

Mexico is located in the southern portion of North America. It shares a border with the United States of America to its north, and with Belize and Guatemala to its east; it has coasts on the Gulf of Mexico, the Caribbean Sea, and the Pacific Ocean. The country extends for 1,972,550 km<sup>2</sup> and encompasses a diverse geographyfrom coastal areas to mountainsand a variety of climactic zones. It is governed as a representative and democratic federal republic, with executive, legislative, and judicial branches. The country's political and administrative structure includes the Federal District (Mexico City, the capital), 31 states, and 2,438 municipios.

In 2009, the Mexican economy suffered the effects of the international financial crisis as well as the influenza A(H1N1) epidemic, with a 6.5 % contraction in the gross domestic product (GDP) that year. The 2010 census confirmed that Mexico continues to be a country with a young population: half of the country's population is 26 years old or under, and 29% is 14 years old or under. In 2008, 50.6 million Mexicans were considered to be poor, and 19.5 million were extremely poor. The proportion of the population that is economically active is estimated at 57.5%, and a growing share (28.5%) of this population works in the informal economy. The unemployment rate in the country is estimated at 5.2%.

The country has experienced noteworthy progress in health. For example, maternal mortality fell from 55.6 to 53.2 deaths per 100,000 live births between 2007 and 2009, and infant mortality declined from 15.9 to 14.9 deaths per 1,000 live births between 2006 and 2009.

### MAIN ACHIEVEMENTS

### **HEALTH DETERMINANTS AND INEQUALITIES**

Advances were made in housing quality as well as in access to drinking water, with 69.7% of households now having a connection to a potable water network.

In 2010, the literacy rate among persons 15 years old or older reached 93.1% (94.4% for men and 91.9% for women), and with that group having an average of 8.5 years of schooling.

The 2010 national occupation and employment survey found that 59.2% of the population 14 years old and older was economically active (94.7% employed and 5.3% seeking work).

With support from the United States, the fight against transnational crime continues through the Mérida Initiative. The temporary agricultural workers program cosponsored by Canada is also still operating.

# THE ENVIRONMENT AND HUMAN SECURITY

In 2009, potable water coverage was 90.7% (94.3% urban and 78.6% rural). Sewerage coverage had reached 86.8% (93.9% urban and 63.2% rural). The total amount of urban solid waste generated is estimated to be 34.6 million tons per year (53% organic waste, 28% potentially recyclable waste, and 19% unusable). Solid waste accounts

### Selected basic indicators, Mexico, 2008–2010.

Indicator	Amount
Population 2010 (millions)	112.3
Poverty rate (%) (2008)	47.4
Literacy rate (%) (2010)	93.1
Life expectancy at birth (years) (2010)	76.7
General mortality rate (per 1,000 population) (2009)	4.8
Infant mortality rate (per 1,000 live births) (2009)	14.9
Matemal mortality rate (per 100,000 live births) (2009)	53.2
Physicians per 1,000 population (2008)	1.4
Hospital beds per 1,000 population (2009)	1.6
DPT3 immunization coverage (%) (2010)	95.0
Births attended by trained personnel (%) (2009)	97.4

for 87% of the total waste generated, of which 64% is sent to sanitary landfills, 21% to controlled sites, and the remaining 15% put in open dumps or uncontrolled sites.

### HEALTH CONDITIONS AND TRENDS

In 2010, infant mortality fell to 14.2 deaths per 1,000 live births. If the recent downward trend continues through the end of 2012, it is expected that the goal of reducing infant mortality by 40% in the 100 municipalities with the lowest human development index (HDI) will be achieved.

The incidence of dengue dropped by 48% from 2009 to 2010, and with a low case-fatality rate maintained. A large part of the country is in a position to be certified as malaria-free. The incidence of onchocerciasis, a disease in the process of being eliminated, dropped from 92 confirmed cases in 2006 to 8 in 2010. Detection and treatment have been strengthened for both Chagas' disease and leishmaniasis. The incidence of leprosy remains low, and control and elimination activities are continuing.

# HEALTH POLICIES, THE HEALTH SYSTEM, AND SOCIAL PROTECTION

The Secretariat of Health performs the steering role in the sector. The National Health Council promotes this function in the 32 federative entities. The National Health Program 2007–2012 and the Sectoral Health Program 2007–2012 guarantee access to basic services and reduce inequalities through interventions with vulnerable groups. The federal "Opportunities" and "Food Support"

### Obesity and Excess Body Weight: An Urgent Public Health Challenge in Mexico

The number of obese and overweight people in Mexico has tripled over the last 30 years. Currently more than 71% of the adult population is overweight: 39.5% are overweight (body mass index 25–29 kg/m<sup>2</sup>) and 31.7% are obese (body mass index  $\ge$  30 kg/m<sup>2</sup>).

Almost an epidemic in the country, obesity is a risk factor that can lead to the development of not only pathologies (such as diabetes and cardiovascular diseases) but also shorter life expectancy, and it can also affect quality of life.

Control of noncommunicable chronic diseases is considered to be the major public health problem in Mexico. This is especially true for diabetes mellitus, which affects 14% of adults. In 2009 it caused 78,121 deaths and for several years it has been the leading specific cause of death in the general population.

In 2010, the National Agreement on Nutrition and Health was approved, a strategy to combat overweight and obesity that is now under way.

programs provide money, food, scholarships, and free health packages to 5.8 million poor households. In 2009, spending in health was equal to 6.9% of the gross domestic product, although 47.7% of the total came from out-of-pocket expenses, 59% of which was for buying medications.

The vaccination series, which includes ones for rotavirus and pneumococcus, is one of the most complete in the Region of the Americas. The program has high coverage levels, and strategies are in place to maintain it. Between January 2009 and August 2010, 72,731 confirmed cases of influenza A(H1N1) were reported, with a high case-fatality rate.

With the 2008 approval of the general tobacco control law, significant progress has been made toward compliance with the commitments of the WHO Framework Convention on Tobacco Control.

Some 45.2 million Mexicans used health services in 2010. Of these, 42.7 million used the services through Popular Insurance, the federal and state secretariats of health, and the Opportunities program. Popular Insurance supported 275 interventions that are included in the Universal Health Services Catalog, which in 2010 represented 100% of primary care, 95% of secondary care, and 60% of illnesses involving catastrophic spending. Health coverage is complemented with Health Insurance for a New Generation, which since 2006 has provided protection beginning at birth for 5 million children. The country has 20,002 outpatient and hospitalization facilities and 62,239 clinics, 30% with general or family practitioners.

According to the Fifth Task Report of the Secretariat of Foreign Affairs of Mexico, the country made progress in its joint efforts with Mesoamerican regional agencies to reach approval for a governance structure for the Mesoamerican Public Health System (SMSP). Through these collaborative activities, 332 staff members from the countries of the region have received training.

Mexico has had good results with immunization coverage against measles, prevalence of underweight in children under 5, average number of prenatal checkups in public health institutions, treatment provided in confirmed cases of malaria, and HIV/AIDS prevalence.

> Other indicators have also improved, such as infant mortality, mortality in children under 5, deliveries attended by skilled personnel, prevention and control of dengue, and mortality from tuberculosis in all its forms.

#### Population structure, by age and sex, Mexico, 1990 and 2010. 1990 2010 80+ 80-75-79 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 4 6 10 12 14 2 14 12 10 8 6 2 Ó 2 4 6 8 10 12 14 14 12 10 8 6 4 2 ò 0 8 4 Ó Percentage Percentage Males Females Males Females

## Knowledge, Technology, and Information

According to the Fourth Report of the Federal Government (2010), the National Council of Science and Technology granted 35,000 fellowships for graduate studies, 68% for students in scientific areas. This demonstrates a

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greater emphasis on providing opportunities for students to receive quality training in strategic areas of development. According to the Information System on Science and Technology, in 2010 Mexico had 16,598 researchers accredited by the National Research System (66.75% men and 33.25% women).

### MAIN CHALLENGES AND PROSPECTS

From 2006 to 2008, the incidence of general poverty (the proportion of poor people) rose from 42.6% to 47.4%, while extreme poverty rose from 13.8% to 18.2%. The million poorest Mexicans live in 100 municipalities, predominantly indigenous municipalities (in the states of Chiapas, Oaxaca, Guerrero, and Veracruz). Infant mortality in these municipalities is 1.7 times higher than in the rest of the country, and life expectancy is lower: only 51 years for women and 49 for men (compared to the national level of 77.4 and 72.6, respectively).

Gender-based inequalities persist. For example, 2.5 million more women than men live in poverty; 8 million more women than men work without health insurance or pension benefits; and more women over age 15 are illiterate (7.6% of women vs. 4.8% of men). The illiteracy rate of the indigenous population over 15 years old is 32.5%. In some cases the illiteracy rate of indigenous women is two to three times that of indigenous men.

The principal mode of land transport is the private car, a method that has various negative consequences, including accidents, traffic congestion, and high emission of polluting gases. In Mexico City in 2008, moving vehicles (private cars, cargo vehicles, and buses) were responsible for 16.1% of the  $PM_{10}$  emissions and 51.8% of the  $PM_{2.5}$  emissions, as well as 49.3% of the sulfur dioxide, 99% of the carbon monoxide, 82.4% of the nitrous oxides, and 20.6% of the toxic pollutants. Successfully reducing the pollution generated by these sources is an urgent challenge.

Every day 50 people die from violence, 1,250 receive medical treatment, and 100 suffer some type of disability. Murders related to drug trafficking have increased drastically. The financial cost of the insecurity in Mexico was estimated at 8.9% of the GDP in 2009.

Maternal mortality is a priority challenge. Between 2006 and 2008, it increased 12.3% in the 40 municipalities with the lowest HDI. Although overall infant mortality

has dropped, the rate in the low-HDI municipalities is 2.2 times above the national average.

Mortality from breast cancer in women 25 years old and older has been rising, reaching a rate of 16.9 deaths per 100,000 women in 2009. However, deaths from cervical cancer dropped by 32% over the 2000–2009 period, with a rate of 13.6 per 100,000 women in 2009.

Underreporting of deaths is estimated at 1.5%. Illdefined causes account for 1.9% of total deaths. Between 2006 and 2008, noncommunicable diseases and injuries were responsible for 84% of the deaths. Adolescents are involved in 34.1% of traffic accident fatalities.

Tuberculosis is a public health priority; 18,850 new cases were reported in 2010 and 2,222 deaths in 2009. In 2009, 59% of the people living with HIV did not know it, and 14% of the persons who had been diagnosed as carriers were not yet receiving treatment.

The incidence of diabetes increased from 2000 to 2009, and this emerging problem must be tackled. Diabetes caused 78,121 deaths in 2009, making it the leading cause of death for the country. Mortality from ischemic heart diseases varies significantly from state to state. The highest rate is in Sonora (26.3 deaths per 100,000 population), and the lowest in Quintana Roo (7.3 deaths per 100,000 population).

Tobacco is responsible for 60,000 deaths annually in Mexico, where 14 million people between 12 and 65 years old smoke. Alcohol consumption is the most common cause of death among the young, as well as the fourth most common cause in the general population.

The disparate standards and operating norms at health institutions are among the biggest problems to be solved in order to functionally integrate the national health system. Segmentation in the national health system leads to gaps in people's access to health care services, and it reduces cost-effectiveness. Given this situation, it is a challenge to harmonize the treatment provided by the different entities around the various state secretariats of health with the treatment from the decentralized public agencies and the social security actors at this level.

In the health sector there are no human-resource policies or master plans to guide the education of professionals in line with the sector's priority needs. Current challenges include the need to adequately assess family doctors, nurses, and the health team as a whole.

Among the main challenges for the future are reducing maternal mortality and preventing and controlling noncommunicable chronic diseases.