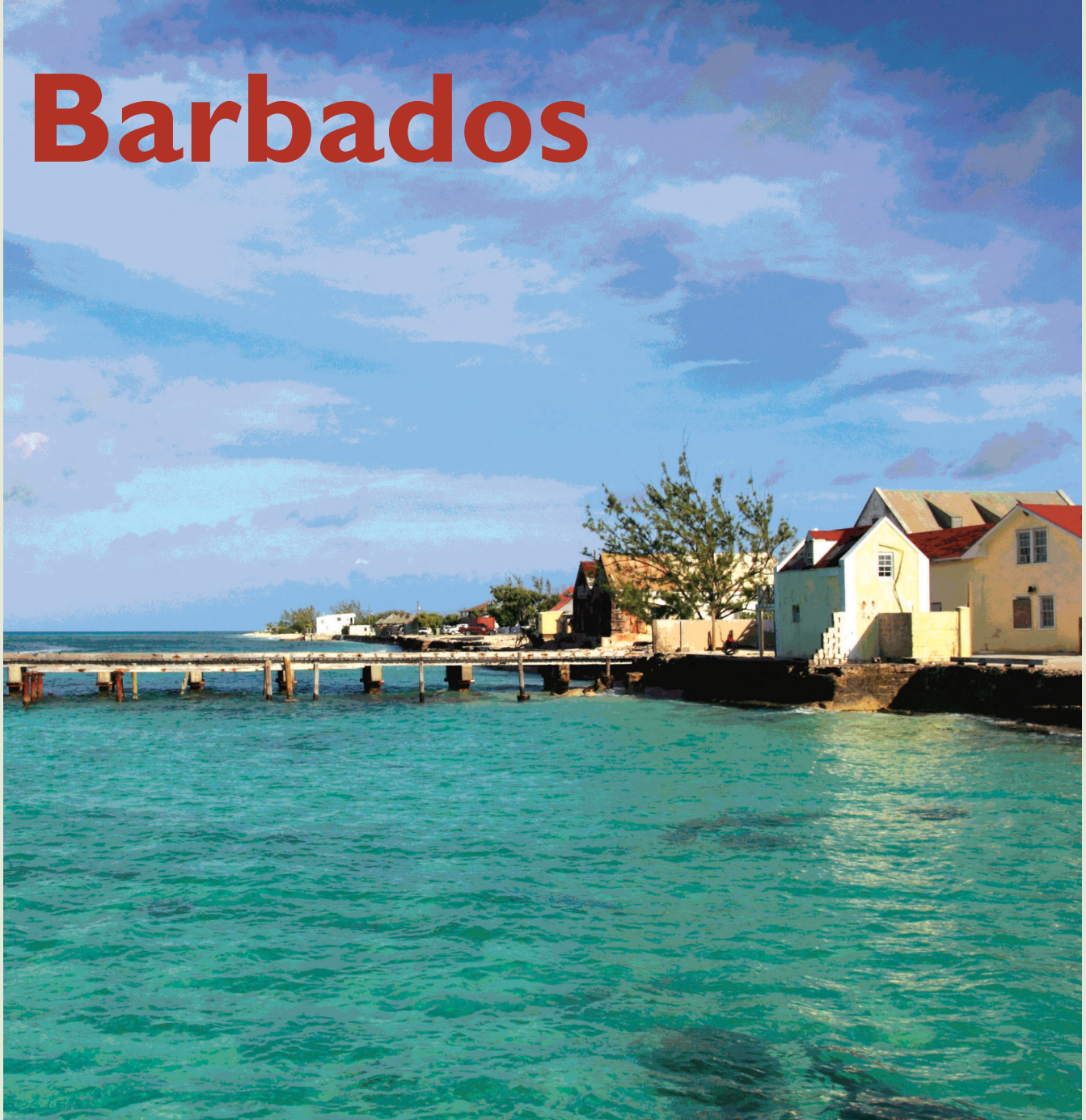


Barbados



Barbados is the easternmost country in the Caribbean. It is a coral island that covers 430 km², with a length of 34 km and width of 23 km. The topography is generally flat. It has a tropical climate and is vulnerable to natural hazards such as hurricanes and tropical storms, with associated storm surge and flooding. Bridgetown is the capital city, and the country is divided administratively into 11 parishes. Barbados gained its independence from the United Kingdom in 1966 and is a member of the Commonwealth of Nations. It has a democratically elected, parliamentary form of government.

During the period 2006–2010, Barbados continued to improve its health situation: life expectancy improved and the country managed to lower the infant mortality rate, thanks to improvements in the standard of living and in access to health care. At the same time, the Expanded Program on Immunization (EPI) continued to reduce the incidence of vaccine-preventable disease.

There is growing public awareness of the role environmental issues play in maintaining a healthy population and programs have been developed to address the country's main public health issues.

Chronic, noncommunicable diseases constitute a formidable challenge, and the country has taken a number of different steps to address this problem.

MAIN ACHIEVEMENTS

HEALTH DETERMINANTS AND INEQUALITIES

In 2010, the Barbadian government, in conjunction with the Caribbean Development Bank, conducted a survey on poverty and living conditions in the country. This survey represents the first research of its kind since the Inter-American Development Bank's survey on poverty in Barbados in 1997. This new survey found that approximately 13.9% of the population was living in poverty. The results of the survey provided relevant information to be taken into account in poverty reduction policies and related social programs.

The UNDP's *Human Development Report 2010* reaffirmed that Barbados is classified among the countries with a very high level of human development.

Barbados guarantees primary and secondary education to children and adolescents through 16 years of age, providing state-sponsored educational services. Due to advances in education quality, between 2005 and 2010, literacy was nearly universal (99.7%).

THE ENVIRONMENT AND HUMAN SECURITY

With regard to sanitation, the country has achieved universal coverage of drinking water, sewerage, and excreta disposal systems.

The potential impacts of climate change on Barbados have been considered by the country's health authority. Consequently, Barbados was the only country of the Americas selected to participate in the Global Environment Facility program, "Piloting Climate Change

Selected basic indicators, Barbados, 2009–2010.

Indicator	Value
Population 2010 (thousands)	276.0
Poverty rate (%) (2010)	13.9
Literacy rate (%) (2010)	99.7
Life expectancy at birth (years) (2010)	77.7
General mortality rate (per 1,000 population) (2010)	8.0
Infant mortality rate (per 1,000 live births) (2010)	10.9
Maternal mortality rate (per 100,000 live births) (2010)	58.4
Physicians per 1,000 population (2009)	1.3
Hospital beds per 1,000 population (2009)	6.8
DTP3 immunization coverage (%) (2009)	88.3
Births attended by trained personnel (%) (2009)	100.0

Adaptation to Protect Human Health" for 2010–2014, which led the country's Ministry of Health to establish its Climate Change Unit.

HEALTH CONDITIONS AND TRENDS

In recent years, Barbados achieved major progress with regard to health outcomes and has adopted policies in line with the country's new epidemiological profile. During the reporting period, mortality declined from 8.5 per 1,000 population in 2006 to 8.0 in 2010. Cardiovascular diseases and neoplasms constituted the leading causes of death in Barbados.

With respect to the Millennium Development Goals (MDGs), Barbados has achieved MDG 5, which addresses improved maternal health. The maternal mortality rate has varied only slightly, with 56.7 per 100,000 population in 2006 and 58.4 in 2010 (two deaths). During the period 2006–2010, women received free prenatal care in polyclinics and all births were attended by health professionals. The infant mortality rate in 2010 was 10.9 per 1,000 live births. The country's program for preventing mother-to-child transmission of HIV has been instrumental in reducing such transmission from 27.1% in 1995 to 1.5% in 2008.

In 2010, coverage with the pentavalent DTP vaccine was 88.3% and coverage with the measles, mumps, and rubella (MMR) vaccine was 87.2% (first dose). During the reporting period, there were no cases of any of the diseases included in the national immunization program. In 2009, the pneumococcal vaccine for infants was incorporated in the national immunization program.

National Registry for Chronic Non-Communicable Disease

The Barbados National Registry for Chronic Non-Communicable Diseases (BNR) is the country's first disease surveillance system aimed at monitoring chronic diseases such as strokes, myocardial infarctions, and cancer.

The Registry initiated its activities with the BNR-Stroke registry in 2008, which was followed by the BNR-Heart registry in 2009 and the BNR-Cancer registry in 2010. This national demographic registry collects patient data from hospital and community registries and face-to-face interviews with patients.

This surveillance tool is now well established, providing precise and timely data on these pathologies. This information will make it possible for the health sector to assess the burden of noncommunicable diseases for the population, develop practices and policies to ensure the efficient use of limited resources, and facilitate the monitoring and evaluation of interventions. The BNR has already played a decisive role in identifying deficiencies in clinical practice, as a data source for public health policies, and in generating statistics related to incidence, mortality, and survival.

Dengue is endemic to Barbados. The number of dengue cases was variable and case fatality was low. Malaria is not endemic to the country but two imported cases were diagnosed in 2010. Between 2006 and 2010 there were 61 confirmed cases of human leptospirosis.

Between 2001 and 2008, the AIDS case-fatality rate declined from 10% to 2%, which was attributed to the impact of the Barbadian government's highly active

antiretroviral therapy (HAART) program, which has been operating since 2002.

HEALTH POLICIES, THE HEALTH SYSTEM, AND SOCIAL PROTECTION

The Strategic Health Plan for 2002–2012 of the Ministry of Health has guided priority actions in the health sector. Financing from the budget of the Ministry of Health for 2009/2010 reached US\$ 134,284,639, accounting for 10.8% of total public spending in 2010. The country also received significant international assistance, primarily to finance programs to prevent HIV/AIDS.

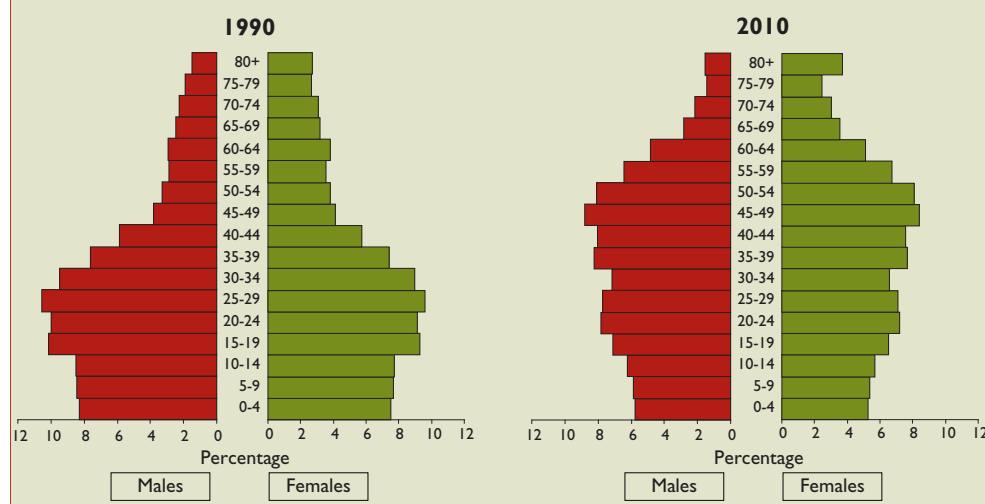
With a view to addressing the problem of chronic, noncommunicable diseases, in 2006 the country formed a study group on developing cardiovascular services. The following year the National Commission on Chronic Non-Communicable Diseases was established, which prepared a strategic plan for 2009–2012.

Following ratification of the Framework Convention on Tobacco Control in 2005, the country adopted a number of measures, including doubling cigarette taxes, prohibiting smoking in public places, and banning tobacco sales to minors.

Strategies have been adopted to address the problem of Barbados' aging population, including the establishment of community geriatric centers that provide primary care, the commissioning of four district hospitals to provide long-term care to older adults, and establishment of an alternative program to provide home care services.

A primary care study group was formed with a view to strengthening this strategy and searching for measures to promote equity and solidarity in health, with particular emphasis on the protection of vulnerable populations.

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



KNOWLEDGE, TECHNOLOGY, AND INFORMATION

In 2007, Barbados established a study group on information management and information technology, which oversees development of the country's health information system. In 2010, the Ministry of Health performed an evaluation of the country's health

information system using the Health Metrics Network tool created by WHO to help strengthen such systems. The recommendations from the evaluation served as a foundation for establishing a health information system.

As part of this initiative, the Barbados National Registry for Chronic Non-Communicable Disease (BNR) was established. The registry facilitates monitoring at numerous clinical and epidemiological facilities associated with three groups of important pathologies in the country: stroke, myocardial infarction, and cancer.

MAIN CHALLENGES AND PROSPECTS

Like other Caribbean islands, Barbados grapples with water shortages. Due to scant surface water, the country depends almost entirely on groundwater.

Soil erosion continues to be a problem in many parts of the island, but is especially evident in the Scotland District, located in the northeast portion of the island. The geological and topographical features of this area predispose it to landslides.

The incidence of chronic, noncommunicable diseases has been rising, which in turn has placed a significant economic burden on the country over the last 30 years. The Ministry of Health estimates that in 2030, 86.3% of deaths in Barbados will be caused by this group of diseases. The country's Chronic Non-communicable Disease Risk Factor Survey conducted in 2007 showed

that 65.2% of the population age 25 years and older were either overweight or obese.

The shortage of human resources for health constitutes one of the most significant challenges for the country. Currently, health professionals, especially nurses, are recruited from other Caribbean countries, Africa, and Southeast Asia. The Ministry of Health has continued to formulate strategies to prevent the migration of health care professionals to higher income countries.

In recent years, public spending on pharmaceutical drugs has markedly increased, prompting the Ministry of Health to consider proposals for introducing a licensing fee for private-sector pharmacies and promoting the rational use of medicines. In September 2010, a comprehensive audit of the national drug formulary was carried out and steps were taken to strengthen the country's Drug Formulary Committee, resulting in recommendations that have already begun to be implemented.

In order to strengthen the organization, structure, and performance of the health system, a series of planning and evaluation exercises geared toward an eventual restructuring of the health system will be necessary. Accordingly, this restructuring will enable the system to provide more comprehensive solutions to health problems and to ensure the quality of care. The restructuring will include modifications to the structure of financing and to the design of incentives, as well as the adoption of management models that include a performance management system.