during the year.....	138, 779
Treatments administered in previous years.....	637, 726
	776, 505
Treatments administered to date.....	776, 505
Patients discharged as cured during the year.....	61, 301
Patients discharged as cured during previous years....	171, 751
	233, 052
Patients discharged as cured to date.....	233, 052

The work of rural sanitation wherein more emphasis is placed upon education, progresses as usual, and with the cooperation of the rural schools as the result of the teachers' institutes, the people are giving more attention and care to the construction and use of the latrine, which will spare the soil from contamination.

The report of the Biological Laboratory gives an idea of the increase in the amount of work which is being done with the addition of the recently created bureaus and divisions. In the year 1921-22, 7,666 specimens were examined and during the past year the total has reached 41,421 which, with those examined at the branch located at Ponce, give a grand total of 50,745. As compared with a similar public health laboratory in the United States, our laboratory ranks high in the total number of specimens examined and in the quantity and quality of the work performed.

Your attention is called to the report of the Chemical Laboratory, wherein a statistical report on milk adulteration is submitted from the year 1901 to the year 1927. The lowest percentage of adulteration in these 26 years corresponds to the past year, eight per cent. Before the present drastic campaign was started, four years ago, the percentage of adulteration was usually above twenty per cent, reaching during the year 1910-11 as high as 50.50 per cent. The drop seems to have started since the year 1922-23 with a gradual decrease of from 23.95 to eight per cent.

One thousand five hundred and fifty-five bonds from milk dealers have been approved during the present year amounting to \$152,100, in accordance with Act No. 77, 1925, "Providing punishment for the adulteration of milk, and for other purposes." Ninety-one applications are under study and pending investigation. One of the most outstanding developments during the year has been the construction of modern dairies everywhere in the Island conforming to the requirements of the sanitary regulations. Particularly many dairies which have been established near San Juan and adjacent towns, can be classed as models of their kind in any country. Plans have been approved for the construction of more new dairies. Many of those in operation can be plainly seen from the main highways.

Statistical data from water-supply and sewerage systems show that up to the present time there are in Porto Rico 59 towns and cities with water-supply systems, out of which 26 have also sewerage systems. Water-purification plants conforming to the most modern requirements in its minutest detail are being constructed in the four more important cities of Porto Rico, namely, San Juan, Ponce, Mayagüez, and Arecibo, which no doubt will raise the hygienic standard of living in the above-named municipalities.

Four new institutions will be ready for occupancy at the beginning of the next fiscal year and those are the new Insane Hospital, the Preventorium, the Ponce District Hospital and the San Juan

District Hospital which is being built close to the School of Tropical Medicine. Also the school building for the Institute for the Blind will be ready. The opening of these institutions will require legislative action.

Plans for the construction of municipal hospitals have been approved for the municipalities of Yabucoa, Barceloneta, Sabana Grande, Coamo, Lares and Morovis.

A total of 33,562 deaths were registered during the year, an increase of 1,218 deaths over the year 1925-26 in which 32,344 deaths were registered. Consequently, the death-rate is 23.3 per 1,000 population as against 22.8 for the previous year or an increase of 0.5 per 1,000 population. By making a comparative study of the principal causes of death during the past year we find that this increase is due to those diseases that are more or less associated with nutritional disturbances as follows:

	Increase
Diarrhea and enteritis (under two years)-----	499
Tuberculosis (all forms)-----	434
Diarrhea and enteritis (two years and over)-----	358
Chronic nephritis-----	360
Congenital debility-----	286
Total-----	1,937

This leaves still a margin of 719 in favor of the increase, due to diseases associated with nutritional disturbances. With the exception of malaria there has been a decrease in all those preventable diseases that, due to their transmissibility, develop into epidemic form. Typhoid fever, diphtheria and uncinariasis, where a decrease is recorded, are good examples. These nosological entities obey more promptly to direct public-health measures of prevention and control.

As per request, our moving-picture films dealing with the work which the Department of Health of Porto Rico is carrying on, have been exhibited in Santo Domingo and Venezuela.

A delegation of prominent physicians from Brazil headed by the Superintendent of the Insane Hospital of Jaquery visited our new Insane Hospital and in a report which they submitted to the government, which was freely distributed, after seeing institutions of this kind in the United States and in Europe, stated that the Insane Hospital of Porto Rico is one of the most perfect they have visited. Also at the request of the French Consul, plans, regulations and technical reports on the disposal of sewage and residue from the sugar centrals were sent to the Governor of Martinica for proper study and adoption into that country.