DOMINICAN REPUBLIC

GENERAL SITUATION AND TRENDS

Socioeconomic, Political, and Demographic Overview

The Dominican Republic occupies the eastern two-thirds of the Caribbean island of Hispaniola, which is located west of Puerto Rico. Its only border is with Haiti. The Dominican Republic has an area of 48,400 km^2, and its population was estimated at 7.8 million in 1995. For political and administrative purposes, the country is divided into three regions and seven subregions, which together contain the 29 provinces and the National District.

The Dominican economy has undergone profound changes in the last two decades. Until the mid-1970s, traditional export products, mainly from agriculture, represented 60% of the total value of the country's exports. Over the last two decades the service sector has led the economy, particularly economic and financial services related to tourism and industrial free-trade zones, which by 1995 accounted for more than 70% of exports. The shift came with major dislocations and economic and social imbalances. The macroeconomic adjustments of the 1980s served to substantially reduce social spending and redirect expenditures toward investment, especially in infrastructure. Annual per capita expenditures on education during 1987–1990, adjusted for inflation, were 40% of what they had been in 1980, and the expenditures on health were 7.5% lower. Together, the health and education sectors received less than 5% of public spending between 1986 and 1990.

The exchange rate of the Dominican peso against the United States dollar went from RD$ 1 per US$ 1 in 1980 to about RD$ 12 in 1990. The price of the basket of basic family goods increased by more than 400%, and the consumer price index rose 467%. The minimum wage went up only 29%, which, adjusted for inflation, was actually a reduction of 42%. The unemployment rate reached 27%, and per capita caloric intake fell 7%. As a result, there were numerous public protests, as well as increased emigration by the economically active population.

The end of 1990 brought another economic adjustment program. In 1992 the gross domestic product (GDP) began to recover, and by 1996 it was maintaining an average annual growth rate of more than 5%. In 1996 the GDP rose 5.4%, with an increase of 6.9% estimated for 1997. Per capita income reached US$ 1,824 in 1996. Stable prices, rising wages in the private sector, and a public sector salary increase in May 1995 restored the real minimum wage and the wage in dollars to levels that in January 1996 were 14% higher than in 1980, and there were further increases in 1997. Since 1992, annual inflation has remained fairly low. It was 3.7% in 1995, 0.9% in 1996, and an estimated 4.4% in 1997. The free market exchange rate remained fairly stable at around RD$ 14 to US$ 1 during 1996 and 1997. External and internal debt servicing rose substantially, reaching more than RD$ 2,400 million in 1995.

This stability and macroeconomic growth have improved the purchasing power of the working population, and absolute poverty appears to have diminished. On the other hand, reduced public spending for education and health has affected family budgets, unemployment rates (which stood at 15% in 1996–1997), and the percentage of population linked to the informal economy and nonwage-earning activities, and has thus led to a considerable increase in relative poverty and the number of people who are in need. At the same time, the economy has become extremely vulnerable to and dependent on external factors outside its control. The public domestic debt, estimated at about US$ 400 million in mid-1997, has been burgeoning, and this has tended to inhibit private domestic investment.

The fiscal system is considered to be very fragile because of its dependency on the international price of oil and the collection of customs fees, which have been declining as a result of international agreements. Oligopolistic distortions in the financial system lead to high interest rates for external capital. Foreign exchange earnings come mainly from tourism and from exports from the free-trade zones. Those earnings are vulnerable to international processes outside the country's control, such as interest rate changes in international fi-

nancial markets, political decisions on preferential treatment in the United States market, and choices made by international travel agencies. Domestic industrial production relies heavily on government protectionist policies and is unprepared to compete internationally. Another factor that contributes to the country's vulnerability is its meager investment in human development. An enormous backlog in social spending has accumulated. There are major deficiencies in education and health, deteriorating basic public transportation and electricity services, and a highly inequitable distribution of income that poses an ongoing risk for social and political instability and holds down productivity.

The country also is experiencing several structural limitations at the political level—inadequate institutional development, an unreliable and inefficient judicial system, a centralized administration, a bloated bureaucracy sustained by a culture of patronage, complex procedural requirements, and public institutions that are technologically out of date. The widespread consensus on the need for structural reforms brought a new generation and a new political outlook to the Presidency in August 1996. The new administration was inaugurated amidst a climate of high hope for economic and political changes.

Population

Between 1990 and 1995, annual population growth was 3.0%, with the 0–14-year-old age group making up 35% of the population and the 65-and-older age group only 4%. Urban population was estimated at 50% in 1980 and 65% in 1995.

During the same period, life expectancy at birth rose from about 44 to 65 years. The total fertility rate declined from 7.4 to 3.1 children per woman of childbearing age, and the birth rate dropped from about 50 to 27 per 1,000 population.

Since the 1970s, emigration has been an important survival strategy for the Dominican people. It is estimated that at least 700,000 Dominicans have left the country over the last 30 years. The most reliable information available indicates that there were 300,000 immigrants living in the country in 1994. A 1991 study found that there had been a great deal of internal migration, with 34% of the population changing residence at least once in their lifetime and 9% having done so in the last five years.

The first attempt to classify the Dominican population in the different regions from the standpoint of health and living conditions was made in 1992–1993, based on information from the 1991 Demographic and Health Survey (ENDESA 91). The provinces were grouped into seven health strata according to the proportion of families with unmet basic needs. Countrywide, family needs were "mostly unmet" in 33.7% of the households surveyed; in 38.4% of the households they were "met to some extent"; and in the remaining 28% the needs were "mostly satisfied." In the provinces of stratum VII, the basic needs were mostly unmet for 70% to 89% of the families. The analysis found that 14.8% of the urban population and 66.3% of the rural population lived in provinces where needs were considered to be "mostly unmet." These same provinces were home to 33.7% of the country's population and accounted for 19% of the national income at the time of the study.

Most of the extremely poor communities were located in the southeastern and northeastern areas of the country, along the border with Haiti.

The Secretariat for Public Health and Social Welfare, working together with the Autonomous University of Santo Domingo, conducted a study of primary economic activity and accumulation of goods and services during 1990–1994. This research showed that in the poorest provinces there was a predominance of subsistence farming; negative population growth; low levels of vaccination coverage, drinking water availability, and hospital utilization; and many deaths without medical attention or diagnosis of the cause of death.

Mortality Profile

The estimated general mortality rate has gradually declined, falling to 5.5 per 1,000 population for the 1990–1995 period. It is expected to be 5.2 per 1,000 population for 1995–2000. Decreases have occurred in both sexes and in all age groups. This trend is related to longer life expectancy at birth, which rose from 53.6 years in 1960–1965 to 69.6 in 1990–1995 and is projected to be 70.9 for 1995–2000.

The crude mortality rate registered in 1994 was 2.7 per 1,000 population (3.1 in males and 2.3 in females). During 1990–1994, cardiovascular diseases were the most frequently reported cause of death, with registered rates remaining fairly stable at about 80 per 100,000, although this disease group as a proportion of total registered mortality increased slightly, from 29.2% to 33.9%. Communicable diseases, which were the second leading cause of death in 1990, at 46.6 per 100,000, fell to fourth place in 1994, at 27.1 per 100,000. As a percentage, they went from 16.8% to 11.5% of total deaths. Such external causes as accidental injuries and violence rose from third to second place, even though the rate dropped from 33.9 to 30.2 per 100,000; as a percentage, they increased slightly, from 12.2% to 12.9%. Malignant neoplasms, which ranked fourth in 1990, with a rate of 27.7 per 100,000, moved up to third place, with a rate of 28.0 per 100,000, while proportionally they went from 10.0% to 11.9%. Perinatal causes remained in fifth place, with rates of 14.8 in 1990 and 12.6 per 100,000 in 1994, and a 5.4% proportion in both years. In 1994, diseases of the circulatory system were the leading cause of death among females, accounting for 38.2% of registered deaths, followed by malignant neoplasms, 13.6%; com-

municable diseases, 11.9%; and external causes, 5.8%. Among males, cardiovascular diseases represented 30.7% of all deaths; external causes, 18.0%; communicable diseases, 11.3%; and malignant neoplasms, 10.8%.

These data indicate a downward trend in deaths due to communicable diseases. Deaths from external causes are on the rise, and the percentages for malignant neoplasms and perinatal diseases remain more or less stable. Nevertheless, caution should be exercised in considering these and all the other diagnosis-based mortality figures cited here. It is estimated that underregistration of deaths was nearly 50% in 1994 and the proportion of registered deaths attributed to ill-defined symptoms and conditions was about 15% between 1990 and 1994.

To estimate the potential impact of public health efforts, indicators for the Dominican Republic were compared with the highest values in countries having a similar level of economic resources. Cuba, Ecuador, Guatemala, Nicaragua, Panama, Paraguay, and Peru were selected for this comparison because in each case their per capita GDP adjusted for purchasing power was similar to that of the Dominican Republic. The values for the Dominican Republic were also compared against the highest values attained by countries in the Region. For life expectancy at birth, the reducible gap between the values for the Dominican Republic and the highest values for the other countries of Latin America was narrowed from 33% in the 1960–1965 period to 15% for 1990–1995. The gap between the Dominican Republic and the highest values for countries with a similar level of economic resources decreased from 22% in 1960–1965 to 12% in 1990–1995. For mortality, in 1985–1990 the gap between the Dominican Republic and the highest values in the countries selected for comparison was around 42%, and it was 50% relative to the highest values in the Americas. This means that some 19,000 deaths could have been prevented in 1994. The gap is widest for children under the age of 5 and becomes progressively narrower until it is quite small in the older age groups. Thus, the greatest potential for reducing mortality and increasing life expectancy is among children under 5 years of age.

SPECIFIC HEALTH PROBLEMS

Analysis by Population Group

Health of Infants (under 1 Year Old)

The registered infant mortality rate was 19.1 per 1,000 live births in 1990 and 11.5 per 1,000 in 1994. In 1994, infants under l year old accounted for 10.9% of all registered deaths. According to two estimates—one by the Latin American Demographic Center (CELADE) and PAHO, and another based on the ENDESA 96 health survey—underregistration may be some 72% to 75%. That would make the actual infant mortality rate between 42 and 47 per 1,000.

The rate of decline in infant mortality appears to have slowed in the last decade. There are also significant differences between regions. Registered infant mortality per 1,000 live births was 26.4 in urban areas and 29.1 in rural areas during 1991–1996. Estimated rates ranged from 45 per 1,000 in the National District up to about 70 per 1,000 in the more impoverished areas. By educational level of the mother, the rate ranged from 85 per 1,000 for mothers without any formal education to 20 per 1,000 for women with some level of higher education.

In infants under l year of age, 30% of the deaths were from communicable diseases, 44.8% from conditions originating in the perinatal period, 3.2% from diseases of the circulatory system, and 2.9% from external causes.

In 1990–1995 the proportion of low-birthweight babies delivered in 25 of the country's major hospitals was 9.2%, a decrease from earlier levels.

Health of Preschool Children (Aged 1 to 4)

According to CELADE estimates, in 1990–1995 the mortality rate among children aged 1 to 4 fell to 4 per 1,000, with a slightly higher rate in males than in females (4.0 and 3.6 per 1,000, respectively), whereas ENDESA 96 estimated an overall rate of 11 per 1,000. In 1990 this age group accounted for 5% of all registered deaths, but by 1994 it was only 3.4% of the total.

As for the leading causes of death in 1994, communicable diseases represented 37.7% of the total; external causes, 17.6%; diseases of the circulatory system, 5.0%; and malignant neoplasms, 2.5%.

By more specific diagnoses, intestinal infectious diseases represented 15.9% of deaths; nutritional deficiencies, 15.3%; acute respiratory infections, 12.5%; unspecified injuries, 9.4%; and congenital abnormalities, 5.5%. These rankings were similar in both sexes, except for external causes, for which males had a slightly higher proportion.

Health of School-Age Children (Aged 5 to 14)

School-age children had an estimated mortality rate of 0.7% per 1,000 in 1990–1995. In 1990 this age group accounted for 2.4% of all registered deaths, and by 1994 that had dropped to 2.0%. External causes were responsible for 41.4% of all deaths (29.3% in girls and 50.7% in boys); "other causes," 25.5% (32.9% in girls and 19.8% in boys); communicable diseases, 15.1% (17.4% in girls and 10.6% in boys); diseases of the circulatory system, 10.7% (12.0% in girls and

9.6% in boys); and malignant neoplasms, 7.3% (8.4% in girls and 6.4% in boys).

By more detailed diagnoses, unspecified injuries headed the list and were followed, in turn, by nutritional deficiencies, intestinal infections, and diseases of pulmonary circulation and other heart diseases.

Health of the Population Aged 15 to 44

The estimated mortality rate for persons aged 15 to 44 fell to 1.8% per 1,000 population in 1990–1995 (2.05 per 1,000 in males and 1.5% in females). In 1990 this segment of the population accounted for 19% of all deaths.

Of the deaths, 26.9% were due to "other causes," 16.8% to cardiovascular diseases, 9.3% to external causes, 11.1% to communicable diseases, and 8.1% to malignant neoplasms. Among females, "other causes" accounted for 33.9% of the deaths; cardiovascular diseases, 22.6%; malignant neoplasms, 14.7%; communicable diseases, 14.5%; and external causes, 14.0%. Among males, almost half, or 48.8%, of the deaths were attributed to external causes, 23.3% to "other causes," 13.8% to cardiovascular diseases, 9.3% to communicable diseases, and 4.7% to malignant neoplasms.

By more specific diagnostic groups, among women tuberculosis was the leading cause of death in 1990, but by 1994 this disease had dropped to second place. In first place for women in 1994 were diseases of pulmonary circulation; ranking third were injuries from traffic accidents, followed by cerebrovascular and ischemic heart disease. Complications during pregnancy, labor, and the puerperium, which in 1990 accounted for 6.9% of deaths, by 1994 were down to 5%. In men, mortality due to traffic accidents was in first place, followed by homicides, other injuries, and diseases of pulmonary circulation and other heart diseases.

The registered maternal mortality rate was 45 per 100,000 live births in 1990 and 30.7 per 100,000 in 1994. The corresponding estimated rate for 1990 was 110 per 100,000, which would imply underregistration on the order of 59%. Indeed, more recent estimates based on the ENDESA 96 survey indicate the real maternal mortality rate might have been as high as 200 per 100,000 live births over the 1983–1994 period.

More than 97% of pregnant women have two or more prenatal medical consultations, and 95% have their babies delivered in institutions.

Teenage pregnancy is a serious problem. In 1996, about 23% of the women between 15 and 19 years of age had had at least one pregnancy, and this proportion appears to be increasing. Adolescent pregnancies are more common in rural areas, in lower-income districts where sanitation is poor, and among women who have had little schooling. Around 45% of the women of childbearing age, and 64% of those who declare they have a partner, practice some form of birth control, which for 64% of these women is sterilization. Only 20% use contraceptive pills, and 9% use other modern methods. The percentage of women who use sterilization as a form of contraception is declining, but efforts still need to be made to further decrease the use of this practice, which is quite widespread in the country's family planning and obstetric services.

Domestic violence against women is a major problem. Police authorities report a growing number of charges filed, particularly cases of sexual violence, including rape, with most victims being children and adolescents.

Health of the Population Aged 45 to 64

Estimated mortality rates for persons aged 45 to 64 fell to 8.3 per 1,000 population during 1990–1995 (9.6 and 7.0 per 1,000 in males and females, respectively). In 1994 this group accounted for 20.4% of all registered deaths.

Data for 1994 show that cardiovascular diseases were the leading cause of death and represented 39.7% of all deaths in this age group. In second place were "other causes," which accounted for 25.4% of the deaths, followed by malignant neoplasms, 18.8%; external causes, 9.6%; and communicable diseases, 5.7%. Among women, 41.3% of all deaths were attributed to cardiovascular diseases, 25.9% to malignant neoplasms; 23.8% to other diagnosed causes, 5.1% to communicable diseases, and 3.8% to external causes. Among men, cardiovascular diseases caused 38.6% of all deaths, other diagnosed diseases, 26.4%; malignant neoplasms, 14.4%; external causes, 13.5%; and communicable diseases, 7.3%.

By more specific diagnoses, the leading causes of death in women were cerebrovascular diseases, followed by ischemic cardiopathy, chronic liver diseases, genital neoplasms, and diabetes mellitus. The most frequent causes of death in men were ischemic cardiopathy, cerebrovascular diseases, and chronic liver diseases, in that order.

Health of the Elderly (65 and Over)

The estimated mortality rate for persons 65 and older for 1990–1995 was 52.8 per 1,000 population (48.4 per 1,000 for women and 57.4 per 1,000 for men). Deaths of persons aged 65 and over represented 40.5% of all registered deaths.

In 1994 the leading diagnosed cause of death in this age group was cardiovascular diseases, which accounted for 52.4%. Ranking next were "other causes," 23.0%; malignant neoplasms, 15.0%; communicable diseases, 6.5%; and external causes, 3.2%. The rates were similar for both sexes. According to more specific diagnoses, the leading causes were, in order, diseases of pulmonary circulation and other heart

diseases, ischemic cardiopathy, hypertension, cerebrovascular diseases, and diabetes mellitus.

Analysis by Type of Disease or Health Impairment

Communicable Diseases

Communicable diseases, along with nutritional deficiencies, are the country's leading health priorities. In 1994 communicable diseases accounted for 16.8% of all diagnosed deaths. Notable among the communicable diseases are diarrheal diseases, which in 1994 represented 4% of all diagnosed deaths and 30.4% of the deaths from communicable diseases. More than half (51.3%) of the deaths from acute diarrhea occurred in infants under 1 year of age, and 16% were in children aged 1 to 4 years. Diarrheal diseases were the second leading cause of diagnosed mortality in infants under 1 year of age (15%) and ranked in first place among children aged 1 to 4 (16%), followed by nutritional deficiencies. According to data from the ENDESA 96 survey, only 39.1% of all diarrheal episodes were treated with some form of oral rehydration, although in recent years this proportion has gone up slightly. As far as cholera is concerned, even with close surveillance of diarrheal cases and the thorough investigation of suspicious cases of diarrhea, not a single case of the disease was diagnosed during the current pandemic.

In 1994 acute respiratory infections accounted for 3.6% of all diagnosed deaths and 30.9% of the deaths from communicable diseases. Acute respiratory infections were the sixth-ranking diagnosed cause of mortality in infants under 1 year of age and the third-ranking cause in children aged 1 to 4. Episodes of diarrhea and respiratory infection were the most frequent reasons for medical consultation, emergency treatment, and hospitalization in 1995.

Tuberculosis accounted for 2% of all diagnosed deaths and 15% of the deaths from communicable diseases. Meningitis was responsible for 0.6% of all diagnosed deaths and 5.2% of the deaths from communicable diseases.

Remarkably few vaccine-preventable diseases were diagnosed as causes of death. Since 1992 there has been a steep decline in mortality due to these diseases. No cases of wild poliovirus have been reported. Although the incidence of measles was 102.4 per 100,000 population in 1992, there were no confirmed cases in 1995 or 1996. No autochthonous cases of neonatal tetanus were diagnosed in 1996, and the international requirements for declaring it eliminated have been partially met. The incidence of diphtheria has been lower than 1.0 per 100,000 population in the last four years. No cases of whooping cough were registered in 1995 or 1996. Tubercular meningitis continues to decline, with an incidence of less than 1.0 per 100,000 population in 1996.

Every year some 300 cases of bacterial meningitis are reported, 60% to 70% of them in infants under 1 year of age. The most common agents are *Haemophilus influenzae* B (about 50%), *Streptococcus pneumoniae* (around 15%), and, less often, *Mycobacterium tuberculosis* and *Neisseria meningitidis* serogroups C and B.

Sexually transmitted diseases are a serious health problem. More than 10,000 new cases are reported each year. Nevertheless, in recent years there has been a marked decline in the reported frequency of cases, probably linked to measures to prevent HIV transmission. In 1995 the rates were as follows: gonorrhea, 34.5 cases per 100,000 population; syphilis, 24.4; chancroid, 3.4; and lymphogranuloma, 0.8. One-third of the women of childbearing age interviewed in the ENDESA 96 survey reported they had had a sexually transmitted disease in the last 12 months, although 82% of them indicated that it had been a vaginal infection.

Since 1983, when the first case of AIDS was reported in the Dominican Republic, the incidence of this disease has risen annually, reaching a rate of approximately 5 per 100,000 population by 1995. More than 70% of the cumulative total of cases were among heterosexuals. The male/female ratio was 2:1, and continuing to equalize. Homosexuals and bisexuals accounted for 10% of the cases and drug users for 3%. Of the cumulative total, 11.3% of the cases among women and 3.4% of those among men were associated with blood transfusion. Recently it has been estimated that more than 80% of all transfused blood is being screened for HIV and hepatitis B.

In recent years there has been an increase in the prevalence of HIV infection among pregnant women in patients seen at venereal disease clinics and, to a lesser extent, in sex workers. Some estimates indicate that by the year 2000 there will be about 50,000 HIV carriers in the country.

The epidemiology of malaria has changed considerably in recent decades. The incidence of the disease is closely related to fluctuations in the construction industry. The number of cases linked to agriculture has gradually decreased. Other factors that may affect the situation have to do with the control program itself, such as its operating capacity and the resources allocated to it. In 1991 there were 377 cases of malaria without a single death, but by 1995 the number of cases had increased to 1,808, and in 1996 there were slightly more than 1,400 cases. All were attributable to *Plasmodium falciparum*, and the majority of them were treated successfully with chloroquine. The areas most affected have been border communities and regions where large construction projects have altered the local ecology and attracted workers from neighboring countries.

Rabies is endemic, due to foci in the wild (mongooses), numerous street dogs, and extensive impoverished urban areas. Up until the 1970s the epidemiological pattern was cyclic, with major outbreaks every four or five years. Since then, the

annual frequency has been related more to control measures, vaccination coverage of dogs, epidemiological surveillance, and perifocal control efforts. In recent years the number of cases in dogs has remained at around 5 per 100,000 (canine population) and the number of human cases at about 2 per year, with both of these indicators trending upward.

Hepatitis B is considered to be moderately endemic in the Dominican Republic. In 1996 about 4% of the samples taken from blood donors were positive.

Periodic coproparisitology studies in schoolchildren indicate a growing incidence of giardiasis; a positive rate of 13% was reported for the capital region in 1994. In the eastern part of the country there are known foci of bilharziasis.

The prevalence of leprosy has been decreasing steadily, and in 1996 it was below the internationally established threshold level for it to be considered a public health problem. Except in a few areas, this disease can be considered under control.

There are no foci of yellow fever, but dengue is endemic because of the high proportion of urban households infested with *Aedes aegypti*. In 1993 there were 60 new confirmed cases, 226 in 1994, and 249 in 1995, followed by a drop to about 50 in 1996. It is not known which of the virus serotypes are in circulation. The number of cases of dengue hemorrhagic fever also increased in 1994 and 1995, to 46 and 38 cases, respectively. The number of deaths declined from five in 1994 to only one in 1996.

Given its geographic location, climate, heavy tourist travel and migratory movements, and widespread poverty, the country is extremely vulnerable to the introduction and circulation of infectious agents and to outbreaks of epidemics.

Noncommunicable Diseases and Other Health-Related Problems

Nutritional deficiencies are the number-one concern among noncommunicable diseases and illnesses. In 1994 nutritional deficiencies were responsible for about 10% of the deaths in infants under 1 year of age, 15% in children aged 1 to 4, 6% in those aged 5 to 14, 5% in the population aged 15 to 44, 1% in the group aged 45 to 64, and 2% in persons over age 64. In 1996 the rate of overall malnutrition in children under 5 years of age was estimated at 6% and the rate of chronic malnutrition at 11%. In the country's poorest regions the rate of chronic malnutrition in children under 5 years old ranges from 17% to 20%, and in the capital region it is 6%.

In 1994 the prevalence of anemia and low levels of serum retinol in the age group under 15 years old was found to be 31% and 19%, respectively.

Cardiovascular diseases are the leading causes of death in the general population. In 1994 they were responsible for 79.4 deaths per 100,000 population and 33.8% of all diagnosed deaths, while hypertension and heart failure were the two primary causes for hospitalization.

In 1994 malignant neoplasms accounted for 11.9% of all diagnosed deaths, with a rate of 28.1% per 100,000 population. In women, neoplasms are most often located in the genitourinary organs, the respiratory system, and the breast. Screening for cervical cancer reaches fewer than 10% of the women of childbearing age.

External Causes

In 1994 such external causes as accidental injuries and violence accounted for 12.9% of all diagnosed deaths, for a rate of 30.2 per 100,000. According to police records, external causes made up 15.6% of hospital emergency cases in 1992. Health sources indicated that in 1995 external causes were the principal reason for emergency care in adults and the fourth-ranking cause for hospitalizations nationwide.

RESPONSE OF THE HEALTH SYSTEM

National Health Plans and Policies

The policy that has guided the Secretariat for Public Health and Social Welfare since 1992 is the primary health care strategy. This policy recognizes that health is a fundamental right exercised through free and equal access to the actions that seek to satisfy it. The policy also mandates that the State give priority to the most disadvantaged and vulnerable groups. Central to the policy are democratization, universal health services, equity, humanistic modernity, effectiveness, and efficiency. The main strategies are dispersion and decentralization, societal participation, intra- and intersectoral coordination, and the development and management of knowledge.

However, before these broad policies can be put into practice, many problems need to be solved and many changes must be made in the organization, operation, and allocation of resources in health sector institutions. In mid-1997 the Secretariat set as its highest priority a reversal of a longstanding shortfall in social spending, and declared that the reduction in infant and maternal mortality was its primary objective. In order to attain this goal, the Secretariat has proposed a nationwide mobilization with the participation of all sectors of society, and for a comprehensive plan to strengthen preventive and curative care for children and pregnant women. This goal will be achieved primarily by strengthening health services at the provincial level. At the same time, priority will be given to national programs for immunization, malaria, dengue and other vector-borne diseases, tuberculosis, and rabies. New special-

ized programs will also be developed for health and tourism, care of the disabled, and environmental health.

Health Sector Reform

There is an awareness in Dominican society that the State is in need of major reform. So far, responses have included creating the Presidential Commission for State Reform and Modernization in 1996, and in 1997 appointing a new Supreme Court that is empowered to modernize and overhaul the judiciary. Reforms have begun in other areas, including in the financial and tariff sectors, the health sector, and the education sector with a Ten-Year Plan for Educational Reform. The new Presidential commission has laid down general guidelines for these processes as part of the overall effort to achieve humane and sustainable development within the context of the new international realities. Health and education are essential aspects of this social reform.

In 1995 a new interinstitutional National Health Commission was created by Presidential decree and given the express mandate to draft a set of proposals within a year for reform of the sector and to promote the overall modernization of the health sector. An Office of Technical Coordination was created to conduct the background studies for these reforms. The office received broad technical and financial support from the Inter-American Development Bank and the World Bank until 1997, when the office went out of existence.

In 1995 the Chamber of Deputies' Commission on Health drafted a General Law on Health, which took into account extensive input from public sector technical teams and civil society. Although the bill was approved by the Chamber of Deputies, it met with opposition in the Senate and was not passed. In a parallel move, a committee appointed by the President in 1996 drafted a proposed reform of the social security system. This proposal, presented as being endorsed by employers, workers, and the government, went to the Congress for consideration and approval, but later met with opposition from some business sectors.

In 1997 a new Presidential decree was issued that created an Executive Commission on Health Reform directly under the Presidency, abolishing all preexisting committees, commissions, and offices, and giving this new body the express mandate to take steps to reform the health sector.

The drinking water, sanitation, and solid waste sectors have recently embarked on a reform and modernization process. It draws its guidelines from the National Drinking Water Plan for Scattered Rural and Marginal Urban Areas and the National Social Development Plan. Both plans give priority to improving living conditions for the most disadvantaged populations.

A National Food and Nutrition Plan that was approved in 1995 is currently being put into place but with much difficulty. In 1997 its implementation was delegated to the Secretariat of Agriculture. One component of this plan is quality control and epidemiological surveillance of foodborne diseases, which is the responsibility of the Secretariat for Public Health and Social Welfare.

Several important trends have been taking shape in the reform process, notable among them the decentralization of the Secretariat, the strengthening of provincial levels, and coordination between government health agencies at the local level. Also, emphasis is being placed on giving greater administrative autonomy to hospital units, tranforming the central-government role largely to that of standards-setting and fiscal control, and modernizing processes at all levels, including technological updating of information systems. However, there is somewhat less consensus regarding which interventions should be guaranteed for the entire population.

Organization of the Health Sector

Institutional Organization

According to the Public Health Code, the Secretariat for Public Health and Social Welfare is the agency in charge of health services and is responsible for applying the Code. The Secretariat provides health care, health promotion, and preventive health services and is structured on three levels: central, regional, and provincial. The role of the central level is essentially standards-setting. Eight regional offices direct the services and oversee the health areas, or units, at the provincial level. The health areas have rural clinics that each cover from 2,000 to 10,000 inhabitants and are staffed with medical interns or assistants, nurse's aides, a supervisor of health promoters, and the health promoters themselves. Most of the provincial capitals have either a second- or third-level hospital with outpatient, inpatient, and around-the-clock emergency services. Some of the provinces also have health subcenters with inpatient beds, emergency services, and general adult medical care, as well as pediatric and pregnancy care.

The Secretariat's programs are structured at the central and regional levels. The most fully developed are those for the control of malaria, dengue, and other vector-borne diseases and for the prevention and control of rabies and zoonoses; the national tuberculosis program; immunization; family planning and reproductive health; and basic sanitation. There are epidemiological services at the national level and also units at the regional and local level.

According to estimated data from the User Satisfaction Survey (ESU 96), more than 85% of the population that uses child vaccination services, 60% of the women who seek prenatal care, and around 60% of those who participate in well-

child programs do so through the services of either the Secretariat or the Dominican Social Security Institute (IDSS).

IDSS is an autonomous institution that covers risks from disease, disability, old age, death, and on-the-job accidents incurred by employed workers. In 1994, 6.5% of the general population and 15.4% of the economically active population were affiliated with IDSS, and its expenditures represented 0.7% of the GDP. Since 1990 there has been pressure to completely overhaul social security policy, but to date no reform of IDSS has been accomplished.

The Hotel Social Fund is an autonomous nonprofit public organization dedicated to the social welfare of workers in the hotel and restaurant sector. Its governing body is composed of workers, employers, and government representatives, and its financing is also tripartite. The funds are used for pensions and social services, including medical care. The population it covers is very small.

Affiliation with the Aid and Housing Institute is compulsory for civil servants, including military personnel below a certain salary level. Again, financing is tripartite, and its mandate includes pensions, housing construction, and such social services as primary medical care. The Institute's coverage is very low. The Armed Forces Health Services cover police and military personnel and their families and reach approximately 2% of the population. They have a highly sophisticated central hospital that also provides emergency care for civilians (volume unknown). The activities of these institutions are subject to little if any coordination, which leads to duplication of effort, reduced efficiency, and poor quality in the response this sector gives to the health problems of the population.

Private medical contracts are a form of health insurance developed by private medical centers to expand their client base and guarantee a steady flow of income. Through this system the clinics in the major cities have been able to attract large numbers of workers whose income levels would not otherwise allow them direct access to the services. The range of services varies depending on the specific plan but usually includes medical care and outpatient maternity care, and hospitalization in some cases. Prescription drugs are only covered during hospitalization. Laboratory services include only basic tests. In the case of more complicated diagnoses the contracts cover between 50% and 75% of the cost. The plans usually do not include regular checkups, preventive medicine, or care for mental disorders or chronic diseases. According to the ESU 96 survey, approximately 3.2% of the population has these medical contracts.

Almost all the life insurance companies offer their clients supplementary health insurance. These programs are geared to high-level officials and other upper-income persons. The premiums are higher than for the medical contracts mentioned above, but the plans are more flexible, with more freedom to choose one's physician or hospital. It is estimated that this type of insurance covers approximately 2.5% of the population.

Of the self-administered health insurance programs, the most well-known is the Teachers' Medical Insurance, a cooperative subsidized by the national government. Since 1995 it has contracted private medical services for public teachers. The cooperative entity that administers it is nonprofit and has an interest in keeping costs down. Generally the services offered by these insurance programs are similar to those provided by the private medical contracts, although there may also be some preventive medical services as well as greater hospital and diagnostic coverage.

Some nonprofit private services are provided by clinics and hospitals managed by nongovernmental organizations. For example, some institutions or foundations offer low-cost services for such specialized problems as diabetes, cardiovascular diseases, skin diseases, cancer, or rehabilitation. A number of these institutions receive sizable government subsidies through the Secretariat for Public Health, and they also may be paid directly by users. Programs of this kind have greatly increased in number, and they are located mostly in the two largest cities, Santo Domingo and Santiago. When the institutions receive financial assistance from the Secretariat, they are required to submit a report on expenditures, but there is no surveillance of their activities or results.

Private for-profit services have been growing rapidly in recent decades. They are provided in facilities ranging from highly sophisticated private hospitals to small centers operating under uncertain conditions, usually located in outlying urban or semirural areas. There is no legal control over the creation or set-up of these services, and as a result it is difficult to know how many there are. According to the ENDESA 96 health survey, almost half the respondents who had requested outpatient care during the previous month, as well as half of those who had needed to be hospitalized during the preceding six months, had used services of this kind.

The public sector is thought to provide a high proportion of the preventive and health promotion services. According to the ESU 96 user survey, only 6.4% of the people who sought vaccination services obtained them in private for-profit centers.

More than three-fourths of the persons interviewed in the ESU 96 user survey believed that health is one of the top three priority areas in which the Dominican Government should be involved; 38.1% felt it should be the number-one priority. Of the respondents, 53% said that health services generally worked poorly and should be completely overhauled. A majority had a negative opinion of the Secretariat's hospitals and a very favorable opinion of private clinics. The aspect that contributed most to their unfavorable opinion of the public services was the waiting time, not only in outpatient clinics but also in hospitals and surgical services. The inability to choose one's doctor and the fact that the patient is treated by

a series of different physicians during subsequent visits were also considered negative aspects of the public services.

Organization of Health Regulatory Activities

Public health regulation is very weak. The existing health care standards are 10 or 20 years old, and health professionals are certified by union-like professional associations.

In 1996 the Secretariat for Public Health and Social Welfare, working with the Private Clinics Association, began to develop an accreditation system for hospitals and private clinics, but the initiative has run into serious difficulties. It has only been possible to reach agreement on a few of the definitions, and nothing concrete has emerged from the process. There is also an effort under way to regulate and accredit public and private laboratories.

The Secretariat's Drug and Pharmacy Division is responsible for evaluating and registering drugs, as well as for inspecting drug manufacturing laboratories and pharmacies. There are pharmacological standards and procedures in effect to regulate drug registration, and an automated information system has been set up. Nevertheless, the regulatory inspection of pharmaceutical businesses is a weak link in the program. The Dr. Defilló National Public Health Laboratory is responsible for the analytical control of drug quality, but its operations are hampered by the poor state of its infrastructure and equipment. There is no department in the Secretariat responsible for the scientific or technical aspect of drugs. In the area of food regulation, efforts to apply the FAO/WHO code have been relatively ineffective.

Health Services and Resources

Organization of Services for Care of the Population

Drinking Water and Sewerage Systems. The country's rapid population growth, massive migration to urban areas, and increasing numbers of people living in poverty have resulted in serious deficiencies in the coverage and quality of water and sanitation services. It was estimated that in 1993 the drinking water supply reached 65% of the population—80% of those in urban areas and 46% of the persons in rural areas. Of the country's 8,463 rural communities, only about 2,100, or 25%, had drinking water services, while sanitary sewerage disposal services covered only 16% of the entire population and 28.0% of the urban population.

Drinking water and sewerage services represent a large share of the Government's social expenditures. The system is highly dependent on subsidies to finance its current costs and investment needs, and it operates at a significant deficit because of shortcomings in marketing, extensive water loss in aqueducts, and fee schedules that do not reflect costs. Institutional weaknesses, staff turnover, and deficiencies in operating and maintaining systems all hamper the sector's ability to meet the basic sanitation needs of the population.

Disease Control and Prevention Programs. The Expanded Program on Immunization (EPI) coordinates activities with both public and private institutions. Vaccines are procured through the EPI Revolving Fund, with the exception of hepatitis B vaccine, which is purchased directly from the suppliers. Every shipment that arrives is subject to quality control, and samples are taken in the warehouses to monitor the status of the vaccines.

During the 1992–1996 period the government developed combined vaccination strategies based on guidelines aimed at meeting the regional targets to eradicate and control vaccine-preventable diseases. Vaccination programs have been established for all the EPI vaccines, to immunize all newborns in hospitals and health centers against tuberculosis, hepatitis B, and poliomyelitis. In addition, national vaccination days have been held to reach new population groups, such as those under 15 years of age, and protect them against measles.

Vaccination coverage has exceeded 80% since 1993. Between 10% and 20% of the vaccines are administered by private providers. There is no government reporting system.

Epidemiological Surveillance Systems and Public Health Laboratories. The epidemiological surveillance system operates at the national level through the General Directorate of Epidemiology and surveillance units in the specialized programs. In addition, in each of the eight health regions there is a regional epidemiological unit, and in each of the 38 health areas there is at least one professional responsible for epidemiological duties. Also, each of the main hospitals has an epidemiology unit that is responsible for surveillance. The system has evolved and improved considerably since 1996, and it is expected to be strengthened even more after the National Epidemiology Institute starts up its activities, probably in 1998.

The compulsory reporting system relies on weekly passive and compulsory reporting of suspected cases of any of the diseases on the list drawn up for this purpose. For some diseases, such as bacterial meningitis, a special surveillance subsystem has been developed.

The epidemiological surveillance system is composed of subsystems that cover the following areas: (a) diseases for which reporting is compulsory; (b) acute febrile conditions; (c) infant births and deaths and deaths of women of reproductive age; (d) harbors and airports, and (e) specialized programs.

The subsystem for the surveillance of acute febrile conditions consists of 40 sentinel posts located in secondary and

tertiary health care facilities whose task is to detect any suspected cases of malaria, dengue, measles, and other acute febrile diseases that could lead to epidemics.

The subsystem for the surveillance of live births and maternal and infant deaths is based on regulations issued in 1997 that require immediate reporting of these events. It covers all the public and private health establishments in the country. Its mandate is to monitor high-risk newborns during the first year of life and to investigate the extent to which infant and maternal deaths could be avoided.

The subsystem for the surveillance of harbors and airports is responsible for the early detection of suspected cases of diseases with high epidemiological risk, and the application of international sanitary regulations.

The surveillance subsystem for malaria and dengue relies on passive reporting through the health establishments and sentinel posts in the surveillance subsystem for febrile conditions, and it also actively seeks out febrile patients in areas where cases have been detected. The epidemiological surveillance subsystem connected with the immunization program is responsible for compliance with the standards established in the poliomyelitis eradication plan and has gradually incorporated the surveillance of other vaccine-preventable diseases. It also oversees immunization coverage at the municipal level. In addition, there are surveillance subsystems for rabies and tuberculosis.

Most of the surveillance support is provided by the Dr. Defilló National Laboratory, although the Central Veterinary Laboratory, the National Anti-Rabies Center, the National Malaria Eradication Service, and the main hospitals also contribute to this effort.

Solid Waste Collection and Urban Cleanup Services. These services are the responsibility of local communities. In almost all the cities, coverage is minimal, collection is sporadic, and solid waste is disposed of in open-air pits. The administrative units in these services are weak and suffer from shortages of equipment, funding, and specialized personnel. Trash collection in the National District was privatized in 1992, and since then services have improved in the residential areas. There are no special procedures or standards that apply to hospital solid wastes.

Control of Environmental Risks. The lower-income areas surrounding the main cities lack water supply, sewerage, or trash collection services. Many of the dwellings there are overcrowded, constructed of cast-off materials, and located near pollution sources.

Sewage runoff and liquid and gas pollutants from industry and agriculture come under the responsibility of several different institutions, including the Secretariat for Public Health and Social Welfare, the National Water Supply and Sewerage Institute (INAPA), the municipal councils, the Secretariat of State of Agriculture, the National Bureau of Forestry, and other entities, none of which has specific policies or programs. There is also no specific legislation or adequate coordination, and resources to oversee these activities are very limited.

There is considerable pollution of groundwater and of beaches near the coastal cities. The generation of electricity in government, industrial, commercial, and home-based installations, powered by all kinds of fuels, pollutes the air and causes disturbing levels of noise in the cities.

Workers' Health. The Secretariat for Public Health, the IDSS, the Secretariats for Labor, Education, Agriculture, and Public Works, and the municipal governments share responsibility in this area. According to the limited information available, the high number of disabilities, workplace injuries, and occupational diseases is cause for concern. Programs geared toward preventing these problems have not been extensively developed; the reality is that workers are unprotected and ill-prepared to deal with these risks.

Disaster Preparedness. The Dominican Republic is located in an area exposed to cyclones, earthquakes, and floods—phenomena that have taken a significant toll in terms of economic damage and loss of life. A coordination office has been created in the Secretariat for Public Health to oversee implementation of the national plan for disaster preparedness.

Health Promotion. The Secretariat for Public Health has encouraged the establishment of local development programs, the most advanced of which is in the province of Salcedo. There, excellent results have been achieved in the improvement of environmental sanitation and the reduction of deaths from such causes as gastroenteritis, from which there have been no registered deaths since 1994.

The Department of Healthy Communities was established within the Secretariat in 1997 to coordinate local development initiatives, strengthen provincial development councils, and create healthy communities.

Food and Nutrition. The National Food and Nutrition Plan is currently being redrafted, with the goal of building food security and encouraging the formulation of projects to mobilize resources to carry out the Plan.

Oral Health. During 1995, 445 dentists and 197 dental assistants working for the Secretariat for Public Health performed a total of 324,977 clinical dental interventions in 174,699 consultations. Prevention measures, basically consisting of fluoride rinses, currently reach only 10% of the schoolchildren between 6 and 14 years of age.

Organization and Operation of Personal Health Care Services

According to data from the Secretariat for Public Health, in 1996 there were a total of 1,334 health facilities in the country, of which 730 (55%) came directly under the Secretariat, 184 (14%) under IDSS, 417 (31%) under the private sector, and 3 (0.2%) under the armed forces. There were 15,236 hospital beds, of which 7,234 (47%) belonged to the Secretariat, 1,706 (11%) to IDSS, 5,796 (38%) to the private sector, and 500 (3%) to the armed forces. These numbers represent a bed/population ratio of 1:500. However, there is a discrepancy among different sources on the number of beds available.

In 1996 the total number of outpatient consultations provided by facilities under the Secretariat came to 5.8 million, or 0.8 consultations per inhabitant, of which 2.2 million were emergency consultations, or 0.3 per inhabitant. There were 372,000 hospital discharges, or 50 per 1,000 population. No comparable current data are available for IDSS or other public institutions.

The ENDESA 96 survey showed that 97% of all pregnant women had had some form of prenatal care by physicians, and the average was 7.6 prenatal visits. Of these women, 88% had four or more visits, and 94% began their visits during the first six months of pregnancy. A large proportion of the deliveries were institutional. During 1991–1996, 95% of all deliveries took place in medical facilities, with differences by region and social level. For example, 99% of the women with university education delivered in medical centers, compared with 82% of those who were illiterate.

Inputs for Health

In 1996 the value of the private sector drug market was US$ 186.4 million, while in the public sector purchases by the Government's Essential Drugs Program were estimated at US$ 15 million. Adding to these amounts the expenditures by IDSS and the armed forces, the annual average per capita expenditure on drugs is estimated at US$ 30.

The Essential Drugs Program is responsible for buying and distributing drugs for public sector institutions based on the product list prepared by the Secretariat for Public Health.

The country has 84 drug laboratories that produce drugs and related products financed with domestic capital and one laboratory financed with multinational funds.

There is no reliable record in the Dominican Republic of equipment available in the public and private health facilities. However, the country has made sizable investments not only to equip the large network of existing services but also to periodically update the equipment on hand. There are recognized problems in the area of maintenance, and the average life of the equipment is far shorter than it should be. These problems have been getting worse in recent years as international contacts have increased and the country has received or is in the process of receiving large donations and purchasing equipment under favorable terms. This new equipment has come from different sources, different companies, and with different technical specifications, but without any commitment from the suppliers for training or maintenance.

At the beginning of 1997 the "Health Plaza," a Government-owned complex located in Santo Domingo, began operating. It contains hospitals for maternal and child care, geriatrics, and traumatology, plus an advanced diagnostic center. A sizable investment has been made in this complex, which has 430 new beds and highly advanced technology. However, at the moment there is no clear decision as to how these installations will be linked with the rest of the health system, and the matter is now being vigorously debated.

Human Resources

In 1994 the Secretariat for Public Health and Social Welfare had working for it 5,626 physicians, 376 dentists, 1,008 bioanalysts, 8,600 nurses and nurse's aides, 6,127 health promoters and supervisors, and 372 pharmacists. No current information is available on the number of professionals in the country by profession and category.

It is estimated in 1995 that the total number of job positions with the health sector's two main employers, the Secretariat and the IDSS, came to about 62,100. That included all professional, technical, and administrative categories.

Only partial, out-of-date information is available on the labor supply for the sector. In 1996 15 of the country's 27 universities and 7 institutions of higher learning offered degree programs in the health sciences.

Enrollment for the degree program in nursing has been gradually declining, from 1,339 in 1984 to 641 in 1990, and currently the University of Santo Domingo offers this program tuition-free as an incentive to attract students. There has been an increase in postgraduate programs. Five universities offer master's degrees related to health, and four of them offer a total of 28 medical residency programs. There is also a rise in the number of specialists in relation to the number of general physicians. In addition, intermediate technical training programs (in radiology, rehabilitation, laboratory science, etc.) have grown significantly. In all these training programs there are serious problems relating to access and accreditation.

Research and Technology

Even though the National Science and Technology Council was created in 1983, as yet there is no explicit policy regard-

ing research and scientific and technical information. This situation has hampered the development of research on health human resources. In actual practice, research projects have been undertaken more in response to funding opportunities and personal or institutional priorities than to explicit priorities related to national needs.

Since 1994 the Secretariat for Public Health and Social Welfare has provided direct or indirect support for research relating to infectious diseases, parasitology, cancer of the cervix, diabetes mellitus, and cardiovascular diseases. Also, with financial support from IDB and the World Bank, a study of the health situation was conducted on the disease burden and the public health benefits from activities that are part of health system reform and reorganization.

The lack of a clear policy on research, of an agency responsible for taking the lead, and of funding for research planning makes it very difficult to allocate funds to research projects or create greater awareness of the importance of research and the need to improve its quality.

There is no policy regulating the utilization of new technologies. Some of the local development programs have evaluated appropriate technologies, but there is no control and no evaluation of whether their use has had an impact.

In recent years there have been important cooperative efforts in the area of health information. The country now has libraries and documentation centers specialized in health, with trained personnel and regularly updated sources of bibliographic information. A network of hospital libraries has been created, as well as a system to exchange specialized information. At the local level, basic book collections and small specialized libraries have been created with support from PAHO and the European Union.

Expenditures and Sectoral Financing

There are no recent reliable estimates of private expenditures on health. According to the ENDESA 96 survey, 37% of the households had required some form of medical care in the preceding 30 days. The average expenditure per household in terms of outpatient consultations during this period came to the equivalent of US$ 8.80, and to US$ 154.70 in the case of hospitalization. Those who used public services had much lower expenditures (US$ 29.50) than those who used private services (US$ 252.00). It is interesting to note that, according to the survey, those with family incomes in the lowest 20% spent more on private care than did those in the top 20% income bracket. This was true both in terms of outpatient care (US$ 30.60 versus US$ 29.70) and hospitalizations (US$ 320.10 versus US$ 242.90).

Total public expenditures on health in 1995 were estimated at US$ 214.39 million, or US$ 29 per capita. Although the figure increased in absolute terms, the per capita inflation-adjusted expenditure on health was lower in 1991 than in 1980. Between 1992 and 1995 there was a slight recovery. As a percentage of GDP, expenditures on public health have remained level, fluctuating between 1.1% and 1.8%. However, as a proportion of total public expenditures, health rose from 7% in 1985 to 9.5% in 1990, and then fell to 7.8% in 1991–1992, where it remained through 1995. The share of the total expenditures on health made by Secretariat for Public Health and Social Welfare went from 86% in 1979–1982 to 64% in 1987–1990 and 56% in 1991. During these same years the Presidency of the Republic increased its share of health spending from 2% to 28% and then to 38%. In the Secretariat the ratio of expenditures on tertiary versus primary health care increased from 8.7 in 1988 to 11.0 in 1992. In 1991, total direct expenditures for consultations, hospital beds, and other hospitalization costs were 60% to 70% less than in 1980.

External Technical and Financial Cooperation

External financing of public expenditures on health declined from an average of 6.8% during 1983–1986 to 1.9% in 1987–1991. Although there is no reliable current information available, the share has probably increased since then, given the leveling-off in overall public spending and the growth in projects funded by various bilateral cooperation agencies.

The Expanded Program on Immunization has received support from UNICEF, the U.S. Agency for International Development (USAID), IDB, Rotary International, and PAHO/WHO. Those organizations have been working together on an EPI coordinating committee for several years.

Family planning and reproductive health programs have received financial assistance from the United Nations Population Fund and USAID. The latter has provided significant funding for AIDS prevention activities, mainly to private nonprofit institutions. Up until 1996 the national public sector program received technical and financial cooperation through PAHO/WHO. Since 1997, when the UNAIDS program started up, external funding for the Dominican program has been considerably reduced.

A number of national and local programs and projects have received support from the European Union; the German aid agency, GTZ; the Spanish International Cooperation Agency; the Japan International Cooperation Agency (JICA); and Italy.

There are numerous international nongovernmental organizations that carry out health activities in the country, most of them in support of local organizations that work in lower-income urban and rural areas.