

Epidemiological Bulletin

PAN AMERICAN HEALTH ORGANIZATION

Vol. 19, No. 3

September, 1998

Health in the Americas 1998

Introduction

The Pan American Health Organization, Regional Office of the World Health Organization for the Americas, has been disseminating information on the health situation and its trends in the Region of the Americas since 1956, the year in which an assessment of the health situation in the Americas was first published under the title *Summary of Reports on Health Conditions in the Americas*. In 1966 the name of the report was changed to *Health Conditions in the Americas*, and it continued to be published under that title every four years. The 1998 edition, entitled *Health in the Americas*, is the twelfth publication in this series of quadrennial reports and lends continuity to the process.

The Organization also produces and distributes other complementary publications containing data and information on the health situation in the countries of the Region, namely: *Basic Indicators*, *Health Statistics from the Americas*, the *Epidemiological Bulletin*, surveillance reports, evaluations of progress toward Health for All by the year 2000, and technical documents.

Health in the Americas, 1998 Edition deals mainly with the period between 1993 and 1996 and continues to be published in two volumes. Volume I presents an overview of the health situation and the most relevant

topics and problems in the Region of the Americas from PAHO's perspective, while Volume II summarizes the health conditions in each country. Volume I, moreover, examines the trends in the health situation and their relation to living conditions, the principal problems that affect special population groups, and the manifestation and distribution of diseases and other health impairments. It also looks at the response of the health services systems, with special attention to health sector reform and activities in the areas of health promotion and environmental protection. The final chapter of this volume reviews the characteristics and trends in regional financial assistance and new modalities of technical cooperation among countries. Volume II contains current information on the health situation and trends in each member country and territory of the Organization.

Population Trends

With the century drawing to a close, the majority of nations in the Americas are experiencing a series of dramatic political, economic, and demographic changes. Nearly every country has gone from a closed, State-run economy to an open economy that must now compete with the rest of the world. And nearly every country will have

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to make adjustments to accommodate a population that is growing larger with each passing year. The population of the Americas is estimated at 800 million, representing nearly 14% of the world's population. About one-third of that population resides in the United States, while another third can be found in two other countries: Mexico and Brazil. The remaining third is scattered among the 45 countries and territories in the Region.

The number of births recorded in most subregions has not diminished and in some has actually increased. The current birth rate is about 19.2 live births per 1,000 persons. Canada has the lowest birth rate, at 11.9 per 1,000; Guatemala has the highest, with 36.1. The United Nations predicts that more than 15 million babies will be born in the Americas in 1998 but expects that number to remain stable through the year 2003.

Because of their large populations, the United States, Brazil, and Mexico lead the Region in the number of deaths. Deaths in North America, including the United States, Canada, and Bermuda, constitute 45% of all deaths in the Hemisphere. This subregion also leads in mortality, with a rate of 8.7 deaths per 1,000 population in 1998. Costa Rica has the lowest mortality rate, with 3.8 deaths per 1,000 population.

Tracking demographic changes through trends in birth and death rates do not provide a true picture of population growth. International migration is difficult to analyze because the official figures do not include illegal immigration, nor are official figures available for the number of people who return to their native countries. The Americas are no different. Historically speaking, four countries—Argentina, Canada, the United States, and Venezuela—have received more immigrants than any of the other countries in the Americas.

Another form of migration that has had a major impact on the Americas is the flow of rural dwellers to urban areas. Cities throughout the Hemisphere continue to attract throngs of people from the countryside. The rural population in North America, the Southern Cone, the Caribbean, and Brazil is shrinking, while that of countries in the Andean region has remained about the same. Moreover, the countries of the Latin Caribbean—the Dominican Republic, Cuba, Haiti, and Puerto Rico—and

Mexico are hardly growing. The only exception is Central America, where rural areas are experiencing significant levels of population growth.

Migration from rural to urban areas only partly explains the rapid growth of Latin America's cities, however. Urban growth began to take off around the middle of the century, increasing faster than in other cities around the world. Some cities grew as much as 60% in a single decade. The subregion with the most urbanized population is the Southern Cone—Argentina, Chile, Paraguay, and Uruguay. Some 85% of this subregion's residents live in cities, making this the highest concentration in all of the Americas.

The indigenous groups of the Americas represent a significant segment of the population. An estimated 42 million indigenous people live in more than 400 towns and villages throughout the Region. These groups are found primarily in Mexico (12 million); Guatemala (5.3 million); Peru (9.3 million); Bolivia (4.9 million), and Ecuador (4.1 million). The remainder of the indigenous population is scattered throughout the Region. More than one out of four indigenous people in Latin America, however, live in rural areas far from the bustling cities.

The Health Situation

The health situation in the Americas has steadily improved in the past decade, reflecting numerous social, environmental, cultural, and technological factors, as well as the greater availability of health services and public health programs. However, this improvement has not been the same for all countries or groups within a single country in terms of its characteristics and speed.

The Americas, particularly Latin America and the Caribbean, are undergoing the demographic and epidemiological changes characteristic of all societies in transition. Between the first half of the last decade and the mid-1990s, life expectancy at birth in the Region rose from 68.7 to 71.1 years. In Latin America that figure was 70 years in 1995 and, in the Caribbean, 74.3 years; in all subregions of the Hemisphere women have a greater life expectancy than men.

Between 1980 and 1994, despite an increase in the population and in the total number of deaths, there was a

significant decrease in the number of years of potential life lost throughout the Region—that is, a reduction in the number of premature deaths (deaths before the age of 75, about the average life expectancy in the Region of the Americas). While part of this change can be attributed to the aging of the population, the principal cause was the decline in mortality, chiefly from communicable diseases, in the first years of life. However, the intensity and speed of this decline was not the same in all countries; inequities persisted and, in some cases, grew. Noncommunicable diseases account for some two-thirds of mortality in Latin America and the Caribbean.

Infant mortality rates have fallen to 27 per 1,000 live births for the Region as a whole and to 35 per 1,000 live births for Latin America and the Caribbean. To put this figure in perspective, keep in mind that in the early 1950s, the infant mortality rate in Latin America and the Caribbean was approximately 125 deaths per 1,000 live births, and by the early 1980s, it had fallen to 59 deaths per 1,000 live births. The infant mortality rate in North America (Canada and the United States) dropped from 29 deaths per 1,000 live births in the 1950s to 8 deaths per 1,000 live births in the 1990s. Bolivia and Haiti reduced their infant mortality rates by more than half from the 1950s to the 1990s.

Poliomyelitis has been eliminated, measles is under control, and progress has been made in interrupting the transmission of Chagas' disease.

About half of all the 1.6 million cases of AIDS reported worldwide since the start of the epidemic are found in the Americas. Since 1986, 472,562 people have died from complications of AIDS. As of December, 1997, statistics show that 808,540 people are living with AIDS, which represents 47.5% of all reported cases worldwide. PAHO officials believe that the actual figure may be twice the reported number. A common factor of the HIV epidemic in the Americas is the shift from transmission predominantly between homosexual men to transmission predominantly from heterosexual contact, especially in the Caribbean and Central America. Statistics show that the highest number of AIDS cases is found in men between the ages of 30 and 34, followed by younger men in the 25 to 29 age group. The highest number of AIDS cases among

women occur in individuals between the ages of 25 and 29, followed by the 30 to 34 age group.

Another trend is the prevalence of babies born HIV-positive. By the end of 1996, statistics revealed that 6,911 children under the age of 14 had been diagnosed with HIV, including 5,095 perinatal cases.

Cholera returned to the Americas in 1991 after an absence of almost a century, and 21 countries in the Region have reported some 1.2 million cases since the onset of the epidemic. However, the 18,000 cases reported in 1997 represent about 5% of the number reported in 1991. Dengue, dengue hemorrhagic fever, and other vector-borne diseases are still epidemic in many countries in the Americas. The emergence of new pathogens and diseases, the re-emergence of problems such as tuberculosis and antimicrobial resistance are evidence of the need to maintain and improve the surveillance systems for acute diseases and other health problems in the Region.

In 1996, 253,867 cases of tuberculosis were reported to PAHO by 32 countries and 6 territories in the Region, bringing the rate to more than 32 cases per 100,000 persons. Higher rates of tuberculosis were reported in Bolivia and Peru, where 100 cases per 100,000 persons were reported.

Of concern to the national health authorities is the public health impact of social problems such as violence, including family violence, and accidents. The external causes of death vary widely throughout the Region. Statistics from the period 1984-1994 indicate some positive trends. A number of countries—Suriname, El Salvador, the Bahamas, Nicaragua, Mexico, Trinidad and Tobago, and Barbados—have significantly reduced the number of accidental and violent deaths. The reduction in El Salvador and Nicaragua can be attributed to the end of their respective civil wars by the 1990s.

Similarly, growing morbidity associated with mental health problems and the morbidity and mortality linked to smoking and alcoholism are creating the need to strengthen prevention programs that target these problems in virtually all the countries of the Region. A reduction in low weight-for-age and low weight-for-height has been observed, especially among young children. Nevertheless, low height-for-age of nutritional origin, reflecting periods of inadequate nutrition, is very high, reaching levels of

nearly 50% among preschool and school children in some countries. Obesity, defined as excess weight-for-height, is growing rapidly in the Region, chiefly among the lower-income groups in urban areas and predominantly among women. Often regarded as a problem of nutritional "excess," obesity may coexist with deficiencies of specific micronutrients such as iron, folic acid, and zinc, making prevention and cure a more complex undertaking.

Although iodine and vitamin A deficiencies are gradually being reduced in the countries, iron deficiency is the most prevalent nutritional problem, especially among preschool children and women of childbearing age.

The population in Latin America and the Caribbean that receives drinking water through household connections or other easily accessible means is estimated at 78%. Approximately 70% of this population receive treated water, which represents tremendous progress over the 20% figure of 10 years ago. Currently, access to drinking water varies from country to country. In Costa Rica, for example, every household has access to water. Not so in Haiti and Paraguay, where only four out of 10 households do. A similar situation prevails in the Bahamas, Costa Rica, and Trinidad and Tobago, where access to sewerage and sanitation services is available to nearly every household. Again, the situation is quite different for Haiti and Paraguay, where less than one out of three households has such access.

The deficit with respect to the sanitary disposal of wastewater and excreta is even greater; coverage is available for only 69% of the population, and even then, only 10% of the wastewater collected receive any type of treatment prior to its final disposal. Other significant environmental problems that affect the majority of the countries of the Region are food contamination, improper solid waste disposal, poor housing, and occupational accidents and diseases.

Many natural disasters have occurred in the Region over the past five years, including events associated with El Niño, which have inflicted enormous personal and material damage.

The Response of the Health Systems

In the majority of the countries of the Region, processes to modernize the State and implement health

sector reform are currently under way. The resulting activities have had diverse impacts on the political, economic, and social dynamic of the countries involved and especially on their health services systems.

The Americas are experiencing changes in structures and sectoral operations, such as decentralization, legal and administrative institutional autonomy, new forms of financing, emphasis on cost control and cost recovery, and the creation of basic packages of health services. These changes are generating the need to identify, analyze, and reduce inequities in terms of access to services, their utilization, and their effective impact on health.

Empirical studies have clearly established that the poorest population groups suffer from the worst health. Furthermore, there is some evidence that health conditions are better in States where income levels are more equitable. Nearly every government in the Region of the Americas has placed equity at the center of its priorities in health policy.

In modernizing the State, the ministries of health are reducing their role as direct service providers while emphasizing their functions in public policy-making (the steering role) and the management, coordination, articulation, and regulation of public and private health resources. The countries of the Region have expressed growing interest in exploring new financing models for health systems profoundly affected by the current reform processes. Again, there is no single model. However, more and more the countries are recognizing that the public sector should assume responsibility for public goods with a high externality content (that is, actions or activities whose impact extends far beyond the immediate site of their application; for example, vaccination) and for ensuring the availability of a basic package of services for all. Practically every country in the Americas has a public/private mix of health services for individuals, with the private sector responding to the dictates of the market.

In 1995, national health expenditure as a percentage of the gross domestic product (GDP) in the countries of the Region ranged from 14.3% to 3.5%. These differences are even more evident when the data on national per capita health expenditure are expressed in 1995 dollars, yielding figures ranging from US\$ 3,858 to US\$ 9.

Typically, the public sector expenditure in a Latin American country is approximately 25% of GDP, while in an industrialized country the figure is over 40%. The most marked difference is found in social security expenditure; in the industrialized countries this figure is 15%, while the average for Latin America is 2.5%. Public expenditure for social security and education in the countries of the Region grew the most between 1990 and 1995. The average growth of per capita public expenditure in the countries during the first half of the 1990s was 24.4% for education and almost 50% for social security. Greater education and health expenditure signified a per capita increase in human capital expenditure in 9 out of 13 countries.

Social investment funds were established in the countries of the Region as mechanisms to cushion the social impact of stabilization and adjustment policies. Initially conceived as short-term emergency instruments, their activities in several countries were extended to cover the medium and long term. Social investment funds were channeled to social programs and projects to support decentralization, social participation, the integration of nongovernmental organizations in project activities, and coordination of the public and private sectors.

Another general component of health sector reform is the strengthening of the State's role in regulating or directing the process. Although the State does not provide services, it is responsible for regulating their delivery and for performing certain essential public health functions such as policy-making in health and assessing the health situation and trends.

Current thinking in the organization of health services systems emphasizes the influence of the market economies, self-management, institutional pluralism in the financing and delivery of services, and achieving results, economic efficiency, cost control, and cost recovery. In these highly competitive scenarios the objectives of accessibility, equity, and quality care that still prevail in the countries of the Region must be met. Recognition of private sector activity as an important component of the health services system implies an acceptance of the multinstitutional nature of the services system, where function becomes more important than structural and hierarchical considerations

in the development of modern health services networks. New forms of contracting, payment models and remuneration, and shared arrangements for diagnostic, therapeutic, and logistical support services are becoming extremely important elements of this functional relationship.

Health sector reforms are geared toward redefining the role of the central, regional, and local governments in managing health systems, and guaranteeing equitable access by all the population to the services. Decentralization strategies have therefore been designed and implemented, with the consequent transfer of power and resources to the local levels that are in direct contact with the institutions responsible for providing health care. Health sector reform also seeks to strengthen the leadership and authority of the ministries of health to regulate the new models of social participation in the financing and delivery of services.

Another component of the reform process has been the structuring of benefits, creating basic packages of services based on the prevailing epidemiological profiles, the availability of resources, and the policy options of each country. The goal of this strategy is universal access to the services, especially by the most vulnerable population groups.

In service delivery, the reform processes seek to increase the number and variety of public and private suppliers, with the purpose of increasing competition by permitting a choice of financiers and users. Health sector reform also involves the restructuring of public hospitals, turning them into independent service enterprises authorized to engage in cost recovery. Thus, new incentives are being introduced in order to promote and assess productivity together with institutional and staff performance, guarantee the quality of care, and control costs.

The application of new technologies has been one of the most influential factors in the organization and operation of health systems and the quality and cost of the services that they provide.

The Region has given priority to transforming the health care models, emphasizing integrated activities in health promotion, disease prevention, cure, and rehabilitation; coordination of health care programs; intersectoral approaches; and effective social participation.

Health promotion and disease prevention and control are fundamental for a steady improvement in the health of the populations. This implies interventions to improve the standard of living of marginalized populations and to eliminate unnecessary, avoidable, and unjust inequalities in individual and collective health and well-being.

As with the earlier editions of this report, it is hoped that *Health in the Americas* will fulfill its goal of keeping the member countries informed about health trends in the Region, serving as a reference on aspects of health for national and international agencies and institutions, investigators, and health workers alike.

The potential of modern technology to foster universal access and information dissemination, with the consequent democratization of knowledge, represents a unique opportunity to improve and revitalize collaboration among countries and with the Organization to achieve health with equity and sustainable human development for the peoples of the Americas.

Source: Executive Summary of *Health in the Americas 1998*. PAHO Scientific Publication No. 569. Health and Human Development Division, Health Situation Analysis Program (HDP/HDD).

Health Situation in the Americas: Basic Indicators 1998

For the fourth consecutive year, a cooperative effort has produced the brochure *Basic Indicators 1998*, as part of the PAHO Core Data Initiative, which aims to increase the capability of Member Countries to collect and analyze health information that, while showing who benefits and where the gains in health are to be found, highlights inequity and disparities in health, and identifies the results of interventions aimed at their reduction.

The 1998 version contains quantitative information of a set of indicators that is divided into two sections. The first section is descriptive, and contains 58 indicators grouped into five categories, namely: demographic, socioeconomic, mortality,

morbidity, and health resources, access, and coverage. The second section is analytical, and shows secular trends for 38 of the indicators, aggregated at the subregional level.

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International Classification of Diseases

WHO COLLABORATING CENTERS

In the mid-19th century interest in developing a classification of diseases that would permit international comparisons began to grow. There were several unfortunate attempts, but international cooperation was maintained, especially through the International Congress of Statistics and, subsequently, the National Institute of Statistics. Finally, building on the “Bertillon Classification”, or “International List of Causes of Death”, an instrument for widespread use became available that made international comparisons possible.

The successive revisions of the International List of Causes of Death always involved experts from many countries, and the dissemination of the revisions became ever-more widespread. On launching the “Bertillon Mortality List - Second Revision” (ICD-2), Jacques Bertillon himself, as described by R. Wells in the Conference on Health Statistics for the Year 2000, held in Hungary in 1984, remarked that “all the English- and Spanish-speaking countries in the world were now in accord about the adoption of the International List. The entire Western Hemisphere, that is, North, Central, and South America; Australia and New Zealand; China, Japan, and British India in Asia; Egypt, Algeria, and South Africa in Africa; and many European countries were currently or soon would be among those calling for a uniform international standard.”

The Second World Health Assembly, held in 1949, stipulated as WHO policy that the Organization should not consider “the establishment, under its own auspices, of international research institutions”, since “research in the field of health is best advanced by assisting, coordinating, and making use of the activities of existing institutions” (Resolutions WHA2.19 and WHA2.32, of 1949). This policy is being implemented through the designation of Collaborating Centers in the different fields of health research. A Collaborating Center is by definition part of an interinstitutional cooperation network established

by WHO in support of its programming and activities at the national, international, regional, interregional, and global level, as needed.

During the five decades of WHO’s existence up to January 1998, a total of 1,256 Collaborating Centers have been designated in nearly every country in the world in the most diverse fields of health-related research, one of which is the classification of diseases.

Beginning with the ICD-6, whose use began in 1950, WHO assumed leadership and coordination of the preparation and publication of the successive revisions of the ICD.

In keeping with the policy of establishing an interinstitutional cooperation network in this specific field, the first two WHO Collaborating Centers in the classification of diseases participated in the preparation of the ICD-7 (1958) are the Collaborating Center of England (London) and the Latin American Center for the Classification of Diseases (Centro Latino Americano para la Clasificación de Enfermedades -CLACE) in Caracas. The London Center was designated in 1951. The Latin American Center, which came to be called Venezuelan Center for the Classification of Diseases (CEVECE), acts as the Collaborating Center for the classification of diseases in Spanish.

By 1994 eight more Collaborating Centers had been designated, bringing the total to 10. In addition to the two mentioned above, there are Collaborating Centers in: Paris, France (1967), Moscow, Russia (1967), in North America, the United States (1976), São Paulo, Brazil (1976), Beijing, China (1981), in the Nordic countries, Sweden (1987), Australia (1991), and Kuwait (1994). There are also centers or national groups working on the ICD in several countries, for example, the Mexican Center for the Classification of Diseases and the National Commission for the Classification of Diseases of Argentina, in the Region of the Americas.

The main activities of the Collaborating Centers in the classification of diseases include:

- Preparing the successive revisions of the ICD and other related classifications with groups of experts in specific areas, under the coordination of WHO;
- Promoting the use of ICD in mortality, morbidity, and hospital registries;
- Promoting the use of other related classifications;
- Preparing the versions in the corresponding languages (Spanish, Portuguese, Russian, Chinese, Swedish, Danish, Norwegian, Finnish, Icelandic, and Arabic), supporting the preparation of the version in other languages. It should be noted that English and French are considered the *original* languages of the ICD;
- Acting as reference centers for the respective language and/or for the region corresponding to its geographical location;
- Contributing to the development of health information systems, especially those using the family of classifications;
- Conducting and supporting studies and research in epidemiology and health statistics, especially those related to the use of the ICD and related classifications;
- Collaborating with WHO, its regional organizations, and with the countries in the implementation of the new revisions of the ICD and related classifications, through the preparation of teaching materials and training courses for coders.

In the Americas, PAHO, through the HDP/HDA Program, works in close cooperation with the Collaborating Centers and with centers and national groups in the Region, not only in training coders, but also in a broader fashion, in improving vital statistics and the capacity for data analysis.

Two initiatives undertaken by the Collaborating Centers in recent years should be emphasized. The goal of the first, led by the Collaborating Center of North America, is to promote international cooperation in automating coding of the underlying cause of death; to date, progress in this area has been significant. The second, coordinated by the Center of the Nordic Countries, involves a

worldwide consultative group called “mortality forum” through E-mail on the problems of coding.

The Collaborating Centers generally hold an annual joint meeting with representatives from WHO and some special guests, where progress on the ICD and related classifications, activities in the last period, the work plan for the short, medium, and long term are discussed, as well as the recommendations in this regard.

At the Meeting of Center Directors held in 1997 in Denmark, the WHO Division of Health Situation Analysis (HST), which is responsible for ICD-related activities, submitted a proposal for a long-term plan for the development and administration of health classifications. The plan, which covers the strategy and the priority action to be taken between 1997 and 2010 (several of which are already in progress), merits the general approval of the Collaborating Centers. However, some points will require a *referendum* by the World Health Assembly, inasmuch as it alters some of the Assembly’s resolutions.

This is the case for postponing the preparation and implementation of the ICD-11. According to the resolution adopted by the World Health Assembly in 1990, the ICD-11 must be prepared by 1999 and go into effect in 2003. A policy that is far from reasonable, since several countries will only begin using the ICD-10 in the year 2000, the proposal is to evaluate the use of the ICD-10 for some years, introducing a system of up-to-date reprintings (for example, ICD-10 Edition 1999, ICD-10 Edition 2001), until the need for preparing the ICD-11 is clear.

Other important points included in the aforementioned plan are:

- Revision of the ICD-O-2 and preparation of the ICD-O-3;
- Development of the International Classification of External Causes of Injury;
- Support for the preparation of existing related classifications in different languages;
- Preparation of teaching materials on how to fill out death certificates and how to use ICD coding;
- Development of a taxonomy for the classification of procedures and guidelines for the preparation of national classifications of procedures.

- Support for and participation in the meetings of the Directors of the Collaborating Centers and other meetings on the family of classifications;
- Maintaining up-to-date information on the Internet regarding the classifications;
- Support for developing tools for using the ICD, such as automatic selection of the underlying cause of death, conversion tables, methods for analyzing multiple causes, etc.

During the annual Meeting of Directors of the Collaborating Centers held in Paris - 13 to 19 October, were reviewed and approved all the priorities of the plan. For 1999 the meeting most likely will be held on Wales, England and for the year 2000 it has been proposed Sao Paulo, Brazil.

Source: PAHO, Division of Health and Human Development, Health Situation Analysis Program (HDP/HDA)

Health in the Americas: 1998 Edition



Health in the Americas, formerly Health Conditions in the Americas, is the authoritative encyclopedia of health indicators and trends in the Region. Published every four years by the Pan American Health

Organization (PAHO), this two-volume reference offers an exhaustive analysis of the health situation in the entire Region of the Americas.

Volume I explores the Region's health situation in five chapters. This regional analysis examines public health trends, the health status of various population groups, major diseases and health problems, the health sector's response to these conditions, and the status of external technical and financial cooperation destined to health. Volume II presents the most current data on

the Region's 45 countries and territories, from the perspective of each country's socioeconomic and demographic context, and sketches their health prospects for the immediate future.

This latest edition of "Health in the Americas," as did its predecessors, fulfills PAHO's mandate to inform its Member Governments about health conditions and trends in the Region. This compendium is also a practical tool for a broad range of professionals and students—from epidemiologists to social researchers and government workers to journalists. A must-have reference for medical and public health libraries everywhere, "Health in the Americas" should meet the needs of everyone interested in obtaining the most complete and accurate data on health in the Americas.

1998, ISBN: 92 75 11569 9

Order code: SP 569

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Washington, DC. 20037

Internet <http://publications.paho.org/paho/english/features.icl?>

Basic Indicators 1998: Selected basic indicators by subregions: Population; health resources, access and coverage

subregional aggregates		Latin America & The Caribbean										
basic indicators	reference year	The Americas	North America	Latin America & The Caribbean	Latin America	Mexico	Central American Isthmus	Latin Caribbean	Brazil	Andean Area	Southern Cone	Non-Latin Caribbean
		total population	1980	614,355	255,053	359,302	352,926	67,570	22,203	23,956	121,672	72,257	45,268	6,376
(thousands)	2000	823,255	308,569	514,686	506,814	98,881	36,616	31,390	169,202	109,711	61,014	7,872
annual population growth rate (%)	1980-85	1.6	1.0	2.1	2.1	2.2	2.4	1.4	2.1	2.3	1.6	1.4
	1995-00	1.3	0.8	1.5	1.5	1.6	2.5	1.2	1.2	1.8	1.4	1.0
urban population (%)	1980	68.6	73.9	64.9	65.1	66.3	41.7	53.8	66.2	64.1	79.8	49.0
	2000	76.0	77.2	75.3	75.6	74.4	48.3	63.4	81.3	75.0	85.3	58.9
crude birth rate (1,000 pop)	1980-85	24.0	15.6	30.0	30.0	31.9	38.3	25.1	29.5	32.1	23.9	25.9
	1995-00	19.4	13.6	22.9	22.9	24.6	31.6	21.7	19.6	25.1	20.7	20.1
annual births average (thousands)	1980-85	15,423	4,067	11,356	11,185	2,282	905	623	3,790	2,460	1,125	171
	1995-00	15,416	4,113	11,303	11,149	2,338	1,089	662	3,210	2,628	1,222	154
crude death rate (1,000 pop)	1980-85	8.1	8.5	7.8	7.8	6.4	9.1	8.4	8.3	7.6	8.0	7.0
	1995-00	7.2	8.6	6.4	6.4	5.1	5.8	8.0	7.1	5.9	7.3	6.4
annual deaths average (thousands)	1980-85	5,168	2,212	2,956	2,910	457	216	208	1,072	579	378	46
	1995-00	5,791	2,597	3,194	3,145	481	199	244	1,173	619	429	49
total fertility rate (children by woman)	1980-85	3.0	1.8	3.8	3.8	4.2	5.2	3.1	3.6	4.1	3.1	3.2
	1995-00	2.4	1.9	2.7	2.7	2.8	3.9	2.7	2.2	3.0	2.7	2.3
infant mortality rate (per 1,000 live births)	1980-85	36.9	11.0	55.3	55.7	47.0	65.0	64.0	64.0	59.0	32.0	32.0
	1995-00	24.8	7.0	35.5	35.7	31.0	36.0	45.0	42.0	35.0	22.0	22.0
life expectancy at birth (years)	1980-85	69.2	74.7	65.4	65.3	67.7	61.3	65.5	63.3	64.5	70.1	69.3
	1995-00	72.4	76.9	69.8	69.7	72.5	69.7	68.3	67.1	69.7	73.3	72.6
literate population (%)	1980	88	99	80	80	83	62	75	76	83	93	93
	1997	92	99	87	87	90	75	79	84	90	96	91
population with access to services of drinking water (%)	1980	76	97	60	60	62	50	58	62	59	63	51
	1997	80	91	73	73	85	67	70	69	75	69	86
population with access to services of sewerage (%)	1980	65	94	43	43	55	40	49	22	46	78	35
	1997	76	86	70	70	73	70	70	67	67	76	94
national health expenditure as a % of GDP	1984	6.8	10.5	4.2	4.2	3.8	9.5	1.3	3.5	4.0	6.0	3.1
	1995	9.5	13.9	6.8	6.9	4.8	6.7	6.3	7.6	6.6	8.9	5.4
physicians per 10,000 pop	1980	13.1	18.9	9.1	9.2	10.2	4.1	9.2	7.2	7.1	18.8	4.7
	1997	19.6	27.4	14.8	14.9	15.6	8.8	24.7	12.7	13.0	21.5	10.8
nursing professionals per 10,000 pop	1980	23.1	49.8	4.2	4.0	5.8	3.6	9.6	1.9	3.2	5.1	17.3
	1997	41.2	96.5	7.6	7.4	10.8	4.4	30.7	4.1	4.4	6.3	21.8
dentists per 10,000 pop	1980	2.6	5.5	3.3	3.4	3.6	1.1	1.9	4.6	2.8	2.7	0.8
	1997	5.3	6.0	4.9	5.0	1.0	2.6	3.6	8.5	3.8	5.8	1.3
hospital beds per 1,000 pop	1980	4.2	6.2	2.8	2.8	0.8	1.9	3.6	3.7	2.0	4.6	3.0
	1995	3.6	5.3	2.5	2.5	1.2	1.2	3.0	3.5	1.5	3.9	3.1
OPT 3 immunization coverage in under 1 year old (%)	1980	45	67	38	38	44	41	33	40	24	50	28
	1997	87	94	83	83	93	89	75	79	80	86	89
OPV 3 immunization coverage in under 1 year old (%)	1980	71	61	74	74	91	41	47	99	33	80	36
	1997	87	84	88	88	94	90	74	89	84	91	89
BCG immunization coverage in under 1 year old (%)	1980	54	0	54	54	48	43	47	56	56	65	42
	1997	97	0	97	97	99	95	79	99	97	96	97
Measles immunization coverage in under 1 year old (%)	1980	48	68	41	41	35	33	25	56	25	55	31
	1997	90	90	90	90	84	87	74	99	85	92	88

Source: PAHO, Health Situation in the Americas. Basic Indicators 1998. HDP/HDA Division of Health and Human Development, Health Situation Analysis Program, PAHO/HDP/HDA/98.01. 1998.

Basic Indicators 1998: Selected basic indicators by subregions: Mortality & Morbidity

subregional aggregates (reference year)			Latin America & The Caribbean										
			The Americas	North America	Latin America & The Caribbean	Latin America	Mexico	Central American Isthmus	Latin Caribbean	Brazil	Andean Area	Southern Cone	Non-Latin Caribbean
age-adjusted, specific,	all causes; male	1980-85	941	783	1,058	1,065	1,006	1,273	794	1,253	1,036	948	432
		1990-95	845	692	939	940	818	963	955	1,050	912	856	819
estimated, mortality rates (per 100,000 pop)	all causes; female	1980-85	655	498	771	776	730	950	613	904	808	612	321
		1990-95	596	475	670	670	596	732	767	697	703	569	666
	communicable diseases; male	1980-85	112	29	181	182	179	325	89	181	274	73	77
		1990-95	67	31	94	94	93	104	56	110	85	66	57
	communicable diseases; female	1980-85	89	20	146	146	146	291	72	139	232	52	54
		1990-95	51	25	70	70	75	85	42	77	70	47	46
	malignant neoplasms; male	1980-85	150	176	130	130	79	86	121	155	117	174	113
		1990-95	142	169	122	123	82	82	128	143	111	159	109
	malignant neoplasms; female	1980-85	113	119	108	108	87	101	93	117	115	118	99
		1990-95	109	120	101	101	79	95	89	106	112	111	98
	circulatory system; male	1980-85	349	352	347	347	205	214	286	473	256	383	388
		1990-95	284	260	301	301	178	209	255	388	275	326	306
	circulatory system; female	1980-85	260	234	282	281	189	191	244	380	218	264	313
		1990-95	220	193	240	240	160	197	206	299	240	225	280
	external causes; male	1980-85	119	87	145	145	187	260	90	137	124	95	94
		1990-95	110	74	136	136	131	160	99	142	168	88	78
	external causes; female	1980-85	34	30	37	37	41	45	36	36	34	30	29
		1990-95	30	26	33	33	30	38	44	32	39	28	27
under 5 registered deaths (%)	due to acute diarrheal diseases	1980-85	16.5	1.9	21.6	21.6	25.5	26.7	19.2	20.7	24.0	8.7	15.7
		1990-95	5.3	0.6	8.2	8.2	7.6	15.1	7.3	6.9	12.1	2.7	13.5
	due to acute respiratory infections	1980-85	13.1	3.3	16.5	16.6	21.6	14.2	14.2	15.0	17.8	12.4	10.8
		1990-95	7.5	2.4	10.7	10.7	14.5	11.6	7.3	8.0	13.3	8.4	7.5
number of registered deaths	from homicide	1980-85	77,998	20,502	57,496	57,344	13,323	10,894	1,042	17,390	12,940	1,755	152
		1990-95	118,711	23,041	95,670	95,292	14,508	3,567	2,590	38,894	33,048	2,685	378
	from suicide	1980-85	46,061	31,735	14,326	14,145	1,193	789	2,137	4,585	2,174	3,267	181
		1990-95	55,720	35,254	20,466	20,015	3,020	1,137	2,680	6,743	2,762	3,673	451
	from motor vehicle injuries	1980-85	107,121	47,401	59,720	59,174	15,938	2,596	2,507	20,061	12,880	5,192	546
		1990-95	127,459	45,406	82,053	81,634	14,206	2,659	3,951	35,545	18,993	6,280	419
ill-defined causes of death (%)		1980-85	8.0	1.5	12.8	12.8	5.4	19.1	8.1	20.6	10.1	6.3	8.4
		1990-95	6.6	1.2	10.1	10.2	1.7	32.9	5.7	15.1	6.0	4.0	7.2
average annual incidence from selected diseases	measles	1980	251,257	26,875	224,382	219,716	29,730	15,680	14,422	95,154	43,466	21,264	4,666
		1997	51,910	708	51,202	51,084	28	41	1	50,460	171	383	118
under surveillance (number of notified cases)	cholera	1992	358,169	102	358,067	357,483	8,162	30,028	0	37,572	281,095	626	584
		1997	17,690	4	17,686	17,686	2,356	2,640	0	2,927	9,122	641	0
	tuberculosis	1980	227,137	30,507	196,630	195,748	11,528	11,870	12,042	72,608	59,003	28,697	882
		1995	255,582	23,321	232,262	231,437	17,159	13,376	14,669	89,233	76,440	20,558	825
	malaria	1980	537,948	2,675	535,273	526,777	25,734	225,558	13,043	176,237	85,724	481	8,496
		1997	1,057,337	1,265	1,056,072	1,007,903	5,046	152,981	850	392,976	454,881	1,169	48,169
AIDS	until 1991 in 1995	1991	333,813	267,498	66,315	62,532	9,057	3,362	6,061	34,478	6,868	2,706	3,783
		1995	99,489	67,790	31,699	29,892	4,310	2,123	599	17,666	3,033	2,161	1,807

Source: PAHO, Health Situation in the Americas. Basic Indicators 1998. HDP/HDA Division of Health and Human Development, Health Situation Analysis Program, PAHO/HDP/HDA/98.01. 1998.

Blood Bank Situation in Latin America, 1996: Serological Markers for Communicable Diseases in Blood Donors

The selection of donors is an essential element in preventing the transmission of diseases through blood transfusion. This selection, promoting nonremunerated donation, is usually accomplished by eliminating donors whose epidemiological histories indicate previous potential contact with the vectors of *Trypanosoma cruzi* or behavior placing them at risk of contracting the viral diseases transmitted by transfusion and/or sexual contact. The selection is complemented with serological screening of donors and the discarding of units found to be positive.

Table 1 shows the situation with respect to the number of blood banks and the number and origin of donors in 14

countries in Central and South America, which sent data from 1996. From the information presented it is evident that most of the donors (from 69% to 100%) in the countries are replacement donors, usually family members and friends of surgical patients. However, Honduras, Bolivia, and Panama still have relatively high percentages of remunerated donors (9%, 24%, and 38%, respectively). The efficiency of the laboratories, measured by the fractionation index (number of units of blood cells, plasma, blood platelets, and cryoprecipitates obtained per unit of blood collected), ranged from 1.0 to 2.05 in the seven countries that included this information. Indexes of higher

Table 1. Number of Blood Banks and Donor Characteristics in Selected Countries of the Region of the Americas, 1996

Country	No. of blood banks	No. of donors	Fractionation index	Remunerated donors (%)	Replacement donors* (%)	Non-remunerated donors (%)
Argentina	551	745,698	...	...	...	...
Bolivia	60	22,146	...	24.0	69.0	7.0
Chile	162	218,291	...	-	97.4	2.6
Colombia	...	127,616	...	-	...	...
Costa Rica	27	44,754	2.05	...	...	...
Cuba	38	605,375	1.9(*)	-	5.6	94.4
Ecuador	35	104,452	1.34	-	83.0	17.0
El Salvador	59	55,069	2.05	-	71.0	29.0
Honduras	41	33,958	...	9.0	67.0	24.0
Nicaragua	20	43,887	1.39	-	64.5	35.5
Panama	22	41,888	...	38.0	59.0	3.0
Paraguay	35	37,596	1.0	0.05	98.0	1.95
Uruguay	87	116,127	1.67	-	100	-
Venezuela	243	266,828	1.62	-	100	-

... Data not available. (*) Usually family or friends. (**) includes components for industry, i.e. plasma and buffy coats.
-Magnitude zero.

than 1.0 in six of the countries indicate more appropriate use of the different fractions of blood for transfusions.

The percentage of blood donors screened for the different markers for communicable diseases (screening coverage) and the prevalence of the different markers, namely, acquired immunodeficiency syndrome virus (HIV), hepatitis B virus (HVB), hepatitis C virus (HVC), and *Treponema pallidum* and *Trypanosoma cruzi*, in serum are presented in Table 2. The screening coverage indicates great variability among different markers and countries. With regard to the viral markers for HIV and HVB, with the exception of Bolivia which screened 64% of the blood units, the countries screened over 96%, with eight of them screening 100%. For HVC, the coverage was generally

lower, less than 15% in two countries (Bolivia and Paraguay), between 65% and 93.3% in six of them, and 100% in only five. With respect to *T. pallidum*, coverage was less than 70% in two countries (Bolivia and Paraguay), between 95.6 and 98.9% in three, and 100% in eight. Screening for *T. cruzi* has been incorporated more recently in some countries but it has been less regular, which is reflected in the low coverage. In two countries (Costa Rica and Panama) the coverage was under 10%, in five it was between 55.6% and 97.9%, and in eight it was 100%. Comparing the coverage of the screening for the different markers in 1996 with what had been reported previously,^{1, 2} prevalence of less than 1%. With respect to *T. pallidum*, the prevalence of serological markers was higher than

Table 2. Percentage of Donors with Positive Serology, by Serological Marker and Prevalence of Markers for Communicable Diseases in Selected Countries of the Region of the Americas, 1996

Country	H I V			H V B ¹		H V C		<i>T. pallidum</i>		<i>T. cruzi</i>	
	Donors with positive serology (%)	Screening prev. (%)	Con-firmed prev. (%)	Donors with positive serology (%)	Screening prev. (%)	Donors with positive serology (%)	Screening prev. (%)	Donors with positive serology (%)	Screening prev. (%)	Donors with positive serology (%)	Screening prev. (%)
Argentina	96.0	0.30	...	96.4	0.60	93.3	0.70	96.6	0.50	100	3.70
Bolivia	64.3	0.03	...	60.0	1.50	0.0	...	63.6	1.33	65.8	13.70
Chile	100	0.07	0.02	100	0.10	100	0.60	100	0.50	59.8	1.00
Colombia	100	0.28	...	100	0.80	100	1.13	100	1.31	100	1.41
Costa Rica	100	0.14	0.0	100	0.5	100	0.29	100	0.45	7.6	1.39
Cuba	100	...	0.001	100	0.90	100	1.00	100	1.20	...	...
Ecuador	100	0.15	0.11	100 (96.5) ²	0.41 (3.45) ²	68.2	0.16	100	0.71	91.0	0.07
El Salvador	100	...	0.16	100	0.47	89.6	0.30	100	1.20	100	2.20
Honduras	97.3	0.68	...	98.0	0.53	72.2	0.44	95.7	0.62	94.9	1.67
Nicaragua	99.4	0.70	0.01	96.9	0.32	65.1	0.43	98.9	1.54	55.7	0.50
Panama	100	0.06	...	100	0.60	89.0	0.50	100	0.40	1.8	1.14
Paraguay	98.6	0.17	...	98.5	0.61	15.0	0.57	67.0	3.42	98.6	4.01
Uruguay	100	...	0.13	100	0.44	100	0.50	100	0.62	100	0.60
Venezuela	100	0.27	...	100 (100) ²	0.92 (4.53) ²	100	0.75	100	0.90	100	0.70

Prev: prevalence. ¹HVB surface antigen. ()²HVB nuclear antibodies. ... Data not available.

¹ PAN AMERICAN HEALTH ORGANIZATION. BLOOD BANK SITUATION IN THE REGION OF THE AMERICAS, 1996. *EPIDEMIOLOGICAL BULLETIN*; 18:11-12, 1997.

² SCHMUNIS GA, ZICKER F, PINHEIRO F, BRANDLING BENNETT D. RISK FOR TRANSFUSION-TRANSMITTED INFECTIOUS DISEASES IN CENTRAL AND SOUTH AMERICA. *EMERG INF Dis* 4:5-11, 1998.

1% in five countries (Bolivia, Colombia, El Salvador, Nicaragua, and Venezuela). Finally, markers for *T. cruzi* were detected with greater frequency than any other, with a prevalence of less than 1% in only four of the countries and higher than 3% in Argentina, Bolivia, and Paraguay.

Several countries reported participating in international programs to evaluate serological testing for diseases transmitted through transfusion in blood banks and in the implementation of national programs to evaluate serological testing in blood banks. Thus, in 1996, 11 countries participated in an international evaluation network, whose organizing laboratory was the Blood Center of São Paulo, São Paulo, Brazil. In addition, six countries (Chile, Colombia, El Salvador, Honduras, Paraguay, Nicaragua, and Uruguay) had national performance evaluation programs in operation for all the serological markers used in the screening for transfusion-transmitted diseases that year.

Source: Information obtained from: PAHO Report. *Iniciativa del Cono Sur. VI Reunión de la Comisión Intergubernamental para la Eliminación del Triatoma infestans y la Interrupción de la Transmisión de la Trypanosomiasis Americana por Transfusión.* OPS/HPC/HCT/98.102. Argentina and Bolivia; P. Brenner Friedman, Constanza Peña, and Dr. M. Monari, Colombia; Dr. J. Guevara Rojas, Costa Rica; Dr. M. Herdoiza Olguín, Ecuador; A. V. de Aguilar and A. T. de Pineda, El Salvador; Dr. E. Vinelli, Honduras; J. Reyes Hill and R. del Carmen Alvarez, Nicaragua; Dr. H. Espino and R. del Castillo, Panama; Dr. L. Funk, Paraguay; Dr. A. Miller, Uruguay; and Dr. M. Salazar, Venezuela.

Division of Disease Prevention and Control, Program on Communicable Diseases (HCP/HCT), Program on Acquired Immunodeficiency Syndrome and Sexually Transmitted Diseases (HCP/HCA), and Division of Health Systems and Services Development, Program on Essential Drugs and Technology (HSP/HSE).

Revision of the International Health Regulations

The International Health Regulations (IHR) are being revised in accordance with a resolution adopted by the World Health Assembly in 1995 (WHA48.7). The purpose of the revision is to develop International Health Regulations IHR, which will be applicable to the epidemiology of communicable diseases and to international traffic in the 21st century. It is proposed that all disease outbreaks of urgent international importance will be notifiable.

On the other hand, regularly occurring endemic diseases will not be notifiable unless an outbreak has special features and poses an international threat. Many of the other public health provisions in the current International Health Regulations (IHR) remain valid and will be retained, after any necessary modification.

Modification of plans for revision of the IHR

On the basis of discussions held with countries participating in the International Health Regulations (IHR) pilot study as well as comments received on the provisional draft text of the revised IHR, the following modifications in the revision process have been decided:

(i) *Timeframe.* The original target, which had been envisaged provisionally, was to complete work on the revision of the IHR in 1998 in order to submit the revised IHR to the Executive Board and World Health Assembly in 1999. It is now clear that a longer period is needed to evaluate fully the proposed approach to syndromic notification in selected countries and to hold further consultations on other technical and legal aspects of the

IHR. It has therefore been decided to set a new target for completion of the revised IHR in the period 1999-2000. The World Health Assembly was informed of this change in May 1998.

(ii) *IHR pilot study*. A pilot study to evaluate the proposed approach to syndromic notification has been arranged in 21 selected countries from all WHO regions.

It is proposed to continue this study at least until the end of 1998. A review meeting will be held with the participating countries after completion of the study, and a full evaluation will be carried out in the first half of 1999.

(iii) *Committee on International Surveillance of Communicable Diseases (VISED)*. A meeting of the CISCSD will take place in November in order to: consider the progress of the revision process; carry out an interim evaluation of the pilot study; discuss legal aspects of the IHR with legal advisers drawn from selected countries in the WHO regions; and review and revise the provisional draft of the revised IHR. It is envisaged that a second meeting of the CISCSD will be arranged in 1999 to finalize the revised IHR

Notification of disease outbreaks

The most significant change proposed for the revised IHR is the immediate notification of all disease outbreaks that are of urgent international importance, of whatever infectious cause. To facilitate and expedite rapid notification and response, clinical syndromes may be notified pending the determination of the disease agent involved. The objective is to alert attention to a problem at the earliest possible time and to promote rapid investigation and containment of the outbreak. Once the causal agent has been identified, the specific disease should also be reported.

Notification of syndromes is proposed as an alternative to specific disease notification. Clearly, it is desirable to establish the precise diagnosis as soon as possible so that control measures can be optimized. In outbreaks where

the diagnosis has already been confirmed at the time of notification, the specific disease should be notified.

The case definitions for the notifiable syndromes have been devised to capture all diseases that could potentially cause outbreaks of urgent international importance. These case definitions are being evaluated by the countries participating in the IHR pilot study and will be refined if necessary. The detailed case definitions will be included in an annex to the IHR and kept under review.

In broadening the base for mandatory notification and including the option of notifying clinical syndromes prior to determination of the causal agent, it is recognized that there will be both increased sensitivity and reduced specificity in the initial notification. It may not be clear whether an outbreak is of urgent international importance until further investigation has been carried out. For this reason, syndromes or disease outbreaks notified to WHO will only be reported internationally after consultation with the Member State, involving collection of additional information and verification if necessary.

The revised IHR will include more explicit information on the possibility of notifying either syndromes or specific diseases than is given in the present provisional draft.

The World Trade Organization and the IHR

The World Trade Organization (WTO), through its Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement), seeks to ensure that countries apply measures to protect human, animal and plant health based on assessment of risk. Areas of common interest in the IHR and in the SPS Agreement are likely to be reinforced under the revised IHR. All the Member States of the WTO are also Member States of WHO and consequently have rights and obligations under both the IHR and the SPS Agreement.

The fundamental principle behind the IHR is maximum protection against the international spread of disease with minimal interference with traffic and trade. This principle will be retained in the revised IHR. The objective of the IHR is therefore fully consistent with WTO's purpose in reducing barriers to international trade. Harmonizing the IHR and SPS Agreement would reflect this common purpose and avoid any potential conflict in

the obligations of Member States. WHO could assist WTO with respect to public health aspects of disputes arising as a result of disease outbreaks.

Aircraft disinsecting information request

Recommendations on the disinsecting of aircraft resulting from consultations held in 1995 involving expert organizations and individuals were published in the Weekly Epidemiological Record No.15, 1998. More information is required, however, to assess aircraft disinsecting in terms of the need for disinsecting and the relative efficacy of the recommended methods of application. As part of this information-gathering process, a questionnaire was sent to all Member States in April 1998 concerning practices adopted for the disinsection of aircraft.

The replies received to date demonstrate that there is inconsistency in both the country requirements for disinsecting arriving aircraft and the accepted methods of application. Since minimizing the international spread of disease while maintaining the free movement of traffic and trade is the stated purpose of the International Health Regulations, WHO will make every effort to develop clear recommendations and operating guidelines for disinsecting aircraft. It is also necessary, however, that Member States apply the recommended practices in a consistent manner fully in keeping with the intent and wording of the Regulations and disinsecting recommendations.

Next steps in the revision process

The next steps in the revision process will include:

- provision of an information paper on the revision of the IHR for the WHO regional committees in 1998;
- completion of an international survey on current aircraft disinsection practices;
- review of comments received on the provisional draft of the revised IHR;
- interim evaluation of the pilot study to assess syndromic notification;
- continuing discussion with the WTO-SPS Committee;
- a meeting of the Committee on International Surveillance of Communicable Diseases (CISCD);
- completion of annexes to the IHR;
- preparation of a second version of the draft revised IHR;
- distribution of the second version of the draft revised IHR to Member States and other organizations; and
- organization of health/trade seminars in selected countries.

The next progress report will be published in January 1999.

Fuente: Excerpted from "Revision of the International Health Regulations, Progress Report, July 1998. Weekly Epidemiological Record No. 31, 233-237,31 July 1998.

Health Situation Analysis Program, Division of Health and Human Development (HDP/HDA).

PAHO's Epidemiological Bulletin is published quarterly in English and Spanish.

Catalogued and indexed by the United States National Library of Medicine

Printed on acid-free paper.



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WORLD HEALTH ORGANIZATION
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