

Panama borders the Caribbean Sea to the north, Colombia to the east, the Pacific Ocean to the south, and Costa Rica to the west. The country covers 75,517 km² and has a mountainous terrain bisected by the Panama Canal. It is governed as a democratic unitary republic. The capital is Panama City. The country's political-administrative divisions include 9 provinces; 75 districts or municipalities; 3 indigenous territories known as *comarcas*, which have provincial rank in the system (Guna Yala, Emberá, and Ngäbe-Buglé); and 2 territories with the status of *corregimientos*, or mayoral jurisdictions (Guna de Madungandí and Guna de Wargandí).

Panama is classified as an upper-middle-income country and is experiencing significant economic development associated with the Panama Canal, which connects the Atlantic Ocean and the Pacific Ocean and which is currently undergoing expansion. Despite those strengths, the country faces problems associated with the distribution of wealth, and consequently, disparities in health. In addition, Panama's demographic profile is becoming similar to that of the developed countries, with a growing proportion of adults and the elderly and a shrinking population of young people. In Panama, there has been a decline in avoidable deaths, such as maternal and child mortality, and a growing predominance of chronic diseases—except in the county's indigenous regions, where infectious and parasitic diseases are still the leading causes of death.

#### **MAIN ACHIEVEMENTS**

## **HEALTH DETERMINANTS AND INEQUALITIES**

In 2008, 32.7% of the population was living below the poverty line. Over the 2003–2008 period, there had been a reduction in both general poverty (by 4.1 percentage points) and extreme poverty (by 2.2 percentage points). Life expectancy at birth was 75.3 years in 2006 and 75.8 in 2009. Illiteracy declined from 7.6% in 2000 to 5.4% in 2010. The country's indigenous population and people of African descent account for 12% and 9.2% of the total population, respectively. Urban dwellers make up 64.4% of the total population. With regard to employment, 66.4% of men work, as compared to 37.0% of women.

### THE ENVIRONMENT AND HUMAN SECURITY

In 2010, 91.8% of dwellings were connected to a municipal system supplying water that was safe for human consumption, and 94.5% had toilet facilities. However, the corresponding coverage rates for the indigenous population continue to be low.

Panama has a national policy on comprehensive disaster management, enabling it to respond in a timely manner to the frequent emergencies and disasters that occur in the country and to prevent and mitigate their impact on the population.

#### Selected basic indicators, Panama, 2008-2010. Indicator Value Population 2010 (millions) 3.4 Poverty rate (%) (2008) 32.7 Literacy rate (%) (2010) 94.6 Life expectancy at birth (years) (2009) 75.8 General mortality rate (per 1,000 population) 4.5 (2009)Infant mortality rate (per 1,000 live births) (2010) 11.9 Maternal mortality rate (per 100,000 live births) 24.9 (2010)Physicians per 1,000 population (2009) 1.4 Hospital beds per 1,000 population (2009) 2.2 DPT3 immunization coverage (%) (2009) 84.0 Births attended by trained personnel (%) (2009) 96.0

### **HEALTH CONDITIONS AND TRENDS**

The overall maternal mortality rate declined from 83.6 per 100,000 live births in 2006 to 24.9 per 100,000 live births in 2010. However, in the indigenous regions of the country the corresponding rate remained at approximately 90 per 100,000 live births. Overall infant mortality dropped from 14.8 per 1,000 live births in 2006 to 11.9 per 1,000 live births in 2010, although some areas of the country have infant mortality rates far above the national average. Morbidity due to malaria decreased from 50.6 per 100,000 persons in 2006 to 11.9 per 100,000 in 2010. Between 2006 and 2010, a total of 18,987 cases of dengue were reported, with a case-fatality rate of 10.6%. The tuberculosis incidence rate decreased from 52.7 per 100,000 population in 2006 to 40.5 per 100,000 in 2010.

# HEALTH POLICIES, THE HEALTH SYSTEM, AND SOCIAL PROTECTION

Panama allocates a significant and growing percentage of its gross domestic product (GDP) to health: 8.4% in 2006, 8.6% in 2008, and 10.5% in 2010. Although out-of-pocket expenditures decreased between 2006 and 2010, they have continued to be high. Between 2006 and 2009, spending on public health remained steady, at 14% of total public spending. In 2010, 77.8% of public spending on health went toward the social security system. That same year, Panama's State investment in health amounted to US\$ 962 per capita.

The primary care model governing individual, family, community, and environmental health was formulated in

# **Building Innovative Primary Health Care Centers**

The Innovative Primary Health Care Centers (Centros de Atención Primaria en Salud Innovador, or MINSA CAPSi) are health care establishments of the Ministry of Public Health that provide the most highly complex health services at the first level of care. CAPSi centers aim to develop new facility models that incorporate human resources and information and communications technology so as to provide the population with comprehensive care through the regional and national service networks.

The creation of CAPSi centers is based on compliance with criteria for the renewal of primary health care, which seeks improvement in the access to and operation of such services, based on meeting pressing needs and priority demands.

The framework of this initiative was put forward by the Renewed Primary Health Care Strategy, based on the individual, family, community, and environmental models developed by the Ministry of Health in 2010; the Strategic Plan of Government; and Executive Decree No. 531 of July 2009. Pursuant to that Executive Decree, work has begun on the construction of and procurement of equipment for 7 hospitals and 35 innovative primary care establishments.

2010. One of its objectives is to provide infrastructure and human resources support that facilitates access to health care services for the indigenous population and people living in remote areas.

In 2010, the Ministry of Public Health began building and procuring equipment for 7 hospitals and 35 innovative primary health care establishments, in order to offer an innovative care model, expand service coverage, and improve access to health care for a variety of population groups.

In 2009, the country had 4,904 physicians, or one for every 704 inhabitants. Nevertheless, 2,561 of these professionals were practicing in Panama City, which thus had a little more than half of the nation's physicians to attend to the needs of a third of the country's total population. In 2008, there were 32.3 physicians per 10,000 persons in Panama City, while in the province of Darién there were only 5.7 physicians per 10,000.

The country has a national pharmaceuticals policy geared toward ensuring access to quality drugs. The policy includes criteria for bioequivalence and interchangeability in order to reduce costs. Within this framework, the Sectoral National Drug Surveillance Commission was established.

### Knowledge, Technology, and Information

The Ministry of Public Health implemented a virtual hospital network that provides teleradiology service, enabling various hospitals to remain interconnected via the Internet for consultation and diagnostic imaging purposes.

Panama has developed a National Strategic Plan for Science, Technology, and Innovation 2010–2014. Scientific and technical research is governed by the country's National Research System, which is responsible for encouraging research by raising the number and skills of investigators who work on scientific and technological development and by increasing the number of public and private research centers.

The country has progressively incorporated information management tools to improve health care services.

Panama also has a system of technical data sheets on human health products that are available for consultation.

#### Population structure, by age and sex, Panama, 1990 and 2010. 1990 2010 80-84 80-84 75-79 70-74 70-74 65-69 65-69 60-64 60-64 55-59 55-59 50-54 50-54 45-49 45-49 40-44 40-44 35-39 35-39 30-34 30-34 25-29 25-29 20-24 20-24 15-19 15-19 10-14 10-14 5-9 5-9 0-4 0-4 10 8 10 12 10 8 4 6 8 10 12 Ó ż 4 6 8 Percentage Percentage Males Females Males Females

# MAIN CHALLENGES AND PROSPECTS

According to demographic projections on the gradual aging of the population, in 50 years' time people age 65 and older will make up 17% of Panama's population, indicative of a greater need and demand for social welfare and health care services.

Indigenous and rural populations face substantial inequalities. Protecting these groups with national health programs is both a challenge and a priority. In recent years, poverty affected 17.7% of urban residents, 50.7% of rural dwellers, and 96.3% of the indigenous population.

Life expectancy in indigenous regions of the country is between 7 and 9 years less than the level attained in the rest of the country. Life expectancy in the Emberá indigenous region was 66.2 years in 2007 and 66.9 years in 2009. Similarly, in the Ngäbe-Buglé indigenous region, it was 68 years in 2007 and 68.6 years in 2009.

Between 2007 and 2010, there were 892 emergency or disaster events in Panama. The national emergencies due to floods and landslides in December 2008 and in December 2010 resulted in the loss of human life and health services infrastructure and, for the first time, made it necessary to temporarily close the Panama Canal.

Panama City alone generates between 900 and 1,200 tons of refuse daily. In 2010, most of the country's waste collection sites did not meet the minimum requirements established for controlled landfills.

Arid and degraded lands make up 27% of Panama. These lands are home to approximately half a million people, the majority of whom live in conditions of poverty or extreme poverty. These lands encompass five provinces and an indigenous region. In an effort to preserve the country's forests, Panama increased its percentage of protected areas from 34.3% in 2006 to 38% in 2009.

Although the level of health has markedly improved in recent decades, rural and indigenous populations still encounter major inequalities in health status and in access to health care services. Overall malnutrition levels have decreased, but in the impoverished indigenous areas, malnutrition has actually increased. Low weight-for-age affects 12.4% of children under 5 in those indigenous regions, and low weight-for-height affects 62.0% of them; these values are triple the national levels. According to the WHO reference standard, indigenous children at 5 years of age are 9.2 cm shorter than their counterparts in urban areas and 6.9 cm shorter than children in rural areas. Growth among indigenous children under age 5 is inadequate, but it is even worse among the indigenous children between 12 and 24 months of age.

Diseases of the circulatory system are the leading cause of death in the large majority of the country's provinces. In 2009, mortality due to diseases of the circulatory system was 45.51 per 100,000 population. Mortality due to malignant tumors remained practically

unchanged between 2007 (at 24.64 per 100,000) and 2009 (24.33 per 100,000). In 2009, the incidence of diabetes was 157.5 per 100,000 persons.

The country allocates a substantial percentage of its GDP to health sector spending, but out-of-pocket expenditures continue to be high, and social spending on health has declined. The public health sector provides care to 90% of the population. However, health establishments, services, and human resources are highly concentrated in the urban areas. With this inequitable distribution, the indigenous population and people living in remote areas have limited access to care.

Although the social assistance networks of the Ministry of Public Health and the Social Security Fund are being expanded, their inequitable distribution persists, along with a segmentation in the portfolio of services. Those two entities maintain cross-subsidies, duplicate services, and compete against each other. Moreover, there is no clear separation of functions, thus giving rise to inequity, undermining leadership capacity, and increasing costs.

The indigenous regions have access to outpatient care through a basic services package that applies some degree of cultural adaptation. In general, however, the indigenous population and people living in remote areas lack access to services due to economic and geographical barriers, but especially owing to the lack of infrastructure and available technical personnel.

The availability of skilled human resources and infrastructure to use in endeavors related to science, technology, and innovation is quite limited. The country invests 0.26% of GDP in research, development, and innovation, and has only 476 investigators working on a full-time basis. These are low figures, even for Latin America, where the average investment in research, development, and innovation is 0.7% of GDP.

As Panama's Strategic Plan of Government 2010–2014 is carried out, an important step could be taken to reduce health inequalities. The Plan has two key priorities: human capital formation for development and social inclusion. The social inclusion priority encompasses such concerns as reducing malnutrition; expanding drinking water supply systems; increasing the coverage and enhancing the quality of basic health services; expanding access to decent housing; establishing a system of safe and efficient public transportation; implementing preventive measures on behalf of citizen safety; and strengthening the social protection system.