Peru

Peru is located in South America's central-western region. It borders with Ecuador, Colombia, Brazil, Bolivia, and Chile; the Pacific Ocean borders its west. The country has a land area of 1,285,215 km^2, divided into three major geographical areas: a coastal region, a mountainous region, and the Amazon jungle. The country is rich in mineral resources and biodiversity; it is prone to natural disasters, chief among them earthquakes, tsunamis, floods, and landslides. The country is divided into 25 political-administrative regions (in addition to Metropolitan Lima), 195 provinces, and 1,834 municipalities. The capital is Lima.

Between 2006 and 2010, Peru's economy grew by 31%, and per capita gross domestic product (GDP), by 20%. Between 2001 and 2009, foreign investment jumped 43%, mainly going to mining, telecommunications, finance, and industry.

This economic boom has been accompanied by substantial population growth, longer life expectancy, lower birth and mortality rates, and the aging of the population. The country also is experiencing rising morbidity, mortality, and disability from chronic diseases, even though communicable diseases are still the leading cause of death.

Selected basic indicators, Peru, 2007–2010.

Indicator	Value
Population 2010 (millions)	29.5
Poverty rate (%) (2010)	31.3
Literacy rate (%) (2007)	92.9
Life expectancy at birth (years) (2010)	73.7
General mortality rate (per 1,000 population) (2007)	5.4
Infant mortality rate (per 1,000 live births) (2010)	17.0
Maternal mortality rate (per 100,000 live births) (2010)	93.0
Physicians per 1,000 population (2009)	0.8
Hospital beds per 1,000 population (2010)	1.5
DPT3 immunization coverage (%) (2010)	93.0
Births attended by trained personnel (%) (2009)	82.5

MAIN ACHIEVEMENTS

Health Determinants and Inequalities

Between 2005 and 2010, total poverty was reduced from 48.7% to 31.3%, and extreme poverty, from 17.1% to 9.6%. The urban-rural poverty gap remains large, however.

Illiteracy fell from 12.8% in 1993 to 7.1% in 2007. Rural populations have fewer average years of schooling than urban populations (6.4 and 10.9 years, respectively). Between 2005 and 2009, the percentage of women over the age of 15 with university studies increased from 8.7% to 12.1%, while those percentages for men rose from 11.1% to 14.3%.

The Environment and Human Security

In 2010, 76.4% of households were supplied with water through the public network. Some 57.5% of households had a public sewerage connection, 27.6% had a latrine or septic tank, and 14.9% had no excreta disposal system (30.3% in rural areas).

Coverage for solid waste collection was 74.0%. Only 66.0% of the 8,532 tons of refuse produced daily was disposed of properly through various means, while 29.8% was dumped into the environment (mainly rivers and beaches).

Health Conditions and Trends

Progress was made in maternal and child health between 2006 and 2010, although the urban-rural gap persisted. The total fertility rate declined from 2.9 to 2.5 children per woman. Adolescent pregnancy held stable, and 74.4% of young women used some form of contraception.

Maternal mortality decreased from 185 to 93 per 100,000 live births. That progress was attributed to the increase in institutional births, the adaptation of care to make it culturally appropriate, and the use of maternity homes. Chronic malnutrition in children fell from 31.3% to 23.2%, and infant mortality, from 33 to 17 per 1,000 live births.

Between 2005 and 2010, malaria cases decreased but dengue cases increased. Considerable progress was made in the control of Chagas' disease, with certified elimination of vector-borne transmission in two of the three endemic departments. Some 8,000 cases of leishmaniasis are reported annually in the mountains and jungle. There are areas of enzootic yellow fever in the Amazon jungle. Since 2007, under the Accelerated Yellow Fever Plan, 11 million people between the ages of 2 and 59 have been vaccinated.

Between 2006 and 2010, coverage for vaccines in the national immunization schedule was over 90%; however, some districts still lack optimal coverage. The children's vaccination series introduced the pneumococcal, rotavirus, influenza, and pandemic influenza vaccines. In 2011, human papillomavirus vaccine was added to the regimen, and measles, rubella, and hepatitis B vaccination campaigns were carried out, achieving high coverage.

Morbidity and mortality from vaccine-preventable diseases were substantially reduced. Tuberculosis morbidity fell from 129.3 to 108.5 per 100,000 population. Sixty-seven new cases of leprosy were reported, all from the Amazon jungle. Each year, 1,000 cases of AIDS and 3,000 cases of HIV have been reported (500 in pregnant women, all of whom received antiretroviral therapy).

Health Policies, the Health System, and Social Protection

The health system includes the public and private sectors. The public sector is made up of the Ministry of Health and the regional health bureaus (which serve the poor and indigent population), the Social Security system (for the

National Solidarity Health Plan

In 2001, the Sectoral Policy Guidelines for 2002–2012 were prepared to steer health sector activities and lay the foundation for modernization of the sector. In 2006, a new health agenda was adopted and made public in the Coordinated National Health Plan, whose objectives are to: (1) develop the Government's capacity to manage and lead the health sector, (2) establish universal health insurance, (3) adopt cost-effective strategies for the primary activities, (4) improve financing, (5) implement a monitoring and evaluation system, (6) increase citizen participation, and (7) coordinate the interventions by all the stakeholders involved in the health system.

In 2009, Peru enacted the Framework Law on Universal Health Insurance. That created a regulatory structure for insurance, to guarantee the right of every person to gradually gain access to a package of interventions for diverse health conditions and diseases, whether or not they were part of the formal workforce.

The government-subsidized Comprehensive Health Insurance, which offers a basic package of services, must gradually come to resemble the social security benefits plan, which covers highly complex services.

salaried population), and the military and police health system. The private sector serves the wealthier population.

In 2005, total health expenditure accounted for 4.5% of GDP. Public expenditure represented 59.4% of total expenditure, while private expenditure represented 40.6%. Of the private expenditure, 75.4% was out-of-pocket. Some 62.6% of the population had health insurance coverage in 2010 (Comprehensive Health Insurance, 37.0%; social security, 20.1%; private insurance, 5.5%). Comprehensive Health Insurance is government-subsidized and offers basic benefits.

In 2011, the Comprehensive Family and Community Care Model was approved. This model includes disease prevention, health promotion, and recuperation services that are based on the life cycle.

In 2008, the Government promulgated Decree Law 1057, creating a new hiring system for personnel. Under this system, contracts spell out the duration of the employment, the work schedule, duties, and social protection benefits.

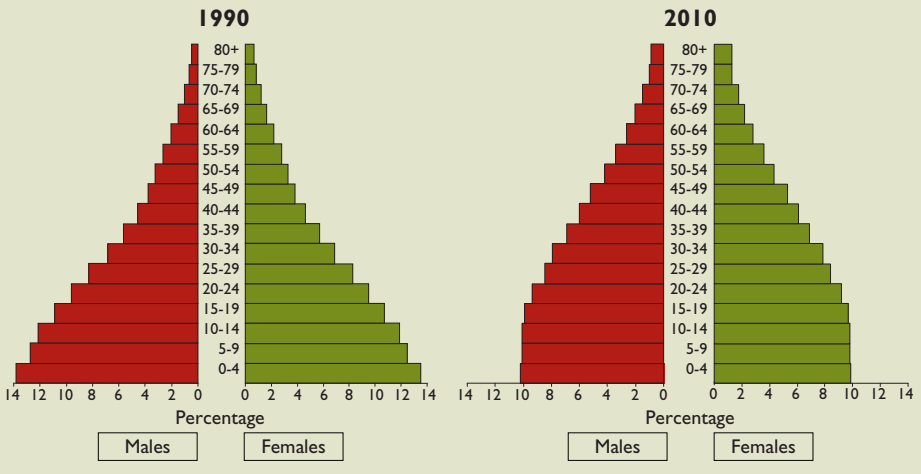
In 2009, although Peru had 7.9 physicians per 10,000 population, they were concentrated in major cities. The Ministry of Health has created incentives to encourage physicians to work in poor and remote areas. In 2006, the National System for Evaluation, Accreditation, and Certification of Educational Quality was created. The National Drug Policy addresses universal access, regulation, quality, and rational drug use.

KNOWLEDGE, TECHNOLOGY, AND INFORMATION

Between 2000 and 2009, the number of Peruvian science articles cited in Science Citation Index increased from 61 to 200. Of those articles, 94.7% came from Lima. The Universidad Peruana Cayetano Heredia and the Universidad Nacional Mayor de San Marcos boasted the greatest scientific output.

In 2010, Peru relied on two scientific/technical information management tools: the Virtual Health Library (VHL) and SciELO. The country received technical and financial assistance from the United States, Spain, Belgium, and the Global Fund to Fight AIDS, Tuberculosis and Malaria. This assistance was for efforts to control sexually transmitted infections, promote primary care, and develop policies on health administration and communicable disease control.

Population structure, by age and sex, Peru, 1990 and 2010.



MAIN CHALLENGES AND PROSPECTS

Despite its economic growth, Peru has experienced persistent and marked social and health inequalities. In 2009, the income of the wealthiest population quintile was 12.5 times that of the poorest quintile and represented 52.6% of the nation's income.

In 2009, Metropolitan Lima had unemployment rates of 8.9% among women and 4.3% among men, and 61.9% of workers in the capital were

employed in the informal sector and had no health insurance or any other social benefits. Geographical and gender gaps in education also persist. Illiteracy in rural areas is 19.7% and in urban areas, 3.7%. Similarly, the average years of schooling in rural and urban areas are 6.4 and 10.9 years, respectively. Some 10.6% of women and 3.6% of men are illiterate.

In 2010, 51.8% of the population whose mother tongue was Quechua, Aymara, or an Amazonian language was living in poverty—double the figure for the population whose mother tongue was Spanish. The indigenous population lives primarily in rural areas, under precarious health and living conditions.

Preventing water pollution and providing the population with an adequate water supply will continue to pose major challenges. A little over one-third (36.6%) of poor households collect their water from a river, canal, or spring (88.3% in indigenous communities, where no disinfection is done). In 2009, only 35.0% of wastewater received any type of treatment before final disposal. In the Amazon region, only 9.7% of the population had an excreta disposal system. Another source of water pollution is mining; the majority of watersheds are contaminated with lead, arsenic, and cadmium.

In some locations, the bioconcentration of metals exceeds the standards for food quality. Air quality in metropolitan areas of Lima, El Callao, Arequipa, and other industrialized urban centers is poor. In 2009, measurements taken in Lima found concentrations of particulates less than 2.5 μm in diameter that exceeded the recommended level.

In 2007, a 7.9 magnitude earthquake struck the country, followed by a tsunami in the bay of Pisco, causing 596 deaths as well as serious damage to the health service infrastructure in some communities, including Lima. The country has gained experience in disaster mitigation and recovery, but preparedness for future disasters remains a challenge.

Among poor, rural, and indigenous women, it will be a challenge to achieve some of the Millennium Development Goal (MDG) targets, including ones for reducing fertility, maternal mortality, and physical and sexual violence. Efforts aimed at children should focus on lowering mortality, chronic malnutrition, and anemia (in rural areas). With adolescents, intensive efforts are needed to promote healthy lifestyles and prevent abuse of alcohol and other substances.

Workplace accidents are a major cause of death and disability, so surveillance and prevention education should be a priority. Activities to control vector-borne diseases and leprosy are needed, especially in the Amazon jungle. Multidrug-resistant tuberculosis is a public health problem, primarily in Lima and El Callao.

Communicable diseases are still the leading cause of death. However, noncommunicable diseases (NCDs) are responsible for considerable disability, morbidity, and mortality. Particularly important are traffic accidents among adolescents and young adults, as well as cardiovascular diseases and malignant neoplasms (especially cervical, breast, gastric, lung, and prostate cancer), diabetes, and hypertension among adults.

In terms of mortality rates from NCDs for the population overall, the highest rates (per 100,000 population) are found with ischemic heart disease (44.8), cerebrovascular disease (31.4), cirrhosis of the liver (21.3), stomach cancer (21.0), and diabetes (20.4). Studies with a national scope will be needed to learn more about the population's mental health status.

Only 40% of the adult population engages in some form of physical activity. The percentage of the population that is overweight has reached 35.3%, and the obese population, 16.5%. Almost a fifth of the population (19.6%) has high cholesterol.

It is hard to achieve efficiency in the health sector, given the segmentation, divisions, inadequate financing, ineffective Ministry leadership, and limited participation by other sectors.

The development of medical devices has barely started, since there are no professionals who specialize in this area. Health technology assessment needs to be improved, and the Ministry of Health formed a committee for this purpose in 2011. With respect to human resources, the incentives to work in outlying areas should be maintained.

Progress in scientific output is expected to continue, through the creation of research centers outside Lima. As a member of the Andean Community and the Union of South American Nations, as well as an associate member of MERCOSUR, Peru participates in the implementation of the health plans of these bodies, with regard to access to medicines, strengthening health services, and human resources.

The health situation in Peru has improved, and the country expects to achieve the MDG health targets. However, access to basic services must be increased, particularly in rural areas. Reducing the burden of communicable diseases poses a real challenge. In addition, the country must work on preventing and controlling NCDs and on promoting healthy lifestyles.

Better organization of the sector and a stronger Ministry of Health role in governance will make it possible to increase access to quality health services. Improved coordination among the health services and more public spending are also needed, along with an enhanced health information system to monitor and evaluate activities and to measure their impact on health.