Data on vital events, communicable diseases, and sanitation reported by 22 American countries signify progress in neighbor nations.

Report of Health Conditions in the Americas

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NEED for a numerical statement of facts, with precision and reliability, has been a matter of prime concern to persons interested in coordinated health planning in the Americas. Since establishment of the Pan American Sanitary Bureau in 1902, improvement in collection of statistical data has been one of the important objectives of the organization. Although achievement of this objective has been given impetus by the many requirements of the Pan American Sanitary Code in relation to statistics and reports, only in recent years has it received concentrated effort.

A major goal in fulfillment of the requirements in the Pan American Sanitary Code was the publication of the Summary of Reports of Member States, 1950–53, which was prepared for the XIV Pan American Sanitary Conference held in October 1954. This document consolidates the statistical data on health conditions for the years 1950 through 1953 that were submitted by each of the 21 member states of the Pan American Sanitary Organization. Included are data on population, vital events, reported cases and control of communicable diseases, personnel and organization of health services, and various aspects of sanitation programs. Since release of the summary, similar reports have been received from Puerto Rico, Canada, and the territories in the Western Hemisphere, which will be incorporated in a revision of the summary. For the following discussion, selected data dealing with population, vital events, communicable diseases, and sanitation from the reports of the member states and Canada are presented. These data provide a basis for appraisal of general health conditions in the Americas.

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Population

Nearly all the countries in the Americas conducted a census in or about 1950, and on July 1 of that year the population was estimated to be 326,415,000. Of this population, 216,443,000

Table 1. Percentage of population in 4 age groups for 3 regions of the Americas according to recent census in 18 countries

Region	All stated ages	Under 15 years	15–34 years	35–54 years	55 years or more
Northern America	100.0	27.2	30.5	25.5	16.8
Middle America	100.0	41.8	32.8	17.9	7.5
South America	100.0	40.0	34.3	18.4	7.3

lived in North America and 109,972,000 in South America. In Alaska, Canada, Greenland, St. Pierre and Miquelon, and the United States, which is called Northern America, were 165,110,000 people, and in the remainder of North America (including the islands of the Caribbean), which is designated Middle America, were 51,333,000.

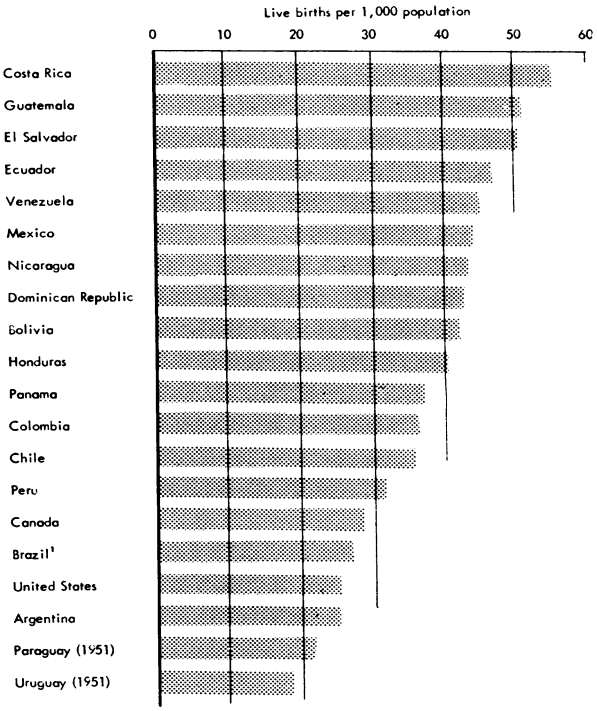
Division of the population into age groups, as presented in table 1, demonstrates a sharp difference between Middle and South America and Northern America. In Middle and South America the proportion of the population under 15 years of age is substantially higher than the proportion in Northern America, 42 percent and 40 percent as compared to 27 percent. The proportion in the older age groups is considerably lower in Middle and South America, although the proportion in the age group 15–34 years is about the same in all three regions. These age distributions indicate that in Middle and South America greater priority at present should be given to health programs directed to problems of infancy, childhood, and young adult life.

Table 2. Birth and death rates per 1,000 population and infant death rates per 1,000 live births in 20 American countries, 1952

Country	Birth rate	Death rate	Infant death rate
Argentina	24.6	8.7	67.5
Bolivia	42.1	15.6	184.6
Brazil [1]	27.1	15.7	172.9
Canada [2]	27.9	8.7	38.0
Chile [3]	36.5	13.7	121.8
Colombia	36.8	13.0	110.7
Costa Rica	54.6	11.6	80.2
Dominican Republic	42.2	10.1	78.7
Ecuador	46.5	17.0	[4] 109.5
El Salvador	50.8	17.0	85.5
Guatemala	51.0	24.2	112.2
Honduras	40.1	12.7	64.3
Mexico	43.3	14.8	89.7
Nicaragua	42.8	10.6	77.5
Panama	36.9	8.6	50.4
Paraguay [4 5]	20.8	7.0	87.7
Peru	31.4	11.2	100.0
United States	24.7	9.6	28.4
Uruguay [4]	18.6	7.9	54.7
Venezuela	44.0	10.8	74.7

[1] Federal District and State capitals, except the city of São Paulo. [2] Excluding Yukon and Northwest Territories. [3] Provisional. [4] 1951. [5] For reporting area, 83 percent of population.

Figure 1. Live births per 1,000 population in 20 American countries, 1952.



[1] Federal District and State capitals, except city of São Paulo

Vital Statistics

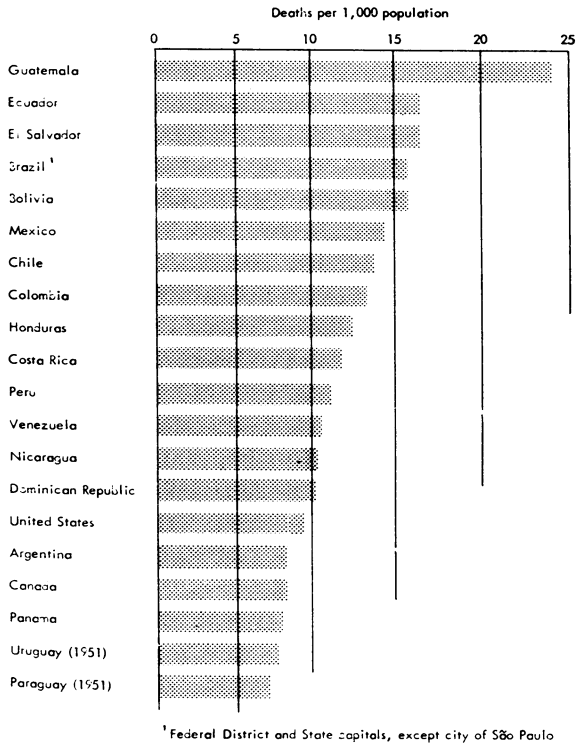
Practices in registering vital events, definitions of terms, and tabulation procedures vary considerably from country to country. Although the reports on health conditions were not concerned with the technical details of the methods of collecting and analyzing data, certain explanations should be made.

The data provided by Haiti were considered too incomplete to be used because this country does not have a vital events registration system. Cuba did not provide any birth or death data. In Brazil, data were available only for the Federal District and capitals of States, except the city of São Paulo. In some of the countries, notably Paraguay, the low rates indicate incomplete registration of births and deaths.

The birth, death, and infant death rates reported by 20 countries for 1952 are given in table 2, and these rates are shown by rank order in figures 1, 2, and 3. Notwithstanding the difficulties involved in providing complete information for the hemisphere, the statistics presently available from birth and death certificates do give valuable clues to the health problems in the various countries. The need for improving vital statistics systems becomes increasingly evident as the data are used.

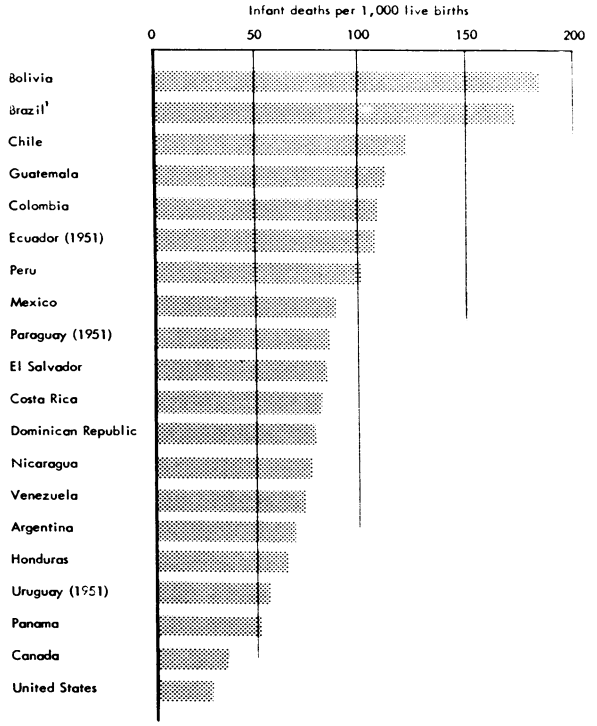
Very high birth rates were noted in many of the countries. In fact, in half of them the the rates exceeded 40 per 1,000 population and in 3 countries of Central America they were

Figure 2. Deaths per 1,000 population in 20 American countries, 1952.



[1]Federal District and State capitals, except city of São Paulo

Figure 3. Infant deaths per 1,000 live births in 20 American countries, 1952.



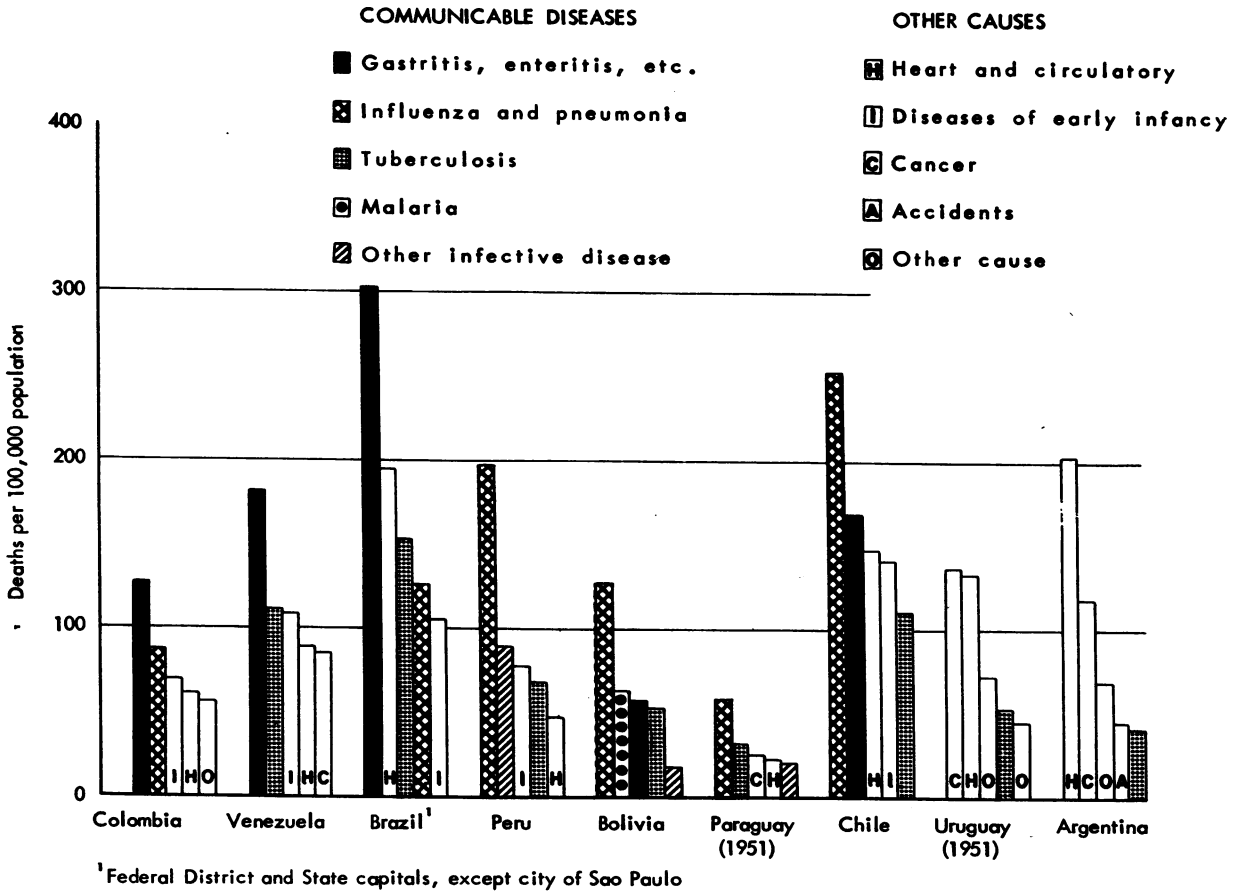
[1]Federal District and State capitals, except city of São Paulo

in excess of 50 per 1,000 population. Such high birth rates indicate that maternal and child health programs are essential for proper care in the prenatal and postnatal periods and in childhood.

Likewise, high death rates were found in several of the American countries, the highest being recorded in Guatemala. Although death registration is incomplete in several countries and the true rates are probably higher, the data indicate excessive mortality in many areas. However, analysis of death rates from specific causes as well as by age group is clearly required for understanding of health conditions.

The range in infant death rates was great, from 28.4 per 1,000 live births in the United States to 184.6 per 1,000 live births in Bolivia. The fact that the United States and Canada have been able to bring their infant death rates down to relatively low figures gives promise that, with the development of health programs, improvement of environmental sanitation, and prevention of infectious diseases, rates can like-

Figure 4. The 5 leading causes of death in 9 countries of South America, 1952.



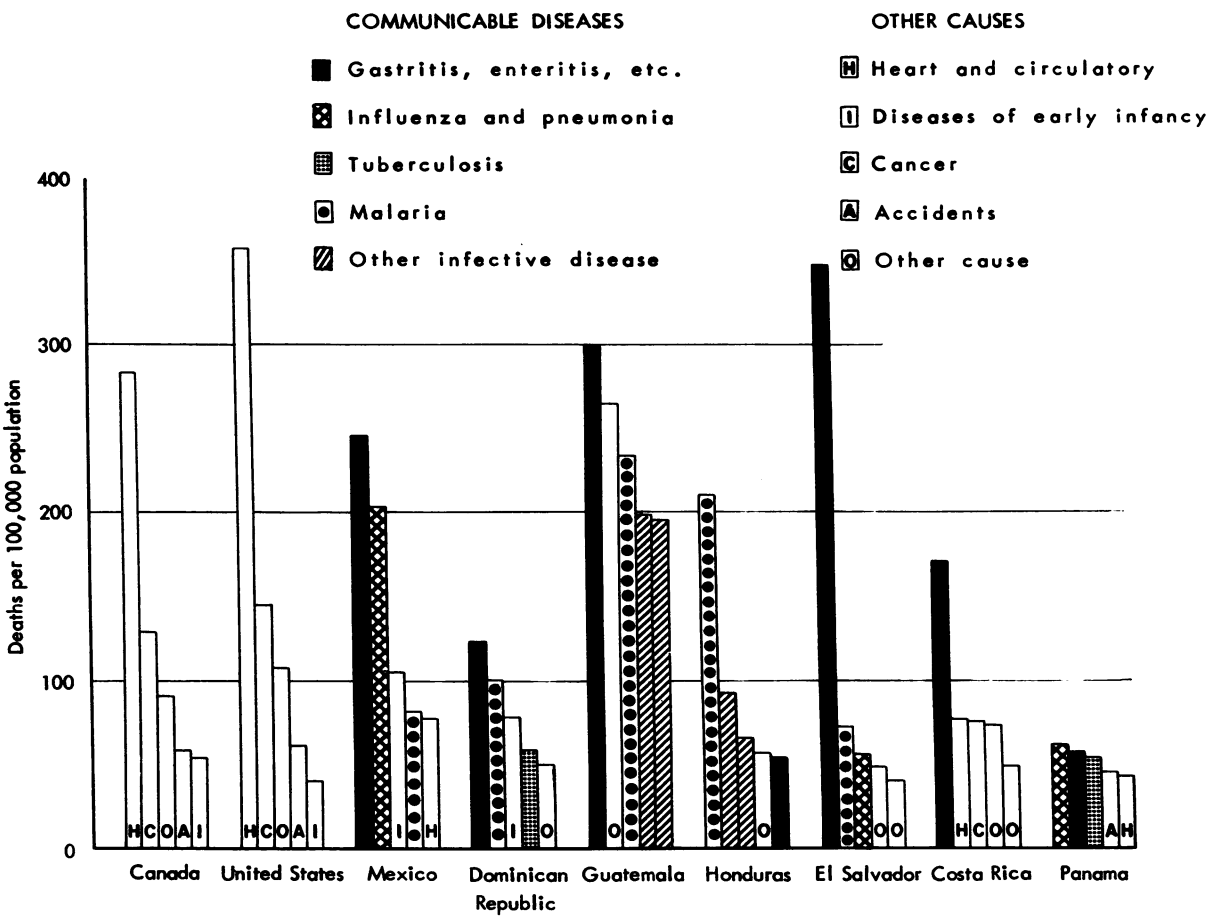
wise be reduced throughout the hemisphere. Forty years ago, at the time of establishment of the Birth Registration Area in the United States, the rate for the 10 States and the District of Columbia, although probably lower than for the rest of the country, was still around 100 per 1,000 live births. Reduction was steady but not even, with some States maintaining relatively high rates until very recent years. Similar unevenness can be expected in the declines in other countries. In those countries which have put into force vigorous public health programs, clear-cut reductions have been noted, and it is to be hoped that the downward trend will continue.

Principal Causes of Death

Eighteen countries provided data regarding the principal causes of death. In considering these data, it must be kept in mind that not all countries used the International Statistical Classification of Diseases, Injuries, and Causes of Death (sixth revision of the International List) and that there was not uniformity in the title numbers used in ranking the causes of death. Moreover, it is known that there are deficiencies in registration and medical certification in certain countries, such as Bolivia, Paraguay, and Peru.

The 5 leading causes of death in 9 countries of South America are shown in figure 4. In the three northernmost countries—Colombia, Venezuela, and Brazil—the gastrointestinal diseases, that is, the diarrheas, which are probably due principally to shigella, were the leading cause of death. In four countries farther from the tropics—Peru, Bolivia, Paraguay, and Chile—influenza and pneumonia were the principal cause of death. In Uruguay and Argen-

Figure 5. The 5 leading causes of death in 9 countries of North America, 1952.



tina, the diseases in the older age groups, circulatory diseases and cancer, stood first.

Figure 5 gives similar data for 9 countries in North America. In Canada and the United States, the infective diseases did not appear among the 5 leading causes. In the other 7 countries, the infective diseases—the diarrheal diseases, malaria, and influenza and pneumonia—appeared frequently.

A summary of the data on principal causes of death is given in table 3. These data point up the importance of the infective and parasitic diseases, for in addition to the diarrheal diseases, which were the principal cause of death in 8 countries and among the first 5 causes in 12 countries, influenza and pneumonia, tuberculosis, malaria, and whooping cough appeared as leading causes. Even though there is lack of uniformity in classifying and ranking deaths and variations in completeness of reporting and accuracy of medical certification, the data emphasize the need for active programs for prevention of death due to communicable diseases.

Communicable Diseases

As has been pointed out, the communicable diseases rank high among the first five causes of death in many countries of the Americas. They contribute heavily to infant mortality and mortality in early childhood. In addition to mortality, furthermore, these diseases are responsible for considerable illness and economic loss. The reports on health conditions provided detailed data regarding 15 communicable diseases, including the number of cases and deaths with rates per 100,000 population. In table 4 are shown the death rates for two of these diseases, malaria and whooping cough.

Table 3. Summary of the 5 principal causes of death by rank order in 18 American countries, 1952

Cause of death	Total	Number of countries by rank order of cause of death				
		1st	2d	3d	4th	5th
Heart disease or circulatory system	13	3	3	1	3	3
Gastritis, enteritis, diarrhea [1]	12	8	2	1	0	1
Influenza and pneumonia [2]	10	5	2	2	1	0
Tuberculosis	10	0	2	2	4	2
Diseases of early infancy	9	0	0	5	1	3
Cancer	7	1	3	2	0	1
Bronchitis [3]	6	0	1	0	1	4
Malaria	6	1	3	1	1	0
Vascular lesions, etc.[4]	5	0	0	4	0	1
Accidents or external causes	4	0	0	0	4	0
Whooping cough	2	0	1	0	1	0
Other cause	6	0	[5] 1	0	[6] 2	[7] 3

[1] Diseases of digestive system in two countries. [2] Diseases of respiratory system in one country. [3] Includes bronchopneumonia in one country and pneumonia in two countries. [4] Diseases of nervous system in one country. [5] Intestinal infections. [6] Avitaminosis and anemias in one country and dropsy in one country. [7] Dysentery, helminths, and syphilis, each in one country.

Malaria is one of the communicable diseases that results in considerable morbidity and mortality in certain areas of the hemisphere. The six countries with the highest death rates are in North America—Guatemala, Honduras, Dominican Republic, Nicaragua, Mexico, and El Salvador. As is well known, malaria has also been a serious health problem in the southern part of the United States. An active eradication program in the United States had almost achieved complete extinction of the disease when the disturbed conditions of World War II and the return of soldiers from heavily infected areas resulted in an increase in cases and deaths. But decline is again in progress: In 1953 only 1,310 cases were reported, and the death rate was estimated to be less than 0.05 per 100,000 population.

The XIV Pan American Sanitary Conference recommended that "the Pan American Sanitary Bureau promote the intensification and coordination of antimalaria work, with a view to achieving the eradication of this disease in the Western Hemisphere; and that the Member Governments should convert all control programs into eradication campaigns within the shortest possible time, so as to achieve eradication before the appearance of anophelene resistance to insecticides." To carry out this resolution, a malaria consultant has been employed; headquarters for the coordination office of the malaria eradication program have been established in Mexico; countries particularly involved are undertaking active programs; and the United Nations Children's Fund is considering a major increase in appropriations for malaria eradication. Through such coordinated activities, the Americas can be made free of malaria within a short period of time. The excellent antimalaria program in the United States has shown that eradication can be achieved through collaboration of all groups concerned.

The communicable diseases of childhood continue to cause many deaths in the Americas. The death rates for whooping cough, for example, in 5 countries exceeded 30 per 100,000 population in 1952. The rates for this disease were so high in a few countries that doubt has been expressed regarding the accuracy of the statements of causes of death, for it is easy in early childhood to confuse the death due to whooping cough and bronchopneumonia with the death due to bronchopneumonia caused by other diseases. But, even though the data may not be entirely accurate, the size of the whooping cough death rates indicates the need for investigations to determine the causes and for application of preventive measures. Triple vaccine (diphtheria, pertussis, tetanus) was reported to be in use in several countries. The high value and the low cost of this method of

prevention justifies the addition and expansion of programs of immunization against whooping cough.

The International Sanitary Regulations lists six diseases as quarantinable—cholera, plague, louse-borne relapsing fever, smallpox, typhus (louse-borne), and yellow fever. Smallpox continues to occur in several countries, and the case rates in Peru, Bolivia, and Colombia are relatively high. In Colombia, for example, 7,146 cases were reported in 1954. Fortunately, fatality rates for smallpox are generally quite low, indicating that the virus has relatively low virulence. In the light of existing knowledge about smallpox control and about methods of vaccine production and preservation, there is little excuse for continued appearance of this disease. Cases of plague or deaths from this disease occurred in 8 countries in the 4-year period 1950–53, and cases of or deaths from louse-borne typhus were reported in several countries.

Progress in the control of yellow fever and in eradication of the *Aedes aegypti* has been highly gratifying in several countries. In fact, in six, eradication of the insect vector of urban yellow fever is either complete or in sight. In too many countries, however, much remains to be done. The *A. aegypti* is still present, for example, in many southern States of the United States. Perhaps not enough publicity has been given to the fact that the infested States have been officially reported by the United States Government to the World Health Organization as a yellow fever receptive area. The development in 1954 of yellow fever in Trinidad, an island heavily infested with the *A. aegypti*, and the northern extension of jungle yellow fever in Central America have been reminders that the insect vector must be eradicated from every area in the Americas if the threat of yellow fever is to be eliminated.

From the data on the principal causes of death and also from those on the 15 communicable diseases, the very great toll the communicable diseases are taking in the Americas is evident. The success that has been attained in regard to urban yellow fever and malaria indicates that eradication of malaria and the other diseases will depend on concerted efforts to apply existing knowledge and on determination to carry through such programs.

Table 4. Malaria and whooping cough death rates per 100,000 population in 20 American countries, 1952

Country	Malaria death rate	Whooping cough death rate
Argentina	0. 0	1. 4
Bolivia	64. 1	13. 9
Brazil [1]	7. 5	6. 3
Canada [2]	0. 0	1. 0
Chile	0. 0	8. 5
Colombia	23. 9	34. 6
Costa Rica	37. 5	14. 6
Dominican Republic	100. 1	2. 1
Ecuador [3]	16. 9	9. 8
El Salvador	71. 9	10. 9
Guatemala	233. 5	199. 0
Honduras	210. 1	51. 6
Mexico	80. 8	32. 5
Nicaragua	86. 6	19. 1
Panama	21. 8	7. 1
Paraguay [4] [5]	14. 5	8. 7
Peru	18. 7	89. 9
United States	0. 0	. 3
Uruguay [5]	0. 0	2. 6
Venezuela [6]	2. 5	15. 3

[1] Federal District and State capitals, except city of São Paulo. [2] Excluding Yukon and Northwest Territories. [3] Capital cities of provinces. [4] For reporting area, 83 percent of population. [5] 1951. [6] Ill-defined causes proportionally distributed to defined causes.

Status of Programs and Services

In addition to data on vital events and communicable diseases, data regarding the status of the various health programs being carried on, including disease control and environmental sanitation programs, were obtained in the reports on health conditions. To illustrate these data and to stress their value in program planning, an example is taken in the field of sanitation.

The fact that the diarrheal diseases were included among the 5 leading causes of death in 12 countries is evidence of the need for improvement in environmental sanitation. The data regarding the status of one of the programs in this field, the provision of water supply systems, for 13 countries are shown in table 5. In 5 of the 11 countries providing data for urban areas, three-fourths of the urban population was served by water supply systems in 1953—

Dominican Republic, El Salvador, Panama, United States, and Venezuela. In 5 others, more than half of the urban population had water supply systems. As would be expected, the percentages of the rural population having water supply systems were very low. Despite the obvious limitations of these data, they do point out the phases of water supply programs in which international help can be of greatest importance, and they serve to stimulate individual countries to raise standards to constantly higher levels.

Table 5. Percentage of population served [1] by water supply systems in urban and rural areas in 13 American countries, 1953

Country	Total	Urban	Rural
Argentina	43	67	2
Bolivia	-------	57	-------
Canada	64	-------	-------
Chile	-------	72	-------
Colombia	23	62	1
Dominican Republic	28	88	10
El Salvador	-------	85	-------
Mexico	41	-------	-------
Nicaragua	9	27	0
Panama	52	75	37
Peru	30	60	10
United States	59	89	[2] 23
Venezuela	-------	88	-------

[1] Percentages of population calculated using total population living in area.
[2] Communities of less than 5,000 population with water supply systems.

Although some information was provided regarding the organization of health services and personnel employed, summarization of the material for presentation here is difficult. In general, it can be said that the data indicated a shortage of trained personnel, an absence of full-time health departments, and the necessity for data to evaluate resources as well as needs for health services.

Summary

Selected data from reports of the American countries, which were prepared for the XIV Pan American Sanitary Conference, have been presented to illustrate existing knowledge regarding health conditions and health services. Shortcomings of the data are great, but the very act of providing the data that are available has been a powerful impetus to improved reporting as well as to improved health programs.

In most of the American countries, there is a need for emphasis on communicable disease control and eradication and on programs for the predominantly young population. National initiative, along with the coordinated efforts of international collaboration, can solve these problems, as it has others. Through full utilization of the basic data on health conditions that appear in the Summary of Reports of the Member States, 1950–53, the countries of the Western Hemisphere, working together, will now go forward in eradicating communicable diseases, developing environmental health programs, providing maternal and child health services, improving case reporting and vital statistics systems and basic data in other programs, and in the overall strengthening of health services.