

2017 Edition

Health in the Americas+

Summary: Regional Outlook and Country Profiles



Pan American
Health
Organization



World Health
Organization

REGIONAL OFFICE FOR THE Americas

2017 Edition

Health_{in the} Americas⁺

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**World Health
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REGIONAL OFFICE FOR THE **Americas**

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This second print run has corrected typographical and formatting errors identified in the initial print run.

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FOREWORD

Health is not only an indispensable right but a condition that enables the full enjoyment of other rights. The 2030 Agenda for Sustainable Development reflects this view by proposing a universal, integrated, and indivisible vision that clearly expresses the interlinked nature of human health and well-being with economic growth and environmental sustainability. This ambitious Agenda will set the course for public policies in the coming decades, and achieving its goals will require more collaborative approaches to address inequities in the Region across the social, environmental, and economic dimensions of development, including a clear intergenerational vision.

Health in the Americas+ is the latest 5-year report issued by the Pan American Health Organization, covering the years 2012–2017, on the health situation, health determinants, and health trends in the Region of the Americas. This edition of *Health in the Americas* has much to celebrate. The 2012–2017 period saw the culmination of the Millennium Development Goals (MDGs), and within this framework, Latin America and the Caribbean made important strides against poverty and extreme poverty, hunger, and infant and childhood mortality. People in the Region are living longer, healthier lives. As highlighted in this report, mortality due to noncommunicable diseases declined, as has the incidence of certain communicable diseases, such as tuberculosis and HIV, and public health expenditure as a percentage of gross domestic product increased.

But challenges still remain.

Chief among these are the profound health disparities that plague our region. Many in Latin America and the Caribbean lack access to basic health care. Inequalities in health outcomes are present from the start of life and are shaped by the intersection of characteristics such as socioeconomic status, gender, race, ethnicity, and place of residence. As the Economic Commission for Latin America and the Caribbean (ECLAC) has affirmed, these health inequalities accumulate along the life course and prevent the full enjoyment of rights and full participation in all spheres of our societies. They also have serious implications for the intergenerational transmission of well-being to future generations.

It is also true that the remarkable and widespread recent gains in health in the Region have occurred in a favorable economic context and one where member governments made a commitment to combat poverty and reduce inequalities. In the present context of economic deceleration, it is especially critical for governments in Latin America and the Caribbean to strengthen their commitment to universal health coverage, which is a crucial step to building social protection systems from a rights-based perspective. Progress must also be made to improve the quality of health services and promote an integrated and holistic approach to health in order to create positive synergistic relationships with other dimensions of well-being.

Moreover, many countries in the Region are simultaneously responding to the health pressures associated with an increasingly elderly population, with a concomitant rise in chronic noncommunicable diseases, and the persistent challenge of reemerging and emerging infectious diseases, such as dengue and Zika. Addressing the unpredictable but often devastating impact of climate change, including the increase in natural disasters, on morbidity and mortality, particularly among the poor, the young and the elderly, and women, is also a challenge.

Amid these challenges there are also opportunities. The ever-evolving technological landscape will continue to revolutionize the health field, from its management and infrastructure, to integrate new products and mechanisms for improved service delivery. This technological progress can lead to improvements in health, even in the context of slow or stagnant economic growth. While these technological developments certainly have the potential to improve the population's health and quality of life, and close inequity gaps, caution must be exercised so they do not inadvertently exacerbate health inequalities—as certain segments of the population are able to reap their benefits while others are left at the margins.

As we transition to the new development agenda, we also have the opportunity to learn from the MDG experience, which yields valuable lessons for improving population health. Some of these lessons include the need for better coordination among public sector entities in implementing and following up on health-related development goals, the need to establish precise goals and

indicators that respond to regional- and country-level realities, and the need to improve data sources in order to have high-quality, periodic, and disaggregated statistics, so that we may go beyond regional and country averages to identify and address the needs of those who are being left behind, in the spirit of the 2030 Agenda.

The people of the Americas are its most valuable resource. Promoting and protecting their health are essential in order to advance towards more equitable and productive societies. I believe that fulfilling the 2030 Agenda and guaranteeing the full enjoyment of rights, particularly in these uncertain times, will require new coalitions, alliances, and pacts, both within our countries and between them, so that we may all, together, build the inclusive, fair, and sustainable future to which we aspire.

Alicia Bárcena, *Executive Secretary*
United Nations Economic Commission for Latin America and the Caribbean

PREFACE

Since its inception 61 years ago, *Health in the Americas* has been recognized as the flagship publication of the Pan American Health Organization (PAHO). It fills a special information niche as a one-of-a-kind report on major progress, challenges, and trends in health in the Region of the Americas.

Historically, *Health in the Americas* emerged in response to a mandate from the 7th PAHO Directing Council in 1953, in which Member States requested the Director of the Pan American Sanitary Bureau (PAHO's secretariat) to prepare a periodic report on regional health conditions. Since its groundbreaking edition in 1956, the publication has been issued 15 times.

This latest 2017 edition reflects major innovations in the extension and development of *Health in the Americas*. We have expanded on the publication's traditional epidemiological focus to include a new prospective dimension that provides scenarios constructed on the basis of historical trends and anticipated occurrences. Moving beyond merely observing, describing, and explaining past or present events, this edition goes one step further to forecast the future of health in the Region.

For the first time, the printed edition of the publication—which historically captured a snapshot in time—is being complemented by an interactive platform, *Health in the Americas+*, that will be regularly updated with new data and content as they become available. This platform will enable Member States to both retrieve and contribute timely information and to share analyses and reflections on their progress toward the achievement of universal health.

Another novelty in this edition's development was the input from diverse stakeholders involved in health at the country level, which has added richness and depth to the publication's content. Special fora were convened by PAHO country offices to enable this broad stakeholder contribution. Last but not least, a team of external reviewers and an expert technical advisory group were enlisted to contribute to and conduct a critical analysis of the publication.

Health in the Americas+ 2017 arrives as the world commits to the 2030 Agenda for Sustainable Development, a set of 17 ambitious and visionary goals aimed at achieving sustainable development. While the Sustainable Development Goals represent the new way forward, it is undeniable that unprecedented progress was achieved by the countries of the Americas in pursuing the Millennium Development Goals between 2000 and 2015. *Health in the Americas+ 2017* highlights how this Region and the countries have steadily increased coverage and access to health services, improved life expectancy, and decreased the gap in inequalities. Reductions in infant and under-5 mortality and in the burden of infectious diseases are some of the successes detailed in this new edition.

Perhaps our most important achievement has been our enhanced understanding of the gaps that remain in health and the specific obstacles that must be overcome to attain our ultimate goal of universal health.

We are keenly aware, for example, that achieving universal health will not be possible if health systems remain fragmented and segmented and as long as people are forced to purchase services in order to address their health needs. In addition, our analyses indicate that there is a need for increased public investments in health. It is also crucial that the private sector, academia, civil society, and communities contribute by investing and co-managing actions and best practices to ensure that no one is left behind.

Our Region is very heterogeneous in terms of its epidemiologic trends, as we note many countries bear the double burden of both communicable and noncommunicable diseases. Noncommunicable diseases, including cardiovascular diseases, cancer, diabetes, mental illness, neurological and substance abuse disorders, and violence and accidents, are the leading causes of illness, disability, and death in the majority of our countries. While many effective interventions are available, they are not, however, accessible to everyone. We must therefore address these inequities.

Communicable diseases, including emerging and reemerging ones, pose an ongoing threat for the entire Region. Implementation of the International Health Regulations is progressing, but accelerated efforts are needed to ensure sustainable achievements in

this area. Over the last few years, the Region has experienced outbreaks of chikungunya, cholera, Ebola, yellow fever, Zika, and other public health events that have severely tested our preparedness and response capacities. At the same time, the countries of the Americas have led the world with the elimination of communicable diseases: rubella and measles are the most recent examples, but other diseases, such as onchocerciasis and maternally transmitted HIV and syphilis, are now well positioned to be eliminated. In this regard, PAHO is advancing a comprehensive elimination agenda that includes concrete, quantifiable, and verifiable targets.

Population aging is forcing us to rethink health and redesign our health systems. Our people are living longer, a positive development, but meeting their changing health needs requires innovation and special attention to avoid discrimination. The life-course paradigm helps us to ensure that our work in health is inclusive of all populations along the entire age spectrum.

Another important challenge we face is to ensure environmental sustainability. The health sector, in concert with other sectors, must engage in responsible actions and behaviors to promote environmental health and ensure steady progress toward universal access to potable water and basic sanitation. Additionally, reducing pollution and mitigating the impacts of climate change will be crucial for preserving our planet.

This report offers important insights and analyses of these and other major health challenges and opportunities facing our Region today. The information presented in *Health in the Americas+ 2017* is essential for rational decision-making, as we forge a common regional health agenda—aligned with and bolstered by the 2030 global agenda. It is our hope that these findings will be used by countries to develop and refine health frameworks that will allow each individual the possibility of achieving the highest attainable standards of health. Such frameworks should be constructed with the understanding that the 2030 Agenda for Sustainable Development is the chosen pathway, Health in All Policies will be essential to advance along the way, and universal health is the end goal.

Carissa F. Etienne, *Director*
Pan American Health Organization

NOTE TO OUR READERS

This edition of *Health in the Americas* honors the tradition of past reports while introducing a number of innovations.

Health in the Americas+, 2017 Edition. Summary: Regional Outlook and Country Profiles presents achievements and challenges regionwide and nationally. The topics covered include universal health policy, the main problems and drivers affecting health, and the health outlook and trends seen in the past 5 years. The current edition features a new section that takes a prospective view, projecting current trends to anticipate the issues that lie ahead for the Region.

Following the Regional Outlook section is the Country Profiles section. Each profile presents the latest available data for a range of indicators and trends, together with highlights of health progress and analysis of gaps that need to be addressed going forward.

This printed volume is an abridged version of the complete texts that are available online at www.paho.org/hia2017. This online platform shares the same name as the book, *Health in the Americas+*. The plus sign in the title denotes that this edition is not merely a snapshot in time of health data and numbers but an interactive project. The interactive platform will be regularly updated with new content, multimedia resources, links to relevant literature and reports, e-books for greater accessibility, and social media features for information sharing. Users can register with the site to receive announcements pertinent to health in the Region and can customize reports to their interests using the “My *Health in the Americas*” feature.

We hope that these editorial enhancements will serve both to interest and to enlighten you, our readers.

Note: Given that information has been used from various official and non-official sources, it is possible that there may be discrepancies in the data. The basic indicator tables in the country summaries were developed using data published by the United Nations Population Division and Statistics Division for 1990, while data for the years 2013, 2014, and 2015 were derived from the Health Information Platform (PLISA) of the Pan American Health Organization and were adapted to incorporate new national data if available. In some cases, population data from the United States Census Bureau were used. All figures in the Regional Summary were prepared using data provided by the countries.

ACKNOWLEDGMENTS

This publication would not have been possible without the strong and sustained commitment of our Member States together with the significant inputs and insights of a wide cross-section of stakeholders. In this regard, we gratefully acknowledge the priceless collaboration of staff from the ministries of health and other governmental institutions in the countries and territories of the Americas.

We are also very appreciative of the unstinting contributions of the Technical Advisory Group, whose advice and guidance provided great clarity for us as we embarked upon this publication journey.

We sincerely thank those UN partners, other international agencies, nongovernmental organizations, and academic institutions whose tangible contributions have been invaluable for this publication.

We extend our genuine gratitude to the associate and copy editors, the translators, and others, whose inputs added the final polish to this flagship publication.

Finally, to all of the PAHO staff who have contributed to this publication from its conceptualization through its development to the assembly of this final product, we convey our deepest appreciation.

The complete list of contributors for *Health in the Americas+ 2017* is available at www.paho.org/hia2017.

INTRODUCTION



One of the core mandates of the Pan American Health Organization/World Health Organization (PAHO/WHO) is to collect and disseminate information on health conditions and trends in the countries and territories of the Americas. *Health in the Americas* is PAHO's flagship report to fulfill that mandate. *Health in the Americas+ 2017* upholds the tradition of its predecessors and at the same time represents a turning point from the past. Published every 5 years, the 2017 version continues to build off data in the previous editions and for the first time, the report extends projections into the future as well.

As in previous editions, based on the most recent data gathered from the countries and territories of the Americas, the report presents:

- the foundations of health;
 - the most important challenges for health in the Region;
 - health trends based on an analytical review of the data over the past 5 years; and
 - the future outlook for health in the Region.
- social inequalities in health;
 - the social, economic, and environmental determinants of health;
 - sustainable development; and
 - health systems reform.

These are complex issues, with lasting impact on policies, and are addressed in the working agendas and in the positions adopted by PAHO.

Health in the Americas+ 2017 maintains continuity from previous editions in several ways. First, once again it provides an assessment of health in the Region of the Americas and its trends over the preceding 5 years. Second, it also continues to direct attention to issues that are at the heart of the conceptual debate and the practice of public health, as well as the planning, design, and implementation of health policies. Finally, since the 2002 edition, *Health in the Americas* has been devoting space to issues such as:

This edition also marks a turning point from previous ones. In addition to being an essential resource for describing the current health situation, gaining an understanding of the overall situation, and observing its trends, this edition looks forward to serve as an indispensable health information tool that will provide the vision and the strategies for achieving health. In doing so, this edition points out current and potential roadblocks and documents changes taking place in today's health system structures, functions, organization,

and policies, with a view to making this vision attainable and setting a viable course toward realizing it.

In another important innovation, this latest edition transforms *Health in the Americas* from a reference document and repository of statistics into a true interactive online platform. It is thus intended as a resource where health stakeholders from any area can find reliable, high-quality information that is regularly updated, and where they can offer their own contributions, from the front lines at the country level, where health policies are crafted, and from academia and the scientific community.

The following summary to *Health in the Americas+ 2017* examines the aspects of the health situation in the Region through the lens of the following driving motivations:

(1) universal health, its values and principles, and its strategies for action;

(2) the leading health problems and challenges, or those that are exerting the greatest pressure on health systems and on the physical and social context;

(3) the regional overview, with an analysis of the health situation and its trends; and

(4) the future outlook for health in the Region, with some of the main characteristics of the roads under construction leading to the vision for the future.

Following the Regional Outlook section are the profiles for the countries and territories of the Americas. Each country profile presents selected basic indicators based on the latest available data, together with short notices that highlight the specific health achievements and gaps to address going forward.

Together, the Regional and Country sections provide detailed analysis and general insights on the context and necessary changes to improve health both at the local and regional levels.



REGIONAL OUTLOOK



UNIVERSAL HEALTH



Equity, solidarity, and the right to health—the values that underlie universal health, endorsed as a strategy for the States of the Americas in 2014 under Resolution CD53, Rev. 2 of the PAHO Directing Council (1)—constitute the ethical basis for the design and implementation of public policies. The concept of universal health includes both universal access and universal coverage as matters of right.

Historically, universal coverage was restricted to the search for models that would ensure service delivery within the reach of all people and models to finance and organize these health systems (2). In the Region of the Americas, debates at the national and regional levels revealed that, while universal coverage is an indispensable requisite for nonexclusive health, there are economic, sociocultural, geographic, and gender barriers—known as determinants—that obstruct access to services and need to be eliminated. As a result, it was recognized that although the principle of universal coverage lays the necessary groundwork, it is insufficient by itself to ensure health, well-being, and equity. Eliminating these barriers will require political commitments to design and implement measures that in many cases are beyond the scope and mandate of health systems. It is thus crucial that sectors beyond health come to the table to address these determinants that are causing disparities in health.

The establishment of universal health as a strategy reaffirms the principles enshrined in the Constitution of the World Health Organization. The concept has informed primary health care–based models since the Declaration of Alma-Ata in 1978. Now embraced by the PAHO Governing Bodies, the universal

health strategy is the frame of reference for improving the health and well-being of all people with no exclusions; strengthening health systems; increasing their resilience and response capacity in the face of current and future challenges; and promoting intersectoral initiatives to address the social, economic, and environmental determinants of health. The entire universal health strategy rests on the foundation of the right to health, which is central to our human rights and to our understanding of life lived in dignity (3). In 1946, the preamble of the WHO Constitution (4) recognized that “the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, or economic or social condition.”

The 1948 Universal Declaration of Human Rights, in its Article 25 (5), recognized health as a part of the right to adequate living conditions. The right to health was also recognized in the International Covenant on Economic, Social, and Cultural Rights of 1966 (6), not as simply a right to a social benefit, but as a fundamental right.

Furthermore, the right to health is universal. In at least one international human rights treaty that recognizes health

among these rights, all the signatory States made the commitment to protect the right to health in their national legislation or policies and at international conferences (3).

The United Nations Commission on Human Rights, in its Resolution E/CN.4/RES/2002/31 of April 2002, created the position of Special Rapporteur to focus on the right of everyone to the enjoyment of the highest attainable standard of physical and mental health (7). The Special Rapporteur was asked to:

- Gather, request, receive, and share information on the right to health from all relevant sources;
- Discuss possible areas of cooperation with all relevant actors, including governments, relevant United Nations bodies, in particular the World Health Organization and its special programs, nongovernmental organizations, and international financial institutions;
- Report on the current status of the right to health throughout the world, and on laws, policies and practices, and obstacles relating to this right; and
- Make recommendations on appropriate measures to promote and protect the realization of the right to health.

The annual reports of the Special Rapporteur have covered a range of issues, with special focus on clarifying the content and scope of the right to health and its relationship to poverty, as well as examining the strategies for reducing it, the right to sexual and reproductive health, the movement to promote health and human rights, systems for universal access, and the search for indicators on the right to health.

Another pillar of the universal health strategy is equity. Inequities are an unfortunate reality in the Americas more than in most other regions of the world, but should not be seen as an inevitable destiny. While fundamental changes are needed, it is still possible to transform the realities of privilege into realities of right. The first step on the road to universal health is to confront the causes of inequities that ignore and undermine the right of all people to a decent, free, and healthy life. The lack of equity in access to health care, which makes it impossible for everyone to enjoy and exercise the right to health on an equal basis, is not an isolated occurrence

but rather part of an extensive fabric that runs through a much broader context of economic, social, cultural, and environmental inequalities (8–10).

Inequities are neither neutral nor abstract, nor do they occur at random. They have a face. They have an age and gender. They are embedded in systematic patterns within human groups and in geographic contexts. Multiple inequities and privations throughout the life course are passed from generation to generation in the long history of social immobility.

It would be impossible to make the right to health a reality without a foundation of equity, which leads to a social dialogue on the factors that affect the well-being of individuals and communities. At the practical and operational level, in order to monitor the performance of health systems, it will be indispensable to have reliable information not only on the traditional dimensions of health indicators, but also on the dimensions of inequity.

One of the main obstacles to achieving universal health has been social inequality. Solidarity, civic activism, and collective action have played a critical role for those who make decisions on public health policy. When economic growth is aimed at creating space for health investment, and when policies are directed toward achieving equity, millions of people can be rescued from poverty. However, health systems in the Region continue to be handicapped by major inequities, haphazard financing, fragmentation and segmentation, lack of sustainability, and limited flexibility in meeting the needs of the population and facing the challenges of a changing physical and social context.

The following fundamental elements for achieving universal health are examined herein:

- Expanding equitable access to comprehensive, quality, people- and community-centered health services;
- Strengthening intersectoral coordination to address social determinants of health;
- Strengthening stewardship and governance; and
- Increasing and improving financing, with equity and efficiency, and advancing toward the elimination of direct payment that constitutes a barrier to access at the point of services.

EQUITABLE ACCESS TO COMPREHENSIVE, QUALITY, PEOPLE- AND COMMUNITY-CENTERED HEALTH SERVICES

The services referred to in this strategic line are population- and people-focused actions that take into account the gender-based, cultural, ethnic, and linguistic influences that define the differential needs of communities. Their objectives are to promote health, prevent disease, and provide diagnosis, active or palliative treatment, and any other short-, medium-, or long-term care that may be required. In a context of universal health, these services do not expose the people, especially those in conditions of vulnerability, to financial hardship.

It has been estimated that if timely, accessible, high-quality health services had existed in the Region of the Americas in 2013–2014, more than 1,200,000 deaths could have been avoided (11). For example, in Argentina, Brazil, Colombia, and Peru, less than one-quarter of the population uses preventive health services at least once a year. However, these utilization rates are not uniform, and are much lower for the low-income population (12).

The prevailing model of care in the countries of the Region is based largely on the response to episodic demands for the treatment of acute conditions in specialized hospital centers. Reforms and investments tend to focus on updating technology but remain trapped in traditional modalities of service management and delivery.

At the first level of care, systems have limited response capacity and are unprepared to deal with the health profiles that have emerged throughout the Region, at varying rates, as a result of demographic and epidemiological transition. According to the data available, the underreporting of people with noncommunicable chronic diseases is near 50%. Of the remaining 50%, only half the people receive treatment, which is effective in only 1 out of 10 cases. A high hospitalization rate exists for conditions that could have been treated with outpatient care, which reflects the low response capacity at the first level of care and the inefficiency of the systems (13).

Programs for the training of human resources for health respond to the pressures of a labor market that is unresponsive to health profiles. Several countries in the Region have a shortage of health workers. Moreover, their territorial distribution fails to correspond to the geographic or demographic reality of the disease burden, leading to serious consequences due to the many communities without access to comprehensive health services (14, 15).

The quality of care is also affected by insufficient access or irrational use of medicines and other safe health technologies. There tend to be problems in the supply of these technologies, the underutilization of quality generics, and their inappropriate use. Despite modest progress, regulatory controls on the introduction and use of health technologies remain inadequate (1).

A major obstacle to progress in universal access to health is lack of funding and inefficient use of available resources. In 2011, average public spending on health in the countries of Latin America and the Caribbean, measured as a fraction of their gross domestic product (GDP), was less than 4%. This figure is considerably lower, for example, than the percentages for the member countries of the Organisation for Economic Co-operation and Development (OECD). To make up for the lack of resources, some countries have turned to direct payment, with a negative effect on access to services and on the health of the population. In economic terms, this translates into an increased percentage of people who incurred catastrophic expenditures that landed them in poverty (16, 17).

The gradual process of democratic institutionalization in the Region has resulted in a social demand for universal health. However, it is a demand that cannot be met without broad participation by society as a whole and without prioritizing health as an essential component of all policies and integrating the entire spectrum of its environmental, economic, social, and political determinants.

INTERSECTORAL COORDINATION TO ADDRESS THE DETERMINANTS OF HEALTH

While health is a personal condition, in a broader sense it is also a condition at the population level. In both cases, it is shaped by the physical and social context. From the life-course perspective, health is nurtured in the home, in school, on the job, and in communities. Every day more is learned about the many factors that influence individual health—factors that are associated with lifestyles and habits, food and nutrition, harmful practices, and healthy influences, such as access to immunization and regular diagnostic tests. However, health is also influenced to a great extent by economic conditions; social inclusion; the availability of sufficient water, food, and basic sanitation of acceptable quality; and adequate and safe living conditions in the home, at school, in the workplace, and in the community.

The “social determinants of health” concept refers to the conditions of the physical, social, and economic environment in which people are born, live, and grow, including conditions that have both physical and social connotations (18). The new 2030 Agenda for Sustainable Development integrates the economic, social, and environmental dimensions. It aims to transcend the scope of the Millennium Development Goals (MDGs) because it explicitly recognizes that the eradication of poverty and inequity, inclusive economic development, and preservation of the planet are closely intertwined and are key to the health and well-being of people throughout the entire world. The implementation of the Sustainable Development Goals (SDGs) assumes a broader vision of causality; the focus of attention goes beyond the immediate causes. While still recognizing the importance of individual risk factors and those in the areas of individual and community life, the view of health determinants includes much broader dimensions, such as trade, global markets, and geopolitical relations.

The universal health strategy requires the health sector to progressively expand integration of quality services and engage all sectors that are somehow related to the determinants of health. It also calls for implementing equitable health policies, plans, and programs that are both efficient and sensitive to the population’s wide range of needs. The starting point is the recognition of health as a right and also as a component and condition of sustainable development.

To make health systems more dynamic, flexible, and people-centered, it will be necessary to expand and intensify intersectoral action, with special emphasis on areas under direct control of the health sector, in order to achieve the equity called for in the 2030 Agenda for Sustainable Development and its goals (19, 20). Indeed, the breadth of the Agenda and the comprehensive nature of its 17 goals mean that all sectors will have to come together at national, regional, and global levels and take cooperative action in a common effort. Without the collaboration of all sectors in strategic partnerships on a scale that transcends national and regional borders, it will be impossible to tackle such an enormous spectrum of challenges—challenges that include an aging population, climate change, migrations, threats to the stability of democratic institutions, the need to create regulatory frameworks for the procurement and implementation of new technologies, and the monitoring of inequities, to mention only some of the most pressing issues (21–26).

STRENGTHENING STEWARDSHIP AND GOVERNANCE

Progress toward universal health will also require strengthening the stewardship and governance of health systems. Stewardship in this context refers to the political and technical capacities of national and subnational authorities to transform the governance of health systems. Governance is understood to be the regulation of a system’s critical resources, whether financial or human, or medicines and health technologies (27). The processes of transforming the Region’s health systems have taken different courses and have evolved in three main directions: some have taken the form of changes in the governance of supply, others have followed changes in the insurance arrangements, and still others have opted for a mixed modality (28).

On each of these pathways, with their respective logical orientations, stewardship and governance have assumed distinctive characteristics. Health system transformations based on strengthening supply have been focused primarily on improving access to health services. To this end, they have redesigned the management structure of health services networks and enlisted support in the form of collective action, with the participation of various health professionals and social movements (28, 29).

Transformations in governance have consisted of changes in the model of care and new regulations affecting health workers. Changes in the health service delivery model have focused on increased financing, intervention through intersectoral regulation, and governance of medicines and technology. The countries that have promoted this type of reform have made substantial progress in access to services, using more integrated and less fragmented models of care with a greater emphasis on public health. These changes have usually been limited to the public sector and have had little or no effect on mitigating the segmentation of health systems (28, 29).

In health systems that have based their transformation on the logic of insurance arrangements, stewardship has focused on increasing financial coverage of the population through economic incentives for the institutional management of insurance. This modality of stewardship involves creating new agencies and (usually fairly weak) regulatory and oversight structures to monitor and control the public and private players, which either administer the funds or provide the health services directly. These systems presume that introducing competition into the demand for both

insurance packages and actual health services promotes innovative changes in service organization and the health work force that benefit individual health and, as a side effect, public health as well. In reality, however, these regulated competition approaches have had a negative effect on access to comprehensive health care services. These transformations have managed to extend financial coverage to a larger proportion of the population through reforms that have included both the public sector and social security. However, the main difficulty has been guaranteeing the effective operation of the regulatory agencies and translating the positive changes resulting from the expansion of coverage into improvements in the conditions of individual access and in the health of the population (28, 29).

The attributes of two different trends emerge in the transformation process, seen in federated countries, where departmental or provincial structures have autonomy, rather than the national authority, and in countries with segmented systems, where social security and the public sector are free to adopt their own modalities (30). Stewardship and governance are two central themes on the road to universal health. There is no single prescription for how they should be exercised, nor can the experience of one country be extrapolated to others, because the context is, as always, a powerful modifier of effects and responses. The exercise of stewardship by the health authority and the participation of key stakeholders engaged in collective action cannot be forced to follow strict norms. Balancing the two for the optimal performance of essential public health functions is a central strategic component within the framework of health system strengthening and transformation (31).

INCREASING AND IMPROVING FINANCING, WITH EQUITY AND EFFICIENCY, AND ADVANCING TOWARD THE ELIMINATION OF DIRECT PAYMENT

In today's world, fraught with political and economic instability, frequent swings occur between development and recession, while health costs rise due to the growing incidence of chronic diseases, an aging population, and the marketing of new and more expensive technologies. As a result, social pressure increases and with it the urgency to implement health policies that are efficient and equitable. The need is even more acute in light of the gaps in real access to quality health services, as well as regional and national differences in the health situation and the availability of health services.

Although it is obvious that adequate and stable funding is needed for health, a country's high level of economic

development does not guarantee fulfillment of universal health. Additional measures are needed to increase public health expenditure. At the same time, a large percentage of health expenditure is wasted because of inefficiency. More rational investment of existing resources could bring the world, and this Region in particular, closer to universal access to health and universal health.

A health system is efficient in the allocation of its resources when it succeeds in optimizing the balance between expenditure and health—that is, when, with a given amount of resources, it reduces the burden of disease, improves well-being, and increases the financial protection of households so that there is equitable access to health services. An ideal system of this kind gears its policies to producing what society needs and expects in terms of health and well-being, and the responsibility to make this happen is shared by the State and society, working together. The degree of productive or technical efficiency achieved will depend on how the health services are managed, or in other words, how the best response capacity can be obtained through improvements in coordination and articulation between levels in the health system and care networks. It is essential that health sector resources be allocated with the best balance in order to achieve these objectives to the greatest extent possible. Dynamic efficiency means ensuring the right conditions and efficiency levels over time by incorporating innovation in its broadest sense into the health systems (32).

With regard to financing health, public spending in the Region increased between 2010 and 2015, but at a very slow rate, so it was not possible to meet the reference target of 6% of GDP. At the same time, out-of-pocket expenditures decreased, though not at a fast enough pace. Despite economic growth periods, health expenditure was also insufficient. Some countries even had negative elasticity in their health expenditure relative to the rise in GDP. These limitations notwithstanding, the overall regional picture shows a positive balance in terms of integration of care, relative success in the strengthening of primary care thanks to a wide range of initiatives, and improvements in the most important health indicators.

The greatest obstacle to progress toward universal coverage, as mentioned previously, is direct payment at the point of services. Although the subject of health financing under conditions of equity and efficiency continues to be subject to vigorous debate, prepayment mechanisms—in which those who are more solvent subsidize those who are less so, and healthy people subsidize those who are sick—seem to be the

most efficient and equitable way to increase comprehensive health services coverage. In order for this financing to be collective, there also need to be subsidies (fundamental in redistributive policies) paid for by richer households with greater contributory capacity and benefiting poorer households with fewer resources, whose contributions are limited but whose needs for care tend to be greater. Access to services is usually more equitable and efficient when more people contribute to a fund. Having too many small, fragmented funds tends to produce discriminatory activities that affect the more vulnerable participants and those with fewer resources because of the risk selection mechanism. Small funds are more vulnerable to specific risks and end up being unsustainable over the long term (33).

As in the case of stewardship and governance, no health financing strategy can be considered universally ideal. Any strategy will have to adapt to conditions in the particular country.

On the road to universal health, several key issues arise in the search for the most efficient forms of financing and the optimization of available resources.

Recent studies on fiscal space, including four conducted by PAHO—one of them regional in scope and three of them at the national level—reached the following conclusions (34–37):

- In general, the countries do have fiscal space for health, but economic growth is not sufficient to occupy that space and respond to the need for financing.
- There are arguments for increasing specific health taxes (mainly on alcohol and tobacco), and the space exists. Although little revenue is collected in the examples cited, estimates indicate that savings for the health system can be high.
- From the political perspective, loans and donations are not a viable source of funding for governments in the medium or long term.
- Efforts should be accompanied by measures to improve efficiency, bearing in mind the principles established in the universal health strategy.

MAIN HEALTH PROBLEMS AND CHALLENGES



Over the past decade, the Region of the Americas has made significant advances in health, including attainment of a number of targets under the Millennium Development Goals. Levels of extreme poverty and infant mortality were reduced, and progress was made in environmental sustainability. However, the targets under MDG 5, on maternal mortality, were not met.

This section reviews the current status and recent trends of diseases that are regarded as health problems because of their high incidence or prevalence, their severity, or their impact at the individual or population level. It also presents and analyzes problems in the physical and social environment that pose the greatest challenges for governments and health systems in the Region. These problems are arranged along three different but converging planes: disease itself; some of its most significant physical and social determinants; and its existing or foreseeable effects on the health of individuals and populations, which are largely beyond the health sector's sphere of direct action. Finally, the section highlights the barriers that limit the health systems' ability to address the challenges to health and its determinants, especially the persistent inequities, and the need to measure and monitor them. Health goals are not limited to reducing prevalence or incidence rates or to improving the quality of services; they also include the reduction of inequities, the inclusion of Health in All Policies, and progress toward universal health as a condition for sustainable development.

The experience with the MDGs provided useful lessons on the pitfalls of turning imprecise goals into programs and policies. Also, the focus on aggregate indicators at the national and

regional level masked growing inequities and facilitated policy-making that, in some cases, actually exacerbated the inequalities (38).

Adoption of the 2030 Agenda for Sustainable Development and the goals it contains is a major step forward on the road to eradicating poverty, protecting the planet, and achieving universal health under conditions of peace, prosperity, and sustainable development. The targets associated with the SDGs should be objective and measurable, and they should include not only direct indicators of health—positive and negative—but also indexes that measure social health inequalities.

EMERGING DISEASES AND CRITICAL PROBLEMS THAT ARE HINDERING DEVELOPMENT

During the past decade, the Region met important targets related to infant and maternal mortality, reproductive health, infectious diseases, and malnutrition. These successes have been the consequence of economic development, attention to environmental factors, and the improved capacity and flexibility of health systems, as well as increased coverage and access to services (38, 39). However, this progress at

the national level masks large gaps between population subgroups, and these gaps undermine the health systems' performance and stand in the way of sustainable development (40, 41). The determinants of health do not necessarily coincide with the determinants of inequality. Therefore, successful evidence-based interventions scaled up to programs and policies can help to improve health indicators but have no effect on inequalities.

In order to safeguard the achievements under MDGs 4, 5, and 6 while at the same time addressing the complex problems on the unfinished agenda, it will be necessary to reformulate the strategic approach—a task that is part of the transition toward the 2030 Agenda. The countries, and all stakeholders committed to development, should keep in mind that while chronic diseases continue to rise, there is still a heavy burden of maternal and infant deaths, including deaths related to nutritional deficiencies.

The Region of the Americas is going through a period of emerging infectious diseases due to changes in the environment, transitioning lifestyles, and the displacement of populations. These circumstances can lead to the evolution of new pathogenic forms of existing viruses, including arboviruses. This has implications for the timely reporting of health events with potential international repercussions, as well as for epidemiological surveillance and disease control strategies. New vaccines, innovative technologies, new medicines, and research will be needed. Collaboration among actors in both the public and private sectors will be important for achieving these advances. On this front, as in other areas, no stakeholder should be left out. Public health management can no longer remain the exclusive monopoly of the health sector and central decision-making structures.

From the institutional perspective, it is essential to build response capacity to deal with epidemic outbreaks, humanitarian emergencies, and other crises in order to optimize coordination, information flow, operations, and capacity to mitigate risks arising from health hazards. Priority areas of action include the following:

- management of risks due to infectious microorganisms that can produce epidemics or outbreaks;
- building capacity to assess and monitor national preparedness;
- development of a health emergency information system for the detection and verification of events;
- data analysis and supervision of operations;

- characteristic functions of event management; and
- logistic support for control of operations.

Another important challenge is the elimination of certain communicable diseases by reducing new infections and mortality rates to below minimum thresholds until they cease to be a public health problem and, if possible, eradicating them completely.

CHRONIC CONDITIONS AND DISEASES DUE TO EXTERNAL CAUSES

Changes in the Region's population and socioeconomic profiles are already having the expected effects on epidemiological profiles (42). Chronic diseases (e.g., cardiovascular diseases, diabetes, cancers, and respiratory diseases), mental illnesses, disabilities, land traffic accidents, and all forms of interpersonal violence, taken together, now represent the leading health problems and pose urgent challenges for the design and implementation of intersectoral policies and for strengthening, and in some cases redesigning, health systems (43).

Chronic diseases are, to a large extent, preventable. In the short and medium term, measures to combat their determinants and their common risk factors have proven to have an impact (44). This capacity for action assumes the existence of health systems that can pay ongoing attention to the physical and social environment, as well as to the people at risk or who already have a chronic disease. Advances in epigenetics, social medicine, and other disciplines that have emerged in the life-course paradigm have shown that the repertoire of possible health system actions should not be limited to reactive interventions when the risk is already out of control or when the disease has established itself irreversibly. Instead, close collaboration with other sectors can lead to time-sensitive actions with greater impact.

Global commitments have been made to reduce chronic diseases, and there is scientific consensus on health policies that are feasible and cost-effective. What is needed, therefore, is increased investment, stronger multisectoral collaboration, greater empowerment and participation by civil society, and country capacity-building to conduct the interventions.

With mental illness, it is urgent to integrate the mental health component into primary and secondary health care scenarios, as opposed to providing specific treatment in psychiatric institutions (45). People with physical and mental disabilities should be provided with improved access not only to health

services but also to rehabilitation and psychological support centers (46–49).

Road safety must be improved through legislation and specific regulations on speed limits, seat belts, and the use of protective helmets by motorcyclists, among other measures (46). Education and public messages are needed to promote road courtesy and more responsible behavior by pedestrians and motorists.

All forms of violence—domestic and gender violence, violence associated with social and economic conflicts, and all other forms—tend to occur in places where government structure is weak and the judicial system is ineffective. Other important structural determinants are high unemployment or underemployment rates, social and economic inequality, and lack of educational opportunity, as well as the persistence of cultural, racial, ethnic, and gender discrimination (50).

More and better strategies are needed to prevent violence, including legislation and regulations that drastically limit access to weapons of all kinds, tactics to reduce excessive alcohol consumption, and improved conditions for victim support and protection (50).

It is essential to adopt the life-course perspective, with all that it implies for the delivery of services and the training of the health work force. The horizons of causality are not limited to the time-sensitive immediacy of clinical stigmas nor the critical periods during which lifestyles and other environmental factors configure risk conditions. Rather, they manifest from the very early stages of the life course, with transgenerational effects (51). Adopting this perspective will mean transcending the narrow view of chronic diseases and incorporating the broadest possible perspective on chronic conditions and the different life stages—from childhood to older age—which in themselves are not diseases but raise multiple needs, often unnoticed or underestimated. A few years from now this approach can be expected to be the model for the organization of health systems.

CLIMATE CHANGE

Climate change has been identified as “the biggest global health threat of the 21st century” (52). Because of the complexity of the processes involved, it is difficult to estimate the magnitude of the possible effects of climate change on health. However, there is no doubt that, given the available signs and the reliability of the predictive models, climate change is underway; it is already affecting human health and will continue to do so in the future (53).

The direct consequences of climate change, such as extreme temperatures (heat waves and cold spells), floods, and droughts, as well as the increased frequency of damaging storms, are threatening the development achieved in recent decades. The same is true of the repercussions for physical and mental health, some of them a direct effect and others mediated by air pollution, the spread of disease vectors, undernutrition and food insecurity, and displacement (54).

Addressing climate change is a great challenge but also a great opportunity. Actions should be aimed at mitigating its effects and ensuring the best possible responses for reducing poverty, increasing the preparedness and adaptability of communities, and alleviating inequities in health (54).

The health sector must play a critical role in the battle against the effects of climate change, while at the same time promoting better and more equitable conditions for all people. The strategic orientations for these efforts are to: (a) increase the adaptability and response capacity of health systems to address the effects of both foreseeable and sudden or unexpected climate changes; (b) take full advantage of the health cobenefits to be gained from intersectoral action; and (c) convert health and service delivery centers into sites that are better prepared for the conditions of climate change.

Among health priorities on a universal scale, climate change should occupy a central place on the agenda for sustainable development. Given the universal consensus that health is a fundamental component of well-being, the public health perspective will attract support and be accorded high priority, irrespective of global and cultural development. Thus, it is clear that the health sector must take a leadership role in the response to the threats of climate change (54).

AGING AND DEMOGRAPHIC CHANGES

Population aging is defined as an increase in the median age of the population over time—in other words, an upward shift in the age distribution of the population, with an increase in the proportion of people in the older groups and a decrease in the proportion of those in the lower age groups.

The three basic components of the population dynamic are births (fertility), deaths (mortality), and migration. Together, the relative changes in these three components create the phenomenon of population aging (55).

The two leading demographic causes of population aging are the decline in fertility (fewer births relative to previous periods, coupled with a reduction in the proportion of young

people in the population and an increase in the proportion of older people, all other factors being equal) and longer life expectancy in the elderly. Between 2000 and 2050, the proportion of the world's population aged 60 and older will rise from 11% to 22%. By 2030, life expectancy in Latin America and the Caribbean will reach 74.7 years for men and 80.7 for women, while in North America these figures will be 79.5 and 83.4 years, respectively (55–57).

The increase in life expectancy and the consequent increase in the proportion of dependent population pose a challenge for economic growth and for the health systems, which will have to respond to the needs of the older population (58, 59). Over the next decade, aging at both the individual level and on a population-wide scale will be an important factor in terms of needs for health care, security, and social protection services, and a challenge for the systems that will have to meet the demands. Despite the obvious implications of the aging phenomenon for social security and public health, a clear collective awareness of the issue of the health of older persons has not yet emerged in the Region. For example, information systems in most countries lack specific indicators to measure and monitor the health of people in the upper age ranges, let alone the impact of health programs and plans to meet their needs. Coverage, continuing care, and access to services are insufficient and reveal major inequities. Most experts agree that it is highly important to promote integrated health interventions and develop strategies so that health systems can adapt to the new demographic and epidemiological realities (60, 61).

Many of the inequalities in the health of the elderly are unjust and unnecessary, and they can therefore be considered inequities. These inequities accumulate over the life course with ongoing exposure to risks and to environmental and social barriers that make for differences in health conditions starting in the first years of life and continuing through adulthood. The distribution of factors that account for the differences in the health of older adults is the result of cumulative inequities in education, living conditions, and exposure to workplace risks (62).

Healthy aging is usually identified not with the absence of disease but with the ability to function independently and preserve quality of life, although the connotations of each of these concepts may differ depending on the economic and cultural context. To meet the targets for healthy aging, it will not be enough to do more than what is currently being done, or to do it better; the systems will have to change. Aging will continue to be a major issue for public health in the coming decades. The consequences of population aging are

not limited to the fact that there will be a larger proportion of people aged 60 and older. Aging brings a combination of multiple chronic disorders, recurrent infectious diseases, a reduction in muscle mass and consequent increase in overall weakness, changes in sensory and cognitive functions, and a decline in immune competence.

As they face this situation, health systems and the public health apparatus as a whole are being forced to react to a very different set of demographic and epidemiological imperatives. In doing so, they are finding that they are unprepared to meet the needs and priorities of aging populations (60, 63–65).

Regardless of socioeconomic conditions in the Region, life expectancy at the age of 60 is between 18 and 23 additional years of life. Those aged 80 and older form the group with the largest proportional population growth in the Region. This unprecedented reality will exert strong pressure on the current public health and health services paradigms.

The countries of the Region will need to strengthen their national capacity to formulate and implement policies and programs based on successful experiences and all available evidence.

MIGRATION WITHIN AND BETWEEN COUNTRIES

Migration has always been a characteristic of human societies. It poses major challenges for health, although awareness of its dramatic consequences has only come to light recently. Currently, migration is the primary option for people trying to escape from war, social conflict, economic hardship, natural disasters, and climate-related hazards. Its impact on economic development and the demographic transformation of countries has always been significant, but perhaps it is greater now than ever before. However, in many cases, political and social circumstances have turned migration into a perilous affair, fraught with consequences for health (66, 67).

The volume of contemporary migration and the fact that many of the migrants are moving between regions of the world with different health conditions and epidemiological profiles have important consequences for the health of both the migrants and the receiving populations. This challenge is compounded by cultural circumstances, language barriers, and the various ways in which people conceive of health and make use of health services in different parts of the world. Today, much of the migratory movement is occurring in sociopolitical contexts that tend to reject the arriving populations, often exhibiting prejudice at the individual level and exclusionary

and discriminatory policies at the level of society (68–70). The refusal of many States to ratify the Convention on the Rights of Migrants shows that there is still much work to be done to reach consensus in ethical agreements and in affirming the universal right to health.

Economic deprivation, disease epidemics and outbreaks, food insecurity, environmental hazards, political and religious conflicts, and discrimination because of race or sexual orientation are some of the factors that give rise to large migratory movements that jeopardize the health of the migrants in transit. Migrants are exposed to risks for work-related accidents, violence, drug abuse, mental disorders, and infectious diseases, including tuberculosis, HIV/AIDS, and others. On top of all this, they encounter barriers that hinder access to health services, often because of restrictive legislation, high cost, cultural differences, or stigma and discrimination.

Nearly half of contemporary international migration involves girls and women who migrate independently and who can remain trapped in illegal networks or at least irregular markets. Many migrants, even internal or temporary ones, tend to be subject to discrimination. Migration can be unidirectional or multidirectional, and temporary or permanent. Many of its associated economic and social factors, including those directly related to health, tend to persist even after the legal problems related to nationality or residence have been resolved. The biological and genetic determinants of health have transgenerational effects that need to be taken into account. Therefore, mechanisms need to be implemented to monitor migrant populations.

In the Region of the Americas, the social, economic, environmental, and political context of migration is fluid. Along with major challenges, there are also opportunities to make these processes safer in terms of health (71–74).

The movement of people between and within countries is one of the by-products of globalization, and now more than ever, it is a cause for concern. A situation that in another age was basically a matter of socioeconomic gradients has become one of the consequences of poverty, war, and political, social, and religious conflict.

Migration has greatly stressed the health systems. Many migrants, especially those arriving as refugees, have suffered the effects of violence, exploitation, and multiple forms of discrimination that directly affect their integrity and their physical and mental health. Legal and socioeconomic barriers may prevent or hinder them from accessing health

services—barriers that are indifferent to their health problems and their particular cultural background.

Most health system workers are unaware of the health rights of migrants, and health services are not in a position to guarantee the migrants' right to the highest standard of physical and mental health care, as established in international legislation on human rights.

The situation calls for active collaboration among sectors, as well as a commitment on the part of governments and all stakeholders in the migratory processes to ensure the right to health and to fully uphold the principles of equity and nondiscrimination. In a globalized world, where health issues transcend national borders, the inability of authorities to address the problems arising from migration (or their neglect of them) would be disastrous. The Region of the Americas is not a stranger to these realities.

The priorities of health systems with respect to refugees and migrants are to: (1) reduce inequalities in coverage and access for the incoming populations as compared to the local populations; (2) protect and guarantee their right to health; (3) be prepared with a package of timely interventions to reduce excess morbidity and mortality, especially for refugees and victims forced to flee from disasters and conflicts; (4) implement mechanisms for monitoring health; (5) strengthen existing legislation and, when necessary, create new legal frameworks for health protection; and (6) promote partnerships, networks for cooperation, and international legislation to guarantee health services financing and legal protection for migrants (75, 76).

HEALTH SYSTEM INEQUITIES AND BARRIERS

The pursuit of equity is one of the ongoing challenges for health systems in the Region of the Americas. Despite significant progress seen in health indicators associated with economic development and the incorporation of new concepts and resources, poverty and inequities continue to be a serious problem. This is reflected in individual and collective health outcomes. For example, the Region failed to meet the 2015 target for maternal mortality under the MDGs, and, despite a significant reduction in infant mortality rates, there are still large gaps between countries. Without specific actions to transform the health systems, economic development is not enough to reduce inequities (1, 77, 78).

Many health systems in the Region have subscribed to the principles of universal health and have made the commitment to implement people- and community-centered models

based in primary health care (79). However, these proposed developments, which would expand capacity to resolve problems at the first level of care and correspond more closely to the actual geographic and demographic distribution of the disease burden, are hamstrung by existing realities and practices, as well as by the characteristic structures of the traditional biomedical model and the allocation of a major share of funds to hospital-based care and services.

Countries must speed up the transformation of their health systems to universal health. Toward this end, the consolidation of more participatory democratic processes, with the support of increasingly effective advocacy, can be expected to stimulate greater social demand for coverage and universal access.

The assessment of health system performance must necessarily be conducted in two separate dimensions, both of which are lacking needed information. The traditional dimension is devoted to measuring and monitoring trends in the usual health indicators, both negative (mortality, morbidity, and the disease burden) and positive (coverage, accessibility, and quality of the services). On this plane, performance is normally assessed by measuring the gap between actual achievements and the desired goals.

Equity in health, solidly rooted in the principle of health as a human right, adds a second plane to the measurement of performance (80, 81). Health indicators should improve and not widen the gaps between the social strata of the population. In other words, improvement of the indicators and reduction of the gaps define the two dimensions in which the performance of systems should be evaluated.

Monitoring performance, however, poses the methodological and practical challenges of selecting criteria for stratification, identifying relevant health indicators, and discovering appropriate criteria for assessing inequalities. The criteria should be measurable and easy to calculate; they should also be based on information that is current and reliable. Monitoring performance also requires the technical capacity to interpret and communicate results (82–85).

From another perspective, health systems also need to overcome financial, cultural, ethnic, and geographic barriers that arise in the social and physical context on the road to the attainment of universal health.

The universal health strategy, approved by the PAHO Member States in October 2014, calls for reducing inequities by strengthening health systems and services through universal coverage and access. This strategy underscores the need to increase and improve investments in health, especially for strengthening the first level of care, and to move toward the creation and implementation of integrated health service networks. Furthermore, the strategy recognizes the need for an intersectoral approach that will make it possible to encompass the full spectrum of social determinants of health, many of which are beyond the direct control of health systems. The intersectoral approach and the principle of social determinants as the basis for the strategy are indispensable for reducing the inequities in health.

REGIONAL OUTLOOK ON HEALTH IN THE AMERICAS



HEALTH SITUATION OF THE POPULATION¹

This section highlights some of the most important health statistics for the Region of the Americas for 2010–2015. The information is organized according to the following sections: (A) characteristics of the population and trends; (B) the mortality situation and trends; (C) critical health problems and diseases; (D) chronic conditions and diseases due to external causes; and (E) the health situation throughout the life course.

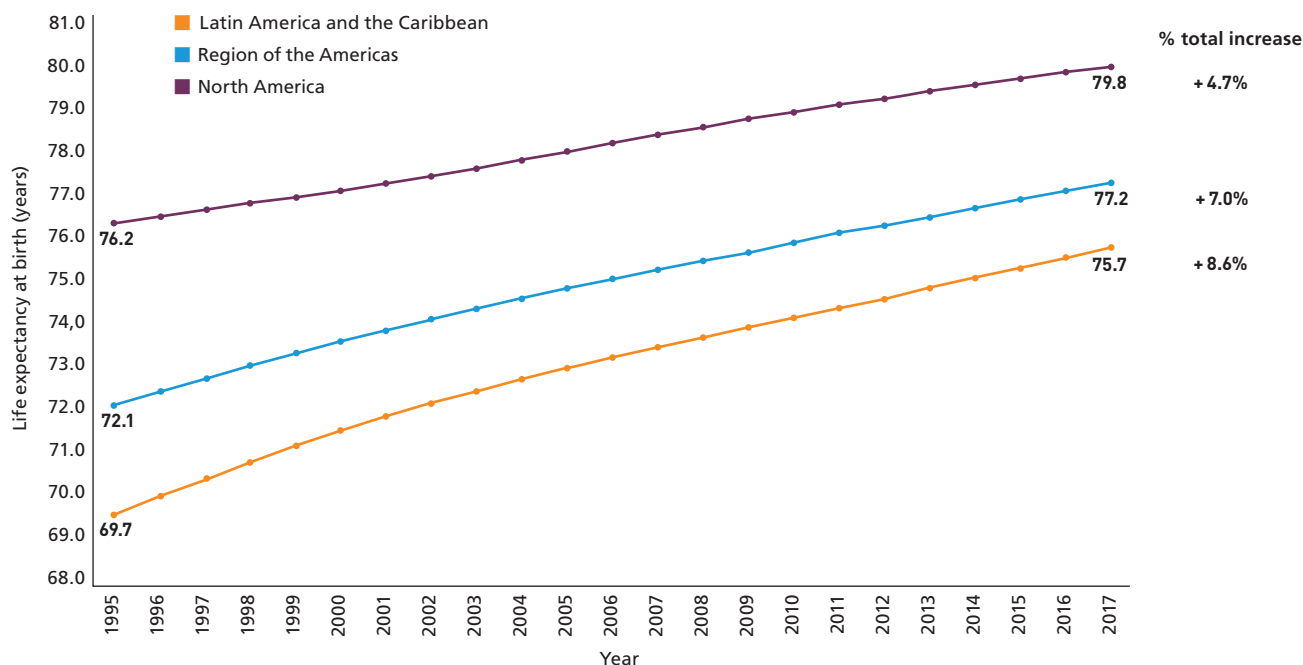
A. CHARACTERISTICS OF THE POPULATION AND TRENDS

As of 2017, the Region had 1.0 billion inhabitants and represented 13% of the world's population (86). Its percentage of urbanization (>80%) is the highest in the world and is distributed almost equally between North America (82%) and Latin America and the Caribbean (80%). It includes three of the world's six largest megacities (Mexico City, New York, and São Paulo), which are home to nearly 20 million people each (87). The countries of the Americas are facing a progressive aging process. Half of them have fertility rates under 2.1 children per woman, typical of the "below-replacement" phase (88, 89). At the same time, however, the teen pregnancy rate for Latin America and the Caribbean in 2010–2015 remains the second highest in the world (66.5 live births per 1,000 women 15–19 years old). Life expectancy at the global level increased by 3 years between 2000–2005 and 2010–2015, from 67.1 to 70.5 (88). In the Region, life

expectancy was higher than the global level, ranging from 74.5 years of age in Latin America and the Caribbean to 79.2 years of age in North America (Bermuda, Canada, and the United States of America) (89) (Figure 1). In 2017, it was estimated that 26% of the world's children (0–14 years old) and 17% of its adolescents (15–24 years old) lived in Latin America or the Caribbean (86). At the same time, people over 60 represented an average of 14.6% of the population in the countries of the Americas as of 2017, ranging from about 20% in Barbados, Canada, Cuba, the United States of America, and Uruguay to just 5.9% in Belize (86). The population aged 80 and older was 3.8% in North America and 1.6% in Latin America (89). It is expected that by 2050 this population will reach 8.6% and 5.7%, respectively. In the United States of America, immigrants from Latin America and the Caribbean represented 5% of the country's total population during 2010–2015 (90).

¹ Readers can find more detailed information and analysis at the *Health in the Americas* digital platform (www.paho.org/hia2017) and at www.paho.org/PLISA.

Figure 1. Life expectancy at birth, Region of the Americas, North America, and Latin America and the Caribbean, 1995–2017



B. MORTALITY SITUATION AND TRENDS

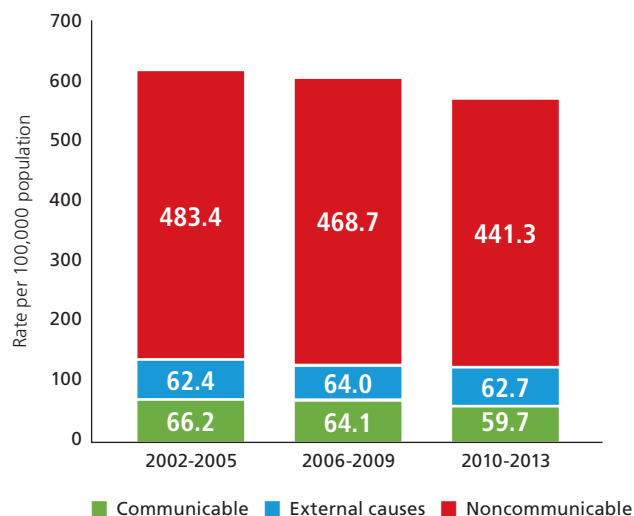
To assess mortality in the Americas, an ecological study was conducted using data from the PAHO mortality database for 2002–2013, along with estimated maternal and infant mortality indicators obtained from interagency groups. This section describes the magnitude, distribution, and trends of mortality data over three time periods (2002–2005, 2006–2009, and 2010–2013). Age-adjusted mortality rates were calculated using the WHO world population age structure constructed for the period 2000–2025 as the standard population.

The Region has seen significant improvements in the quality of data on mortality. Underreporting of mortality declined from 7.2% in 2002–2005 to 5.9% in 2010–2013, while mortality from ill-defined causes fell from 4.7% to 3.4% between the same time frames, although the use of garbage codes increased from 14.8% to 15.2%, also in the same period.

The communicable diseases age-adjusted mortality rates dropped from 66.2 (in 2002–2005) to 59.7 deaths per 100,000 population (in 2010–2013), a 9.9% reduction. Similarly, the noncommunicable diseases age-adjusted mortality rates fell steadily from 483.4 (in 2002–2005) to 441.3 deaths per 100,000 population in 2010–2013.

External causes of mortality rates rose from 62.4 to 64.0 per 100,000 population between 2002–2005 and 2006–2009 and dropped to 62.7 per 100,000 population for 2010–2013 (**Figure 2**).

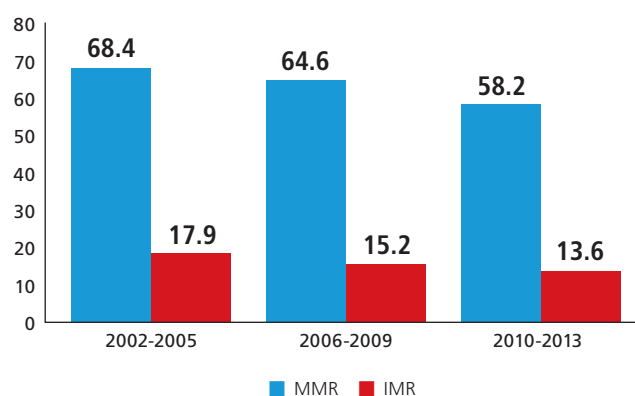
Figure 2. Global burden of disease: mortality rates adjusted by age in the Region of the Americas, 2002–2005, 2006–2009, and 2010–2013



During 2010–2013, the leading causes of death by age group were as follows: in the group aged 10 to 24 years old, homicide (20.4 per 100,000 population), land transport accidents (13.4 per 100,000), and suicide (5.7 per 100,000); in the group aged 25 to 64 years old, ischemic heart disease (35.9 per 100,000), diabetes (19.1 per 100,000), and homicide (18.3 per 100,000); and, in the group aged 65 and over, ischemic heart disease (620.6 per 100,000), cerebrovascular disease (327.5 per 100,000), and dementia and Alzheimer’s disease (292.8 per 100,000).

Between 2002–2005 and 2010–2013, the maternal mortality rate fell from 68.4 to 58.2 per 100,000 live births (**Figure 3**). The subregion with the highest maternal mortality rate between 2010 and 2013 was the Latin Caribbean, at 192.2 per 100,000 live births. Between 2010 and 2013, 66.4% of all maternal deaths were due to direct obstetric causes. During the studied period, infant mortality in the Region fell from 17.9 to 13.6 per 1,000 live births. The leading specific cause of neonatal death in the Americas was respiratory insufficiency.

Figure 3. Maternal mortality rate (MMR) per 100,000 live births and infant mortality rate (IMR) per 1,000 live births, Region of the Americas (2002–2005, 2006–2009, 2010–2013)



C. CRITICAL HEALTH PROBLEMS AND DISEASES

Emerging diseases and disasters

Influenza. Since 2009, the seasonal influenza viruses that have been circulating in the Americas are influenza A (H1N1) pdm09, influenza A (H3N2), and influenza B (Victoria and Yamagata lineages). The trends and severity of flu seasons tend to vary from year to year and by subregion and country.

In Brazil, Canada, and the United States of America, swine influenza viruses H1N1v, H3N2v, and H1N2v have been detected in humans.

Cholera. During 2010–2016, cholera cases were reported in Cuba, the Dominican Republic, Haiti, and Mexico. Haiti reported 179,379 cases and 3,390 deaths in 2010, and 2011 saw the largest number of cases for the period (340,311). Between the 2010 outbreak in Haiti through the end of 2013, cases were reported in Cuba (469 cases and 3 deaths), the Dominican Republic (32,778 cases and 488 deaths), and Mexico (203 cases and 1 death) (97).

Antimicrobial resistance. A steadily rising trend in antimicrobial resistance of the main human pathogens, both in the community and in hospitals, has been recorded since 1996 (92). Surveillance systems have made it possible to document the spread of the emerging resistance mechanisms in the Region. During 2011–2016, the presence of KPC-producing carbapenem-resistant Enterobacteriaceae was documented in almost all the countries of Latin America. This mechanism has a case-fatality rate of nearly 50% in intensive care unit outbreaks (93). Other emerging resistance mechanisms have been detected in enterobacteria such as OXA-type carbapenemases, NDM-1 metallo-beta-lactamase, and plasmid-mediated colistin resistance [mcr-1].

Disasters. A total of 3,311 disasters were reported throughout the world during 2010–2016; 682 of them (20.6%) were in the Region of the Americas, with a financial toll of more than US\$ 300 billion. Of the events in the Region, 400 (58.6%) were hydrometeorological phenomena, and their associated cost was approximately US\$ 278 million. Earthquakes in Haiti and Chile in 2010, and in Ecuador in 2016, caused considerable damage that affected the health sector, especially in terms of infrastructure, thereby reducing its capacity to provide effective care for the population. It will be necessary to develop health systems that are more resilient when faced with emergencies and disasters, strengthen the internal response capacity of countries, and improve coordination and cooperation among countries.

Vector-borne diseases

Chikungunya. In December 2013, the first local cases of chikungunya virus disease were diagnosed in the French Collectivity of Saint Martin (94). By 2015, transmission was documented in 44 countries and territories of the Region, with an average cumulative incidence of 73.3 cases per 100,000 population. By 2016, a cumulative total of 361,312 suspected cases had been reported (for a cumulative

incidence of 51.9 per 100,000 population), and of this total, 157,288 cases were confirmed.

Zika. The transmission of Zika virus in the Americas was first documented in February 2014. Between May 2015 and December 2016, a total of 712,167 autochthonous cases of Zika were reported, with 18 deaths. During the same period, 2,525 cases were reported as congenital Zika virus syndrome. An association was established between Zika virus infection and neurological disorders and congenital malformations. In addition to transmission by *Aedes* mosquitoes, cases of sexually transmitted Zika infection (95, 96) have been documented.

Yellow fever. There are 14 yellow fever-endemic countries in the Region. However, only 5 of them (Bolivia, Brazil, Colombia, Ecuador, and Peru) reported cases of yellow fever between 2011 and 2016 (97, 98). Between 2010 and 2016, a total of 269 confirmed cases were reported, or an average of 48 cases a year. Brazil had an outbreak of yellow fever at the end of 2016; between 1 December 2016 and 17 March 2017, a total of 448 confirmed cases were reported, including 144 confirmed deaths, for a case-fatality rate of 32%. The outbreak affected eight states: Bahia, Espírito Santo, Goiás, Minas Gerais, Rio de Janeiro, Rio Grande do Norte, São Paulo, and Tocantins (99).

Dengue. A cumulative total of 8,207,797 dengue cases were reported in the Region between 2011 and 2015, representing an increase of 58% over 2006–2010. Of this number, 118,837 (1.4%) were severe and a total of 5,028 (0.06%) ended in death, for an increase of 93% relative to the previous period. Two dengue outbreaks were observed during 2011–2015: the first in 2013, with 2,386,836 cases, and the second in 2015, with 2,430,278 cases. According to the scientific literature, dengue outbreaks occur every 3 to 5 years; the shorter time between outbreaks was attributed mainly to excessive reporting of suspected cases because of the appearance of two new arbovirus diseases in the Americas, chikungunya and Zika, with clinical manifestations similar to those of dengue (96).

Malaria. Between 2000 and 2015, the number of cases of malaria in the Americas declined by 62%, from 1,181,095 cases to 451,242. During the same period, malaria-related deaths fell by 76%, from 410 deaths to 98. Of the total cases, 77% were reported by Brazil, Peru, and Venezuela. At the end of 2015, malaria was still endemic in 21 countries of the Americas. All the endemic countries except Haiti and Venezuela have reduced their morbidity since 2000. However, Venezuela saw a 50% increase in its malaria cases between

2014 and 2015, from 90,708 to 136,402. If this trend continues, it is expected that Venezuela will have the largest number of cases in the Region.

Neglected diseases. It is estimated that 6 million people are living with Chagas disease in the Region. Seventeen endemic countries have interrupted the transmission of *Trypanosoma cruzi*. Originally, there were 13 documented foci of onchocerciasis in 6 countries (Brazil, Colombia, Ecuador, Guatemala, Mexico, and Venezuela), with an at-risk population of approximately 568,000 people (100, 101). Now, thanks to the success of elimination programs in Colombia, Ecuador, Guatemala, and Mexico (102), the population in the Americas currently at risk for onchocerciasis is down to 29,500, or only 5% of the original number, limited to one remaining active focus in the border area of Brazil and Venezuela.

Vaccine-preventable diseases. As part of a coordinated worldwide effort, 36 countries and territories in the Americas switched from the trivalent oral polio vaccine (tOPV) to the bivalent vaccine (bOPV). In 2015, an International Expert Committee declared the Region free of rubella and congenital rubella syndrome, and the following year the same committee declared the Region free of measles. According to country data reported for the Region as a whole, in 2015, vaccination coverage for diphtheria, whooping cough, and tetanus (DPT3) in children under 1 year of age was 91%; for the third dose of polio vaccine, 92%; and for measles and rubella, 93%. That same year, 19 countries or territories reported at least 95% average national coverage with DPT3 in children under 1 year of age. However, there is still inequality in immunization coverage, both among and within countries. In 2015, out of the nearly 15,000 municipalities in Latin America and the Caribbean, 8,456 (56%) had DPT3 vaccination coverage levels under 95%.

Chronic communicable diseases

Tuberculosis. The Region of the Americas was the first region in the world to meet the MDG target for halting the spread of tuberculosis (TB). Thanks to a steady decline since 1990, TB prevalence and mortality rates had been cut by half by 2015 (103, 104). However, progress in closing gaps in the detection and reporting of new TB cases, multidrug-resistant tuberculosis (MDR-TB), and TB/HIV coinfection has been slow, and therefore the disease remains a serious public health problem. Mortality from TB has declined from 4.3 to 2.5 per 100,000 between 2000 and 2015 (104), but HIV coinfection continues to be one of the main risk factors in terms of the development, severity, and number of deaths

of the disease. In 2015, a total of 218,700 TB cases were diagnosed and reported, for an incidence of 22.1 cases per 100,000 population, but even so, the overall incidence for 2000–2015 was down by an average of 1.8% per year. On the other hand, the Region had 4,508 cases of MDR-TB in 2015, representing 55% of the estimated cases of MDR-TB among reported cases of pulmonary tuberculosis. The limitations in diagnosis are due to the limited laboratory capacity and delays in implementing new molecular diagnostic methods (105–107).

Leprosy. Between 2010 and 2014, the number of new reported cases in Latin America and the Caribbean fell from 37,571 to 33,789. Brazil accounts for 91.9% of all the reported cases.

HIV. In 2015, an estimated 2 million people were living with HIV infection in Latin America and the Caribbean combined, 98% of them 15 years of age or older. As of that same year, the estimated prevalence of HIV infection

in the 15-to-49-year-old age group had remained stable for a decade, at around 0.5% (ranging between 0.4% and 0.6%). HIV has especially affected the Caribbean area, with a prevalence of 1% of the population. In Latin America, the epidemic has mainly affected men, who represent 68% of people living with HIV, while in the Caribbean, 52% of the people with HIV are women (108). The populations most affected are men who have sex with other men, sex workers, transgender women, injecting drug users, and indigenous groups. In 2015, the median prevalence of HIV infection among men in relationships with other men was 15%.

Sexually transmitted infections (STIs). An estimated 64 million new cases of curable STIs (*Chlamydia trachomatis*, *Neisseria gonorrhoeae*, syphilis, and *Trichomonas vaginalis*) occur annually in the 15-to-49-year age group (109). Human papillomavirus (HPV) is the most frequent viral infection of the genital tract, with an estimated prevalence of 16.1% in Latin America and the Caribbean (110). In 2014, it was estimated that between 7.1 and 16.6 million women had been



HEALTH ADVANCES IN THE REGION OF THE AMERICAS

- Life expectancy reached approximately 75 years of age during the 2010–2015 period. The population gained an average of 16 years of life in the last 45 years, an increase of almost 2 years per 5-year period.
- The maternal mortality ratio decreased from 68.4 deaths per 100,000 live births in 2002–2005 to 58.2 deaths per 100,000 in 2010–2013 (a 14.9% reduction).
- The infant mortality rate declined from 17.9 deaths per 1,000 live births in 2002–2005 to 13.6 in 2010–2013 (a 24.0% reduction).
- The number of malaria cases decreased 62% between 2000 and 2015 (from 1,181,095 cases to 451,242).
- Due to the success of elimination programs, the number of active foci of onchocerciasis decreased from 12 to just 1 in the Amazonia region of Brazil and Venezuela.
- Between 2010 and 2014, new reported cases of leprosy declined 10.1% (from 37,571 to 33,789).
- In 2015, the International Expert Committee determined that the Region had interrupted the endemic transmission of rubella.
- In 2016, the International Expert Committee declared the Region of Americas as measles-free.
- Between 2005 and 2015, deaths related to AIDS decreased from 73,579 to 49,564, a 67% reduction, due to early treatment with antiretrovirals.
- The Region achieved a 67% reduction in under-5 mortality rates, from 53.8 per 1,000 live births in 1990 to 17.9 per 1,000 live births in 2015.
- The fertility rate among adolescents in Latin America and the Caribbean declined from 70.4 births per 1,000 women aged 15–19 in 2005–2010 to 66.5 in 2010–2015, a 5.5% reduction.
- Prenatal care (measured as a minimum of four prenatal care visits) increased in the Region from an estimated average of 79.5% in 2005 to 88.2% in 2016.
- Between 2005 and 2015, institutional deliveries in the Region increased from 91.3% to 95.6%.
- Foot and mouth virus serotype C is no longer circulating in the Region; therefore, this serotype can be removed from the vaccines in use.

vaccinated against HPV in Latin America and the Caribbean, representing 19% coverage in girls and women between 10 and 20 years of age (111).

Zoonoses

Rabies. Rabies is endemic throughout most of the world. It is considered an important neglected zoonotic disease that mainly affects poor populations and vulnerable residents in areas with weak human and animal health infrastructure. A total of 18 cases of human rabies occurred in the Americas in 2015, 12 of them due to transmission by dogs.

Leptospirosis. As of 2014, the Latin American countries with the largest number of leptospirosis cases were Brazil (3,974 cases with a cumulative incidence of 2.0 per 100,000 population), Peru (2,329 cases, 7.7 incidence), and Colombia (867 cases, 1.8 incidence). In the non-Latin Caribbean, the countries with the most cases were Trinidad and Tobago (363 cases, 27.0 incidence), Guadeloupe (69 cases, 15.0 incidence), and Saint Vincent and the Grenadines (17 cases, 16.5 incidence).

Foot and mouth disease. In 2017, the Region reached the historic milestone of 4 consecutive years without foot and mouth disease (FMD) notifications. However, the reappearance of the FMD virus serotype O in Colombia, in late June 2017, demonstrates the continuing risk posed by the disease to Colombia and neighboring countries. This recent reappearance also shows the ongoing need to strengthen the national FMD prevention and eradication programs.

D. CHRONIC CONDITIONS AND DISEASES DUE TO EXTERNAL CAUSES

Chronic noncommunicable diseases are responsible for nearly four out of five deaths annually in the Americas. Moreover, this proportion is expected to rise over the coming decades as a result of population growth, aging, urbanization, environmental hazards, and exposure to risk factors (43). Of the deaths caused by these diseases in the Americas, 35% occurred prematurely in people 30 to 70 years old. Of the total premature deaths in this age group, 65% were due to cancer and cardiovascular diseases.

In terms of **risk factors for noncommunicable diseases**, average annual consumption of alcohol per person in the population over 15 years of age was 8.4 L (43). As of 2010, approximately 81% of 11- to 17-year-old adolescents enrolled in schools were not getting enough physical activity (87.1% of girls and 75.3% of boys) (44). According to a 2013

estimate, the age-standardized prevalence of current tobacco use in the population 15 years of age and older was 17.5%, with a higher rate in males than females (43). In 2014, the standardized prevalence of high blood pressure (18.7%) in the Americas was lower than the global figure of 22% (44). More than 15% of the population 18 years of age and older is living with **diabetes**. This figure is three times higher than it was a decade ago, while the prevalence of raised blood glucose increased from 5.0% in 1980 to 8.5% in 2014 (8.6% in males and 8.4% in females) (43). The rate of obesity (body mass index ≥ 30 kg per m²) in the Americas, at 26.8%, is more than twice the global average of 12.9%, with a higher prevalence in women (29.6%) than men (24.0%) (43). In 2014, the age-standardized mortality rate for type 2 diabetes in the Region showed a slight difference between men and women: 35.6 versus 31.6 per 100,000 population (43). In 2012, the prevalence of overweight in children under 5 years old was 7.2% (43).

Cardiovascular disease (CVD) is the main cause of death in the Region, although mortality from this cause has steadily declined in most countries of the Americas, amounting to an overall reduction of 19% between 2000 and 2010 (20% in women and 18% in men). **Cancer** was responsible for a total of 1,300,000 deaths in 2012 (43); approximately 45% of these deaths occurred in people under 70 years old, including nearly 9,000 children under 14, and are considered premature deaths.

In the last two decades, the Central American nations have reported a rise in cases of **chronic kidney disease of nontraditional causes (CKDnT)**. The disease is especially common in young agricultural workers and is mainly associated with environmental determinants, such as incorrect use of agrochemical products, and occupational risks, especially exposure to high temperatures and insufficient hydration. An analysis of mortality due to CKDnT showed steady increases in El Salvador, from 18.7 deaths per 100,000 population in 1997 to 47.4 per 100,000 in 2012, and in Nicaragua, from 23.9 deaths per 100,000 in 1997 to 36.7 per 100,000 in 2013.

Mental health. Mental, neurological, and substance abuse disorders are among the leading factors that contribute to morbidity, disability, injuries, premature mortality, and increased risk for other health conditions. In 2013, the prevalence of these disorders in the Americas, estimated over 12 months, ranged between 18.7% and 24.2%. More specifically, the ranges were anxiety disorders (9.3% to 16.1%), affective disorders (7.0% to 8.7%), and substance abuse disorders (3.6% to 5.3%).

Road traffic injuries. In the Americas, injuries caused by traffic crashes resulted in 154,089 deaths in 2013. This figure represents 12% of all road transport deaths worldwide and an increase of 3% in deaths due to this cause compared with 2010.

Violence. Of the 20 countries with the highest rates of homicide in the world, 18 are in Latin America and the Caribbean. Much of the violence is due to activities of gangs and organized crime (112). Men are more likely to be victims of fatal violence, but women have a higher risk of being murdered by a companion or being subjected to sexual and other forms of nonfatal violence (112, 113). WHO estimates

that almost one-third (29.8%) of women in Latin America and the Caribbean who have ever had a partner have suffered physical or sexual abuse by an intimate companion at some time in their life (113). A majority of children and young people between 0 and 17 years of age suffer physical, sexual, or emotional abuse every year (58% in Latin America and the Caribbean and 61% in North America) (114).

Occupational accidents and diseases

In 2016, the Region had an estimated work force of 661 million people, 63.8% (422 million) of them in Latin America and the Caribbean and 36.2% (239 million) in North America.



HEALTH HIGHLIGHTS IN THE REGION OF THE AMERICAS: NONCOMMUNICABLE DISEASES AND CHRONIC CONDITIONS

- Noncommunicable diseases (NCDs) are the leading causes of death in the Americas, responsible for nearly four out of five deaths annually.
- Among all NCD deaths, cardiovascular disease, cancer, respiratory diseases, and diabetes are the top 4 leading causes of deaths.
- The four leading NCD risk factors are unhealthy diets, physical inactivity, tobacco use, and harmful use of alcohol.
- In the Americas, alcohol is a significant public health problem with the second highest levels of per capita consumption and of heavy episodic drinking in the world. A dose-response relationship exists, which means the higher the consumption, the larger the risk for a negative consequence.
- Tobacco use is a critical risk factor for cardiovascular diseases, cancer, chronic respiratory diseases, and diabetes. Effective implementation of the WHO Framework Convention on Tobacco Control measures promotes the reduction of tobacco consumption and exposure.
- Obesity increases the likelihood of diabetes, hypertension, coronary heart disease, stroke, certain cancers, obstructive apnea, and osteoarthritis, among others. The Americas is the WHO Region with the highest prevalence of overweight and obesity, affecting more females than males.
- Obesity has reached epidemic proportions in children, adolescents, and adults. Regulatory policies are needed to promote, support, and protect healthy eating and to restrict marketing of, regulate labeling of, and apply taxation to sugar-sweetened beverages and other ultraprocessed and processed products high in calories, sugar, fats, and sodium.
- Raised or high blood pressure, commonly known as hypertension, affects women and men equally and continues to have a negative impact on mortality and on the development of cardiovascular diseases and other NCDs.
- Around 422 million adults aged over 18 years are living with diabetes worldwide, with 62 million (15.0%) of them living in the Americas. This number has tripled in this Region since 1980.
- Cancer affects nearly 3 million people in the Americas each year, causing 1.3 million deaths; 45% of these deaths are premature (persons younger than 70). In Latin America and the Caribbean, prostate, lung, stomach, and colorectal cancers are the leading causes of cancer deaths in males; whereas the leading causes in females are breast, stomach, lung, cervical, and colorectal cancers.
- NCDs act as key barriers to poverty alleviation and sustainable development. Diagnosing NCDs early when they are easier to treat requires strong health systems.
- Most countries in the Americas have made commitments to address and effectively monitor NCDs. Inaction will negatively impact health, quality of life, and individual and societal economic well-being.

Unemployment rates started to increase in 2013, reaching 6.6% in 2015 and 8.1% in 2016 (115). It has been estimated that 7.6 million work-related injuries occurred in the Region in 2007, equivalent to 20,825 a day (more frequent in men), and caused 11,343 deaths, 5,232 of them in Latin America and the Caribbean (116). Construction, mining, agriculture, and transportation were the economic sectors with the largest number of fatal accidents (117). Occupational diseases are subject to underreporting because they can have a long latency, they are difficult to identify, and they are not easily identified in reports on noncommunicable diseases.

E. THE HEALTH SITUATION THROUGHOUT THE LIFE COURSE

Child health. The Region succeeded in reducing infant mortality, the subject of MDG 4, by 67%, from 53.8 to 17.9 per 1,000 live births, between 1990 and 2015. Diarrhea and pneumonia continue to be major causes of death. In 2015, these two diseases alone were responsible for 14% of all deaths in children. In children under 5 years old, diarrhea was the cause of 10% of child mortality in Haiti, 8% in Nicaragua, 7% in Guatemala, and 6% in Bolivia. The use of oral rehydration salts in these countries is low (around 50%). In the same age group, the proportion of deaths caused by pneumonia was 23% in Haiti, 17% in Guatemala, 16% in Nicaragua, and 14% in Bolivia. The use of health services when pneumonia symptoms are present is also low in these countries (between 50% and 60%). The 5-to-9-year-old age group has been neglected in terms of both health interventions and measurement of their conditions. In Latin America and the Caribbean, injuries caused by road traffic crashes and unintentional injuries are among the leading causes of death in children and adolescents 5 to 14 years old. The group of infectious diseases (respiratory infections, diarrhea, tuberculosis, and meningitis, among others) is the second leading cause of death.

Adolescent health. Currently, young people represent the largest population cohort in the Region. It is estimated that 16% of the total population in the Americas and 18% in Latin America and the Caribbean are between 10 and 19 years old (118). Level of schooling has been identified as one of the structural determinants of adolescent health. The estimated literacy rate of young people 15 to 24 years old in the Americas is higher than 98%, with a gender parity index close to 1. However, in a majority of countries the percentage of adolescents enrolled in secondary school is significantly lower. The leading cause of death in adolescents is external causes, particularly homicides, suicides, and injuries

due to traffic accidents. Anemia is found in at least 10% of adolescents 12 to 19 years old in 8 of the 11 countries with data on the subject. After tobacco and alcohol, marijuana is the psychoactive substance most commonly used by adolescents. According to the *Report on Drug Use in the Americas 2015*, lifetime use of marijuana in 12th graders ranged from 1.9% in Venezuela to 49.4% in Chile, and use in the past year, from 1.1% in the Dominican Republic to 38.9% in Chile (119). Fertility rates for adolescents in Canada and the United States of America are below the world average and have been declining steadily over the past decade. In contrast, Latin America and the Caribbean has the second-highest adolescent fertility rate in the world, estimated at 66.5 births per 1,000 girls aged 15 to 19 during 2010–2015, compared with a worldwide rate of 46 births per 1,000 girls (120). HIV in adolescents in Latin America and the Caribbean has been declining, according to estimates by the Joint United Nations Programme on HIV/AIDS (UNAIDS), with an estimated prevalence of 0.16% in girls and 0.23% in boys. Data for the Region show rising trends in comprehensive knowledge about HIV and the use of condoms with nonregular partners.

Maternal health. Significant strides have been made in the area of maternal health. Improvements in the dimensions of the human development index in all the countries of the Americas between 1990 and 2014 have had a positive impact on maternal health. Prenatal care, assessed as the percentage of pregnant women who had at least four prenatal checkups, improved throughout the Region, up from 79.4% in 2005 to 88.2% in 2016. Prenatal checkup coverage for Latin America and the Caribbean increased from 72.6% in 2005 to 85.7% in 2016. However, nine countries remain below the regional average for Latin America and the Caribbean, and it happens that eight of them are also countries that have a lower human development index and greater gender inequality. Institutional delivery coverage rose from 91.3% to 95.6% between 2005 and 2015. The average coverage for institutional delivery in Latin America and the Caribbean is 93.8%, with seven countries below this level, ranging from 93.2% in Belize to 50% in Haiti. Five of these seven countries also have a low human development index and high gender-based inequality. In addition, four of them (Bolivia, Guatemala, Haiti, and Honduras) have low levels of prenatal care as well. The MDG target for reducing maternal mortality was not reached in the Americas. At the global level, the average reduction in maternal mortality between 1990 and 2015 was 44%, while in the Region of the Americas it was 49%. Although a majority of countries in Latin America and the Caribbean were able to reduce their rates, 13 countries are still above the average level, which was 68 per 100,000 live births in 2015.

Health of older adults. All countries in the Region of the Americas have an aging population (121). Today, life expectancy at the age of 60 is 21 years. In other words, 81% of the people born in the Region managed to reach the age of 60, and of these people, 42% will live beyond 80 (122). Octogenarians represented 3% of the Region's population in 2016. However, it is estimated that this age group will experience the largest proportional increase, with a sharp spike in growth starting in 2025. The Caribbean subregion currently has the largest elderly population in Latin America and the Caribbean, while Central America has the youngest population. As of 2012, the leading cause of mortality in the group over 60 years of age was ischemic heart disease (14.5%), followed by cerebrovascular disease (7.7%) and dementia and Alzheimer's disease (6.2%), which in this age group weigh much more heavily among the causes of death in the Region. Increased life expectancy has not meant more years of healthy and disability-free life. In 2015, it was estimated that the average healthy life expectancy in the Region of the Americas was 65 years, with a remaining number of unhealthy years of life that ranges from 8.3 years in Guyana to 10.9 years in the United States of America. Canada and Costa Rica are the countries with the highest estimated healthy life expectancy after age 70. By contrast, healthy life expectancy in Haiti and Guyana falls short of age 60, and countries and territories such as the United States of America, Puerto Rico, and Venezuela lose 10 years of healthy life expectancy. These estimates support the argument that increased life expectancy has been accompanied by an expansion of morbidity and, especially, disability.

SOCIAL INEQUALITIES IN HEALTH

Equity in health is a cardinal expression of social justice, attained when every individual has the opportunity to reach his or her full health potential and no one is excluded or hindered from reaching that potential because of social status or other socially determined circumstances. This ethical imperative is accompanied by a policy imperative, since today it is recognized that social equity is a prerequisite for good governance. Equity is a policy objective that consists of creating equal opportunities for health and well-being. Indeed, without social equity, sustainable human development cannot be guaranteed (123). In recognition of this, the 2030 Agenda, embraced by every UN Member State in 2015, has explicitly promised to ensure that *no one is left behind*.

Two inseparable notions: equity in health and the social determinants of health

Aspiring to equity in health, including universal access to health and universal health coverage, implies altering the

underlying distribution and role of the social determinants of health—the circumstances in which individuals are born, grow, live, work, and age and the broader array of forces and systems that affect those circumstances, such as the global, national, and local distribution of wealth, power, and resources. Transformational—and, therefore, equalizing—action to address the social determinants of health requires abandoning public health practices based on the risk-factor paradigm, in which the individual and behavior are the focus. It also requires adopting a more comprehensive approach to public policy that empowers individuals and communities to exercise control over their circumstances—a multidisciplinary and essentially intersectoral approach under the principle of Health in All Policies.

The Americas: a vibrant region plagued by persistent inequities

Guaranteeing the universal right to health will remain simply an aspiration if the profound social inequalities underlying the health gaps in the Region are not addressed. Empirical studies offer clear proof that the population groups with the worst health outcomes in the countries of the Region also are those that exhibit the material manifestations of socioeconomic inequality, including low income and consumption levels, poor housing, precarious jobs, limited access to quality health services, fewer educational opportunities, inadequate access to clean water and sanitation services, marginalization, exclusion, and discrimination (39, 40).

There is evidence of the stubborn persistence of profound social inequalities—and, thus, profound inequalities in population health and the burden of disease—even in Latin American countries where “postneoliberal” political, economic, and social reforms have been implemented to counteract the neoliberal model that emerged in the 1980s (124). The causality here runs in both directions. On the one hand, conditions associated with poverty (such as economic insecurity, stress, and malnutrition) directly impact people's health and limit their access to health services. On the other hand, poor health limits the potential for income generation and social mobility, by lowering school, work, and social performance.

A regional look at health from the perspective of the MDGs, under the lens of equity

Notwithstanding the structural impact of harmful colonial legacies, tremendous social injustice, and profound socioeconomic inequities (39), the Region of the Americas, and Latin America in particular, enjoyed a virtuous cycle of macroeconomic growth for much of the 1990–2015 period,

characterized by a reduction in poverty, extreme poverty, and inequality in income distribution. This was also the timeframe of the Millennium Development Goals (MDGs). As noted in the current edition of this report and its preceding edition (116), the Region consolidated undeniable gains in health, meeting several of the targets set for MDG 4 (child mortality), MDG 6 (incidence of HIV, tuberculosis), and MDG 7 (access to safe drinking water).

Despite the impressive overall improvements, a regional look at health from the perspective of the MDGs paints a different and more troubling picture when examined under the lens of equity. Achievement of the health-related MDGs and/or progress toward them has not generally been accompanied by a systematic reduction in social inequalities in health, especially relative inequality,² which tends to be the most sensitive indicator for determining the impact of policies targeting population segments at greatest social disadvantage to ensure that no one is left behind. An illustrative and dramatic example is MDG 5 (maternal mortality), depicted in **Figure 4** as a dashboard of the maternal mortality situation through the lens of equity.

On average, the Region succeeded in halving the maternal mortality ratio between 1990 (101.8 per 100,000 live births) and 2015 (51.7 per 100,000 live births). In principle, this is the necessary and sufficient information to determine whether or not MDG 5 has been achieved (i.e., a 75% reduction). However, the histograms of human development quartiles among countries in **Figure 4** show that while the absolute gaps in maternal survival have been reduced—especially at the expense of a reduction in maternal mortality in the countries in the quartile with the lowest human development levels—inequality gradients in maternal mortality persist. This undesirable effect is confirmed by both the regression curves (lower left corner) and the concentration curves (lower right corner) of social inequality (i.e., according to human development) for maternal mortality among countries in the Americas. The regression curves and the concentration curves provide more sophisticated and detailed metrics of the inequality gradient (i.e., the slope index of inequality and the health concentration index, respectively). In fact, 50% of maternal deaths in the Region continue to be concentrated in the 20% of countries with lower human development levels—a situation that did not change in the period 1990–2015. These mothers are the people *we have left behind*.

Health inequalities *among countries* analogous to those illustrated here with maternal mortality have been documented with other health outcome indicators and in other stages of life (116). More relevant still is the available evidence on health inequalities *within countries*, based on microdata from population surveys (41).

The persistence of inequities and inequalities in the Region

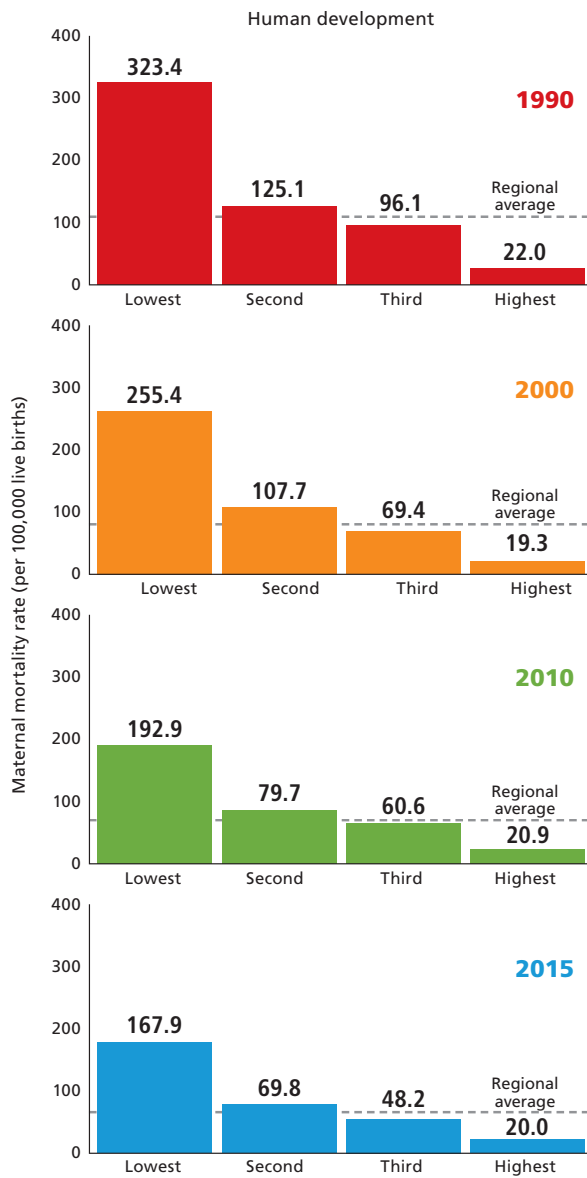
Among the world's regions, the Americas (and Latin America and the Caribbean in particular) is considered to have among the highest levels of social and health inequity (77, 78, 116), especially in terms of inequality in income distribution—the starting point for generally held ideas about regional inequality. However, the social, economic, and health inequalities observed in the Region tend to be the result of something more deep-rooted and perhaps less evident: policies, laws, and regulations whose design and execution reflect the inequality in access to the entrenched power in our countries.

Extreme inequality can alter the policy-making process, even in democratic contexts, since it translates into imbalances in the way in which the power to influence the political process is distributed in a society. This diminishes the real potential of those who do not possess the power to overcome poverty and exclusion and thus enjoy decent and satisfactory living conditions, including robust health.

Policy-making involves the discussion, approval, and implementation of public policies. It can be understood as a negotiating or transactional process among stakeholders that unfolds in both formal and informal settings. When this process occurs in contexts of profound inequalities, the circumstances, realities, and agendas of the elites—the privileged stakeholders who hold all the power to influence the political process—tend to be reflected in the resulting policies that govern our societies, thus reinforcing the culture of privilege that prevails in the Region (125). Thus, the elites and their networks, with their ideas and resources, can be synonymous with forces having great potential to shape the conditions for generating and appropriating the economic surplus in their favor and slanting the workings of government institutions against the public interest. The influence of the elites and their consequent co-opting of policies (for example, progressive taxation) are not simply structural obstacles to combating inequities but a violation of the basic precepts

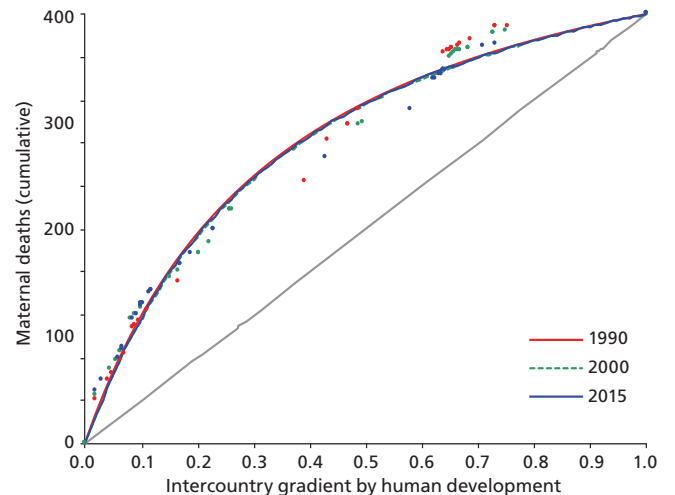
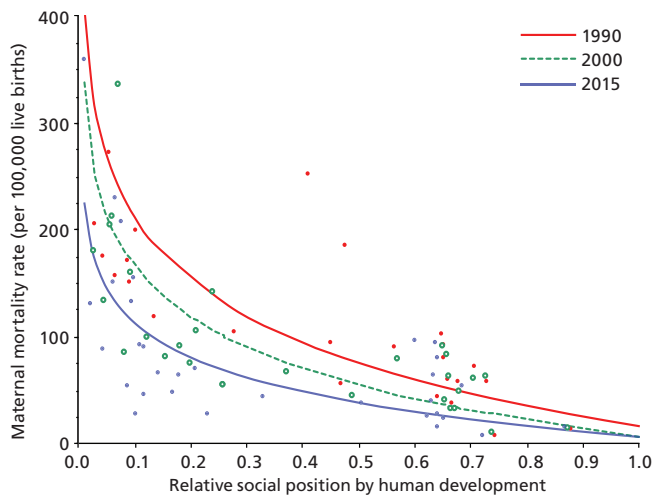
2 Unlike absolute inequality, which reflects the *magnitude* of health differences between social groups, relative inequality shows the *proportional differences* in health between social groups.

Figure 4. Sociogeographic inequalities in MDG 5 (on maternal mortality), Latin America and the Caribbean, 1990, 2000, 2010, and 2015



Equity stratifier	Inequality metrics	Year	Point value	95% confidence interval	
				Lower	Upper
Human development	KI absolute	1990	301.4	296.0	306.8
		2000	236.1	231.2	240.9
		2010	171.9	167.6	176.2
		2015	147.9	143.8	152.0
	KI relative	1990	14.72	13.81	15.69
		2000	13.24	12.36	14.18
		2010	9.21	8.61	9.86
		2015	8.39	7.82	9.00
	SII	1990	-249.4	-256.1	-137.4
		2000	-191.3	-196.8	-121.9
		2010	-145.3	-150.6	-91.3
		2015	-120.5	-203.1	-87.5
HCI	1990	-0.42	-0.57	-0.28	
	2000	-0.42	-0.55	-0.29	
	2010	-0.39	-0.52	-0.27	
	2015	-0.42	-0.55	-0.29	

KI = Kuznets index SII = slope index of inequality HCI = health concentration index



of democracy, debilitating its institutions and complicating policy-making in general.

In the current circumstances, given the sustainable development scenario promoted in the 2030 Agenda, PAHO has identified a key role to play in rendering policy-making more effective in the promotion of the universal right to health. First, it must continue producing and disseminating concrete analyses and evidence related to the social determinants of health (that is, on the close correlation between the social conditions of different population groups and their health status) and the distributive inequality that social conditions impose on health. It will also be essential to ensure that that evidence is reflected in the recommendations on public health policies (including those related to health service access, which is one of the channels for translating socioeconomic conditions into health conditions) and on social and economic policies, broadly speaking. Moreover, guaranteeing that health is not just the privilege of the few in the Region also implies the need to facilitate technical cooperation for generating political advocacy to further social equity in health.

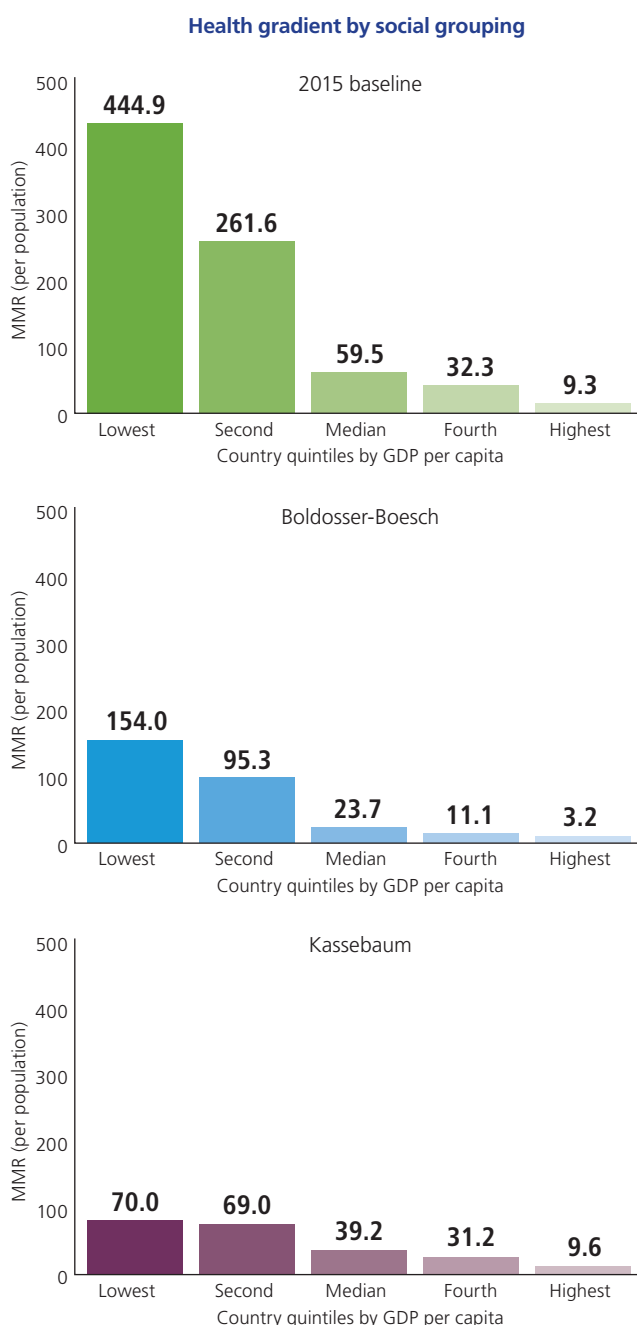
No one left behind? How to make good on our promise

Notwithstanding its undeniable and timely emphasis on equity, the 2030 Agenda and its Sustainable Development Goals (SDGs) do not have explicit targets or specific indicators for the reduction of social inequities in health or progress toward equity in health, beyond recommending greater availability of data disaggregated by the variables that produce social stratification. Building institutional capacity to measure, analyze, monitor, and communicate social inequalities in health, inform policy-making, and generate political advocacy to further equity in health throughout the life course is essential for creating and strengthening national capacity to make good on the promise of ensuring that no one is left behind on the road to sustainable development in 2030.

A recent and still unresolved debate on target setting for maternal mortality in the SDGs, published in a major scientific journal (126), offers a powerful example of the need for serious reflection on how to report the impact, if any, of the 2030 Agenda on equity in health. SDG Goal 3.1 calls for reducing the *global* maternal mortality ratio to less than 70 per 100,000 live births by 2030. Although how to incorporate this target at the national level is still undetermined, one proposal (Boldosser-Boesch et al.) is to convert the global target to a relative national target equivalent to a two-thirds reduction in maternal mortality between 2015 and 2030. Another proposal (Kassebaum et al.) is to convert

the global target to an analogous absolute national target, i.e., reduce maternal mortality to less than 70 per 100,000 live births by 2030 (126). **Figure 5** illustrates the potential distributive impact of maternal mortality between 2015 and 2030 on the social gradient, defined by quintiles of per capita income among all the countries in the world, based on these two proposals.

Figure 5. Income-related maternal mortality cross-country inequality: 2030 equity scenario according to goal-setting criteria



This exploratory prospective analysis yields a message of the greatest importance for the success of the 2030 Agenda: only through a systematic analysis of unjust and avoidable social inequalities in health will it be possible to identify who we are leaving behind. This implies building institutional capacity to study the distributive equity of health gains (in terms of access and outcomes) in socially determined population groups, as well as quantifying the magnitude of social inequality in health through standardized composite metrics over time and throughout the life course. Moreover, only by monitoring inequalities will it be possible to verify the impact of pro-equity policies and progress toward keeping the promise of ensuring that no one is left behind. This requirement to report on the progress toward equity in health was clearly anticipated in 2008 in the final report of the WHO Commission on Social Determinants of Health, whose third general recommendation invokes the need for evidence: without it, the call for equity and social justice will be reduced to mere rhetoric.

HEALTH SYSTEMS AND SERVICES

The central purpose of health systems is to improve health and well-being of the population with steady progress toward universal health. Financing, governance, and efficient planning of human resources development are essential elements for ensuring that the systems have the capacity to provide health

promotion, disease prevention and treatment, rehabilitation, and palliative care for the entire population (1, 127).

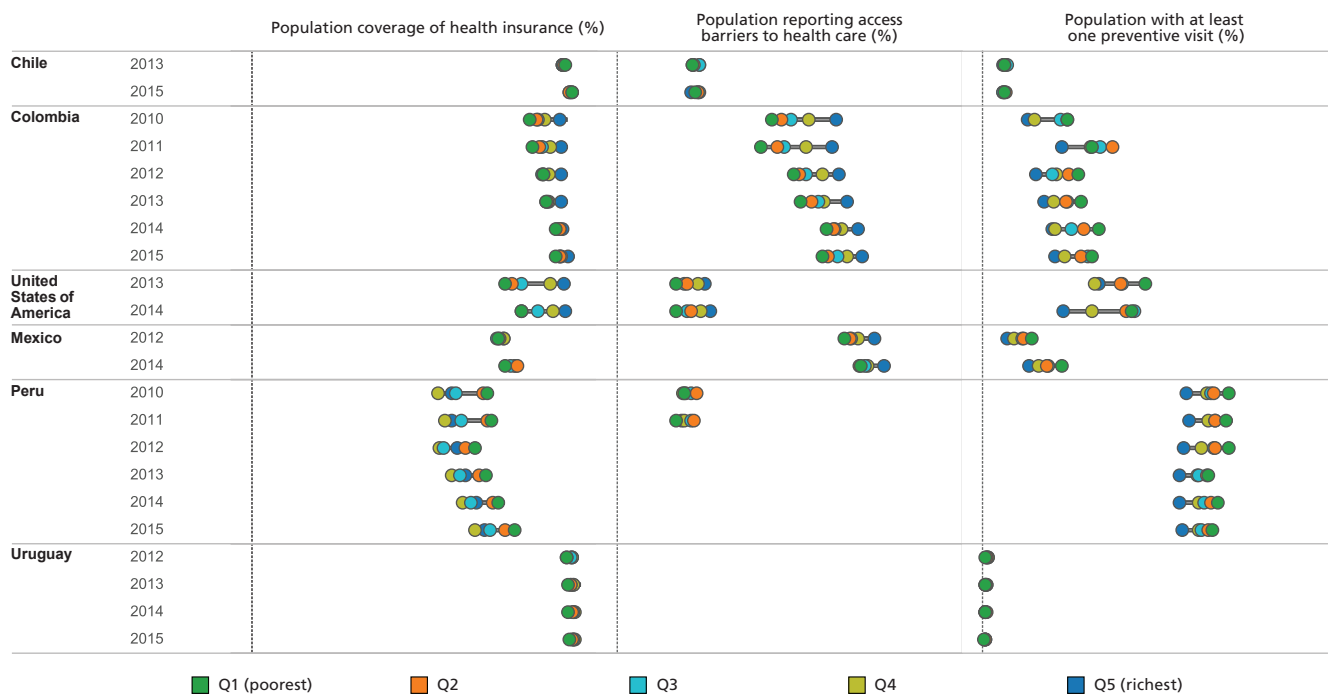
This section summarizes selected statistics on the performance and impact of health systems during the most recent decade as they progress toward universal health. These indicators reflect aspects of the population's health status that can be attributed to the health services; they are considered from the perspective of equity, seeking explicit links with the social determinants of health.

The trend is analyzed through examples that take three dimensions into account: (1) universal coverage and access to health services; (2) health financing; and (3) activities of the health services.

Universal health service coverage and access. To monitor universal health, different metrics are used for each of the two dimensions inherent in the concept: access and coverage. The metrics used to describe the provision and delivery of health services do not measure the barriers that impede access by certain segments of the population and are therefore of little use to policymakers concerned with improving service access (1, 128–130).

For six selected countries in the Region of the Americas, **Figure 6** depicts the quintile distribution by population

Figure 6. Evolution of quintile distribution of income by population coverage, preventive visits, and access barriers in selected countries, 2010–2015



coverage, preventive care visits, and barriers that limit access to health services during the period 2010–2015. It shows that these countries have made progress in both coverage and access, which has generally been accompanied by reductions in income-related inequalities. It also shows that the coverage and access metrics are complementary and that they both need to be monitored in order to follow progress in achieving equity in health.

Population coverage was high in the selected countries during 2013–2015, from a high of 98% in Chile to a low of 73% in Peru. However, the percentage varies with income. For example, in the United States of America, coverage of the poorest households was 14 percentage points below average, and in Peru, 12 points below average. High levels of population coverage were not always matched by high levels of preventive visits or by a reduction in barriers to health service access.

Ensuring access to preventive visits is a fundamental component of universal health. Generally speaking, it is expected that adults will have at least one preventive visit per year as a part of screening and early diagnosis (12). Figure 6 shows overall rising trends in access to preventive health services, especially in Colombia and Mexico, but there were still gaps between households at the income distribution extremes. With regard to access barriers to services, the

percentage of families that reported having encountered such barriers between 2013 and 2015 was very low in Chile (2.3%) and Uruguay (<1%), and high in Peru (19.9%). This indicator also illustrates the unequivocal characteristics of income-related inequalities. In general, however, inequalities have been reduced for all the indicators in most of the selected countries, reflecting a positive movement toward equity.

Health financing

One of the most well-known and informative indicators for assessing the sustainability of changes in health expenditures is the size of these expenditures relative to the size of the economy (GDP). The countries of the Region have assumed the commitment to increase public health expenditure to at least 6% of their GDP as a means of increasing their financial protection within the framework of universal health and reducing inequalities (127).

In 2014, total health expenditure averaged 7.4% of GDP (a simple average for the Region of the Americas), but with major discrepancies, since only Canada, Costa Rica, Cuba, the United States of America, and Uruguay managed to attain 6% of GDP as public health expenditure (Figure 7a). A total of 23 countries increased their public spending between 2010 and 2014 (Figure 7b). However, with the exception of Bolivia, Ecuador,

Figure 7a. Public health expenditure as a percentage of gross domestic product, 2014

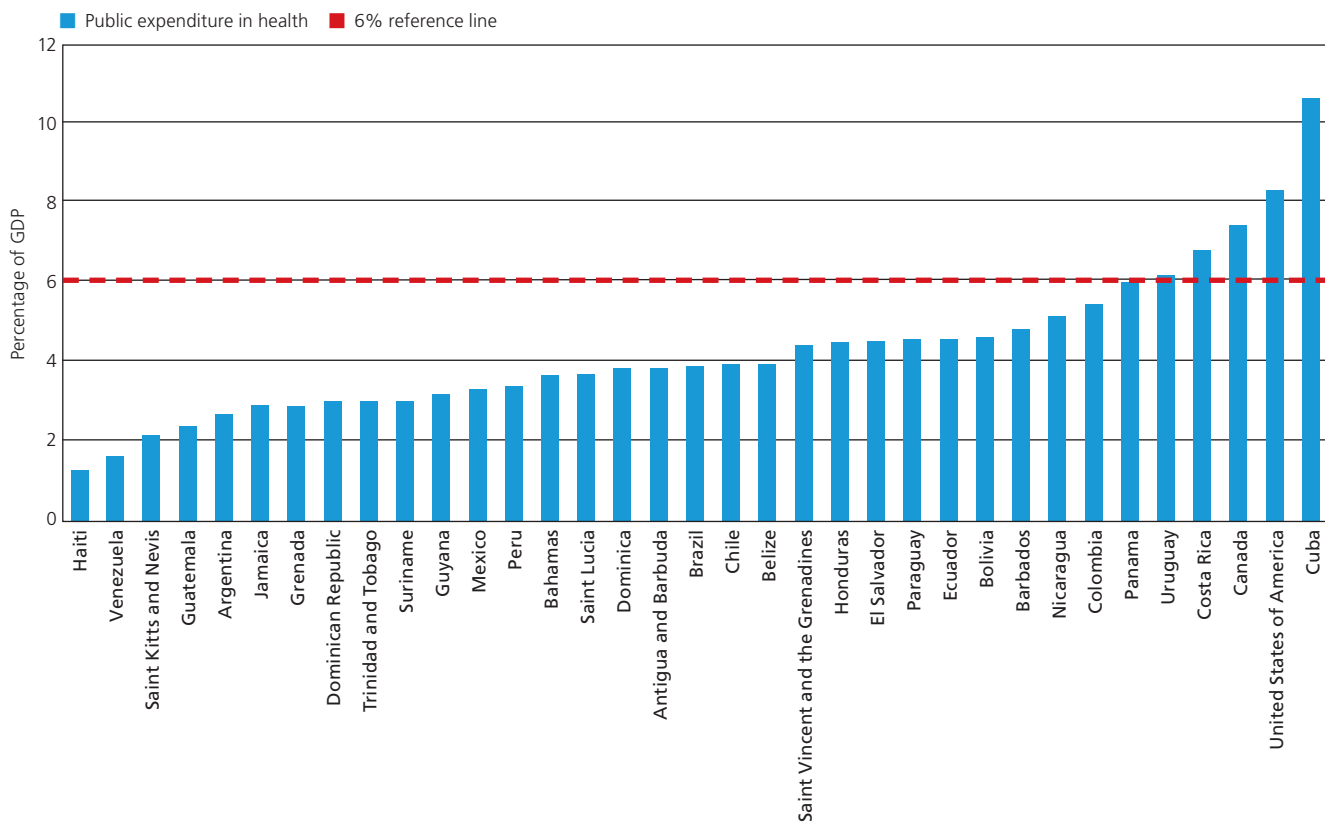
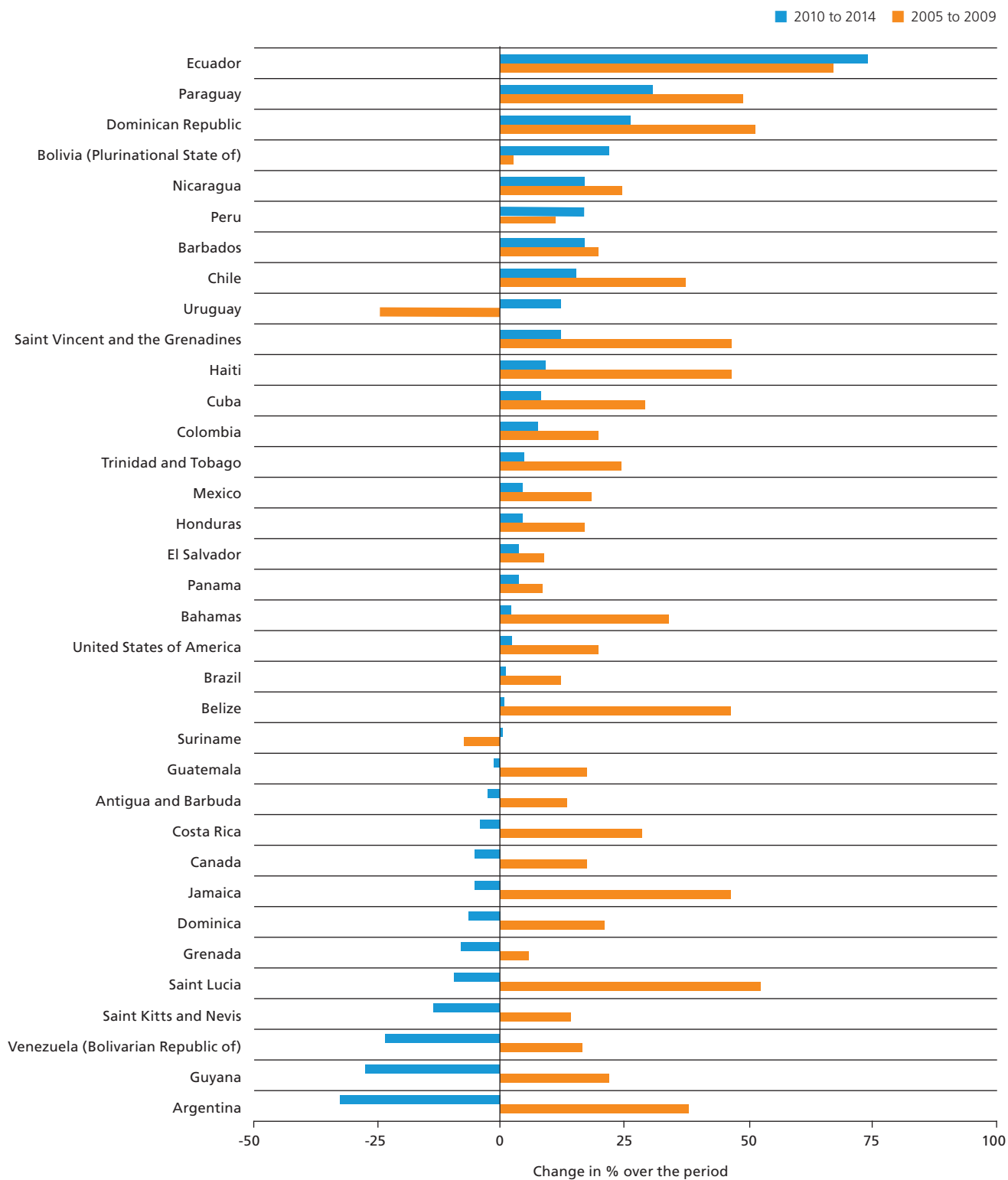


Figure 7b. Change in public health expenditure as a percentage of GDP, 2005–2014



Peru, Suriname, and Uruguay, these increases were lower than for the previous 5-year period (2005–2009), and other countries reduced their expenditures by 2% to 36% during the same period.

Activities of the health services

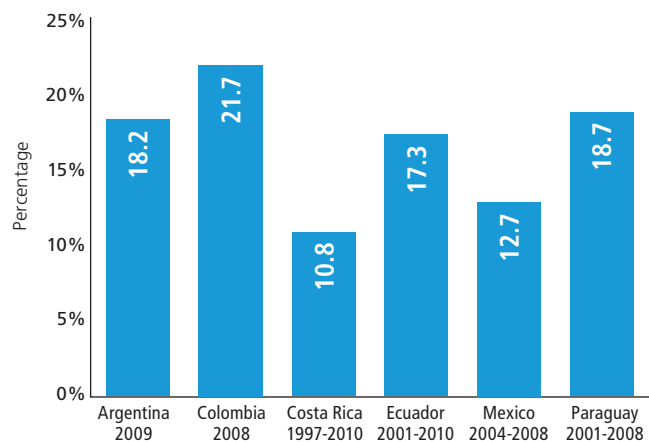
In order to achieve universal health in the Region, it will be essential to strengthen the first level of care. A people- and community-centered care model should have sufficient response capacity at the first level to offer comprehensive and coordinated service using multidisciplinary health teams and the participation of sectors besides health, even for the treatment and care of patients with complex needs.

Screening to identify ambulatory care-sensitive conditions (ACSCs) makes it possible to calibrate response capacity at the first level and avoid unnecessary hospitalizations. Hospital admissions for diseases such as asthma, diabetes, or hypertension can be avoided or minimized with better health promotion programs, specific preventive interventions, and timely access to the first level of care. Use of hospitalization for ACSCs as an indicator of health service activity can be an indirect means of tracking operations at the first level. It may also encourage decision-makers overseeing the organization of health services to configure integrated health services networks and thus improve the efficacy of care (131).

Figure 8 shows the average rates of hospital admission for ACSCs during 2001–2010 in six selected countries. Hospitalization rates ranged from 10.8% in Costa Rica to

21.7% in Colombia. The data for this indicator should be interpreted in terms of the country’s particular characteristics, since the demand for hospitalization is related to the availability of resources, deficiencies in the health system, and its current phase of epidemiological transition. Thus, interpretation of this indicator must take into account these other factors that affect the health systems’ response capacity. One of the goals under the PAHO Strategic Plan 2014–2019 is to reduce the percentage of hospitalizations for ACSCs by at least 10% by 2019, which underscores the importance of measuring and monitoring this indicator.

Figure 8. Percentage of total hospitalizations for ambulatory care-sensitive conditions in selected countries, 2001–2010





THE FOLLOWING CONCLUSIONS CAN BE DRAWN FROM THIS SECTION:

- Almost all the countries in the Region, except for the poorest ones, have achieved good coverage levels with maternal and child health interventions at the aggregate level. However, there are still inequalities associated with socioeconomic status and other social determinants of health that have a strong impact on health and access to services.
- The Region has a high proportion of health insurance coverage, but this has not always resulted in high levels of use of preventive services or in the reduction of barriers to access. The pattern in the use of preventive services is often paralleled by persistent inequalities between the rich and the poor.
- Avoidable health services–related mortality declined in a majority of countries between 2010 and 2014, but it also increased in others, particularly in the non-Spanish-speaking Caribbean.
- Despite efforts made and progress in some of the countries, the distribution of health workers has major disparities in the Region. Some countries are dealing not only with a shortage of health workers but also with a distribution that is weakly correlated with the epidemiological picture and the geographic and demographic distribution of the disease burden.
- Health expenditure varies from one country to the next, and regional progress is insufficient.
- Canada, Costa Rica, Cuba, the United States of America, and Uruguay are the only countries that allocate more than 6% of their GDP to public health expenditure. While 23 countries in the Region increased their expenditure relative to GDP between 2010 and 2014, the increase was smaller than in the previous 5-year period, except for Bolivia, Ecuador, Peru, Suriname, and Uruguay.
- Direct expenditures by individuals remained high in a majority of countries in the Region. Out-of-pocket payments were lower in more than half the countries, but in others they increased.

A PROSPECTIVE VIEW OF HEALTH



The success and effectiveness of health management in the Region of the Americas depends on more than simply being able to make predictions about the health situation and its trends. It relies on the flexibility of health systems to react to the pressures of the physical and social context in uncertain circumstances and at the times when unpredictable factors prevail. Health surveillance and observation take on new dimensions in the context of the vast multilevel spectrum of health determinants. The domains of health intelligence must be expanded beyond merely recording what happened or explaining why. It is necessary to anticipate future scenarios, not only through prediction, but also by construction.

Compared with the process of population aging, which can be predicted up to a point using models of demographic change, other phenomena (such as migration, national and global turbulence, economic crises, and the effects of climate change) appear to be much more susceptible to random influences and models of chaos and complexity.

This chapter examines a number of trends that will be high on the development agenda over the coming decades. Following a brief analysis of the scope and implications of sustainable development that underlie the need for the presence of Health in All Policies, the role of the community and civil society is emphasized. Indeed, without the participation and influence of these groups at both the local and national level, it would be impossible to realize the changes that are needed in the environment and in policies.

A crucial issue is the life-course approach, which represents a paradigm shift for health and development. Its implications are felt not only in the exercise of clinical and epidemiological

practice, but also in the organization of health services and the adaptation of human resources.

The chapter also looks at partnerships with other sectors, both within and beyond national borders, and the challenges they pose for the organization of health services as all work together to address the social determinants of health and promote equitable development under the principle of the right to health and as part of the universal health strategy.

Finally, the modulating effect of information technology on modern society is considered, along with the increasingly apparent relationship between the development of these technologies and social and economic development in general.

THE ROAD TO SUSTAINABLE DEVELOPMENT

The phrase **sustainable development** was coined in 1987 by the World Commission on Environment and Development, with the intention of characterizing a type of

development that “meets the needs of the present without compromising the ability of future generations to meet their own needs” (132). Thus, the environment was included among the essential components of development. The adjective *sustainable*, in its original sense, referred mainly to aspects of the environment, which were assumed to be at the core of the needs of future generations, while the noun *development* alluded to issues related to poverty and the economic dimension, which are the focus of problems for the current generation. Later, the original meaning of *sustainable development* took on new and broader connotations that included recognition of the nonenvironmental factors of sustainability and the noneconomic aspects of development (133).

Principle 1 of the Rio Declaration on Environment and Development, signed in 1992, recognizes that “human beings are at the centre of concerns for sustainable development” and that “they are entitled to a healthy and productive life in harmony with nature” (134). Chapter 6 of Agenda 21, which emanated from the United Nations Conference on Environment and Development, underscores the need to protect and promote health, with emphasis on primary care, control of communicable diseases, protection of vulnerable groups, health care in urban areas, and reduction of risks from environmental pollution.

Since then, the unbreakable link between health and sustainable development has been recognized, with each term being both the cause and consequence of the other. The goals for sustainable development are unachievable in places with a high prevalence of poverty-related diseases. The health of the population cannot be preserved in physical and social contexts that are inimical to development. If development occurs as a result of unsustainable strategies, health achievements may be correlated with an improvement in economic conditions in the short term, but they may not be sustainable over the long term.

Social factors such as political instability, violence, armed conflict, and inequities have a negative effect on health and sustainable development. In this way, health and sustainable development assume an ethical dimension that connects them to universal health.

Therefore, the health of the population is not merely a causal factor or a random aspect of economic development; it is a substantial component thereof. With human health in this centripetal position, the purpose of development is to improve conditions for the full, equitable, and nonexclusive enjoyment of health and the well-being of society. If the road

to development does not lead to sustained improvements in health, it cannot be regarded as *sustainable* development.

Sustainable development has three dimensions: social, economic, and environmental. These three dimensions must be integrated in a balanced manner, paying due attention to the needs of the present without compromising capacity to meet the needs of the future. The three dimensions complement one another in the concept of sustainability. In this context, health, as a matter of right, is the point at which the three dimensions of sustainable development converge (135).

The 2030 Agenda for Sustainable Development is an important milestone in the history of public health because it elevates health and recognizes its role as the engine for a new quality of life and well-being. It takes the health sector far beyond its traditional boundaries and places it at the center of development, policy, and political processes. The challenges for health call for complex solutions, and therefore the health sector must have the political capacity to take advantage of opportunities and produce mutual benefits in multiple sectors. At the same time, the coproduction and collateral benefits of health must be shared with all of society. The 2030 Agenda establishes a framework in which good health outcomes can have positive repercussions for other aspects of development (136).

Although the interactions among the SDGs are complex, the appeal of the 2030 Agenda is simple and direct: in order to have a more equitable world for future generations, countries need to identify their most vulnerable groups, develop innovative strategies for reaching those populations, and monitor progress toward their objectives. However, achieving these objectives should not be the exclusive responsibility of governments. People, families, and communities should be able to take practical and feasible actions that will contribute toward meeting the ambitious goals and targets of the 2030 Agenda. Only in this way can sustainable development become a tangible aspiration.

ROLE OF CIVIL SOCIETY AND THE COMMUNITY IN PUBLIC POLICIES ON HEALTH

Sustainable Development Goal 3 is to “ensure healthy lives and promote well-being for all at all ages.” Its nine specific targets represent an important advance beyond the health-related MDG targets because they contribute to a holistic vision of health and its determinants that the MDGs failed to grasp. The breadth and complexity of SDG 3, as well as the health-related goals in other areas of the 2030 Agenda

for Sustainable Development (136), suggest a variety of ways to conceive and carry out public health strategies that involve stakeholders beyond the health sector. An active and dynamic civil society will be vital to achieving the necessary transformations.

The 2030 Agenda formally states that its objectives are to “end poverty and hunger, in all their forms and dimensions, and to ensure that all human beings can fulfill their potential in dignity and equality and in a healthy environment.” It also recognizes the need to promote partnerships among governments and with the private sector and civil society.

In its broad sense, civil society may be defined as the human component outside the formal apparatus of the State. In the present text, however, the term **civil society** will be used to refer to groups that are dedicated to promoting the health and well-being of the population, but that are not associated with government (137, 138).

A **community** is a specific group of people who typically live in a distinct geographical area and share the same values and customs, the same culture, and a social structure that expresses the type of relationships that the group has established over time. The members of a community acquire their personal and social identity through the shared beliefs, customs, and values that the community has embraced, although these may change in the future. Members are aware of their community identity. They also share needs, as well as at least a tacit commitment to fulfill them. The health of a community is more than just the sum total of the health of the individuals who comprise it. The community is the context in which the processes of health and well-being unfold, and where the effects of the social, physical, and environmental determinants of health come together (139, 140).

A dynamic and committed civil society can exert a very positive influence on the response of the population to actions aimed at the social determinants of health and health inequities. Even if the effect of community action is constrained by exclusive policies and, in general, by a lack of political will on the part of governments, social organizations can still organize movements and large-scale campaigns that have effects even beyond national borders (141). It is the responsibility of governments to reserve and guarantee a space for communities and civil society in the design and implementation of public policies. Communities and civil society, for their part, are expected to participate responsibly in the decision-making processes, with transparency and freedom from conflicts of interest. PAHO should urge governments to promote opportunities for participation,

provide technical collaboration, and ensure that policies resulting from interaction with the non-State sector are shielded from the influence and interests of the private sector (141, 142).

It is important to recognize the local relevance of health problems. This recognition has major practical implications for programs and interventions, because context can affect the outcomes: a solution that is cost-effective in one scenario may not be in another. At the same time, it is important to build and capitalize on the capacities that exist in communities. If significant progress is to be made in addressing the many challenges posed by the health needs of communities, it will be absolutely essential to forge partnerships among government agencies, health providers, grassroots community organizations, and other entities concerned with health. Assessing the impact of these interventions is also very important.

Community-level programs based on multiple interventions are proving to be increasingly successful in bringing about changes in risk-prone behaviors and lifestyles. Emphasis on this approach has intensified in recent decades because of a paradigm shift from an almost frenzied search for individual risk factors to the parallel inclusion of social and environmental effects. This has been based on the principle that lifestyles and behaviors are not the result of free individual choice, but rather, that they are determined by the physical and social context, with impacts on relationships between people, in the community, and in the political macrosphere.

Despite the emphasis on promoting community health, much still remains to be learned about the determinants and dynamics of change at the population level. Health promotion at the community level is a conceptual framework that emphasizes primary prevention from a population perspective. Community-based prevention programs are integrated and broadly based; they are not limited to hospitals or other health service delivery facilities. They involve community leaders, social networks, public awareness campaigns, and direct education of the population, and they are geared to developing strategies to promote change in the environment and in policies.

BUILDING HEALTH OVER THE LIFE COURSE

The life-course approach is both a new causality paradigm for health and development and also a new model for the organization of health services. The causality-based health and development network is not confined to narrow time

intervals; it extends throughout the entire life course and even across generations (143). Health systems must adapt to this reality and develop a model of care that is both proactive and ongoing.

Various medical disciplines, from epidemiology to the basic medical sciences, have contributed to a better understanding of health and the health events that occur throughout the life course. Adult health is no longer seen as the result of individual influences that occur over limited periods of time, but rather as the outcome of a complex network of interrelated factors that are first felt during prenatal life and have effects that carry over to the next generation (60, 144).

Environmental and social determinants play a decisive role in this web of causality, whether as exogenous variables or as effect modifiers, or both. Their effect may evolve, as in a model of cumulative effects, or they may have a specific impact during a critical period. Either way, these determinants have an enormous impact on health and health inequities (51).

The life-course causality paradigm has profound implications for the organization and delivery of services. Health systems should no longer be structures that respond to episodic demands for care or operate on the basis of vertical programs. Instead, they must become proactive systems that contribute to the ongoing social endeavor to build health and well-being (51). These expanded horizons of causality should also influence the development and allocation of human resources and their distribution to the health services (51).

In the not-too-distant future, public health, the organization of services, and clinical practice will also be reshaped by the need to serve patients who are enjoying a long life expectancy but with chronic illnesses for many years, and who are struggling with increasing limitations and the need to receive health care for extended periods. However, despite their medical conditions, these patients may at least feel healthy and enjoy a degree of well-being (145).

We are already shifting away from patients seen as objects of health interventions to patients viewed as active participants in building their health and managing their conditions (60, 145). Despite profound inequalities, people tend to be more—though not necessarily better—informed. They also make autonomous decisions increasingly early on and more often without the participation of the health services. Public health today can no longer disregard the participation of individuals and other stakeholders in the promotion of health (60). An important challenge in building health over the next

decade will be to identify strategies to take into account bidirectional influences between these new stakeholders and health professionals.

The life-course approach is a dynamic process and an integral aspect of health care systems. Therefore, our current information systems will have to be redesigned and enhanced with improvements in coverage, data quality, and analytical capacity in order to work with meaningful indicators and measure progress. Assessing the impact of the life-course model should be based on reliable information from a number of sectors (education, transportation, environment, finances, employment, the legal system, and others), while not forgetting components from the private sector. Information systems will need to be reoriented toward seeking and capturing data to support indicators of well-being, levels of operation, quality of life, and environmental factors, while also allowing for interoperability with datasets from other sectors. It will be up to regional agencies and national governments to advocate for adoption of the life-course approach and a broader conception of population health and the delivery of health services.

TRANSFORMING HEALTH SYSTEMS TO ACHIEVE UNIVERSAL HEALTH

Health system inefficiency and lack of equity were largely responsible for the slow progress made by some of the countries toward achieving the MDGs. Barriers to meeting the SDG targets remain today. Some health systems have been unable to overcome the many challenges facing contemporary health and its determinants in the Region. This has been especially true for the decades-long challenges of demographic and epidemiological transition, but also for ones resulting from disasters, epidemics, internal conflict, climate change, corruption, limited sources of funding, segmentation and fragmentation of services, and a multiplicity of other factors arising from the physical and social context.

The strategy for access to universal health underscores the need to transform health systems so that they can uphold the values associated with the right to health, solidarity, and equity. Health systems are a key component of social protection systems. It is impossible to conceive of health without taking into account its social determinants, the special needs of vulnerable populations, and a long-term perspective throughout the life course. From the broader view, universal health means moving beyond financial coverage alone and completely transforming the institutional arrangements that regulate the health systems' critical resources and shape the model of care. Within this framework, equitable access to a

people- and community-centered care model becomes the central dimension of health policy-making and forms the road to universal health (27, 146).

It is essential to arrive at a consensus on the meaning of universal access and universal health coverage based on the participation of community and civil society, in partnership with all governments, and with the engagement of all sectors. The need for integrated joint action under the leadership of the health authorities makes it clear that the transformation processes are eminently political. The characteristics of the stakeholders involved in formulating and implementing these transformation processes will determine the political and technical capacities required in order to guarantee a path toward universal health.

Resolving the key health problems and their social and environmental determinants will require profound changes in current health care models in order to strengthen both governance and stewardship of the sector. There will also be a need for more active and efficient regulatory systems, more transparent and effective financing mechanisms based on the principles and values of equity in health, and more appropriate allocation of human resources to meet the demands of people- and community-centered health systems (147).

In the countries of the Region, different transformational dynamics can be identified, in terms of: (1) the way in which the collective actions resulting from different political processes are coordinated; (2) the issues that are considered strategic in formulating the reforms to be implemented; and (3) the particular institutional reforms and updates that will be needed to construct the processes of change.

The transformation processes that focus on overcoming barriers to equitable access as the central issue in a people- and community-centered model rely on integrated collective action by health authorities, social movements, and professional groups. Innovations in the care model, adaptation of human resources, and an intersectoral approach are the principal building blocks for the process of change. However, these reforms are hampered by two unresolved challenges: the need for increased public financing, and segmentation of the health systems.

Another approach to transformation considers financial coverage to be the central issue. In this approach, private providers and insurers are invited to participate as interlocutors in the public health arena. In this type of reform, the health authority is present in the form of regulatory

agencies and through oversight of funders and providers. The most notable institutional transformations of this kind are innovations in the mechanisms for insuring the population. The main drawbacks are the limited improvement of equity in terms of access to health services and the changes that occur in the care model.

Since each country's trajectory is different, it will be necessary to augment the changes with an agenda that includes improvements in both equitable access and coverage through the expansion of joint action, and through institutional changes in the governance of health services, human resources, financing, health technology, and medicines.

PUBLIC HEALTH AND THE INFORMATION SOCIETY

All spheres of modern life (economic, political, social, and cultural, among others) bear the imprint of the information society. The greater or lesser degree to which a society has become automated is considered a fairly reliable indicator of its level of development. The goal of sustainable development appears less remote in the information society, which has created new spaces where people, institutions, and nations are able to meet, exchange ideas, and build relationships.

Information, on the one hand, is an economic resource, because it can be used to increase efficiency and stimulate creativity and innovation at all levels of society. On the other hand, it can also be a channel for exercising one's right or for complying with civic responsibilities. Information is so important that it has become a sector in its own right within the organizational structures of society: the information and knowledge management sector. Public health functions do not change, but our computerized society has changed the way in which these functions are performed. In orienting the exercise of public health toward sustainable development in the information society, the following guiding principles should be respected: (1) open science; (2) open data; (3) unstructured data; (4) renewed expertise; and (5) e-government.

The principle of **open science**, as it applies to public health, entails full and free access to information and scientific and technical knowledge, as well as the professional updating of health personnel and those responsible for designing and implementing policies, all of which facilitates the exercise of evidence-based public health. Open science also involves the ongoing promotion of research and efficient management so that results will reach the public in the shortest possible time and become inputs for improving public policies (148, 149).

In today's computerized society, the concept of equity in health can be progressively extended to provide all countries with access to valid, reliable, and safe data, as well as to evidence on the right to education and the right to receive information on matters related to health. Among other advantages, free access to information helps to improve analytical skills, the quality of health surveillance systems, and the capacity of health systems to respond to foreseeable or unexpected threats to the physical and social context.

Open data policies will make it possible to implement or improve quality control in the processes of collecting, storing, and ensuring the safety of both structured and unstructured data. The policies will also protect confidentiality and the privacy of individuals by applying international criteria for conditions of access and by establishing governance strategies (150, 151).

Unstructured data refers to information from nonformal sources, such as the exchange of specialized and nonspecialized information on social networks and elsewhere on the Internet. Such data, duly filtered, can contribute valuable leads to complement the formal health information systems (152–154).

For the implementation of epidemiological surveillance systems, the combination of structured and unstructured data, properly managed under strict confidentiality and following ethical and technical principles, can be the basis of an open data strategy for health research and management. The capture and management of unstructured data should be based on models and criteria that are cost-effective and responsive to local conditions. The measures taken to guarantee data safety, including the decision to apply the information and its purpose, should be completely transparent (154).

One of the greatest challenges for health systems in the capture, processing, analysis, and dissemination of information is the limited competence and analytical capacity of the

personnel engaged in these tasks, particularly at sites that are far away from the centers where the information is captured and consolidated. This challenge is especially urgent in the Region. Staying abreast in the information society requires constant updating of skills and professional competencies (155). Health workers should increasingly specialize in the management of structured and unstructured data, the use of information and communications technology (ICT), and the application of resources and methodologies for information management and knowledge exchange in multilingual and multicultural environments. This reality gives special importance to the strategic line of **renewed expertise**.

In the modern performance of public health functions, ICT is no longer a mere instrumental resource. Instead, it is an essential part of policy-making and plays a key role in mass communication strategies, alerting the population to risks, epidemiological surveillance, emergency and disaster response, planning and innovation processes, and the prioritization of investments.

E-government (electronic government) is a term that has been coined to refer to the ICT-based approach, which is intended to make all managerial processes, including health management, more effective and transparent. The implementation of public health strategies within an e-government framework makes it possible to innovate, promote transparency, and strengthen accountability in the civil service and in democratic processes. E-government also helps to improve efficiency and relations and communication with citizens (156).

The information society is not an option, but rather a product of development to which all spheres of governance must adapt, including governance in health. For public health, it is an urgent challenge to assimilate the principles established by the information society and apply them to moving forward with the PAHO Member States in a collective effort to achieve the goals for sustainable development.



CONCLUSIONS

The five years since the publication of the 2012 edition of *Health in the Americas* have seen more than a few advances in the panorama of regional health. The purpose of health systems has been to improve the health and well-being of the population with ongoing progress toward the achievement of universal health in the Region. As more progress is made, greater efforts will need to be devoted to planning, financing, and training human resources, as well as to strengthening leadership and sectoral and intersectoral governance. Many countries have reduced their rates of extreme poverty and made improvements in the health indicators for critical areas such as infant mortality, maternal mortality, reproductive health, communicable diseases, and malnutrition. At the same time, however, new challenges have arisen while others already present, including violence, accidents, and noncommunicable diseases, have become more acute, raising issues that will chart the course for health policies in the coming years.

Health must be recognized as a basic human right and not just a social benefit. For ethical reasons, health should be inherent in all policies, because it is a right and because of the practical imperatives of development. The idea of health as a human right imposes responsibilities on governments and health systems that go far beyond improving overall health indicators and extending coverage. The first of these responsibilities is based on the concept of equity in health. By focusing attention on all unjust, unnecessary, and avoidable inequalities, a distributive element is added to the assessment of health system performance—one that received little attention four or five decades ago.

The need to measure and monitor two dimensions—averages and distribution—puts new demands on information systems, which have to produce relevant and timely material from reliable sources. The information systems must ensure adequate data capture flows and have the capacity to interpret and communicate results with respect to a repertory

of feasible and predictable actions. The measurement of inequities, in particular, involves having to choose relevant health indicators, appropriate criteria for stratification, and adequate metrics.

Among other challenges, health systems will have to address the problems associated with demographic changes and other changes that originate outside the health sector's immediate sphere of action. Aging is already a key factor for public health, and this will be increasingly true in the coming decades. The median age of the population is rising, the proportion of people in the older age groups is growing, and multimorbidity is on the rise, with concurrent chronic illnesses, deterioration of sensory and cognitive functions, and generalized frailty.

Clinical practice, health administration, and the organization of services will have to evolve and be redesigned to serve patients who will have a long life expectancy and multiple

chronic disorders, and who will play an increasingly important role in self-care. At the population level, it will be necessary to move toward the organization of partially self-managed communities to catalyze progress toward universal health. It will also be essential to assimilate and transition to policies that are consistent with the life-course causality paradigm. The construction of health must be embraced as the new mission of health systems, with a scope that goes beyond prevention and promotion, and even beyond care itself. This transition cannot take place without the help of other sectors and without the active participation of all young people and adults as the subjects of health, and without the support of the community as the setting in which they evolve.

Only a few countries in the Region have reached the established minimum levels of public spending relative to their GDP. In addition to closing this unsatisfactory and pending gap, systems need to adopt more efficient forms of financing and to reduce their fragmentation and segmentation. There is no single universal solution; the answers depend on the context. While the specific strategies may be up for discussion, two principles are beyond any controversy. One is the elimination of direct payment for services. The other is the application of prepayment formulas that move funds from the more solvent users to those who are less so, and from people with fewer needs to those whose needs are greater.

The physical and social context is fraught with risks and threats, some of them foreseeable and others unexpected. They will require health systems to become flexible organizations that can perform their regular public health functions and at the same time have mechanisms in place to deal with emergencies in an effective and timely way.

Violence in its many forms and political instability in some countries due to the breakdown of democratic institutions are endogenous factors that, in a society, have both direct and indirect effects on human health and well-being.

Climate change and migration (forced and unorganized) are exogenous factors with negative effects that are felt throughout society and have profound and lasting consequences for health.

Since health is a human being's most precious asset, health systems have an important role to perform as they work in close partnership with other sectors and the rest of society to address the maze of endogenous and exogenous challenges.

Sustainability is an overriding concept that pervades any consideration of health in the future. Although much remains to be understood about its determinants and the procedures for monitoring them, three key criteria can be identified: (1) the permanence of health benefits obtained under local interventions, programs, or policies; (2) the degree to which programs are institutionalized; and (3) the extent to which the community is empowered. In an increasingly computerized society, with a future tied to the development of information and communication technology, incorporating this technology into the implementation of public health strategies will be vital to making progress toward universal health and sustainable development.

The 2030 Agenda is a major milestone in the history of public health because it puts health and well-being in a position that expands the confines of the sector and grants health the prominence it deserves in policy-making and political processes. The strategies for addressing health challenges should benefit all sectors of society. The Agenda's broad scope will allow the effects of achievements in health to permeate all facets of development, and, conversely, will allow the effects of development to have a positive impact on health. Despite the complexities involved in sustainable development, the Agenda is clear. Actions transcend borders. Countries must identify their most vulnerable sectors (not always found using simple stratification criteria), develop innovative strategies that benefit these sectors, and monitor progress toward achieving the goals for development.

The Agenda calls upon individuals, families, and communities to take practical actions toward meeting tangible and objective targets. Only in this way can the aspirations for sustainable development become a reality.

REFERENCES

1. Pan American Health Organization/World Health Organization. Strategy for universal access to health and universal health coverage. 53rd Directing Council, 66th Session of the Regional Committee of WHO for the Americas, Washington, D.C., 2014 Sept. 29–Oct. 3 (CD53/5, Rev. 2). Available from: <http://www.paho.org/uhexchange/index.php/en/uhexchange-documents/technical-information/26-strategy-for-universal-access-to-health-and-universal-health-coverage/file>
2. World Health Organization. *The world health report. Health systems financing: the path to universal coverage*. Geneva: WHO; 2010. Available from: http://apps.who.int/iris/bitstream/10665/44371/1/9789241564021_eng.pdf
3. World Health Organization, Office of the United Nations High Commissioner for Human Rights. Factsheet No. 31. The right to health. Geneva: WHO; 2008. Available from: http://www.ohchr.org/_layouts/15/WopiFrame.aspx?sourcedoc=/Documents/Publications/Factsheet31.pdf&action=default&DefaultItemOpen=1
4. World Health Organization. Constitution of the World Health Organization. New York, 22 July 1946. Available from: <http://apps.who.int/gb/bd/PDF/bd47/EN/constitution-en.pdf?ua=1>
5. World Health Organization. Universal Declaration of Human Rights. Adopted by the third United Nations General Assembly, 10 December 1948, Paris. Available from: <http://www.un.org/en/universal-declaration-human-rights/index.html>
6. United Nations. International Covenant on Economic, Social and Cultural Rights. United Nations General Assembly, 16 December 1966. Available from: <http://www.ohchr.org/EN/ProfessionalInterest/Pages/CESCR.aspx>
7. Office of the United Nations High Commissioner for Human Rights. Special Rapporteur on the right of everyone to the enjoyment of the highest attainable standard of physical and mental health. Geneva: WHO; 2002 (Resolution 2002/31). Available from: <http://www.ohchr.org/EN/Issues/Health/Pages/SRRRightHealthIndex.aspx>
8. Tulane University; UNICEF. *Health equity report 2016. Analysis of reproductive, maternal, newborn, child and adolescent health inequities in Latin America and the Caribbean to inform policymaking*. Panama City: UNICEF; 2016. Available from: https://www.unicef.org/lac/20161207_LACRO_APR_Informe_sobre_equidad_en_salud_EN_LR.pdf
9. Yamin AE, Frisancho A. Human-rights-based approaches to health in Latin America: universal health coverage in Latin America. *The Lancet* 2015;385(9975):e26–e29. Available from: [http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(14\)61280-0.pdf](http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(14)61280-0.pdf)
10. Pan American Health Organization. Renewing primary health care in the Americas: a position paper of the Pan American Health Organization/World Health Organization. Washington, D.C.: PAHO; 2007. Available from: <http://apps.who.int/medicinedocs/documents/s19055en/s19055en.pdf>
11. Pan American Health Organization. Strategy for universal health coverage. 154th Session of the Executive Committee, Washington, D.C., 2014 June 16–20 (Resolution CE154/R17). Available from: <http://apps.who.int/iris/bitstream/10665/166709/1/CE154-R17-e.pdf>
12. Dmytraczenko T, Almeida G, eds. *Toward universal health coverage and equity in Latin America and the Caribbean: evidence from selected countries*. Directions in Development. Washington, D.C.: World Bank, 2015. Available from: http://iris.paho.org/xmlui/bitstream/handle/123456789/7661/9781464804557_ENG.pdf?sequence=1&isAllowed=y
13. Saksena P, Xu K, Evans DB. *Impact of out-of-pocket payments for treatment of non-communicable diseases in developing countries: a review of literature*. Discussion paper no. 2. Geneva: WHO; 2011. Available from: http://www.who.int/health_financing/documents/dp_e_11_02-ncd_finburden.pdf?ua=1
14. Pan American Health Organization. Medición de metas regionales en el Observatorio Regional de Recursos Humanos en Salud [Internet]. Washington, D.C.: PAHO; 2016. Available from: <http://www.observatoriorh.org/?q=node/242>
15. Pan American Health Organization. Segunda medición de metas regionales en recursos humanos [Internet]. Washington, D.C.: PAHO; 2013. Available from: <http://www.observatoriorh.org/?q=node/464>
16. World Health Organization. Global Health Observatory data [Internet]. Available from: www.who.int/gho/database/en
17. Organisation for Economic Co-operation and Development. OECD data [Internet]. Available from: <https://data.oecd.org>

18. World Health Organization Regional Office for Europe. Interim second report on social determinants of health and the health divide in the WHO European Region. 61st Session of the WHO Regional Committee for Europe, Baku, Azerbaijan, 2011 Sept. 12-15 (EUR/RC61/Inf.Doc./5). Available from: http://www.euro.who.int/__data/assets/pdf_file/0010/148375/id5E_2ndRepSocialDet-jh.pdf
19. World Health Organization. *From MDGs to SDGs: a new era for global public health 2016–2030*. Geneva: WHO; 2015. Available from: http://www.who.int/about/finances-accountability/funding/financing-dialogue/MDGstoSDGs_Summary.pdf?ua=1
20. United Nations Development Program. Goal 1: no poverty [Internet]; 2016. Available from: <http://www.undp.org/content/undp/en/home/sustainable-development-goals/goal-1-no-poverty.html>
21. Pan American Health Organization. *Trends and achievements in promoting health in the Americas: developments from 2003–2011*. Washington, D.C.: PAHO; 2011. Available from: <http://iris.paho.org/xmlui/bitstream/handle/123456789/33830/9789275132333-eng.pdf?sequence=1&isAllowed=y>
22. World Health Organization. The Helsinki Statement on Health in All Policies. 8th Global Conference on Health Promotion, Helsinki, Finland, 2013 June 10–14. Geneva: WHO; 2013. Available from: http://www.who.int/healthpromotion/conferences/8gchp/8gchp_helsinki_statement.pdf
23. World Health Organization. *Health in All Policies (HiAP): framework for country action*. Geneva: WHO; 2014. Available from: http://www.who.int/cardiovascular_diseases/140120HPRHiAPFramework.pdf
24. Pan American Health Organization. Plan of action on Health in All Policies. 53rd Directing Council of PAHO, 66th Session of the Regional Committee of WHO for the Americas, Washington, D.C., 2014 Sept. 29–Oct. 3 (Resolution CD53/10). Available from: http://www.paho.org/hq/index.php?option=com_docman&task=doc_download&gid=26797&Itemid=270&lang=en
25. Pan American Health Organization. *Concept note: implementing the Pan American Health Organization's Regional plan of action on Health in All Policies (HiAP)*. Washington, D.C.: PAHO; 2015. Available from: http://www2.paho.org/hq/index.php?option=com_docman&task=doc_view&Itemid=270&gid=30675&lang=en
26. Pan American Health Organization. *Road map for the plan of action on Health in All Policies*. Washington, D.C.: PAHO; 2015. Available from: <http://iris.paho.org/xmlui/bitstream/handle/123456789/31313/9789275074541-eng.pdf?sequence=1&isAllowed=y>
27. Pan American Health Organization. Strategy for universal access to health and universal health coverage. 53rd Directing Council, 66th Session of the Regional Committee of WHO for the Americas, Washington, D.C., 2014 Sept. 29–Oct. 3 (Resolution CD53.R14). Available from: http://www.paho.org/hq/index.php?option=com_docman&task=doc_download&gid=27600&Itemid=270&lang=en
28. Reveiz L, Chapman E, Torres R, Fitzgerald JF, Mendoza A, Bolis M, et al. Litigios por derecho a la salud en tres países de América Latina: revisión sistemática de la literatura. *Revista Panamericana de Salud Pública* 2013;34(1):213–222. Available from: http://www.paho.org/journal/index.php?option=com_docman&view=download&category_slug=pdfs-march-2013&alias=570-litigios-por-derecho-a-la-salud-en-tres-paises-de-america-latina-revision-sistemica-de-la-literatura&Itemid=847
29. Gotlieb V, Yavich N, Báscolo E. Litigation and the right to health in Argentina. *Cadernos de Saúde Pública* 2016;32(1):e00121114. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0102-311X2016000100705&lng=en&nrm=iso&tlng=en
30. Yavich N, Báscolo EP, Haggerty J. Comparing the performance of the public, social security and private health subsystems in Argentina by core dimensions of primary health care. *Family Practice* 2016;33(3):249–260. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5439348/>
31. Pan American Health Organization. Essential public health functions. 42nd Directing Council of the Pan American Health Organization. Washington, D.C., 2000 Sept. 25–29 (Resolution CD42.R14). Available from: http://www1.paho.org/english/gov/cd/cd42_fr-e.pdf
32. Cid C, Báscolo E, Morales C. La eficiencia en la agenda de la estrategia de acceso universal a la salud y cobertura universal en salud en las Américas. *Salud Pública de México* 2016;58:496–503. Available from: http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S0036-36342016000500496
33. World Health Organization. Health financing. Global Health Observatory (GHO) data [Internet]. Available from: <http://apps.who.int/gho/data/node.main.484>
34. Pan American Health Organization. Fiscal space for increasing health priority in public spending in the Americas Region. Working document. Washington, D.C.: PAHO;

- December 2015. Available from: <http://www.paho.org/uhexchange/index.php/en/uhexchange-documents/technical-information/40-fiscal-space-for-increasing-health-priority-in-public-spending-in-the-americas-region/file>
35. Matus-López M, Prieto Toledo L, Cid Pedraza C. Evaluación del espacio fiscal para la salud en Perú. *Pan American Journal of Public Health* 2016;40(1):64–69. Available from: http://iris.paho.org/xmlui/bitstream/handle/123456789/28581/v40n1a9_64-69.pdf?sequence=1&isAllowed=y&ua=1
 36. Pan American Health Organization. Estudio de espacio fiscal para salud en Honduras. Informe final. Washington, D.C.: PAHO; 2016.
 37. Pan American Health Organization. Estudio de espacio fiscal para salud en Bolivia. Informe final. Washington, D.C.: PAHO; 2016.
 38. Sachs JD. From Millennium Development Goals to Sustainable Development Goals. *The Lancet* 2012;379(9832):2206–2211. Available from: [http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(12\)60685-0.pdf](http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(12)60685-0.pdf)
 39. De Andrade LO, Pellegrini Filho A, Solar O, Rigoli F, Malagon L, Castell-Florit Serrate P, et al. Social determinants of health, universal health coverage, and sustainable development: case studies from Latin American countries. *The Lancet* 2015;385(9975):1343–1351. Available from: [http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(14\)61494-X.pdf](http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(14)61494-X.pdf)
 40. Mujica OJ, Haeberer M, Teague J, Santos-Burgoa C, Galvão LAC. Health inequalities by gradients of access to water and sanitation between countries in the Americas, 1990 and 2010. *Pan American Journal of Public Health* 2015;38(5):347–354. Available from: http://www.scielosp.org/scielo.php?script=sci_arttext&pid=S1020-49892015001000001&lng=en&nrm=iso&tlng=en
 41. Restrepo-Méndez MC, Barros AJD, Requejo J, Durán P, Serpa LAF, França GVA, et al. Progress in reducing inequalities in reproductive, maternal, newborn, and child health in Latin America and the Caribbean: an unfinished agenda. *Pan American Journal of Public Health* 2015;38(1):9–16. Available from: http://www.scielosp.org/scielo.php?script=sci_arttext&pid=S1020-49892015000600002&lng=en&nrm=iso&tlng=en
 42. Beaglehole R, Bonita R, Horton R, Adams C, Alleyne G, Asaria P, et al. 2011. Priority actions for the non-communicable disease crisis. *The Lancet* 377(9775):1438–1447. Available from: [http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(11\)60393-0.pdf](http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(11)60393-0.pdf)
 43. Pan American Health Organization. *Health situation in the Americas: core indicators 2016*. Washington, D.C.: PAHO; 2016. Available from: <http://iris.paho.org/xmlui/bitstream/handle/123456789/31289/CoreIndicators2016-eng.pdf?sequence=1&isAllowed=y>
 44. World Health Organization. *Global status report on noncommunicable diseases 2014*. Geneva: WHO; 2014. Available from: http://apps.who.int/iris/bitstream/10665/148114/1/9789241564854_eng.pdf?ua=1
 45. Pan American Health Organization. Plan of action on mental health 2015–2020. 53rd Directing Council of PAHO, 66th Session of the Regional Committee of WHO for the Americas, Washington, D.C., 2014 Sept. 29–Oct. 3 (Document CD53/8, Rev. 1). Available from: http://www.paho.org/hq/index.php?option=com_content&view=article&id=11337&Itemid=41600&lang=en
 46. Pan American Health Organization. Plan of action on disabilities and rehabilitation. 154th Session of the PAHO Executive Committee, Washington, D.C., 2014 June 16–20 (Document CE154/14). Available from: http://www.paho.org/hq/index.php?option=com_docman&task=doc_download&gid=25475&Itemid=270&lang=en
 47. Pan American Health Organization. *Road safety in the Americas*. Washington, D.C.: PAHO; 2016. Available from: <http://iris.paho.org/xmlui/bitstream/handle/123456789/28564/9789275119129-eng.pdf?sequence=5&isAllowed=y>
 48. World Health Organization, World Bank. *World report on disability*. Geneva: WHO; 2011. Available from: http://www.who.int/disabilities/world_report/2011/en/
 49. World Health Organization. *The global burden of disease: 2004 update* [Internet]. Geneva: WHO; 2008. Available from: http://www.who.int/healthinfo/global_burden_disease/GBD_report_2004update_full.pdf?ua=1
 50. World Health Organization. *Global status report on violence prevention 2014*. Geneva: WHO; 2014. Available from: http://apps.who.int/iris/bitstream/10665/145086/1/9789241564793_eng.pdf?ua=1&ua=1
 51. Bacallao J, Alerm González A, Ferrer M. *Paradigma del curso de la vida: implicaciones en la clínica, la epidemiología y la salud pública*. Havana: Editorial Ciencias Médicas; 2016. Available from: <http://www.codajic.org/sites/www.codajic.org/files/Paradigma%20del%20curso%20de%20la%20vida.%20Implicaciones%20en%20la%20cl%C3%ADnica,%20la%20epidemiolog%C3%ADa%20y%20la%20salud%20p%C3%BAblica.pdf>

52. Costello A, Abbas M, Allen A, Ball S, Bell S, Bellamy R, et al. Managing the health effects of climate change. *The Lancet* 2009;373(9676):1693–1733. Available from: [http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(09\)60935-1.pdf](http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(09)60935-1.pdf)
53. Prüss-Ustün A, Corvalán C, Bos R, Neira M. *Preventing disease through healthy environments: a global assessment of the burden of disease from environmental risks*. Geneva: WHO; 2016. Available from: http://apps.who.int/iris/bitstream/10665/204585/1/9789241565196_eng.pdf?ua=1
54. Watts N, Adger WN, Agnolucci P, Blackstock J, Byass P, Cai W, et al. Health and climate change: policy responses to protect public health. *The Lancet* 2015;386(10006):1861–1914. Available from: [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(15\)60854-6/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(15)60854-6/fulltext)
55. World Health Organization. Global strategy and plan of action on ageing and health. 69th World Health Assembly, Geneva, 2016 April 22 (A69/17). Available from: http://apps.who.int/gb/ebwha/pdf_files/WHA69/A69_17-en.pdf
56. Pan American Health Organization. Strategy and plan of action on dementias in older persons. 54th Directing Council, 67th Session of the Regional Committee of WHO for the Americas, Washington, D.C., 2015 Sept. 28–Oct. 2 (CD54.R11). Available from: http://www.paho.org/hq/index.php?option=com_docman&task=doc_download&gid=31931&Itemid=270&lang=en
57. United Nations, Department of Economic and Social Affairs, Population Division. *World population prospects: the 2017 revision, volume II, demographic profiles*. New York: UN; 2017 (ST/ESA/SER.A/400). Available from: https://esa.un.org/unpd/wpp/Publications/Files/WPP2017_Volume-II-Demographic-Profiles.pdf
58. Wong LLR, Carvalho JA. O rápido processo de envelhecimento populacional do Brasil: sérios desafios para as políticas públicas. *Revista Brasileira de Estudos de População* 2006;23(1):5–26. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=50102-30982006000100002
59. Cruz M, Ahmed A. *On the impact of demographic change on growth, savings, and poverty*. Policy Research Working Paper 7805. Washington, D.C.: World Bank; August 2016. Available from: <https://elibrary.worldbank.org/doi/pdf/10.1596/1813-9450-7805>
60. World Health Organization. *World report on ageing and health*. Geneva: WHO; 2015. Available from: http://apps.who.int/iris/bitstream/10665/186463/1/9789240694811_eng.pdf
61. World Health Organization. Framework on integrated, people-centred health services. 69th World Health Assembly, Geneva, 2016 April 15 (WHA69.39). Available from: http://apps.who.int/gb/ebwha/pdf_files/WHA69/A69_39-en.pdf?ua=1
62. Beard JR, Biggs S, Bloom DE, Fried LP, Hogan P, Kalache A, et al., eds. *Global population ageing. Peril or promise?* Geneva: World Economic Forum; 2011. Available from: http://www3.weforum.org/docs/WEF_GAC_GlobalPopulationAgeing_Report_2012.pdf
63. Pan American Health Organization. Strategy and plan of action on dementias in older persons. 54th Directing Council, 67th Session of the Regional Committee of WHO for the Americas, Washington, D.C., 2015 Sept. 28–2 Oct. (CD54/8, Rev. 1). Available from: http://www.paho.org/hq/index.php?option=com_docman&task=doc_download&gid=31496&Itemid=270&lang=en
64. U.S. Department of Health and Human Services. *Multiple chronic conditions—a strategic framework: optimum health and quality of life for individuals with multiple chronic conditions*. Washington, D.C.: U.S. Department of Health and Human Services; 2010. Available from: https://www.hhs.gov/sites/default/files/ash/initiatives/mcc/mcc_framework.pdf
65. Marengoni A, Angleman S, Melis R, Mangialasche F, Karp A, Garmen A, et al. Aging with multimorbidity: a systematic review of the literature. *Ageing Research Reviews* 2011;10(4):430–439. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/21402176>
66. World Health Organization. Promoting the health of migrants. Report by the Secretariat. 69th World Health Assembly, Geneva, 2016 April 8 (Document A69/27). Available from: http://apps.who.int/gb/ebwha/pdf_files/WHA69/A69_27-en.pdf
67. United Nations. International convention on the protection of the rights of all migrant workers and members of their families. Adopted by the United Nations General Assembly, New York, 1990 Dec. 18 (Resolution A/RES/45/158). Available from: <http://www.ohchr.org/EN/ProfessionalInterest/Pages/CMW.aspx>
68. Kuruvilla R, Raghavan R. Health care for undocumented immigrants in Texas: past, present, and future. *Texas Medicine* 2014;110(7):e1. Available from: <https://www.texmed.org/July14Journal/>
69. Pottie K, Batista R, Mayhew M, Mota L, Grant K. Improving delivery of primary care for vulnerable migrants: Delphi consensus to prioritize innovative practice strategies. *Canadian Family Physician* 2014;60(1):e32–e40. Available from:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3994840/pdf/0600e32.pdf>

70. González-Vázquez T, Torres-Robles C, Pelcastre-Villafuerte B. Transnational health service utilization by Mexican immigrants in the United States. *Salud Pública de México* 2013;55(4):477–484. Available from: <http://www.scielosp.org/pdf/spm/v55s4/v55s4a6.pdf>
71. United Nations Department of Economic and Social Affairs, Population Division, International Migration. Monitoring global population trends [Internet]; 2015. Available from: <http://www.un.org/en/development/desa/population/migration/data/estimates2/estimates15.shtml>
72. Office of the United Nations High Commissioner for Refugees. *Global trends. Forced displacement in 2015*. Geneva: UNHCR; 2016. Available from: <http://www.unhcr.org/en-us/statistics/unhcrstats/576408cd7/unhcr-global-trends-2015.html>
73. International Organization for Migration. Dinámicas migratorias en América Latina y el Caribe (ALC), y entre ALC y la Unión Europea-Mayo 2015. San José: IOM; 2015. Available from: <http://publications.iom.int/books/dinamicas-migratorias-en-america-latina-y-el-caribe-alc-y-entre-alc-y-la-union-europea-mayo>
74. International Organization for Migration. IOM reports growing number of irregular migrants stranded in Costa Rica. San José: IOM; 2016. Available from: <https://www.iom.int/news/iom-reports-growing-number-irregular-migrants-stranded-costa-rica>
75. United Nations. In safety and dignity: addressing large movements of refugees and migrants. Report of the Secretary-General. New York: UN; 2016 (Document A/70/59). Available from: http://www.un.org/pga/70/wp-content/uploads/sites/10/2015/08/21-Apr_Refugees-and-Migrants-21-April-2016.pdf
76. United Nations. New York Declaration for Refugees and Migrants. Outcome document of the high-level plenary meeting of the General Assembly on addressing large movements of refugees and migrants. New York: UN; 2016. Available from: http://www.un.org/ga/search/view_doc.asp?symbol=A/71/L.1
77. Barcenas Ibarra A, Byanyima W. Latin America is the world's most unequal region. Here's how to fix it [Internet]; 2016. Available from: <https://www.weforum.org/agenda/2016/01/inequality-is-getting-worse-in-latin-america-here-s-how-to-fix-it/>
78. Lustig N. Most unequal on Earth [Internet]. *Finance & Development* 52(3). Washington, D.C.: International Monetary Fund; 2015. Available from: <http://www.imf.org/external/pubs/ft/fandd/2015/09/pdf/lustig.pdf>
79. Pan American Health Organization. Regional declaration on the new orientation for primary health care (Declaration of Montevideo), 46th Directing Council, 57th Session of the Regional Committee, Washington, D.C., 2005 Sept. 26–30 (CD46/13). Available from: http://www2.paho.org/hq/dmdocuments/2010/PHC_CD46-Declaration_Montevideo-2005.pdf
80. Browne AJ, Varcoe CM, Wong ST, Smye VL, Lavoie J, Littlejohn D, et al. Closing the health equity gap: evidence-based strategies for primary health care organizations. *International Journal for Equity in Health* 2012;11:59. Available from: <https://equityhealthj.biomedcentral.com/articles/10.1186/1475-9276-11-59>
81. Starfield B. The hidden inequity in health care. *International Journal for Equity in Health* 2011;10:15. Available from: <https://equityhealthj.biomedcentral.com/articles/10.1186/1475-9276-10-15>
82. Wagstaff A, Van Doorslaer E, Paci P. On the measurement of horizontal inequity in the delivery of health care. *Journal of Health Economics* 1991;10(2):169–205. Available from: <http://www.sciencedirect.com/science/article/pii/0167629691900036>
83. Gakidou E, Murray CJL, Frenk J. A framework for measuring health inequality. Geneva: World Health Organization; 1996. Available from: <http://www.who.int/healthinfo/paper05.pdf>
84. Braveman P, Gruskin S. Defining equity in health. *Journal of Epidemiology & Community Health* 2003;57(4):254–258. Available from: <http://jech.bmj.com/content/57/4/254>
85. Asada Y, Hurley J, Norheim OF, Johri M. A three-stage approach to measuring health inequalities and inequities. *International Journal for Equity in Health* 2014;13:98. Available from: <https://equityhealthj.biomedcentral.com/articles/10.1186/s12939-014-0098-y>
86. United Nations, Department of Economic and Social Affairs, Population Division. World population prospects: the 2017 revision, key findings and advance tables. Working Paper No. ESA/P/WP.248. New York: UN; 2017. Available from: https://esa.un.org/unpd/wpp/Publications/Files/WPP2017_KeyFindings.pdf
87. United Nations, Department of Economic and Social Affairs, Population Division. *World urbanization prospects. The 2014 revision*. New York: UN; 2015. Available from: <https://esa.un.org/unpd/wup/Publications/Files/WUP2014-Report.pdf>

88. Rodríguez Vignoli J. La reproducción en la adolescencia y sus desigualdades en América Latina. Centro Latinoamericano y Caribeño de Demografía (CELADE), editor. Santiago de Chile: United Nations; 2010. Available from: http://repositorio.cepal.org/bitstream/handle/11362/36853/1/S2014262_es.pdf
89. United Nations, Department of Economic and Social Affairs, Population Division. World population prospects: the 2015 revision, Volume I: comprehensive tables. New York: United Nations; 2015. Available from: https://esa.un.org/unpd/wpp/publications/Files/WPP2015_Volume-I_Comprehensive-Tables.pdf
90. United Nations Population Fund. *Ageing in the Twenty-First Century: a celebration and a challenge*. New York: UNFPA; 2012. Available from: <http://www.unfpa.org/sites/default/files/pub-pdf/Ageing%20report.pdf>
91. World Health Organization. Global Health Observatory data repository. Cholera. Number of reported cases. Data by country [Internet]. Available from: <http://apps.who.int/gho/data/node.main.175>
92. Pan American Health Organization. *Informe anual de la Red de Monitoreo/Vigilancia de la Resistencia a los Antibióticos, 2010*. Washington, D.C.: PAHO; 2013. Available from: http://www2.paho.org/hq/index.php?option=com_docman&task=doc_view&gid=24101&Itemid=270
93. Calvo B, Melo ASA, Perozo-Mena A, Hernandez M, Francisco EC, Hagen F, et al. First report of *Candida auris* in America: clinical and microbiological aspects of 18 episodes of candidemia. *Journal of Infection* 2016;73(4):369–374. Available from: [http://www.journalofinfection.com/article/S0163-4453\(16\)30172-4/pdf](http://www.journalofinfection.com/article/S0163-4453(16)30172-4/pdf)
94. Van Bortel W, Dorleans F, Rosine J, Bateau A, Rousset D, Matheus S, et al. Chikungunya outbreak in the Caribbean region, December 2013 to March 2014, and the significance for Europe. *Eurosurveillance* 2014;19(13):20759. Available from: <http://www.eurosurveillance.org/images/dynamic/EE/V19N13/art20759.pdf>
95. Etienne C, dos Santos T, Espinal MA. Keynote address (November 2016): Zika virus disease in the Americas: a storm in the making. *American Journal of Tropical Medicine and Hygiene* 2017;97(1):16–18. Available from: <http://www.ajtmh.org/content/journals/10.4269/ajtmh.17-0207>
96. Cardoso CW, Paploski IA, Kikuti M, Rodrigues MS, Silva MM, Campos GS, et al. Outbreak of exanthematous illness associated with Zika, chikungunya, and dengue viruses, Salvador, Brazil. *Emerging Infectious Diseases* 2015;21(12):2274–2276. Available from: <https://wwwnc.cdc.gov/eid/article/21/12/pdfs/15-1167.pdf>
97. Pan American Health Organization. Epidemiological update. Yellow fever. 18 January 2017. Available from: http://www2.paho.org/hq/index.php?option=com_docman&task=doc_view&Itemid=270&gid=37709&lang=en
98. Ministerio de Salud de Perú. *Boletín epidemiológico del Perú*. Volumen 25—semana epidemiológica N° 52: pp. 1190. ISSN versión electrónica: 2415-0762. Available from: <http://www.dge.gob.pe/portal/docs/vigilancia/boletines/2016/52.pdf>
99. Ministério da Saúde Brasil. Informe especial febre amarela no Brasil No. 01/2017. Available from: <http://portalarquivos.saude.gov.br/images/pdf/2017/marco/18/Informe-especial-COES-FA.pdf>
100. Sauerbrey M. The onchocerciasis elimination program for the Americas (OEPA). *Annals of Tropical Medicine & Parasitology* 2008;102(S1):25–29.
101. Programa para la Eliminación de la Oncocercosis en las Américas. Epidemiología [Internet]. Available from: <http://www.oepa.net/epidemiologia.html>
102. World Health Organization. Progress towards eliminating onchocerciasis in the WHO Region of the Americas: verification of elimination of transmission, Guatemala. *Weekly Epidemiological Record* 2016;91(43):501–505. Available from: <http://apps.who.int/iris/bitstream/10665/250643/1/WER9143.pdf?ua=1>
103. World Health Organization. *Global tuberculosis report 2016*. Geneva: WHO; 2016. Available from: <http://apps.who.int/iris/bitstream/10665/250441/1/9789241565394-eng.pdf>
104. Pan American Health Organization. *Tuberculosis in the Region of the Americas. Regional report 2014. Epidemiology, control and financing*. Washington, D.C.: PAHO; 2014. Available from: http://www.paho.org/hq/index.php?option=com_docman&task=doc_view&Itemid=270&gid=31283&lang=en
105. World Health Organization. *Implementing tuberculosis diagnostics. Policy framework*. Geneva: WHO; 2015. Available from: http://apps.who.int/iris/bitstream/10665/162712/1/9789241508612_eng.pdf?ua=1
106. World Health Organization. *The use of molecular line probe assays for the detection of resistance to second-line anti-tuberculosis drugs*. Geneva: WHO; 2016. Available from: <http://apps.who.int/iris/bitstream/10665/246131/1/9789241510561-eng.pdf>

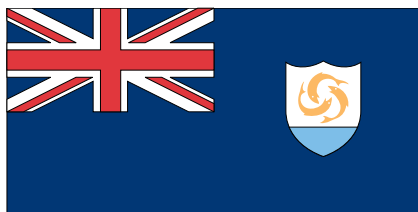
107. World Health Organization. *The use of loop-mediated isothermal amplification (TB-LAMP) for the diagnosis of pulmonary tuberculosis: policy guidance*. Geneva: WHO; 2016. Available from: <http://apps.who.int/iris/bitstream/10665/249154/1/9789241511186-eng.pdf>
108. Joint United Nations Programme on HIV/AIDS. AIDSinfo Online Database [Internet]. Geneva: UNAIDS; 2015. Available from: <http://www.aidsinfoonline.org/devinfo/libraries/asp/Home.aspx>
109. Newman L, Rowley J, Vander Hoorn S, Saman Wijesooriya N, Unemo M, Low N, et al. Global estimates of the prevalence and incidence of 4 curable sexually transmitted infections in 2012 based on systematic review and global reporting. *PLoS ONE* 2015;10(12):e0143304. Available from: <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0143304>
110. Bruni L, Diaz M, Castellsagué M, Ferrer E, Bosch FX, de Sanjosé S. Cervical human papillomavirus prevalence in 5 continents: meta-analysis of 1 million women with normal cytological findings. *Journal of Infectious Diseases* 2010;202(12):1789–1799. Available from: <https://academic.oup.com/jid/article-lookup/doi/10.1086/657321>
111. Bruni L, Diaz M, Barrionuevo-Rosas L, Herrero R, Bray F, Bosch FX, et al. Global estimates of human papillomavirus vaccination coverage by region and income level: a pooled analysis. *The Lancet Global Health* 2016;4(7):e453–e463. Available from: [http://www.thelancet.com/pdfs/journals/langlo/PIIS2214-109X\(16\)30099-7.pdf](http://www.thelancet.com/pdfs/journals/langlo/PIIS2214-109X(16)30099-7.pdf)
112. United Nations Office on Drugs and Crime. *Global study on homicide 2013: trends, context, data*. Vienna: UNODC; 2014. Available from: www.unodc.org/documents/gsh/pdfs/2014_GLOBAL_HOMICIDE_BOOK_web.pdf
113. World Health Organization. *Global and regional estimates of violence against women: prevalence and health effects of intimate partner violence and non-partner sexual violence*. Geneva: WHO; 2013. Available from: http://apps.who.int/iris/bitstream/10665/85239/1/9789241564625_eng.pdf?ua=1
114. Hillis S, Mercy J, Amobi A, Kress H. Global prevalence of past-year violence against children: a systematic review and minimum estimates. *Pediatrics* 2016;137(3):e2015407. Available from: <http://pediatrics.aappublications.org/content/early/2016/01/25/peds.2015-4079>
115. International Labour Organization. *2016 Labour Overview Latin America and the Caribbean*. 1st ed. Lima: ILO/Regional Office for Latin America and the Caribbean; 2016. Available from: http://www.ilo.org/wcmsp5/groups/public/---americas/---ro-lima/documents/publication/wcms_545825.pdf
116. Pan American Health Organization. *Health in the Americas 2012: Regional outlook and country profiles*. Washington, D.C.: PAHO; 2012. Available from: <http://www1.paho.org/saludenlasamericas/docs/hia-2012-summary.pdf>
117. International Labour Organization. Country profiles on occupational health and safety [Internet]. Geneva: ILO. Available from: <http://www.ilo.org/safework/countries/lang-en/index.htm>
118. United Nations Educational, Scientific, and Cultural Organization. UNESCO Institute for Statistics [Internet]; 2016. Available from: <http://data.uis.unesco.org/>
119. Organization of American States. *Report on drug use in the Americas 2015*. Washington, DC: OAS; 2015. Available from: <http://ciad.oas.org/apps/Document.aspx?Id=3208>
120. United Nations, Population Division. World population prospects: the 2015 revision. File FERT/7: age-specific fertility rates by major area, region and country, 1950–2100 [Internet]; 2016. Available from: <https://esa.un.org/unpd/wpp/Download/Standard/Fertility/>
121. He W, Goodkind D, Kowal P. U.S. Census Bureau. *An aging world: 2015*. International Population Reports, P95/16-1. Washington, D.C.: U.S. Government Publishing Office; 2016. Available from: <https://www.census.gov/library/publications/2016/demo/P95-16-1.html>
122. Pan American Health Organization. Plan of action on the health of older persons, including active and healthy aging. 49th Directing Council, 61st Session of the Regional Committee, Washington, D.C., 2009 Sept. 28–Oct. 2 (CD49/8). Available from: <http://iris.paho.org/xmlui/bitstream/handle/123456789/33934/CD49-08-e.pdf?sequence=1&isAllowed=y>
123. Becerra-Posada F. Health equity: the linchpin of sustainable development. *Pan American Journal of Public Health* 2015;38(1):5–8.
124. Hartmann C. Postneoliberal public health care reforms: neoliberalism, social medicine, and persistent health inequalities in Latin America. *American Journal of Public Health* 2016;106(12):2145–2151.
125. Itriago D. Wielding influence, building inequality: capture of tax policies in Latin America and the Caribbean. *Development* 2016;59(1–2):151–157.
126. Boldosser-Boesch A, Brun M, Carvajal L, Chou D, de Bernis L, Fogg K, et al. Setting maternal mortality targets for the SDGs [letter]. *The Lancet* 2017;18(389):696–697; also Kassebaum NJ, Lozano R, Lim SS, Murray CJ. Setting maternal

- mortality targets for the SDGs [authors' reply]. *The Lancet* 2017;18(389):697–698.
127. World Health Organization; World Bank. Monitoring progress towards universal health coverage at country and global levels: framework, measures and targets. Geneva: WHO; 2014. Available from: http://apps.who.int/iris/bitstream/10665/112824/1/WHO_HIS_HIA_14.1_eng.pdf?ua=1
 128. Penchansky R, Thomas JW. The concept of access: definition and relationship to consumer satisfaction. *Medical Care* 1981;19(2):127–140.
 129. Thorpe JM, Thorpe CT, Kennelty KA, Pandhi N. Patterns of perceived barriers to medical care in older adults: a latent class analysis. *BMC Health Services Research* 2011;11:181. Available from: <http://bmchealthservres.biomedcentral.com/articles/10.1186/1472-6963-11-181>
 130. World Health Organization. *Monitoring the building blocks of health systems: a handbook of indicators and their measurement strategies*. Geneva: WHO; 2010. Available from: http://www.who.int/healthinfo/systems/WHO_MBHSS_2010_full_web.pdf
 131. Bernstein AB, Hing E, Moss AJ, Allen KF, Siller AB, Tiggle RB. Health care in America: trends in utilization. Hyattsville: National Center for Health Statistics; 2003. Available from: <https://www.cdc.gov/nchs/data/misc/healthcare.pdf>
 132. United Nations World Commission on Environment and Development. *Report of the World Commission on Environment and Development: our common future*. Oxford: Oxford University Press; 1987.
 133. World Health Organization. Health in the context of sustainable development. Background document. Oslo: WHO; 2002. Available from: http://www.who.int/mediacentre/events/HSD_Plaq_02.6_def1.pdf
 134. United Nations. Rio Declaration on Environment and Development. General Assembly, New York, 1992 Aug. 12 (A/CONF.151/26). Available from: <http://www.un.org/documents/ga/conf151/aconf15126-1annex1.htm/>
 135. World Health Organization. *Health in 2015: from MDGs (Millennium Development Goals) to SDGs (Sustainable Development Goals)*. Geneva: WHO; 2015. Available from: http://apps.who.int/iris/bitstream/10665/200009/1/9789241565110_eng.pdf?ua=1
 136. United Nations General Assembly. Transforming our world: the 2030 Agenda for Sustainable Development. Seventieth Session of the General Assembly, New York, 2015 Oct. 21 (A/RES/70/1). Available from: http://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/70/1&referer=/english/&Lang=E
 137. Pavón Cuéllar D, Sabucedo Cameselle JM. El concepto de la “sociedad civil”: breve historia de su elaboración teórica. *Araucaria: Revista Iberoamericana de Filosofía, Política y Humanidades* 2009;11(21):63–92.
 138. Hasenfeld Y, Gidron B. Understanding multi-purpose hybrid voluntary organizations: the contributions of theories on civil society, social movements and non-profit organizations. *Journal of Civil Society* 2005;1(2):97–112.
 139. Pasarín MI, Díez E. Salud comunitaria. Una actuación necesaria. *Gaceta Sanitaria* 2013;27(6):477–478. Available from: <http://www.gacetasanitaria.org/es/salud-comunitaria-una-actuacion-necesaria/articulo/S0213911113001799/>
 140. Gofin J, Gofin R. *Essentials of global community health*. Sudbury: Jones & Bartlett Learning; 2012.
 141. United Nations Development Programme. Mutual accountability mechanisms: accountability, voices and responsiveness. Conference Paper #6. Working draft, 6 November. New York: UNDP; 2006. Available from: <http://www.undp.org/content/dam/aplaws/publication/en/publications/capacity-development/drivers-of-change/accountability/mutual-accountability-mechanisms/Mutual-Accountability-cp6.pdf>
 142. Swinburn B, Kraak V, Rutter H, Vandevijvere S, Lobstein T, Sacks G, et al. Strengthening of accountability systems to create healthy food environments and reduce global obesity. *The Lancet* 2015;385(9986):2534–2545. Available from: [http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(14\)61747-5.pdf](http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(14)61747-5.pdf)
 143. Robine JM. Life course, environmental change, and life span. *Population and Development Review* 2003;29:229–238.
 144. Halfon N, Hochstein M. Life course health development: an integrated framework for developing health, policy, and research. *Milbank Quarterly* 2002;80(3):433–479.
 145. Halfon N, Larson K, Lu M, Tullis E, Russ S. Lifecourse health development: past, present and future. *Maternal and Child Health Journal* 2014;18:344–365.
 146. Yamey G, Shretta R, Newton Binka F. The 2030 sustainable development goal for health. *BMJ* 2014;349:g5295. Available from: <http://www.bmj.com/content/bmj/349/bmj.g5295.full.pdf>
 147. World Health Organization. *Everybody's business. Strengthening health systems to improve health outcomes:*

- WHO's framework for action*. Geneva: WHO; 2007. Available from: http://www.who.int/healthsystems/strategy/everybodys_business.pdf
148. Organization of American States, Inter-American Commission on Human Rights. Office of the Special Rapporteur for Freedom of Expression [Internet]. Washington, D.C.: OAS. Available from: <http://www.oas.org/en/iachr/expression/index.asp>
 149. Open Government Partnership. What is the Open Government Partnership? [Internet]; 2011. Available from: <http://www.opengovpartnership.org/>
 150. World Health Organization. *25 questions and answers on health & human rights*. Geneva: WHO; 2002. Available from: <http://www.who.int/hhr/information/25%20Questions%20and%20Answers%20on%20Health%20and%20Human%20Rights.pdf>
 151. D'Agostino M, Mejía F, Martí M, Novillo D, González de Cosío F, Farach N. Social dialogue and scientific production on big and open data in health: from facilitating surveillance and preventing disease to fostering behavioral changes. *Open Science* 2016;4(3):14–22. Available from: <http://www.openscienceonline.com/journal/archive2?journalId=718&paperId=3255>
 152. Yousefi-Nooraie R, Dobbins M, Marin A, Hanneman R, Lohfeld L. The evolution of social networks through the implementation of evidence-informed decision-making interventions: a longitudinal analysis of 3 public health units in Canada. *Implementation Science* 2015;10(1):1.
 153. Martí MC, Veiga de Cabo J, D'Agostino M, Sanz-Valero J. Alfabetización digital: un peldaño hacia la sociedad de la información. *Medicina y Seguridad del Trabajo* 2008;54(210):11–15. Available from: <http://scielo.isciii.es/pdf/mesetra/v54n210/especial2.pdf>
 154. Pan American Health Organization. Strategy and plan of action on *eHealth*. 51st Directing Council, 63rd Session of the Regional Committee, Washington, D.C., 2011 Sept. 26–30 (Document CD51/13). Available from: http://www.paho.org/hq/index.php?option=com_docman&task=doc_download&gid=14572&Itemid=270&lang=en
 155. Novillo-Ortiz D, D'Agostino M, Becerra-Posada F. Role of PAHO/WHO in eHealth capacity building in the Americas: analysis of the 2011–2015 period. *Pan American Journal of Public Health* 2016;40(2):85–89. Available from: http://iris.paho.org/xmlui/bitstream/handle/123456789/31161/v40n2a4_85-89.pdf?sequence=1&isAllowed=y
 156. Pan American Health Organization. Strategy and plan of action on *eHealth*: midterm review. 55th Directing Council, 68th Session of the Regional Committee of WHO for the Americas, Washington, D.C., 2016 Sept. 26–30 (CD55/INF/12-A). Available from: <http://iris.paho.org/xmlui/bitstream/handle/123456789/33645/CD55-INF-12-A-e.pdf?sequence=6&isAllowed=y>



COUNTRY PROFILES



ANGUILLA

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	21,188 (2014)	...
Human development index
Mean years of schooling
Improved drinking-water source coverage (%)	93.0	95.0 (2015)	2.1
Improved sanitation coverage (%)	...	98.0 (2015)	...
Life expectancy at birth (years)	...	81.3 (2013)	...
Infant mortality (per 1,000 live births)	...	12.1 (2013)	...
Maternal mortality (per 100,000 live births)
TB incidence (per 100,000 population)	24.0	6.3 (2013)	-73.8
TB mortality (per 100,000 population)
Measles immunization coverage (%)	...	97.0 (2015)	...
Births attended by trained personnel (%)	...	98.8 (2015)	...



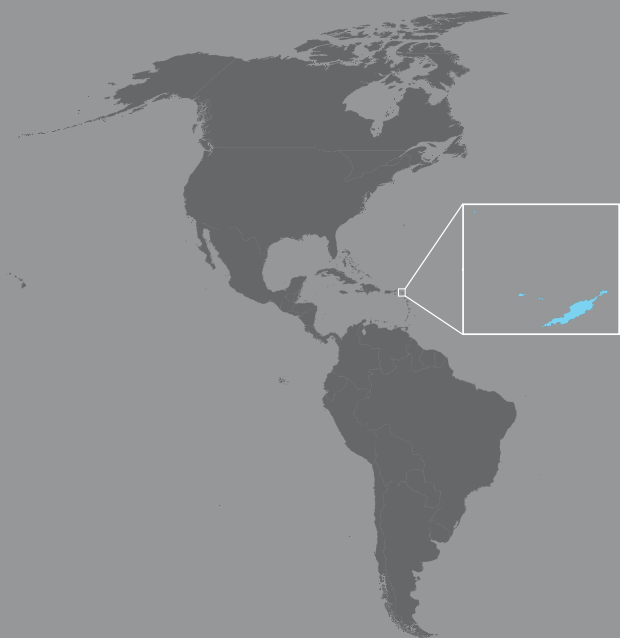
1990 population (thousands)	8.4
2011 population (thousands)	13.6
Change (%)	61.9

Anguilla is an autonomous overseas territory of the United Kingdom and is one of the northernmost of the Leeward Islands in the Lesser Antilles group in the Caribbean. It covers an area of 91 km² and includes some uninhabited islets and keys. It is divided administratively into 14 districts. The entire population is considered urban.

In 2011, the population was 13,572. In 1990, its structure showed a stationary trend among people under the age of 30. At present, its overall configuration is more stationary, although there has been an increase in the average working-age groups, especially women.

Of the total population, 85.3% is of African descent and 4.9% is Hispanic, with other groups making up the rest. Life expectancy is 81.3 years (78.7 for men and 84.0 for women).

Its economy is considered high-income and is largely dependent on tourism. In 2014, the per capita gross domestic product was US\$ 21,493 and per capita gross national income was US\$ 21,188. The 2008 global crisis weakened the financial sector and undermined its fiscal position.



SOCIAL DETERMINANTS OF HEALTH

According to the Anguilla Education Act of 2012, school enrollment is compulsory for children aged 5 to 17 and education is free in all public schools. Functional literacy is 93%.

In 2008, poverty stood at 5.8% and extreme poverty was nonexistent.

Water scarcity is a serious problem for Anguilla, and the island is heavily dependent on rain and water storage for water supply. Fresh water resources are underground and the water is brackish and unfit to drink. Three out of five households (61%) indicated that their principal drinking water source was bottled water.

Of the total population, 98% of them reported that they had access to improved sanitation facilities.

In 2011, almost all households (99.2%) used the government trash collection system.

The territory is vulnerable to disasters such as flooding and storms. The last major flood was caused by hurricane Gonzalo in 2014, which did not cause any serious injuries or deaths.

The island is also experiencing some effects of climate variability and change. Increases in atmospheric temperature, reduced annual precipitation, and potential increases in the intensity of tropical storms are expected.

There is a shortage of farmland due to degraded and infertile soils, caused in part by previous soil mismanagement. This puts constraints on agriculture and food security.

Immigrants are primarily from the Dominican Republic, Jamaica, Saint Kitts and Nevis, other countries of the Caribbean, and the United States.

HEALTH SITUATION AND THE HEALTH SYSTEM

No maternal deaths have been reported since 2010, while antenatal care and skilled attendance during delivery remained at 100%.

In 2014, the stillbirth rate was 13.2 per 1,000 births; 8% of newborns were premature and 23% had low birthweight. Since 2001, there have been between three and zero deaths per year, with a low number of births (202 in 2015).

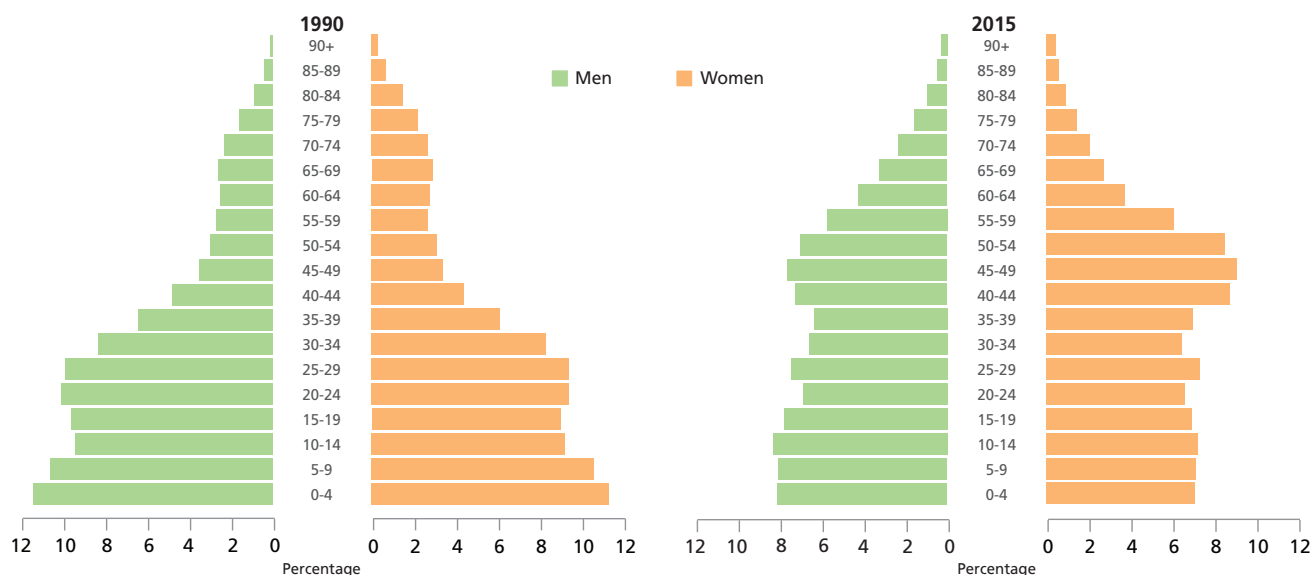
Between 2014 and 2015, 5% of preschool children were overweight and 21% were obese. Among sixth grade students, 14% were overweight and 23% were obese.

Annual vaccination coverage is normally above 95% for diphtheria/pertussis/tetanus (DPT), hepatitis B, *Haemophilus influenzae* type b, poliomyelitis, BCG, chickenpox, and the first dose of measles/mumps/rubella (MMR). In 2015, vaccination against the human papillomavirus (HPV) for girls 9-13 years old was introduced as part of the school health program.

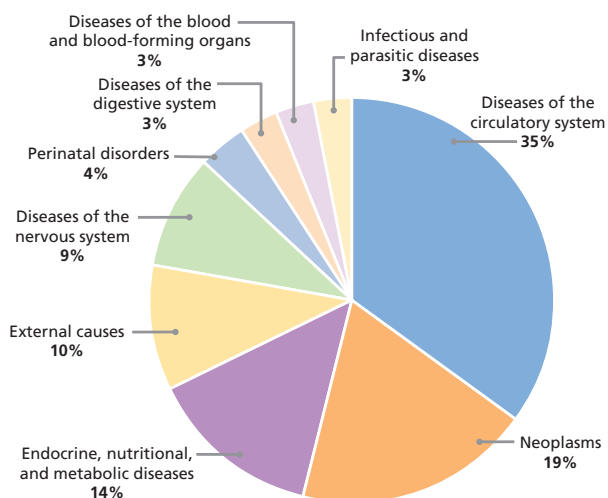
In the 2010-2014 period, 52% of the 341 reported deaths were due to noncommunicable diseases. The largest category was cardiovascular diseases, including cerebrovascular diseases (9%), ischemic heart disease (7%), and hypertensive disease (5%).

In 2014, the main cause of cancer death among men was prostate cancer; among women, it was cervical cancer.

Distribution of the population by age and sex, Anguilla, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2014



In 2014, an imported case of malaria (*Plasmodium falciparum*) was confirmed. Dengue is endemic; the highest annual number of cases reported in the 2010-2015 period occurred in 2014, with eight cases.

Chikungunya virus arrived in 2014, with 55 confirmed cases that same year, followed by 3 in 2015. Local transmission of Zika virus was confirmed in June 2016, and as of late September that year, there were five laboratory-confirmed cases.

The territory has a low prevalence of HIV and AIDS, with a total of eight cases (two in women) identified between 2010 and 2015. No new cases of HIV were identified in the 2014-2015 period. No cases of tuberculosis have been reported since 2010. In 2016, the territory completed the validation exercise for the elimination of mother-to-child transmission of HIV and syphilis.

Suicides are relatively rare in Anguilla; one suicide was reported in 2013, and none in 2014.

Health care is the responsibility of the Ministry of Health and Social Development, which is responsible for the governance and regulation of the entire health care system, including both the public and private sectors.

The health care system is divided into three districts and includes a polyclinic, four health centers, and the 32-bed Princess Alexandra Hospital—all under the management of the Health Authority of Anguilla. Tertiary care is not available in Anguilla and must be obtained abroad.

In 2013, the Government adopted the Framework for Fiscal Responsibility, committing it to open and transparent

management of public finances, which should help achieve sustainability in the health system.

The National Policy and the Strategic Plan for Health 2015-2020 are being fully implemented.

Health care services are provided on a co-payment basis, and not all the population is insured, meaning that there are financial barriers to access.

In light of this problem and to promote access, the Ministry of Health and Social Development provides financial assistance (based on means testing) for those who cannot afford to pay for services. There may also be language and cultural barriers to access for migrant populations.

The number of physicians, nurses, and dentists available in the public sector is 12.5, 26.3, and 1.3 per 10,000 population, respectively. Care is supplemented by visiting health professionals in both the public and private sectors.

The Health Information Unit compiles information from approximately 67% of the communicable disease reporting sites and manages all birth and death records. To date, no formal assessment of data quality has been conducted.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

Anguilla enjoys a high income level thanks to the tourist industry, as well as political and social stability.

The territory has made great strides in the quality of education, drinking water, and sanitation. Progress in health is evidenced by the decline of vaccine-preventable diseases and deaths, reduced maternal mortality and deaths from communicable diseases in general, and a relatively low level of infant mortality.

The Government has made chronic noncommunicable diseases its number one priority, as demonstrated by its adoption of the National Noncommunicable Disease Action Plan 2016-2025 and the establishment of a Chronic Disease Unit in 2015.

Due to population aging, a National Policy for Older Persons was established (2009), as well as a National Policy on Residential Care Facilities for Older Persons (2012).

The 2013 adoption of the Framework for Fiscal Responsibility is a commitment to open and transparent management of public funds, in accordance with the highest standards of governance and democracy.

There is some unfinished business, as well as new challenges, that must be addressed. Prominent among these is the burden of chronic noncommunicable diseases, the general sustainability of health care financing, and universal access to health services.

The health system must adequately prepare to handle unprecedented demand for care in the future related to population aging and the increase in chronic noncommunicable diseases.

Anguilla is highly dependent on tourism and its market is sensitive to natural disasters and the threat of communicable diseases, given the island's vulnerability to natural disasters and climate change. These remain important challenges.

The patterns of climate change and their potential impact on health are being monitored. The increase in mosquito-borne diseases and the appearance of new threats and emerging diseases, such as chikungunya and Zika virus, are of critical concern.

Emphasis continues to be on response capacity in natural disasters and public health emergencies.

The limited number of trained health professionals in the territory is another problem that must be addressed, along with strategies to train, recruit, and retain such professionals. Furthermore, the current health information system must be modernized to make it more accurate and efficient.

There is a national commitment to address current and future challenges.

ADDITIONAL POINTS

The greatest achievements in health include the reduction of maternal mortality and the sustained absence of deaths from vaccine-preventable diseases.

Anguilla successfully participated in the global switch from trivalent to bivalent polio vaccine in 2016.

The territory completed the validation exercise for the elimination of mother-to-child transmission of HIV and syphilis in 2016.

The Government has elevated the prevention of noncommunicable diseases to the highest priority, as demonstrated by the adoption of the National Noncommunicable Disease Action Plan and the development

of the Chronic Disease Unit. The latter represents a coordinated effort to move away from top-down planning approaches and to make better use of resources to address priority public health problems.

Some of the most important achievements of the 2012-2016 period were the elimination of mother-to-child transmission of HIV and syphilis, reductions in maternal mortality, and the absence of deaths from vaccine-preventable diseases.

There is a new sexual and reproductive health unit (which also covers sexually transmitted infections and HIV/AIDS), as well as a new unit to address chronic noncommunicable diseases.

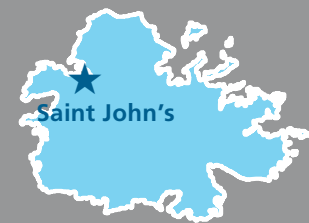


ANTIGUA AND BARBUDA

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	21,370 (2014)	...
Human development index	...	0.783 (2013)	...
Mean years of schooling	...	9.2 (2014)	...
Improved drinking-water source coverage (%)	97.0	98.0 (2015)	1.0
Improved sanitation coverage (%)	75.0	84.3 (2015)	12.4
Life expectancy at birth (years)	71.4	77.5 (2015)	8.5
Infant mortality (per 1,000 live births)	23.4	13.8 (2015)	-41.0
Maternal mortality (per 100,000 live births)	...	...	...
TB incidence (per 100,000 population)	1.9	3.3 (2013)	73.5
TB mortality (per 100,000 population)	3.9	1.4 (2013)	-64.1
Measles immunization coverage (%)	89.0	98.0 (2015)	10.1
Births attended by trained personnel (%)	...	100.0 (2015)	...



1990 population (thousands)	61.9
2015 population (thousands)	90.8
Change (%)	46.5

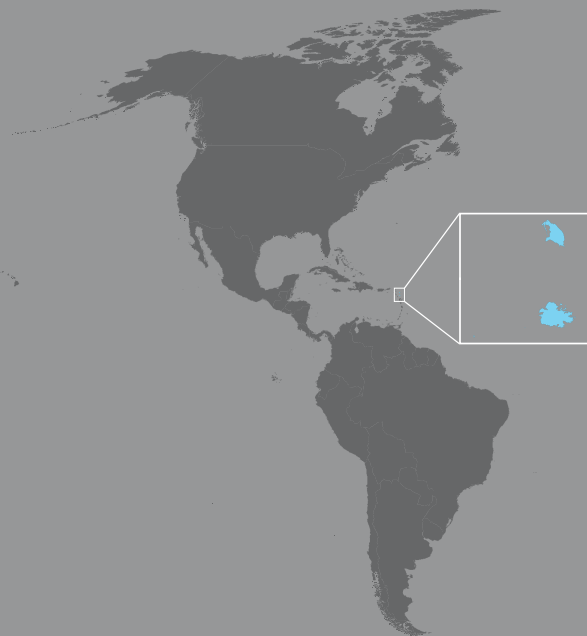
Antigua and Barbuda is located in the Leeward Islands in the northern Caribbean. It is composed of three islands—Antigua, Barbuda, and Redonda (uninhabited)—and covers an area of 442.6 km².

A full 98% of the population lives in Antigua, including 60% in the Saint John Parish and 26% in the capital, Saint John's. Antigua and Barbuda is divided administratively into six regions (parishes) and two dependencies (Barbuda and Redonda).

The population in 2011 was 85,567, reaching 90,755 in 2015. In 1990, its structure was expansive, but by 2015, it had acquired a stationary trend in the under-25 age group, as a result of population aging.

In 2015, 9% of the population was over the age of 65 and 24.3% was under 15. Life expectancy at birth was 75.2 years in men and 80.5 years in women. The population is predominantly of African descent (90%).

The economy is dependent primarily on tourism, which contributes almost 60% of the gross domestic product (GDP), as well as on construction and financial services. In 2014, the human development index was 0.783.



SOCIAL DETERMINANTS OF HEALTH

The unemployment rate in 2011 was 10.2% overall (11.2% among men and 9.4% among women), and higher in the 15-19 age group. Unemployment in the 20-24 age group was 20.3% in 2011. The country's labor laws guarantee equal pay for equal work, regardless of gender.

In 2006, 28.3% of the population was living in poverty; more recent information is unavailable.

Many farmworkers are immigrants and have access to health care. However, the impact on the demand for services and specific health threats has not been determined.

Primary and secondary education has been free and compulsory since 2013, when universal school access was introduced. The literacy rate among adults over the age of 15 is 98.4%.

The country is prone to hurricanes and seismic activity, which inflict damage on physical infrastructure and crop yields. The last major hurricane, Gonzalo, struck in 2014.

In 2005, the homicide rate was 3.5 per 100,000 population. By 2015, it had risen to 6.0 per 100,000 population.

Most households (86%) have access to piped-in drinking water; the rest use cisterns or wells. Sanitation coverage is 84.3%.

Climate change is expected to have a negative impact on agriculture and food security, energy, tourism, the quality and availability of water, human health, marine and land biodiversity, and fisheries.

HEALTH SITUATION AND THE HEALTH SYSTEM

In 2015, the annual average number of births was estimated as 2,500. Three maternal deaths occurred between 2010 and 2015.

Maternal and reproductive health services are offered free of charge at all community health clinics, and are also available in the private sector; 100% of women are covered, and all births are attended by trained personnel in hospitals.

Between 2010 and 2015, the infant mortality rate (children under 1) declined from 18.6 to 13.8 per 1,000 live births. As of 2014, the under-5 mortality rate was 17.2 deaths per 1,000 live births.

Coverage for vaccines provided through the national immunization program ranges from 96% to 100%.

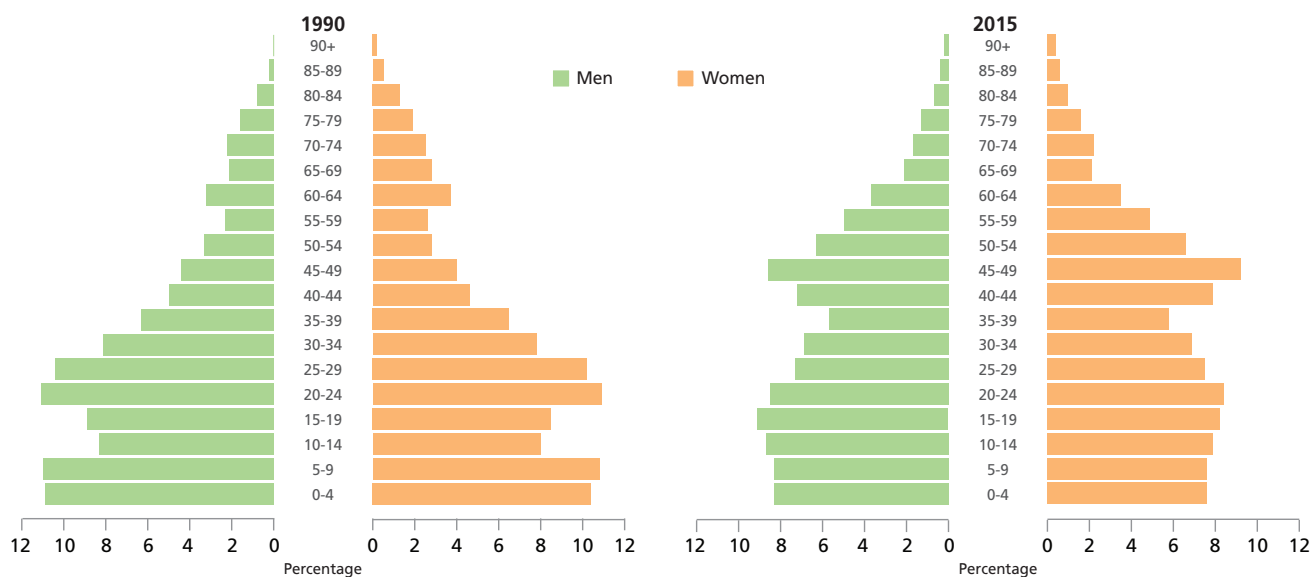
The rate of breastfeeding initiation at birth is 95%, but only 30% of infants are breastfed up to 6 weeks of age.

In 2014, diseases of the circulatory system and neoplasms were responsible for 36% and 23% of deaths, respectively. Hence, almost 60% of all deaths corresponded to one of these two causes.

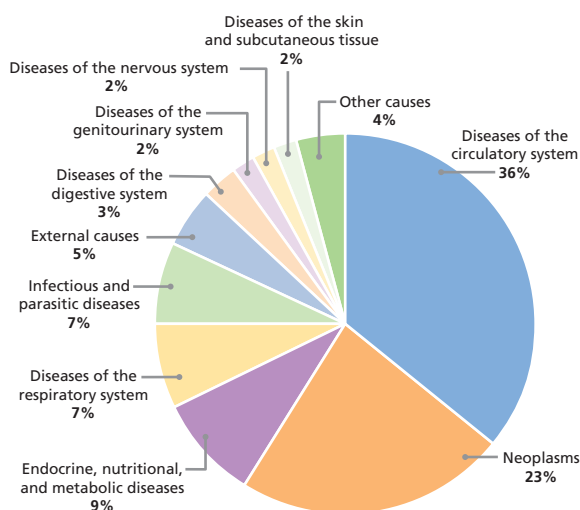
Dengue is endemic, with 31 cases in 2011 and 3 cases in 2015, with no associated deaths.

In 2013, six cases of chikungunya fever were confirmed. There have been no reports of new cases since then. In 2016, the first 14 cases of Zika virus infection were confirmed, including a pregnant woman whose infant had no birth defects.

Distribution of the population by age and sex, Antigua and Barbuda, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2014



In 2014, the *Aedes aegypti* mosquito was found in 6.5% of households.

The prevalence of HIV/AIDS in the general population was calculated at 1.39% in 2011, declining to 0.89% in 2014. The cumulative number of reported cases from 2011 to 2015 was 215. Of these, 74.0% were people aged 15-49. Only one case of vertical transmission was recorded.

The incidence of tuberculosis was 3.3 cases per 100,000 population in 2014; for the period 2011-2015, the cumulative number of cases was 248, mainly in men. In 2010, a single case of rifampicin-resistant TB was reported.

In 2012, diabetes was the third leading cause of death, representing 10.8% of all deaths. Heart disease was the second leading cause in men and women, representing 19.3% of deaths. Cerebrovascular diseases caused 7.7% of deaths.

Between 2010 and 2012, hypertensive disease corresponded to 7.5% of all deaths. In 2012, chronic obstructive pulmonary disease was the reported cause of 5.5% of all deaths.

Complications of diabetes and hypertension are the leading causes of hospitalization.

The risk factors associated with the greatest burden of disease are a high body mass index, an unhealthy diet, and hypertension. In 2015, road traffic accidents caused 13 deaths per 100,000 population.

The most prevalent nutritional problems in adults and the elderly are obesity and noncommunicable diseases. Between 2003 and 2010, more than 60% of 20-year-olds screened in community clinics were overweight or obese.

In 2014, 2.9% of children under 5 seen in health centers were malnourished. In 2012, 29.3% of adults were overweight and 36.5% were obese.

In 2009, 58.8% of students aged 13-15 consumed one or more soft drinks per day, and 54.4% spent 3 hours a day or more sitting down. Only 31.8% of students were considered physically active (at least 60 minutes a day, 5 or more days a week), and 7.3% had smoked cigarettes on one or more days during the preceding month.

The health system is financed primarily with taxes and public revenues to support the Medical Benefits Scheme. This plan, in turn, is financed by a 7% payroll tax that serves as a dedicated source of income for primary and secondary care.

The Government has begun taking steps for transition to the National Health Insurance Program. Approximately 15,000 residents currently have private health insurance, largely provided through employers.

The health sector represented 2.7% of the gross domestic product in 2014.

The health services are furnished by public and private providers. At the primary level, Antigua is divided into 6 medical districts, with a network of 25 public health centers; Barbuda has a single center.

Secondary and tertiary health services are provided at Mount St. John's Medical Center, a 187-bed hospital in Antigua, and an eight-bed medical center in Barbuda.

All primary health care centers have access to mobile mental health teams, which make home visits and provide community care.

Although vocational training in medicine, nursing, obstetrics, and pharmacy is available in the country, most students complete their medical education abroad.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

Since 1990, the country has made progress in overall development and health, reflected in a human development index of 0.783 in 2014.

The health system has achieved high coverage rates for drinking water, sanitation, and skilled birth attendance.

In 2016, the Cabinet of Antigua and Barbuda approved the National Strategic Plan for Health 2016-2020. The Plan is based on a national vision to move toward achievement of optimal health and well-being for all residents of the country.

The three strategic objectives of the Plan are to train individuals and families to manage their own health; to improve health systems and community support mechanisms; and to expand strategic partnerships.

In 2015, the Cabinet approved a national policy for the prevention and control of chronic noncommunicable diseases.

The Medical Benefits Scheme includes activities for chronic noncommunicable disease prevention, aimed especially at young people.

These prevention activities focus on obesity, diet, exercise, and the reduction of smoking and harmful use of alcohol. These benefits are available free of charge for 11 diseases.

Several measures have been instituted to address the country's vulnerability to natural disasters, such as the development of a risk profile and action plan and public education on climate change.

Changes in biodiversity contribute to the spread of disease vectors, such as the *Aedes aegypti* mosquito.

ADDITIONAL POINTS

The Ministry of Health has reviewed the development activities of the National Strategic Plan for Health and will review the stewardship and leadership roles of the Ministry of Health.

New legislation is planned, including a food safety law and a review of public health and quarantine laws.

A process is under way to transition from the Medical Benefits Scheme to the National Health Insurance Program, designed to better support the health system.

The Medical Benefits Scheme provides a smart card to patients who meet the requirements for specialized health care.

Activities are under way for the development of policies and manuals to guide family health programs and ultimately improve the health of the population.

Selected aspects of health promotion activities related to HIV/AIDS have been evaluated to support their integration into primary health care.

Efforts have begun for the introduction of the human papillomavirus vaccine for adolescents, which will serve to revitalize the country's cervical cancer prevention program.

In 2012, a food and nutrition security policy was launched to ensure that all citizens achieve nutritional well-being. There is a risk that climate change will negatively impact agriculture and food security, energy, tourism, the quality and availability of water, human health, marine and land biodiversity, and fisheries.



ARGENTINA

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	22,049 (2014)	...
Human development index	0.705	0.836 (2013)	18.5
Mean years of schooling	7.9	9.8 (2014)	23.9
Improved drinking-water source coverage (%)	94.0	99.0 (2015)	5.3
Improved sanitation coverage (%)	87.0	96.0 (2015)	10.3
Life expectancy at birth (years)	71.6	76.6 (2013)	7.0
Infant mortality (per 1,000 live births)	24.4	10.6 (2013)	-56.6
Maternal mortality (per 100,000 live births)	...	37.3 (2013)	...
TB incidence (per 100,000 population)	59.0	21.4 (2013)	-63.7
TB mortality (per 100,000 population)	4.2	1.4 (2013)	-66.7
Measles immunization coverage (%)	93.0	89.0 (2015)	-4.3
Births attended by trained personnel (%)	...	99.6 (2015)	...



1990 population (millions)	32.7
2014 population (millions)	42.7
Change (%)	30.5

Argentina is located in the far southeast of South America. It covers an area of 3,761,274 km² and borders Bolivia, Paraguay, Brazil, Uruguay, Chile, and the Atlantic Ocean. It has a representative, republican, and federal form of government. Politically, the country is organized into the Autonomous City of Buenos Aires (CABA) and 23 provinces, which form a federation, distributed into five geographical regions.

Between 1990 and 2014, the population grew by some 30.5%, reaching around 42.7 million in 2014. The population has aged, and its structure has become stationary.

Life expectancy at birth in 2015 was 76.6 years (80.4 in women and 72.8 in men).

A full 91% of the population lives in urban areas, and 2.4% of the population is indigenous, with 31 indigenous groups across the country.



SOCIAL DETERMINANTS OF HEALTH

In 2014, the average educational attainment was 9.8 years of schooling; in 2015, the literacy rate in the population aged 15-24 was 99.3% (99.5% of women and 99.1% of men).

In 2016, drinking water coverage from the public water supply was 84.4%, while 58.4% of the public had access to the sewerage system.

Of the total population, 75.7% is nonmigrant, a proportion that has been similar in the last three censuses. Immigrants come largely from bordering countries; Peruvians account for 3.5% and people from other countries, 0.9%.

In 2015, the maternal mortality rate was 3.9 deaths per 10,000 live births, ranging from 8.1 (Salta) to 1.9 (CABA, Santa Fe, and La Pampa), revealing profound inequalities among the different provinces for the same causes of death.

Chagas disease is considered to be closely linked with poverty and a priority problem that must be solved.

Recent years have witnessed a gradual increase in private funding for science, although public-sector funding still predominates.

Because of its geographic location and productive structure, Argentina is one of the countries most affected by global warming. Over the span of the past 50 years, average temperatures in the country overall have increased by half a degree, and in the case of Patagonia, by 1 degree. If the current trend continues, forecasts for the 2080s project potential increases of up to 4°C in the north of the country and 2°C in the south, bringing higher levels of hydric stress, drought, and increased desertification.

HEALTH SITUATION AND THE HEALTH SYSTEM

In 2015, maternal mortality was 3.9 per 10,000 live births. The leading causes of death were hemorrhage, hypertension, infections, and miscarriage. Major inequalities in maternal mortality were recorded across provinces. Direct obstetric causes were responsible for more than 50% of all maternal deaths in the period 2010-2014.

Infant mortality trended downward in the period 2010-2014, from 12.0 to 10.6 per 1,000 live births, respectively.

In 2014, 325,539 deaths were recorded, for an overall mortality rate of 7.6 deaths per 1,000 population. Geographically, mortality ranges from 10.7 deaths per 1,000 population in the city of Buenos Aires to 3.7 per 1,000 population in Tierra del Fuego.

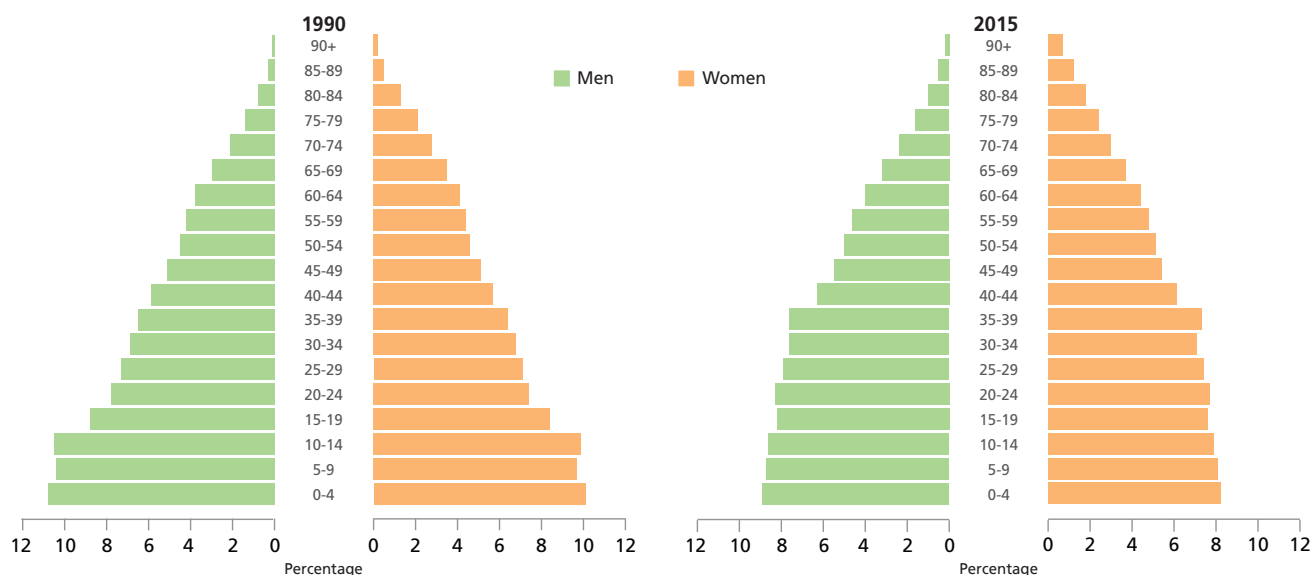
In 2014, diseases of the circulatory system were responsible for 28% of deaths, and neoplasms, 20%; these 2 groups of causes combined accounted for almost half of all deaths.

Between 2010 and 2014, mortality from cardiovascular diseases and neoplasms declined by 13% and 2.5%, respectively, while mortality from infectious diseases and external causes increased by 5.5% and 3.4%, respectively.

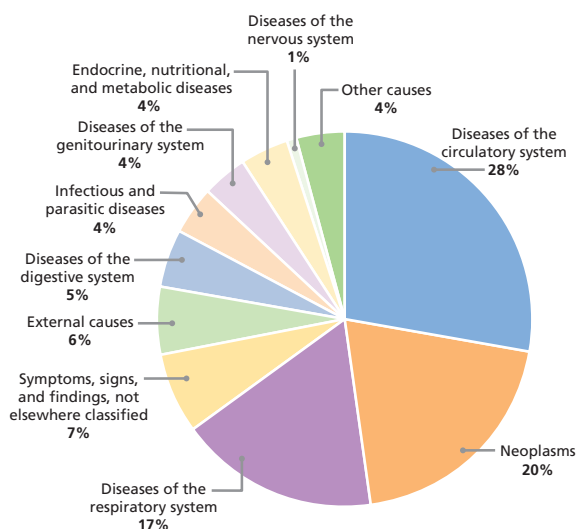
In 2013, the HIV incidence rate was 13.5 cases per 100,000 population, and HIV/AIDS-related mortality, 3.4 per 100,000 population. In 2015, the estimated TB infection rate was 22.6 cases per 100,000 population, and in 2014, the mortality rate was 1.6 per 100,000 population.

The dengue situation is characterized by major outbreaks such as those of 2009 and 2013. In 2016, the first autochthonous cases of chikungunya were recorded, which were confined

Distribution of the population by age and sex, Argentina, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2014



to Salta and Jujuy provinces. Autochthonous vector-borne transmission of the Zika virus was also recorded, as was sexual transmission.

Tackling Chagas disease by interrupting vector-borne and congenital transmission has been designated a priority. In 2014, the seroprevalence of *Trypanosoma cruzi* infection in pregnant women was 2.5%, and 5.7% in children through congenital transmission.

Malaria is considered a controlled problem, given the absence of reported cases since 2010. Visceral leishmaniasis is a new phenomenon in the northeast region of the country, with 11 cases recorded in the 2010-2015 period.

In 2013, the prevalence of diabetes mellitus in the population aged 18 and over was 9.8%, reaching 20.3% among the elderly (aged 65 and over).

Poliomyelitis, measles, rubella, and congenital rubella syndrome are all considered eliminated in the country.

The incorporation of the *Haemophilus influenzae* type b (Hib) vaccine into the National Vaccination Schedule in 1997 has changed the epidemiological situation of Hib infection: a sustained nationwide rate of <0.1 cases per 100,000 population has been achieved.

In 2015, there were 975 confirmed cases of whooping cough, 77.7% of them in children under 1.

Since 2015, vaccination against chickenpox has been made compulsory and universal for all children aged 15 months, using a single-dose scheme. The rotavirus vaccine has also been included in the schedule.

The last case of rabies was recorded in 2008. The average annual incidence of echinococcosis in the period 2010-2014 was 1.5 cases per 100,000 population.

The health system is organized in line with the country's federal structure. It consists of three sectors: public, social security, and private. Each province has autonomy over governance, financing, and service delivery. Thus, the health system has a fragmented and segmented structure.

The public sector is composed of the national and provincial ministries and the network of public hospitals and health centers. All of these facilities provide free care on demand; they essentially serve people in the lowest income quintile without social security, who are unable to pay out of pocket. Public sector funding accounts for nearly 2.2% of the gross domestic product (GDP).

The compulsory social security sector is organized around national and provincial *obras sociales* (entities charged with overseeing medical care for Argentine workers). At the national level, there are more than 200 of these entities, representing expenditures equivalent to 1.59% of the GDP, while expenditures of the 23 provincial *obras sociales*, which cover civil servants in their respective jurisdictions, represent 0.74% of GDP.

The National Institute of Social Services for Retirees and Pensioners provides coverage for retirees in the national pension system and their families; it covers 20% of the population and represents expenditures equivalent to 0.75% of GDP.

The private sector is composed of health professionals and facilities that serve individuals who pay out of pocket, beneficiaries of the *obras sociales*, and people with private insurance coverage.

The country has 3.6 physicians and 3.2 hospital beds per 1,000 population. These rates are highest in the Autonomous City of Buenos Aires (10.2 physicians and 7.3 beds per 1,000 population) and lowest in the province of Misiones, with only 1.2 physicians and 1.1 beds per 1,000 population.

The Health Services Authority regulates all *obras sociales* nationwide. The National Administration of Drugs, Foods, and Medical Devices plays a key role in regulatory matters.

The Directorate of Health Statistics and Information is responsible for coordinating and regulating the collection of specific statistical data on health programs, and since 1996 has participated in the PAHO and WHO initiative on basic health indicators; thus, Argentina is included in a common database for the Region of the Americas.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

In 2014, health service expenditure represented 8.5% of GDP. Although the population as a whole has access to the services

provided by the public sector, achievements in health appear underwhelming in relation to the resources allocated, due to inequities in distribution.

Fragmentation exists in three areas: (i) coverage, since access to similar health benefits and services does not extend to the entire population; (ii) regulatory functions, since leadership and regulatory authority are distributed throughout the 24 jurisdictions and in various subsectors; and (iii) territorial disparities, given the pronounced differences in economic development from one region to another.

System fragmentation hinders equity in access to services, regulation, and control of the different levels and sectors, and prevents achievement of greater equity among territories. This fragmentation is closely related to the autonomy of the provinces, which poses a challenge when seeking functional integration.

A series of priorities have been set to obtain universal health coverage, develop an agency for health technology assessment, and establish a quality accreditation system.

Implementing these proposals will require not only financial resources, but also the ability to reach consensus among various stakeholders that would make it possible to achieve equitable access to similar services in terms of financial protection, timeliness, and quality, regardless of employment status, place of residence, income level, or any other social determinant.

The country is facing a dual scenario in which infectious diseases coexist with a steady increase in the prevalence of noncommunicable diseases and their risk factors. Overweight and obesity are considered a challenge requiring the development and implementation of public policies, such as the regulation of food advertising, fiscal policies, and front-of-package labeling.

A major challenge is still the creation of strategies to combat HIV/AIDS and tuberculosis.

Interruption of vector-borne transmission of Chagas disease has already been accomplished in 8 of the 19 endemic provinces: Entre Ríos, Jujuy, La Pampa, Misiones, Neuquén, Río Negro, San Luis, and Santa Fe.

A human development agenda must be established to overcome the social determinants associated with poverty and achieve better results in the implementation of health programs.

“Toward Universal Health in the South American Chaco Population 2016-2019,” an initiative of Argentina, Bolivia, Brazil, and Paraguay, is noteworthy in this regard.

Better prevention and control of chronic noncommunicable diseases require improvements in existing prevention programs that focus on controlling risk factors.

The Compulsory Medical Program (*Programa Médico Obligatorio*, PMO) should be updated on the basis of current evidence of impact and effectiveness.

ADDITIONAL POINTS

Argentina has an extensive history of social policies, along with great capacity and human talent, robust institutions, and health expenditure levels that exceed the regional average.

Despite these real strengths, the country has obstacles to overcome. Argentina has perhaps the most segmented and fragmented health system in the Americas. Thus, enormous governance efforts and strong sector leadership are needed to bring together a wide range of stakeholders in pursuit of shared health objectives.

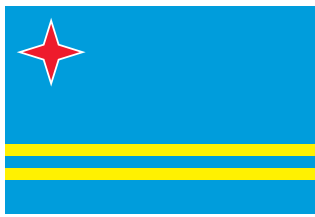
The current administration has focused on advancing toward universal coverage, in terms of effective access to quality services, regardless of employment status or any other condition.

The Compulsory Medical Program is an organizational strategy for the health services that has proven very useful, despite the impact of the economic crises that the country has experienced and the need to update it.

Programs covered by the PMO include a maternal and child plan, a neonatal care plan, programs for the prevention of some types of cancer, dental programs, and the Sexual Health Program.

In terms of services, the Compulsory Medical Program covers outpatient visits, diagnostic testing, rehabilitation, hemodialysis, palliative care, prosthetics and orthotics, inpatient care, mental health care, interfacility transfers, an extensive drug formulary, and high-cost care services, among other things.

These services have also been embraced by the private health providers, with an effect on the system that has tended to guarantee a basic level of access to services and benefits. This element provides a measure of equity, universality, and solidarity for users of the health system.



SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	...	...
Human development index	...	...	...
Mean years of schooling	...	...	...
Improved drinking-water source coverage (%)	91.0	98.0 (2015)	7.7
Improved sanitation coverage (%)	99.0	98.0 (2015)	-1.0
Life expectancy at birth (years)	...	76.8 (2013)	...
Infant mortality (per 1,000 live births)	...	1.8 (2013)	...
Maternal mortality (per 100,000 live births)	...	...	...
TB incidence (per 100,000 population)	15.0	1.8 (2013)	-88.0
TB mortality (per 100,000 population)	1.2	0.5 (2013)	-58.3
Measles immunization coverage (%)	...	92.0 (2015)	...
Births attended by trained personnel (%)	...	...	...



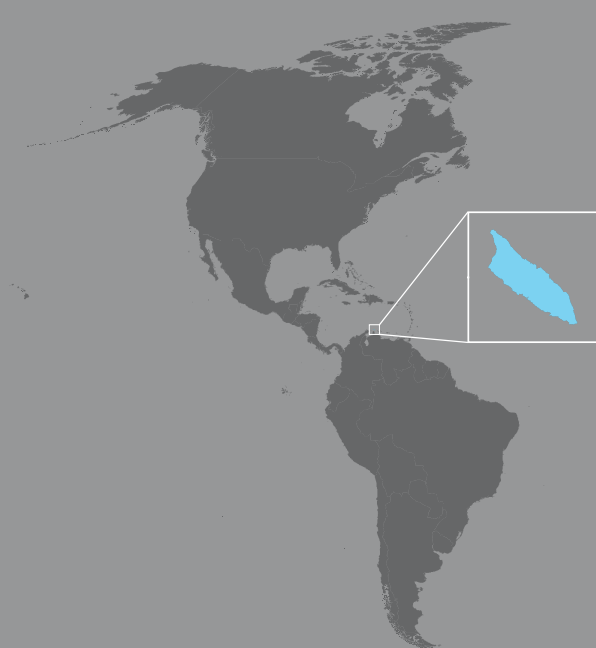
1990 population (thousands)	62.1
2014 population (thousands)	108.4
Change (%)	74.6

Aruba, an island with a landmass of 180 km² and lying about 25 km off the coast of Venezuela in the Caribbean Sea, is an autonomous country within the Kingdom of the Netherlands. It was part of the Netherlands Antilles until 1986, when it became an autonomous country within the Kingdom of the Netherlands. The island is autonomous in terms of administration of public policies, but is under the authority of the Kingdom of Netherlands in areas such as defense, foreign affairs, and the administration of justice.

In 2014, Aruba had a population of 108,374. Between 1990 and 2014, the population grew by 74.6%. In 1990, its population pyramid was beginning to develop a stationary trend in people under 30. The population pyramid is currently exhibiting a regressive trend, with greater expansion in the working-age population. This structure is influenced by immigration, which is particularly concentrated in the working-age population.

In 2011, life expectancy at birth was 76.9 years (73.9 for men and 79.8 for women).

Tourism is the leading economic activity. In 2015, the country received 1.8 million tourists (66% stayed overnight and the rest came from cruise ships).



SOCIAL DETERMINANTS OF HEALTH

Primary and secondary education are free. The country has a pension program that guarantees income for older adults, based on their length of residence.

In 2010, the adult literacy rate was 99.4%. There was a 99% enrollment rate in primary education and a completion rate of 94.8%. Seven out of 10 adolescents attend secondary school.

Drinking water is produced through desalination of ocean water in a processing plant. The water distributed by the network is safe for consumption, and 100% water and sanitation coverage is provided.

The sewerage system is adequate, and all households have their own septic tank.

The standard of living is high, and all residents, including documented immigrants, are enrolled in social security and covered by health insurance.

Aruba's National Security Plan for 2008-2012 ranks international drug trafficking and its effects as the fourth leading threat to national security, among six serious threats. The Plan calls on pertinent sectors and stakeholders to take part in the eradication of these activities.

HEALTH SITUATION AND THE HEALTH SYSTEM

Coverage of prenatal care is 99%, and 96% of births occur in institutional settings.

Oral contraceptives are the most commonly used birth control method (42.4%), followed by condoms (42.3%), injectable contraceptives (12.7%), and intrauterine devices (2.5%).

Between 2006 and 2013, the percentage of live births among mothers under the age of 20 ranged from 11% to 13.5% of the total.

No maternal deaths were reported from 2006 to 2010. Between 2011 and 2013, only one maternal death was reported each year.

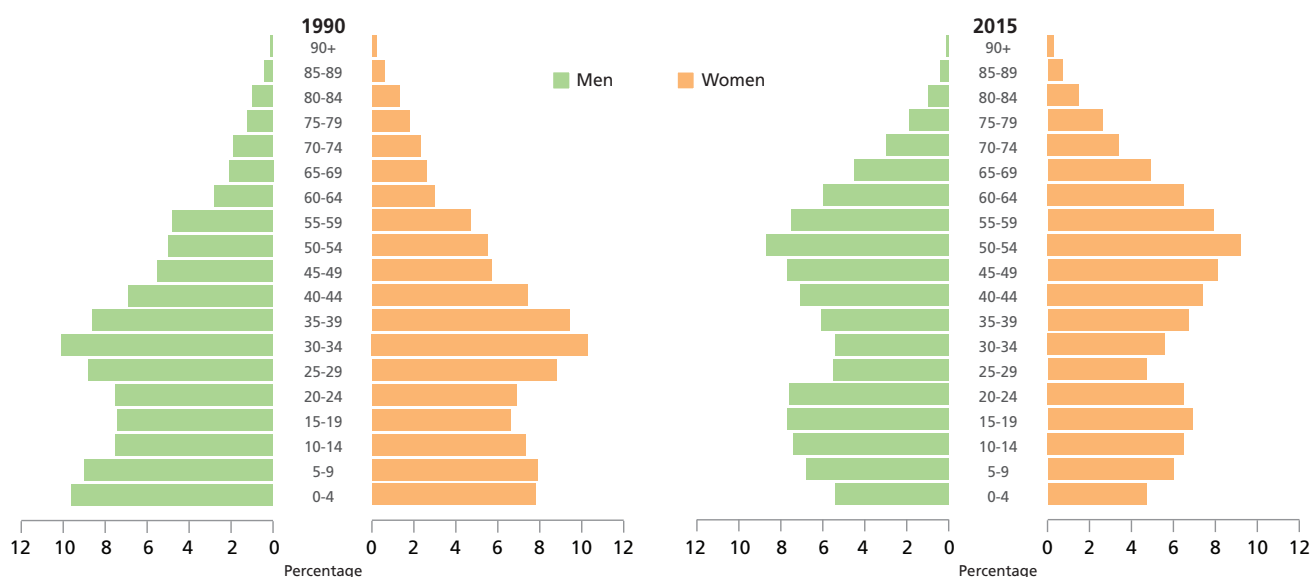
In 2013, there were nine deaths in the under-1 age group, five of which occurred in the perinatal period.

During their first year of life, 98% of children are vaccinated against diphtheria, tetanus, and whooping cough (DPT3); poliomyelitis (Polio-3); and mumps, measles, and rubella (MMR).

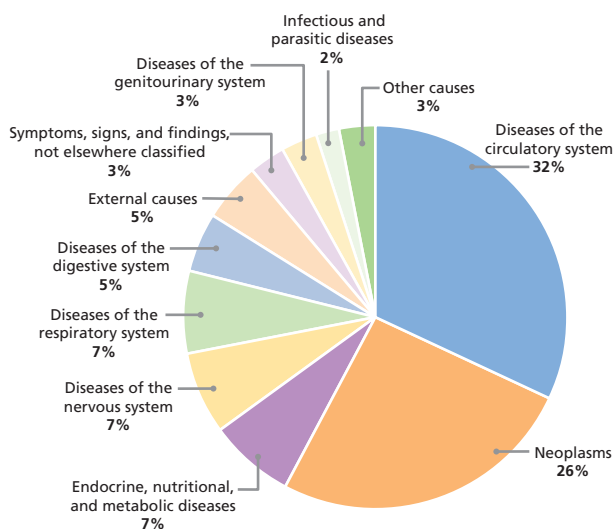
Between 2008 and 2012, there were no reported cases of acute flaccid paralysis, tetanus, diphtheria, rubella, or congenital rubella. One case of whooping cough was recorded per year from 2010 to 2012. In 2011, 1 case of mumps, 1 case of measles (in a child under the age of 1), and 16 cases of nonspecific viral hepatitis were reported. That same year, there were 2 cases of hepatitis A, compared to 13 cases in 2012, 2 in 2013, and 9 in 2014.

Overall mortality in 2012 was 5.7 per 1,000 population. The main causes were circulatory system diseases (32% in men and 29% in women) and neoplasms (22% in men and 27% in women).

Distribution of the population by age and sex, Aruba, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2014



In 2014, circulatory system diseases represented 32% of deaths and neoplasms, 26%. The two causes were responsible for almost 60% of total deaths.

In 2010, malignant neoplasms were the leading cause of death, with a mortality rate of 104.3 per 100,000 population (129.4 in men and 90.0 in women). From 2000 to 2009, the most common malignant neoplasms in men were in the trachea, bronchi, and lungs (70.2%), while 97.8% of deaths from neoplasms in women were due to breast cancer.

The ischemic cardiopathy mortality rate was 35.9 per 100,000 population (66.9 for men and 15.7 for women).

Dengue is one of the priority diseases in Aruba. In 2011, 2,850 cases were reported. Between 2006 and 2013, the four subtypes of dengue virus were in circulation in a pattern of yearly outbreaks (3,502 cases in 2006, 3,210 in 2009, and 2,850 in 2011). In 2014, only 833 cases were reported and the most-affected population group was people aged 25-64.

In 2016, up to epidemiological week 47, there were 8 cases of laboratory-confirmed chikungunya virus, 929 cases confirmed by epidemiological link, and 859 clinical cases. With regard to the Zika virus, up to epidemiological week 47 of that same year, 28 laboratory-confirmed cases had been reported, with 652 confirmed by epidemiological link and 624 clinical cases.

Between 2008 and 2014, 6 imported cases of malaria were reported. No cases of cholera were reported in that same period.

From 1984 to 2014, the average incidence of HIV was 26 new cases per year, ranging from 12 to 28 cases annually. In

2010, the prevalence of HIV infection was 0.4%, with 435 people infected.

Between 2000 and 2014, 298 cases of human immunodeficiency virus (HIV) were registered (74 in women and 224 in men). The most frequent form of transmission was heterosexual contact (59%). In 2011, there was 1 case of mother-to-child transmission.

From 2008 to 2014, 56 cases of pulmonary tuberculosis were reported.

Between 2003 and 2011, on average, there were 35 new cases of hepatitis B each year. Males aged 25-44 were the most affected group. The majority of cases were imported. In 2014, 12 cases of hepatitis B and 2 cases of hepatitis C were reported.

From 2005 to 2012, noncommunicable diseases were the leading cause of morbidity and mortality.

In 2006, 8.3% of the population aged 25-64 had diabetes (9.2% of women and 7% of men). The prevalence of hypertension was 19.8% in men and 12.2% in women in the 25-64 age group.

Of people aged 25-64, 16.2% of them were smokers.

Between January and August 2013, 1,600 people over 18 years of age were overweight (prevalence of 38.9%). Of this group, the prevalence of obesity was 38.2%.

Overweight in the preschool population was 11% in 2008-2009, the same figure as for school-age children in 2011-2012. Obesity in that population fluctuated between 10% and 11% throughout the study period.

The Ministry of Health and Sports coordinates policies aimed at halting mental, social, and physical dependency linked to drug use.

The Anti-Drug Foundation of Aruba (FADA) is the nongovernmental organization most active in the prevention of illegal substance use. The Foundation organizes public awareness campaigns, conferences, and programs for young people, parents, and workers. The country also has the Addiction Management Foundation of Aruba (FMAA), which is dedicated to treating addiction and rehabilitation.

Aruba's Public Health Law, in effect since 1989, mandates that the Department of Public Health monitor, control, and inspect health care.

The biggest government expenditure is on health, followed by social protection and education. In 2010, the budget allocated to health represented 11.3% of the gross domestic product.

Health care is primarily funded by taxes and the premiums paid by employers and employees to the general health insurance fund. Starting in December 2014, a 1.0% tax on goods and

services was mandated by Aruba's Public Health Law to reduce the State's contribution to general health insurance.

The health insurance system provides universal coverage through a network of service providers organized into the three levels of care.

Family doctors comprise the first level of care, based on a model geared toward patient diagnosis, monitoring, and case management.

Patients are referred to the Dr. Horacio Oduber General Hospital, which has 288 beds and a 79% occupancy rate. The average hospital stay is 6.9 days, with 12.0 admissions per 1,000 population.

The hospital includes the San Nicolás Medical Institute (ImSan), which is an autonomous comprehensive national center for outpatient care that primarily treats noncommunicable chronic diseases.

The older adult population can be institutionalized in three geriatric homes, which have a total of 250 beds. The majority of people admitted also receive health care.

In 2013, Aruba had 43 general practitioners and 78 specialists (1.82 physicians per 1,000 population and 0.33 dentists per 1,000 population). The general health insurance fund contracts these professionals, including primary care physicians, specialists, and most dentists, physical therapists, and midwives.

Aruba does not have a national medical school; most health professionals are trained abroad. The country runs the risk of professional emigration, primarily because the professionals who study and graduate abroad tend to remain where there are more opportunities and higher salaries.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

Since 2011, the health insurance's proportion of the budget has increased, and in December 2014, a 1.0% tax on goods and services was mandated by Aruba's Public Health Law in order to reduce the State's contribution to general health insurance.

The health insurance system provides universal coverage through a network of service providers organized into the three levels of care, although there are more curative than preventive services.

In Aruba, the number of adolescent pregnancies has progressively declined in recent years, which is why the respective data should be analyzed and widely disseminated.

Although economic and social statistics reflect a certain stability in the country, much remains to be done to address major health problems and challenges such as the aging population, the predominance of noncommunicable diseases, and risk factors such as obesity and drug and alcohol use among young people.

Efforts have been made to reduce childhood obesity by promoting sports, but they must be sustained over time and must reach the entire population, including older adults. In order to address drug use, which impacts adolescents and young adults, risk prevention methods require comprehensive and intersectoral initiatives that target lifestyles and other social determinants.

There is a need for better public health infrastructure and training for human resources for health in order to support health promotion and health care more effectively within the framework of universal health.



ADDITIONAL POINTS

Aruba's policies and plans are aimed at achieving social progress and advances in health, taking aspects of community promotion and prevention into consideration in sectors other than the health sector.

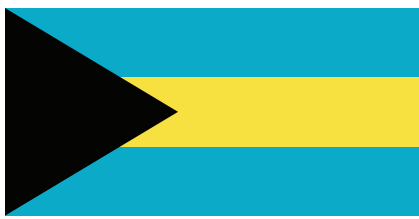
The objective of the Aruba National Plan 2009-2018 is to combat overweight, obesity, and other health-related problems.

The 2010-2013 National Strategic Plan for Sports and Physical Activity became the frame of reference for the country's main sports activities. The plan focused on getting the entire population involved in physical activity, thus helping to ensure a balanced and healthy lifestyle, as well as promoting competitive sports.

In Aruba, women complete secondary schooling, and an increasing number of women attend institutions of higher education. Thus, female education has become a health and development determinant for women and makes a significant contribution to the country.

Aruba's National Security Plan for 2008-2012 addressed the main security threats facing the country. Its objectives included the prevention and control of international drug trafficking and its effects on the population, with a call for intersectoral action.

The Ministry of Health and Sports coordinates policies aimed at the prevention and control of mental, social, and physical dependency linked to illegal drug use.

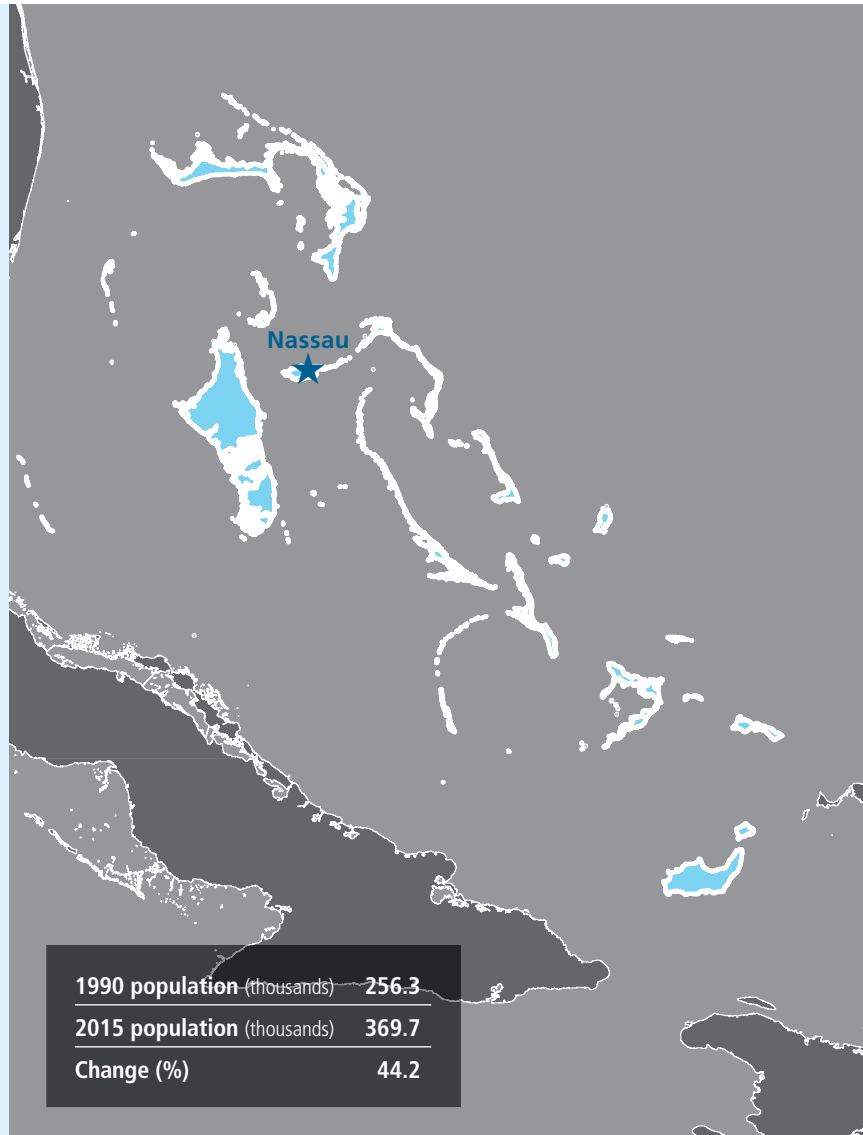


BAHAMAS

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	22,290 (2014)	...
Human development index	...	0.790 (2013)	...
Mean years of schooling	...	12.0 (2014)	...
Improved drinking-water source coverage (%)	96.0	98.0 (2015)	2.1
Improved sanitation coverage (%)	88.0	92.0 (2015)	4.5
Life expectancy at birth (years)	70.7	75.7 (2013)	7.1
Infant mortality (per 1,000 live births)	19.6	19.4 (2013)	-1.0
Maternal mortality (per 100,000 live births)	...	67.6 (2013)	...
TB incidence (per 100,000 population)	21.0	13.1 (2013)	-37.8
TB mortality (per 100,000 population)	6.7	0.5 (2013)	-92.5
Measles immunization coverage (%)	86.0	94.0 (2015)	9.3
Births attended by trained personnel (%)	...	99.6 (2015)	...



The Bahamas is a country formed by an archipelago of 700 islands and 2,400 keys in the Caribbean Sea, facing the coast of Florida. It has a total area of 13,900 km².

Approximately 30 islands are inhabited, with a population of 369,670 in 2015; 90% of the population lives on New Providence (especially in the capital, Nassau), where the seat of government is located, as well as on Grand Bahama and Abaco islands.

Between 1990 and 2015, the population grew by 44.2%. In 1990, its structure had a stationary trend in the under-40 age groups. The population pyramid has since become regressive as a result of aging; 9% of the population is over 65.

In 2013, life expectancy at birth was 75.7 years.

The per capita annual income is also relatively high (US\$ 21,570), as is the per capita gross domestic product (US\$ 25,100), generated mainly by tourism (60%) and, to a lesser degree, financial services (15%).



SOCIAL DETERMINANTS OF HEALTH

In 2015, the unemployment rate was 12%. In 2013, 12.6% of the population was living below the poverty line of US\$ 4,247 per capita per year.

Youth and Haitian immigrants are the most vulnerable populations, with poor housing and sanitation conditions often observed among the latter. The average educational attainment in 2014 was 12.0 years of schooling.

The islands have streams and bodies of brackish water and there are no freshwater rivers. Fresh water for human consumption is obtained mainly from boreholes for groundwater or by desalination.

Improved drinking-water source coverage rose from 96% in 1990 to 98% in 2015, while improved sanitation coverage increased from 88% in 1990 to 92% in 2015.

Due to its location in the Caribbean Sea, the country is exposed to tropical storms and hurricanes that tend to cause major damage to infrastructure.

The use of native trees as fuel, especially in poor neighborhoods, causes air pollution and poses the threat of deforestation. This problem has been addressed by enacting specific laws.

More than 90% of food is imported, subjecting the country to the vagaries of international food and transportation prices. The agricultural sector contributes less than 2% of the gross domestic product.

The Government has programs to improve the quality of young people's teaching and learning opportunities. The

objective is to improve their ability to obtain employment. There are also programs to improve monetary transfers in the form of subsidies for poor population groups, especially children and pregnant women.

HEALTH SITUATION AND THE HEALTH SYSTEM

Given the relatively low number of pregnancies (5,900 live births in 2015), there are few maternal deaths. Between 2008 and 2013, 3.5 maternal deaths were recorded per year on average; in some years, no deaths were recorded. In 2015, the reported maternal mortality ratio was 67.6 per 100,000 live births.

In 2014, 52.9% of pregnant women received antenatal care in the first 16 weeks of gestation.

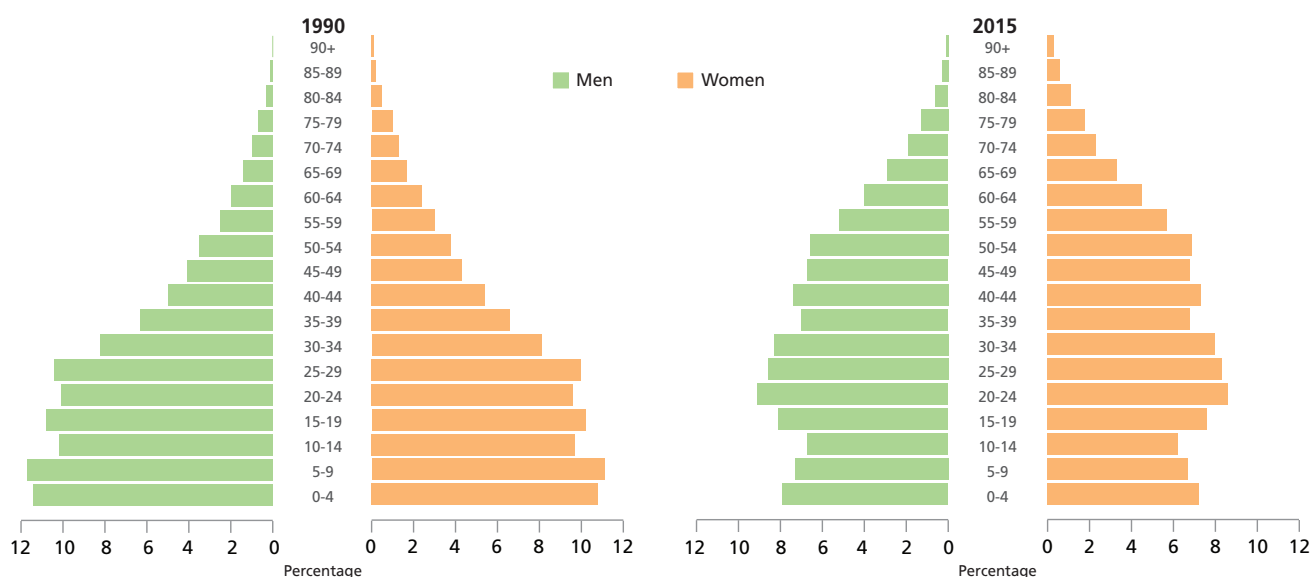
Also in 2014, the infant mortality rate was 19.4 deaths per 1,000 live births (including 13.9 neonatal deaths per 1,000 live births). The leading causes were perinatal respiratory disorders, congenital pneumonia, and perinatal pulmonary hemorrhage.

Factors that influence infant mortality include late presentation to antenatal care, the rate of premature delivery, and multiparity. The prevalence of low birthweight was 13.8% in 2014, and 66.2% of all deaths in children occurred in the low birthweight group.

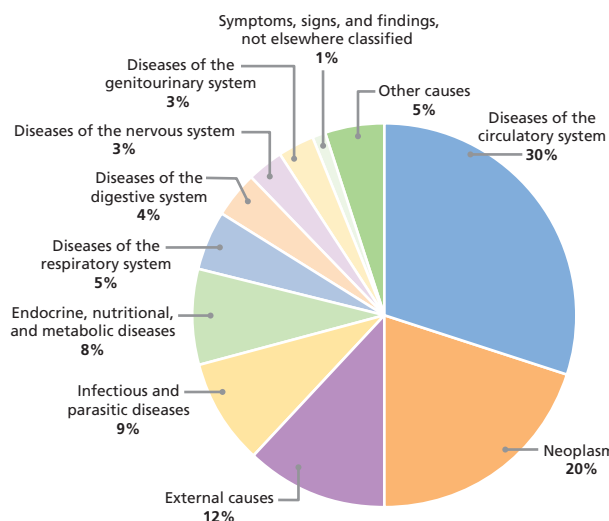
From 2013 to this writing, there have been no cases of vaccine-preventable diseases. After 2009, when the coverage rate reached 98%, coverage against measles, mumps, and rubella ranged from 93.6% to 91.5%.

In 2010, the overall mortality rate was 5.5 deaths per 1,000 population (6.8 in men and 4.3 in women). Diseases of the

Distribution of the population by age and sex, Bahamas, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2013



circulatory system and neoplasms accounted for 30% and 20% of deaths, respectively; thus, half of all deaths were from one of these two causes.

Between 2009 and 2013, the leading causes of death from malignant neoplasms were cancer of the digestive system (24.9% of cancer deaths) and breast cancer (15.2%).

In the same period, ischemic heart disease was responsible for 8.7% of all deaths and 3.7% of potential years of life lost (PYLL), with an average of 6.3 lost years per death.

Sporadic outbreaks of malaria and dengue are recorded; the *Anopheles* and *Aedes aegypti* mosquitoes remain present. Nationwide efforts to reduce *Ae. aegypti* populations have included community cleanup campaigns.

In 2014, the chikungunya virus was introduced in the country, causing an outbreak of 104 reported cases; in 2015, 4 cases were recorded. Up to early 2017, 10 cases of Zika virus infection had been recorded, 8 of them autochthonous.

In 2014, 267 cases of HIV/AIDS were recorded. Of the new cases, 63 were diagnosed as AIDS (24%) and 12 died. Between 2005 and 2014, the incidence of HIV/AIDS declined 28% overall, but increased 85% in the population aged 15-24.

In 2014, 45 new cases of TB were recorded, an incidence of 17 cases per 100,000 population. Of these, 3.7% were multidrug-resistant. Of the new cases, 14 were coinfecting with HIV.

Hypertension caused 9.1% of all deaths and represents 3.5% of all PYLLs, with an average of 5.8 years lost per death.

Cerebrovascular diseases represented another 6.9% of all deaths and 3.1% of PYLLs, with an average of 6.7 years lost per death.

Taken together, cardiovascular diseases from hypertension, cerebrovascular disease, and ischemic heart disease caused approximately 24.7% of all deaths during the period 2009-2013.

In 2012, the overall prevalence of overweight and obesity was 79.2%, without significant differences between the sexes.

In 2013, 45.7% of children aged 13-15 were overweight and 21.0% were obese; 29.6% had not engaged in physical activity in the previous week; 83.4% had consumed fewer than 5 fruits or vegetables during the previous week; 28.6% had consumed alcohol, 13.7% had smoked, and 15.1% had used drugs in the previous month; 19.3% considered suicide, while 13.6% had attempted it; 40% had participated in fights in the previous year; and 11.1% were members of violent gangs.

In 2010, 2.8% of the population had some type of disability. This group has significant social vulnerability: 7.3% did not receive any education, 82.4% of those over the age of 14 were unemployed, and 72% lacked health insurance.

Mental illness is a major cause of morbidity. The leading causes of admission to the local rehabilitation center are schizophrenia and schizotypal disorders (35%), affective mood disorders (12.3%), and mental and behavioral disorders due to substance use, mostly cannabis (11.1%), alcohol (7.4%), and cocaine (2.3%). A full 27% of all hospitalizations are somehow related to legal and illegal drug use.

The Ministry of Health is the regulatory entity for the health sector, payer of all public health services, and responsible for delivery of health services in the community.

In 2016, the National Health Insurance Bill was passed. This law ensures universal access to health services free of charge at the point of care for all legal residents of The Bahamas.

The first stage, scheduled for implementation in 2017, covers a comprehensive package of primary care services, including medical care, medicines, diagnostic imaging, and laboratory tests.

The later stages are expected to provide coverage for catastrophic events and will include secondary and tertiary care services.

As of 2010, 47.2% of the population had some health insurance. The goal of increasing insurance coverage is a key Government concern. In 2013, there were 24.9 physicians, 28.8 registered nurses, and 11.4 clinical nurses per 10,000 population.

Public health services are provided at the primary level through a network of health care centers distributed across a system

of public facilities (28 health centers, 33 main clinics, and 35 satellite clinics) on the major inhabited islands.

Secondary and tertiary care is provided at three public hospitals: Princess Margaret Hospital (with 400 beds), Sandilands Rehabilitation Center on New Providence, and Rand Memorial Hospital (with 85 beds) on Grand Bahama.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

The country has high income levels but, at the same time, a high level of poverty and marginalization of large segments of society, especially the growing migrant population.

One of the critical gaps in the social development of the public sector is the lack of universal health coverage.

Challenges that the new legislation must still address include additional sources of financing and the role of private insurers.

Work has begun on the development of an integrated health information system, known as the Integrated Health Information Management System, an initiative designed mainly to strengthen information and communication technologies (ICTs) in the health sector.

The geographic distribution of health service delivery to a relatively small population scattered across a large, discontinuous area is an enormous challenge. In this regard, development and implementation of telemedicine and other ICTs for health are particularly important.

Efforts must be made to tackle the exclusion of major sectors of society, particularly the growing migrant population, from social security and well-being.

ADDITIONAL POINTS

The Government of The Bahamas is formulating the “Vision 2040 – National Development Plan,” intended as a road map for policy development, decision-making, and investment over the next 25 years. Its four pillars are the economy, governance, social policy, and the environment.

The National Health System Strategic Plan 2010-2020 was developed with a view to educating individuals and communities to ensure optimal health, longevity, and a good quality of life.

The Healthy Bahamas Coalition, launched in early 2017, is a major initiative for engaging the different sectors of society to address population-wide health challenges and the risk factors for chronic noncommunicable diseases, including environmental health risks.

To ensure greater impact of national health plans, the effective participation of community groups and individuals

is indispensable, from the design of these plans all the way to their implementation. Furthermore, the role of population health should be prioritized in the National Development Plan.

In this context, the National Development Plan should prioritize a Health in All Policies approach; that is, it should consider the physical, mental, and social well-being of people and communities.

On the Government end, plans also call for intersectoral integration and coordination beyond the health sector.

The necessary collaboration should also be expanded to include the perspective of the various social stakeholders to truly address the country’s challenges in health and well-being.



BARBADOS

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	15,190 (2014)	...
Human development index	0.714	0.785 (2013)	9.9
Mean years of schooling	8.1	9.0 (2014)	11.0
Improved drinking-water source coverage (%)	96.0	100.0 (2015)	4.2
Improved sanitation coverage (%)	80.0	96.0 (2015)	20.0
Life expectancy at birth (years)	71.1	75.1 (2013)	5.6
Infant mortality (per 1,000 live births)	16.2	11.6 (2013)	-28.4
Maternal mortality (per 100,000 live births)	...	...	...
TB incidence (per 100,000 population)	2.3	1.7 (2013)	-25.0
TB mortality (per 100,000 population)	...	0.7 (2013)	...
Measles immunization coverage (%)	87.0	96.0 (2015)	10.3
Births attended by trained personnel (%)	...	99.7 (2015)	...

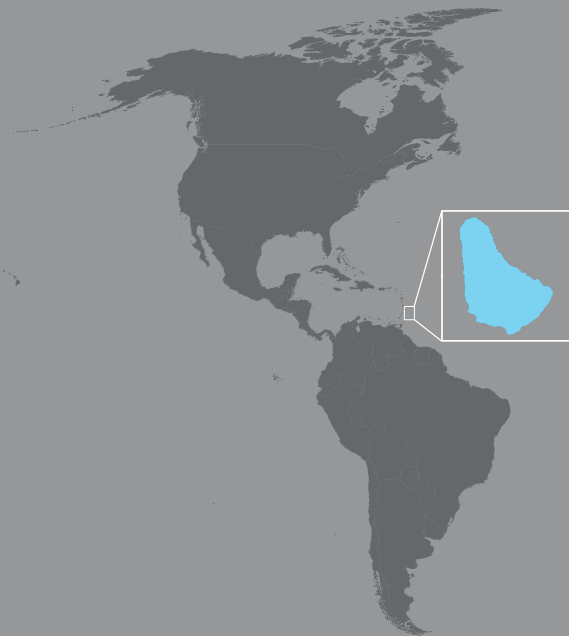


1990 population (thousands)	260.4
2015 population (thousands)	276.6
Change (%)	6.2

Barbados is the easternmost country in the Caribbean, with a surface area of 430 km².

Between 1990 and 2015, the population increased by 6.2%, to 276,633 inhabitants; its structure is aging and becoming more regressive. Life expectancy at birth is 75.1 years (73.1 years in men, and 77.9 years in women).

Barbados is considered a high-income country. The per capita gross domestic product (GDP) was US\$ 15,600 in 2015. Barbados has an open economy—dominated by tourism, international trade, and retail commerce—under the influence of international financial markets.



SOCIAL DETERMINANTS OF HEALTH

Unemployment in 2015 was 10.7%, almost half of which corresponded to young people between 15 and 19 years of age. In 2010, 15% of households lived below the poverty line. Of these, 25% were affected by unemployment, and 62% were headed by women.

The literacy rate in the country is 97%; primary and secondary education are compulsory and free.

All households have access to the Government-run solid waste collection system.

The Health of the Nation Study (2015) estimated that one in every three employed persons has private health insurance.

The island is vulnerable to hurricanes, and its main environmental challenges include indoor and outdoor air quality, vector-borne diseases, solid waste disposal, the relative scarcity of water, deforestation, and soil erosion.

In some cases, migrants and tourists can receive free assistance, as with an emergency, prenatal care, immunization, or major public health problems, such as treatment for human immunodeficiency virus (HIV).

HEALTH SITUATION AND THE HEALTH SYSTEM

Between 2010 and 2015, five maternal deaths were reported. Hospital care for delivery is universal. In 2011, 12.3% of deliveries were to mothers less than 19 years of age.

Mortality in children under 1 year of age between 2012 and 2014 was 11.6 per 1,000 live births, and 12 per 1,000 for children under 5.

Vaccination coverage for measles, mumps, and rubella (MMR), and against chickenpox, was approximately 96% in 2015. No vaccine-preventable diseases were reported. The human papillomavirus (HPV) vaccine was introduced in 2014 for girls aged 11 and older.

In 2010, 4% of the population suffered from some type of disability.

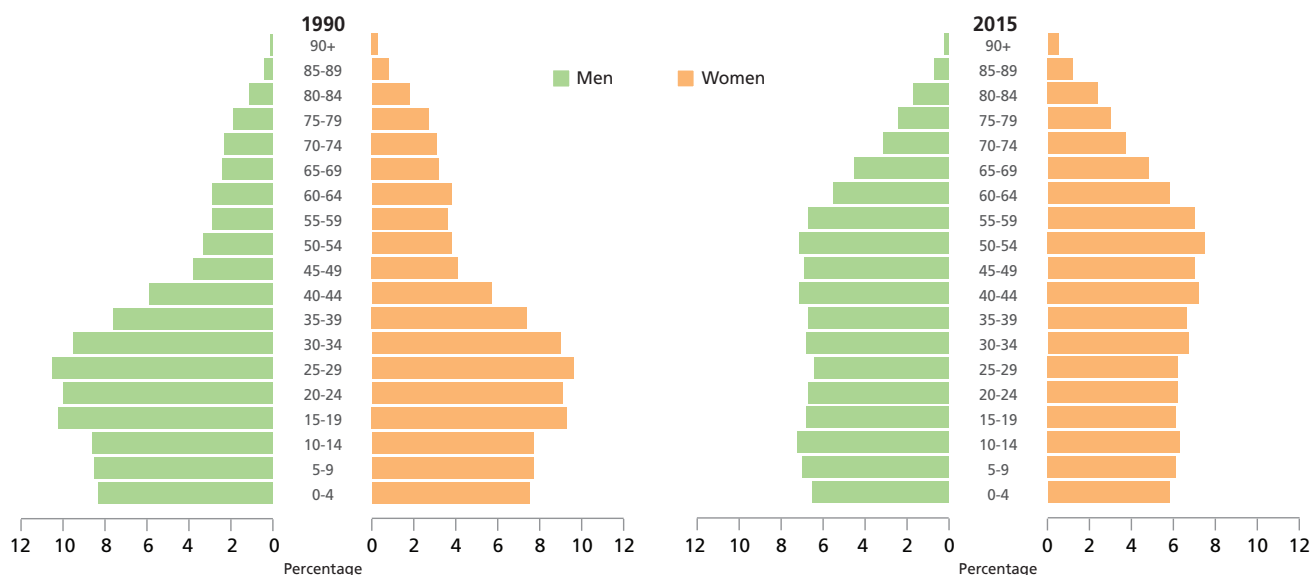
The crude death rate was 8.4 per 1,000 inhabitants in 2012, and the adjusted rate was 5.9. Diseases of the circulatory system caused 31% of deaths in 2013, and neoplasms 23%.

The five leading causes of death correspond to the chronic noncommunicable disease group, mainly ischemic heart disease, cerebrovascular disease, hypertensive heart disease, and diabetes mellitus. In 2012, this group of chronic diseases was responsible for 25.9% of deaths in men, and 32.6% in women.

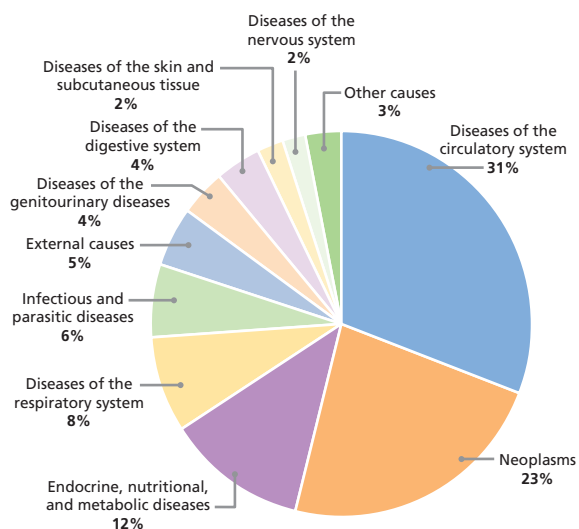
Between 2010 and 2012, 110 confirmed cases of leptospirosis were reported, with 3 deaths. Dengue is endemic, with outbreaks in 2013 and 2014 totaling 2,955 cases and 12 deaths (4% case fatality rate). The chikungunya virus has been diagnosed since 2014, when 1,851 suspected cases were reported, and 139 confirmed.

Three cases of Zika virus (none of them in pregnant women) were confirmed between 2010 and 2015. Yellow fever and malaria are not endemic in Barbados; 28 cases of imported malaria were reported, with no deaths. There have been no recorded cases of Chagas disease, nor has leishmaniasis been

Distribution of the population by age and sex, Barbados, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2013



detected in the country. There were 11 confirmed cases of tuberculosis, 2 of them imported, and 1 coinfecting with HIV. None of these cases was drug-resistant.

Through the end of 2013, 3,797 cases of HIV had been diagnosed, with 1,712 deaths. Between 2001 and 2013, mortality from AIDS dropped from 11.2% to 2.3%, thanks to the introduction of universal access to antiretroviral therapy. Furthermore, an initiative to eliminate mother-to-child transmission of HIV and syphilis has been implemented.

The prevalence of diabetes was 18.7% in adults in 2015, reaching 45% in people 65 years or older.

In 2015, 80% of men and 90% of women presented at least one risk factor for chronic noncommunicable disease. Two out of three adults were overweight, and one out of every three was obese. The prevalence of obesity was almost twice as high in women (43%) as in men (23%). One out of 10 women and 1 out of 20 men had a body mass index (BMI) equal to or greater than 35. In children, the obesity rate was 14.4%.

The 2015-2019 Strategic Plan for the Prevention and Control of Non-communicable Diseases was completed in 2015. It includes measures to reduce salt and sugar intake, eliminate trans fats, increase exercise and physical activity, and reduce alcohol and tobacco use.

In 2015, 9% of the adult population smoked (13% of young people aged 13-15). Laws prohibit selling tobacco to minors and smoking in public places. Furthermore, tax-free concessions have been eliminated, and taxes on tobacco products have been raised.

The Health Services Act (1969) and the Drug Service Act (1980) provide the legislative framework for universal access to health. The national policy is to provide free medical services at the time of use, so they are accessible to all.

The Ministry of Health is responsible for health services management, operations, and delivery. To this end, it defines policies, establishes strategic directions, regulates the sector, and finances these services.

Health expenditure represented 10.6% of total public spending in 2014–2015. Taxes finance 55% of the total; another 38% comes from households, and approximately 5% from private health insurance. One-third of the people employed have private health insurance.

The medium-term growth and development strategy focuses on Government policies for intersectoral issues, such as health systems development, family health, communicable and chronic noncommunicable diseases, mental health, and the environment.

The primary health care services are well developed and easy to access. Queen Elizabeth Hospital provides secondary and tertiary care. Furthermore, there are three district hospitals, a psychiatric hospital, and geriatric hospitals, as well as a center for persons with disabilities and another for children with physical and mental problems. In cases involving patients who require specialized care, it is necessary to send them outside the country.

Barbados is self-sufficient in training human resources for its health system. In 2012, there were 21 physicians and 44 nurses per 10,000 population.

The health information system continues its gradual implementation. A highlight is the Med Data system, which has been set up with different modules in five of the country's nine polyclinics and in Queen Elizabeth Hospital.

District and geriatric hospitals provide care to elderly patients who need long-term nursing and rehabilitation.

The Safety and Health at Work Act (which went into effect in 2013) establishes the rights and responsibilities of employees and employers. In 2014, 639 workplace accidents were reported, 2 of them fatal.

In 2015, a national conference on the health system was held; its main conclusions proposed reforming the health financing structure and increasing the efficiency of the health delivery system.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

The 2016-2021 strategic health plan includes directives in line with the United Nations Sustainable Development Goals (SDGs), Caribbean Cooperation in Health, and the objective of achieving universal health coverage.

The Ministry of Health is considering new policy goals: the reorganization and improvement of primary care, prevention and management of chronic noncommunicable diseases, and improvement of the monitoring and evaluation of health services and their financing mechanisms.

In the coming years, greater expansion in the use of information and communications technology (ICT) is expected to improve health systems and provide the necessary support for evidence-based decision-making.

This ICT will improve programs' prognoses, planning, estimates, and resource allocation and contribute to better monitoring and evaluation. In the final analysis, this is expected to lead to better health outcomes for the population.

ADDITIONAL POINTS

Barbados supports the global effort to reduce antimicrobial resistance. In 2015, a national action plan on antimicrobial resistance was drafted, incorporating the objectives of the WHO-sponsored global plan.

The national plan highlights three goals, which include reducing the appearance of resistant bacteria and preventing the spread of resistant infections.

Another goal is to optimize national surveillance efforts in order to combat resistance and improve international cooperation and capabilities in antimicrobial resistance prevention, surveillance, and control, in addition to improving antibiotics research and development.

Efforts have been launched to improve education on infection control measures in health institutions.

A series of TB strains resistant to antibiotics has been identified; however, no multidrug-resistant tuberculosis has been detected.

Screening tests have been conducted for drug-resistant HIV. Currently, approximately 80% of patients are receiving first-line therapy, of which 20% combine first-line therapy with second- or third-line regimens.

In light of this progress, the need to successfully address antimicrobial resistance in order to reach the health-related SDGs should be reiterated.

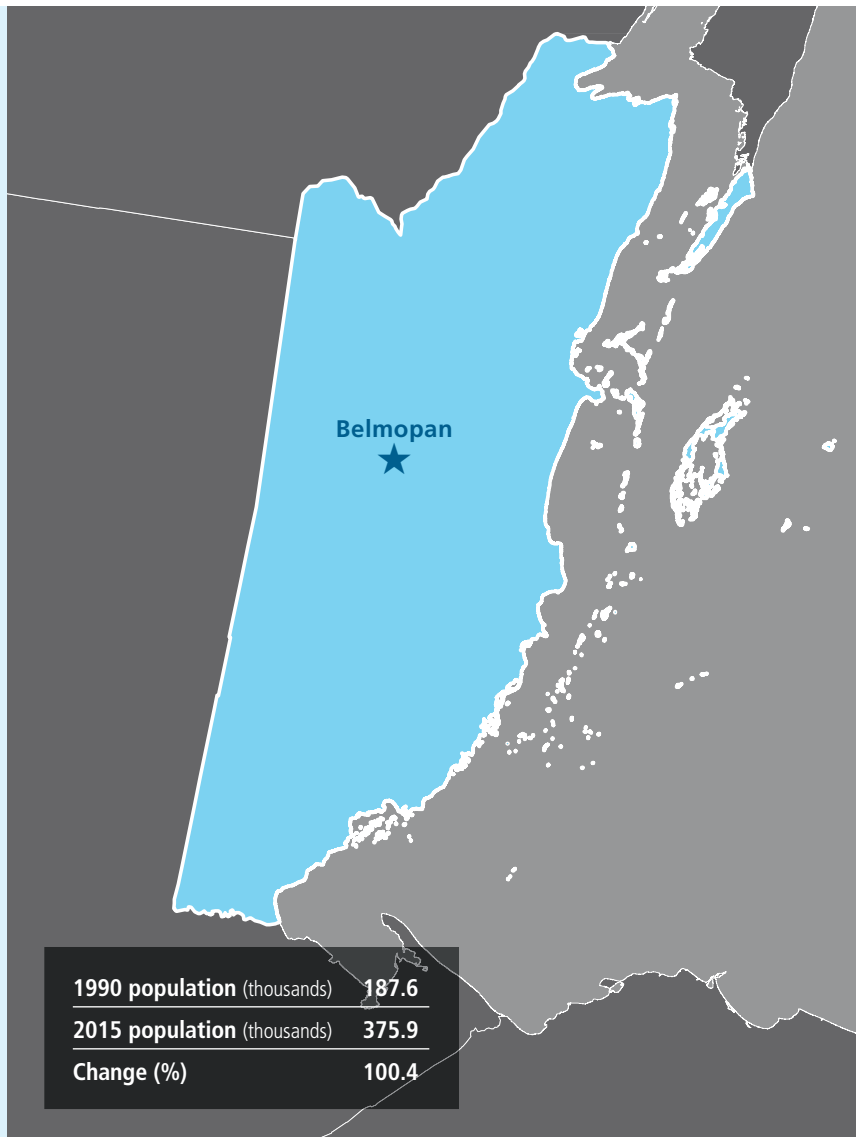


BELIZE

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	7,590 (2014)	...
Human development index	0.648	0.715 (2013)	10.3
Mean years of schooling	8.2	10.5 (2014)	27.9
Improved drinking-water source coverage (%)	73.0	100.0 (2015)	37.0
Improved sanitation coverage (%)	76.0	91.0 (2015)	19.7
Life expectancy at birth (years)	71.1	73.7 (2013)	3.7
Infant mortality (per 1,000 live births)	32.1	15.7 (2013)	-51.1
Maternal mortality (per 100,000 live births)	...	42.0 (2012)	...
TB incidence (per 100,000 population)	41.0	20.5 (2013)	-50.1
TB mortality (per 100,000 population)	2.5	5.9 (2013)	136.0
Measles immunization coverage (%)	86.0	96.0 (2015)	11.6
Births attended by trained personnel (%)	...	91.9 (2015)	...



Belize is the only English-speaking country in Central America. It has a territory of 22,966 km² and borders Mexico, Guatemala, and the Caribbean Sea. An estimated 31% of the population lives along the coast, with the remainder scattered widely throughout the country's interior. Some 45% of the population is urban.

In 2015, Belize had a population of 375,900. Since 1990, the country's population pyramid has maintained its expansive structure, although it is becoming stationary in the under-25 population due to lower fertility and premature mortality.

Life expectancy in 2015 was estimated at 73.7 years (71.1 for men and 76.6 for women).

Some 14.2% of the population is foreign-born. Belize is a small developing upper-middle-income country, with a gross domestic product (GDP) per capita of US\$ 4,829 in 2016.

Its socioeconomic and health progress is reflected in a human development index score of 0.715 in 2015. The economy is dependent on agricultural exports.



SOCIAL DETERMINANTS OF HEALTH

The national unemployment rate was 8% in 2016; the rate among youth and women was about 3 times higher.

In 2016, 96.1% of the population had access to drinking water and 87.1% had access to sanitation facilities. More than half of the country's population is covered by a modern, environmentally sound solid waste disposal system.

The literacy rate among the adult population in 2010 was 84.1% for women and 75.2% for men.

In 2009, 41.3% of the population was living below the poverty line. This percentage included 15.8% of the population regarded as indigent or in extreme poverty. The child poverty rate of 50% exceeded the national average, while the poverty rate among the elderly was lower than the national average, reflecting the success of Government programs. Above-average poverty rates were also noted among the indigenous Maya, with a poverty rate of 68%—the worst among all ethnic groups.

The most vulnerable populations are indigenous groups, Afro-descendants, and the lesbian, gay, bisexual, and transgender (LGBT) population.

The homicide rate was 44.7 per 100,000 population in 2013. Most homicides are the result of urban gang warfare. Human trafficking is also a serious problem.

Belize is vulnerable to rising sea levels as a result of climate change. Other effects include changes in water quality and availability, and greater frequency and intensity of extreme weather events.

More than half the country's population is covered by a modern solid waste disposal system that is environmentally sound and prioritizes human health and safety. The system covers an area of the country known as the Western Corridor, a continuum of population centers that includes the majority of the country's urban areas.

Rapid population growth imposes an undue burden on the public health infrastructure.

HEALTH SITUATION AND THE HEALTH SYSTEM

In 2011, for the first time, no maternal deaths were reported. However, in 2012 there were 3, for a ratio of 42 deaths per 100,000 live births.

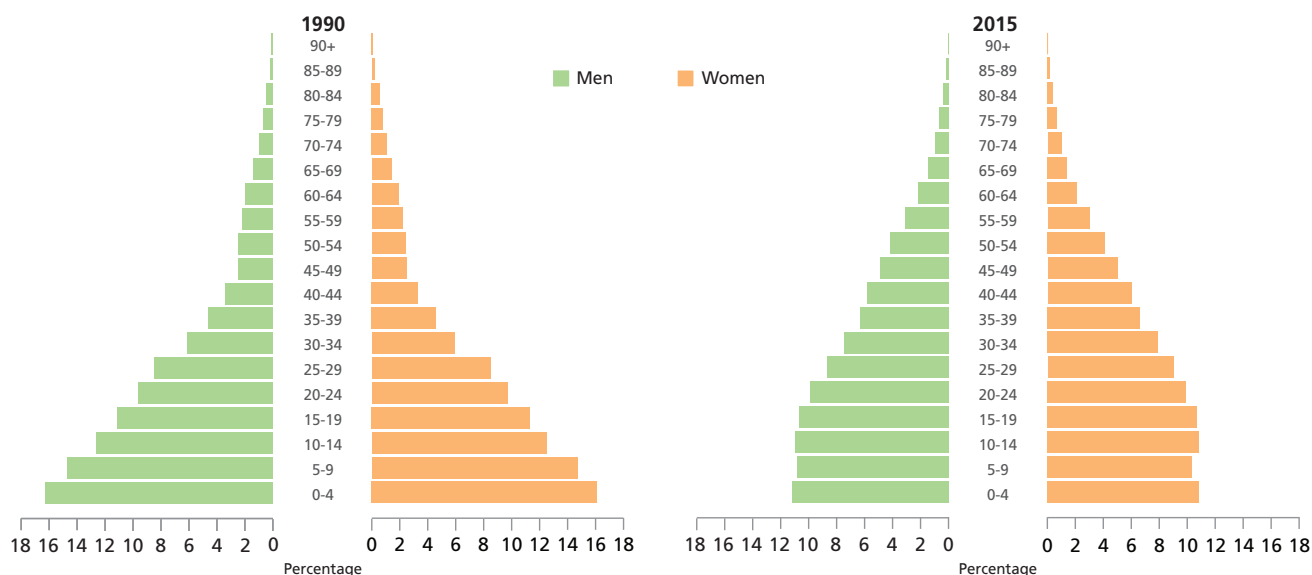
The infant mortality rate averaged 15 deaths per 1,000 live births from 2001 to 2005, increasing to 18 in the period 2006-2010, and decreasing to 15.7 in 2012.

The leading causes of death in recent years were chronic noncommunicable diseases. Diabetes, cardiovascular disease, cancers, and chronic respiratory diseases are responsible for around 40% of deaths annually.

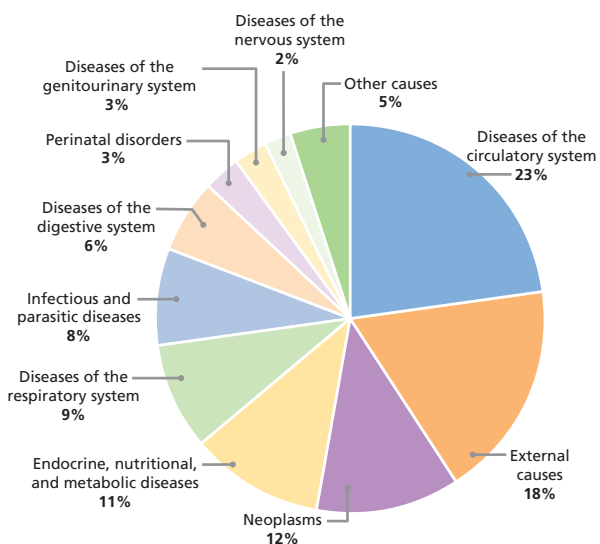
Injuries and external causes are responsible for 28% of deaths, and communicable diseases, including HIV infection and acute respiratory tract infections, 20%.

In people under 70, 47% of deaths from chronic noncommunicable diseases were regarded as premature deaths.

Distribution of the population by age and sex, Belize, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2014



The incidence of cancer in 2012 was 59 cases per 100,000 population. The incidence of breast cancer and cervical cancer was 29.9 and 21.4 per 100,000 population, respectively, while prostate cancer incidence was 15.3 per 100,000.

The increase in homicides has a great impact on male mortality trends.

Children age 5-14 are at greater risk of dying from fire, drowning, and motor vehicle accidents. However, the leading causes of death in children under 1 are hypoxia, birth asphyxia, respiratory conditions, and other conditions originating in the perinatal period, as well as birth defects. One of the leading causes of death in young adults aged 20-29 is HIV.

The leading causes of death in people aged 30-49 are complications of HIV, traffic accidents, homicide, and injuries intentionally inflicted by other people.

Diabetes and heart disease are among the leading causes of death in people 40 and over.

The leading cause of death in people aged 50-59 is diabetes and its complications, followed by ischemic heart disease, hypertension, advanced HIV infection, and chronic liver disease and cirrhosis. The same holds true for people 60 and over.

The three leading causes of morbidity account for nearly half of hospitalizations throughout the country. In order of frequency, they are complications of pregnancy, childbirth, and the puerperium; injuries, poisoning, and certain other consequences of external causes; and acute respiratory infections.

The communicable diseases of primary concern in the country include vector-borne diseases. The four serotypes of dengue have been confirmed in Belize, and the disease's prevalence in urban communities is three times higher than in rural communities.

The first case of Zika virus transmission was confirmed in May 2016. By the end of September 2016, there were 46 confirmed cases, including 6 pregnant women whose children were born without problems.

Belize is in the pre-elimination phase of malaria control. Malaria decreased dramatically between 2007 and 2015, from 845 cases to 22.

The annual TB incidence has remained stable over the past decade. There have been no confirmed cases of Chagas disease, and continuous screening of blood donors has improved surveillance of the disease.

HIV/AIDS remains problematic, but sexually transmitted infections are not the leading causes of morbidity.

In 2015, the crude diabetes prevalence rate was 14.2%, the highest in North America and the Caribbean.

From a high of 90 deaths in 2001, fatal traffic accidents have gradually decreased to a low of 60 road fatalities in 2015, for a per capita rate of 18 per 100,000 population, one of the highest in Central America.

In 1998, the Ministry of Health launched the health sector reform initiative, reorganizing its services into four health regions (Northern Region, Central Region, Western Region, and Southern Region), headed by regional health managers. All regional hospitals are located in urban areas. The rural population is served by a network of health clinics, health posts, and mobile health clinics.

Through the introduction of the National Health Insurance Scheme, services are delivered through a network of primary care providers that has focused on the health of a defined geographic and population base identified as poor.

Belize's health system is heavily dependent on public financing. The Government has budgeted some US\$ 126.4 million to the Ministry of Health, equivalent to 11% of the national budget and 3.5% of GDP.

The lack of human resources for health is a critical problem in the health system. This scarcity is aggravated by the geographic distribution of these professionals, since most are based in urban areas, particularly in Belize City. The country has no medical school to train physicians, although some categories of nurses, laboratory technicians, pharmacists, and social workers are trained at the University of Belize.

The Ministry of Health relies on a health information system to record patient data and integrates data sources electronically, thus facilitating data analysis and health information. The

system covers the entire country and is considered up to date and accurate. The Ministry reports that despite the existence of its information system, there is still a gap in the quantity and quality of records, because physicians and staff members do not yet make full use of the system.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

Belize's health system faces significant challenges in the short and medium term. These include an increase in chronic diseases as leading causes of mortality, emerging viral diseases that continue to pose a threat, rising costs stemming from urban violence, high rates of HIV infection, and difficulty recruiting and retaining personnel in the health sector. Given Belize's extensive vulnerability, climate change poses additional risks to health and other sectors.

The country's economic structure, particularly growing tourism and ongoing dependence on export industries that employ a large number of seasonal migrant workers, results in the continuous transborder movement of people who may need services from the health system. The constant influx of seasonal immigrants parallels the movement of

undocumented immigrants who settle in remote communities where access to medical care remains problematic.

The chronic shortage and low retention rates of certain categories of health care professionals requires Belize to import such personnel, leading to recurrent expenditures to acclimate newly arrived health workers.

Problems stemming from chronic noncommunicable diseases, particularly diabetes, and threats of viral infections require urgent priority action. Moreover, the allocation of public funds to the Ministry of Health and the administration of those funds should be evaluated to see if they are being optimized to effectively address these priorities.

A major challenge for the country is consolidating health gains and reducing the social and health vulnerability of some population groups.

The negative trends in Government revenue resulting from the adverse macroeconomic environment and rapidly rising public debt are a primary threat to the health system due to its heavy dependence on public financing.

ADDITIONAL POINTS

The Ministry of Health is making efforts to address the health needs identified through demographic and epidemiological data. Mental health and geriatric health are two problematic areas.

The health system itself must also address its difficulty recruiting and retaining essential health personnel to tend to the rising population and number of tourists and meet all their needs.

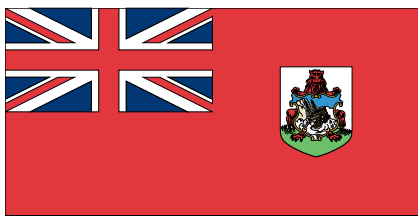
Issues such as depression, suicide, drug addiction, alcohol abuse, violence, and sexual abuse are growing concerns. The

prescription and sale of antidepressants is widespread in the country.

Health interventions to control and reduce lifestyle-related diseases include the provision of basic medicines and greater efforts to promote disease prevention and healthy lifestyles.

Other Government agencies are involved in many and diverse interventions to reduce the incidence of homicides, gang violence, and personal injury that consume an undetermined portion of the public health budget.

The Government is also implementing a road safety project to help reduce the incidence of traffic fatalities.



BERMUDA

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	66,560 (2014)	...
Human development index
Mean years of schooling	...	13.0 (2014)	...
Improved drinking-water source coverage (%)
Improved sanitation coverage (%)
Life expectancy at birth (years)	...	81.2 (2016)	...
Infant mortality (per 1,000 live births)	...	1.7 (2014)	...
Maternal mortality (per 100,000 live births)
TB incidence (per 100,000 population)
TB mortality (per 100,000 population)
Measles immunization coverage (%)	...	89.0 (2015)	...
Births attended by trained personnel (%)	...	98.8 (2015)	...



1990 population (thousands)	58.1
2016 population (thousands)	61.7
Change (%)	6.2

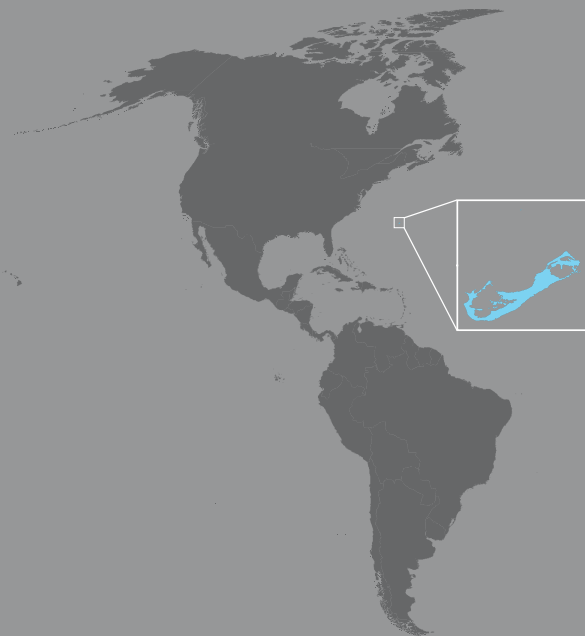
Bermuda is a self-governing British Overseas Territory in the Region of the Americas. It consists of seven main islands connected by bridges and more than 100 smaller islands, with a combined land area of approximately 53 km². The territory is divided into nine parishes: Devonshire, Hamilton, Paget, Pembroke, Sandys, Smith's, Southampton, St. George's, and Warwick. The capital, Hamilton, is located in Pembroke, the most densely populated parish.

Bermuda is governed by the Westminster model of parliamentary democracy.

The estimated population in 2016 was 61,695, with a male-to-female ratio of 91 males to 100 females.

In 1990, the population pyramid had regressive characteristics but was stationary below the age of 30. Since then, it has become stationary. Life expectancy at birth in 2016 was 81.23 years (77.5 in men and 85.1 in women).

The territory has one of the world's highest per capita incomes, with a per capita gross domestic product (GDP) of US\$ 96,018 in 2015. The principal economic sectors are international business, tourism, and construction.



SOCIAL DETERMINANTS OF HEALTH

The population is expected to decline by 4% during this decade (2010-2020) due to emigration.

In 2007, 11% of the population was under the low-income threshold, an indicator created by the Bermuda Department of Statistics after extensive research to produce a measure that could replace the poverty line model.

Unemployment was 7% in 2015. Between 2012 and 2015, the annual rate fluctuated between 6% and 9%, with men experiencing slightly higher unemployment rates than women.

Education is public and free at the primary and secondary levels. There is one institution of higher education, but most Bermudians emigrate to continue their studies.

Bermuda has one of the largest reinsurance industries in the world. The territory complies with global standards barring money laundering and terrorist financing, and it also has no banking secrecy laws.

In 2013, 60% of households owned a computer, 73% had a landline telephone, and 88% had at least one cell phone.

The Department of Environment and Natural Resources was established in 2016 to protect Bermuda's environment and responsibly manage its natural resources to meet the environmental, economic, and social needs of the community.

The territory is exposed to severe weather events, as well as pandemics, major oil spills, air crashes, serious cruise ship incidents, and tsunamis, among other hazards.

Bermuda's Emergency Measures Organization prepares all Government departments and nongovernmental institutions for natural and man-made disasters and coordinates emergency response and recovery when emergencies occur. Strict building codes are enforced to mitigate hurricane destruction.

HEALTH SITUATION AND THE HEALTH SYSTEM

There have been no reports of maternal deaths in recent years. The total number of deaths of residents reported in 2015 was 466, resulting in a mortality rate of 663.86 per 100,000 population.

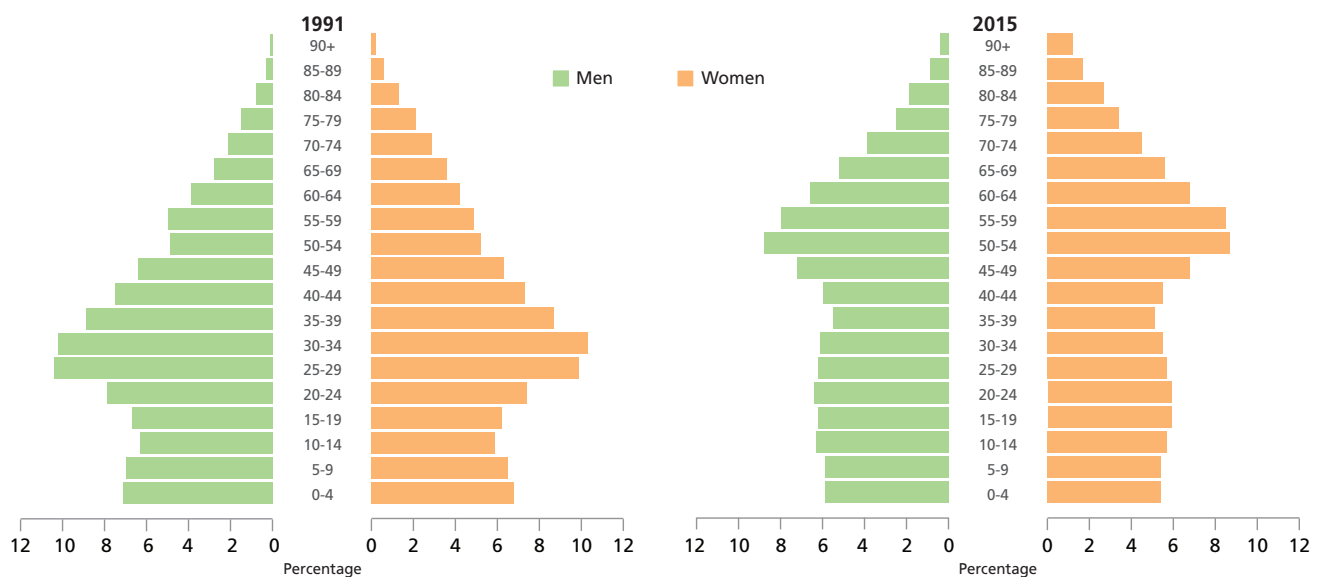
In 2015, the infant mortality rate was 3.4 per 1,000 live births (two infant deaths); in 2014 one infant death was reported. There were two stillbirths in 2014 and three in 2013.

In 2015, 36% of deaths were caused by circulatory system diseases and 28% by neoplasms. These two groups of causes together accounted for almost two-thirds of total deaths.

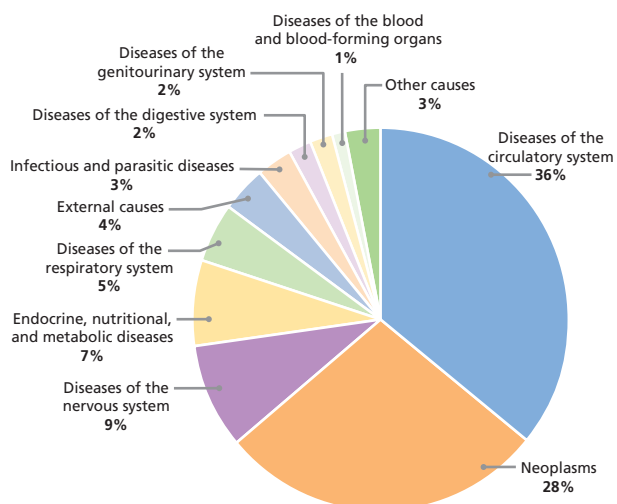
In 2014, more than 95% of the population had at least one risk factor for a noncommunicable disease. The principal risk factors were insufficient consumption of fruits and vegetables (82%), overweight and obesity (75%), and alcohol use (64%). High cholesterol (34%), hypertension (33%), and physical inactivity (27%) were also cause for concern. A reported 14% of the population smokes.

Injuries and poisoning were the leading causes of hospitalization (26.8%), followed by respiratory system diseases (12.6%). Cases of malnutrition are exceptional and occur mostly in older persons.

Distribution of the population by age and sex, Bermuda, 1991 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2015



Bermuda has not experienced any critical health problems related to emerging and reemerging diseases, neglected diseases and other poverty-related infections, or tuberculosis.

In 2016, the first imported case of Zika virus was confirmed. All cases of malaria and dengue have been sporadic and imported. Influenza A(H1N1) continues to circulate in the archipelago.

From 1982, when the first AIDS case was reported in Bermuda, until the end of 2015, 767 people were diagnosed with HIV. Of these, 565 were diagnosed with AIDS and 464 died.

Bermuda completed the validation process for elimination of mother-to-child transmission of syphilis and congenital syphilis in 2016. The territory has a low incidence of tuberculosis.

In 2015, the highest number of cases of sexually transmitted infections (STIs) was reported in the group aged 20-24 years. Chlamydia accounted for nearly three-quarters of all STI cases.

Chronic conditions constitute a major burden of disease. In 2010, there were 1,213 people aged 65 or older who suffered from a chronic health condition that affected some aspect of their quality of life. The six leading causes of disability are hypertension, impaired vision, arthritis, heart disease, diabetes, and impaired mobility.

The Mental Health Plan 2010 promotes patient-centered care through services provided in the community. It includes three main segments, each with supporting strategies: expanding the community-based care model, implementing service improvements, and reforming forensic mental health services.

The health care sector comprises one general hospital (the King Edward VII Memorial Hospital) that includes an urgent care center (the Lamb Foggo Urgent Care Centre); one psychiatric hospital (the Mid-Atlantic Wellness Institute); 17 long-term care facilities; 193 outpatient care facilities; 16 ancillary services (including patient transport, emergency rescue, and medical and diagnostic laboratories); 18 retailers and suppliers of medical products; and 18 providers of preventive care.

The Ministry of Health, as the State health authority, works in collaboration with the Bermuda Health Council, the Department of Health, the Bermuda Hospitals Board, and the Health Insurance Department.

The Department of Health provides primary and preventive services to children; family planning and prenatal care to women of reproductive age; occupational health services to the uniformed services; and comprehensive primary health care to the territory's incarcerated population.

The Bermuda Health Council is a quasi-autonomous nongovernmental organization that monitors the health system's performance and coordinates health system stakeholders to ensure access to health insurance and safe, high-quality care.

The Bermuda Hospitals Board, also quasi-autonomous, was established in 1970. Its chief executive is responsible for the King Edward VII Memorial Hospital, the Mid-Atlantic Wellness Institute, and the Lamb Foggo Urgent Care Centre.

In 2015, Bermuda spent 12.4% of its GDP on health care (US\$ 11,188 per capita). The health system is financed from four principal sources: public and private health insurance plans (60%), Government subsidies and grants (29%), out-of-pocket payments (10%), and charitable donations (1%). Government funding also supports programs to ensure that vulnerable populations have access to health care.

In 2013, well-off households spent 3% of their income on health care, while less well-off households spent nearly 20%.

The Office of the Registrar General provides vital statistics on births and deaths. The Epidemiology and Surveillance Unit of the Ministry of Health provides information on selected causes of death, communicable disease summaries, and risk factor surveys.

The Bermuda Health Council provides information on health financing and regulation. The Health Information Management Services under the Bermuda Hospitals Board provides information on the utilization of hospital services.

All physicians, dentists, pharmacists, nurses, and allied health professionals must be licensed and registered to practice and must obtain continuing education hours.

In 2014, more than 2,000 people worked in health-related professions, 65% of whom were Bermudians. To combat the

nursing shortage, a nursing program has been established at Bermuda College.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

The increase in the elderly population, a result of rising life expectancy, means that more people will reach retirement age and a greater proportion of dependent elderly people will need to be supported by the working population. This will place more demands on the health care system, while issues such as quality of life, access to health care, and health care costs will become increasingly critical.

The economy is expected to further improve, based on the sustained growth of tourism and international business—dominated by the insurance and reinsurance sector—and higher investment in construction.

Priorities in the Bermuda Police Service Strategic Plan for 2016-2018 include tackling crime and antisocial behavior, promoting

community participation, making the roads safer, and optimizing technology to enhance rapid response capabilities and protect vulnerable people.

Human resources development and the creation of problem-solving capacity in health is a priority for the territory. To this end, efforts are under way to broaden the scope and quality of oversight and regulation of health care providers and associated businesses and to improve coordination of care across the health care system.

The Bermuda Health Strategy 2014-2019 is aimed at developing an integrated public-private electronic health system to be shared among laboratories and diagnostic facilities.

This Health Strategy also provides for greater regulatory control of health technologies, including high-cost diagnostic and therapeutic equipment, to ensure cost-efficient use.



ADDITIONAL POINTS

The “Well Bermuda” National Health Promotion Strategy, developed in 2008, was the territory’s first concerted effort to create a joint approach to health promotion and a shared vision for health promoters across all sectors.

The Bermuda Health Strategy 2014-2019 is based on the vision of “healthy people in healthy communities.” Its purpose is to provide a framework for restructuring the health system to improve the quality of health care, increase access, and contain health costs.

In July 2016, the Tobacco Control Act 2015 replaced the Tobacco Products (Public Health) Act of 1987. The new law seeks to protect children from tobacco products, strengthen provisions to control tobacco use, and control the sale and use of e-cigarettes and cigarette rolling papers in order to reduce exposure to chronic disease risk factors.



BOLIVIA (PLURINATIONAL STATE OF)

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	6,290 (2014)	...
Human development index	0.535	0.662 (2013)	23.6
Mean years of schooling	6.4	8.2 (2014)	28.1
Improved drinking-water source coverage (%)	68.0	90.0 (2015)	32.4
Improved sanitation coverage (%)	28.0	50.0 (2015)	78.6
Life expectancy at birth (years)	58.8	69.1 (2013)	17.5
Infant mortality (per 1,000 live births)	84.6	44.0 (2013)	-48.0
Maternal mortality (per 100,000 live births)	...	160.0 (2013)	...
TB incidence (per 100,000 population)	251.0	76.5 (2013)	-69.5
TB mortality (per 100,000 population)	7.9	4.0 (2013)	-49.4
Measles immunization coverage (%)	53.0	95.0 (2015)	79.2
Births attended by trained personnel (%)	...	72.8 (2015)	...



Bolivia is located in central-western South America. Bordering Argentina, Brazil, Chile, Paraguay, and Peru, it has an area of 1,098,581 km², with three major geographical areas: Andean, sub-Andean, and plains. It is divided administratively into 9 departments, 112 provinces, and 339 municipalities, with 36 constitutionally recognized nations.

The population in 2015 was 10.9 million. The population pyramid remains expansive, although growth has slowed among people under 15.

The evolution of selected basic indicators from 1990 to 2015 reflects general improvement in socioeconomic and health status, with the human development index reaching 0.662 in 2014.

Since 2006, the country's annual economic growth has averaged 4.9%. Key productive sectors include manufacturing, mining and quarrying, agriculture, forestry, hunting, and fishing.



SOCIAL DETERMINANTS OF HEALTH

Extreme poverty declined from 37.7% in 2007 to 17.3% in 2014, although it remained at 36.1% in rural areas. Between 2001 and 2014, urban unemployment fell from 8.5% to 2.3%, and employment reached 60% among the working-age population.

The development plans implemented since 2006 have contributed to economic and social growth. These plans are based on a social and community-based production model. Industry and employment gained strength, with improved income distribution and poverty reduction.

Some 45% of the indigenous population lives in rural areas, where social vulnerability is high. Indigenous migration to urban areas has created major inequalities in socioeconomic status, and this population has less access to high-quality basic services.

In 2015, 90% of the population had access to improved water sources and 84% of dwellings had running water (97% in urban areas and 76% in rural ones). Approximately 50% of the population had access to improved sanitation (close to 63% in urban areas and 43% in rural ones).

The country is subject to frequent natural disasters of different types, including floods, landslides, droughts, snow storms, hurricane-force winds, hail storms, and forest fires.

HEALTH SITUATION AND THE HEALTH SYSTEM

In 2013, the maternal mortality ratio was 160 per 100,000 live births, with more than half of these deaths attributable to

hemorrhage. In 2016, the institutional birth rate and antenatal care rate were 87.5% and 75%, respectively.

Also in 2013, the infant mortality rate was 44 deaths per 1,000 live births. In 2015, coverage among children under 1 year of age included BCG (98.7%), a third dose of pentavalent vaccine (88.4%), and MMR (79.6%). In 2012, chronic malnutrition was 18.5% in children under 3.

There have been no confirmed cases of measles since 2006, the last recorded case of rubella was in 2006, and the last reported polio case was in 1989. In 2010, four cases of diphtheria were confirmed.

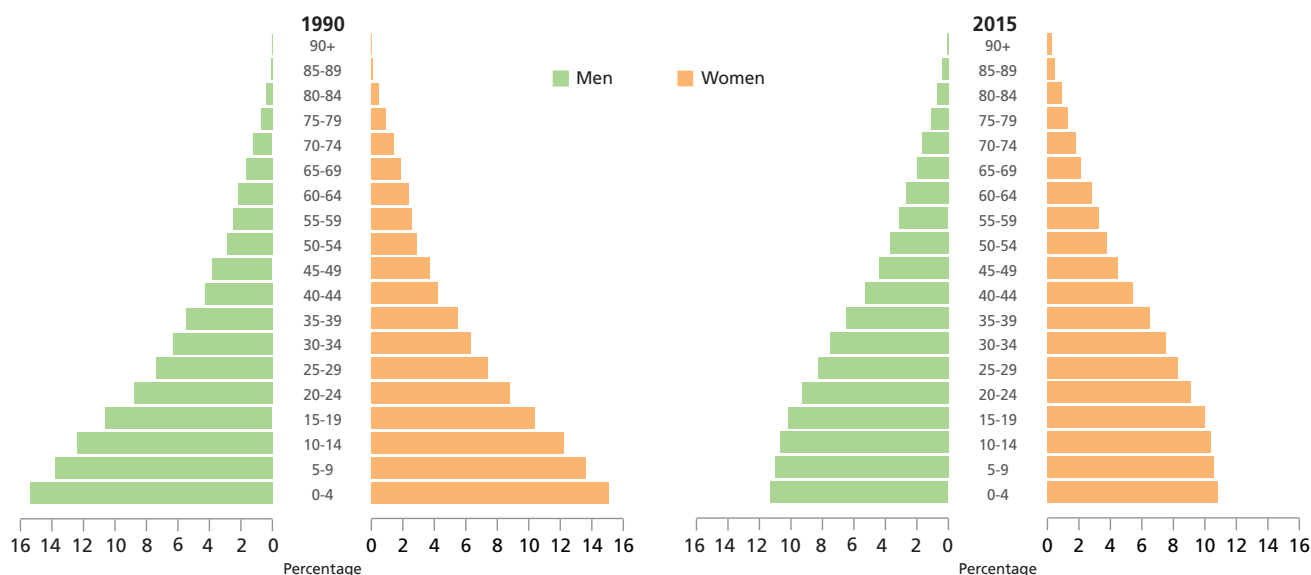
There is no up-to-date information on overall mortality. In 2003, 45% of deaths were attributed to signs and symptoms not classified elsewhere, 12% to external causes, and 10% to circulatory disorders.

According to World Health Organization (WHO) estimates, in 2012, deaths were due to maternal, child, and nutritional disorders (28%); cardiovascular disease (24%); other chronic noncommunicable diseases (18%); trauma (13%); cancer (10%); diabetes (4%); and chronic respiratory diseases (3%).

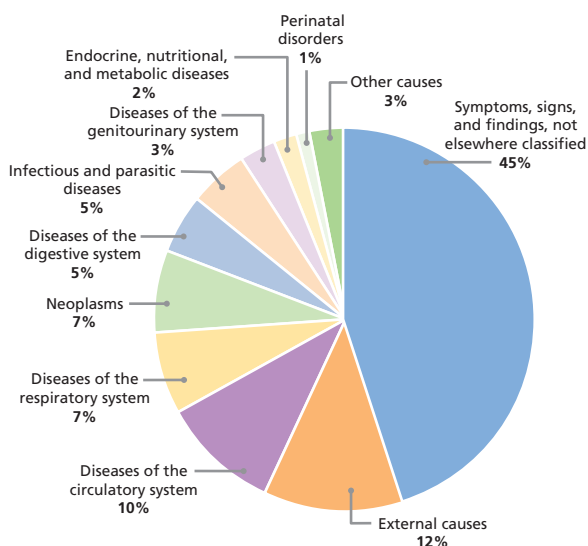
The extensive tropical areas of Bolivia provide conditions favorable to vector reproduction. Recorded cases of malaria dropped by 56% between 2000 and 2010, due to the introduction of artemisinin-based combination therapy (ACT) and widespread use of impregnated mosquito nets, which enabled the country to enter the falciparum elimination phase.

In 2014, 22,846 suspected cases of dengue were reported. Since the Chagas Disease Law was enacted in 2006, control measures have been stepped up, and interruption of

Distribution of the population by age and sex, Bolivia, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2003



intradomiciliary vector transmission of *Trypanosoma cruzi* in the at-risk population has been certified.

In December 2015, the first two cases of Zika virus infection were recorded. By November 2016, there were 156 confirmed cases. Furthermore, 13 cases of congenital Zika syndrome were reported. In 2010, the cutaneous leishmaniasis rate was 17.4 cases per 100,000 population in 7 of the country's 10 departments; in 2016, sporadic cases of visceral leishmaniasis were reported in humans and dogs.

In 2014, the estimated prevalence of human immunodeficiency virus (HIV) cases was 1.5 per 1,000 population. Nearly all infections (96%) were sexually transmitted. Syphilis was found in 7.2% of pregnant women and in 11 newborns per 1,000 live births.

The incidence of tuberculosis was 70.8 cases per 100,000 population in 2014.

According to WHO, chronic noncommunicable diseases affect 59% of the population, and the probability of individuals aged 30-70 dying from this cause is 18%.

In 2012, the most prevalent cancers were prostate cancer in men (17.0%) and cervical (21.2%) and breast (7.5%) cancer in women.

In 2012, prevalence of overweight and obesity was 8.5% in children under 5.

In 2011, 30% of the population smoked (42% of men and 18% of women). Annual per capita alcohol consumption was 5.9 L (9.1 L among men and 2.7 L among women). In 2010, 3.8% of the population used cannabis.

The health system consists of public- and private-sector entities that exercise leadership, financing, insurance, procurement, and health care delivery functions.

The Ministry of Health is responsible for regulatory management for the entire country, and the Departmental Health Services (SEDES) for management at the department level.

The health networks have primary and secondary care facilities. Traditional Bolivian medicine is an important component of the health sector and in the past decade has been recognized and coordinated with the National Health System.

In 2014, total health expenditure represented 6.7% of gross domestic product (GDP). Public expenditure accounted for 70.8% of health expenditure (44.9% for the public subsector and 25.9% for social security).

As of 2016, Bolivia had 3,857 primary care facilities, 221 secondary care hospitals, and 66 tertiary care hospitals. Some 83% of these facilities were run by the public sector, 6% by social security, 3% by nongovernmental organizations, and 8% by the private sector.

In 2015, social security covered 37% of the population, while the public sector covered 28%. It is estimated that the traditional medicine sector serves approximately 10% of the population.

As of 2015, there were 12 health providers per 10,000 population. Of these, 8% were specialist physicians, 16% general practitioners, 4% graduate nurses, 8% other health professionals, 24% nursing assistants, and 40% other personnel. Overall, 56% of physicians worked in primary care. Furthermore, 4,456 traditional practitioners had been registered, 1,433 of whom were classified as traditional naturopaths, 490 as midwives, and 2,535 as traditional doctors.

Routine health data is collected, processed, analyzed, and reported by the National Health Information and Epidemiological Surveillance System.

The Unified Intercultural Community and Family Health System seeks to eliminate social exclusion in health; boost society's participation in health management; bring services closer to individuals, families, and communities; and boost traditional medicine, thus helping to improve the living conditions of the population.

The *Mi Salud* project, created by the Ministry of Health to improve primary care, is the linchpin of the national policy for achieving universal health coverage.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

The country has tried to gradually consolidate health, economic, and social policies, in line with the legal reforms and progress made since 2006.

The Economic and Social Development Plan for Living Well 2016-2020 (PDES), adopted in 2016, establishes health targets and actions.

The country continues to tackle with the persistence of chronic malnutrition, maternal and child mortality, and communicable and chronic noncommunicable diseases.

Progress in maternal and child health, TB and HIV treatment, Chagas disease treatment, and health information systems is expected to continue.

Efforts are being made to better protect the population from the effects of climate change and natural disasters and their impact on health.

In line with the Government's comprehensive approach to development and equity issues, the conditions have been created for implementing the Agenda for Sustainable Development.



ADDITIONAL POINTS

The Economic and Social Development Plan 2016-2020 includes Pillar 3, "Health, Education, and Sports," whose objectives include contributing to comprehensive and universal health care by facilitating access to sports activities to improve the health of the population.

Consolidation of the Family, Community, and Intercultural Health policy through support for and consolidation of the *Mi Salud* program stands out among the results of the gradual implementation of health, economic, and social policies.

This program was introduced by the Ministry of Health to improve primary care. It operates in 307 of the 339 municipalities and 25 indigenous communities in the country through promotion and prevention activities at the individual and community level.

The program is staffed by 2,710 physicians and provided 9.7 million care interventions between 2013 and 2016. It has helped reduce inequalities in access to health among the most disadvantaged sectors of the population.

The *Mi Salud* program's principles of prevention, high-quality care, and citizen participation are expected to be extended to all actors in all health networks.

Also important has been the implementation of the national policy for the development of human resources for health, in line with national and sectoral health policies. This policy has been in place since 2009.

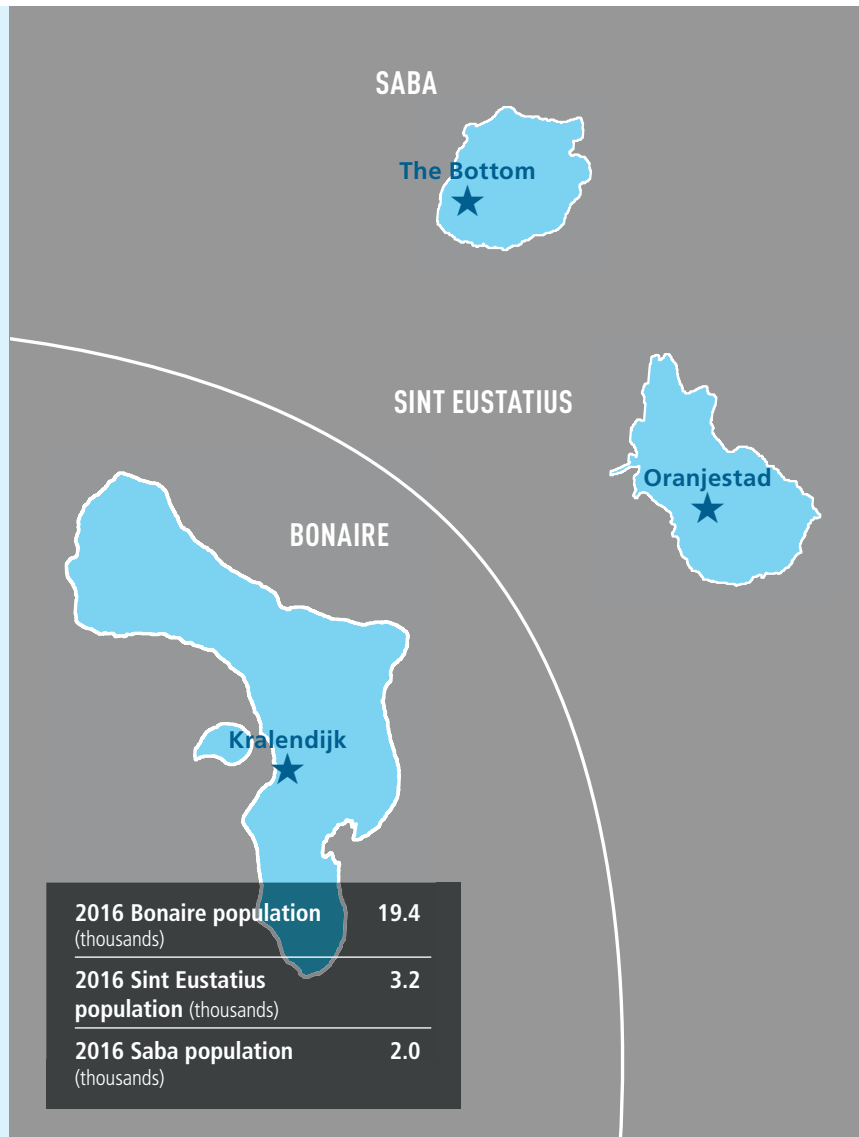


BONAIRE, SINT EUSTATIUS, AND SABA

SELECTED BASIC INDICATORS

2013–2016

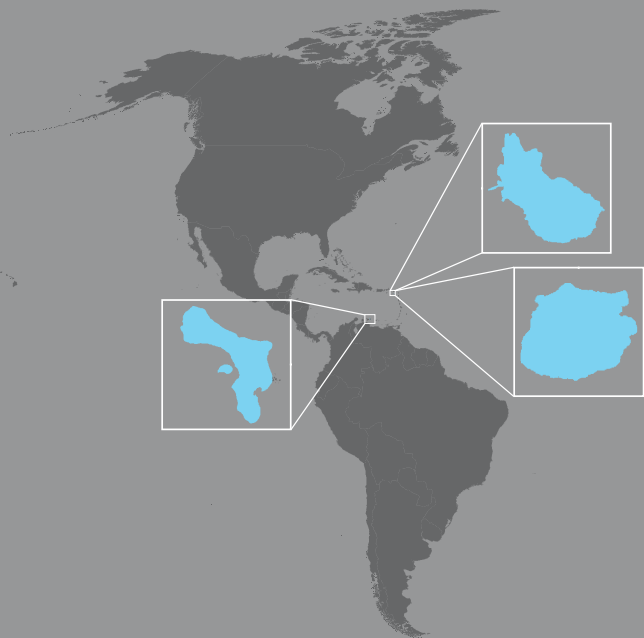
	Year	Bonaire	Sint Eustatius	Saba
Surface area (km ²)	2016	288.0	21.0	13.0
Population density (population/km ²)	2016	67.0	152.0	150.0
Recorded immigration (n)	2015	1,235	170	358
Recorded emigration (n)	2015	829	849	394
Live births	2015	160	36	11
Deaths	2015	102	11	16
Life expectancy at birth (years)	2013	80.2	80.2	80.2
Gross domestic product per capita (US\$ thousands)	2014	21.6	25.3	25.1
Households (thousands)	2014	6.8	1.1	0.7
Median annual household income (US\$ thousands)	2014	23.4	26.9	25.3
Reported good or very good health (%)	2013	70.0	80.0	80.0
Diabetes (%)	2013	8.0	10.6	7.7
Hypertension (%)	2013	18.5	20.6	15.4
Overweight (%)	2013	35	30	30
Obesity (%)	2013	25	30	33



The Caribbean islands of Bonaire, Sint Eustatius, and Saba have been special municipalities of the Netherlands since 2010, when public administration responsibilities were transferred from the Government of the Netherlands Antilles to the Netherlands.

As a result, all residents have access to new social and health benefits, which are similar for the three islands. The Ministry of Health, Welfare and Sport makes health care policy for Bonaire, Saba, and Sint Eustatius. In 2012, total health costs for the three islands came to around US\$ 102 million.

This summary explores each municipality's particular social and health determinants. It also describes the health system shared by the three municipalities, which have similar achievements, challenges, and outlooks.



BONAIRE

INTRODUCTION

Bonaire is located 70 km off the coast of Venezuela and has a landmass of 288 km². Between 2011 and 2016, its population grew by 23% as a result of immigration, totaling 19,408 in 2016.

Population distribution is concentrated around 50 years of age. In 2016, 37% of residents had been born on the island. The majority of the rest came from Curaçao (18%), Aruba (2%), the Dutch mainland (14%), and Latin America (18%).

Life expectancy in Bonaire is estimated at 80.2 years, the same as in the two other municipalities.

In 2014, economic growth was 1.6%, with national gross domestic product (GDP) estimated at US\$ 403 million.

Government, real estate, financial services, and tourism are the main economic sectors.

SOCIAL DETERMINANTS OF HEALTH

In 2014, the average household income was US\$ 30,700. The median income was US\$ 23,400 but ranged between US\$ 56,800 and US\$ 7,500 for households in the highest and lowest quartiles, respectively.

The working-age population (aged 15-74) numbers 14,500, with an employment rate of 68.9% and an unemployment rate of 6.4%.

The island has seven primary schools and one secondary school.

Crime decreased from 2015 to 2013. The number of violent crimes fell from 116 to 87, and the number of sexual offenses dropped from 19 to 6.

HEALTH SITUATION AND TRENDS

In 2013, 70% of the population aged 15 and over rated their health as good or very good.

Between October and November 2016, there were 60 confirmed cases of Zika virus infection (excluding pregnant women), 45 probable and confirmed cases of dengue (22 in women and 23 in men), and 37 confirmed cases of chikungunya virus (23 in women and 14 in men).

Almost 80% of the population aged 15 and over reported that they had consulted a general practitioner in the preceding year. Just over half of residents visited their dentist at least once a year.

In 2013, 35% of the population was overweight, and a quarter was seriously overweight. The same study reported that 8% of the population suffered from diabetes (6.8% of men and 9.3% of women).

In 2013, 18.5% of the population reported a history of hypertension over the previous 12 months (14.9% of men and 22.7% of women) and 4.4% indicated that they had been affected by heart disease (4.6% of men and 4.2% of women). Some 48.1% of the population reported having no health problems (57.2% of men and 37.8% of women).

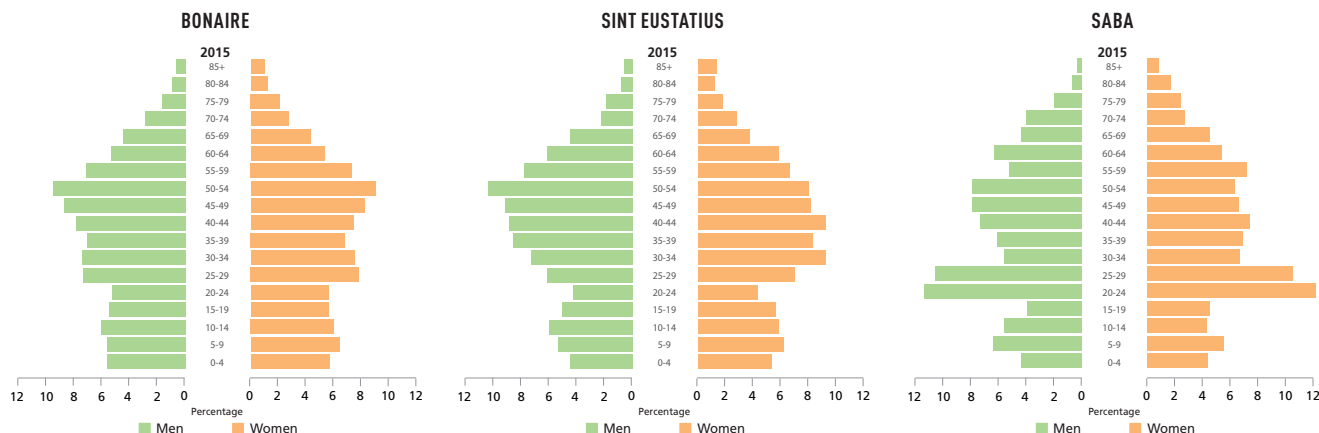
SINT EUSTATIUS

INTRODUCTION

Sint Eustatius lies in the Leeward Islands in the Caribbean Sea between Saint Kitts and Anguilla, with a landmass of 21 km².

In 2016, the municipality had a population of 3,200 (800 fewer people than in 2014), 79% of whom held Dutch nationality. The population structure is influenced both by in- and out-migration, contributing to a proportionally large working-age population.

Distribution of the population by age and sex, Bonaire, Sint Eustatius, and Saba, 2015



Some 34% of residents were born on the island, 11% were born in Sint Maarten, 9% in Curaçao or Aruba, and 6% on the Dutch mainland.

Most of the population (68%) is multilingual: 85% speaks English as a first language, 6% speaks Dutch, and 7% Spanish. The population of Sint Eustatius declined by 21% between 2014 and January 2016.

The gross domestic product per capita was US\$ 25,100 in 2014.

SOCIAL DETERMINANTS OF HEALTH

In 2014, the average annual wage was US\$ 33,340. Sint Eustatius has the greatest income inequality among the three island municipalities, with median disposable income of US\$ 64,000 in the highest earning quartile, compared to US\$ 8,000 for the lowest quartile.

A total of 26 violent crimes were recorded in 2015, 10 of them sex-related. Property crimes dropped from 19 in 2013 to 8 in 2015.

HEALTH SITUATION AND TRENDS

Between October and November 2016, 16 cases of Zika virus infection were confirmed (none in pregnant women).

In 2013, 80% of the population aged 15 and over rated their health as good or very good; 30% of the population was moderately overweight and 30% was obese.

Diabetes prevalence was 10.6% (8.7% in men and 13% in women); 20.6% of the population reported hypertension in the past year (15.3% of men and 27.5% of women); and 52.2% of people reported having no health problems (58.1% of men and 44.7% of women).

Most of the population (71.7%) had visited a general practitioner in the year prior to the survey, and just under half (47.6%) had contacted a specialist. Half of residents had visited a dentist at least once in the past year.

SABA

INTRODUCTION

Saba is also located in the Leeward Islands, occupying a landmass of 13 km². In 2016, it had a population of almost 2,000. The population structure is influenced both by in- and out-migration, especially in the working-age population.

The population grew by 5% between 2014 and 2016, increasing by 136 people. The population is evenly distributed between males and females.

About 28% of residents were born in Saba; 14% in Sint Maarten; 5% in Aruba and Curaçao, and 5% on the Dutch mainland. In total, 60% of the population has Dutch nationality.

The per capita gross domestic product was US\$ 25,100 in 2014. Tourism, the Saba University School of Medicine, fisheries, and infrastructure investments are the main economic drivers.

SOCIAL DETERMINANTS OF HEALTH

In 2014, the average annual wage was US\$ 25,300 and the unemployment rate was 2.5%.

The median household income was US\$ 25,300, but ranged from US\$ 54,100 to US\$ 8,800 for households in the highest and lowest quartile, respectively.

Over 24% of the population is not seeking employment or cannot work because of their level of education; 53% of households are single-person and 20% are couples without children.

There is one primary and one secondary government-funded school on the island. The university on the island is the Saba University School of Medicine, which offers a 10-semester basic science curriculum.

Saba's economic drivers are tourism, the Saba University School of Medicine, fisheries, and infrastructure investments. The economy posted growth in 2015 on the back of solid performance from all three of these sectors.

There are several projects aimed at improving Saba's water supply, which is critical during periods of drought. These projects include the construction of new cisterns and pipes.

HEALTH SITUATION AND TRENDS

Between October and November 2016, 10 cases of Zika virus infection were confirmed (none in pregnant women).

In 2014, 80% of the population aged 15 and over rated their health as good or very good; 30% of the population was moderately overweight and 33% was obese.

Diabetes prevalence was 7.7%; 15.4% of the population reported hypertension in the past year (15.2% of men and 15.5% of women); and 62.2% of the population reported having no health problems (68.9% of men and 55.4% of women).

Overall, 72% of the population had consulted a general practitioner in the previous year, and 32.9% had consulted a specialist. Half of the population had visited a dentist in the past year.

OUTLOOK OF THE THREE MUNICIPALITIES

HEALTH SYSTEM SITUATION IN THE THREE MUNICIPALITIES

Health care policy for the three municipalities is set by the Ministry of Health, Welfare and Sport. All legal residents have access to compulsory general health insurance, which took effect in early 2011, replacing existing regulations and private insurance.

This insurance scheme, known as ZVK, provides medical coverage and long-term care, including general practitioner and specialist care, hospital care, paramedical care, maternal and obstetric care, pharmaceutical care, and dental care. Patient transportation is also included.

Long-term care, including home care, is available for the elderly and persons with disabilities. If specialized care is unavailable in the municipalities, patients are provided with transportation to Colombia.

Total health costs in the three municipalities came to US\$ 102 million in 2012, representing a health expenditure of US\$ 4,834 per capita. ZVK insurance is funded through personal income taxes (around US\$ 65 million) and employer payments (some US\$ 37 million). The Dutch Government finances all deficits, as outlined in the Healthcare Insurance Decree (BES) of 2010.

Other health policy measures have been put in place since 2010, including screening to detect 17 types of disorders in newborns (blood samples are sent to the Netherlands). In

addition, the Dutch Parliament granted an increase in the length of maternity leave from 12 to 16 weeks.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

The municipalities have a relatively good level of socioeconomic and health development, reflected in a per capita gross domestic product of US\$ 21,600 to US\$ 25,300, an active economy, and a life expectancy at birth of 80.2 years.

In addition, there are new and better benefits that offer access to the insurance and health care system, education, social housing, and drinking water. This access has been further developed through the change to administrative dependency on the Government of the Netherlands.

The quantity and distribution of the population in these municipalities does not follow a pattern of natural growth, but is actively influenced by the complex dynamic of immigration and emigration to and from very diverse countries. This could impact different sectors of the economy and national life, including the health situation and health care.

The new insurance system benefits the population through financing that allows for greater insurance coverage and access to various health care services.

Another challenge is to harmonize insurance levels among the three islands and establish complementary health services among them and nearby countries. This would ensure timely access to health services with varying degrees of specialization.



ADDITIONAL POINTS

The municipalities' change in public administration from the former Netherlands Antilles to the Netherlands in 2010 has meant greater benefits related to social and health determinants.

Since 2010, the municipalities have had access to a universal system of health insurance, better medical care and education, public housing for low-income residents, and better access to drinking water.

Since 2011, all legal residents have had access to compulsory general health insurance, which replaced all prior health

regulations and private insurance. This insurance provides medical coverage and long-term care, including general practitioner and specialist care, hospital care, paramedical care, maternal and obstetric care, pharmaceutical care, dental care, and patient transportation.

Long-term care, including home care, is available for the elderly and persons with disabilities. In cases that require more complex care, medical transfers to Colombia are provided.



BRAZIL

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	15,570 (2014)	...
Human development index	0.611	0.755 (2013)	23.6
Mean years of schooling	3.8	7.3 (2014)	91.3
Improved drinking-water source coverage (%)	89.0	98.0 (2015)	10.1
Improved sanitation coverage (%)	67.0	83.0 (2015)	23.9
Life expectancy at birth (years)	66.5	75.0 (2013)	12.8
Infant mortality (per 1,000 live births)	51.4	14.1 (2013)	-72.6
Maternal mortality (per 100,000 live births)	...	58.2 (2013)	...
TB incidence (per 100,000 population)	84.0	35.9 (2013)	-57.3
TB mortality (per 100,000 population)	5.4	2.2 (2013)	-59.3
Measles immunization coverage (%)	78.0	96.0 (2015)	23.1
Births attended by trained personnel (%)	...	98.4 (2015)	...



Brazil has a population of 204.4 million and a land area of over 8.5 million km². It is divided politically into 26 states and a Federal District, with 5,570 municipalities. The states are organized into five geographical regions.

Between 1990 and 2015, the population grew by 35.9%. In 1990, the population pyramid had an expansive structure but has since become regressive.

Life expectancy in 2013 was 75.0 years (78.5 years for women and 71.3 years for men).

In 2014, health expenditure represented 6.7% of total Government expenditure, and out-of-pocket expenditure accounted for one-quarter of all health expenditure.



SOCIAL DETERMINANTS OF HEALTH

Between 2000 and 2013, per capita gross domestic product (GDP) increased by 29%. The gap between the poorest and wealthiest quintiles was reduced thanks to income growth in the poorest quintile that was three times greater than in the wealthiest one. The Gini coefficient dropped from 0.553 to 0.497.

The unemployment rate declined from 10.2% to 7.1% between 2000 and 2013, but the economic and social crisis of the ensuing years adversely affected the labor market; unemployment increased to 11.3% in 2016, and incomes declined substantially.

Brazil's indigenous population, made up of 305 ethnic groups, grew to 896,900 in 2010.

The number of immigrants doubled between 2010 and 2015. Most came from Haiti, Bolivia, Colombia, Argentina, and China.

Between 2001 and 2012, plumbing was added to more than 17 million households, with sanitation coverage rising to 66.7%. Counting septic tanks as well, total sanitation coverage reached 78.6% of all households. Access to drinking water improved from 81.1% to 86.4% in the same period.

In recent years, the country's health situation has been impacted by natural disasters, including tornadoes, floods, droughts, and landslides.

Brazil leads the world in pesticide use. Between 2008 and 2013, the pesticide poisoning rate rose from 3.70 to 6.26 cases per 100,000 population.

Average educational attainment increased across all age groups. The illiteracy rate in the population over 15 fell from 13.6% in 2000 to 8.3% in 2013.

HEALTH SITUATION AND THE HEALTH SYSTEM

Between 2000 and 2014, antenatal care coverage improved from 43.7% to 64.6%, with 98.4% of births occurring in hospitals. Cesarean sections accounted for 57.1% of all deliveries.

Maternal mortality fell from 73.3 to 58.2 per 100,000 live births in the period 2000-2013.

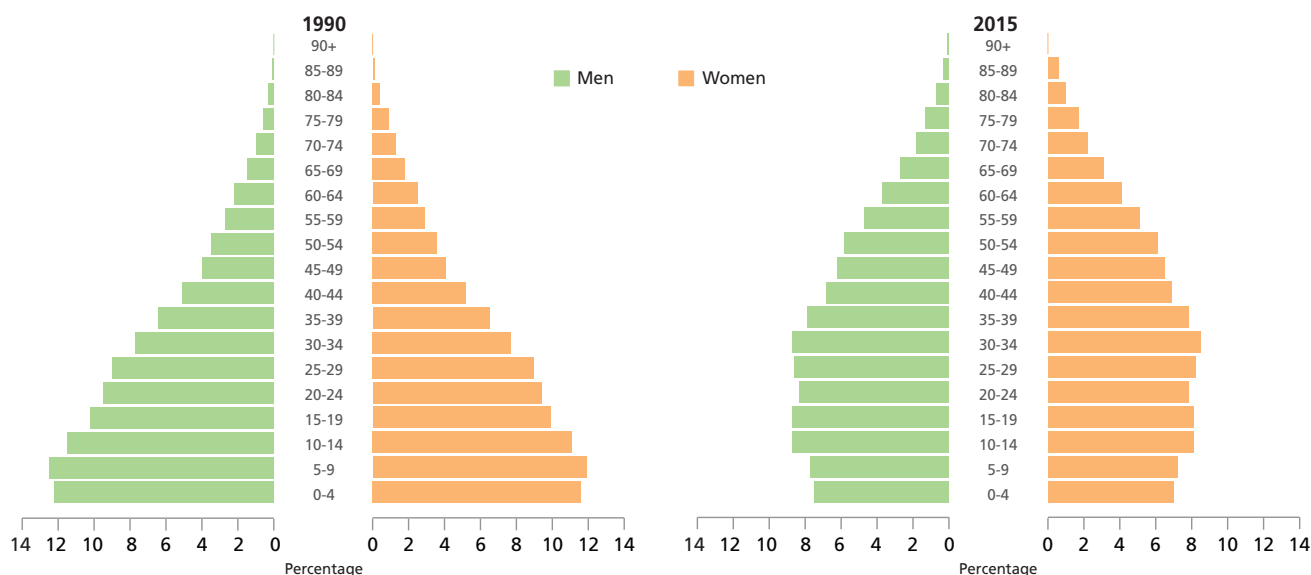
Infant mortality declined from 16.0 to 14.1 per 1,000 live births between 2000 and 2014. The under-5 mortality rate declined from 32.0 to 16.3 per 1,000 live births.

Despite a measles outbreak in the states of Pernambuco and Ceará (2013-2014), measles and rubella were successfully eliminated, polio was eradicated, and the incidence of diphtheria, tetanus, whooping cough, rotavirus, and invasive pneumococcal disease declined.

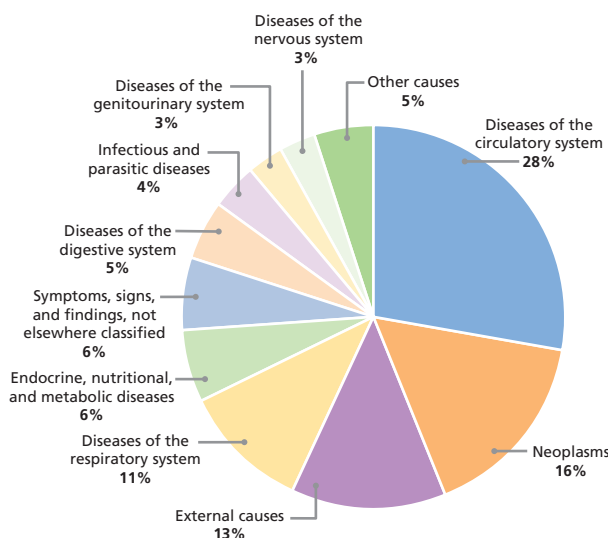
BCG coverage against TB reached 100%, while rotavirus and pneumococcal vaccine coverage ranged from 80% to 90%. Since 2014, the HPV vaccine has been provided through the national vaccination program.

Since the reintroduction of dengue in 1981, a rising trend in incidence has been recorded. Introduction of the chikungunya virus was detected in 2014 and Zika virus, in 2015. Both of these emerging arboviral diseases, as well as dengue, are transmitted by the *Aedes aegypti* mosquito, which is found in all Brazilian states.

Distribution of the population by age and sex, Brazil, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2014



Malaria is steadily declining; conversely, the yellow fever transmission cycle persists, with a high case fatality rate, and acute Chagas disease remains an issue. Both are related to vector-borne transmission in the Amazon region.

In 2014, the prevalence of leprosy was 1.27 per 10,000 population. Schistosomiasis is still endemic in nine states, with serious cases and reported deaths.

In the state of Pernambuco, Recife is the only area with active transmission of lymphatic filariasis. There is a known focus of onchocerciasis, with active transmission in Yanomami lands. Active trachoma is endemic in 486 municipalities, with a prevalence over 5% in the 1-14 age group.

In 2013, the TB burden was high, with an incidence of 35.9 cases per 100,000 population.

An estimated 734,000 people are living with HIV/AIDS in Brazil. HIV prevalence in the population aged 15-49 remains stable (0.6% overall, 0.4% in women, 0.7% in men). Transmission among injection drug users and mother-to-child transmission are on the decline.

In 2014, the overall mortality rate was 6.2 deaths per 1,000 population (7.8 in men and 4.7 in women). The most frequent specified causes were cerebrovascular disease (46.2 deaths per 100,000 population), acute myocardial infarction (39.7), pneumonia (31.8), homicide (28.1), and diabetes mellitus (26.7).

In 2013, 39.3% of the adult population had at least one chronic noncommunicable disease (44.5% of women and 33.4% of men). The prevalence of hypertension was 21.4%.

Chronic back problems affect 8.5% of the population; depression, 7.6%; arthritis, 6.4%; and diabetes, 6.2%.

Improved access to health care and rising incomes have contributed to a better nutritional situation. However, chronic malnutrition remains prevalent in vulnerable groups, such as indigenous children, as do several nutritional deficiencies (iron, vitamin A, vitamin B1, and thiamine, with a resurgence of beriberi).

In 2013, more than 1 million hospitalizations due to external causes were recorded, mostly in men aged 20-39, with a mortality rate of 75.5 per 100,000 population. Road traffic accidents were the leading specific cause of death in the 10-14 and 40-59 age groups.

In 2013, 6.2% of the population over 18 reported some type of disability. Visual impairment is most common (3.6%), followed by physical disability (1.3%), hearing loss (1.1%), and intellectual disability (0.8%).

Tobacco use declined from 18.2% to 14.7% of the population between 2008 and 2013. Up to 13.7% of the population over 18 consumed alcohol to excess in the last month, with a threefold higher rate in men.

The prevalence of obesity increased during the period 2002-2013 to 17.5% in men and 25.2% in women. Excess weight (the sum of overweight and obesity) is found in 57.3% of men and 59.8% of women. Up to 46% of adults are physically inactive, especially women and older persons (over 60).

Management of the health system is shared by the federal Ministry of Health, the state departments of health, and the municipal departments of health.

Funding is obtained from taxes and state and municipal contributions. Between 2000 and 2013, total health expenditure increased from 7.2% to 8.0% of the GDP (3.8% public) and from US\$ 502 to US\$ 946 per capita.

The Unified Health System (UHS) was created by the Federal Constitution of 1988, under the principles of universal comprehensive access to the health services; the promotion of equity; decentralized management; and social participation.

In 2016, the federal Government launched a new National Health Plan for 2016-2019. The core objective of the Plan is to expand and improve the quality of universal timely care, so as to contribute to the improvement of health conditions, the promotion of equity, and the quality of life of the population. The expansion of primary health care coverage has been a major priority over the past 20 years, with particular focus on the Family Health Strategy. Between 2000 and 2015, the proportion of the population covered by family health teams increased from 17.43% to 63.72%.

Brazil has 1.8 physicians per 1,000 population, unequally distributed across the country; physicians are largely concentrated in major urban centers, leaving remote municipalities relatively deprived.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

Since the 2000s, Brazil has reduced inequalities in the population. This has been achieved through sustained implementation of social inclusion policies that have led to reductions in poverty and a gradual improvement in the health situation. The reduction of maternal and infant mortality rates has been the result of these improvements in health and social conditions.

Measures focusing on the source of inequalities that shape the structural social determinants of health, including gender and ethnicity, have been implemented. Significant among them are the adoption of the principles of universality, equity, and comprehensiveness in the national policy for comprehensive women's health care; a comprehensive plan against feminization of the AIDS epidemic; and a national comprehensive health policy for the Afro-Brazilian population.

With the introduction of Zika virus in the country, Guillain-Barré syndrome and Zika-associated microcephaly have become a real source of concern. In 2015, the federal Government allocated US\$ 200 million for measures against *Aedes aegypti* and the diseases transmitted by this mosquito (Zika, dengue, and chikungunya). This effort is beginning to bear fruit, with partial control of the transmission of these arboviral diseases.

Despite advances in the overall health situation and the health system, there remains the need to support the formulation and implementation of effective, comprehensive, and sustainable public policies based on primary health care, in addition to improving health networks and health services.



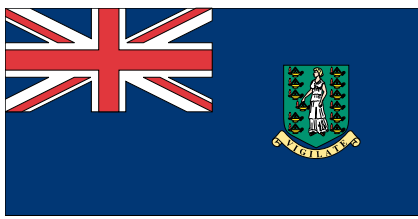
ADDITIONAL POINTS

The *Mais Médicos* (More Physicians) program, implemented jointly with the Pan American Health Organization since 2013, has been collaborating in the expansion of the Unified Health System and guaranteeing user access.

A total of 18,240 new physicians have been assigned to 4,058 municipalities; the number of medical school slots has increased (admitting 5,306 new students per year), along with the number of medical residency slots (4,742 positions); and medical school curricula are being restructured.

Resources are being invested for the construction and renovation of 26,000 basic health units.

To improve the stewardship role and problem-solving capacity of primary health care (PHC) within the health system, multidisciplinary team strategies are being implemented. This has allowed for the addition of 22,227 oral health teams and 4,288 Family Health Support Centers (*Núcleos de Apoio à Saúde da Família*) to existing family health teams.



BRITISH VIRGIN ISLANDS

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	42,300 (2010)	...
Human development index	...	...	...
Mean years of schooling	...	...	...
Improved drinking-water source coverage (%)	95.0	95.0 (2015)	0.0
Improved sanitation coverage (%)	98.0	98.0 (2015)	0.0
Life expectancy at birth (years)	...	79.8 (2015)	...
Infant mortality (per 1,000 live births)	...	11.3 (2015)	...
Maternal mortality (per 100,000 live births)	...	...	...
TB incidence (per 100,000 population)	17.0	...	...
TB mortality (per 100,000 population)	...	4.1 (2013)	...
Measles immunization coverage (%)	...	100.0 (2015)	...
Births attended by trained personnel (%)	...	100.0 (2015)	...



1990 population (thousands)	16.3
2015 population (thousands)	34.2
Change (%)	110.4

The British Virgin Islands are a British Overseas Territory located in the northeastern Caribbean. They consist of some 50 islands, cays, rocky formations, and islets, with a total surface area of 59.3 mi.². The largest islands are Tortola (21.5 mi.²), Anegada (15.2 mi.²), Virgin Gorda (8.5 mi.²), and Jost Van Dyke (3.2 mi.²).

In 2015, the population was 34,232, with 83% living on Tortola and 14% on Virgin Gorda. People born abroad represented approximately 60.3% of the population. The population aged 60 or over accounted for 13.3%.

Between 1990 and 2015, the population distribution became regressive, with a higher concentration in the middle-aged group compared with younger migrant workers. In 2015, the crude birth rate was estimated at 9.1 births per 1,000 population, and the crude death rate, 4.7 deaths per 1,000 population. Estimated life expectancy in 2015 was 79.8 years.

The annual gross national income (GNI) per capita was US\$ 42,300 in 2010. The British Virgin Islands' economy is based on tourism and international financial services, which together represent more than 70% of the territory's gross domestic product (GDP).



SOCIAL DETERMINANTS OF HEALTH

In 2010, unemployment was 2.8% overall but was higher among young people aged 15-29. In 2003, 16% of households and 22% of the population were living below the poverty line. The average household had 2.59 people.

In 2010, the literacy rate for people aged 15 or older was 97.7%. School attendance is compulsory for children aged 5-17, and public school, including higher education, is free. The public school system consists of 15 primary schools, 4 secondary schools, and a technical and vocational school. In addition, there are 10 private primary schools and 3 private secondary schools.

Approximately 95% of the population has access to safe drinking water, and a similar proportion to adequate sanitation. By law, all households must have a supply of clean water through rainwater catchment systems or cisterns, unless they have access to the municipal water supply network.

The Ministry of Health monitors the quality of the water supply. Municipal water distribution also includes a limited amount of desalinated seawater.

Municipal sewerage systems capture wastewater from 2.6% of buildings. The remainder have septic systems. Solid waste management is a critical problem, due to the limited availability of land and adequate landfill conditions. Waste is disposed of mainly through incineration.

As a small island developing state (SIDS), the British Virgin Islands are expected to suffer the consequences of climate change in the form of rising sea levels, changes in precipitation patterns, and greater intensity and frequency of hurricanes.

This requires greater monitoring of coastal areas, reefs, and drainage and sewerage systems; the protection of wildlife and flora; and more vigilance to prevent impacts on human health (especially from vector-borne diseases) and ensure food security, due to the impact on agriculture.

Conditions for residents of foreign origin can be a complex issue, since the territory is governed by the British Nationality Act, which has implications for access to health care, especially for non-English speakers and undocumented people who have no coverage under National Health Insurance and must pay for health care.

HEALTH SITUATION AND THE HEALTH SYSTEM

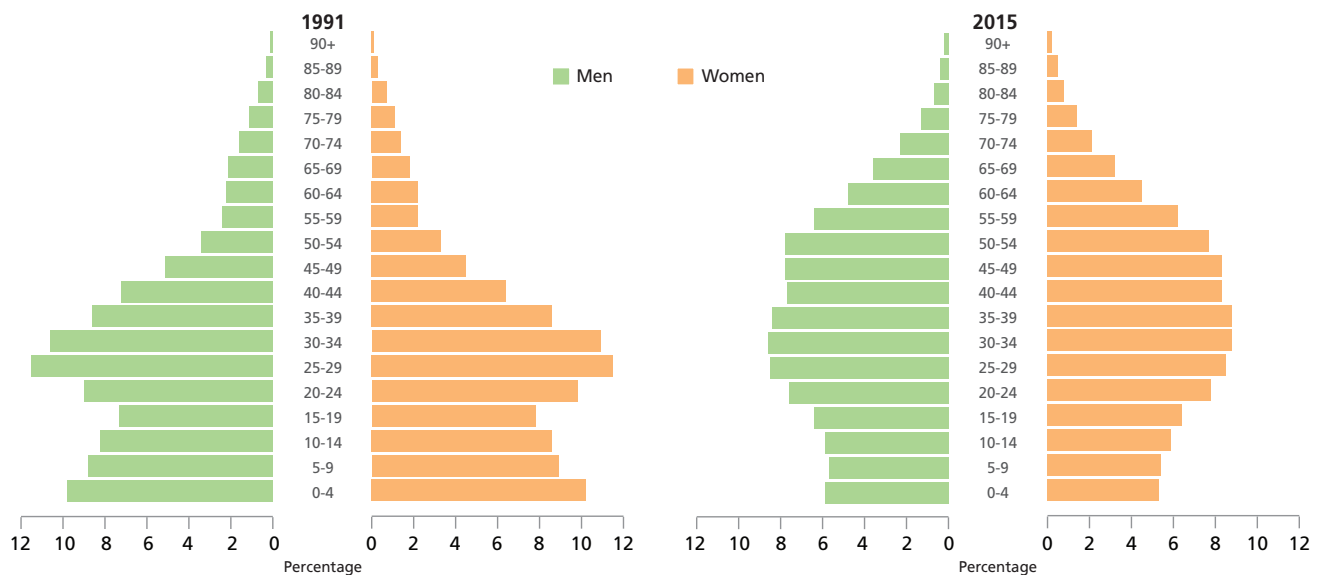
In the past decade, no maternal deaths have been recorded in the territory, and hospital delivery coverage is universal, with all births attended by trained midwives.

Due to the territory's small population, indicators can vary widely from year to year. Between 2013 and 2015, 835 births were reported, with 8.7% of newborns having low birthweight. Between 2006 and 2015, infant mortality ranged from 26.7 to 11.3 deaths per 1,000 live births.

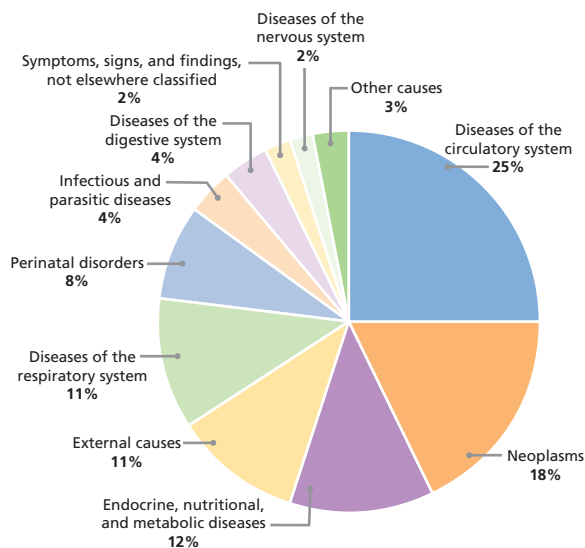
Perinatal disorders and congenital birth defects were the main causes of death in children under 5. Acute respiratory infections and gastroenteritis were the principal causes of morbidity in this age group.

In 2015, vaccination coverage with the first dose of the vaccine against measles, mumps, and rubella (MMR) was 100% and for the second, 88%. The territory's vaccination program includes administering the chickenpox vaccine to children under 5. Except for eight cases of chickenpox

Distribution of the population by age and sex, British Virgin Islands, 1991 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2010



between 2013 and 2015, no other cases of vaccine-preventable diseases were recorded.

The greater health needs of people aged 65 and over were related to the high prevalence of chronic diseases among them and the lack of State homes for their care.

In 2010, circulatory system diseases were responsible for 25% of deaths, and neoplasms 18%. In 2014, the leading causes of death included hypertension (12.6%), neoplasms (10.8%), and cardiovascular disease (9.9%), especially arteriosclerosis, ischemic cardiopathy, coronary disease, hypertensive cardiovascular disease, myocardial infarction, and congestive heart failure.

The leading causes of death from malignant neoplasms were prostate, breast, lung, stomach, uterine, and colon cancer, which together ranked third among the causes of death in 2014. Deaths from respiratory system diseases included pulmonary edema, pulmonary infarction, bacterial pneumonia, and obstructive pulmonary disease.

HIV reporting began in 1983; as of 2016, 127 cases of HIV/AIDS had been reported, 69 in men and 58 in women, with 40 AIDS-related deaths. No cases of tuberculosis were reported between 2013 and 2015.

In 2009, a high proportion of the population aged 25-64 that was interviewed was overweight and had hypertension, and 46% had three or more risk factors for chronic disease.

The Ministry of Health and Social Development is implementing a 10-year strategy for the prevention of noncommunicable chronic diseases, based on a multisectoral approach.

The Ministry of Health has been reviewing and updating its legislative framework to improve leadership and governance, with the aim of increasing access to the care provided by the National Health Insurance System, and of generally improving the health system.

Health services are financed through the National Health Insurance System, which was launched in 2016. This insurance receives contributions from employers and employees, in addition to direct Government investment and reimbursement for care provided in the public and private sectors.

All legal residents are required to subscribe to this insurance, which acts as the primary source of health coverage in the territory. It covers a comprehensive benefits package that includes medical, dental, and vision services. Copayments are 0% in public clinics, 5% in public hospitals, 10% in the network's private establishments, and 20% in centers outside of the network.

The Health Services Authority is responsible for health services on the islands. Public primary health services are provided through 10 primary health care centers and 4 health posts. Public secondary health care is provided at Peebles Hospital, which offers services in the principal medical specialties. There is also a well-developed private health system, including a private hospital.

The majority of tertiary care is provided on the United States mainland and in Puerto Rico, the United Kingdom, and certain other Caribbean locations.

Visiting medical specialists from the English-speaking Caribbean, Puerto Rico, and the United States mainland also provide care in public and private institutions, generally once a month or as the demand dictates. Specialized services are provided in fields such as neurology, rheumatology, urology, ophthalmology, and plastic surgery.

There are no centers for training health professionals in the British Virgin Islands, so nationals must study abroad. The majority of health workers are employed in the public sector.

In 2015, there were 102 registered physicians, including 88 in active practice; of these, 45 were in the public sector. Of the 13 practicing dentists, only 2 worked in the public sector. A total of 207 professional nurses were registered to practice, 162 of whom worked in the public sector.

The majority of health service providers use electronic health records and other forms of electronic data management, although use of the information produced is limited. However, since data management in the health sector is fragmented among the various providers, evidence-based decision-making is difficult.

Since 2011, there has been an electronic information system for managing Civil Registry birth and death data. Another system is in place for communicable disease reporting. All other data are reported to the Ministry of Health on paper forms.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

The establishment of the National Health Insurance System in 2016 has led to great strides in universal coverage and access for the entire population, while reducing the impact of price as a health care access barrier. This represents a major step toward achievement of universal health care access and coverage.

In order to meet this goal, a road map must be created for renewing primary health care and ensuring that sufficient additional resources are available to address the social determinants of health.

Additional resources are also necessary to develop both an effective action strategy for dealing with chronic noncommunicable diseases and a cyber health policy that includes legislation to protect personal information.

The territory continues to be at risk of endemic vector-borne diseases that affect health and productivity and ultimately have an impact on tourism.

Total health expenditure is expected to increase in the short run due to the establishment of the new health system. However, expenditure is then expected to stabilize as previously unmet health care demands are met. This will require the constant monitoring of changes in the system and health expenditure, as necessary.



ADDITIONAL POINTS

The British Virgin Islands are effectively addressing the problem of domestic violence with a series of policies, laws, and programs.

The Cabinet approved the National Domestic Violence Protocol in November 2010.

The Domestic Violence Act of 2011 expands the definition of domestic violence to include economic abuse, intimidation, harassment, stalking, and property damage and destruction, while offering protection to visitors.

The National Gender Policy and Plan of 2013 complements the 2010 National Domestic Violence Protocol.

The Partnership for Peace is a 16-week psychoeducational program for men who exhibit abusive behavior toward women. Its goal is to prevent violence against women.

In October 2011, the Government approved the After Support Program for men who complete the Partnership for Peace program.

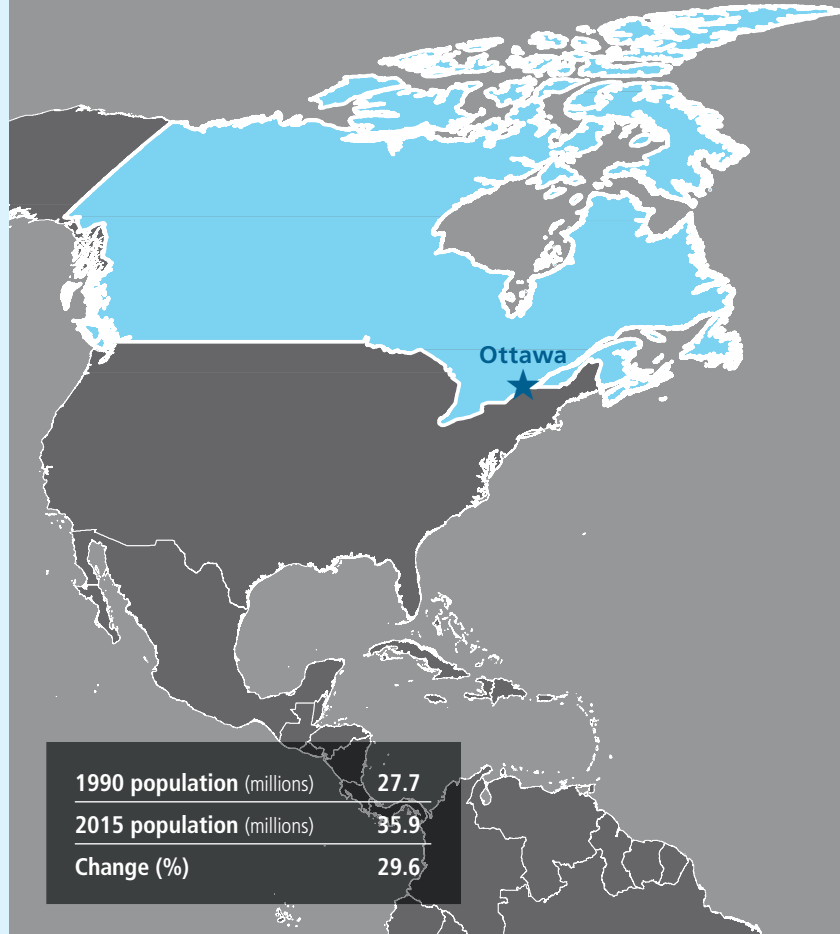


CANADA

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	44,350 (2014)	...
Human development index	0.849	0.913 (2013)	7.5
Mean years of schooling	10.3	13.0 (2014)	26.2
Improved drinking-water source coverage (%)	100.0	100.0 (2015)	0.0
Improved sanitation coverage (%)	100.0	100.0 (2015)	0.0
Life expectancy at birth (years)	77.2	82.4 (2013)	6.7
Infant mortality (per 1,000 live births)	6.8	4.8 (2013)	-29.4
Maternal mortality (per 100,000 live births)	...	5.8 (2013)	...
TB incidence (per 100,000 population)	8.4	4.4 (2013)	-47.6
TB mortality (per 100,000 population)	0.4	0.2 (2013)	-50.0
Measles immunization coverage (%)	89.0	90.0 (2015)	1.1
Births attended by trained personnel (%)	...	95.7 (2015)	...



Canada, the country with the second largest geographical area in the world, is divided into 3 territories and 10 provinces. It is a member of the Organisation for Economic Co-operation and Development (OECD) and the Group of Seven (G7).

In 2015, the country's population was 35,851,800. In 2011, 16% of the population was 65 years old or over, 18.9% rural, 20.6% immigrant, and 4.3% aboriginal. Between 2010 and 2012, life expectancy at birth for women was 83.6 years, while for men it was 79.4 years.

The population grew by 29.6% between 1990 and 2015. In 1990, the structure was stationary for people under the age of 25, but in 2015 there was a trend toward aging and a predominantly stationary trend in terms of reduced fertility and mortality.

The economy is the 10th largest worldwide, fueled by Canada's abundant natural resources and trade. In 2013, the per capita gross domestic product (GDP) was US\$ 42,780. The country has evolved into a multicultural society with a highly diverse population.

SOCIAL DETERMINANTS OF HEALTH

The number of Canadians living in low-income households has fallen to its lowest level in over two decades, dropping from 15.2% in 1996 to 8.8% in 2011. Between 2011 and 2012, 8% of households reported food insecurity (up to 22% among off-reserve indigenous households). First Nations and Inuit populations experienced much higher rates of poverty, chronic disease, and poor living conditions.

The health status of First Nations and Inuit has steadily improved since 1980 but remains poor compared to that of other Canadians.

Efforts to help Canadians adapt to climate change and protect their health and well-being have focused on reducing risks from climate-related infectious diseases, extreme weather events, high temperatures, and poor air quality.

The country's social programs contribute to ensuring the health and well-being of all Canadians. Funds have been allocated to grow the middle class and reduce inequalities.

HEALTH SITUATION AND THE HEALTH SYSTEM

In 2014, 59.0% of the population aged 12 or over reported having "excellent" or "very good" health, a situation that has remained relatively stable over the past decade.

Mortality in children under 1 year was 4.8 deaths per 1,000 live births in 2012, with the most frequent cause of death being congenital anomalies, which occur in 3% to 5% of newborns and account for 23.2% of neonatal deaths.

Malignant neoplasms are the leading cause of death in Canada, with increases in the number of new cancer cases due mainly to a growing and aging population.

In late 2014, 75,500 people were infected with the human immunodeficiency virus; among those, an estimated 16,020 were unaware of their status.

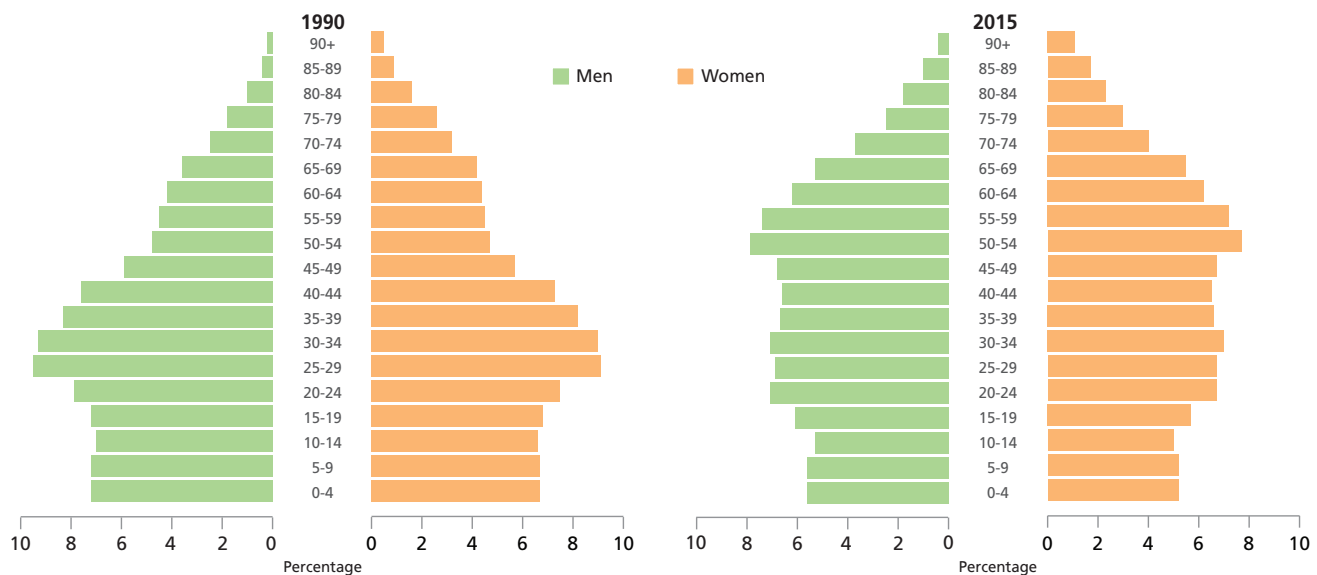
In 2014, 1,568 cases of active tuberculosis were recorded (4.4 cases per 100,000 population). The incidence rate among nonindigenous native-born Canadians was only 0.6 cases per 100,000 population, but among people born abroad and indigenous Canadian populations it was 13.7 and 20.4 cases per 100,000 population, respectively.

Antimicrobial resistance poses a serious threat to the population. One step the Government has taken is the adoption of the Federal Action Plan on Antimicrobial Resistance and Use in Canada (2015), which includes concrete measures to be implemented between 2016 and 2019.

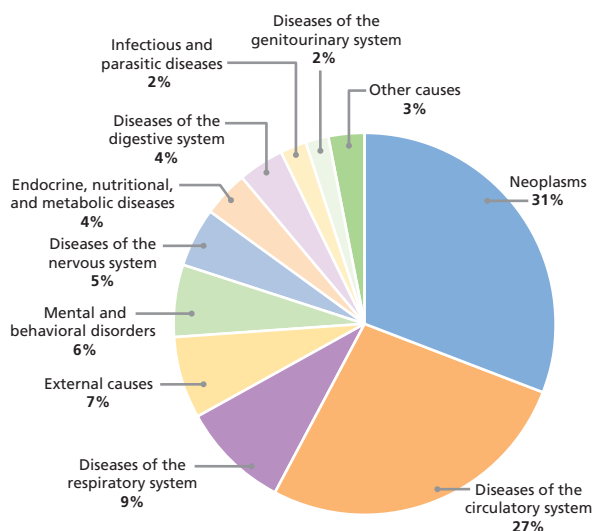
Two out of five Canadians aged 12 or over have one or more chronic diseases, with indigenous populations exhibiting a higher burden of disease. In 2014, 5% of people over the age of 12 reported having a heart condition diagnosed by a health professional. One percent reported having suffered the effects of stroke, 6% of both men and women had some type of heart disease (including heart attacks, angina, and congestive heart failure), and 18% suffered from hypertension or were on medication to control it. Furthermore, 34% of the population reported overweight and 20%, obesity.

Diabetes prevalence reached 7.6% in 2012, with a higher percentage among people over 80 (26.1%). The life expectancy of adults aged 20-64 with diabetes is 5 years shorter than that of people who do not have the disease.

Distribution of the population by age and sex, Canada, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2011



In 2013, 76% of adults reported alcohol consumption, and 21% consumed it at a level of risk. Some 17% of adults over 25 reported tobacco use, which continues to be the main avoidable cause of premature death in Canada. Cannabis use among people 25 or over was 8%. It is estimated that 0.9% of the population uses cocaine or crack; 0.6%, hallucinogenic drugs; 0.4%, ecstasy; and 0.2%, methamphetamine.

Around one-third of boys and one-quarter of girls are overweight or obese (according to body mass index).

The federal Government plays an important role in key areas such as health promotion, the prevention and control of infectious and chronic diseases, disease surveillance, and preparedness and response to public health emergencies and disease outbreaks, as well as research on health topics. It is also responsible for health protection and regulation (including the regulation of pharmaceutical products, biologicals, food, and medical devices) and consumer safety.

The purpose of health policies is to protect, promote, and restore the physical and mental well-being of Canadian residents and facilitate reasonable access to health services, without financial or other barriers.

The health system provides access to comprehensive coverage of medical and hospital-based services. The Canada Health Act establishes the country's publicly funded health insurance, which facilitates "reasonable access to health services without financial or other barriers."

Approximately 70% of health expenditure is publicly funded, primarily through taxation. Some provinces also charge their residents a dedicated premium to help pay for the cost of

health care; nonpayment of this fee does not impede access to necessary health services.

In 2014, total health expenditure represented 10.9% of GDP, with per capita health expenditure at 6,073 Canadian dollars. The public sector assumes approximately 70% of total health expenditures. Hospitals and physicians are financed primarily through the public sector, while the private sector primarily covers the cost of other health professionals (excluding nurses) and drugs.

The 10-Year Plan to Strengthen Health Care (adopted in 2004) established a shared federal, provincial, and territorial agenda for the renewal of health care, recognizing the need for concerted action in key areas of the health system.

In 2015, there were 82,198 active physicians (228 physicians per 100,000 population) and 415,864 registered nurses, with shortages in some jurisdictions, particularly remote rural areas.

Significant investments have been made in telehealth through computer support for video conferences between patients and health care providers, medical consultations, the transfer of diagnostic materials, and remote monitoring of patients. Some 70 specialties use telehealth resources, chiefly to serve the almost 7 million residents who live in remote rural communities.

The federal Government supports a comprehensive research agenda on health topics in an array of disciplines, sectors, and regions. This research yields a better understanding of the population's emerging health needs, how the health system is evolving, and the information needs of health policymakers.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

The health system offers universal coverage of essential health care needs. However, some gaps in care, related to population aging and the increase in chronic diseases, have begun to emerge.

Canadians rank as the second highest per capita consumers of prescription opioids in the world; prescription opioid use in Canada increased by 203% between 2000 and 2010.

Since 2012, the health system has been challenged by fiscal constraints, the high cost of new technology, and the aging of the population. Provincial and territorial governments are investing considerable resources to transform and strengthen their health care systems, particularly to support home-based health services, palliative care, and mental health.

More use is being made of digital health technologies, with efforts to improve connections and expand the use of these technologies in health care.

The Government's strategy regarding the social determinants of health seeks to improve the social infrastructure, improve socioeconomic opportunities and conditions for the middle class, promote inclusive growth, and reduce poverty and

inequalities. Reducing health inequalities will continue to be a national priority. Of particular concern is the need to improve the social and health conditions of indigenous populations.

The Government has committed to developing a 10-year plan to increase housing and improve housing conditions.

The Government is taking concrete action to improve the socioeconomic status of indigenous people and communities, improve health centers, and establish appropriate health programs and services.

Active work in health promotion also continues, including a multiyear healthy eating strategy, with support to improve access to nourishing food and increase its availability. The Public Health Agency of Canada has set up innovative and multisectoral partnerships to promote healthy lifestyles and address chronic disease prevention. Prevention will be essential to combating the increase in chronic diseases.

Mental health is also a key priority, with a higher incidence of mental disorders as a consequence of the growth of the over-65 population, a group found to have a higher proportion of mental health problems.

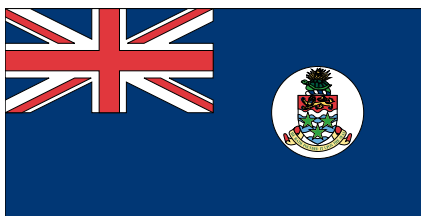
ADDITIONAL POINTS

Antimicrobial resistance in the treatment of infections is a critical problem in health care. For this reason, the Government of Canada has adopted effective measures to address it.

In 2014, the Government of Canada issued *Antimicrobial Resistance and Use in Canada: A Federal Framework for Action*. This framework provides a coordinated federal approach to address the threat of antimicrobial resistance in three strategic areas: surveillance, administration, and innovation.

Accordingly, in 2015, a federal action plan was drafted that proposes concrete measures to be adopted between 2016 and 2019. A key achievement in the action plan was implementation of the Canadian Integrated Program for Antimicrobial Resistance Surveillance, a national program to coordinate the surveillance systems that compile information on antimicrobial resistance and the use of antimicrobial drugs in humans and animals.

The Integrated Program develops a general overview of antibiotic use and resistance in Canada, which is presented in an annual national report.



CAYMAN ISLANDS

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	...	...
Human development index	...	...	...
Mean years of schooling	...	13.4 (2014)	...
Improved drinking-water source coverage (%)	92.0	97.0 (2015)	5.4
Improved sanitation coverage (%)	96.0	96.0 (2015)	0.0
Life expectancy at birth (years)	...	81.2 (2013)	...
Infant mortality (per 1,000 live births)	...	...	...
Maternal mortality (per 100,000 live births)	...	...	...
TB incidence (per 100,000 population)	9.2	...	...
TB mortality (per 100,000 population)	4.0	...	...
Measles immunization coverage (%)	...	81.0 (2015)	...
Births attended by trained personnel (%)	...	99.7 (2015)	...



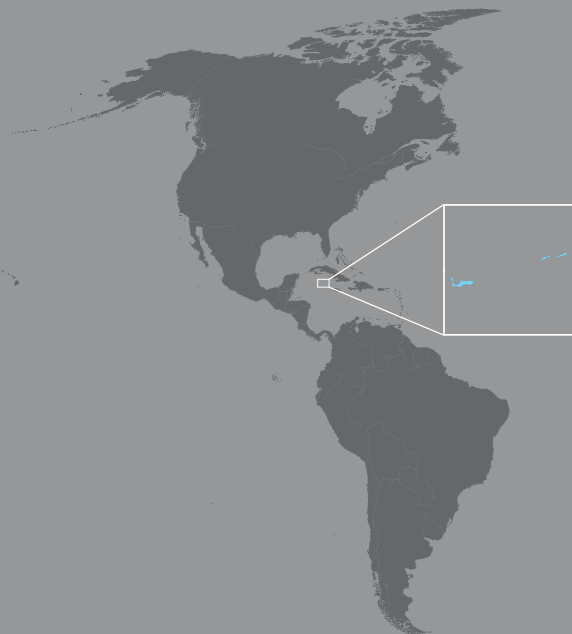
1990 population (thousands)	26.4
2015 population (thousands)	60.4
Change (%)	129.2

The Cayman Islands is a British Overseas Territory made up of three islands: Grand Cayman, Cayman Brac, and Little Cayman. The territory is located in the western Caribbean Sea, approximately 240 km south of Cuba and 270 km northwest of Jamaica. George Town, the capital, is on Grand Cayman, the largest and most populous of the islands.

The total population in 2015 was 60,413, with 56.7% native to the islands. The crude birth rate was 11.0 live births per 1,000 population. Between 1990 and 2015, the population increased by 129.2%. In 1990, the population pyramid had an expansive upper portion but was stationary below the age of 35. In 2015, the structure was essentially stationary, although wider in the working-age groups.

The main industries are financial services, tourism, and real estate sales and development. There are no direct taxes in the Caymans.

Nominal gross domestic product (GDP) per capita in 2015 was US\$ 57,298. Economic development has been pursued through a series of interventions and policy initiatives, including support for small business, aimed at diversifying the economy and creating employment.



SOCIAL DETERMINANTS OF HEALTH

Against a backdrop of economic recovery, improvements in labor market indicators continued in 2015, with a further reduction in unemployment.

The unemployment rate fell from 7.9% in 2014 to 6.2% in 2015.

In 2015, GDP grew by nearly 2.0%—lower than the 2.4% growth in 2014 but higher than the average growth of 1.6% between 2010 and 2014.

The government provides free primary and secondary education.

In 2015, 97% of households had access to an improved water supply; 91% of them had piped water and 6% were supplied through other improved methods. The traditional water supply through wells and cisterns has been replaced with desalinated piped water in both Grand Cayman and Cayman Brac.

Improved sanitation coverage was 96%. There are three landfills, which by April 2011 had handled approximately 69,011 tons of waste.

The territory is particularly vulnerable to the rise in sea level and intense hurricanes.

Cayman Islands has a small agricultural sector. Most foodstuffs are imported from North America, Jamaica, and the United Kingdom.

Public expenditure on health care as a percentage of the total government budget increased from 23% in 2011 to over 25% in 2015.

In 2011, the Cayman Islands passed the Gender Equality Law, which prohibits discrimination in employment and related areas and serves as enabling legislation to uphold the principles of the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW).

HEALTH SITUATION AND THE HEALTH SYSTEM

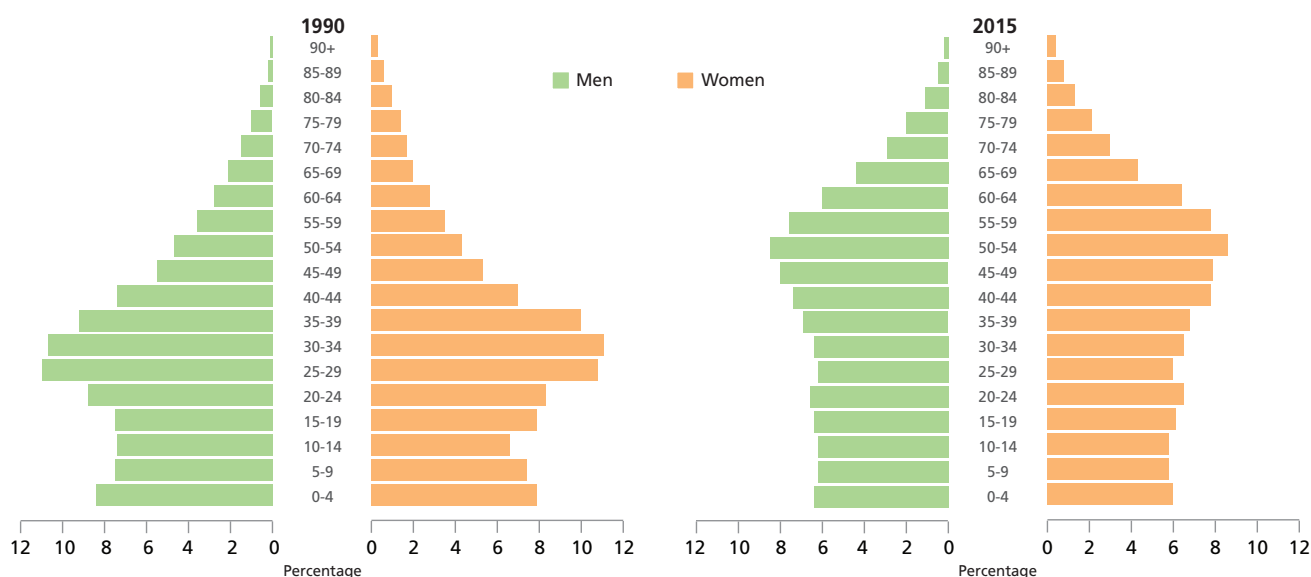
No maternal deaths were reported in 2015. That year, coverage of prenatal care with skilled birth attendants (more than four visits) was 98.8%, while 99.7% of deliveries occurred in hospitals.

In 2015, no deaths of children under 1 year of age were reported. In 2014, the infant mortality rate was 4.2 deaths per 1,000 live births, corresponding to the neonatal period.

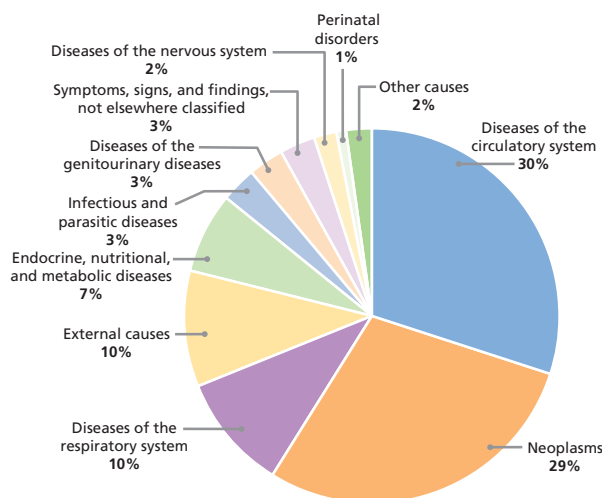
In 2015, 170 deaths were reported in the Cayman Islands, for a crude death rate of 2.9 deaths per 1,000 population. The majority occurred in the 80-89-year age group. Circulatory system diseases were responsible for 30% of all deaths in 2013.

From 1985, when the first case of AIDS was reported in the Cayman Islands, through November 2014, 145 cases of HIV were reported, 74 people developed AIDS, and 46 died; 67 people are currently living with HIV. The territory is in the process of verifying and documenting the elimination of mother-to-child transmission of HIV and congenital syphilis.

Distribution of the population by age and sex, Cayman Islands, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2013



No cases of hepatitis B were reported in 2015. There were 34 reported cases of chickenpox and 287 cases of conjunctivitis that year. Childhood immunizations are administered free of charge to all residents.

No cases of tuberculosis were reported in 2014, but there were 7 cases in 2015 (1 local and 6 imported). There were 2 imported cases of malaria in 2013, no reported cases in 2014, and 5 imported cases in 2015.

The first case of chikungunya virus infection in the Cayman Islands was confirmed in June 2014. There were 44 cases (28 imported and 16 local) in 2014, and 6 in 2015 (all imported). As of November 2016, a total of 30 cases of Zika virus infection had been confirmed, 20 of which were local and 10 imported.

In 2014, 5,818 cases of influenza-like illnesses were reported, and 5,955 in 2015.

The results of a survey in 2012 indicated that, based on their body mass index, 36.6% of respondents were obese and 70.6% were overweight. Furthermore, 15.8% had hypertension (blood pressure level of 140 mmHg or above) and were not on medication for this condition. Of those surveyed, 42.9% reported having three or more risk factors for noncommunicable diseases.

In the same survey, 34% of respondents reported a low level of physical activity. More men than women were active, and young people were more active than older ones.

The Ministry of Health and Culture has primary responsibility for developing health policies and programs and for providing health services through its various departments and

agencies. The Health Services Authority is the sole provider of public health care services at the primary, secondary, and tertiary levels.

This network of services includes the 124-bed Cayman Islands Hospital on Grand Cayman, the 18-bed Faith Hospital on Cayman Brac, primary health care and public health services delivered through Faith Hospital on Cayman Brac, five district health clinics on Grand Cayman, a district health clinic on Little Cayman, and school health clinics.

Cayman Islands Hospital and Faith Hospital offer inpatient and outpatient services, including some specialized services. There are two private hospitals in the Cayman Islands: Chrissie Tomlinson Memorial Hospital and Health City Cayman Islands. The former, which opened in 2000, is an 18-bed medical/surgical hospital specializing in surgical care. It offers diagnostic and imaging services, family practice, and pediatric medical care.

Health City Cayman Islands is a tertiary care hospital in operation since 2014. It specializes in chronic and acute cardiac, orthopedic, bariatric, neurological, and pediatric cases. Located on Grand Cayman, it is designed to offer quality care and be accessible to residents of the territory and travelers from abroad.

The Health Insurance Law, which was amended in 2013, requires every resident of the Cayman Islands to have health insurance coverage. Employers are obligated to provide a standard medical coverage plan, which includes a basic basket of compulsory benefits for employees and their dependent family members who reside in the Cayman Islands. Employees contribute a maximum of 50% of the cost.

Self-employed individuals must provide health insurance for themselves and their dependents. This coverage must be obtained from one of the nine approved health insurance providers.

The Cayman Islands National Insurance Company (CINICO), a government-owned insurance company, was established in 2004 to provide health insurance coverage to civil servants, pensioners, sailors, veterans, and their dependents.

CINICO also provides coverage to the indigent, the elderly, and people who are unable to obtain coverage through private insurers. It also provides health insurance coverage for certain Government entities and public enterprises.

In 2015, the Cayman Islands' health workforce included 330 doctors (5.5 per 1,000 population), 442 nurses (7.3 per 1,000), 48 dentists (0.8 per 1,000), and 494 other health professionals registered and licensed to practice, among other things, as physical and occupational therapists, psychologists, and pharmacists.

The private sector employs 56% of medical professionals. The growth of medical tourism has increased the number of health workers over the past 4 years.

There is limited use of information and communication technology and social media for virtual collaboration between the health sector and other sectors and departments, or for broadening the scope of technical cooperation. Private-sector health care providers use health information systems that are not integrated with the public system.

The Cayman Islands Health Services Authority's strategic plan for 2010-2018 emphasizes access to quality health care, which includes increasing access to primary health care and improving community health through a network of lay providers.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

The Cayman Islands has always supported the premise that health is an important element of sustainable development. The territory has made great progress in improving the quality of health care for its population.

Although all residents are required to have health insurance coverage, rising health costs continue to pose a challenge to health care financing. There is a need to address the escalating

costs and design a sustainable financing model to ensure the future viability of the system.

In 2017, the Ministry of Health began reviewing the National Health Policy and Strategic Plan 2012-2017, with a view to developing action plans for subsequent implementation.

The Mental Health Policy, to be finalized in 2017, will address priority areas for action in an effort to improve the health and well-being of people who suffer from mental illness. In the third quarter of 2017, work is expected to begin on construction of a residential psychiatric center to care for chronically ill patients.

The main barriers to providing psychiatric care are the lack of a residential mental health facility that can admit patients and a shortage of outpatient services for children, adolescents, and young adults.

The Health Services Authority has developed a patient portal, whose functions will be expanded to give patients access to diagnostic information and appointment scheduling.



ADDITIONAL POINTS

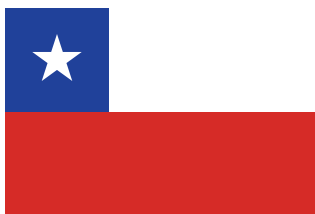
The National Health Policy and Strategic Plan outlines the vision, values, strategic orientations, and objectives with regard to health and the health system. Its motto is "Health and Well-being for All in the Cayman Islands."

The Cayman Islands is committed to having a health system that ensures access to the highest-quality care at an affordable and sustainable cost for all residents.

The Mental Health Law was amended in 2013 to provide better care for persons with serious psychiatric disorders or mental impairment. The Mental Health Commission was also

established that year to provide oversight on matters related to mental health and well-being, which includes protecting the rights of patients; providing support and advocacy for people living with mental illness and their families; and general education on mental health legislation.

The Cayman Islands has adopted a comprehensive action plan to combat the damaging effects of climate change. A policy on climate change has been drafted in order to achieve a climate-resilient economy with a low carbon footprint that addresses the vulnerability of the Caribbean islands to natural disasters caused by climate change.



SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	21,920 (2014)	...
Human development index	0.7	0.832 (2013)	18.9
Mean years of schooling	8.1	9.9 (2014)	22.2
Improved drinking-water source coverage (%)	90.0	99.0 (2014)	11.0
Improved sanitation coverage (%)	85.0	96.7 (2014)	13.8
Life expectancy at birth (years)	73.7	80.0 (2013)	8.5
Infant mortality (per 1,000 live births)	16.0	7.2 (2013)	-55.0
Maternal mortality (per 100,000 live births)	39.9	22.2 (2014)	-44.4
TB incidence (per 100,000 population)	52.0	12.3 (2014)	-76.3
TB mortality (per 100,000 population)	5.8	1.2 (2013)	-79.3
Measles immunization coverage (%)	97.0	96.0 (2015)	-1.0
Births attended by trained personnel (%)	...	99.9 (2015)	...



Chile is located in the southwest of South America, with a continental and insular territory of 756,770 km² and an Antarctic territory of 1,250,000 km². The country is divided into 15 regions, 53 provinces, and 346 communes. Up to 87% of the population lives in urban areas.

Between 1990 and 2014, the population grew by 34.9%. In 1990, the population pyramid had an expansive structure in the groups over 25 years of age and a stationary structure in younger groups. It has since become regressive as a result of aging and declining fertility and mortality.

In 2014, the population was 17.8 million.

The proportion of older adults (over 60) was 14.5% in 2014. Life expectancy at birth is 80 years for men and 85 years for women.

In 2014, the per capita gross national income was US\$ 21,290 (PPP). Between 1961 and 2014, average annual gross domestic product (GDP) growth was 4.3%.

SOCIAL DETERMINANTS OF HEALTH

Health and living conditions have substantially improved, but there are significant differences between socioeconomic groups.

The Gini coefficient, a summary measure of income inequality, has remained around 0.55 in recent decades.

In 2015, 8.1% of the population lived in poverty and 3.5% of the population lived in extreme poverty. Between 2003 and 2014, the average income of the poorest 40% of the population increased by 4.9%, compared to a 3.3% increase for the population as a whole.

A sustained increase has been achieved in women's participation in the workforce, which rose from 35.0% in 2000 to 47.7% in 2013.

In October 2014, Law 20,786, on domestic work (largely performed by women), went into effect. The law, which regulates the work day, time off, and wages of domestic workers, should also have an impact on their quality of life.

Average years of schooling in 2013 was 10.8 years, but with marked differences between urban and rural areas and income quintiles.

In 2014, improved drinking-water and sanitation coverage rates were 99.0% and 96.7%, respectively. Urban wastewater treatment coverage was 99.9% in 2014.

In 2015, the country devoted financial resources equivalent to 7.7% of GDP to health, 46.1% of which corresponded to

public expenditure and 33% to out-of-pocket expenditure. Per capita health expenditure in 2014 was US\$ 1,877.

Due to migration in the last decade, policies to facilitate access to medical attention have been implemented for immigrants, especially health care for pregnant women and children under 18.

The country is prone to major natural disasters of different types. Over the past 10 years, it has been stricken by at least 17 natural disasters, including earthquakes and tsunamis, with grave consequences for the population. The population's vulnerability to natural disasters has been reduced through stringent building codes, early-warning mechanisms, coordination, and assistance.

Air pollution in urban areas and its impact on health are major environmental concerns.

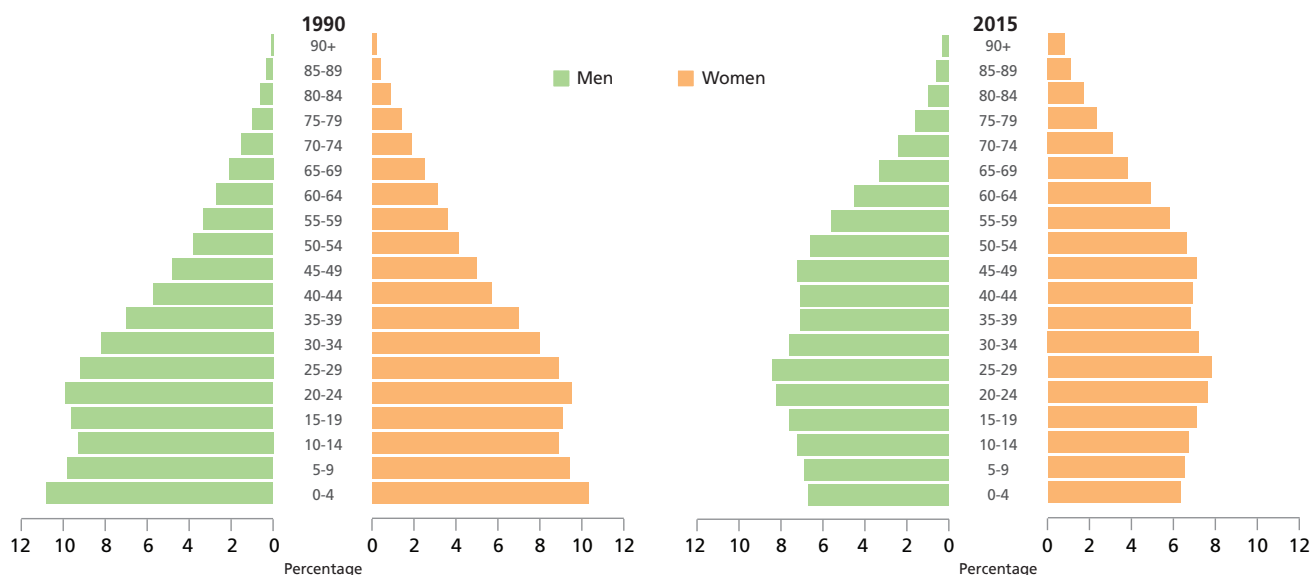
HEALTH SITUATION AND THE HEALTH SYSTEM

The maternal mortality ratio declined significantly between 1990 and 2014, from 39.9 to 22.2 per 100,000 live births, respectively. In recent years, the predominant causes of maternal death were indirect obstetric causes and other conditions complicated by pregnancy, which accounted for 25% of total maternal deaths in 2014.

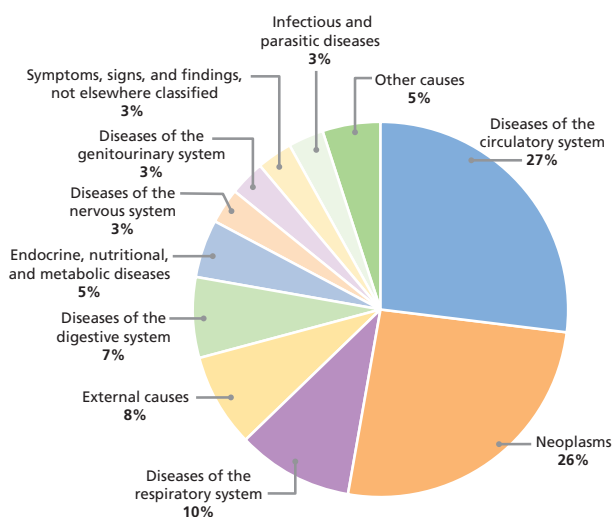
Universal institutional delivery (99.9%) was achieved in 2013.

The under-1 mortality rate has been stable over the past 7 years at around 7 deaths per 1,000 live births (7.6 per 1,000 in 2006 vs. 7.2 per 1,000 in 2014).

Distribution of the population by age and sex, Chile, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2014



Post-neonatal mortality has fallen significantly, from 7.5 per 1,000 live births in 1990 to 2.1 per 1,000 in 2012.

Between 2005 and 2012, mortality in children aged 1-4 fell from 0.34 to 0.28 per 1,000 children. The most common causes of death among these children are accidents and violence (31%).

In 2014, diseases of the circulatory system and neoplasms were responsible for 27% and 26% of deaths, respectively. These two groups of causes account for more than half of all deaths.

In 2011, mortality from cardiovascular disease was 149 per 100,000 population and mortality from neoplasms, 142 per 100,000 population.

The leading causes of cancer death by primary tumor site were cancer of the stomach (18.8 per 100,000 population); trachea, bronchus, and lung (16.1); and colon, gallbladder, bile ducts, and breast (around 8.0 each).

Cerebrovascular disease, ischemic heart disease, and cirrhosis were the leading specific causes of death in 2012.

In 2011, 9,104 people died of respiratory diseases (52.8 deaths per 100,000 population).

In 2013, noncommunicable diseases accounted for 82% of the burden of disease as measured by years of healthy life lost, and its relative importance increased by 19% between 1990 and 2013, mainly due to the aging of the population.

Injuries and violence accounted for 11% of the burden of disease, while maternal, neonatal, child, and nutritional

disorders, plus communicable diseases, accounted for 7% of years of healthy life lost.

A high prevalence of some risk factors, especially smoking, is observed in the population. Some 39% of the population smokes (37% of women and 41% of men). In 2014, the prevalence of excessive alcohol consumption (AUDIT test) was 11%, with the figure nearly 8 times higher in men (19.7%) than in women (2.5%).

In 2012, the HIV epidemic was predominantly sexually transmitted (99.2%), particularly among young adult men who have sex with men. The prevalence in pregnant women remains low at close to 0.05%, as does that of the general population (0.35%).

In 2016, a dengue outbreak occurred, with 27 cases on Rapa Nui (Easter Island).

By the end of 2016, there had been no reported autochthonous cases of Zika virus infection, although there had been imported cases and one confirmed sexually transmitted case.

The incidence of tuberculosis was 12.3 cases per 100,000 population in 2014. That same year, there were 15 cases of multidrug-resistant TB (3 with HIV coinfection). The noncommunicable diseases responsible for the greatest burden of disease were malignant neoplasms (13.8%), cardiovascular disease (12.3%), and mental disorders and substance abuse (12.2%).

Type 2 diabetes mellitus caused 3,426 deaths, with a rate of 19.8 per 100,000 population in 2011. The prevalence of diabetes in people over 15 was 10.4% for men and 8.4% for women. The prevalence of hypertension in this group was 28.7% in men and 25.3% in women.

The mental health problems associated with the greatest burden of disease are depression and anxiety disorders.

The health system is mixed, with both public insurance (the National Health Fund [FONASA]) and private insurance (Social Health Insurance [ISAPRE]) and other specific insurance programs such as that of the Armed Forces.

In 2013, 76.3% of the population was covered by FONASA and 18.1% by ISAPRE.

The Ministry of Health is responsible for system governance and regulation, as well as for the regulatory framework.

The National System of Health Services (SNSS) coordinates the health delivery functions of the public sector, which is composed of 29 decentralized services, distributed across the 15 regions of the country, and the primary health care system (which is largely municipal).

The health system is currently fragmented in terms of financing and insurance, as well as service delivery and the

unequal availability of resources to tend to the population that depends on each sector. Out-of-pocket health expenditure accounts for 38% of total health expenditure and primarily affects lower-income families.

In 2015, the country devoted an estimated 7.7% of GDP to health. Per capita health expenditure (PPP) was US\$ 1,689 in 2014.

In 2014, the ratio of physicians and nurses per 1,000 population was 1.7 and 5.6, respectively. The availability of hospital beds has been stable in recent years (approximately 2.2 beds per 1,000 population).

To improve access to health care delivery, the National Mental Health Plan of 2015 considers the mental health care model through the creation of community centers to provide specialized care within the framework of primary health care.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

The National Health Strategy 2010-2020 focuses on risk factors, proposing “to develop healthy behaviors and lifestyles that promote the reduction of risk factors associated with the burden of disease in the population.” To that end, in 2013, Law 20,670 was passed, creating the “Choose to Live Healthy” program, aimed at promoting healthy behaviors and lifestyles.

Consequently, in 2015, the Ministry of Health issued the document Conceptual Underpinnings for Networked Planning and Programming, with the objective of beginning effective integration of local health teams in 2016 and improving

their competencies to address the different epidemiological situations that arise.

In the coming years, the health sector will have to deal with new epidemics associated with risk factors such as smoking, alcohol, and malnutrition due to excess calorie intake (this latter with the consequent effects of overweight and obesity).

Great strides have been made since the last decade, including health-sector policies enshrined in laws on the Explicit Health Guarantees; new rules for the regulation of the pharmaceutical sector; and the Financial Protection Law governing costly diagnostics and treatments.

Since 2002, the country has had a cardiovascular health program in primary care for people aged 55 and over. This program covers atherosclerotic cardiovascular disease, diabetes mellitus, hypertension, dyslipidemia, and smoking.

The public system has attempted to tackle these challenges by improving integrated health services networks and implementing the family health model for primary care. A National Mental Health Plan has been implemented that includes a national alcohol strategy and a national program for suicide prevention.

The challenges in the public sector include addressing the shortage of medical specialists and infrastructure and the need to improve management and effectiveness in primary care, while guaranteeing an adequate supply of medicines. The greatest challenge in the coming years, however, will be reducing the socioeconomic gaps that pose an obstacle to more equitable, comprehensive, and inclusive development.

ADDITIONAL POINTS

Economic development, a gradual increase in health care coverage, and the efforts of successive governments in recent decades have managed to reduce communicable, nutritional, maternal, and childhood diseases.

Improved hygiene and sanitation conditions, universal hospital delivery coverage, the creation of outpatient care facilities specifically for acute respiratory infections in children and respiratory diseases in adults, and the now-traditional programs for communicable disease prevention and control and nutritional assistance have provided essential benefits to the population.

In the decade since the launch of the Explicit Health Guarantees program, its effect in terms of increased coverage of care for the priority diseases included in the program (currently, 80 pathologies) is becoming apparent.

Since 2015, attempts have been made to implement the proposal to establish service networks through the creation of local health teams and to improve system competencies for the delivery of integrated care based on primary health care.



COLOMBIA

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	12,910 (2014)	...
Human development index	0.592	0.720 (2013)	21.6
Mean years of schooling	5.5	7.1 (2014)	28.5
Improved drinking-water source coverage (%)	88.0	91.2 (2015)	3.6
Improved sanitation coverage (%)	69.0	81.1 (2015)	17.5
Life expectancy at birth (years)	68.3	74.4 (2013)	9.0
Infant mortality (per 1,000 live births)	29.0	17.3 (2013)	-40.3
Maternal mortality (per 100,000 live births)	...	55.3 (2013)	...
TB incidence (per 100,000 population)	54.0	24.8 (2013)	-54.0
TB mortality (per 100,000 population)	5.0	1.6 (2013)	-68.0
Measles immunization coverage (%)	82.0	94.0 (2015)	14.6
Births attended by trained personnel (%)	...	98.6 (2015)	...



Colombia is located in the northwest of South America, and borders Brazil, Ecuador, Panama, Peru, and Venezuela. It is divided into 32 departments, a capital district, 1,121 municipalities, and indigenous territories.

Population growth in the period 1990-2016 was 42.0%, during which time the population structure became regressive and older. By 2015, the population reached 48,747,708, with 79% living in urban areas. Life expectancy at birth is 74.4 years.

Also between 1990 and 2015, the basic health indicators reflected remarkable improvement overall.



SOCIAL DETERMINANTS OF HEALTH

In 2015, income inequality was high, as reflected by a Gini coefficient of 0.522; 27.8% of the population lived below the poverty line. The introduction of wage reforms contributed to a reduction in unemployment down to 8.9% in 2015.

The El Niño and La Niña climate phenomena had both direct (deaths and injuries) and indirect impacts on the health of the population, negatively affecting determinants such as poverty, food insecurity, and access to safe water.

In 2015, 91.2% of the population had access to improved sources of drinking water and 81.1% to improved sanitation, although coverage in rural areas and among the indigenous population is low.

Violence and public insecurity constitute an important problem, compounded by the impact of more than five decades of armed conflict with guerrilla forces. This has spawned phenomena such as organized crime, forced displacement, and the confinement of an estimated 8 million people.

In 2013, homicide was the second leading external cause of death in men (57.38 deaths per 100,000 population), and the tenth leading cause in women (5.05 per 100,000 population).

Emigration is a significant phenomenon, especially to the United States (34.6%), Spain (23.1%), Venezuela (20.0%), and Ecuador (3.1%), with Colombian nationals representing 98% of all immigrants in this latter country.

Vulnerability and inequity in the population are exacerbated by the limited presence of institutions in areas where indigenous, rural, and Afro-Colombian populations reside. Further contributing factors are illegal farming and mining, as well as sparse settlement in isolated regions.

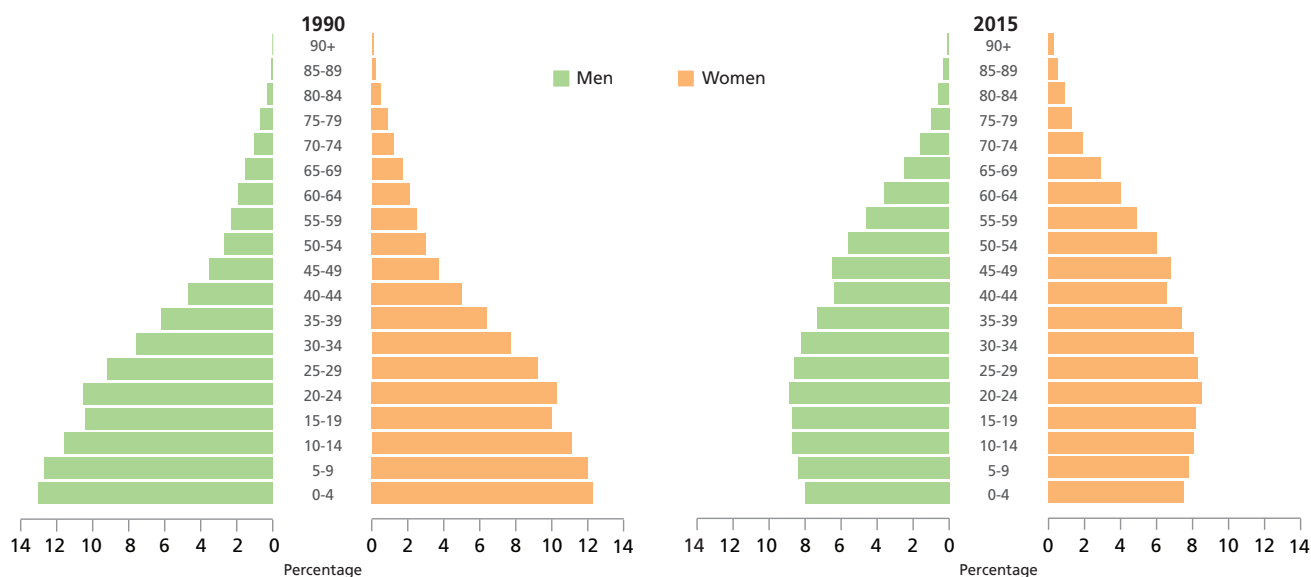
HEALTH SITUATION AND THE HEALTH SYSTEM

In 2014, the maternal mortality rate was 53 deaths per 100,000 live births. However, the rate was 2.8 times higher in departments in the highest poverty quintile. Up to 60% of maternal deaths were recorded in the poorest and most illiterate 50% of the population; 18% of the total was in mothers between the ages of 10 and 19; 24% in the indigenous and Afro-Colombian populations; and 30% in mothers with a primary education or less.

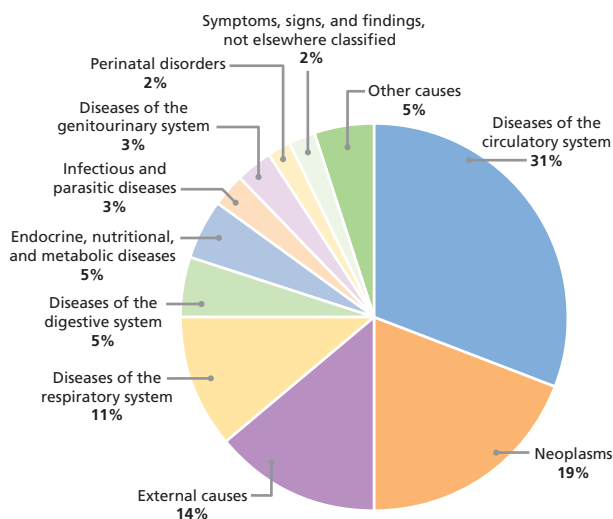
In 2013, the infant mortality rate was 17.25 deaths per 1,000 live births. This rate is higher in the poorer sectors of society and among mothers with a low educational level. Infant mortality accounts for 82% of deaths of children under 5 (a rate of 14.1 per 10,000); leading causes include prematurity, congenital malformations, respiratory disorders, neonatal bacterial sepsis, infections of the respiratory and digestive systems, and malnutrition.

In 2014, the country was declared free of measles, rubella, and congenital rubella syndrome. In 2015, MMR vaccine coverage was 93.9% for the first dose and 87.5% for the second dose.

Distribution of the population by age and sex, Colombia, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2013



Between 2005 and 2013, 29.9% of all deaths were caused by diseases of the circulatory system.

The most prevalent neoplasms included stomach cancer (16.5% of all cancers in men) and breast cancer (12.6% of all cancers in women).

Malaria is endemic in Colombia. In 2015, there were 52,416 recorded cases of malaria and 1,018 cases of Chagas disease (996 chronic and 22 acute, with a case-fatality rate of 0.07%).

Since 2010, trachoma has been considered endemic, with rates of up to 21% to 26% along the border with Brazil.

Dengue is a reemerging problem; outbreaks of the severe form are on the rise, with a case-fatality rate of 6.3% in 2014.

In 2015, the incidence of chikungunya was 1,359 cases per 100,000 population, with a case-fatality rate of 0.02%. The Zika virus (ZIKV) epidemic ended in mid-2016, with 8,826 confirmed cases, 91,640 clinically suspected cases, and 21 confirmed cases of ZIKV-associated microcephaly.

In 2014, the rate of HIV infection was 11.6 cases per 10,000 population, with 0.45% of 15-to-49-year-olds affected. The epidemic is concentrated in large cities, which account for 86% of reported cases.

Between 2005 and 2013, there were an average of 417 deaths per year from malnutrition among children under 5. The problem is greater in predominantly indigenous populations living below the poverty line.

In 2016, 2.7% of the population was disabled; this percentage rose to 45.5% in people older than 60.

The Statutory Health Law (2015) enshrined the right to health care within the national health system, recognizing it as a basic social right.

In 2014, national health expenditure accounted for 7.2% of gross domestic product (GDP) (5.4% public and 1.8% private). Out-of-pocket spending accounted for 15.4% of total expenditure.

Greater public and private expenditure is required to meet the growing cost of new health technologies, progressive population aging, and increasing insurance coverage. Increasing judicialization of health, i.e., the practice of litigating for the protection of basic health rights, is contributing to these rising costs.

The Colombian health system is made up of a social security sector and a private sector. The backbone of the system is the General Social Security Health System, which has two regimes, contributory and subsidized.

Membership in the General Social Security Health System is compulsory and is handled through public or private health promoting agencies (EPSs). The EPSs turn over the funds from premium payments to the Solidarity and Guarantee Fund (FOSYGA).

As of 2015, health system membership was 97.6%.

In 2012, the ratio of health professionals per 10,000 population was 17.7 for physicians, 10.3 for nurses, and 8.3 for dentists.

The country has 55 medical schools, graduating an average of 5,000 physicians annually, and 65 nursing programs, graduating an average of 3,600 nurses annually.

As of 2016, 242 public health institutions were registered to use telemedicine services and improve the electronic connection between clinical services, thus providing better functional access to health care. The Comprehensive Social Protection Information System (SISPRO) provides a mechanism for obtaining and consolidating information on health, occupational safety, and social welfare.

Since 2013, Colombia has had a National Disability and Social Inclusion Policy in place, aimed at ensuring more effective implementation of action related to disability.

In 2014, Law No. 1733 was enacted, regulating palliative care services for the integrated management of patients with terminal, chronic, degenerative, and irreversible illnesses at any stage of any disease having a major impact on quality of life.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

In 2016, the Comprehensive Health Care Policy (PAIS) was introduced, making the individual, family, and society, rather than health providers and insurers, the center of health action.

The formulation of this policy and of the Comprehensive Health Care Model (MIAS) represent a strategic advance by the health system in its commitment to ensuring that citizens have access to health services. It is the operative component of the PAIS.

A family and community health and medicine approach, designed to build competencies in the health workforce, is being developed within the framework of the MIAS.

Both the PAIS and MIAS are meant to improve quality, sustainability, and equity in health. They provide a framework of actions ranging from health promotion and disease prevention to treatment, rehabilitation, and social reintegration at all stages of life, as close as possible to citizens' daily lives.

The objectives of the 10-Year Public Health Plan 2012-21 (PDSP) are to attain equity in health, positively influence the social determinants of health, and mitigate the impact of the burden of disease.

In 2015, the Government committed to reducing premature mortality from cardiovascular disease, diabetes, cancer, and chronic respiratory diseases by 8% in the population aged 30 to 70.

The 10-year Plan for Cancer Control 2012-2021 seeks to reduce cancer mortality by 30% in this period, integrating the control of risk factors such as smoking, sedentary lifestyle, high sugar intake, and obesity.

ADDITIONAL POINTS

The National Pharmaceutical Policy seeks to safeguard the quality of medicinal drugs and people's access to them.

The Pharmaceutical Policy provides for price regulation instruments based on international benchmarks, the registration of biosimilar products, and the strengthening of national capacity, as well as mechanisms for incorporating marketing authorization procedures.

The Pharmaceutical Policy proposes 10 strategies related to the accessibility, timeliness, quality, and rational use of medicines, regardless of individual ability to pay.

Cross-cutting strategies include making available reliable, timely, and public data on access to drugs, drug prices,

utilization, and quality; the establishment of an effective, efficient, and coherent institutional system; and improvement of the availability and competencies of the pharmaceutical sector workforce.

The National Food and Drug Surveillance Institute (INVIMA) has been certified as a National Regulatory Authority for Regional Reference on medicines and biologics.

The country has also established requirements for bioavailability and bioequivalence studies of medicines.

Another highlight was the development of price regulation and market regulation instruments based on international benchmarks, as noted above.

COSTA RICA

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	14,420 (2014)	...
Human development index	0.653	0.766 (2013)	17.4
Mean years of schooling	6.9	8.7 (2014)	26.2
Improved drinking-water source coverage (%)	93.0	98.0 (2015)	5.4
Improved sanitation coverage (%)	88.0	95.0 (2015)	8.0
Life expectancy at birth (years)	75.7	79.2 (2016)	4.6
Infant mortality (per 1,000 live births)	14.3	8.0 (2014)	-44.1
Maternal mortality (per 100,000 live births)	...	29.0 (2014)	...
TB incidence (per 100,000 population)	29.0	9.7 (2013)	-66.4
TB mortality (per 100,000 population)	2.5	0.7 (2013)	-72.0
Measles immunization coverage (%)	90.0	93.0 (2015)	3.3
Births attended by trained personnel (%)	...	92.4 (2015)	...



1990 population (millions)	3.1
2015 population (millions)	4.8
Change (%)	55.3

Costa Rica is located in Central America, between the Atlantic and Pacific Oceans; it borders Nicaragua and Panama. It is divided politically into 7 provinces, 81 cantons, and 463 districts. Its 8 indigenous populations are distributed across 24 territories. Of the total population, 2.42% describe themselves as indigenous, 1.9% as Afro-Costa Ricans, and 0.5% as Chinese.

Between 1990 and 2015, the population grew by 55.3% and its pyramid shifted from an expansive one toward a regressive one through population aging. In 2015, the population was 4.8 million (76.8% in urban areas).

In 2016, life expectancy at birth was 79.16 years (81 for women and 77 for men).

Costa Rica is among the countries with high human development and is ranked fifth in Latin America on this scale as a result of heavy public social investment.

SOCIAL DETERMINANTS OF HEALTH

In 2015, 21.7% of households were living in poverty, and 7.2% in extreme poverty. The highest-earning quintile received 54.4% of all income, while the lowest-earning quintile received 4.1%.

The indigenous population, 47% of which is concentrated in 22 territories, exhibits high levels of poverty and marginalization, especially among women.

In 2015, the literacy rate was 97.8%, and nearly 90% of children completed primary school. The mean educational attainment was 8.4 years of schooling.

Almost the entire Costa Rican population has access to improved water sources and improved sanitation facilities.

The informal economy employs 45.3% of the workforce. In 2011, 69.5% of men and 34.9% of women were employed; in the indigenous population, this rate was 56.2% and 16.9%, respectively. In 2015, 10.1% of the workforce was unemployed. Women's wages were, on average, 14% less than those paid to men with similar roles and responsibilities.

The demographic bonus will last until 2045, but by 2035 the proportion of the population over age 65 will surpass that of children under 15.

The country is facing challenges related to the preservation of water resources, rational use of marine resources, waste management, mechanisms for adaptation to climate change, and the use of clean energy sources to reduce dependence on fossil fuels.

Natural disaster emergencies are associated with the rains and winds that occur throughout the year.

Public insecurity is related to social tensions and criminality, associated especially with drug trafficking and organized crime, leading to high rates of homicide, theft, and drug addiction.

In 2011, immigrants—mostly from Nicaragua—comprised 9.0% of the population.

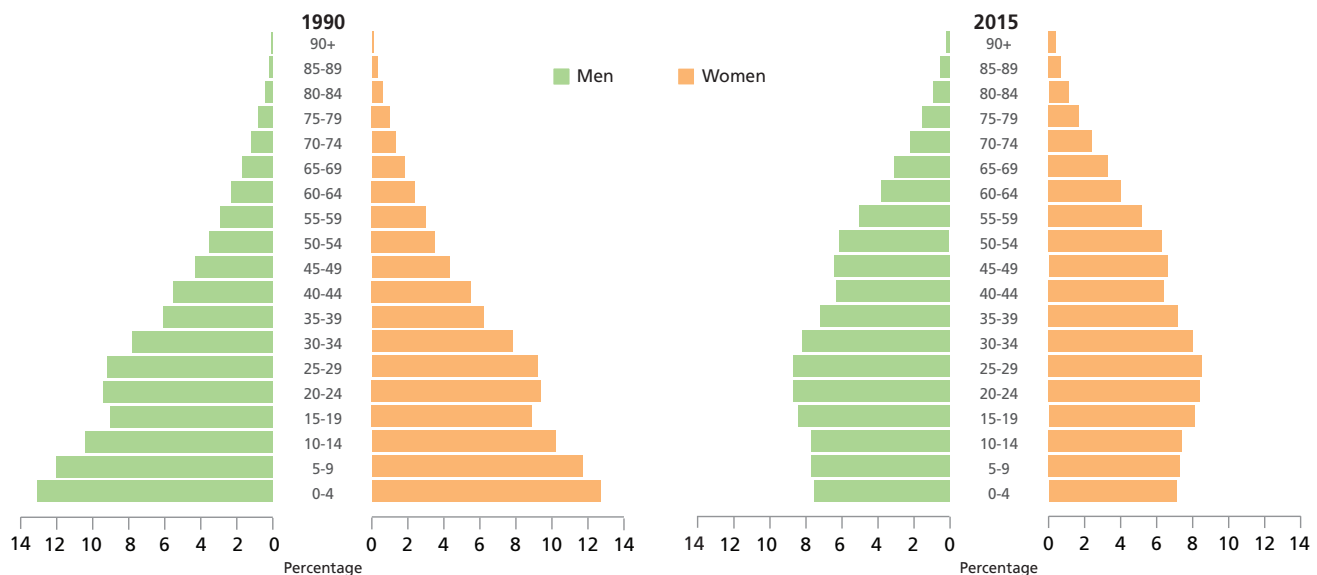
In the process of constructing the post-2015 development agenda, the Government conducted a broad-based national consultation in which citizens expressed their main desires for the future: achieving a more inclusive and equitable society; a sustainable health system that meets health needs with user-friendly, high-quality services; comprehensive education; and a secure society.

HEALTH SITUATION AND THE HEALTH SYSTEM

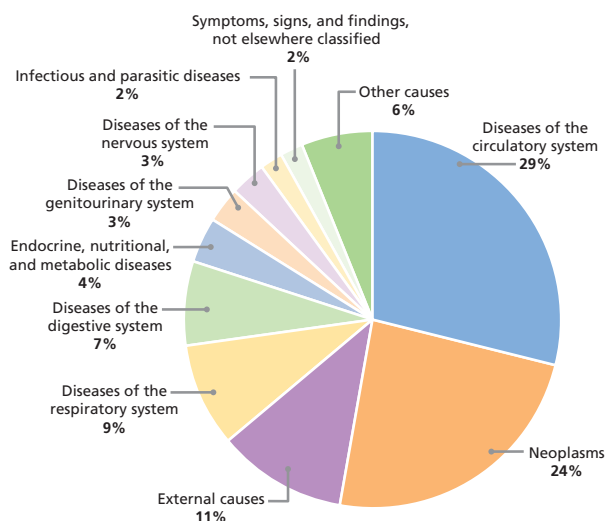
In 2014, the maternal mortality ratio was 29.0 deaths per 100,000 live births, associated mainly with direct obstetric causes, such as complications of labor (33.3%), complications of the puerperium (9.5%), and hypertensive disorders in pregnancy, childbirth, and the puerperium (9.5%).

The infant mortality rate was 8.0 per 1,000 live births in 2014. Conditions originating in the perinatal period and congenital malformations caused 50.9% and 32.9% of deaths of children under 1, respectively.

Distribution of the population by age and sex, Costa Rica, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2014



In 2014, the overall mortality rate was 4.4 per 1,000 population (4.9 in men and 3.2 in women). Diseases of the circulatory system were the leading cause of death (29%), followed by neoplasms (24%); together, these two groups accounted for more than half of all deaths.

In 2010, the overall underreporting of causes of death was 6%, with ill-defined causes at 1.8% and deaths assigned to “garbage codes” at 12.6%.

Between 2002 and 2012, the incidence of HIV infection increased from 8.2 to 14.2 cases per 100,000 population, respectively.

Dengue has remained a concern since its reemergence in 1993. Between 2013 and 2016, 95,047 cases were reported, 230 of which were severe; 1 death was reported. The incidence of chikungunya virus infection was 42 cases per 100,000 population. Zika virus disease was detected for the first time in 2016, and 1,518 cases were ultimately confirmed.

In 2013, two autochthonous cases of malaria were reported; since the elimination of transmission in Limón province, the country has been in the elimination stage of the disease.

In 2008-2009, 29.4% of children under 5 suffered from chronic malnutrition and 8.3% acute malnutrition, for an overall malnutrition rate of 16.3%.

The prevalence of overweight (36.8%) and obesity (29.4%) increased in all age groups, being highest in women.

The leading causes of death from chronic noncommunicable diseases (NCDs) in men are ischemic heart disease, cerebrovascular disease, road traffic injuries, cirrhosis, and

chronic respiratory diseases. In women, the main causes of death from NCDs are chronic respiratory diseases, diabetes mellitus, hypertensive diseases, and breast cancer.

In the population over age 19, the prevalence of diabetes and hypertension is 10.0% and 31.2%, respectively. The prevalence of dyslipidemia is 25.0%; overweight, 36.8%; and obesity, 29.4%.

As of 2010, ischemic heart disease, road traffic injuries, and interpersonal violence were the leading causes of potential years of life lost.

The right to life is enshrined in the Costa Rican Constitution. The General Health Law (1973) defines the health of the population as a public good and makes the State responsible for maintaining it through the health system.

The national health system is made up of the State health sector, private health care services, community health organizations, universities, municipalities, pharmaceutical companies, the National Commission on Emergencies, and international cooperation agencies.

The public health system is composed of the Ministry of Health, the Costa Rican Social Security Fund, the Costa Rican Water Supply and Sewerage Institute, and other public institutions charged with protecting and improving the health of the population. The Ministry, as the steering agency in the system, provides management and political leadership, health regulation, research guidance, and medicine and technology development.

Health insurance is funded on a contributory basis; the objective is to move toward universal funding, without losing sight of the potential impact of new forms of employment on the financial sustainability of health insurance.

The Social Security Fund provides comprehensive services to its beneficiaries, from health promotion to palliative care. There are no copayments in Social Security. As of 2013, the social health insurance coverage rate was 84.9%.

Out-of-pocket expenditure (for services and drugs purchased in the private sector) as a proportion of total health expenditure was 24.9% in 2014.

In 2014, Costa Rica had 22.8 physicians, 24.4 nurses, and 9.3 dentists per 10,000 population.

The primary level of care is organized into 104 health areas, divided into 1,041 sectors, each of which is assigned a Basic Comprehensive Health Care Team (EBAIS). The secondary level of care is represented by large clinics, 7 regional hospitals, and 13 peripheral hospitals that offer medical specialties, inpatient care, and surgery in core specialties. The tertiary level is represented by 3 national general hospitals and 6 specialty hospitals providing higher-complexity care.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

The country has made substantial progress in overall conditions and health status, including high social security and health coverage, as well as social guarantees that influence the determinants of health. Life expectancy at birth has increased, infant mortality and maternal mortality have declined, and advances have been made in communicable disease control.

Leading health problems include nutritional deficiencies in children; overweight in adults; and the prevalence of chronic diseases and the rising cost of their treatment.

Inequalities persist among the various population groups. The health system is facing the challenge of contributing to higher levels of equity and solidarity.

Another problem is the weakening of leadership in the Ministry of Health, due to problems related to organization, monitoring, and evaluation; incomplete separation of functions; and weak coordination with the Costa Rican Social Security Fund (CCSS), among other causes.

In recent years, the quality of care and productivity of the health services have become a concern, as have the financial situation and the risk that the CCSS may eventually become unsustainable.

Within this context, several studies have been conducted and national consultations have been promoted by the political and health authorities, who have concluded that the main problems are structural and that it is important to strengthen the model of care and improve financial, technology, and human resource management.

Growing violence and its implications for health and health services demand will require not only action against crime, but initiatives to foster social harmony, safeguard the rights of vulnerable groups, ensure a decent income for all citizens, promote education that respects diversity, and create safe gathering spaces for the public.

Population aging and rising rates of chronic NCDs will require the implementation of strategies to promote healthy lifestyles, improve urban living, and strengthen social protection for older adults.



ADDITIONAL POINTS

The 75th anniversary of the Costa Rican Social Security Fund (CCSS) represents a major milestone in health. The CCSS has become an emblematic institution with a record of remarkable results in the health arena.

The country is in the process of formulating policies and practices with a view toward universal health coverage.

The successive reforms in the country's health service delivery model are a touchstone for all who work in the public health sector.

Both the universalization of social security in the 1970s and the formation of Basic Comprehensive Health Care Teams (EBAISs), which began in the 1990s, were major milestones

in the evolution of the Costa Rican health system toward primary health care, a process in which the CCSS has been instrumental as an organizational framework.

The Strategic Institutional Plan 2015-2018 of the CCSS is addressing these challenges through reforms of the management, delivery, and financing models, as well as through several strategic projects.

In 2016, 242 public health institutions registered to use telemedicine services and improve electronic connections among clinical services in order to increase access to health care.



SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	18,630 (2014)	...
Human development index	0.676	0.769 (2013)	13.8
Mean years of schooling	8.5	11.1 (2014)	30.6
Improved drinking-water source coverage (%)	90.0	95.0 (2015)	5.6
Improved sanitation coverage (%)	82.0	93.0 (2015)	13.4
Life expectancy at birth (years)	74.6	78.4 (2015)	5.1
Infant mortality (per 1,000 live births)	10.5	4.3 (2015)	-59.0
Maternal mortality (per 100,000 live births)	...	41.6 (2015)	...
TB incidence (per 100,000 population)	25.0	5.8 (2015)	-76.8
TB mortality (per 100,000 population)	0.6	0.3 (2015)	-50.0
Measles immunization coverage (%)	94.0	100.0 (2015)	6.4
Births attended by trained personnel (%)	...	99.9 (2015)	...



The Republic of Cuba is an archipelago comprising the island of Cuba and more than 1,600 islands, islets, and keys covering an area of 109,884 km². It is administratively divided into 15 provinces and 168 municipalities.

Between 1990 and 2015, the population increased by 6.7%, reaching 11,239,004 in 2015. In 2010, the urban population was 8.6 million, and the rural population 2.6 million (76.9% of the population was urban).

In 1990, the population structure was expansive among people over 30, although in 2015, the under-30 population became regressive due to mortality and low fertility.

In 2015, life expectancy at birth was 78.4 years (80.4 years in women and 76.5 in men).

In 2015, Cuba obtained a high human development index, ranking 67th among the 188 countries of the world.



SOCIAL DETERMINANTS OF HEALTH

In 2014, 95.2% of the population had access to safe drinking water (98.1% urban and 85.4% rural), and 96.7% to basic sanitation (98.2% urban and 91.7% rural)

In the 60-74 age group, 57% have completed secondary and university studies, with 11.1 mean years of schooling in 2015.

In 2015, there was internal migration of 80,581 inhabitants (41,524 men and 39,057 women). Havana was the most common destination. That same year, Cuba broke its record for foreign visitors, with 3,524,779 arrivals—a 17.4% increase over 2014, making tourism the country's second-largest source of revenue.

The National Health Policy considers health an essential component of human well-being and a strategic development goal. Health services are differentiated to meet the needs of each territory, community, population group, family, and individual to guarantee equity and efficiency based on an assessment of the health situation at each level of the system.

The greatest danger from climate change will continue to be rising sea levels, bringing coastal flooding, salinization of aquifers and soil, and the destruction of the natural and built coastal environment.

Cuba is vulnerable to hurricanes. In 2012, Hurricane Sandy killed 11 people and injured more than 100, with serious flooding and material damage.

HEALTH SITUATION AND THE HEALTH SYSTEM

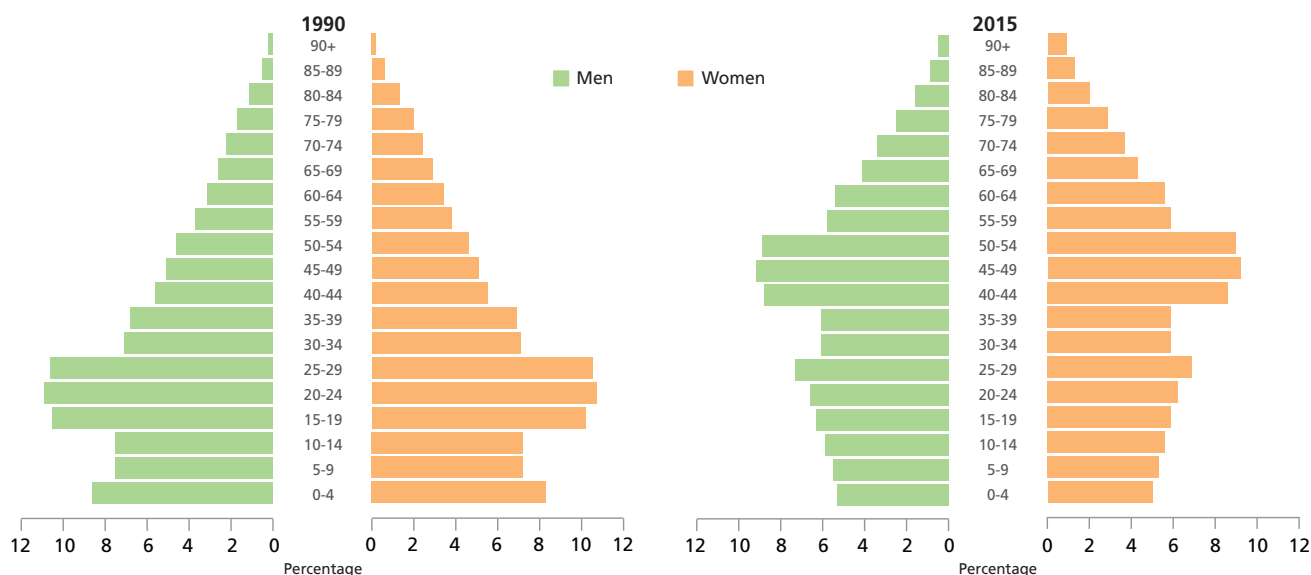
In 2015, the fertility rate was 45.1 live births per 1,000 women of reproductive age. The maternal mortality ratio was 41.6 deaths per 100,000 live births in 2015, primarily due to direct causes (24.8 deaths per 100,000 births), rather than indirect ones (16.8).

The infant mortality rate has continued its steady decline, falling to 4.3 deaths per 1,000 live births in 2015. More than 80% of deaths were caused by disorders of the perinatal period, congenital malformations, influenza and pneumonia, accidents, and sepsis. The percentage of low birthweight was 5.3%.

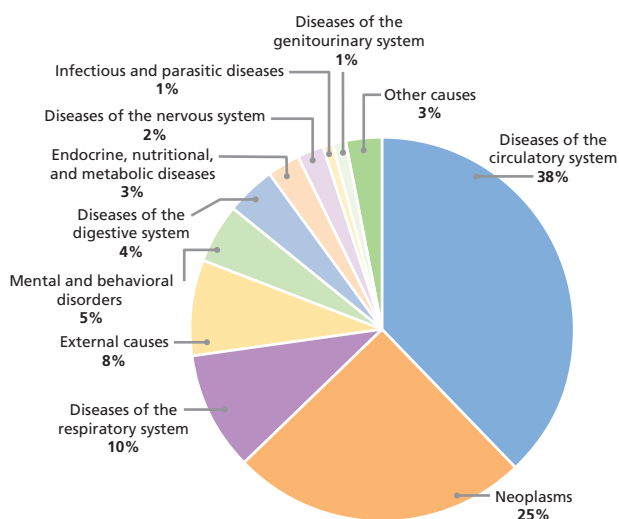
Mortality in children under 5 remained at 5.7 per 1,000 live births. Specific mortality in the group aged 5-9 was 0.2 deaths per 1,000 population between 2010 and 2015, with accidents and malignant tumors the leading causes. Among adolescents aged 10-19, accidents were the leading cause of death.

The National Immunization Program, which protects against 13 diseases, has achieved the eradication of polio, diphtheria, measles, whooping cough, rubella, mumps, neonatal tetanus, and TB meningitis in children under 1 year, congenital rubella syndrome, and post-mumps meningoencephalitis. Vaccination coverage remained above 98.7% in the period analyzed at all territorial levels.

Distribution of the population by age and sex, Cuba, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2014



The incidence rate of meningococcal disease remained at 0.1 per 100,000 population.

In 2014, circulatory system diseases caused 38% of deaths and neoplasms 25%. These two causes account for almost two-thirds of all deaths in an aging population in which most deaths are among older adults.

The total mortality rate in 2015 was 8.9 deaths per 1,000 population. Among the top 10 causes of death in 2015, heart disease ranked first, with a rate of 218.3 deaths per 100,000 population, almost tied with malignant tumors (215.0). The principal causes of death among people aged 20-59 are malignant tumors, heart disease, and traffic accidents.

The prevalence of hypertension in Cuba was 217.5 per 1,000 population in 2015, higher than the figure for 2010, which was 202.7.

In 2015, 10.5% of children were overweight and 5.9% obese. Thanks to state subsidies for basic foods and coverage and support for vulnerable groups, less than 5% of the population was undernourished. In 2010, 43.8% of the population was overweight and 14.8% obese, with a higher prevalence of both among women (47.1% and 18.1%, respectively).

In 2015, there were 1,623 confirmed cases of dengue. That same year, 40 cases of chikungunya were confirmed, as were incidents of cholera transmission, with 65 confirmed cases.

An active search for fever cases, border surveillance, and environmental sanitation have been important factors in controlling dengue, chikungunya, Zika, and yellow fever, while control of the *Aedes aegypti* mosquito is the key element for interrupting transmission.

In 2015, the reported malaria rate was 0.01 cases per 100,000 population, all of which were imported. Cuba maintains the standards for the elimination of this disease, as well as those for yellow fever.

Leprosy had a prevalence of 0.2 cases per 10,000 in 2015. The tuberculosis incidence rate was a low 5.8 per 100,000 in 2015, and efforts are being made toward elimination. As of 2015, HIV prevalence in the population aged 15-19 was 0.27%.

No cases of human rabies have been reported since 2009. In 2014, 175 cases of leptospirosis were reported, mainly in men working in the agricultural sector.

Government investment in biotechnology has led to significant progress in the early diagnosis and timely treatment of cancer, thus increasing survival rates. In 2015, it was estimated that nearly 120,000 people suffered from this disease.

In 2015, 11,104 traffic accidents were recorded, with 788 deaths and 8,185 people injured. The country has a Road Safety Plan whose objective is to reduce the death rate to 5 per 100,000 population within 15 years.

The National Occupational Health Program includes pre-employment and periodic primary care exams. There is a secondary, more specialized level of care for the treatment of occupational diseases and work-related accidents. New groups of workers in the non-State sector exceeded 500,000 people in 2015.

With respect to tobacco use, 40% of men and 20% of women reported some history of smoking. Prevalence is trending downwards, except among adolescents, where the rate remains unchanged.

Alcohol consumption is higher in men (47%) than in women (19%). Among adolescents under 15, 11% report having consumed alcohol, including 3% of females.

The development and consolidation of the National Health System (NHS), overseen by the Ministry of Public Health (MINSAP), has been a priority effort since 1959 and has received significant Government attention and resources.

The NHS is organized and operates according to the principles of universality, free health care, accessibility, regionalization, and comprehensiveness. The system is structured into three territorial levels (national, provincial, and municipal) and three levels of care. It has a network of integrated and comprehensive, general and specialized, and decentralized and regionalized services ranging from primary to tertiary care, with a primary health care (PHC) approach.

There is a Social Security System comprised of the Social Security and Social Welfare systems. The former ensures protection to all persons with disabilities and grants pensions, economic subsidies for maternity leave, and subsidies for illness or accidents.

The latter offers care for the elderly and persons with disabilities through programs geared to improving their quality of life and integration into society.

In 2015, the country had 11,958 medical units, 151 hospitals, and 12 research institutes constituting the highest level of specialization in the NHS. The total number of beds for medical care is 45,892, while there are 14,168 social welfare beds.

Per capita health expenditure in 2015 was the equivalent of US\$ 639.60, with a very low level of out-of-pocket health expenditure.

The NHS made necessary changes in the period 2010-2015, intended to continue improving the health of the population, increase the quality of services and user satisfaction, and make the system more efficient and sustainable.

In 2015, there were 495,609 health workers, 70.6% of whom were women. There were 7.84 physicians per 1,000 population, and universal coverage was achieved through the family physician and nurse model.

In 2015, the country launched monitoring and evaluation strategies with the support of automation and digital literacy. Their use is an inescapable challenge for achieving more complete and sustainable social development. Infomed is the NHS telematics information network.

The biotechnology industry manufactures 525 generic drugs and 8 vaccines, which are also exported to generate foreign exchange to finance the NHS. Cuban medical services abroad are another major source of financing that contributes to the sustainability of the NHS.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

In 2015, Cuba achieved the Millennium Development Goals. The country also adheres to its decision to comply with international agreements on women's rights and is working toward the achievement of gender equity.

The country's dynamics and demographic features receive priority attention. Among these is the low fertility of the population, aging, and the consequential loss of the replacement rate, with increases in chronic noncommunicable diseases.

Chronic diseases not only entail high mortality but produce heavy burdens, including recurrent problems and growing disability; these conditions are putting growing demand on the health services. Therefore, more human, material, and financial resources must be allocated to meet health needs.

It is important to improve the resiliency and response capacity of the health sector, given the relationship between climate change and human health. This calls for the development of important new interventions.

A great challenge for the coming years is to adopt mechanisms that will ensure sustainability and consolidate the achievements within a new demographic, epidemiological, economic, social, and political context.

ADDITIONAL POINTS

On 30 June 2015, Cuba was recognized by the World Health Organization as the first country in the world to obtain certification of the elimination of mother-to-child transmission of human immunodeficiency virus and congenital syphilis, following a rigorous review process and submission of a country report that documents all that was done to achieve and sustain this milestone.

The school health program is geared to health promotion and disease prevention. It provides health services through physicians and nurses to children under 5 in kindergartens and primary schools with enrollment of more than 600 students, boarding facilities, and special education schools.

Risk factors, morbidity, and mortality have been reduced in the school-age population, and there is integrated, intersectoral,

and interdisciplinary work with the community to promote healthy habits and behaviors.

The country has 136 maternity homes, which are community referral centers for the care of pregnant women, created to prevent morbidity and mortality. They constitute an NHS success story in the effort to protect and continuously improve maternal and child health.

Family doctors provide comprehensive care in homes and health care facilities with the support of multidisciplinary geriatric teams. New geriatric services have been implemented in the country, for a total of 36 with 769 beds in 2014.



SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)
Human development index
Mean years of schooling
Improved drinking-water source coverage (%)
Improved sanitation coverage (%)
Life expectancy at birth (years)	...	78.3 (2013)	...
Infant mortality (per 1,000 live births)	...	11.3 (2013)	...
Maternal mortality (per 100,000 live births)	...	0.0 (2013)	...
TB incidence (per 100,000 population)
TB mortality (per 100,000 population)
Measles immunization coverage (%)
Births attended by trained personnel (%)	...	90.0 (2015)	...



1990 population (thousands)	146.7
2016 population (thousands)	159.0
Change (%)	8.4

Curaçao is located in the southern Caribbean Sea, 65 km north of Venezuela. It became an autonomous country within the Kingdom of The Netherlands in 2010, having been part of the Netherlands Antilles.

In 2016, Curaçao had 158,986 inhabitants, with a male/female ratio of 84:100, explained mainly by immigration, predominately by women, for employment purposes, especially in the age group of 30-60 years. Life expectancy is 74.8 years for men and 81.0 years for women.

The population grew by 8.4% from 1990 to 2016. In 1990, the population structure showed a slow expansionary trend. There is currently a higher concentration in the groups around 50 years of age, while population growth is stationary for groups under 40.

With a 2011 per capita gross domestic product (GDP) of US\$ 27,781 (PPP), Curaçao is considered to have a high-income economy, with a standard of living among the highest in the Caribbean.



SOCIAL DETERMINANTS OF HEALTH

Between 2001 and 2011, poverty declined from 34% to 25%. Households with an income below the poverty line are more likely to be headed by women, an unemployed person, a person with a low level of education, or a single person on welfare or state pension.

The primary security concerns are petty theft and street crime. Like the other islands of the former Dutch Caribbean, Curaçao is a major transit point for drug trafficking, though there is intensive international collaboration to disrupt drug smuggling in the region.

Air quality is impaired by the operations of the aging “Isla” oil refinery.

Immigrants accounted for 24.0% of the population in 2011. They arrive mainly from The Netherlands (25.2%), the Dominican Republic (15.2%), and Colombia (12.7%). The undocumented immigrant population was estimated at 15,000 in 2005. The justice system strictly enforces robust measures to combat illegal immigration, making it difficult for undocumented immigrants to obtain health care.

HEALTH SITUATION AND THE HEALTH SYSTEM

Considering the relatively small number of births and deaths in Curaçao, the indicators tend to fluctuate from year to year. No maternal deaths have been recorded in the past 3 years. During 2010-2015, the neonatal mortality rate varied from 8.9 to 4.4 deaths a year per 1,000 live births, and infant mortality from 12.8 to 7.6 deaths per 1,000 live births.

In 2007, vaccine coverage under the national program was over 95% in the first year of life.

Between 2003 and 2007 (the latest years for which information is available), cardiovascular disease was responsible for 37% of deaths, and tumors, 26%, for both men and women.

The leading sites of malignant neoplasms among the male population were the prostate (26%), the lungs and bronchi (19%), and the colon (9%). Among the female population, they were the breast (26%), the colon (13%), and the ovaries (7%).

The 2010-2011 dengue outbreak had 1,822 serologically confirmed cases of dengue and 4 deaths. No cases of malaria were reported between 2008 and 2012.

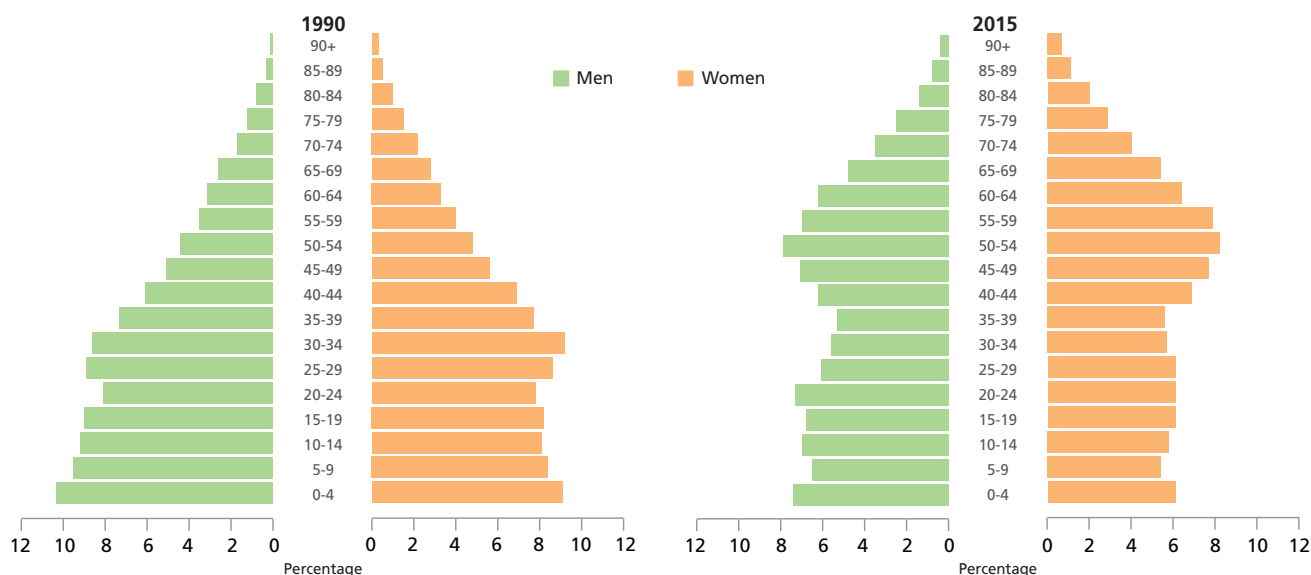
In August 2014, the chikungunya virus was first reported on Curaçao, followed by a major outbreak during the 2014-2015 rainy season. The virus infected an estimated 20,000 people.

In January 2016, Zika virus was first reported on Curacao; by May 2016, 208 laboratory-confirmed cases had been reported.

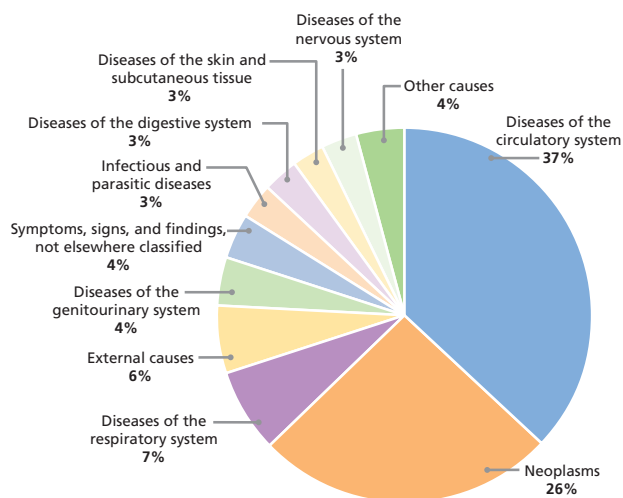
In 2014, 94 new cases of HIV were reported, for a total of 1,830 HIV-positive individuals. From 2002 to 2010, 14 cases of leprosy were reported.

In 2013, 19.9% of the population aged 18 and over reported hypertension (23.5% of women and 15.4% of men). That same year, 39.3% of men were overweight and 23.3% were obese, while for women in this population group, the rates were 34.7% and 32.6%, respectively.

Distribution of the population by age and sex, Curaçao, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2007



The main chronic conditions in adults aged 65 and over are hypertension (46%), diabetes mellitus (26%), and high cholesterol (23%); 78% of women and 68% of men in that age group reported living with at least one disease.

Legislation introduced in 2015 prohibits smoking in enclosed public spaces, such as restaurants and bars. In 2013, 15.5% of persons aged 18 and over reported having used tobacco, and 10.1% were daily smokers.

In 2013, 62% of people over the age of 18 had consumed alcohol in the past year and 4.7% reported daily alcohol consumption. Men drank more often than women (12.0% and 2.0%, respectively).

The policy department of the Ministry of Health, Environment and Nature is responsible for governance of the health care system through the design, execution, and evaluation of policies, laws, and regulations. Preventive care is provided by general practitioners or community health organizations, such as the Public Health Bureau.

There have been major health system reforms since 2010. New payment structures were introduced for some health care providers and pharmacies; a number of funds were integrated into a basic health insurance system (BZV); expenditure on medication was reduced; and a new general hospital was constructed in Otrobanda.

In 2011, health expenditure was 16.6% of gross domestic product. Per capita health care expenditure was roughly US\$ 3,355 per year.

The basic health system (BZV) provides uniform medical care coverage to all those insured. The program is executed

through the Social Insurance Bank (SVB), which is financed through income tax collections, with employers and employees contributing.

Private insurance is often used for supplementary coverage. Dental services, which are generally not covered by social insurance, are less accessible.

The health care system largely mirrors that of The Netherlands. It is structured into primary, secondary, and tertiary care sectors. Primary care includes care provided by general practitioners, paramedics, and pharmacists. Secondary care is provided at St. Elisabeth Hospital, the Adventist Hospital, private clinics of medical specialists, and the psychiatric hospital. Tertiary care includes care for long-term illnesses and disabilities and is usually provided in facilities with specialized care and comfort for extended stays. Clinical laboratory services are provided by the national laboratory and several private laboratories.

In 2015, health care services were available through more than 400 providers; there were 119 medical specialists in the country, including 80 general practitioners, 63 physical therapists, 42 dentists, 36 psychologists, and 29 pharmacists.

Although there are universities on the island that offer medical courses, Curaçao does not have an accredited medical school whose graduates are allowed to practice on the island. Health professionals are trained primarily in The Netherlands, the United States, and South America.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

The population's health status has improved, as reflected in the gradually falling infant mortality indicators and increased life expectancy at birth. Health care has also improved, with vaccination coverage above 97% for children born after 2007.

The population's improved health situation and longer life expectancy pose challenges related to the growing elderly population, which continues to change the epidemiological profile, with a significant rise in chronic noncommunicable diseases.

Access to health services is a challenge that will increase in the coming years due to the anticipated heightened demand of a growing elderly population with a higher prevalence of chronic diseases. Heightened expectations surrounding the quality of care and use of innovative and costly health technologies are predicted.

Immigration has affected the population structure, especially women (men/women ratio of 84/100 in 2016), particularly in the working-age population groups (30-60-year-olds).

ADDITIONAL POINTS

Life expectancy in Curaçao has improved over time.

Mortality in children under 1 year has fallen in recent years.

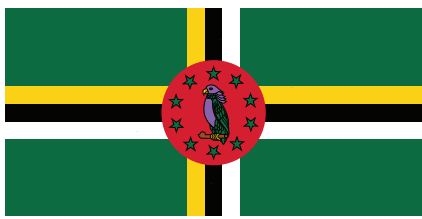
Vaccination coverage in children born since 2007 is above 97% (evaluated on the basis of coverage of the MMR, Hib, and tOPV vaccines).

One of the challenges is the growth of the elderly population.

Leading causes of death are noncommunicable diseases, which are increasing in the elderly population.

Health care costs are rising due to greater demands on the system.

In 2005, Foreigner Care Foundation Curaçao estimated the undocumented immigrant population at 15,000.

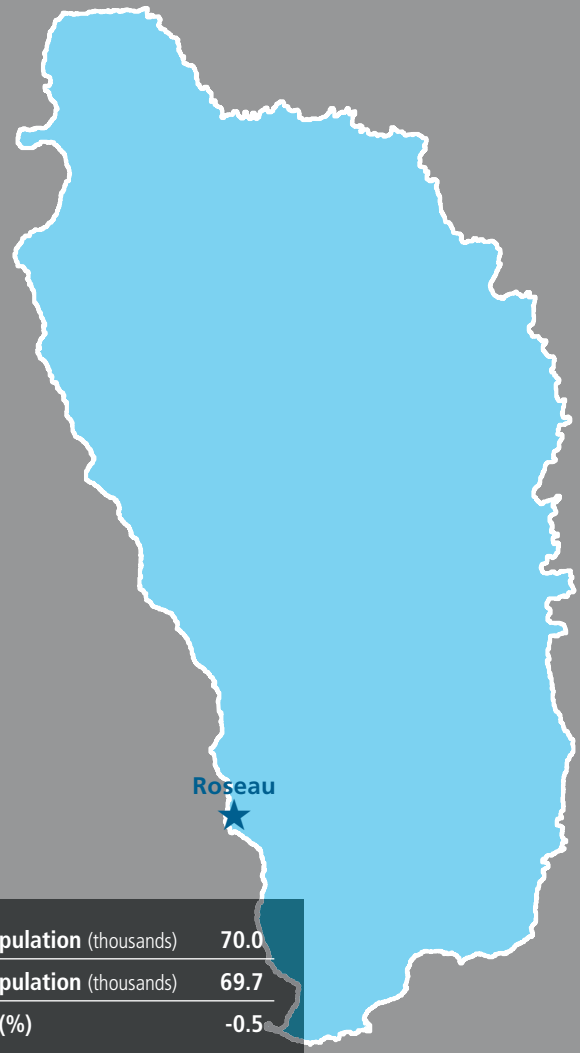


DOMINICA

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	10,480 (2014)	...
Human development index	...	0.724 (2013)	...
Mean years of schooling	...	7.8 (2014)	...
Improved drinking-water source coverage (%)	95.0	97.0 (2015)	2.1
Improved sanitation coverage (%)	81.0	81.0 (2015)	0.0
Life expectancy at birth (years)	75.6	75.9 (2013)	0.4
Infant mortality (per 1,000 live births)	14.0	19.7 (2013)	40.7
Maternal mortality (per 100,000 live births)	...	...	...
TB incidence (per 100,000 population)	9.7	1.4 (2013)	-85.9
TB mortality (per 100,000 population)	9.2	3.7 (2013)	-59.8
Measles immunization coverage (%)	88.0	96.0 (2015)	9.1
Births attended by trained personnel (%)	...	96.0 (2015)	...



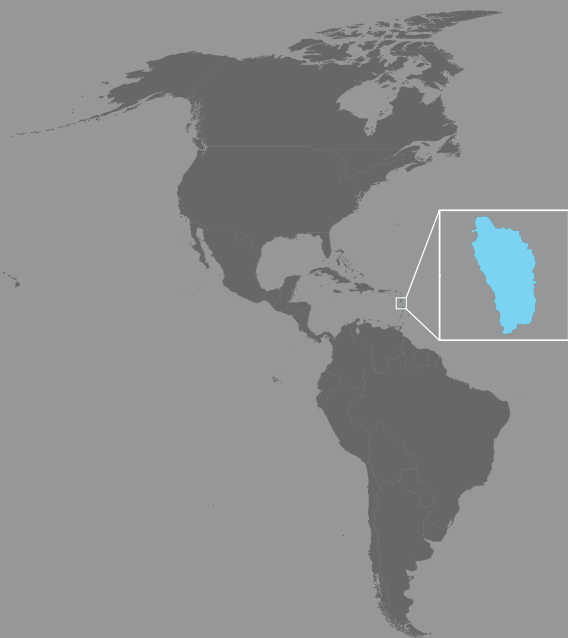
Dominica, the most northerly, largest, and mountainous of the Windward Islands, is located between Guadeloupe to the north and Martinique to the south. The country stretches for just over 750 km².

Between 1990 and 2015, the population was relatively stable, reported as 69,665 in 2015. In 1990, the population structure was expansive, while in 2015, it had become stationary in groups under 45 years of age.

Between 1990 and 2010, there was a decrease in the proportion of children, adolescents, and young adults, and an increase in the proportion of people aged 60 and over.

Persons of African origin accounted for 84.7% of the population, down from 86.75% in the last 10 years. The indigenous Kalinago population, in contrast, grew by 26.5%, increasing to 3.7% of the population from 2.9% in 2001. The population of whites, or Caucasians, increased sharply, by 55%.

The economy is primarily based on agricultural exports, tourism, and manufacturing. However, it was seriously affected by Tropical Storm Erika in 2015 and is recovering slowly.



SOCIAL DETERMINANTS OF HEALTH

In 2011, the unemployment rate was 11.3%. The poverty level fell from 39% in 2003 to 28.8% in 2009. Absolute poverty also decreased, from 10% in 2003 to 3.1% in 2009. The vulnerability rate is estimated at 11.5%.

Indigenous peoples, the Kalinago, bear a greater burden of poverty: 49% of them are poor, compared to the national average of 28.8%.

The “Yes We Care” program provides assistance to the most vulnerable older people who need assistance with their activities of daily living.

The country provides universal primary and secondary education for both sexes; the goal now is to attain universal preschool education. The ratio of girls to boys in primary schools is 96.7:100 and in secondary schools, 96.3:100.

At least 97% of the population has access to safe drinking water, and a Government project is under way to ensure that all households are connected to the sewerage system or a septic tank. The country has a nationwide solid-waste collection system, which picks up trash from every community and transports it to a landfill.

A disease that severely damaged the banana crop caused a drastic drop in earnings, from US\$ 11 million to US\$ 1 million between 2012 and 2015.

The island’s location and topography make it vulnerable to yearly tropical storms and hurricanes and prone to flash floods and landslides in low-lying areas. These phenomena pose a substantial risk of loss of life and property damage.

Due to climate change, such events are expected to increase and put the country at even greater disaster risk.

In 2015, Tropical Storm Erika caused landslides and flooding, with severe damage to infrastructure across the island. Some 28,000 people were affected, with 14 dead and 16 missing; 574 lost their homes, and 1,034 were evacuated from their homes.

The impact on water, food, and health systems created a series of health risks for the population. Damage to the country was estimated at over 90% of the gross domestic product (GDP).

In terms of internal population movements, many rural residents have migrated to the cities in search of employment, leaving many older people without family support. There is also immigration from Haiti and the Dominican Republic.

There has also been emigration, especially to Anguilla, Antigua, and the United States, in search of employment. Young children remain behind in the care of their older relatives, who take on a parental role, which in many instances creates social problems.

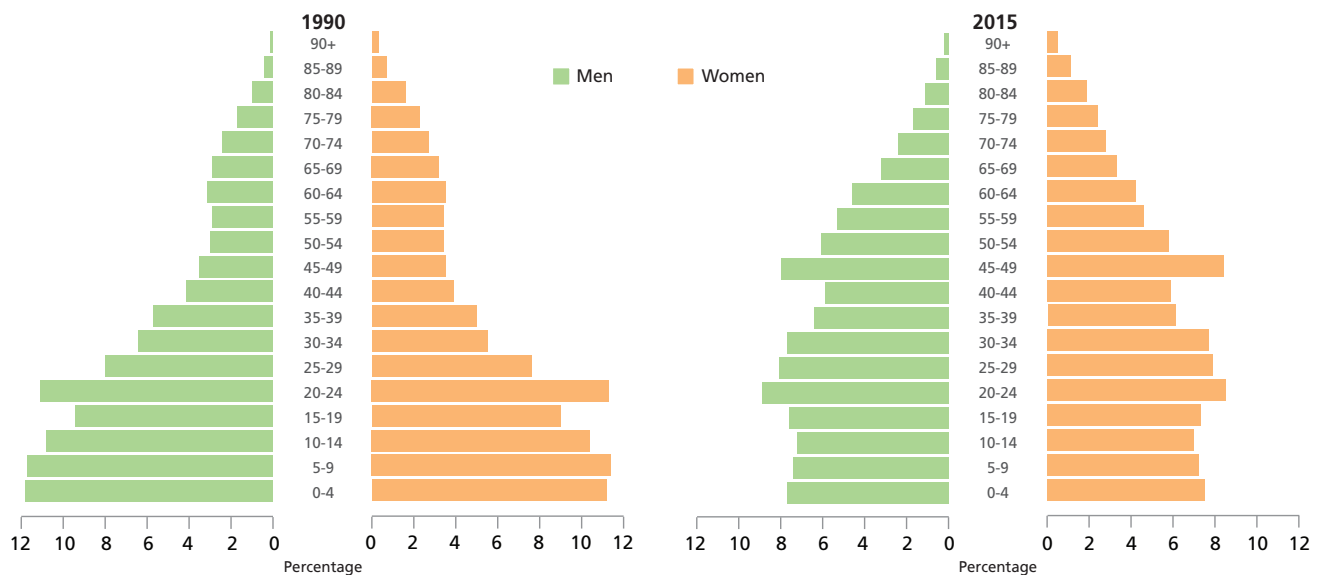
HEALTH SITUATION AND THE HEALTH SYSTEM

The maternal mortality rate for 2013 and 2014 remained at 0 per 1,000 live births.

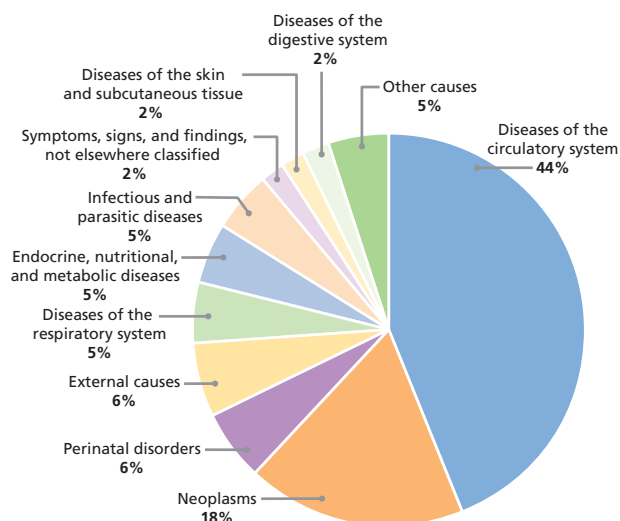
Antenatal care coverage is universal, and almost all births are attended by skilled health workers.

The infant mortality rate between 2005 and 2014 ranged from a low of 9.4 per 1,000 live births in 2008 to a high of 30.1 in 2013.

Distribution of the population by age and sex, Dominica, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2014



In the period 2010-2014, vaccine coverage was almost universal, at 98% for BCG and 97% for poliomyelitis, hepatitis B, *Haemophilus influenzae* type b, and DTP. MMR vaccine coverage was 96% for the first dose and 94% for the second. One case of non-neonatal tetanus was reported in 2013.

In 2014, diseases of the circulatory system were responsible for 44% of deaths and neoplasms, 18%. These two groups of causes account for almost two-thirds of all deaths in the country.

Cases of chikungunya fever have been reported since the introduction of the virus in late 2013. Up to 2016, 3,771 cases had been reported, 173 of which were laboratory-confirmed. Between March and July 2016, 723 cases of Zika virus infection were reported, 65 of which were laboratory-confirmed. Five pregnant women were diagnosed with Zika, along with one patient with Guillain-Barré syndrome, who was treated in Martinique.

Dengue is endemic in Dominica. Outbreaks occurred in 2010 and 2013, with 641 and 233 cases, respectively. One dengue-associated death was reported in 2010.

In the past 5 years, Dominica has been grappling with a leptospirosis outbreak, with 41 reported cases, including 4 deaths (a case-fatality rate of 10%).

In 2015, 7 cases of tuberculosis were reported; all received directly observed treatment free of charge. In 2013, a single case of rifampicin-resistant TB was reported.

In the past 5 years, only 2 cases of TB/HIV coinfection have been reported.

In 2014, the incidence of HIV infection was 0.26 cases per 1,000 population. The HIV epidemic continues to predominantly affect males.

Diabetes prevalence is 17.7% (22.0% in men and 12.0% in women). The main complications observed are amputations of the lower extremities and diabetic retinopathy leading to blindness.

The prevalence of hypertension in adults is 32.1%, with relatively similar rates in both sexes.

Cerebrovascular disease was the leading cause of death in Dominica in people aged 65 and over in the period 2009-2014.

Overweight and obesity have replaced stunting and low weight-for-age as the main indicators of malnutrition in children aged 0-5 years, and data for 2014 indicate an increase in obesity in that age group. In 2009, one-quarter of all students aged 13-15 were overweight.

The Ministry of Health is charged with leadership and governance of the health care system. The Ministry's governance role needs strengthening.

Dominica is committed to achieving universal health care for all its citizens.

The National Strategic Plan for Health 2009-2019 emphasizes the following priority areas: the health status of the population; the social determinants of health; health service management and response capacity, including quality and sustainability; and health system organization and management.

Several health policies have been drafted in recent years, along with implementation plans, although greater effectiveness in their adoption is needed. The Government has embraced a Health in All Policies approach, particularly in tackling noncommunicable diseases.

The health services are financed largely by general taxes. Primary care services are provided at no cost.

Both primary and secondary care are available. Most tertiary care is provided outside the country. The health system has been organized into seven districts, grouped into two administrative regions. Each district has its own budget, which is administered centrally due to lack of human resources. Health care facilities include 52 dispensaries or health centers and two district hospitals.

The Princess Margaret Hospital is the main hospital in Dominica. Construction of a new general hospital has begun.

Private health services are limited and consist mainly of outpatient care provided by private practitioners. The majority of tertiary care is provided outside the island.

The system is affected by the emigration of nurses. From 2008 to 2014, 24 nurses resigned from the nursing service; in 2015 alone, 17 resigned.

The Ministry of Health is adopting an integrated electronic information system, known as the Dominica Integrated Information Systems for Health (DIISH). All 52 primary health care centers will be linked to this network, which will allow them to back up information locally and use it off-line. Access to health information is limited, and the adoption of a unique national identifier remains an unmet need.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

Dominica continues to face the challenge of advancing toward the achievement of universal health coverage, which requires a high level of financial protection. However, the government has a very small budget that must be distributed across highly diverse and competing priorities.

The incidence of stroke, due mainly to uncontrolled hypertension, is high. Some cultural practices and a high level

of nonadherence to treatment are cause for concern among health practitioners.

Declining fertility rates and increasing longevity will continue to fuel the aging of Dominica's population.

Through interventions such as the Social Investment Fund, the Basic Needs Trust Fund (an initiative designed to improve housing in the country), and the effort to provide universal secondary education, the government is attempting to improve health by addressing social determinants. It also provides relief to the most vulnerable elderly population through assistance with activities of daily living.

It is essential to ensure better coordination in managing the funds allocated to transfer patients abroad for treatment.

An expansion of primary care is also considered necessary, as secondary care services will be limited during the construction of the new hospital.

ADDITIONAL POINTS

In 2009, the Ministry of Health conducted a study on aging and health in order to learn about and classify the current situation of older persons. The purpose was to orient the development of a policy to guide the implementation of community programs for healthy aging.

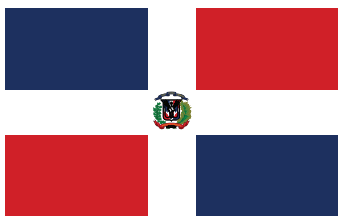
The health services currently have no specific services or programs for older persons.

Over the next five years, the health sector will focus on the construction of the new general hospital. This venture will

also require a review of human resources for health and the financing of health services.

Renewal of primary health care will take place concurrently, as there will be a need to expand services, since secondary care services will be limited during the construction of the new hospital.

A national environmental health strategy has been developed in line with the targets and indicators of the Sustainable Development Goals and the post-2015 development agenda.



DOMINICAN REPUBLIC

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	12,600 (2014)	...
Human development index	0.596	0.715 (2014)	20.0
Mean years of schooling	5.0	7.7 (2014)	54.0
Improved drinking-water source coverage (%)	87.0	86.0 (2015)	-1.1
Improved sanitation coverage (%)	73.0	84.0 (2015)	15.1
Life expectancy at birth (years)	67.9	73.8 (2016)	8.7
Infant mortality (per 1,000 live births)	46.1	22.9 (2015)	-50.3
Maternal mortality (per 100,000 live births)	...	92.0 (2015)	...
TB incidence (per 100,000 population)	147.0	42.3 (2014)	-71.2
TB mortality (per 100,000 population)	14.0	5.5 (2015)	-60.7
Measles immunization coverage (%)	70.0	90.0 (2015)	28.6
Births attended by trained personnel (%)	...	97.9 (2015)	...



1990 population (millions)	7.2
2015 population (millions)	10.6
Change (%)	47.2

The Dominican Republic is situated in the Antilles archipelago between the Caribbean Sea and the Atlantic Ocean, occupying approximately two-thirds of the island of Hispaniola, which it shares with Haiti. It is divided into 31 provinces and the National District, where Santo Domingo, the country's capital, is located.

Between 1990 and 2015, the population grew by 47.2%; the country's population pyramid continues to expand, albeit at a slower rate, and is stationary in the under-10 population.

In 2015, the country had a population of 10.6 million, with 80% living in urban areas. In 2016, life expectancy at birth was 73.8 years (70.8 for men and 77.0 for women).

Basic health and development indicators steadily improved between 1990 and 2015, with a human development index score of 0.715 in 2014.

Remittances are a main source of foreign exchange for the Dominican Republic, accounting for nearly 7% of GDP in recent years. In 2015, the tourism industry produced revenues of US\$ 6.15 billion.



SOCIAL DETERMINANTS OF HEALTH

In 2014, there was significant income inequality, reflected in a Gini coefficient of 0.463.

Almost 80% of the income-receiving population earns less than twice the minimum wage from its primary occupation. It is estimated that the extreme poverty rate declined from 8.4% in 2014 to 7.0% in 2015.

In 2014, mean schooling was 7.7 years.

Some 86% of households (90.6% in urban areas and 75.7% in rural areas) use an improved water source for drinking.

An estimated 1 to 1.5 million Dominicans reside abroad. According to the National Immigrant Survey of 2012, the foreign immigrant population is equivalent to 5.55% of the total national population. The survey did not determine the number of people living in the country without the proper documentation.

The majority of disasters are caused by hurricanes and earthquakes, which have major economic and health consequences. Drought is also a critical concern.

HEALTH SITUATION AND THE HEALTH SYSTEM

In 2015, the maternal mortality ratio was estimated at 92 deaths per 100,000 live births. Maternal mortality was concentrated mainly in four provinces: Santo Domingo, the National District, Santiago, and San Cristóbal. That same year, 68.6% of births were attended by trained personnel.

Adolescent girls who are less educated, poor, and live in rural areas are at greater risk of pregnancy and have higher pregnancy rates.

The adolescent pregnancy rate is twice as high in regions with higher female unemployment as in other regions of the country. Adolescent pregnancy is also associated with lack of access to reproductive health services among women aged 15-19.

In 2015, mortality in children under 1 year was 22.9 deaths per 1,000 live births. In 2012, disorders originating in the perinatal period accounted for 65% of deaths in children under 1. Sepsis was one of the five leading causes of death in children under 5, with an even higher risk in children under 1.

In 2012, traffic injuries were among the five leading causes of death in the population aged 5-44. The two leading causes of overall mortality for the over-45 age group were the same as for the general population: ischemic heart disease and cerebrovascular disease.

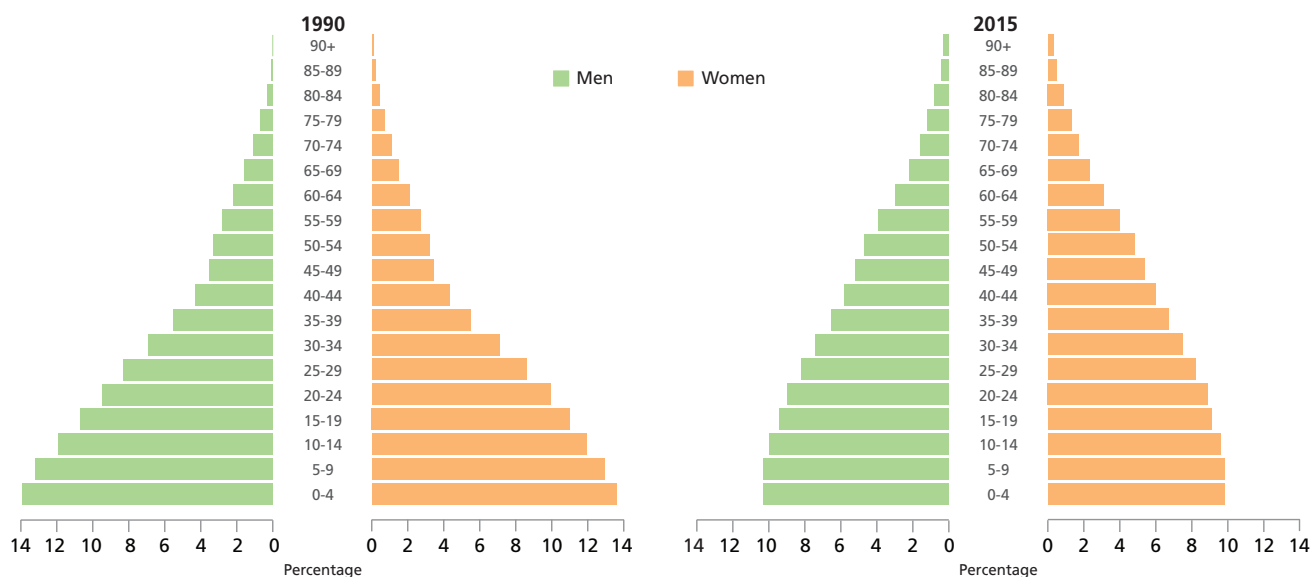
Between 2012 and 2015, BCG vaccine coverage was over 95%, and DPT3 coverage ranged from 82% to 90% in the under-1 population.

In 2015, 1 case of diphtheria was reported (none were reported in 2012-2014). Whooping cough prevalence increased, with 69 cases in 2015.

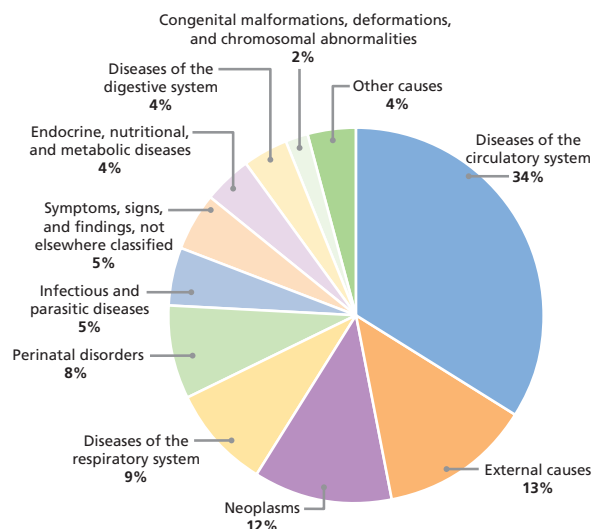
A cholera epidemic occurred in 2011–2012. In 2013, 539,000 cases of chikungunya virus infection were estimated.

In 2015, the incidence of malaria was 1.9 per 100,000 population. The populations at greatest risk of malaria

Distribution of the population by age and sex, Dominican Republic, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2012



are temporary migrant workers in the agriculture and construction sectors.

Canine-transmitted human rabies has not been eliminated; in 2015, two deaths from this disease were confirmed.

Lymphatic filariasis is in the process of elimination, as is leprosy, which has yet to reach a target indicator of less than 1 case per 10,000 population in all municipalities.

In 2010, the prevalence of hypertension was 34.7% and the prevalence of type 2 diabetes mellitus was 9.9%.

In 2013, chronic malnutrition in children under 5 was 7.1% and childhood obesity was 7.6%. In 2014, 56.3% of adults were overweight.

The health system is defined as a social security model guided by the principles of universal coverage, compulsory enrollment, solidarity, comprehensive care, a unified system, free choice, and gradual implementation, among other legally recognized principles.

In 2014, the country adopted a model of care based on the primary health care strategy and the Integrated Health Services Network.

The Ministry of Public Health has a governance role and includes the National Health Service.

In 2015, 65% of the population was enrolled in the Family Health Insurance system. Of this group, 47.5% were covered by the subsidized regimen and 52.5% by the contributory regimen.

Health expenditure currently represents 4.1% of gross domestic product (GDP), with public funding schemes at 2.7% and private funding at 1.4%.

In 2011, there were an estimated 21.2 physicians and 3.8 nurses per 10,000 population.

The National Health Service has 1,450 primary care centers, 1,774 primary care units (UNAPs), and 189 specialized health care centers (CEAs), including 13 regional hospitals, 35 provincial hospitals, 122 municipal hospitals, and 19 referral hospitals.

These facilities have the necessary capacity to provide the care stipulated in the Basic Health Plan (PBS), which includes a package of services covered by the Family Health Insurance system for members of the Dominican Social Security System's contributory regimen.

In 2015, the basic list of essential medicines was updated, based on the World Health Organization's Model List of Essential Medicines.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

Between 1990 and 2015, the country made great progress in health and overall development. It is worth noting that infant mortality plummeted 50.3% in this period. Pending challenges include continuing with maternal and child strategies and programs to reduce under-5 and maternal mortality.

Health insurance coverage in the country has increased substantially in the past 5 years, from 43% in 2011 to 65% in 2015. However, there is still a major gap for a significant portion of the population.

A significant challenge is updating the list of benefits that should be covered by the Dominican health system. This list should be based on disease prioritization and must be financially sustainable.

The country's health profile suggests that the main health determinants, such as poverty, inequity, education, gender-based inequality, and migration, should be taken into account in the design of prevention programs.

The country also seeks to provide effective vaccination coverage in all territories and communities. Another priority is increasing access to antiretroviral therapy for the population living with HIV.

Preventing and reducing noncommunicable diseases require an intersectoral approach for the adoption of standards and action in areas such as smoking and food labeling to address the major risk factors in the population.

Some of the social and health determinants that affect adolescents indicate the need for State policies to address

underage marriage, therapeutic abortion, and the lack of sex education.

Outbreaks of cholera and drug-resistant tuberculosis are among the challenges that require joint efforts with other countries in the Region of the Americas.

The treatment of injuries from external causes, substance use disorders, social violence, and the prevention of femicide have become major public health concerns.

It is critical to improve the birth certification structure and registration systems, specifically in areas with higher levels of poverty and in border regions. An estimated 20.8% of the population aged 0-5 lacks a birth certificate, which impedes the delivery of basic services and health planning.



ADDITIONAL POINTS

Adolescent pregnancy (especially among the least educated, poorest young women, as well as those living in rural areas) has been given special consideration by the health authority. The Government has expressed a willingness to increase the availability of comprehensive health services for this population group.

Since 2012, as part of its social policy, the Dominican government has implemented the *Quisqueya sin Miseria* (Dominican Republic without Misery) strategy, with plans for literacy activities, comprehensive early-childhood care, and job creation in high-priority areas. These measures are intended to support the development of productive capacities in impoverished communities in the country. In practice, this means promoting better coordination among the activities of

the different national ministries, local governments, and social and community organizations.

The country has made progress in disaster risk reduction (DRR), driven by the reform of Law 147-02 on risk management, implementation of the National Plan for Comprehensive Disaster Risk Management (PN-GIRD), and the gradual incorporation of DRR into the National Planning and Public Investment System in 2013-2014.

Through the “Disaster-Safe Hospitals” initiative, the Hospital Safety Index has been implemented in over 60 priority health facilities; academic institutions have been integrated into the training and certification of safety evaluators; and technical guidelines have been prepared for hospital design and construction.

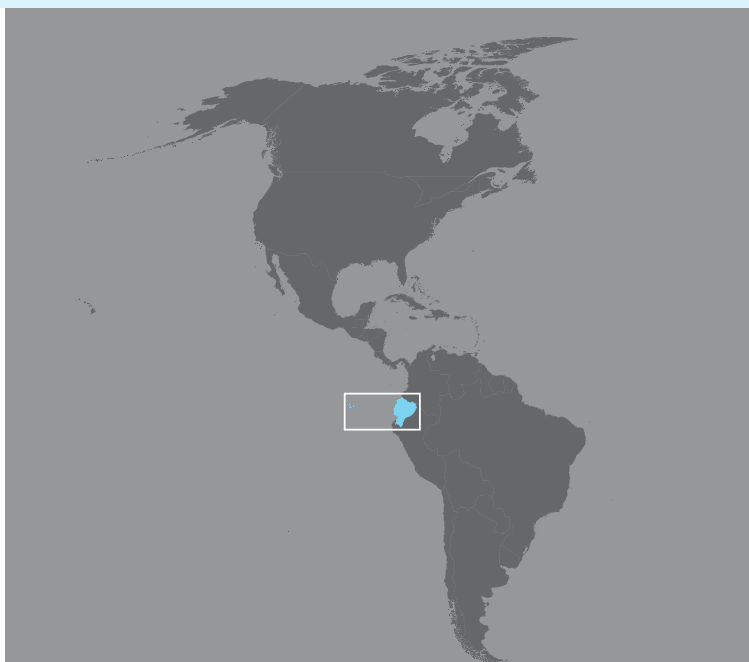
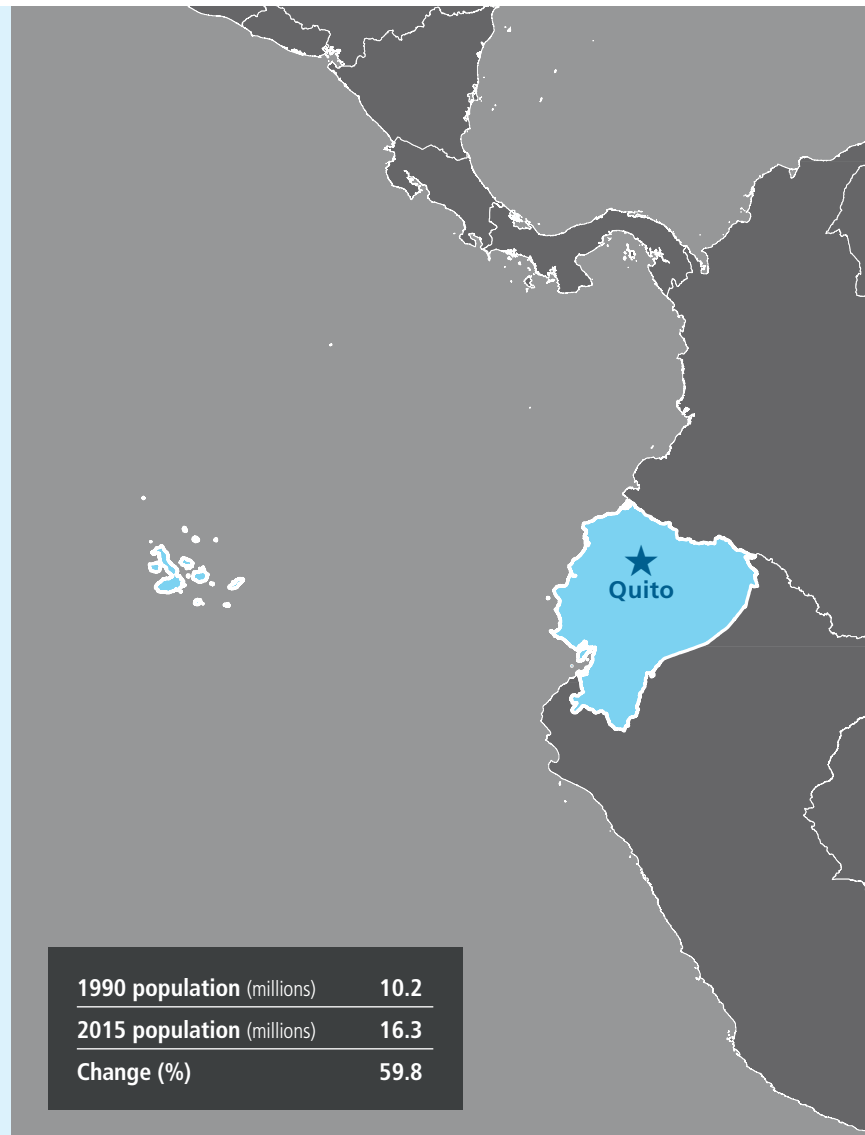


ECUADOR

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	11,190 (2014)	...
Human development index	0.643	0.732 (2013)	13.8
Mean years of schooling	6.6	8.3 (2014)	25.3
Improved drinking-water source coverage (%)	74.0	87.0 (2015)	17.6
Improved sanitation coverage (%)	57.0	85.0 (2015)	49.1
Life expectancy at birth (years)	68.8	76.4 (2016)	11.0
Infant mortality (per 1,000 live births)	44.2	8.4 (2014)	-81.0
Maternal mortality (per 100,000 live births)	...	49.2 (2014)	...
TB incidence (per 100,000 population)	174.0	32.4 (2013)	-81.4
TB mortality (per 100,000 population)	19.0	2.0 (2013)	-89.5
Measles immunization coverage (%)	60.0	84.0 (2015)	40.0
Births attended by trained personnel (%)	...	77.0 (2015)	...



Ecuador is located in northwestern South America, bordering on Colombia, Peru, and the Pacific Ocean. It covers an area of 256,370 km² and is divided into four regions: coastal, mountain, Amazon, and island. The political divisions include 24 provinces and 269 cantons, with their respective parishes.

Between 1990 and 2015, the population increased by 59.8%, to 16,278,844, and is highly multiethnic and multicultural, including the following groups: mestizo (71.9%), the coastal mestizo group known as *montubia* (7.4%), Afro-Ecuadorian (7.2%), indigenous (7.0%), white (6.1%), and other (0.4%). Its structure remains expansive, but growth has become more stationary, especially in the under-25 age group.

In 2016, life expectancy was 76.4 years (73.7 in men and 79.1 in women).

The per capita gross national income was US\$ 11,190 in 2014. The economy has reaped the benefits of high oil prices, international financial flows, and better tax collection.

SOCIAL DETERMINANTS OF HEALTH

Between 2008 and 2014, the country experienced economic growth, with average annual increases of 4.6% in gross domestic product (GDP).

In 2014, 22.5% of the population lived in poverty, and the Gini coefficient (a measure of income inequality) was 0.47. The national unemployment rate in 2015 was 4.5% (5.7% in women and 3.6% in men).

The illiteracy rate in the population aged 15-39 was 6.8% in 2010, falling to nearly half of that (324,000 persons) by 2013. In 2015, 96.3% of children and adolescents aged 5-14 attended basic education.

Between 2006 and 2013, the homicide rate fell from 17.8 to 10.8 per 100,000 population, following implementation of the Comprehensive National Security Plan in 2011.

In 2015, improved drinking-water source coverage was 87%, and improved sanitation coverage was 85%.

The country is vulnerable to natural disasters such as volcanic eruptions, earthquakes, and tsunamis. In 2015, a state of emergency was declared due to the eruption of the Cotopaxi and Tungurahua volcanoes, and in April 2016, an earthquake off the coast caused significant damage to the social, educational, and health infrastructure.

HEALTH SITUATION AND THE HEALTH SYSTEM

In 2014, the maternal mortality rate was 49.2 per 100,000 live births. The leading causes of death were hypertensive disorders and postpartum hemorrhage. In 2012, 19.4% of births occurred in women under 20.

Antenatal care coverage is low (24.6%). Between 2000 and 2015, the birth rate declined from 19.5 to 14.3 per 1,000 population.

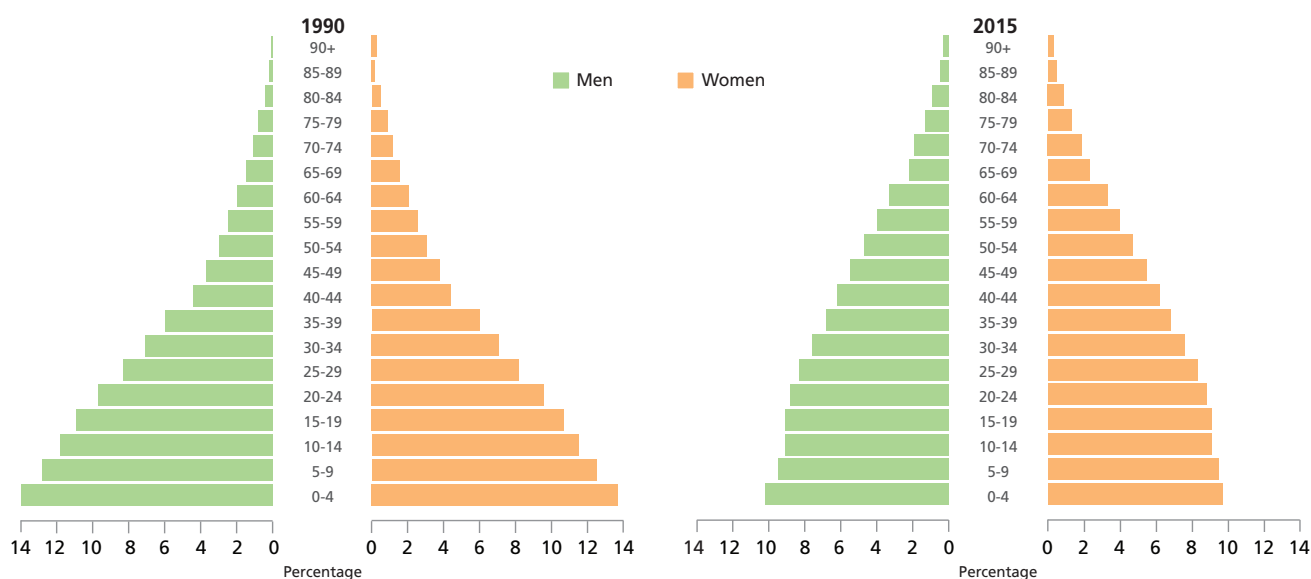
Between 2000 and 2014, the infant mortality rate declined from 15.5 to 8.4 deaths per 1,000 live births. The leading causes were respiratory distress of the newborn (6.5%) and disorders related to short gestation and low birthweight (6.2%).

Mortality in children under 5 changed little between 2010 (14.8 per 1,000 live births) and 2014 (14.2 per 1,000 live births).

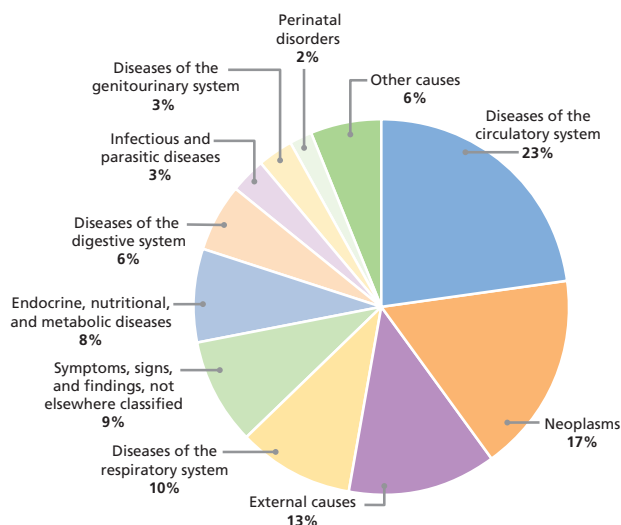
Countrywide vaccination coverage reached 80% in 2015. Still, 14% of cantons recorded coverage rates below 50%. In 2011, a measles outbreak was reported, with 260 cases.

Dengue is endemic in the country and affects coastal populations in particular. The overall incidence was 86.5 cases per 100,000 population in 2014, but the incidence was 60% higher in the 20-49 age group, and the disease is more serious in children under 15.

Distribution of the population by age and sex, Ecuador, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2014



Between 2011 and 2015, an average of 589 cases of malaria were reported each year. In 2015, several foci were reactivated in the Amazon and Esmeraldas regions. Leprosy remains an issue, with 92 cases reported between 2011 and 2015, while the figure for Chagas disease is an average of 40 new cases annually.

In 2014, the TB mortality rate was 2.8 per 100,000 population, and 5,157 new cases were reported. The case-fatality rate is 0.08%.

HIV/AIDS prevalence was relatively stable between 2007 and 2014 at 0.4% of the population. Mortality from HIV/AIDS is 5.2 per 100,000 population, with the most deaths occurring in transgender women and in men who have sex with men. The prevalence in pregnant women was 0.18% in 2014. It is estimated that 57% of people with HIV know their status, and that 78% of people diagnosed with the infection are receiving treatment through the public health network.

Chikungunya virus entered the country in 2015, with 33,643 cases and 2 deaths. Zika virus was introduced that same year, with 4 imported cases.

In 2014, the general mortality rate was 6.0 deaths per 1,000 population (7.2 in men and 3.9 in women). Diseases of the circulatory system caused 23% of deaths; neoplasms, 17%; and external causes, 13%.

That same year, chronic noncommunicable diseases (NCDs) were the main cause of premature mortality. Diabetes mellitus, cerebrovascular disease, and hypertension caused 29.3, 23.4, and 23.2 deaths per 100,000 women, respectively.

In men, ischemic heart disease caused 33.2 deaths per 100,000 population; diabetes, 25.5; and cerebrovascular diseases, 23.7.

In 2014, malignant stomach neoplasms (9.87 per 100,000 population) were the tenth leading cause of death in the general population.

Road traffic accidents were the leading cause of deaths from accidents and violence, and 50% of accidents were related to alcohol consumption.

The homicide rate in 2015 was 6.4 per 100,000 population.

In 2014, 2.5% of the population reported some disability; more than half of these cases were considered severe.

In 2014, 8% of children aged 0-5 and 29.9% of all school-aged children aged 6-11 were overweight or obese.

It was reported that 2.8% of the population over 15 smoked and 6.6% consumed alcohol, with an average of roughly 12 binge-drinking incidents per year. A full 62.7% of the population reported not engaging in any physical activity, and 62.8% were overweight or obese.

Regarding NCDs, 17% of the population aged 20-29 years had hypercholesterolemia, and 9.3% of those aged 18-59 had hypertension. Diabetes mellitus was present in 3.4% of the population aged 40-49 years, 10.3% of the population aged 50-59, and 15.2% of older adults.

The Ministry of Public Health (MPH) is responsible for regulating, enforcing, and controlling all health-related activities in the country, as well as operating all entities in the sector.

The 2008 Constitution laid the groundwork for a new health system based on three pillars: the right to health, guaranteed by the State; a primary care-based system; and the establishment of an integrated public network of health services provided free of charge.

To fulfill its regulatory role, the National Health Authority has established two new entities: the National Health Regulation, Control, and Surveillance Agency and the Health Services and Prepaid Medicine Quality Assurance Agency.

The health system is comprised of the public and private subsystems. The public system is comprised of facilities run by the Ministry of Public Health, the Ecuadorian Social Security Institute (which includes Rural Social Security, the Armed Forces, and the National Police), and the health services of some municipalities.

The private system is comprised of health insurance companies and prepaid plans for medicine providers.

The public services are funded through the general federal budget, extra-budgetary funds, emergency and contingency

funds, and contributions from national and international projects and agreements. Health expenditure doubled between 2010 and 2015, rising to 9.2% of GDP.

In 2012, the MPH instituted reforms in the area of human resources for health, with a view to implementing the new Comprehensive Health Care Model (MAIS).

Increased availability of the public health services network included 851 new units between 2010 and 2016 and an increase in the number of health professionals, leading to a 10.6% increase in care between 2011 and 2014. Hospital discharge numbers have also steadily increased.

In 2014, there were 20.4 physicians and 10.1 nurses per 10,000 population. Nevertheless, the number of specialists remains low, and their distribution unequal (urban, 29.0; rural, 5.4).

Since 2016, the MPH has operated the Epidemiological Surveillance System (SIVE), which collects epidemiological data for certain priority diseases. There is also a Data Recording System for hospital discharges, morbidity, and other indicators. In 2013, underreporting of mortality was estimated at 16.7%; that same year, the proportion of ill-defined causes of death was 8.7% nationwide, but more than 11% in several provinces.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

The 2008 Constitution provides the legal framework for the health system, guaranteeing the right to health and primary health care, along with an integrated public network of free health services.

The establishment of two national agencies, one for health regulation, control, and surveillance and one to ensure the quality of the health services, has underscored the regulatory role of the national health authority.

The promotion of healthy habits, control of health determinants, access to education, and preventive medicine all need improvement. To this end, primary-care services must improve the quality of their management and performance.

There are many examples of how the State's role in developing and implementing policies for health promotion and protection has evolved. They include the Organic Law for the Regulation and Control of Tobacco, the Regulations for the Authorization and Control of Processed Food Advertising and Promotion, the Health Regulations for the Labeling of Processed Foods Intended for Human Consumption, and the Support for Continuity of Actions for the Improvement of Living Conditions, defined in the National Plan for Good Living.

A major public health achievement of Ecuador has been the elimination of onchocerciasis and interruption of its transmission. Transmission was halted in 2009, and in 2014, Ecuador was certified free of this disease by the World Health Organization.

ADDITIONAL POINTS

According to the 2008 Constitution, the Ministry of Public Health (MPH) is responsible for formulating the national health policy and regulating, enforcing, and controlling all health-related activities in the country, as well as for the operation of entities in the health sector.

Furthermore, the Constitution laid the groundwork for a new health system, based on three pillars: the right to health, guaranteed by the State; a primary care-based system; and the establishment of an integrated public network of health services provided free of charge.

The National Plan for Good Living, as a model for the development of Ecuador, includes a policy for the health sector and several health objectives that Ecuador has committed to achieving. Based on this National Plan, the MPH has issued national health policies and plans, in addition to a normative agenda that organizes the National Health System.

The National Health Regulation, Control, and Surveillance Agency and the Health Services and Prepaid Medicine Quality Assurance Agency were created in 2013 and 2015, respectively.

Both agencies have regulatory power in their scope of action, responding to national policies, plans, and strategies and general regulations issued by the MPH. The regulatory framework of the agencies includes more than 38 standards issued by the MPH by ministerial agreement (2013-2015).

In addition to its regulatory structure, Ecuador is among 12 States Parties in the Region that systematically meet the annual reporting requirements of the International Health Regulations.



EL SALVADOR

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	3,940 (2014)	...
Human development index	0.529	0.666 (2014)	25.9
Mean years of schooling	3.7	6.8 (2014)	83.8
Improved drinking-water source coverage (%)	70.0	94.0 (2015)	34.3
Improved sanitation coverage (%)	51.0	75.0 (2015)	47.1
Life expectancy at birth (years)	65.9	73.5 (2015)	11.5
Infant mortality (per 1,000 live births)	46.0	10.2 (2013)	-77.8
Maternal mortality (per 100,000 live births)	...	42.3 (2015)	...
TB incidence (per 100,000 population)	54.0	36.1 (2013)	-33.1
TB mortality (per 100,000 population)	4.8	1.0 (2013)	-79.2
Measles immunization coverage (%)	...	95.0 (2015)	...
Births attended by trained personnel (%)	...	91.1	...



1990 population (millions)	5.5
2015 population (millions)	6.4
Change (%)	16.4

El Salvador is located in Central America, and is bordered by Guatemala, Honduras, and the Pacific Ocean. Administratively, the country is divided into 14 departments in 262 municipalities.

In 2015, the population of El Salvador was 6,459,911, 62.4% of whom were concentrated in urban areas. From 1990 to 2015, the population grew by 16.4%, and its structure shifted from expansive to regressive, due to falling fertility and mortality. In 2015, life expectancy at birth was 67.8 for men and 77.0 for women.

The basic health indicators show systematic improvement in socioeconomic and health status from 1990 to 2015, although the country had an intermediate human development index of 0.666 in 2014.

Per capita gross national income was US\$ 3,940 in 2014. In 2013, remittances (transfers sent from abroad) were the leading source of revenue, representing 16.3% of gross domestic product (GDP).



SOCIAL DETERMINANTS OF HEALTH

Income inequality in El Salvador is high, with a Gini coefficient of 0.37 in 2015. In 2015, 34.9% of households were living in poverty (32.7% in urban areas and 38.8% in rural areas) and 8.1% in extreme poverty (7.0% in urban areas and 10.1% in rural areas).

Unemployment in 2015 stood at 7.0% (8.4% for men and 5.0% for women).

A total of 10.8% of the population aged 10 and over was illiterate (12.4% of women and 9.0% of men). The average years of schooling was 6.8.

Overall, 86.6% of households had access to piped water, and 95.4% had electricity.

The proportion of homes with Internet access rose from 9.0% to 23.3% from 2010 to 2015.

It is estimated that around 2 million Salvadorians live abroad, especially in the United States. The main drivers of emigration are insecurity and the wage gap.

El Salvador is highly vulnerable to natural disasters, including tropical depressions (heavy rains and flooding) and severe droughts, which impact infrastructure and sectors such as agriculture and have significant effects on health and food security.

The past three decades have also seen high rates of violence, with 103 homicides per 100,000 population in 2015, together with high levels of gender-based violence, with 1,062 violent deaths of women between 2012 and 2015. Homicides, gang

proliferation, drug trafficking, the use of firearms and violence are mainly related to conflict between the country's main gangs.

HEALTH SITUATION AND THE HEALTH SYSTEM

The maternal mortality rate was 42.3 deaths per 100,000 live births in 2015, and 19.0% of maternal deaths occurred among girls and adolescents. In 2015, El Salvador had prenatal care coverage above 77%; hospital deliveries were at 99%; and over 89% of newborns received their first checkup.

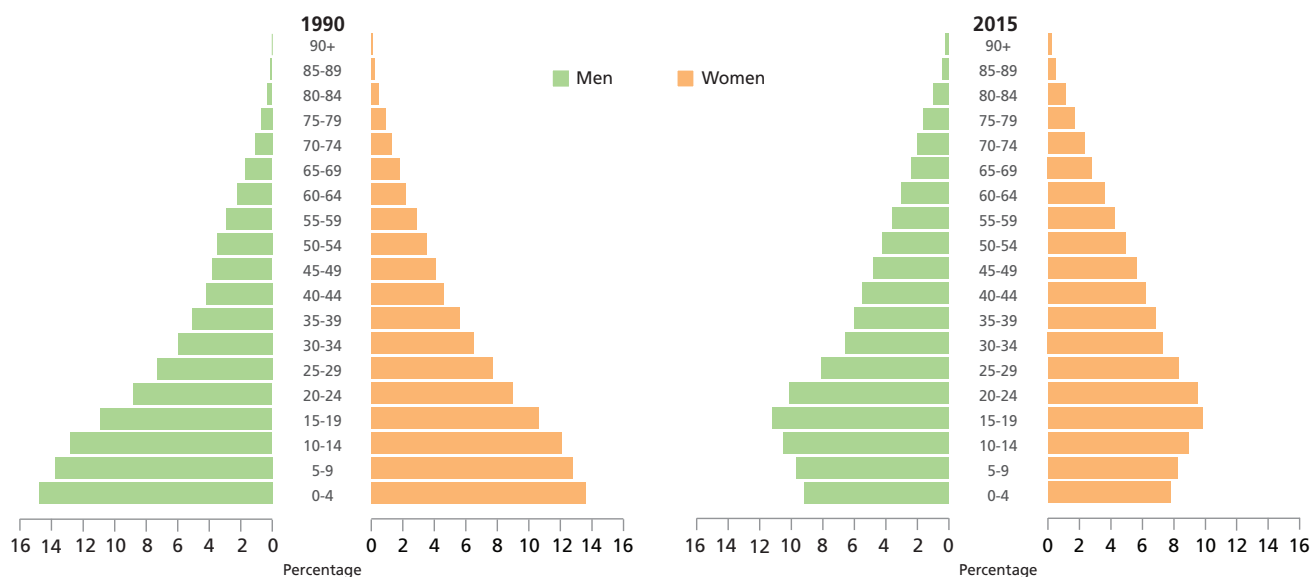
In 2014, the mortality rate in children under 5 was 20 per 1,000 live births, 17 in children under 1 year, and 11 in neonates. Neonatal mortality was due mainly to premature birth and congenital malformation.

In 2014, the reported overall mortality was 7.3 deaths per 1,000 population. In 2014, 21% of deaths corresponded to unclassified signs and symptoms, 16% to circulatory system diseases, and 13% to external causes.

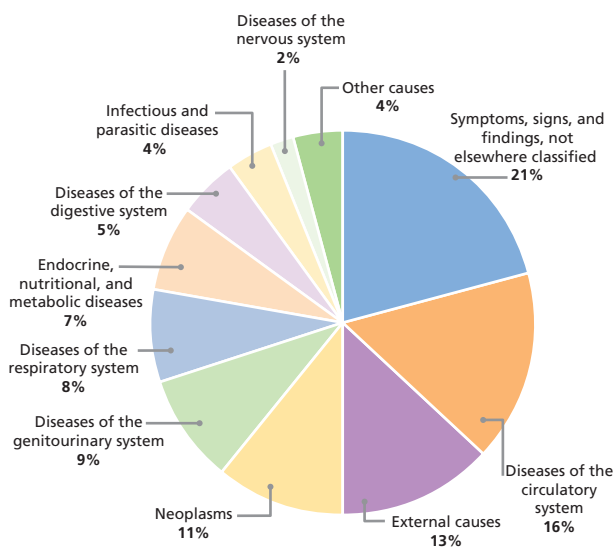
In the period 2011-2015, there was an estimated annual average of 60,000 cases of probable dengue, 0.7% of which were severe; case-fatality was 0.01%.

In May 2014, the first cases of chikungunya were confirmed. Since then, the disease has affected 2.6% of the population. Zika virus appeared in late 2015 and has steadily increased, peaking in the first week of 2016, when 1,142 cases were reported. From March to August 2016, 109 children were born with microcephaly, but only 4 (3.7%) could be considered laboratory-confirmed cases associated with Zika virus.

Distribution of the population by age and sex, El Salvador, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2014



Since 2011 about eight cases of malaria have been reported per year, most of them imported (75.0%).

People living in poverty are those primarily affected by neglected infectious diseases, including Chagas disease, leishmaniasis, leprosy, leptospirosis, rabies, soil-transmitted helminth infections, toxoplasmosis, and congenital syphilis.

Tuberculosis affects 37 people per 100,000 population, with an annual average of 2,150 new cases from 2011 to 2015. In 2015, 33,184 cases of people infected with the human immunodeficiency virus (HIV) were reported.

From 1990 to 2015, chronic noncommunicable diseases steadily increased and now represent a major burden for the health system, with hospitalizations trending upward and a greater number of deaths. Eight of the 10 leading specific causes of death correspond to chronic noncommunicable diseases.

The prevalence of diabetes mellitus was 12.5% in 2015 (13.9% of women and 10.6% of men). The prevalence of chronic kidney disease was 12.6%, affecting men (17.8%) more than women (8.5%), primarily in rural areas (14.4%, compared with 11.3% in urban areas).

The prevalence of overweight was 37.9% (39.5% of men and 36.6% of women), while that of obesity was 27.3% and affected women (33.2%) more than men (19.5%).

In 2014, acute malnutrition was 2.1% and chronic malnutrition, 13.6%.

Violence and road accidents are priority health problems. Suicide is the second leading cause of death among women aged 10-19.

The Ministry of Health (MINSAL) regulates the health system and is the country's largest health care provider. Its internal organizational structure, services, and facilities are technically and administratively divided into 1 central level, 5 health regions, and 17 comprehensive basic health systems.

The Salvadorian Social Security Institute (ISSS) has the second-highest number of facilities and second-greatest population coverage; its health services are organized into four regions.

The other institutions of the national health system are the Salvadorian Comprehensive Rehabilitation Institute, the Salvadorian Institute for Teacher Welfare (ISBM), the Health Solidarity Fund (FOSALUD), the Military Health Command (COSAM), and the National Drug Directorate.

In 2013, total health expenditure represented 17.0% of total public expenditure and 6.9% of the gross domestic product (4.6% corresponded to public expenditure and 2.3% to private expenditure).

Out-of-pocket expenditure accounted for 85% of private expenditure and 28% of total health expenditure, while spending on prepaid insurance plans represented 15% of private expenditure in 2013.

MINSAL covers 72.0% of the population; the ISSS covers 25.1%, and the ISBM and COSAM serve 1.6% and 1.1%, respectively.

The health system reform launched in 2009 has established a primary health care-based model aimed at improving the organization and management of network services, as well as developing human resources for a universal and equitable health system.

Health system segmentation and fragmentation has not yet been eliminated. Since 2014, the reform process has been reoriented and intensified, with a clear focus on universal access and health coverage and on functional integration of the national health system.

In 2009, health information was fragmented and scattered; the Ministry of Health alone had more than 40 different applications, although it lacked an entity responsible for their development and integration. The web-based Unified Health Information System went online in 2010, using open-source software; it is made up of 9 subsystems and has 1,234 reporting units nationwide.

El Salvador has 11 institutions of higher education that train technical and professional health personnel, in a total of 13 disciplines. In 2015, there were 19.5 health professionals (physicians, nurses, and people with undergraduate degrees in maternal and child health) per 10,000 population.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

In implementing health system reform, commitments and advances in the health system have been established, identifying challenges on which to delve deeper. More globally, the economic sustainability of health system reform must be ensured in order to meet its objectives and address the political polarization that hinders progress.

More effective integration of national health system institutions is imperative, including centralizing budgetary and human resources management. Furthermore, the overarching legal framework needs to be consolidated in a consistent manner.

The health system faces the challenge of boosting its response capacity to effectively address the increase in morbidity, mortality, and disability from communicable diseases and chronic noncommunicable diseases.

Surveillance, prevention, and treatment of chronic noncommunicable diseases are necessary to effectively control and prevent them, as is intersectoral action to address social determinants and risk factors.

Consolidation of the National Unified Health Information System will make it possible to obtain useful information for decision-making.

The Five-year Development Plan 2015-2019 aims to reduce maternal mortality to less than 35 deaths per 100,000 live births, keep infant mortality at under 8 deaths per 1,000 live births, maintain vaccination coverage at over 95%, and reduce direct out-of-pocket household spending by 3%.

The problem of gang violence remains a challenge in El Salvador, since it is a major obstacle to the implementation of sustainable development initiatives and is a threat to public health.



ADDITIONAL POINTS

In the context of the 2009 health reform, in 2014, the groundwork was laid for a primary health care–based model aimed at making significant gains in public health, including access to and coverage of comprehensive health care.

The Road Map toward Universal Access and Universal Health Coverage, signed by the institutions that make up the national health system, aims to progressively integrate and network the operations of all system services and facilities.

Service networks will be organized and managed and human resources developed as a strategy for attaining a universal and equitable system.

To that end, mechanisms have been put in place such as eliminating charges in public health care centers and bringing services to the population through community-based family health teams.

The Five-year Development Plan 2015-2019 was crafted as a joint effort with civil society and incorporates the principles of the previous health reform.

The National Policy for Development of Health Human Resources also aims to achieve a universal and equitable system by developing the necessary human resources.

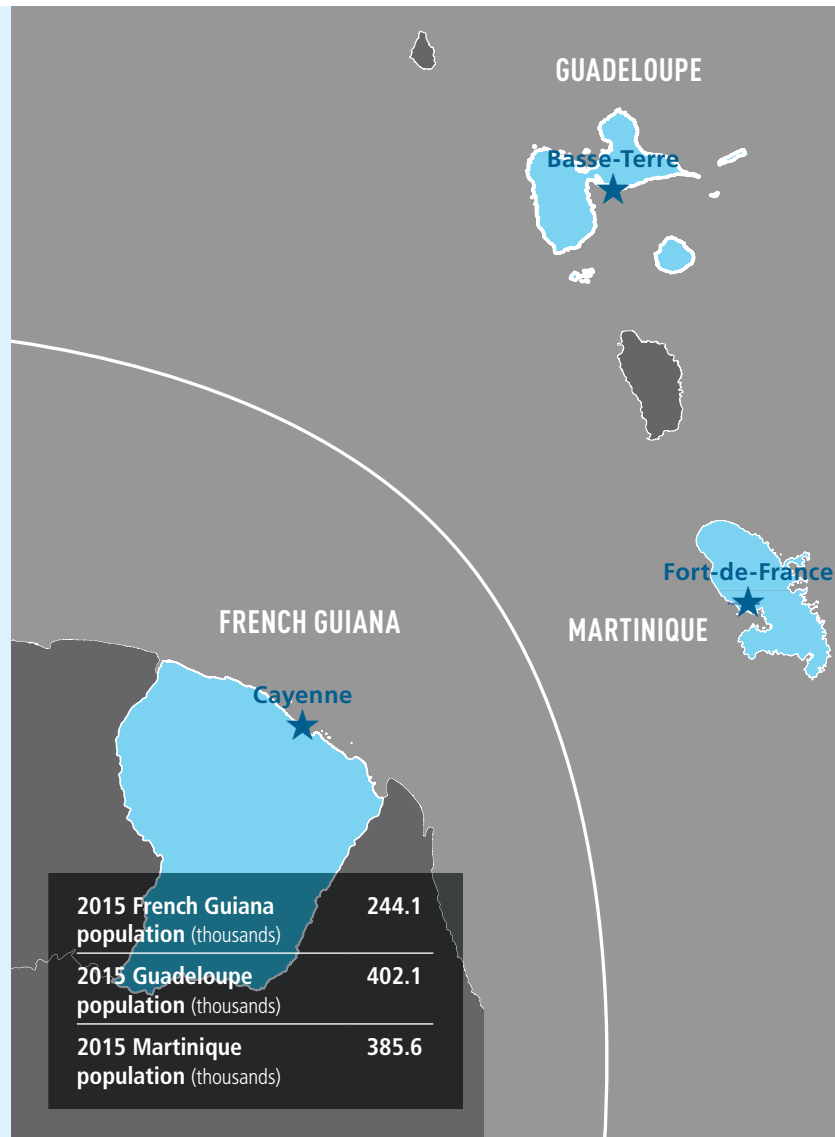


FRENCH GUIANA, GUADELOUPE, AND MARTINIQUE

SELECTED BASIC INDICATORS

2013–2015

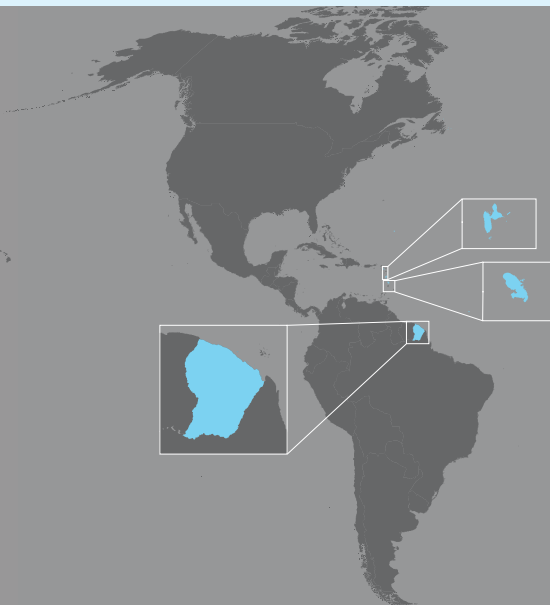
	Year	French Guiana	Guadeloupe	Martinique
Gross domestic product per capita (in euros, €)	2015	16,645	20,163	22,571
Human development index	...	...	...	...
Mean years of schooling	...	...	...	...
Improved drinking-water source coverage (%)	2015	92.0	99.0	100.0
Improved sanitation coverage (%)	2015	92.0	97.0	92.0
Life expectancy at birth (years)	2014	79.9	81.5	82.1
Infant mortality (per 1,000 live births)	2013	8.2	8.4	8.2
Maternal mortality (per 100,000 live births)	2013	16.4	17.3	21.7
TB incidence (per 100,000 population)	2013	28.0	4.5	3.8
TB mortality (per 100,000 population)	...	...	...	...
Measles immunization coverage (%)	...	...	...	...
Births attended by trained personnel (%)	2014	...	100.0	99.9



French Guiana, Guadeloupe, and Martinique are French Overseas Departments in the Americas and have been an integral part of France since 1946. The archipelago of Guadeloupe is the larger of the two island territories, with a land area of 1,703 km²; Martinique has 1,128 km²; and French Guiana, 83,534 km².

Guadeloupe and Martinique enjoy a tropical climate and are often buffeted by tropical storms between July and October. French Guiana has an equatorial climate, and 95% of its territory is covered by dense Amazonian forest. In 2015, the populations of Guadeloupe and Martinique were comparable in size (402,119 and 385,551, respectively), while that of French Guiana numbered 244,118.

In 2014, life expectancy at birth in Martinique was 83.9 years in women and 78.1 years in men; in Guadeloupe, it was 83.4 years and 76.1 years, respectively; and in French Guiana, it was 83.1 years and 76.7 years, respectively. Per capita gross domestic product (GDP) in 2015 was € 22,571 in Martinique, € 20,163 in Guadeloupe, and € 16,645 in French Guiana.



SOCIAL DETERMINANTS OF HEALTH

Nineteen percent of households are poor in Guadeloupe, 21% in Martinique, and 44% in French Guiana.

In 2015, the unemployment rate was 22.3% in French Guiana, 23.7% in Guadeloupe, and 19.4% in Martinique. Young people and women were the most affected.

School attendance is compulsory for children aged 6-16.

The three territories are highly vulnerable to natural disasters, especially earthquakes, tropical storms, and volcanic eruptions.

In 2008, France created a welfare program that provides eligible individuals with a guaranteed minimum income and access to certain social benefits, along with social and employment services. In the Overseas Departments, 26.4% of the population benefits from this program.

In French Guiana, access to clean drinking water is more limited, especially for populations in the interior and marginal urban sectors. This is associated with a higher incidence of enteric diseases.

Gold mining in French Guiana gives rise to environmental problems such as water pollution, deforestation, the decimation of wildlife, and malaria transmission.

In 2013, migrants represented 1.8% of the population in Martinique, 5% in Guadeloupe, and 33% in French Guiana.

HEALTH SITUATION AND THE HEALTH SYSTEM

The two leading causes of maternal death are hemorrhage during delivery and maternal hypertension.

In 2015, the infant mortality rate was 7.6 deaths per 1,000 live births in Martinique, 8.1 in Guadeloupe, and 9.9 in French Guiana. Between 10% and 12% of births are premature.

In 2013, 6,600 deaths were recorded in the three departments. The principal groups of causes of death were cardiovascular diseases and symptoms and signs not elsewhere classified (the latter are as high as 18.3% in French Guiana and 13.4% in Guadeloupe).

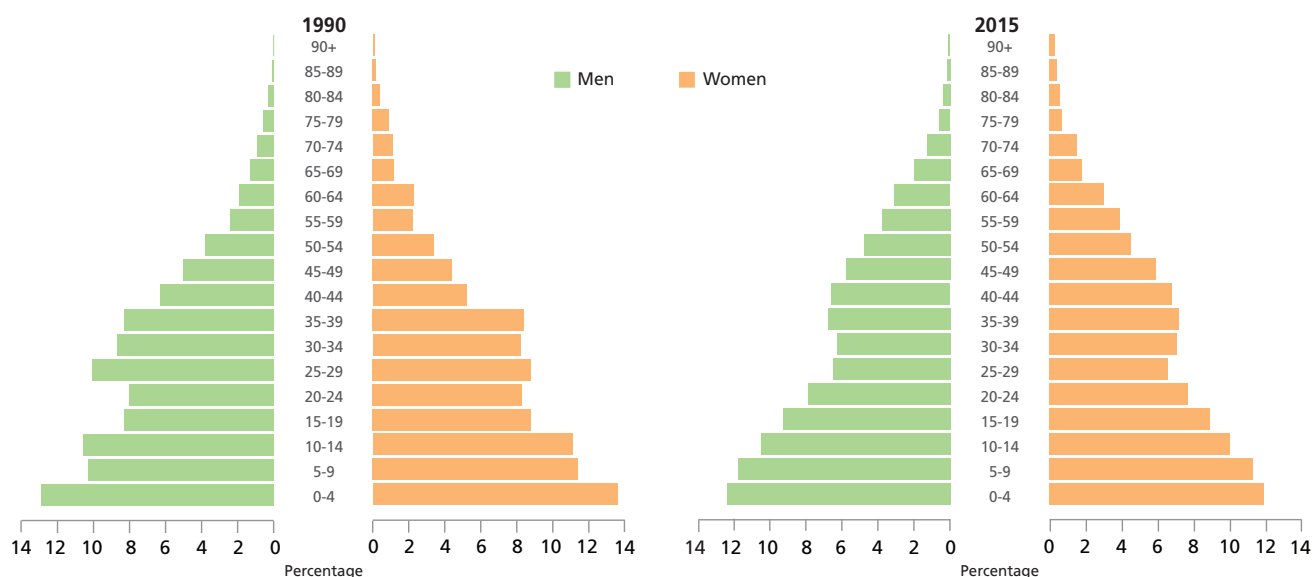
Martinique and Guadeloupe report less than 10 imported cases of malaria per year, but the disease is endemic in French Guiana, with 434 cases recorded in 2015.

Between 2000 and 2009, 192 cases of Chagas disease were recorded in French Guiana, but none were recorded in the two island departments.

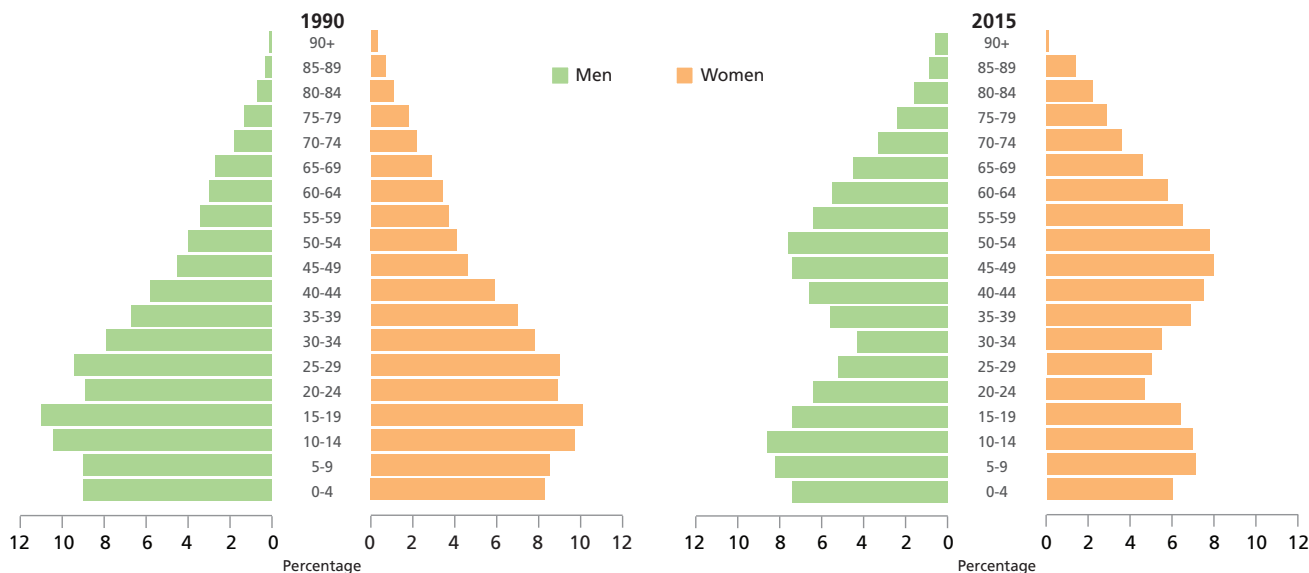
No cases of poliomyelitis, diphtheria, or neonatal tetanus have been reported in decades. Measles and rubella have been declared eliminated in the departments.

Dengue is endemic in all three departments, and malaria is widespread in French Guiana's interior. The three territories have had frequent dengue epidemics, resulting in a number of serious and even fatal cases (the case-fatality rate ranges from 0.03% to 0.06%).

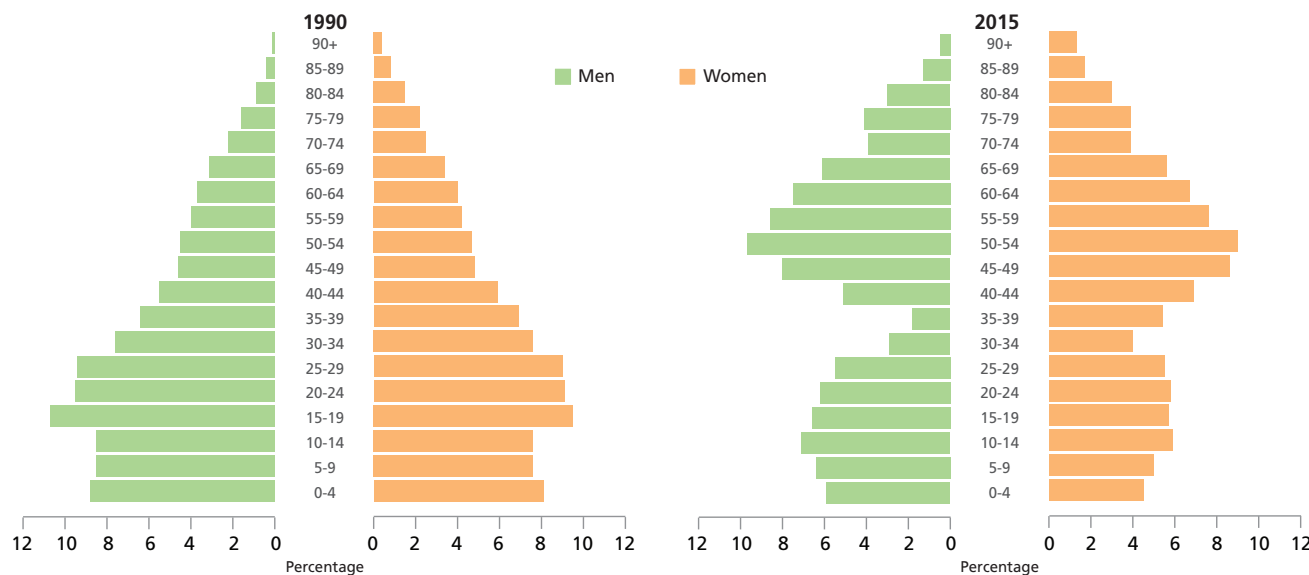
Population structure by age and sex, French Guiana, 1990 and 2015



Population structure by age and sex, Guadeloupe, 1990 and 2015



Population structure by age and sex, Martinique, 1990 and 2015



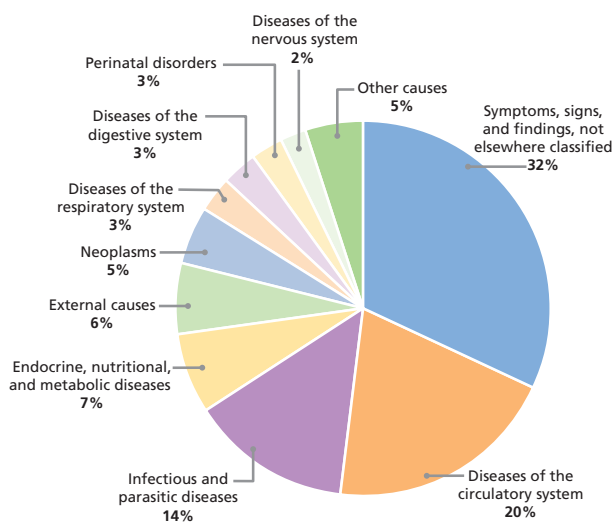
The chikungunya virus was introduced in late 2013, triggering an epidemic that led to 72,500 medical consultations in Martinique, 81,200 in Guadeloupe, and 320 in French Guiana. Zika virus has circulated in all the departments, with 16 reported instances of associated congenital syndrome in French Guiana, 6 in Guadeloupe, and 18 in Martinique by the beginning of 2017.

Leprosy is endemic. In 2015, 21 cases were recorded in French Guiana, 5 in Guadeloupe, and none in Martinique.

The tuberculosis incidence rate in 2013 was 4.5 cases per 100,000 population, ranging from 4.5 in Guadeloupe and 3.8 in Martinique to 28.0 in French Guiana.

In 2013, 907 new cases of human immunodeficiency virus (HIV) infection were reported in French Guiana, 240 in Guadeloupe, and 225 in Martinique. Due to the availability of antiretroviral drugs, mortality from AIDS is relatively low and stable.

Proportional mortality (% of all deaths, all ages, both sexes), 2014



Note: Total deaths reported in French Guiana, Guadeloupe, and Martinique, 2014.

Guadeloupe and Martinique recorded 69.4 and 60.9 cases of leptospirosis per 100,000 population, respectively, in 2011. In French Guiana, leptospirosis cases have been reported regularly over the past three decades.

Chronic noncommunicable diseases are the most common illnesses affecting the population, and cardiovascular diseases are the leading cause of death in Guadeloupe and French Guiana.

In 2014, diabetes prevalence ranged from 10% to 11%, increasing with age. A growing proportion of the population in both Guadeloupe and Martinique is overweight or obese.

In 2003-2004, the prevalence of hypertension in the population aged 16 or over was 22% (20% in men and 25% in women). Prevalence increases with age, affecting 65% of people aged 65 and over.

Approximately 1,300 deaths from malignant neoplasms are recorded annually. In men, the most common forms are prostate and colorectal cancers; in women, they are breast, colorectal, and cervical cancers.

In 2015, there were 40 deaths linked to road traffic accidents in Guadeloupe, 29 in Martinique, and 28 in French Guiana.

Daily tobacco use in people aged 16 or over was 15% in Martinique, 12% in French Guiana, and 12% in Guadeloupe in 2014.

The Regional Health Agency (ARS) is in charge of implementing health policies in each of the French Overseas

Departments. Health care is provided by hospital complexes and private clinics.

France has a system of universal basic health coverage that provides access to health insurance to anyone who has lived in France for at least 3 months and who does not have other health insurance coverage. The fee at point of service is low, and most of it is reimbursed under the social security health plan.

The plan also includes supplementary health insurance coverage, which, unlike basic universal health insurance, provides additional health care free of charge. This type of supplementary health insurance is targeted to the neediest populations.

A high percentage of the population in the three French Overseas Departments is covered by these basic and supplementary health insurance regimens.

French Guiana has primary care health centers that are designed to serve geographically isolated residents with limited access to services, who account for approximately 20% of the population.

Annual per capita health expenditure is approximately € 2,000 in Martinique, € 1,800 in Guadeloupe, and € 1,400 in French Guiana.

The shortage and uneven distribution of health professionals is most critical in French Guiana, which has an insufficient number of general practitioners and specialists in both hospitals and outpatient centers.

In French Guiana, topography hinders the population's mobility and thus its access to health care. The remotest areas suffer from a scarcity of health care centers and health workers.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

The population's health status has improved over the past 30 years. In Guadeloupe, the main indicators show gains over the past two decades, with a decline in infant mortality, an overall improvement in the standard of living, and progress in medical care and health services delivery.

Despite advances in health, certain problems persist, such as hypertension, stroke, diabetes, and mental disorders.

Martinique and Guadeloupe, whose populations have greater life expectancy at birth and greater longevity than do those in French Guiana, increasingly face public health problems associated with aging, especially chronic noncommunicable diseases.

Zoonoses continue to be a cause for concern in the departments, especially in French Guiana, together with HIV infection.



ADDITIONAL POINTS

As part of France, the three French Overseas Departments have an effective social security system and universal basic health coverage, in addition to robust and complementary health insurance systems based on solidarity.

In 2016, the strategy for the overseas territories formulated by the Ministry of Health and Ministry of Overseas Territories set five broad priorities for public health action:

a) improve health status, reduce inequalities, and increase health promotion; b) carry out health surveillance and crisis management; c) respond to the needs of an aging population and people with disabilities; d) improve the health system, research, and innovation; and e) reduce inequities in access to health services.

The health strategy designates health promotion as a priority, along with prevention and education.

The Guadeloupe Health Education Committee and the Martinique Committee for Prevention and Health Education contribute to health promotion, which the strategy has designated a priority.

In addition, numerous associations, including entities at the national, district, and municipality levels, as well as patient advocacy groups, together play an essential role as partners in disease prevention, bringing their expertise to bear in such areas as HIV/AIDS, substance abuse, sickle-cell disease, and cancer.

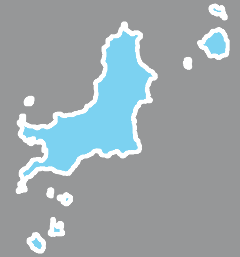


GRENADA

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	9,156 (2015)	...
Human development index	...	0.75 (2013)	...
Mean years of schooling	...	8.6 (2014)	...
Improved drinking-water source coverage (%)	97.0	97.0 (2015)	0.0
Improved sanitation coverage (%)	98.0	98.0 (2015)	0.0
Life expectancy at birth (years)	68.6	74.1 (2014)	8.0
Infant mortality (per 1,000 live births)	17.7	14.9 (2013)	-15.8
Maternal mortality (per 100,000 live births)	...	...	...
TB incidence (per 100,000 population)	4.6	...	...
TB mortality (per 100,000 population)	...	1.1 (2013)	...
Measles immunization coverage (%)	76.0	99.0 (2015)	30.3
Births attended by trained personnel (%)	...	98.6 (2015)	...



1990 population (thousands)	96.3
2015 population (thousands)	111.0
Change (%)	15.3

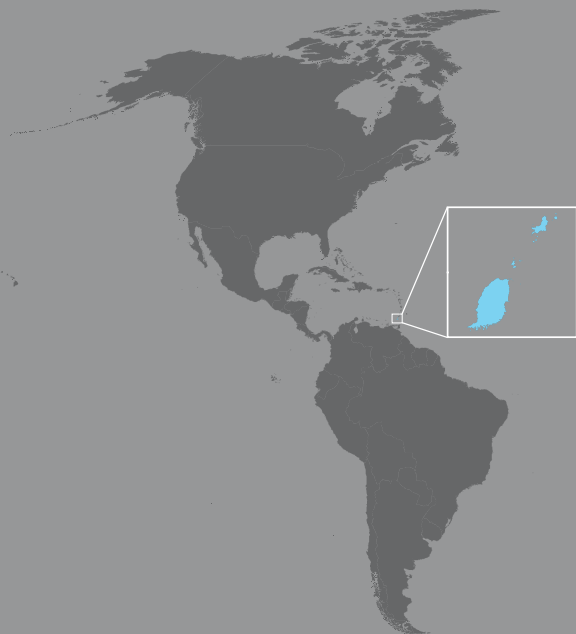
Grenada is a country comprised of three main islands (Grenada, Carriacou, and Petite Martinique) and several smaller uninhabited ones. Located in the southern Caribbean about 160 km north of Venezuela, it has a total area of 344 km².

Between 1990 and 2015, the population grew by 15.3%, reaching 111,000 inhabitants in 2015, according to United Nations estimates. In 1990, the population structure was expansive; by 2015, it had become stationary for those younger than 30 years of age.

Grenada's population consists mainly of persons of African descent (82.4%), mixed ethnicity (13.3%), and East Indian descent (2.2%).

In 2014, life expectancy at birth was 74.1 years.

In 2015, per capita income was estimated at US\$ 9,156. Tourism and agriculture are the main industries, while tourism is the main supplier of foreign exchange to the economy.



SOCIAL DETERMINANTS OF HEALTH

Education is compulsory and free at the primary and secondary level. The literacy level is 98%.

In 2015, a prolonged drought threatened the water supply of numerous communities. Disaster preparedness and response capacity has improved since the devastation of hurricanes Ivan and Emily in 2004 and 2005, respectively.

In 2014, access to safe drinking water was universal (98% of the population). Some 95% of the population has access to water piped into the home, while 2% still use standpipes.

Improved sanitation coverage included 8.2% with public sewer connections, 53.1% with septic tanks, and 36.3% with latrines or pit latrines.

Waste collection services are available for 98% of households: 87% are served by government services and 11% by private services.

Between 2010 and 2014, 9,241 people emigrated internationally, while immigration was insignificant.

HEALTH SITUATION AND THE HEALTH SYSTEM

The annual number of pregnancies is relatively low (1,750 births in 2014). There was just one maternal death between 2010 and 2014.

A high percentage of births (99%) occur in hospitals and health care centers and are attended by trained health workers.

Infant mortality was 12.3 per 1,000 live births (21 deaths) in 2010 and 10.3 in 2014. That year, there were 28 deaths in children under 1 year, attributed to conditions originating in the perinatal period.

Between 2010 and 2014, there were 14 deaths in the 1-4 age group.

Vaccination is required for preschool or primary school enrollment, and vaccination coverage for the antigens administered ranges from 95% to 100%.

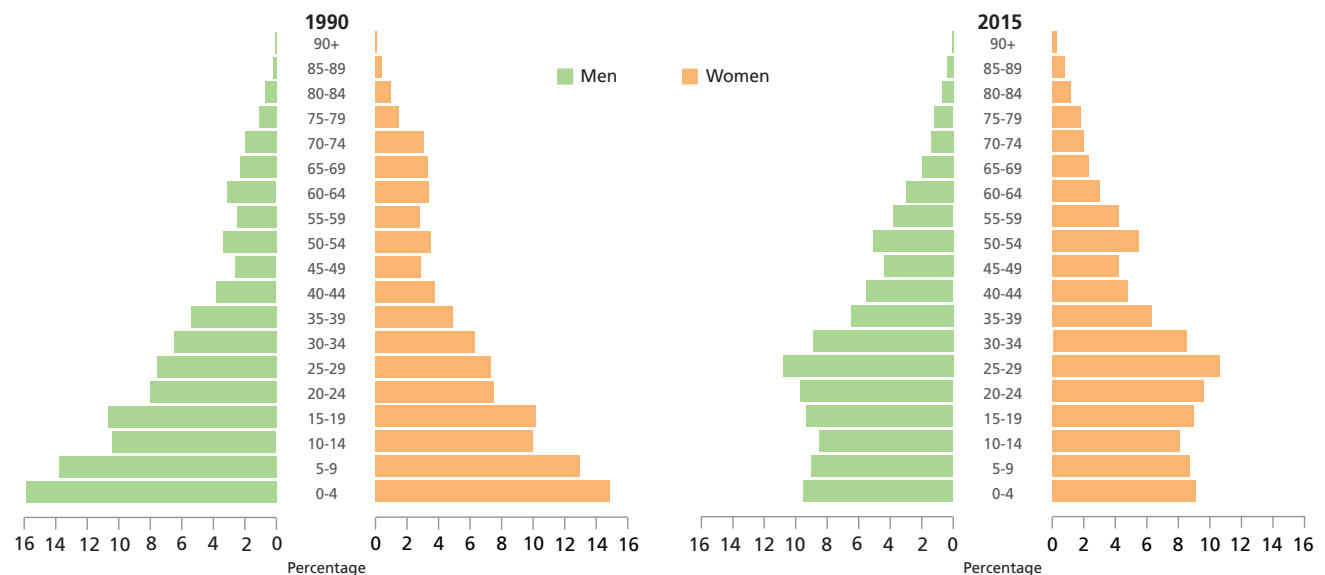
There were 4,251 deaths in the period 2010-2014. The crude death rate was 8.8 in 2014. The leading cause of death in 2015 was circulatory system diseases (31% of deaths), followed by neoplasms (20%). The most common distribution of malignant neoplasms were 15.1% prostate, 12% lung, 9.3% breast, and 9.3% colon.

No cases of zoonosis or rabies were recorded during the 2010-2014 period. Dengue is endemic, with 265 confirmed cases in the 2010-2014 period, but no deaths.

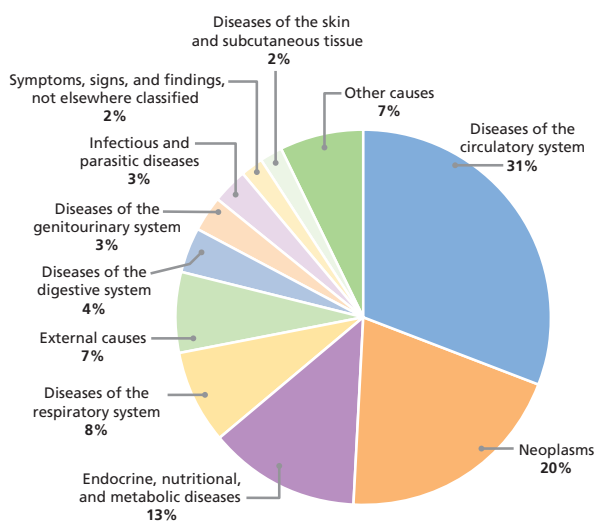
Since 2013, the new emerging diseases caused by the chikungunya and Zika viruses reached epidemic levels.

A total of 26 laboratory-confirmed cases and 3,070 presumptive cases of chikungunya were recorded between

Distribution of the population by age and sex, Grenada, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2015



June and October 2014, with no related deaths. The numbers then declined, with no associated deaths. In 2016, 112 laboratory-confirmed cases of Zika were recorded, with 10 cases of Guillain-Barré syndrome; 10 pregnant women contracted the disease in the first trimester.

The household *Aedes aegypti* mosquito index was 10.6% in 2014. Malaria and yellow fever are not endemic, although cases of malaria were recorded in 2010 and 2013.

Between 2010 and 2014 there were 45 cases of leptospirosis (27 men and 18 women), with 2 deaths.

The prevalence of human immunodeficiency virus (HIV) infection in the adult population was estimated at 0.57% in 2009. By late 2014, a total of 543 confirmed cases of HIV had been recorded since the first case was diagnosed in 1984. Men represented 65% of the cumulative total, and almost 83.9% of the cases correspond to the 15-54 age group.

In 2014, 26 new cases of HIV were reported (19 men and 7 women). Antiretroviral therapy is provided free of charge. There have been no cases of mother-to-child transmission of HIV since 2010.

Between 2010 and 2015, nine cases of tuberculosis were recorded (one to four annually), none of which was drug resistant.

Chronic noncommunicable diseases have become the leading cause of premature avoidable death and disease. In 2010,

these diseases and their complications were responsible for 65%-81% of all deaths.

In 2011, 61.3% of adults had one or two risk factors (65.5% of men and 57% of women), while 35% had three to five (30.5% of men and 39.8% of women).

Between 2009 and 2015, overweight in children aged 0-3 years increased from 2.2% to 4.7%, and wasting fell from 7.9% to 3.4%. Between 2011 and 2014, overweight in preschool children increased from 2.9% to 3.9%, and wasting fell from 7.5% to 2.5%. The index of overweight in adults was 58.7%, while 25.2% were obese, with a higher prevalence in women.

According to the results of a survey, in 2013, 72% of secondary school students had consumed alcohol, 27% smoked cigarettes, and 20% used marijuana; 19% of adolescents and adults smoked at the time (30.7% of men and 6.5% of women), while 11.2% smoked daily (19.4% of men and 2.8% of women).

The Ministry of Health (MoH) is responsible for overseeing the health services and for policy-making and regulation. Health care in Grenada is universal, and Government financing is supplemented by minimal fees for services in public institutions.

Private institutions offer health insurance, which is the only form of health insurance in Grenada to date. In view of the growing older population, the Government is considering the creation of a national health insurance program. Some safety net programs have been established to help meet the basic needs of the most vulnerable groups.

Between 2008 and 2014, total health expenditure averaged 5%-6% of the gross domestic product (GDP). Direct disbursements (out-of-pocket expenditure) accounted for 47% of total health expenditure. Total Government expenditure on health was 10%-12% of the total budget.

In 2014, the country had 10.1 physicians, 0.8 dentists, 31.0 registered nurses, and 21.3 nursing assistants per 10,000 population.

Health services are provided at the primary and secondary level through the public and private health services.

There is a network of public health facilities, including 3 acute care hospitals and 36 health facilities, which include 6 health centers (1 in every health district) and 30 satellite medical stations scattered within a 3-mile radius throughout the country.

Primary health care has been expanded to increase access to care. It is important to point out that the health care program serves the vulnerable segments of the population.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

The country has made progress in terms of overall development and health, as well as its health system. Coverage in maternal and child health programs and the health care network has been expanded.

The vaccination program has broad national coverage, making most vaccine-preventable diseases uncommon.

Some health issues will continue to be a priority for future action, among them access, health equality, and achievement of the Sustainable Development Goals.

The national health insurance is designed to be an effective model for achieving universal health coverage that guarantees access and equity to the population.

Chronic noncommunicable diseases are the main cause of morbidity and mortality, together with the threat of emerging new infectious diseases.

Risk factors for chronic diseases must be reduced, especially alcohol use and abuse, unhealthy diets and obesity, lack of physical activity, and hypertension.

Thus, health promotion and disease prevention strategies must be strengthened, particularly for the most vulnerable groups. Important among these strategies are education and providing opportunities to develop healthy lifestyles.

Emphasis has been placed on the need to improve men's health to help close the gap in life expectancy between men and women, which is currently 5 years.

Among other strategies, emphasis will be placed on community participation and sufficient funding to guarantee the sustainability of the achievements of the past decade.



ADDITIONAL POINTS

The Ministry of Health is responsible for spearheading the development of national health policies. For the 2011-2015 period, a series of health sector guidelines were developed to reduce the leading causes of morbidity and mortality. The areas covered included adolescent health (2013), sexual and reproductive health (2013), oral health (2013), and the action plan (2015).

In 2015, the National Health Sector Strategic Plan (2016-2025) was adopted. This plan presented health legislation and proposals for legislative reform for legal drafting.

The Food Safety Law was enacted in 2015, covering the safety of food produced, imported, and exported. A National Food Safety Committee was created to raise the standards for domestic food production.

The Government is aware of the impact of climate change on human lives and has committed to supporting and investing in the public response to climate change. Accordingly, the Ministry of Health continues to build capacity to reduce vulnerability, increase resilience, and promote disaster risk reduction.

The National Food Safety Policy adopted in 2010 was strengthened with the passage of new food safety legislation in 2015.

The drug procurement service of the Organisation of Eastern Caribbean States facilitates the procurement of pharmaceutical products at lower prices with better quality assurance.

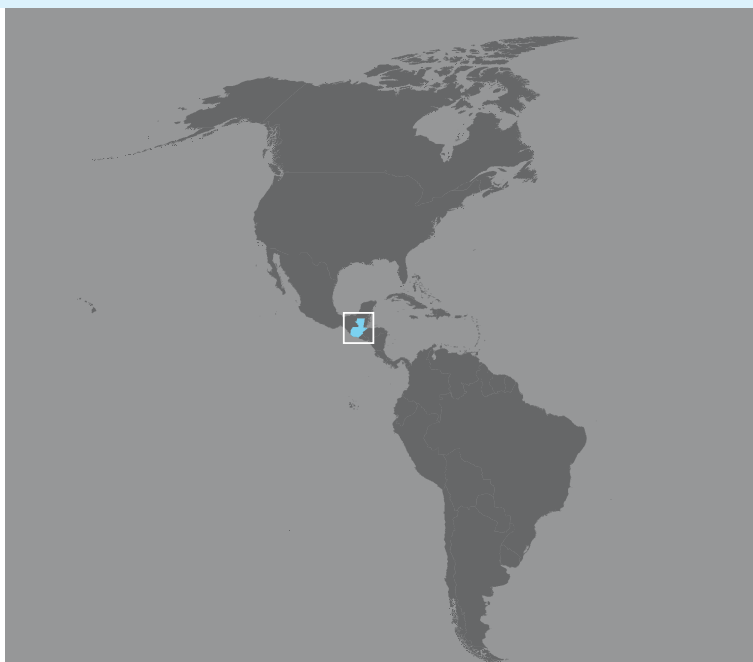


GUATEMALA

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	7,250 (2014)	...
Human development index	0.478	0.627 (2013)	31.2
Mean years of schooling	3.1	7.0 (2014)	125.8
Improved drinking-water source coverage (%)	77.0	93.0 (2015)	20.8
Improved sanitation coverage (%)	47.0	64.0 (2015)	36.2
Life expectancy at birth (years)	62.2	72.3 (2012)	16.2
Infant mortality (per 1,000 live births)	59.6	19.0 (2013)	-68.1
Maternal mortality (per 100,000 live births)	...	113.4 (2013)	...
TB incidence (per 100,000 population)	75.0	19.8 (2013)	-73.6
TB mortality (per 100,000 population)	9.7	1.6 (2013)	-83.5
Measles immunization coverage (%)	68.0	99.0 (2015)	45.6
Births attended by trained personnel (%)	...	66.0 (2015)	...



Guatemala is located in Central America and borders Mexico, Honduras, El Salvador, and Belize. With a territory of 108,928 km², it is divided politically and administratively into 22 departments and 340 municipalities. The main ethnic groups are the Garifuna, the Maya, the Xinca, and mixed race, or mestizo.

Although Spanish is the official language, 22 languages with their different dialects are spoken by ethnic Mayans, and the Garifuna and Xinca also speak their own languages.

Between 1990 and 2016, the population grew by 81.5%. The population structure remains expansive, totaling 16.3 million inhabitants in 2015 and 16.7 million in 2016, although the population is steadily aging. In 2015, people aged 65 and over made up 5.3% of the population.

In 2012, life expectancy at birth was 68 years for men and 75 for women.

SOCIAL DETERMINANTS OF HEALTH

In 2014, 23.4% of the population was living in extreme poverty, with a higher figure in indigenous groups (39.8%) and rural dwellers (35.3%). The informal economy employed 65.8% of workers: 80.3% among the indigenous population versus only 57.7% in the nonindigenous population.

In 2014, the literacy rate for people 15 years or older was 79.1% (84.8% in men and 74% in women; 86.1% in urban areas and 71.4% in rural areas). Among rural women, the literacy rate was 64.7%, although this figure was 57.6% among indigenous women, since they are the most disadvantaged group in terms of access to education.

Departments with a higher percentage of indigenous and rural populations with less access to health services had the highest maternal mortality.

The population periodically suffers the effects of natural disasters, particularly volcanic eruptions, droughts, and storms.

Urbanization is growing, largely due to internal migration toward urban centers. Major cities and surrounding areas are marked by insecurity and violence stemming from drug trafficking, prostitution, human trafficking, etc.

There is a significant amount of emigration, mainly in the direction of the United States and Mexico. Guatemala's geographic location puts it in a migration corridor where human and drug trafficking are prevalent, exposing the country to violence and insecurity.

The health sector is both fragmented and segmented, with leadership problems and funding gaps. The country's health indicators reveal inequalities and gaps that will be difficult to overcome.

HEALTH SITUATION AND THE HEALTH SYSTEM

In 2013, maternal mortality was 113.4 deaths per 100,000 live births. Of these deaths, 68.4% were indigenous women and 42% were illiterate women. The leading causes of death were hemorrhage, hypertension, infection, and abortion.

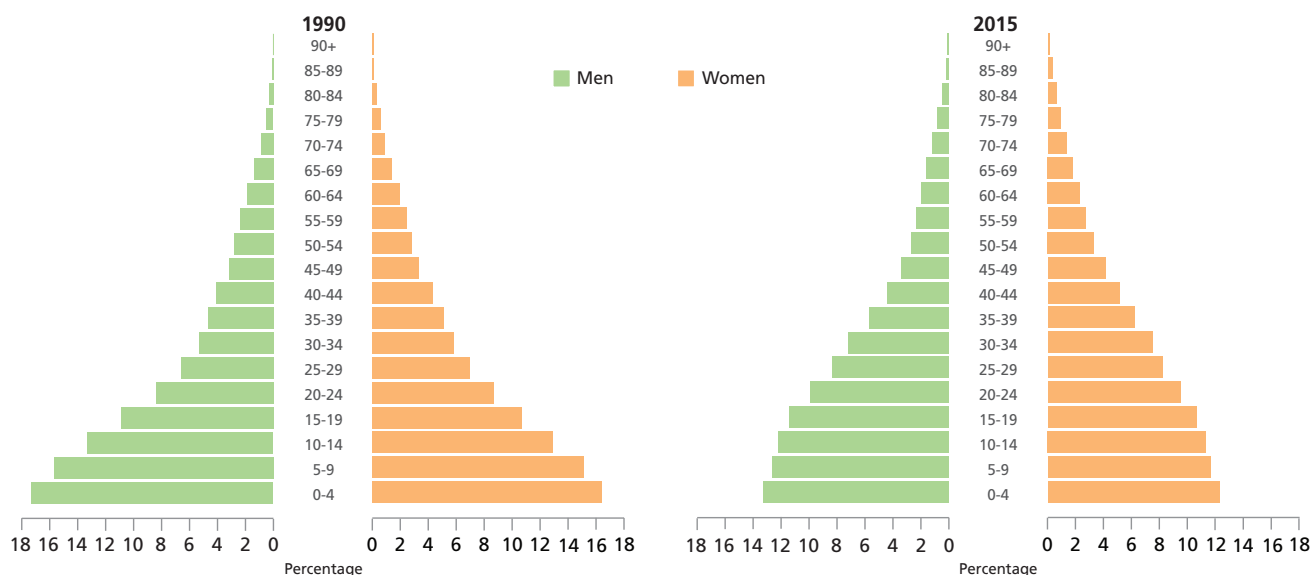
It has been estimated that 20.7% of women aged 10-19 had already had one pregnancy and 16.2% were already mothers.

From 2010 to 2015, mortality in children under 5 was 35 deaths a year per 1,000 live births. In this period, 40.5% of deaths occurred in the neonatal period and 80% in the first year of life.

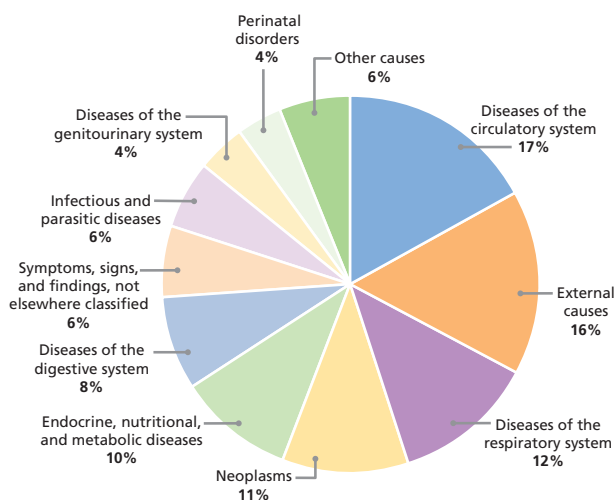
The leading causes of death in infants under one year were disorders originating in the perinatal period and congenital malformations.

In the period 2014-2015, 98% of children aged 12-23 months received the BCG vaccine, 84.6% a third dose of the pentavalent vaccine, 82.5% a third dose of the polio vaccine, and 63% one dose of the measles vaccine. Only 59% had all their vaccinations. Progress has been made in the elimination of measles, rubella, and congenital rubella syndrome, and neonatal tetanus elimination has been maintained.

Distribution of the population by age and sex, Guatemala, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2014



In 2010, the rotavirus vaccine was added to the national vaccination schedule and in 2016, the second dose of measles vaccine was introduced. As part of the final polio eradication phase, the first dose of inactivated vaccine was introduced and, for the subsequent doses in the schedule, the switch was made from the trivalent oral vaccine to the bivalent oral vaccine.

One of the major challenges for health service delivery is monolingualism, especially among Mayan women, who speak their Mayan mother tongue but not Spanish, the country's official language.

The estimated disability prevalence was 37.4 cases per 1,000 population. At the time of the survey, in early 2017, only 22% of persons with disabilities were receiving care.

In 2014, 17% of deaths were from circulatory system diseases, 16% from external causes, and 12% from respiratory system diseases.

In 2016, diabetes mellitus caused 69.9 deaths per 100,000 population (62.0 in men and 75.0 in women), while ischemic heart disease caused 65.7 deaths per 100,000 population (77.3 in men and 56.1 in women).

Breast cancer was the cause of death in 6 out of every 100,000 women, and prostate cancer was the cause in 17.1 out of every 100,000 men.

The homicide rate was higher in men than in women (62.3 and 9.6 per 100,000 population, respectively).

Dengue is hyperendemic in several regions of the country, where circulation of the four serotypes of the virus has been

confirmed. In 2015, 50 severe cases of dengue were reported, with 9 deaths. That same year, 30,716 cases of chikungunya virus were reported.

In 2006, there were 11.4 cases of Zika virus per 100,000 population. In 2010, 166,000 people had Chagas disease, and in the past 5 years, 6 cases of human rabies were reported.

In 2016, the country was declared free of onchocerciasis. In the period 2010-2014, 2,600 cases of leishmaniasis were reported, with an incidence of 20 per 100,000 population.

In 2012, mortality from tuberculosis (TB), malaria, and HIV/AIDS was 1.5, 0.1, and 3.2 deaths per 100,000 population, respectively.

In 2015, there were 55,000 people with HIV and an estimated 3,700 new infections annually.

In the period 2010-2015, the TB incidence rate fell from 23 to 21 per 100,000 population. In 2015, 63 persons were diagnosed with multidrug-resistant (MDR) TB, and 40 began treatment. In 2010, the leading causes of morbidity from chronic diseases were diabetes mellitus, hypertension, cerebrovascular disease, and tumors.

An estimated 46.5% of children under 5 had stunting, a major problem in indigenous populations (58%), children whose mothers had no schooling (67%), and in rural areas (53%). Some 56.2% of women and 47.6% of men are overweight or obese.

Chronic noncommunicable diseases are a heavy burden on the population, especially cardiovascular disease, diabetes, various types of cancer, respiratory diseases, and chronic kidney disease.

The national regulatory agency is the Ministry of Public Health and Social Welfare. It covers 70% of the population and provides services at the three levels of care; however, access indicators are low, primarily for the indigenous population.

The Guatemalan Social Security Institute covers approximately 18% of the population, and around 8% of the population has access to private health insurance.

The Ministry of Public Health and Social Welfare has launched the Inclusive Health Model (MIS) as a mechanism for restructuring and strengthening the public health services network.

In 2014, Guatemala's average fiscal and tax revenues represented 11.6% of its gross domestic product (GDP). That year, health financing represented 6.3% of GDP, including the public and private sectors.

In 2014, the country had 7.5 physicians per 10,000 population. However, distribution was unequal, as some departments only had 1.5 physicians per 10,000 population.

As of 2015, the Ministry of Public Health and Social Welfare had a primary health care-based model. Under this model, health services were institutionalized to guarantee preventive care and health promotion for individuals, families, and communities.

Priority is given to rural communities, assigning specific health territories of 5,000 people to rural health posts staffed by health teams consisting of nursing auxiliaries, educators, and community facilitators. The health teams also coordinate with midwives.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

The Ministry of Public Health and Social Welfare is responsible for overseeing the health sector, but it has political and financial limitations that impede more effective management of a segmented and fragmented health system. The relatively low and unequal social and health indicators pose complex challenges that are hard to resolve with the system's current structure and performance.

The main challenge for the health system is to draft feasible policies and plans that can be implemented gradually and consider the real development potential, given the available resources, national context, and the country's financial constraints.

The country needs to implement a model that promotes universal access to health and universal health coverage, with special attention to the social, economic, and environmental determinants of health.

A main concern is resolving language access barriers, since most of the indigenous population is monolingual.

Health policies should include mechanisms and tools that address health determinants in a multisectoral manner, link the sector with the social and economic agenda, and improve the oversight capacity of the health authority.

Similarly, appropriate intersectoral coordination is needed to take the action necessary to meet the Sustainable Development Goals.

ADDITIONAL POINTS

The last foci of onchocerciasis (Robles disease) transmission were eliminated in the period 2007-2011. In September 2016, after international verification, the World Health Organization declared Guatemala the fourth disease-free country.

Guatemala was also one of the first countries in the Region to conduct studies on the efficacy and effectiveness of administering ivermectin to control the disease.

In the case of communicable diseases, the country has made significant progress in malaria control (only two departments, Escuintla and Alta Verapaz, persist as major foci of transmission). Trachoma elimination will soon be a reality.

The country met target 6C of the Millennium Development Goals, reducing malaria by more than 75% over 1990.

Guatemala continues to be free of wild poliovirus circulation. Progress has been made in the elimination of measles, rubella, and congenital rubella syndrome, and neonatal tetanus elimination has been maintained. Efforts are under way to control diphtheria, hepatitis B, invasive *Haemophilus influenzae* type b, TB meningitis, and whooping cough.



GUYANA

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross domestic product (US\$ per capita)	...	3,724 (2015)	...
Human development index	0.541	0.636 (2013)	17.4
Mean years of schooling	6.8	6.4 (2014)	-5.7
Improved drinking-water source coverage (%)	79.0	98.0 (2015)	24.1
Improved sanitation coverage (%)	76.0	84.0 (2015)	10.5
Life expectancy at birth (years)	62.0	66.0 (2014)	6.5
Infant mortality (per 1,000 live births)	47.1	23.9 (2013)	-49.3
Maternal mortality (per 100,000 live births)	...	...	...
TB incidence (per 100,000 population)	90.0	71.3 (2013)	-20.7
TB mortality (per 100,000 population)	7.5	16.0 (2013)	113.3
Measles immunization coverage (%)	53.0	100.0 (2015)	88.7
Births attended by trained personnel (%)	...	99.7 (2015)	...



1990 population (thousands)	720.3
2012 population (thousands)	747.9
Change (%)	3.8

Guyana lies on the northeastern coast of South America and borders Suriname, Venezuela, and Brazil. It includes two distinct areas: the coastal area and the interior (or rural interior). It comprises an area of 215,000 km² and is divided administratively into 10 regions.

Although the official language is English, at least eight other languages and dialects are also spoken.

Between 2010 and 2015, its population grew by only 0.7%; at times, the country has even experienced negative growth. Its population is multi-ethnic: Indo-Guyanese (40% of the total population), Afro-Guyanese (26%), Amerindian (11%), and ethnically mixed (20%). The Chinese, Portuguese, and white populations together constitute less than 1% of the total population.

Guyana's population structure was expansive in 1990, but its population pyramid has become irregular, with certain age groups predominating as a result of various migrations. Life expectancy at birth was 66 years in 2014.

In 2015, per capita gross domestic product (GDP) was US\$ 3,724. Agriculture, forestry, and the fishing and mining industries accounted for 28% of GDP.



SOCIAL DETERMINANTS OF HEALTH

The adult literacy rate was 85% in 2012 (82% among men, 87% among women). Education is free and compulsory between the ages of 5 and 16.

In 2015, the overall unemployment rate was 6.9%; this rate was higher among youth (25.1%). Some 18.3% of children between the ages of 5 and 17 performed some type of child labor.

In 2012, households with female heads of household were most common in urban areas, accounting for 44% of urban households.

The community of Amerindian ancestry lives mostly in the interior. It is the most vulnerable social group, with the country's highest poverty levels and lowest health indicators.

Approximately 7% of households cook with solid fuels, with this figure being particularly high in the interior (31%).

In 2014, 83% of households had improved drinking water sources and sanitation (90% in urban areas, 81% in rural areas, 88% in coastal areas, and 55% in the interior).

The 2012 census showed a positive net flow of people returning to the country's interior from abroad, along with a negative net flow of residents from the coastal area emigrating abroad.

As of mid-2016, with the discovery of new oil deposits, the World Bank classified Guyana as a medium-high-income country; the minimum wage in Guyana is US\$ 3,000 per year.

The greatest impact of climate change has been the increased incidence of vector-borne, water-borne, and food-borne diseases.

HEALTH SITUATION AND THE HEALTH SYSTEM

There were 18 maternal deaths recorded in 2013: 1 at 18 years of age, 9 between the ages of 20 and 29, 3 between the ages of 30 and 34, and 5 over the age of 35. Ninety percent of births were attended by skilled personnel; however, only 74% of births in the interior took place in institutional settings, with the remainder occurring in the home. That year, 12% of deliveries were by cesarean section.

In 2014, the under-5 mortality rate was 23.9 deaths per 1,000 live births.

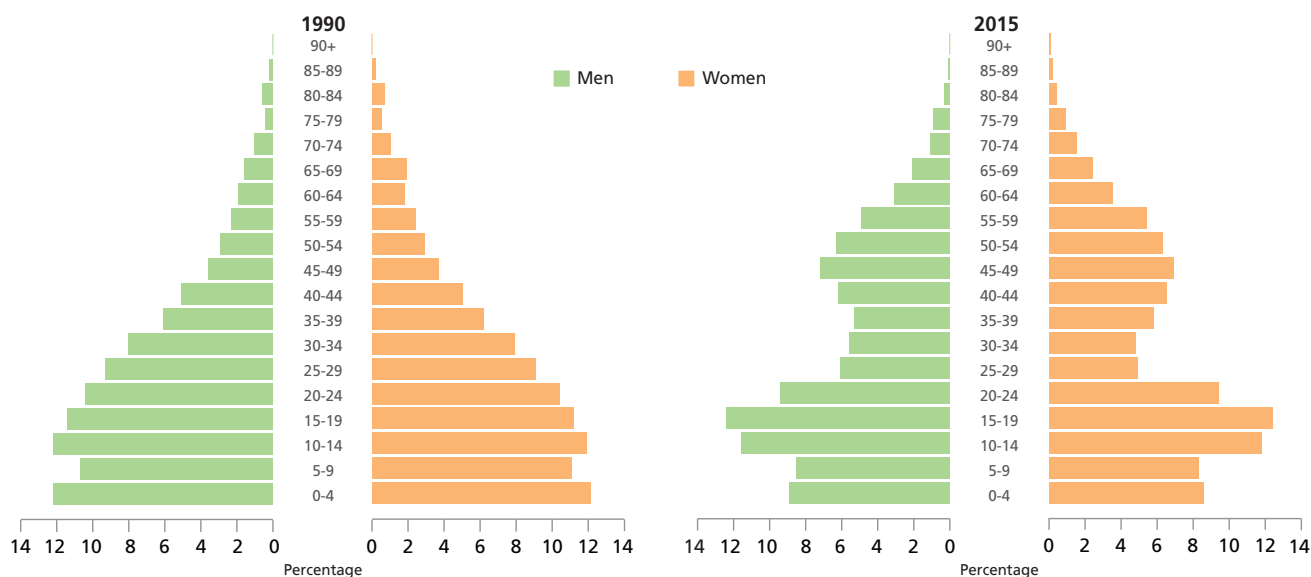
Mild to moderate malnutrition among children under 5 declined from the 2010 level of 5% to around 2% in 2011-2015.

In 2015, vaccination coverage for all antigens (BCG, pentavalent, oral polio vaccine, and inactivated polio vaccine) remained at 90% among children under 1, except when a new vaccine was incorporated in the schedule.

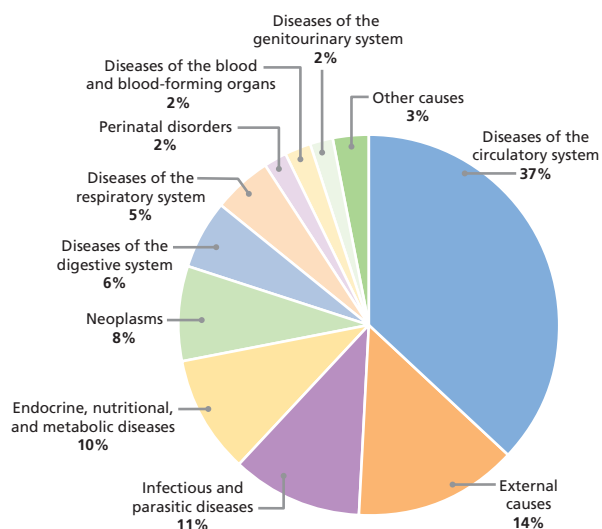
In 2012, 37% of deaths were due to diseases of the circulatory system, 14% to external causes, and 11% to infectious and parasitic diseases.

The leading specific causes of mortality in men were ischemic heart and cerebrovascular disease; for women, they were cerebrovascular disease, malignant neoplasms, and ischemic heart disease.

Distribution of the population by age and sex, Guyana, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2012



Of the total population, 5.1% is aged 65 or over. This group accounts for 42.4% of deaths, with the leading causes being cerebrovascular disease, ischemic heart disease, diabetes mellitus, neoplasms, and hypertensive heart disease.

In 2014, 12,353 cases of malaria were reported, a dramatic reduction from the 30,542 recorded for 2013. Between 2010 and 2014, 150 cases of leishmaniasis and 19 cases of Chagas disease were reported. The chikungunya virus was detected for the first time in 2014, and in late 2014, there were over 5,000 suspected cases. Zika virus was detected in 2016.

In 2015, 508 cases of tuberculosis were detected. In 2015, 915 new cases of human immunodeficiency virus (HIV) infection were reported, with a TB/HIV coinfection rate of 20%.

No information is available on the national prevalence of hypertension, but surveillance of the disease indicated that 81,608 patients with hypertension were being seen in the public health system in 2014.

There were 6,518 cases of cancer reported between 2003 and 2012, with an average incidence of 86.7 cases per 100,000 population. The most common types were breast cancer, cervical and uterine cancer, and prostate cancer.

The adjusted suicide rate is estimated at 16.04 per 100,000 population. That is 1.5 times the world rate of 11.4, and three times the 5.2 rate of the middle- and low-income countries of the Region of the Americas. The rate in Guyana is four times higher in men than in women.

In 2015, the prevalence of underweight in children under age 5 was 8.5%, while the prevalence of stunting and wasting

was 12% and 6.4%, respectively. These problems were more prevalent in the interior and in rural areas, among the poorest households, and among the children of mothers without formal education.

The Ministry of Public Health has centralized functions in technical aspects of health and operates administratively on a decentralized basis at the regional level. In the various administrative regions, the regional democratic councils control the health budget, while the Ministry of Public Health is responsible for the delivery of services.

Health care is organized through a five-level referral system. Level I includes 214 health posts; level II, 136 polyclinics and health centers; level III, 21 district or community facilities; level IV, 5 regional hospitals and diagnostic facilities; and level V, the Georgetown Public Hospital (GPHC).

There are quality gaps in the delivery of services, particularly in primary care. These problems are greater in the country's interior.

In 2014, the country had 13.3 physicians and 30.5 nurses and midwives per 10,000 population. In 2013, 2,069 nurses and nursing auxiliaries were certified to work in Guyana. In 2013, the country had 55 dentists for the entire population (6.9 per 100,000 population) and 57 dentistry offices.

Guyana's Human Resources Plan of Action 2011-2016 presents a comprehensive plan to address the country's challenges and deficiencies with regard to human resources in health.

Human resources training and development take place in two main settings. The University of Guyana offers degrees in medicine, nursing, pharmacy, medical technology, and radiography. The Division of Health Sciences Education of the Ministry of Public Health trains mid-level health workers and primary health care workers.

The various systems within the health sector are fragmented and lack intercommunication. Political, technical, and financial backing is needed to develop infrastructure, recruit skilled human resources, and support technological sustainability. In 2015, only 57.8% of information from health facilities reached national authorities; thus, underreporting of mortality and morbidity is high.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

In 2013, the "Guyana Health Vision 2020" strategy was rolled out, outlining strategic objectives and interventions to address the disease burden in three categories: chronic diseases; accidents, injuries, and violence; and mental health.

This strategy has three goals: (1) to promote the well-being of the people of Guyana; (2) to reduce health inequalities; and (3) to improve the delivery of quality, evidence-based health services capable of addressing people's needs.

The main health problems that Guyana faces are noncommunicable diseases, mental disorders (suicide), HIV infection and tuberculosis, vector-borne diseases, and not enough trained health workers.

Malaria is a major concern in Guyana. Its transmission has always been linked to migration from the coast to the interior regions, where people move to participate in economic activities associated with the extractive industries (mining and wood).

In 2016, a number of entities were created to discuss and prioritize the country's health challenges and constraints in the context of inequities and multisectoral participation. The strategies, which are scheduled to sunset at different times, are designed to expand access to equitable, quality, comprehensive health services.

A further objective is to reorient health funding modalities to increase efficiency and public and multisector investment in areas related to health.

Administration and governance need to be improved to redefine the functions and structure of the Ministry of Public Health to effectively address health inequities.

Intersectoral collaboration also needs to be improved (through strategic partnerships), by formalizing the health commissions in the Government cabinet and creating interministerial technical groups that include the participation of the regional administrative level.

These various strategies will help dynamically transform Guyana's health system to achieve universal health and reduce inequalities.

ADDITIONAL POINTS

The country has the opportunity to achieve significant economic growth in the short term, due to the discovery of new oil deposits in mid-2016. This is expected to have a major short-term impact on the well-being of the country's population.

Guyana's police force has committed to reducing crime and violence and has outlined priorities in its Strategic Plan 2013-2017, which includes modernization of the force. The plan's operational priorities are to address the issues of drugs, domestic violence, juvenile delinquency, and human trafficking.

The Government of Guyana has legislation in place that could help combat drug trafficking and money laundering more

effectively. In January 2015, a new strategic plan to combat drugs in the 2015-2020 period was implemented.

The Government is also making major efforts to fully comply with the minimum standards for the elimination of human trafficking, for which it launched an action plan in 2014.

In May 2010, the Government of Guyana presented its initial national version of the global low-carbon model: Guyana's Low Carbon Development Strategy. This strategy provides an innovative approach to ensuring low deforestation rates and encourages the creation of a resilient low-carbon economy that takes the effects of climate change into account.



SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	820 (2014)	...
Human development index	0.408	0.483 (2013)	18.6
Mean years of schooling	2.7	...	...
Improved drinking-water source coverage (%)	62.0	58.0 (2015)	-6.5
Improved sanitation coverage (%)	18.0	28.0 (2015)	55.6
Life expectancy at birth (years)	54.5	63.4 (2013)	16.4
Infant mortality (per 1,000 live births)	100.2	59.0 (2013)	-41.1
Maternal mortality (per 100,000 live births)	...	157.0 (2013)	...
TB incidence (per 100,000 population)	250.0	149.5 (2013)	-40.2
TB mortality (per 100,000 population)	50.0	26.0 (2013)	-48.0
Measles immunization coverage (%)	73.0	64.0 (2015)	-12.3
Births attended by trained personnel (%)	...	50.0 (2015)	...



1990 population (millions)	7.1
2015 population (millions)	10.9
Change (%)	53.7

Haiti occupies the western third of the island of Hispaniola—which it shares with the Dominican Republic—and has a land mass of some 27,750 km². Administratively, the country is divided into 10 departments, 42 arrondissements (similar to districts), 140 communes, and 570 communal sections. The two official languages are French and Haitian Creole, the latter of which is more commonly spoken.

Between 1990 and 2015, the population grew by 53.7%—reaching 10,911,819 inhabitants in 2015—and maintained an expansive structure, although growth was slower in the under-30 age group. The urban population is 51%. For the period 2015–2020, life expectancy at birth is estimated at 64.2 years.

The evolution of basic indicators between 1990 and 2015 generally reflects progress, although with limited economic, social, and health care development. Haiti's Gini coefficient was 0.66 in 2012.

In 2014, the gross national income (GNI) per capita was US\$ 820.



SOCIAL DETERMINANTS OF HEALTH

Haiti exhibits significant social and health inequalities, which continue to rise; there is a striking difference between Port-au-Prince—the capital—and rural areas.

More than 6 million people live below the poverty line of US\$ 2.0 a day. Between 2002 and 2012, the number of people living in extreme poverty was reduced from 31% to 24%, but some 2.5 million people still cannot cover their basic food needs. Employment often fails to provide sufficient income to escape poverty, since 45% of people with jobs live on less than US\$ 1.25 a day.

Haiti imports three times more than it exports, and its most important resources are remittances from the Haitian diaspora, estimated at US\$ 2.1 billion in 2015.

The country is prone to natural disasters (earthquakes, hurricanes) and suffers from serious soil erosion, which has a negative impact on the economy. Soil, water, and air quality have been steadily deteriorating, especially over the past three decades.

Water resources are insufficient to meet the population's needs, especially those of the poorest groups. Furthermore, drinking water intended for human consumption is often contaminated, due to uncontrolled urbanization and the invasion of areas containing sources of drinking water.

In 2000, only 36% of the population had access to potable water, and 21% had access to basic sanitation. In 2015, improved drinking-water coverage had risen to 57.5% nationwide (62.8% in urban areas and 17.6% in rural areas), and health care coverage to 28%.

In 2012, 79% of men and 74% of women could read and write, and 66% had finished primary school. Less than 10% of the population had completed secondary or higher education. A high percentage of students—67%—attended private schools, because the majority of schools are not State-run.

In 2012, the homicide rate was estimated at 10.2 deaths per 100,000 population. Domestic violence is common in Haiti. In 2012, 28% of women aged 15-49 reported that they had experienced physical violence since the age of 15, and 13% stated that they had been sexually abused at some point in their lives.

The earthquake that ravaged Haiti in 2010 caused more than 200,000 deaths, as well as major damage to the national infrastructure. The hurricanes of 2012 and 2016 caused severe damage in some parts of the country, as well, with a loss of human lives and the destruction of infrastructure, houses, trees, crops, and livestock.

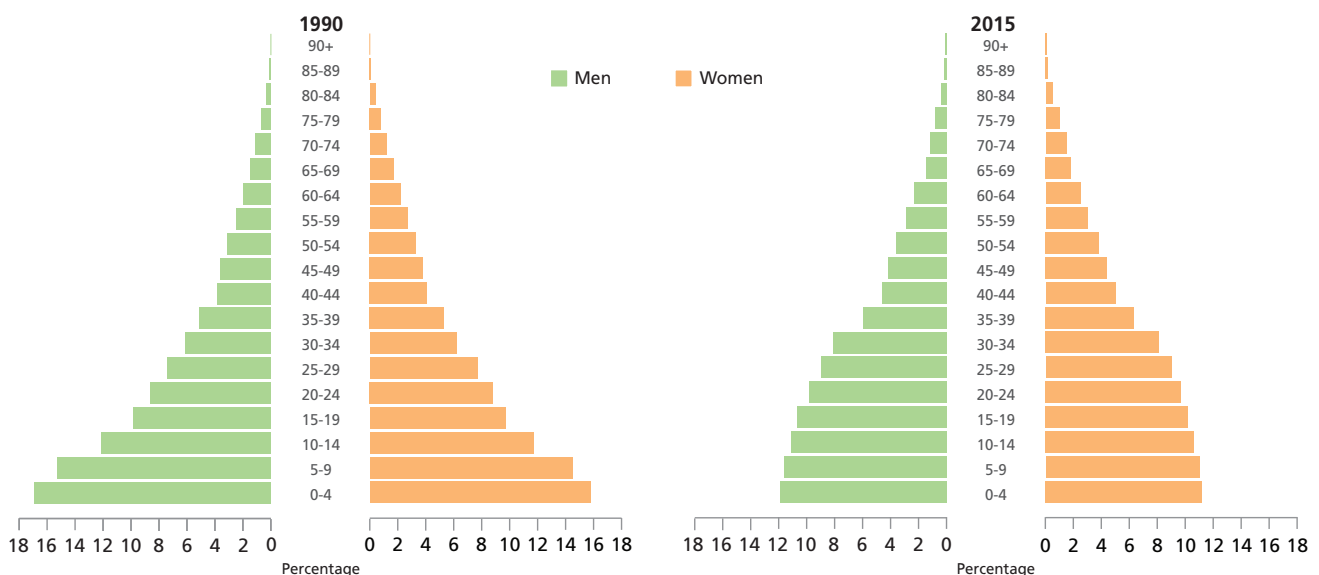
The poorest households spend almost three-quarters of their total income on food, and households with higher incomes still spend more than half.

Internal migration is constant, and in 2015 more than half of the population lived in an urban area. There is also a great deal of emigration, estimated at 751,245 in 2015. It is believed that remittances from Haitians residing abroad provide 35% of the gross domestic product (GDP).

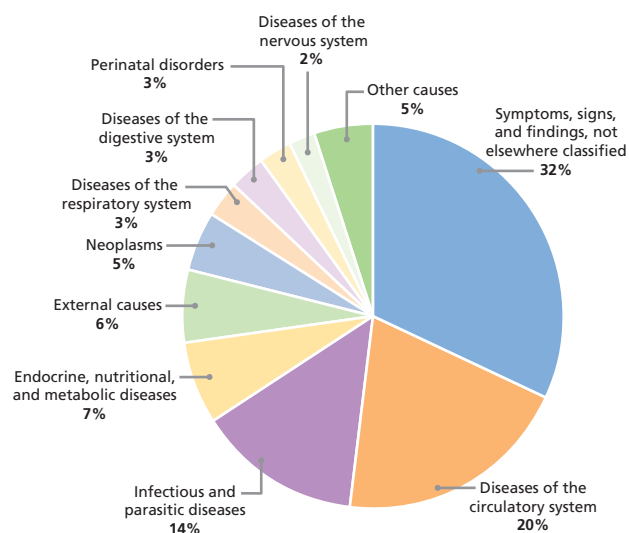
HEALTH SITUATION AND THE HEALTH SYSTEM

The maternal mortality rate reported by the country was estimated at 157 deaths per 100,000 live births in 2013. According to World Health Organization (WHO) estimates, the

Distribution of the population by age and sex, Haiti, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2004



maternal mortality ratio fell from an estimated 630 deaths per 100,000 live births in 2005-2006 to 380 per 100,000 in 2013. Regardless of the differences in methodology and calculations, there has been a marked reduction in this indicator.

Trained health personnel attended 50.0% of births in 2015. In 2013, only 43% of health care institutions offered any maternity services, and 10% offered cesarean sections.

Between 1990 and 2012, the mortality rate for children under 5 fell from 156 to 88 per 1,000 live births, and infant mortality from 122 to 59 per 1,000 live births. Mortality is higher in the children of mothers with a lower educational and economic level.

Between 1990 and 2015, the crude death rate fell from 13.1 to 8.2 deaths per 1,000 population. Available data on cause of death is scarce, due to incomplete and inaccurate record-keeping. In 2004, it was estimated that 32% of deaths were due to ill-defined causes, and 20% to diseases of the circulatory system.

The cholera epidemic in Haiti began during the last quarter of 2010 and has since become endemic, with 36,045 cases reported in 2015. The chikungunya virus appeared in 2014, and almost 70,000 presumptive cases were reported that year. In the first 10 months of 2015, 3,036 cases of Zika virus were reported.

Lymphatic filariasis is endemic in Haiti. Malaria is also, with outbreaks after the rainy season. However, confirmed annual cases fell from 37,799 in 2010 to 17,583 in 2015.

Although the Expanded Immunization Program's coverage has grown in recent years, it is still limited. In 2014 the elimination of measles, rubella, and congenital rubella was verified.

Prevalence of infection with the human immunodeficiency virus (HIV) is 2.2% in the population aged 15-49. The national HIV response has intensified in recent years, and incidence of the infection continues to decline, dropping by 27% between 2004 and 2014. Between 2008 and 2014, the annual number of deaths from AIDS more than halved (from 7,800 deaths to 3,800).

In 2015, 16,431 cases of tuberculosis were reported. Mortality from TB was estimated at 25 per 100,000 population in 2012.

Between 1995 and 2012, the prevalence of chronic childhood malnutrition was reduced from 38.1% to 21.9%. Acute malnutrition declined from 9.4% to 5.1%, and underweight fell from 27.5% to 11.4%. Anemia was detected in 65% of children aged 6-59 months in 2012, as well as in 49% of women of childbearing age.

The National Health Policy (2012) charts Government health actions for the next 25 years, and the 2012-2022 Master Plan for Health establishes such priorities as institutional strengthening, service delivery, health care for priority health problems, disaster management, health and sanitation, and environmental protection.

The formal health services network consists of 10 health departments and 42 health district units, with more than 900 institutions (38% public, 42% private, and 20% mixed).

The first level has some 800 first- and second-level health centers, and 45 community referral hospitals. The second level has 10 departmental hospitals, while the third level has university hospitals and some specialized centers.

The private sector plays a major role, especially in the metropolitan areas. It includes nonprofit and for-profit institutions, and its linkage with the public sector is limited. Traditional medicine is widely used.

The proportion of GDP corresponding to total health expenditure rose from 5.3% in 1995 to 9.4% in 2013. Total health expenditure per capita in 1995 was less than US\$ 100, rising to US\$ 229 in 2014.

In 2014, 34.8% of direct health expenditure came from households, a situation that indicates a lack of financial protection against health risks. In 2012, two out of three poor patients did not consult health professionals, for financial reasons.

A total of 23,344 health professionals were registered in 2016. For every 10,000 inhabitants, there are 1.4 physicians and 1.8 nurses in the public sector, with 1 physician and 2.1 nurses in the private sector. The availability of these professionals is unequal across the departments.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

Since 1990, the country has made progress in its health situation, the most notable being a reduction in maternal and child mortality and an increase in vaccination coverage.

Among the main challenges, the most significant are the vulnerability of the physical and human environment, lack of access to quality health services, the prevention and control of chronic noncommunicable diseases, and the health sector's capacity to respond to disasters and health emergencies.

Haiti's Ministry of Health has developed the Master Plan for Health to guide health service management throughout the country.

Human resources for health remains a major challenge for Haiti; the country has no policy for human resources in health.

With the creation of the Single National Health Information System, the Ministry of Health is working to harmonize data production, maintain reliable and comprehensive information about the health status of the population, and meet partners' information needs.

It is necessary to determine the most efficient and effective priority interventions, considering the country's real capacity for financing and implementing the strategies identified and for improving the coordination of interventions.

Funds earmarked for the health sector in the national budget should be increased to ensure the sustainability of programs and the effective development of social protection strategies.



ADDITIONAL POINTS

After the 2010 earthquake, the Ministry of Health developed a new community health care model aimed at increasing access to services. Its structure is based on a primary care strategy and an integrated health services network. This model was launched as a pilot project in the community of Carrefour.

Using an operational perspective, the first-level health institutions were coordinated into a network, a municipal health committee was set up, and multipurpose community workers were recruited and trained. They were then sent into the community with the responsibility of acting within a well-defined territory and target population.

A family health team, comprising a physician and two nurses, has ensured planning and supervision of the activities of these community workers, which include identifying and conducting a detailed census of the population under their charge, home visits, disease prevention and health promotion, and weekly work in the health institution network.

The positive impact of implementing this model in Carrefour was seen in the marked improvement in immunization coverage for children under 1 year and an increase in family planning consultations and institutional delivery care. The Ministry of Health is therefore expanding this model to other municipalities.



HONDURAS

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	4,570 (2014)	...
Human development index	0.507	0.606 (2013)	19.6
Mean years of schooling	3.5	6.2 (2014)	76.3
Improved drinking-water source coverage (%)	73.0	91.0 (2015)	24.7
Improved sanitation coverage (%)	48.0	83.0 (2015)	72.9
Life expectancy at birth (years)	66.7	73.5 (2014)	10.2
Infant mortality (per 1,000 live births)	45.7	24.0 (2013)	-47.5
Maternal mortality (per 100,000 live births)	...	74.0 (2013)	...
TB incidence (per 100,000 population)	114.0	35.4 (2013)	-68.9
TB mortality (per 100,000 population)	6.4	2.9 (2013)	-54.7
Measles immunization coverage (%)	90.0	98.0 (2015)	8.9
Births attended by trained personnel (%)	...	72.0 (2015)	...



Honduras is located in Central America and borders El Salvador, Nicaragua, Guatemala, and the Atlantic and Pacific Oceans. It is divided politically into 18 departments and 298 municipalities. Indigenous and Afro-descendant people make up 8.6% of its population, with nine indigenous groups present in the country.

The estimated population in 2016 was 8,189,501.

In 1990, the population pyramid had an expansive structure, but since then, it has displayed a regressive trend, with a decline in the percentage of the population under 20. This reflects the lower fertility and mortality rates of the past two decades.

Life expectancy at birth was 73.5 in 2014.

Per capita gross domestic product (GDP) was US\$ 2,495 in 2015. Honduras is transitioning from a mainly agricultural to an industrial economy, with industry already representing 20% of GDP.



SOCIAL DETERMINANTS OF HEALTH

The country's high levels of income inequality are reflected in a Gini coefficient of 0.54 for 2013. In 2012, one out of five Hondurans lived on less than US\$ 1.90 a day. In 2013, 65% of households were living below the poverty line and 43% were living in extreme poverty. The economically active population was 44.0% in 2014, and 5.3% of the active population was unemployed.

The 88% of the population who were over the age of 15 had an average of 7.5 years of schooling, although coverage of secondary education was less than 30%.

Approximately 1 million households depend on firewood for cooking and heating, posing a risk of significant environmental pollution. In 2015, 91.2% of the population had access to clean drinking water, while 82.6% had access to basic sanitation.

In 2010, 64% of households had waste collection services. However, the majority of municipalities have garbage dumps that pollute the soil, air, and water.

People over 60 are a highly vulnerable age group, since they tend to suffer from poorer social and health conditions. Approximately 46.6% do not have any formal schooling, and 79.7% lack social security coverage. Some 44.5% of the population aged 60-69 live in extreme poverty, a figure that increases to 51.2% among people aged 70-79.

The main objective of Country Vision 2010-2038 is the pursuit of greater solidarity and equity among the country's inhabitants, with gender equity as a cross-cutting principle.

HEALTH SITUATION AND THE HEALTH SYSTEM

In 2013, the reported maternal mortality ratio was 74 deaths per 100,000 live births. Institutional delivery coverage was 83%.

In 2007-2012, the infant mortality rate was 24 deaths per 1,000 live births. The leading causes of death were perinatal disorders, congenital malformations, pneumonia, diarrhea, and child malnutrition. The under-5 mortality rate was 29 deaths per 1,000 live births.

Immunization coverage in the population under 1 year in 2015 was 100% for BCG, 99% for poliomyelitis, 100% for rotavirus, 99% for the pentavalent vaccine, and 99% for pneumococcus. In the population aged 12-23 months, measles immunization coverage was 98%.

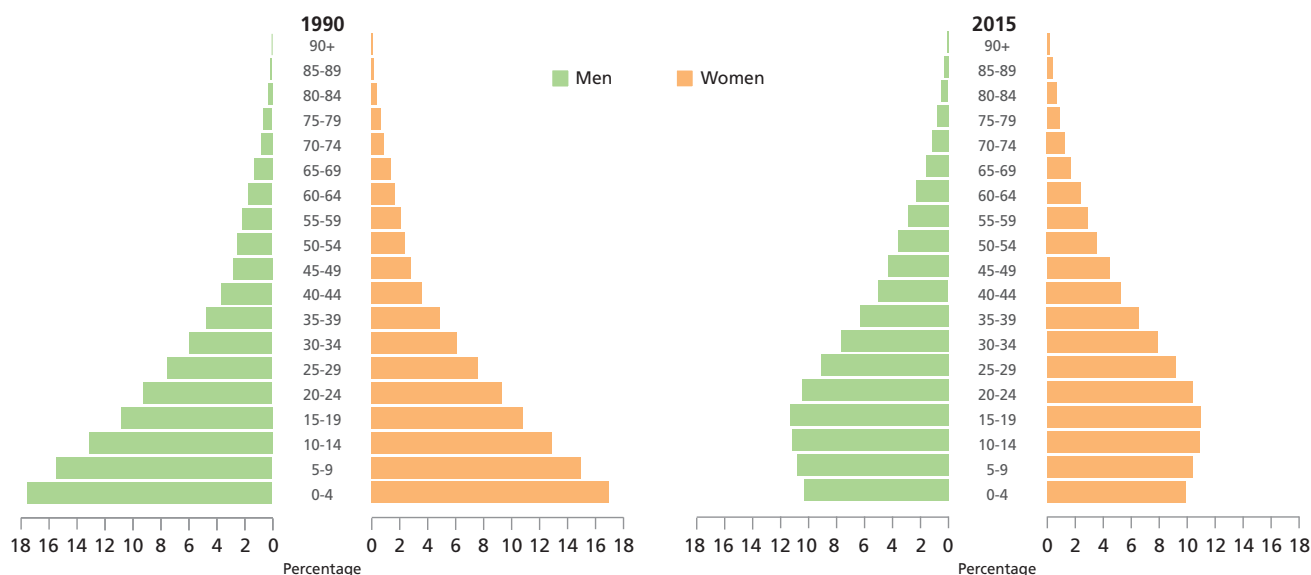
In 2013, 19% of deaths were caused by perinatal disorders, 18% by circulatory system diseases, and 10% by respiratory system diseases.

The prevalence of disability in the population was 4.4% in people over 10 years of age in 2012. In 2013-2014, 6.4% of disabilities were severe.

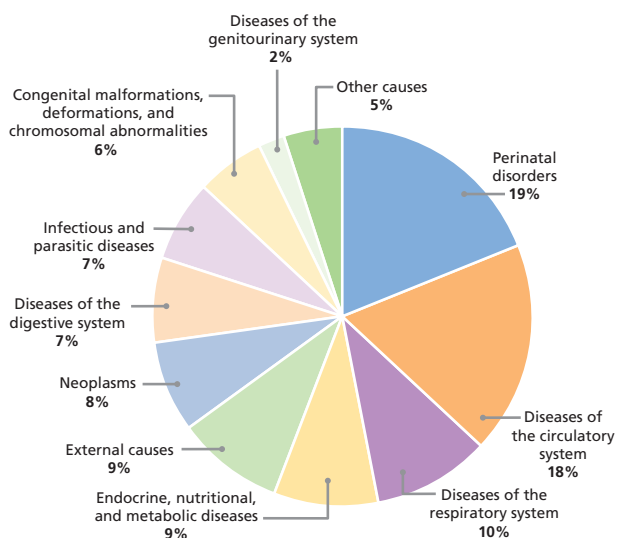
Dengue is endemic in Honduras, and the largest outbreak in the past 10 years occurred in 2010. Chikungunya virus was introduced in 2014, causing an epidemic that peaked at 1,057 cases per 100,000 population in 2015. Zika virus was introduced into the country at the end of that year.

Malaria transmission has fallen sharply in Honduras over the past decade. However, 921 cases were reported in 2015, a 56% increase over the previous year.

Distribution of the population by age and sex, Honduras, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2013



A total of 2,060 cases of leishmaniasis were reported in 2015. In 2014, there were 48 reported cases of Chagas disease transmitted by *Trypanosoma cruzi* in children under 15 and 58 cases in the population aged 15 and over.

In 2015, the prevalence of human immunodeficiency virus (HIV) was 0.4% in the population aged 15-49, transmitted mainly by heterosexual contact. The reported tuberculosis rate was 32 cases per 100,000 population.

The prevalence of diabetes mellitus in the adult population is 7.4%, and the prevalence of hypertension is 22.6%.

In 2015, the death rate from road traffic accidents was 15.5 per 100,000 population, with 24.9% of these deaths in young adults aged 20-29.

Alcohol consumption averaged 4 liters per capita in 2010.

In 2011-2012, the prevalence of chronic malnutrition was 23% in children under 5, with higher rates in the children of mothers without schooling and from poor households. Some 34% of the population over 20 is overweight and 21% is obese, while 18.7% of adolescents aged 13-15 are overweight and 5.4% are obese.

The health system consists of a public and a private sector. The former includes the Ministry of Health (MoH) and the Honduras Social Security Institute (IHSS).

The MoH serves the entire population in its own facilities staffed by its own physicians and nurses, but it is estimated that only 50%-60% of Hondurans regularly use these services. The IHSS covers 40% of employed economically

active individuals and their dependents, using its own and contracted facilities.

The private sector serves some 10%-15% of the population: those who can afford to pay or are covered by private insurance. An estimated 17% of Hondurans do not have regular access to health services.

Total per capita health expenditure was US\$ 212 in 2014, representing 8.72% of GDP. Public spending (MoH plus IHSS) amounted to 4.4% of GDP. Out-of-pocket spending made up 50% of total health expenditure.

The National Health Model, approved in 2013, emphasizes primary health care. The Directorate-General of Human Resources Development, also created that year, is responsible for health worker development.

In 2013, the country had 10.0 physicians, 3.8 nurses, and 0.3 dentists per 1,000 population.

In 2015, health services management was decentralized in 82 municipalities across 15 departments in the country, covering a population of 1,337,874.

The National Health Model has guided the implementation of 500 primary health care teams serving rural and remote areas of the country. The teams, each consisting of a physician, a nurse, and a health promoter, give priority to communities living in extreme poverty, environmentally vulnerable conditions, and situations of violence. By mid-2015, a total of 367 teams were already working in the field and serving 1.4 million people, promoting qualitative improvements in their attitudes and habits.

In 2014, the MoH created the Information Management Unit, which is responsible for ensuring that information is accurate, timely, and appropriate for health planning, organization, direction, control, and evaluation. Since 2016, the country's 28 hospitals have had an information system.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

Prior to 2015, there was no law that legally defined the national health care model or mechanisms for regulating it. That year, the National Congress approved the Framework Law on Social Protection, which establishes a new modality for social protection. The law envisages a unified universal public health insurance system with coordinated benefits and services provided by the contributory and subsidized systems.

The new model encourages a diversity of participating sectors and entities, with clear separation of the system's functions. This will require a new and improved organizational structure for social security that strengthens its steering role, the creation of a health oversight agency, and designation of the IHSS as the insurer of the national health system.

More effective application of the model also requires further improvement of public health service management and greater human resource development.

Efforts are being made to promote and strengthen multisectoral partnerships and the generation of evidence for the Health in All Policies approach, especially in relation to noncommunicable diseases and injuries due to external causes. Further development of national capacity and competencies for measuring equity and inequalities in health is also necessary, as is effective implementation of the human rights and gender/ethnic equality approaches.

The Government has identified the following health challenges: (i) restructuring the MoH to strengthen its

steering role and implement the separation of functions; (ii) implementing the Results-based Management Monitoring and Evaluation System, thereby strengthening the Integrated Health Information System; (iii) developing public policies that promote healthy habits and lifestyles; (iv) implementing the International Health Regulations; (v) monitoring compliance with the Framework Convention on Tobacco Control; (vi) retrofitting infrastructure to achieve optimal operation of the health services network; (vii) conducting research on indigenous and Afro-descendant populations to learn about evidence-based interventions; (viii) hiring relevant, high-quality human talent in the necessary numbers, especially to strengthen the first level of care and ensure the continuity of the model; and (ix) strengthening activities to ensure quality care and patient safety in health facilities.

ADDITIONAL POINTS

Several of the policies developed over the past 5 years are designed to have an impact on health determinants and equity.

Country Vision 2010-2038 sets goals for the gradual achievement of greater equity under the next few administrations, establishing solidarity and equity as criteria for State intervention in the social sectors, including health. The goals include equal access to quality services in education, health, vocational training, social security, and basic services.

The Government's Strategic Plan 2014-2018 establishes objectives aimed at increasing employment and reducing poverty, stabilizing the national economic situation, shoring up the country's infrastructure and logistical development, strengthening democratic governance, and protecting citizen security.

Within this framework, the Government has created the Better Life Program to protect the population living in extreme poverty through several projects: Healthy Housing, Creating Jobs and Opportunities, Let's Develop Honduras, and the Better Life Voucher. As of 2015, these projects had benefited 150,000 people through conditional cash transfers and housing improvements.

The country's environment policy is being updated. The environmental regulatory framework includes policies on the drinking water and sanitation sector and on the rational management of chemical products, as well as the climate change law, which is linked with the National Climate Change Strategy 2010.



JAMAICA

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	8,640 (2014)	...
Human development index	0.651	0.719 (2014)	10.3
Mean years of schooling	6.5	9.1 (2014)	40.6
Improved drinking-water source coverage (%)	93.0	94.0 (2015)	1.1
Improved sanitation coverage (%)	80.0	82.0 (2015)	2.5
Life expectancy at birth (years)	70.7	74.2 (2011)	5.0
Infant mortality (per 1,000 live births)	...	19.1 (2011)	...
Maternal mortality (per 100,000 live births)	...	108.1 (2013)	...
TB incidence (per 100,000 population)	6.6	3.1 (2013)	-53.2
TB mortality (per 100,000 population)	0.9	0.6 (2013)	-33.3
Measles immunization coverage (%)	...	91.0 (2015)	...
Births attended by trained personnel (%)	...	99.4 (2015)	...



1990 population (millions)	2.4
2015 population (millions)	2.8
Change (%)	17.5

Jamaica is the largest English-speaking and third-largest island in the Caribbean, with an area of 11,424 km². It is located 150 km south of Cuba and 160 km west of Haiti. The country is divided into three counties, which are further divided into 14 parishes or municipalities.

The estimated population in 2015 was 2.8 million. The current population structure reflects signs of aging as the country has progressed through the intermediate stages of the demographic transition, moving toward a regressive structure over the past two decades.

Life expectancy at birth in 2011 was 74.2 years (71.3 in men, 76.3 in women).

In 2015, Jamaica recorded improvements in most indicators of economic and social development. At the end of 2015, its per capita gross domestic product (GDP) was US\$ 5,140. The human development index for 2014 was 0.719.



SOCIAL DETERMINANTS OF HEALTH

In 2015, the total unemployment rate was 13.5%.

The educational reform of 2015 provides for free education from early childhood through primary school. The literacy rate in 2015 was 91.7%. In 2013, the gender parity index (ratio of girls to boys) was 1.04 at the secondary level and 2.29 at the tertiary level.

In 2012, 70% of households had piped drinking water (94.2% urban and 49.1% rural), 12.4% used rainwater collected in tanks, and 2.5% used rivers or springs. Nearly all households (99.8%) had access to improved sanitation. In 2012, the housing quality index for Jamaica was 72%.

The overall crime rate was 644 per 100,000 population in 2015, and the homicide rate was 44 per 100,000 population.

Several factors contribute to poor air quality, including emissions or air pollutants from industrial plants, motor vehicles, open burning of sugarcane fields, and fires at solid waste disposal sites.

A total of 778,175 tons of solid waste were disposed of in 2015, with per capita waste generation estimated at 1.2 kg/day. In 2012, most households (63.4%) used a refuse collection service, while 31.9% burned their trash.

The country is constantly exposed to natural hazards such as hurricanes, earthquakes, floods, droughts, and fires, and their social and economic impact has been a major challenge. According to the Environmental Vulnerability Index, Jamaica is one of 35 countries in the world with extreme environmental vulnerability.

HEALTH SITUATION AND THE HEALTH SYSTEM

The maternal mortality ratio was 108.1 per 100,000 live births in 2014. The leading causes of death were hypertensive disorders in pregnancy (19%) and hemorrhage (18%).

In 2012, the total birth rate was 16 per 1,000 women of reproductive age, while in adolescents aged 15-19 years, the rate was 72 births per 1,000 women.

In 2011, the infant mortality rate (under 1 year of age) and under-5 mortality rate were 19.1 and 17.4 per 1,000 live births, respectively. The leading causes of death were respiratory and cardiovascular disorders specific to the perinatal period.

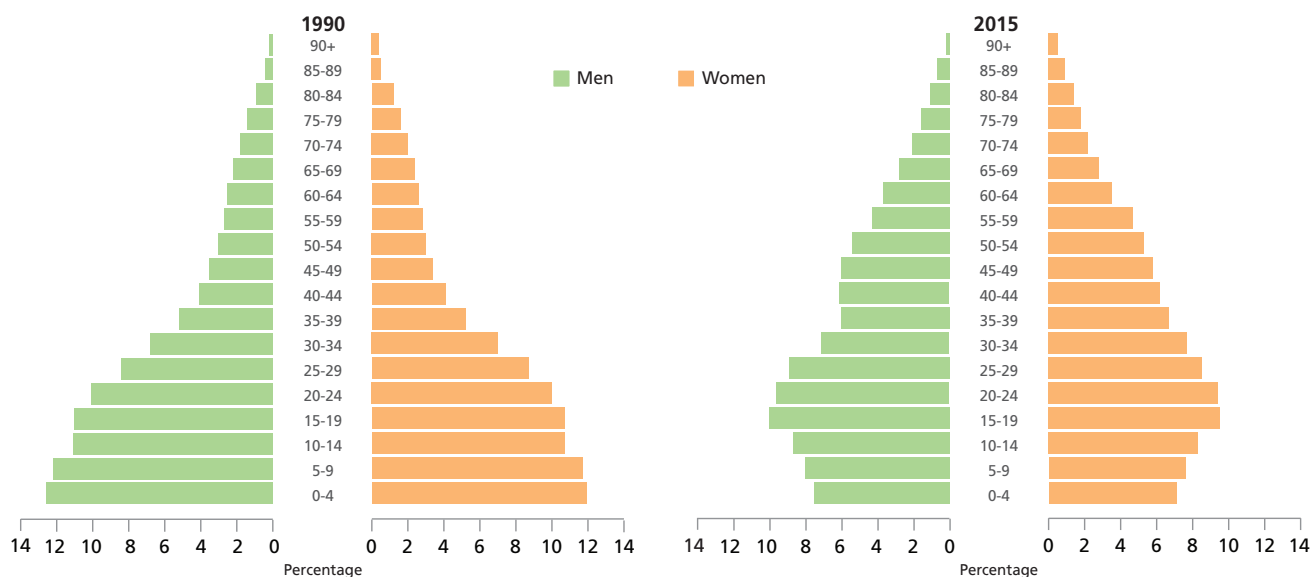
The Expanded Program on Immunization provided the following coverage in 2015: BCG, 100%; poliomyelitis, 92%; DPT/DT, 91%; *Haemophilus influenzae* type b (HiB), 92%; hepatitis B, 92%; and triple viral vaccine (measles, mumps, and rubella, two doses), 83%.

The rate of exclusive breastfeeding for infants under 6 months increased from 15% in 2005 to 24% in 2011.

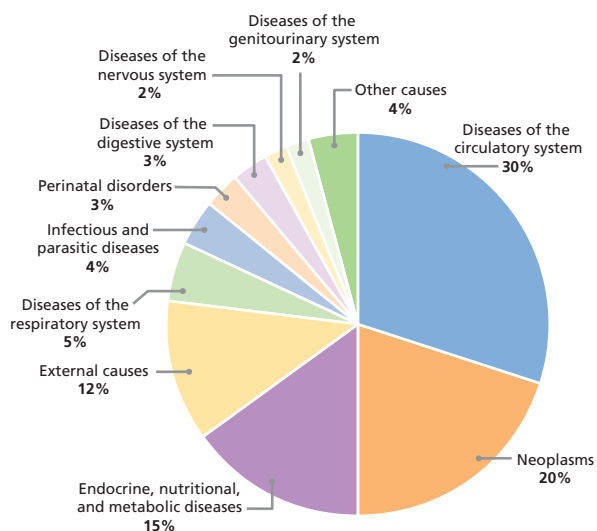
There has been no autochthonous transmission of malaria since 2009. In 2013, Jamaica was reinstated on the World Health Organization (WHO) official register of areas where malaria eradication has been achieved.

No cases of yellow fever have been recorded since 1852, and no case of Chagas disease has been seen in Jamaica. There was a single case of cutaneous leishmaniasis in a traveler, which was notified in December 2015 but never confirmed.

Distribution of the population by age and sex, Jamaica, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2014



In 2015, dengue remained endemic, with outbreaks having occurred in 2007, 2010, and 2012. All four serotypes circulate on the island, and *Aedes aegypti* is the only dengue vector found in Jamaica. There were 118 reported cases in 2015 (26 laboratory-confirmed) and 2,316 reported cases in 2016 (190 laboratory-confirmed).

The first confirmed case of chikungunya virus infection in Jamaica was an imported case in July 2014; the first autochthonous case was confirmed in August of that year. By the end of 2015, 5,180 cases of chikungunya had been reported (97 laboratory-confirmed).

The first case of Zika virus infection was confirmed in January 2016. By the end of that year, 203 laboratory-confirmed cases had been recorded. A total of 698 suspected Zika cases in pregnant women were reported to the Ministry of Health, 78 of which were laboratory-confirmed (PCR test). In 2015, 37 cases of influenza were confirmed.

No cases of cholera have been detected in Jamaica since the last recorded cases in 1852, but active surveillance continues in view of the outbreak in neighboring countries.

The country has successfully eliminated leprosy. Three cases were detected in 2015, compared with eight cases in 2011.

From 2011 to 2015, 1,659 cases of presumptive tuberculosis were reported, 32.6% of which were confirmed. The majority were in young adults aged 25-34. On average, 114.7 new cases were recorded each year between 2006 and 2015. Less than 25% of patients screened were coinfecting with HIV. The treatment success rate ranged from 77% in 2013 to 22% in 2015.

Estimated HIV prevalence is 1.6% in the general population. Some 29,000 people are currently living with HIV in Jamaica; approximately 16% are unaware of their status. Between January 1982 and December 2015, 34,125 cases of HIV infection were reported to the Ministry of Health. Of these patients, 9,517 (27.9%) are known to have died.

In 2012, 3% of children under 5 suffered from wasting, 5.7% exhibited stunting, and 7.8% were overweight. The prevalence of low birthweight was 11.3% in 2011. The rate of exclusive breastfeeding of infants at age 6 months was 23.8%, and 24.4% of women of reproductive age suffered from anemia. The prevalence of overweight or obesity was 18% in children aged 6-10 and 22%-25% in children aged 10-15.

There was a 12.7% increase in the number of deaths from 2013 to 2014. The leading cause in 2014 was circulatory system diseases (30%). Cerebrovascular disease, hypertensive disease, and diabetes mellitus were among the five leading causes of death in both men and women. In 2014, most cancer deaths in men were from prostate cancer, while among women, breast and cervical cancer accounted for most cancer deaths.

Road traffic fatality rates were 14.0 deaths per 100,000 population in 2015. Males accounted for 80% of the fatalities each year between 2010 and 2015. Pedestrians were the category with the most fatalities during this period, except in 2015, when it was motorcycle riders.

In 2010, the diabetes rate was 11.5% in adults 18 years and older (9.8% in men and 13.2% in women). That same year, 22.9% of people over 18 had hypertension (25.4% of men, 20.5% of women), and 27% were obese (36% of women, 18% of men).

A 2012 survey of the population over 60 found that 76.4% had at least one chronic disease and 46.9% had more than one, 61.4% suffered from hypertension, and 26.2% had diabetes. Smoking was reported by 25.4% of the survey group, and 21.4% reported regular alcohol consumption (at least two drinks per week).

The age-standardized prevalence of tobacco use in the population aged 15 and older was 18.5% in 2010 (30.7% in men and 6.6% in women); prevalence in adolescents was 28.7%. For the population aged 15 and older, the age-standardized prevalence of alcohol use disorders was 6.5% in men, 1.8% in women, and 4.1% for both sexes in 2010.

The suicide rate in 2014 was 1.2 per 100,000 population. Between 2011 and 2014, attempted suicides increased by 265%, going from 141 to 515.

In 2015, there were a total of 1,166 doctors, 92 dentists, and 3,849 nurses employed in the public sector. Under the auspices of the Program for the Reduction of Maternal and Child Mortality (PROMAC), health professionals were trained for positions in strategic health development programs.

The country continues to move toward universal health, with a focus on health system strengthening, the renewal of primary care, and improved access to services.

The policy priorities of the Jamaican Ministry of Health Strategic Plans for the years 2013-2016 and 2015-2018 were to improve health sector governance, ensure access to health services, provide quality assurance in the delivery of health services to the population, and reduce injuries, disabilities, and premature deaths from preventable illness.

Total health expenditure as a percentage of GDP fluctuated between 5.2% in 2008 and 5.9% in 2014. Government expenditure on health increased from 56.3% of total health outlays in 2010 to 62.3% in 2014. Out-of-pocket expenditure corresponded to 19.7% of the total in 2014.

Since 2010, the Ministry of Health has strengthened the National Health Information System using the Health Metrics Network framework and standards. A multisectoral Health Information and Technologies Steering Committee directs and coordinates the activities, including an evaluation of the National Health Information System in 2011 and the development of a strategic plan for strengthening the information system in 2014-2018.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

Between 1990 and 2015, Jamaica achieved socioeconomic and health progress. Its population currently faces a demographic and epidemiological transition, however,

with accelerated population aging and the associated health burden.

The country faces a triple burden of noncommunicable chronic diseases (NCDs), violence and injuries, and emerging and reemerging infectious diseases.

Because of the active recruitment of health professionals in Jamaica for overseas markets, their emigration has continued, especially among specialized nurses with a university degree.

Efforts to reduce risk factors have included implementation of three out of four tobacco-demand-reduction interventions, namely the adoption of tobacco taxation policies, smoke-free environments, and health warnings. The new Public Health Regulations were enacted in 2013.

Major challenges include a regulatory framework that is inadequate to the tasks of reducing the principal risk factors, creating a supportive environment for behavioral change, and countering tobacco industry interference.

The expected increase in the frequency of infectious disease outbreaks requires a new approach in the health emergencies program of the Ministry of Health.

Universal health remains a priority to ensure the population's ability to access quality care provided by trained staff with the appropriate mix of skills at upgraded facilities, along with the required levels of equipment, pharmaceuticals, and supplies and the requisite financial protection.

ADDITIONAL POINTS

A new Social Protection Strategy that included a Social Safety Network Reform Program was implemented to deliver appropriate interventions and improve sustained outcomes for the poor and vulnerable.

The proposed national housing policy was amended in 2015 to provide a comprehensive framework to guide the housing sector.

Labor market reform with employment creation has remained a Government priority. This reform has included the preparation of a strategic plan for outsourcing business processes and information and communications technology.

The Program of Advancement through Health and Education has functioned as a conditional cash transfer program, providing grants to some 380,010 registered beneficiaries at the end of 2015. It is linked to attendance at health and education services, based on established criteria.

Children at risk were monitored by the Office of the Children's Registry, which received 11,749 reports of child abuse in 2014. There were 55 reports of child trafficking in 2014. Another priority initiative was the Disabilities Act, passed in 2014, which has provisions to safeguard and enhance the welfare of persons with disabilities.



MEXICO

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	16,840 (2014)	...
Human development index	0.648	0.756 (2013)	16.7
Mean years of schooling	5.5	8.4 (2014)	52.7
Improved drinking-water source coverage (%)	82.0	96.0 (2015)	17.1
Improved sanitation coverage (%)	66.0	85.0 (2015)	28.8
Life expectancy at birth (years)	70.8	77.2 (2016)	9.0
Infant mortality (per 1,000 live births)	37.0	12.5 (2013)	-66.2
Maternal mortality (per 100,000 live births)	...	38.9 (2013)	...
TB incidence (per 100,000 population)	62.0	16.9 (2013)	-72.7
TB mortality (per 100,000 population)	7.8	1.8 (2013)	-76.9
Measles immunization coverage (%)	75.0	100.0 (2015)	33.3
Births attended by trained personnel (%)	...	95.6 (2015)	...



Mexico is a democratic and representative republic located in southern North America. It borders the United States, Guatemala, and Belize. It has 32 autonomous states and 2,456 municipalities. In 2016, the population was 119.5 million, 77.8% of whom were living in urban areas.

The population grew by 39.6% between 1990 and 2016, with a marked increase in the aging population and a reduction in the under-20 population. Some 7.2% of the population is aged 65 or over, with projections for 2050 at 21.5%. Life expectancy at birth is 72.6 years for men and 77.8 for women; the intercensal survey of 2015 showed that 21.5% of the population is considered to be indigenous and 1.2% is of African descent.

Basic health and development indicators improved systematically between 1990 and 2015, with a human development index score of 0.756 in 2013.

With a nominal gross domestic product (GDP) of 17.39 trillion Mexican pesos in 2015, the country's economy is one of the 20 largest in the world. The service sector represents around 62.0% of GDP.

SOCIAL DETERMINANTS OF HEALTH

The informal economy employs 57.8% of the economically active population, generates 24% of GDP, and is not covered by social security. In 2015, the wealthiest 1% of the population accounted for 21% of the national income, which causes inequalities.

In 2015, mean schooling was 9.1 years. The percentage of the population living in poverty in 2014 was 46.2% (61.1% in rural areas and 41.7% in urban areas) and the percentage living in extreme poverty was 9.5%.

In 2010, 76.4% of the population were homeowners, a proportion that had declined to 67.7% by 2015.

In 2010, some 86,357 tons of urban solid waste were collected. A full 93.0% of the country's solid waste is sent to treatment plants; however, there still are dumps in open areas such as roads, glens, ravines, and streambeds.

In 2014, 26.6% of immigrants in the United States were of Mexican origin. Mexico is also a transit country for Central Americans heading to the United States.

The majority of disasters are caused by tropical storms and hurricanes, which have major economic and health impacts. In 2013, tropical storms Ingrid and Manuel combined to produce an intense and prolonged storm. Economic losses totaled US\$ 4.816 billion, the second-highest figure since the 1985 earthquake.

Approximately 500,000 hectares of forest and jungle area are degraded annually, especially by changes in land use and illegal logging.

Air pollution constitutes a public health problem. This is why the country has established 176 stations for monitoring atmospheric particles, ozone, sulfur dioxide, nitrogen dioxide, and carbon monoxide.

Total health expenditure represented 6.2% of GDP in 2012; however, in 2015 it declined to 5.6%.

According to the General Health Registry 2014, some 35.4 million people were affiliated with the Mexican Social Security Institute (IMSS), 7 million with the Institute of Safety and Social Services for Government Workers (ISSSTE), and 49.8 million with the System for Social Protection in Health (SPSS). Nevertheless, the National Council for the Evaluation of Social Development Policy reported in 2014 that 18.2% of the population experienced difficulty accessing health services.

Mexico has 12 free trade agreements with 46 countries, the United States being its principal trading partner.

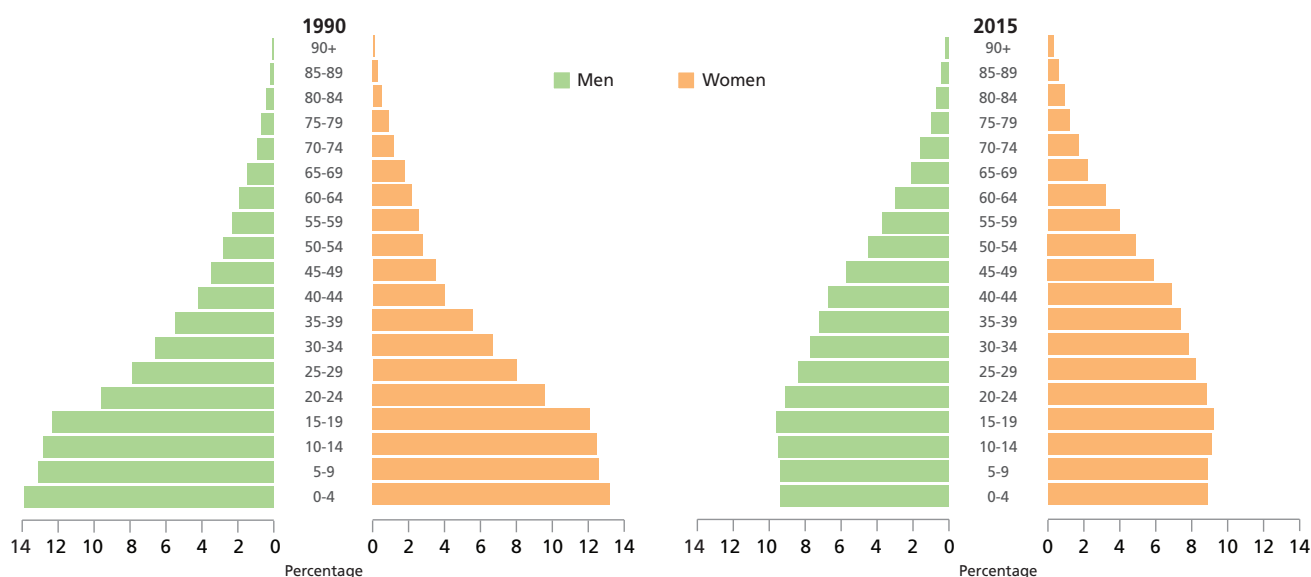
HEALTH SITUATION AND THE HEALTH SYSTEM

In 2015, maternal mortality was 34.6 deaths per 100,000 live births. In states with the highest levels of marginalization (Chiapas, Guerrero, and Oaxaca), maternal mortality was at least 55 deaths per 100,000 live births.

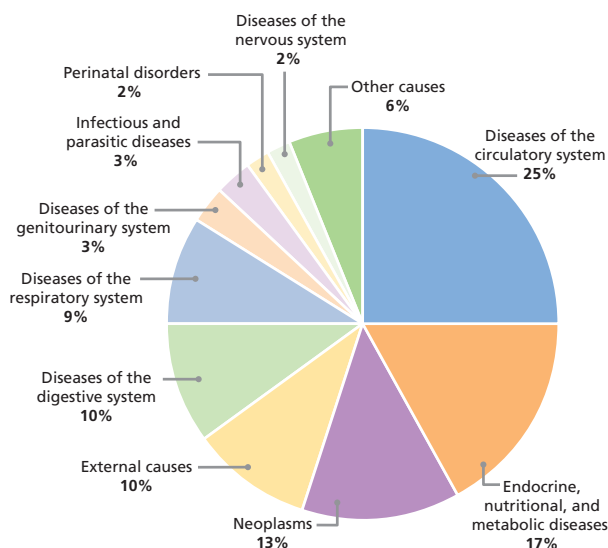
Some 95.6% of births are attended by trained personnel; from 2009 to 2014, 46 out of every 100 deliveries were by cesarean section.

In 2015, mortality in children under 1 year of age was 12.5 deaths per 1,000 live births, and 15.1 in children under 5. Half of deaths during the first year of life are caused by disorders

Distribution of the population by age and sex, Mexico, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2014



in the perinatal period and a quarter are caused by congenital malformations.

The national vaccination schedule includes vaccines against 14 diseases. In 2015, 87.0% of the population was covered. In 2012, the National Population Council adjusted population projections and increased its figure for the number of children under 5 who should be immunized. With this change in the denominator, the coverage figure for 2013 fell to 83.0% for the third dose of the diphtheria-pertussis-tetanus (DPT) vaccine. Since then there has been an increase in coverage, reaching 87.0% in 2015.

The last case of rubella was reported in 2010 and the last confirmed case of neonatal tetanus occurred in 2011. Between 2011 and 2015, annual cases of whooping cough in children under 5 ranged between 252 and 1,107.

In 2014, the group of circulatory system diseases caused 25% of deaths, endocrine system diseases caused 17%, and neoplasms caused 13%.

From 2010 to 2015, some 364,014 cases of dengue were reported, with a case-fatality rate of 0.52% in 2015. Some 49% of the cases occurred in just three states.

In the first 9 months of 2016, there were 514 confirmed cases of chikungunya and 4,306 confirmed cases of Zika virus (of which 2,087 were pregnant women).

In 2013, 184 cases of cholera were reported and in 2011, 1,106 cases of malaria.

A total of 538 cases of leishmaniasis were reported in 2010, and 6 cases of human rabies transmitted by vampire bats were recorded between 2010 and 2011.

A total of 980 diagnosed cases of Chagas disease were reported in 2015. The number of diagnosed cases has increased due to the epidemiological surveillance strategy implemented in blood banks.

Each year, more than 19,000 cases of tuberculosis occur, 80% of which are pulmonary TB.

In 2014, there were 15,885 confirmed deaths (13.3 deaths per 100,000 population) caused by road crashes; 51.7% of them involved motor vehicles and pedestrians.

In 2015, there were 14.0 homicides per 100,000 population. Guerrero had the highest homicide rate: 56.5 per 100,000 population.

The most prevalent illnesses among older people were hypertension (40.0%), diabetes (24.3%), and hypercholesterolemia (20.4%). Mental health problems, including depression, are also more prevalent in that age group.

Diabetes mellitus, ischemic cardiopathy, and cerebrovascular diseases are the leading causes of years of healthy life lost.

Overall, 5.1% of the population suffers from some degree of disability, primarily due to disease (39.4%), old age (23.0%), and congenital factors (16.0%). In 2014, 54.1% of people with disabilities lived in a state of poverty, and 51.1% had a low educational level.

In 2012, the national prevalence of low height-for-age in children under 5 was 13.6%, with 0.4% severe malnutrition.

A total of 16.7% of men and 18.1% of women do not meet the minimum levels of physical activity recommended by World Health Organization (WHO). In all age groups, women have a higher prevalence of physical inactivity.

The Secretariat of Health, through the General Health Council, which includes the Secretariats of Education and Finance, is the entity responsible for creating and executing national policy on social welfare, medical services, and public health. The National Health Council oversees coordination with the states.

The public sector has different social security institutions, such as the IMSS, the ISSSTE, Petróleos Mexicanos, the Secretariat of National Defense, the Secretariat of the Navy, and others. These institutions provide services to workers in the economy's formal sector.

In addition, the SPSS, the Secretariat of Health, the State Health Services, and the IMSS "Prospera" program serve the population not covered by social security. The private sector provides services to the population that is able to pay.

Total health expenditure represented 5.6% of GDP in 2015. Public spending was 51.0% of this amount. Out-of-pocket expenditures represented 4.0% of household spending.

In 2015, Mexico had 2.2 physicians and 2.6 professional nurses per 1,000 population, including professionals in the private sector. There is a significant disparity in the distribution of human health resources in the country.

The various health system institutions provide diverse health information, although they still lack a unified and consolidated system of information that can integrate health information among the different states and institutions.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

The National Agreement toward Universalization of Health Services reflects the political will to improve access to health services for the entire population. Its implementation will require institutional strengthening in health and health information systems, in addition to guaranteeing the distribution of resources throughout the country, with emphasis on primary care.

Maternal mortality will continue to be a high-priority problem. Care should be taken to ensure monitoring and evaluation of current programs, such as community transportation brigades and maternal shelters; access to and coverage of family planning methods; best practices in prenatal care and delivery; and surveillance of cesarean section births. This will also require an intercultural approach to obstetric issues, a focus on gender equality, and action to promote empowerment and exercise of the right to health as a basic human right.

As a result of the efforts made and the trends observed, the country hopes to achieve the elimination of some neglected diseases, such as leprosy, malaria, and rabies, by establishing common objectives among the sectors involved in addressing social determinants of health, national development goals, and the Sustainable Development Goals.

Intersectoral policies have been formulated for the purpose of preventing and controlling noncommunicable chronic diseases. These policies integrate the promotion of healthy practices, quality of care, regulation, and legislation.

Mechanisms to evaluate the success of various efforts, along with a stronger regulatory framework for sanctioning noncompliance, are needed for such initiatives as the National Agreement to Combat Obesity and Overweight; the National Strategy for the Prevention and Control of Overweight, Obesity, and Diabetes; the implementation of front-of-package labeling for high-calorie foods; and regulations on the advertising of unhealthy foods.

Given the rapid growth in the older population, preserving functional capacity is a priority concern. This requires incorporating specialized services for older people and providing long-term sustainable care.

The General Directorate of Health Information established a Technological Platform for the formation of the National Basic Health Information System, in order to standardize the criteria and procedures used in processing health data. This initiative was in the implementation phase in 2016.

ADDITIONAL POINTS

Along with other sectors and institutions, the Secretariat of Health has developed effective policies and interventions designed to improve health determinants.

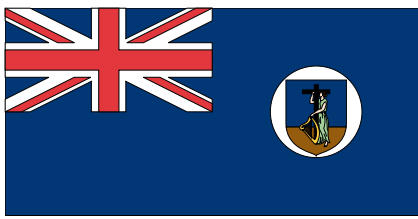
The National Anti-Hunger Campaign, a strategy targeting people living in extreme poverty and those with food deficiencies, was implemented in 2013. This strategy consisted of 70 federal programs across 1,012 municipalities.

An inter-secretarial commission, created to implement the strategy, includes 16 secretariats, the National Commission for the Development of Indigenous Peoples, the National Institute of Women, and the National System for Integral Family Development.

Between 2013 and 2015, this strategy managed to increase access to health services from 9.2% to 32.9% and to reduce the rate of nutritional deficiencies in the target population to 42.5%.

The social inclusion program “Prospera” targets the population living in extreme poverty. This program provides monetary transfers based on education, health, nutrition, and income levels. Various sectors and entities participate in the program.

Launched in 1988, the name and objectives of this program have changed a number of times. In 2014, it was renamed “Prospera” and assumed the mandate of job creation and the inclusion of women in productive activities.

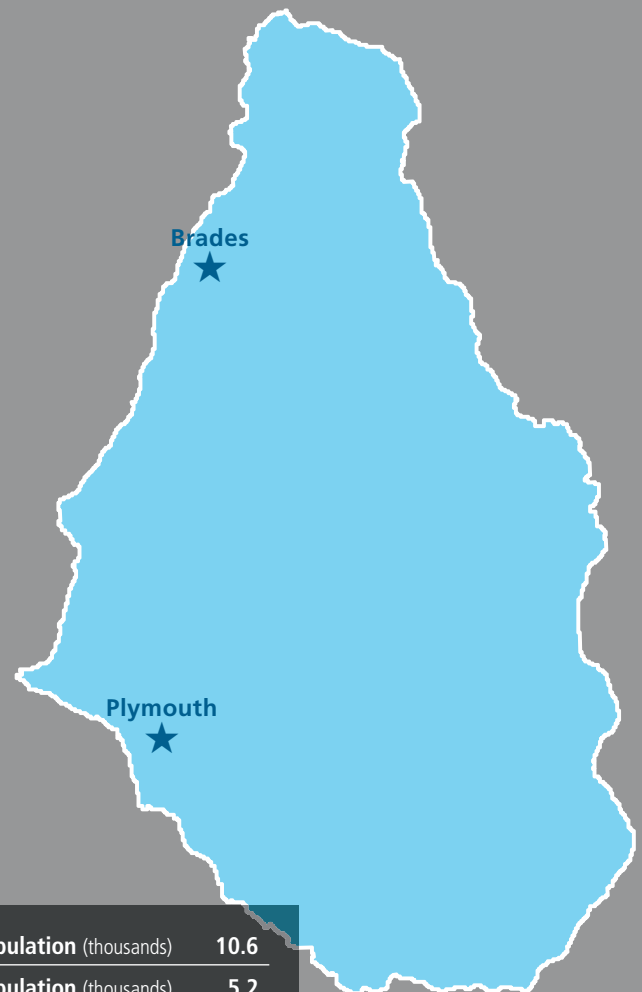


MONTSERRAT

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)
Human development index
Mean years of schooling
Improved drinking-water source coverage (%)	97.0	99.0 (2015)	2.1
Improved sanitation coverage (%)	70.0	83.0 (2015)	18.6
Life expectancy at birth (years)	...	74.4 (2013)	...
Infant mortality (per 1,000 live births)	...	62.5 (2013)	...
Maternal mortality (per 100,000 live births)
TB incidence (per 100,000 population)
TB mortality (per 100,000 population)	...	21.0 (2013)	...
Measles immunization coverage (%)	...	100.0 (2015)	...
Births attended by trained personnel (%)	...	100.0 (2015)	...



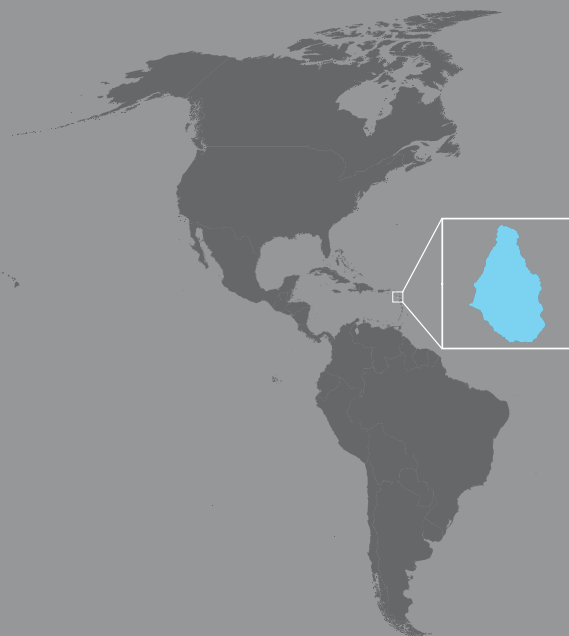
Montserrat is a British Overseas Territory located in the Lesser Antilles in the Eastern Caribbean. It has an area of 102 km². The island is composed almost exclusively of volcanic rock and is primarily mountainous, with a small coastal plain.

Between 1990 and 2015, the population declined by 50.6% to just 5,241 in 2015. Much of the population shrinkage followed the eruption of the Soufrière Hills volcano in 1995, which destroyed the capital, Plymouth, and forced the evacuation of the population to the northern third of the island, considered safer given the continuing risk posed by the volcano. A significant portion of the population emigrated to Antigua, other parts of the Caribbean, and even beyond.

Most of the population is of African descent (88.4%), followed by people of mixed ethnicity (3.7%) and Hispanics (3.0%). There is no indigenous population, and 73% of residents are native to Montserrat.

Estimated life expectancy has risen steadily, with the most recent estimates at 74.4 years overall (75.64 in men, 72.57 in women).

The persistent risk of volcanic activity has effectively limited the potential for economic growth.



SOCIAL DETERMINANTS OF HEALTH

In 2011, 96.5% of the 4,019 residents aged 10-70 and over were literate. Primary and secondary education are compulsory, free, and run by the Government.

In 2012, 36.0% of the population was poor, with children under 15 exhibiting sharply higher poverty rates than other age groups.

The island has sufficient reserves of clean drinking water, to which 100% of residents have access.

All inhabitants have access to the refuse collection system. The Ministry of Health and Social Services is responsible for refuse management and the sanitary landfills, where all solid waste is discarded.

The intense volcanic activity between 1995 and 1997 led many younger people to emigrate from Montserrat, leaving older people behind. Implementation of policies and programs to address the needs of this growing age group is a priority.

Two nursing homes, the Margetson Memorial Home and the Golden Years Home, provide care for the elderly. More able-bodied individuals who do not have a home or family support are housed at the Lookout Warden assisted apartments.

Immigration into the territory is not very significant, but Montserrat depends on foreign workers, some of whom are not English speakers.

HEALTH SITUATION AND THE HEALTH SYSTEM

There were no maternal deaths between 2010 and 2015. In that same period, there were no neonatal deaths, but there was one death of a child under 1 year of age in 2010. In 2015, there were three deaths of children under 1 year, two of which were neonatal deaths; no deaths occurred in the 1-4 age group.

There is universal coverage of prenatal care and delivery attended by trained health workers.

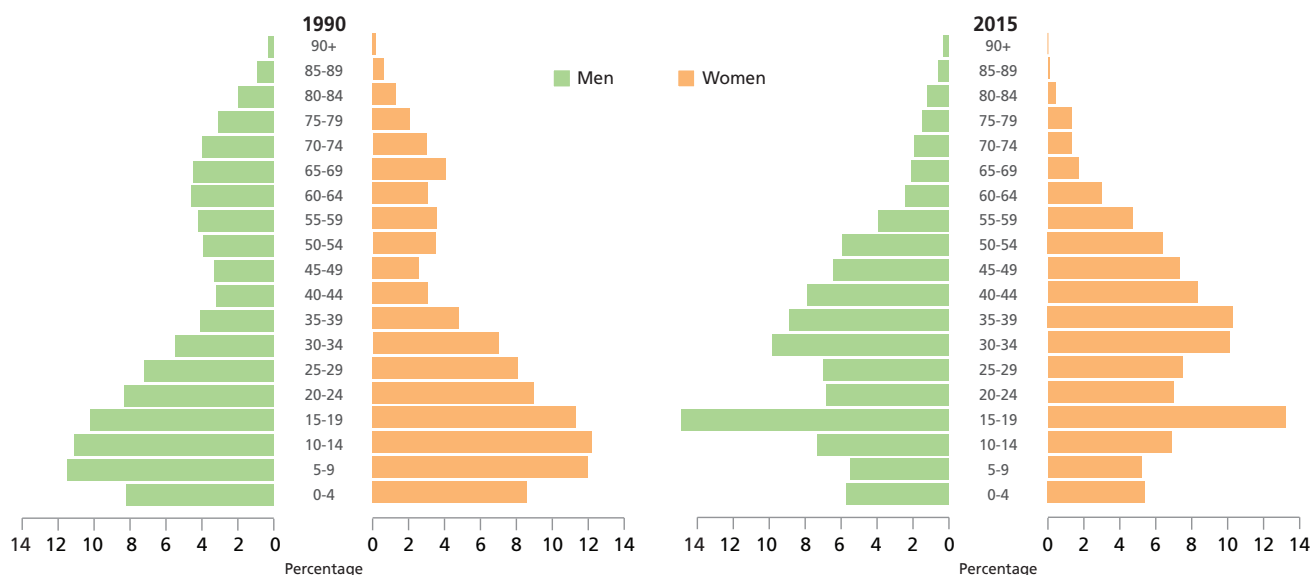
Coverage of the vaccines administered under the Expanded Program on Immunization (DPT, hepatitis B, *Haemophilus influenzae* type b, MMR) was 100% for children and adolescents in 2010-2015. There are ongoing efforts to increase coverage among adults (including health workers) to immunize them against diseases such as tetanus and influenza.

The number of deaths per year averaged 44 between 2010 and 2015. In 2015, there were 49 deaths, 86% of which were among persons aged 60 and over. The leading groups of causes were circulatory system diseases (37% of all deaths), endocrine disorders (23%), and neoplasms (14%).

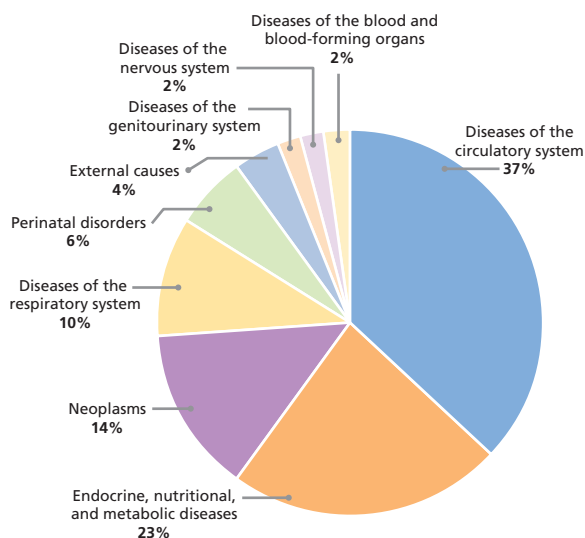
The leading specific causes of death were diabetes mellitus and heart disease. Among neoplasms, cancers of the prostate, breast, and colon were the most frequent.

Malaria and yellow fever are not endemic to the territory, and no recent cases of zoonotic diseases have been diagnosed.

Distribution of the population by age and sex, Montserrat, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2014



The main challenge is the *Aedes aegypti* mosquito, which continues to be found in the territory, with indexes ranging from 3 to 15. In 2011-2015, the Ministry of Health documented 32 cases of chikungunya virus infection (25 in 2014, 7 in 2015).

Zika virus infection has recently been identified in Montserrat, with one imported case and three cases from local transmission in late 2016. No cases of dengue were reported between 2014 and 2016.

No cases of tuberculosis were recorded in the period 2010-2015.

According to the 2011 census, 10.2% of the population reported suffering from diabetes mellitus. The prevalence rate in 2011, according to clinical data, was 76 per 1,000 population, but this figure may reflect underreporting, given that many diabetics seek care in the private sector. In the period 2010-2015, approximately 26% of children evaluated were overweight or obese.

Three homicides were reported between 2011 and 2015, as well as 584 motor vehicle accidents, with 1 fatality in 2015.

In 2012, 63% of young people reported having consumed alcohol, 19% had smoked cigarettes, and 17% marijuana.

The Government's general revenues are the principal source of health care financing. In fiscal 2015-2016, 9.4% of the recurrent budget for the year was allocated to the Ministry of Health and Social Services.

While people are generally responsible for covering the cost of medical care, many groups are exempt from payment,

including students enrolled full-time in school or university, children under 16, adults over 60, pregnant women (until two months after giving birth), the indigent, civil servants, and prisoners.

People who cannot cover their share of the cost of medical care (on or off the island) can apply for means-tested medical assistance from the Social Services Unit.

As part of employment benefits, the Government also pays insurance premiums for civil servants who opt for coverage under the Civil Service Association Health Insurance Plan, with immediate dependents also covered by the regimen on payment of nominal premiums.

The Ministry of Health and Social Services is directly responsible for providing and overseeing health care in Montserrat. The principal health care facility is the Government-run Glendon Hospital. There are also four health centers that offer primary and secondary care.

Glendon Hospital has a series of hospital services or units: laboratory, pharmacy, diagnostic imaging, physiotherapy, and nutritional counseling; accident and emergency services; outpatient medical and surgical services; inpatient medical, surgical, and obstetric care; and ambulance services. These are supported by housekeeping, laundry, and maintenance services.

Gynecology, ophthalmology, and cardiology services are provided under the Visiting Specialist Program.

The other health centers offer prenatal and postnatal care, child wellness clinics, and services in the areas of immunization, family planning, mental health, and nutrition. Health center staff also conduct home visits for follow-up care and for patients unable to visit clinics. There is a Government-run dental clinic and an environmental health unit.

The integration of mental health into primary health care is moving ahead and has had a positive impact on services for protecting children and youth.

The private medical sector is small. All specialized tertiary care is provided on neighboring islands (Antigua and Guadeloupe), as well as in the United States and even the United Kingdom. The services of a growing number of visiting specialists have been made possible by the provision of new equipment and a budget to cover the costs of the specialists.

In 2011, there were 6 physicians, 45 nurses, and 1 dentist in Montserrat, a density sufficient to serve the territory's population. The provision of specialized services such as obstetrics and gynecology, orthopedics, urology, psychiatry, and diagnostic imaging is supported by visiting physicians and other professionals.

The 2011-2014 Strategic Plan for Health calls for strengthening primary and secondary health care, mental health services, and environmental health services.

The priority areas in the Strategic Plan of the Ministry of Health and Social Services for 2016-2019 are the completion of a project to improve primary and secondary health care services and the financing and management of health services; a review of the environmental health department; development of a policy and plan on active aging; and improvement of emergency response, search and rescue, and training in clinical skills.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

The Ministry of Health and Social Services has put together a three-year strategic plan aligned with the Government of Montserrat's Policy Directive and the Sustainable Development Plan for the island.

The plan is expected to bring advances in critical areas such as the prevention and elimination of diseases (for example, vaccine-preventable diseases) and maternal and child health. This progress should be reflected in improved indicators.

Greater emphasis will be placed on the prevention and control of chronic diseases, with the assistance of regional and international partners.

Health workers are encouraged by the steady (albeit slow) progress in the use of a multisectoral approach to reduce risk factors that lead children to become obese.

The Ministry of Health and Social Services will continue working with other regional entities to address the problem of the *Aedes aegypti* vector to reduce the risk of local transmission of dengue, chikungunya virus, and Zika virus.

The Government of Montserrat is studying the design of a hospital and considering various proposals for how to finance health care delivery and the rebuilding of the health and social service sectors.



ADDITIONAL POINTS

A national Mental Health Policy and Plan, adopted by the Cabinet in 2015, is now being implemented. The plan is aligned with the PAHO Regional Plan of Action.

The plan gives priority to specific issues identified by surveys, especially depression and suicide attempts. To this end, the recent implementation of a computerized system has contributed to better detection and identification of depression in the population.

The Mental Health Plan calls for the full integration of mental health services into primary care. Implementation of the mental health services system in primary care began in 2015.

Efforts to better inform the population about mental health issues are expected to reduce the level of stigma and discrimination associated with these conditions.



NICARAGUA

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	4,790 (2014)	...
Human development index	0.495	0.604 (2014)	21.9
Mean years of schooling	4.1	6.0 (2014)	46.3
Improved drinking-water source coverage (%)	73.0	87.0 (2015)	19.2
Improved sanitation coverage (%)	44.0	68.0 (2015)	54.5
Life expectancy at birth (years)	64.1	75.8 (2016)	18.3
Infant mortality (per 1,000 live births)	50.8	20.0 (2012)	-60.6
Maternal mortality (per 100,000 live births)	...	36.9 (2014)	...
TB incidence (per 100,000 population)	80.0	44.7 (2013)	-44.1
TB mortality (per 100,000 population)	11.0	2.7 (2013)	-75.5
Measles immunization coverage (%)	82.0	88.2 (2012)	7.6
Births attended by trained personnel (%)	...	95.0 (2014)	...



Nicaragua is located in Central America and borders Honduras, Costa Rica, and the Atlantic and Pacific Oceans. It is divided administratively into 15 departments, 2 autonomous regions, and 153 municipalities.

Between 1990 and 2016, its population grew by 53.7%, reaching 6.3 million in 2016. In 1990, the population pyramid was expansive but has since become stationary in the population under 20 years of age.

Indigenous groups and people of African descent comprise an estimated 8.6% of the population, the main ethnic groups being the Miskito (27.2%) and Chorotega-Nahua-Mange (10.4%).

The total fertility rate is 2.1 children per woman, and life expectancy at birth was 75.8 years (78.9 for women and 72.6 for men) in 2016.

In the period 2006–2015, real economic growth increased from 4.2% to 4.9%, at the expense of the agricultural sector, with an increase in per capita gross domestic product (GDP) from US\$ 1,203.70 to US\$ 2,026.70 and a decline in the cumulative annual inflation rate from 9.4% to 3.1%.



SOCIAL DETERMINANTS OF HEALTH

The human development index was 0.604 in 2014 and the Gini coefficient, a summary measure of income inequality, improved from 0.40 in 2005 to 0.38 in 2014.

Between 2009 and 2014, the general poverty rate fell from 42.5% to 29.6%. Between 1993 and 2014, the extreme poverty rate fell from 19.0% to 8.3%.

In 2010, the unemployment rate was 7.4%, and 53.7% of the economically active population was underemployed.

Between 1993 and 2015, enrollment in primary education rose from 76% to 90%, and an overall literacy rate of 83.0% was achieved.

Between 2005 and 2012, the average educational attainment (population-wide) increased from 5.6 to 6.8 years of schooling.

Between 1990 and 2015, drinking-water coverage increased from 73% to 87% of the population and sanitation coverage, from 44.0% to 68.0%.

Between 1993 and 2012, a total of 44 volcanic events were recorded; 69% of the population was exposed to two or more hydrometeorological risks.

An objective of the National Human Development Plan (PNDH) is the transformation and human development of the population. The strategy of the PNDH is based on 12 guidelines that combine the continuity of existing policies with the integration of new priorities. Some of its objectives

are aimed at improving the living conditions of the most vulnerable sectors of the population.

HEALTH SITUATION AND THE HEALTH SYSTEM

The maternal mortality ratio improved from 160 deaths per 100,000 live births in 1990 to 36.9 per 100,000 in 2014. The leading cause of death was puerperal hemorrhage.

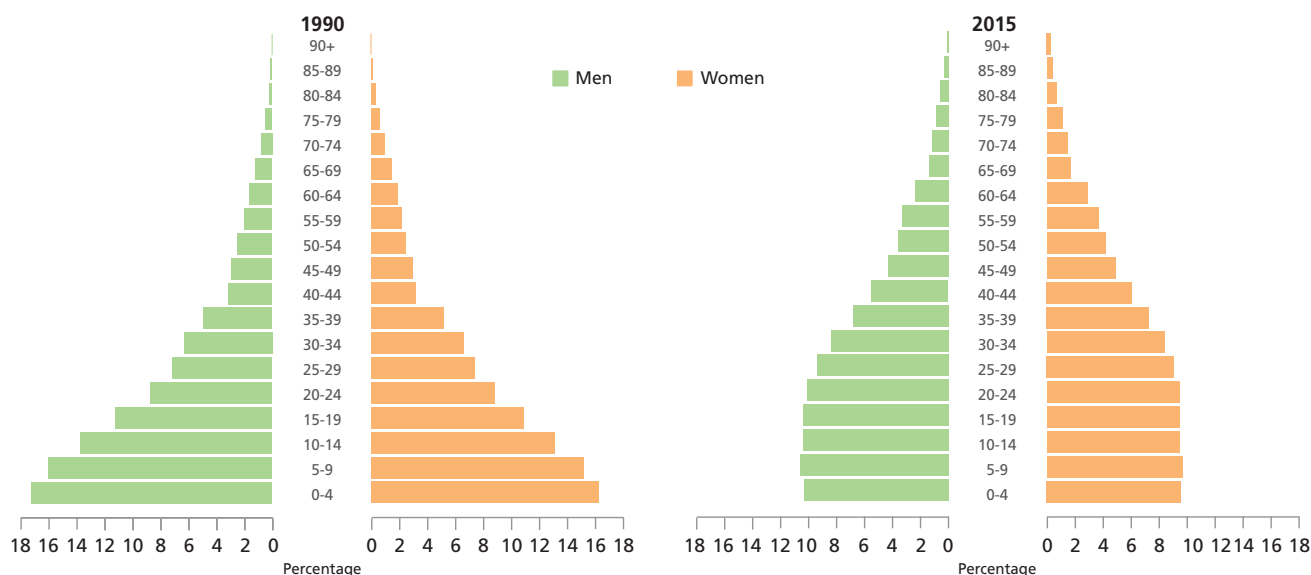
Between 2006 and 2012, several maternal health care coverage indicators improved, including early diagnosis of pregnancy (from 38.4% to 49.1%), antenatal checkup coverage (from 91.0% to 95.1%), postpartum follow-up coverage (from 47.6% to 69.3%), and in-hospital deliveries (from 62.8% to 75.2%).

Between 2001 and 2012, the infant mortality rate fell from 41 to 20 deaths in children under 1 year of age per 1,000 live births, at the expense of late post-neonatal or child mortality, while the neonatal mortality rate declined modestly, from 8 to 7 per 1,000 live births.

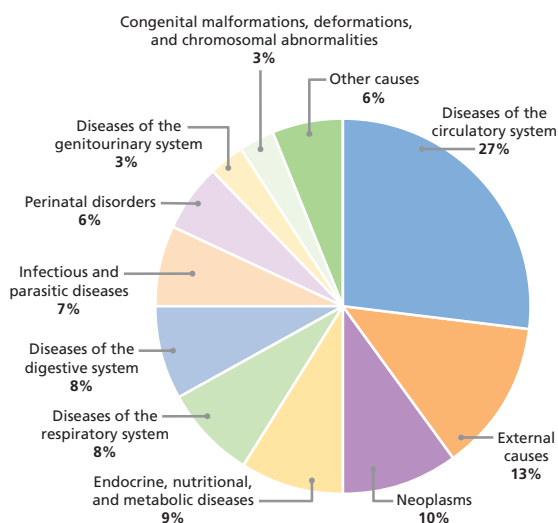
Between 2006 and 2012, chronic malnutrition in children under 5 declined from 21.7% to 17.3%, and global malnutrition, from 5.5% to 5.0%.

In that same period, overall vaccination coverage held steady at around 85.0%. A reduction in third-dose DTP and pentavalent vaccine coverage was observed, from 95.1% to 94.3%, while third-dose coverage of the polio vaccine increased from 95.1% to 95.8%. Coverage for the tuberculosis vaccine (99%) and the MMR vaccine (88.2%) remained stable.

Distribution of the population by age and sex, Nicaragua, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2013



In 2012, 54.7% of adolescents had experienced health problems in the last 30 days. The leading causes of outpatient visits were disorders of the respiratory system (47.6%), the genitourinary system (9.6%), and the digestive system (7.5%). Among adolescents, 4.8% displayed stunting, 4.7% were obese, and 19.5% were overweight; 67% had some mental health disorder.

The main reasons for outpatient visits in adults aged 60 and over were hypertension (31.0%), diabetes mellitus (28%), and rheumatoid arthritis (15%); 13.5% of adults in this age group reported some type of disability.

From 2005 to 2013, the crude death rate for both sexes rose from 117 to 123 deaths per 100,000 population, for a total of 123 years of life lost per 1,000 population.

Diseases of the circulatory system caused 27% of deaths, followed by external causes (13%) and neoplasms (10%).

The leading causes of death from chronic noncommunicable diseases are ischemic heart disease (47.9 per 100,000 population), cerebrovascular disease (22.8), and diabetes mellitus (28.7).

Between 2005 and 2015, the morbidity from confirmed cases of dengue increased from 3.4 to 8.0 per 10,000 population. Between 2005 and 2013, the incidence of Chagas disease also increased, from 0.01 to 0.44 per 10,000 population.

Leishmaniasis continues to be a controlled endemic disease, while leptospirosis incidence increased from 0.16 to 1.11 per 10,000 between 2005 and 2015.

Canine rabies is still present in some of the more rural municipalities.

In 2005, the incidence of malaria began to decline; however, in 2015-2016, a 50% jump in cases was observed.

The TB incidence rate in 2013 was 44.7 cases per 100,000 population. Between 2005 and 2013, 113 cases of multidrug-resistant TB were recorded.

Human immunodeficiency virus (HIV) continues to affect mainly the young and economically active population. It is estimated that 10,036 adults and children were living with the virus in 2014. Sexual transmission accounted for 98.0% of cases.

In 2016, the prevalence of diabetes was estimated at 8.1% (9.0% in women and 7.2% in men); 6.0% of all deaths in the country are related to this disease. The prevalence of hypertension in 2010 was 7.5% for stage I and 2.4% for stage II.

Between 2005 and 2015, the road traffic accident rate doubled. There were 35 cases of secondary disability and 1.3 deaths per 1,000 accidents, while mortality was 10.2 per 100,000 population.

The prevalence of disability in 2010 was 2.5%, with intellectual impairment accounting for 25.9%; sensory impairments, 12.7%; and hearing impairment, 10.1%.

Between 2006 and 2012, indicators of domestic violence (verbal, psychological, physical, and sexual) fell by 25%. Nevertheless, a 2012 survey confirmed that 67.3% of women aged 15-49 had experienced some type of physical or sexual violence at some point in their life.

In 2012, 46.1% of adults were overweight and 15.5% were obese (9.7% of men and 21.1% of women).

In 2014, the overall prevalence of smoking was 14.2% (18.5% in men and 9.7% in women; 25.1% in young people). Annual per capita alcohol consumption was 5 liters, and 10% of the population self-reported alcohol intake.

The health system is composed of a public sector and a private sector. The public sector is made up of the Ministry of Health, the Nicaraguan Social Security Institute (INSS), and the Medical Services of the Nicaraguan Army and Police.

The Ministry of Health is the health authority and main service provider, covering 65% of the population; the INSS covers 18%, and the Ministry of the Interior and Army services, 6.0%. The remainder of the population is served by private institutions and nongovernmental organizations.

Between 2005 and 2015, the Ministry of Health service network was expanded by approximately 50%, reaching a total of 5,143 hospital beds (8.1 per 10,000 population) in public facilities.

In that same period, the supply of health workers also increased by 50%. In 2015, there were 9.3 physicians, 7.5 nurses, 6.3 nursing assistants, and 7.1 health technicians per 10,000 population.

From 2000 to 2013, total health expenditure rose from US\$ 3.94 billion to US\$ 10.87 billion, health expenditure as a percentage of GDP varied from 7.0 to 6.2%, private expenditure fell from 46.6% to 40.5%, and total health expenditure per capita surged from US\$ 53.9 to US\$ 113.4.

Partnerships between the Institute of Sustainable Sciences in Managua and the University of California at Berkeley with the Ministry of Health have furthered advances in infectious disease research.

The Government's Web-based Health Information System contains vital statistics modules (births and deaths), whose data are entered in the central database of the national civil registry in Nicaragua. In 2016, this system provided training on the clinical records, hospital management, and primary health care modules.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

In 2011, Nicaragua obtained international certification for the interruption of *Trypanosoma cruzi* transmission by *Rhodnius prolixus*, the vector of Chagas disease.

The Water and Sanitation Program has substantially increased coverage, leading to the achievement of the corresponding Millennium Development Goals.

The National Human Development Plan of Nicaragua establishes guidelines aimed at the human development of the population. Regarding the living conditions of the most vulnerable sectors, the health policy focuses on restoring the right to a healthy environment through preventive health interventions and the delivery of free comprehensive, integrated, high-quality services through the Family and Community Health Model.

The Family and Community Health Model guides sectoral health action by engaging individuals, families, communities, and other social actors to promote a comprehensive systematic social response to endemic and epidemic problems.

Continuing education for human resources is key to handling technology transfer, responding to public health demands, and implementing the national health strategy. The lack of full-time software development staff limits progress in the construction of the health information system, and pending challenges include linking platforms and coding the Epidemiological Surveillance System at the National Diagnostic and Referral Center.

Greater capacity-building is needed for intersectoral intervention to control dengue, Zika virus, and chikungunya under the Integrated Management Strategy for Arboviral Disease.

Tackling these challenges will require better information systems, health analysis, and documentation of best practices; evidence generation; and knowledge management through cooperation networks.



ADDITIONAL POINTS

Health system achievements include the enactment and implementation of 146 laws and 85 legislative decrees, which have strengthened institutional capacity and leadership in the health sector.

Implementation of the Family and Community Health Model and its intersectoral and interinstitutional coordination, along with the renovation of health infrastructure and technology, have improved access and coverage in health services networks through an integrated approach.

Between 2005 and 2015, the Ministry of Health substantially increased its workforce and network of facilities.

The increase in human resources education and the implementation of a Health in All Policies approach (adopting an intersectoral methodology in line with national policy) have been essential for promoting health in the population.



PANAMA

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	19,930 (2014)	...
Human development index	0.662	0.78 (2013)	17.8
Mean years of schooling	7.3	9.3 (2014)	27.0
Improved drinking-water source coverage (%)	84.0	95.0 (2015)	13.1
Improved sanitation coverage (%)	59.0	75.0 (2015)	27.1
Life expectancy at birth (years)	73.0	78.0 (2015)	6.8
Infant mortality (per 1,000 live births)	25.8	13.8 (2014)	-46.5
Maternal mortality (per 100,000 live births)	...	58.5 (2014)	...
TB incidence (per 100,000 population)	40.0	37.7 (2013)	-5.8
TB mortality (per 100,000 population)	8.3	4.8 (2013)	-42.2
Measles immunization coverage (%)	73.0	100.0 (2015)	37.0
Births attended by trained personnel (%)	...	93.9 (2015)	...



Panama is located in Central America, between the Pacific and Atlantic Oceans and the Caribbean Sea, and bordering Colombia and Costa Rica. It is politically and administratively divided into 10 provinces, 77 districts or municipalities, 5 indigenous regions, and 655 *corregimientos*.

Between 1990 and 2015, the population grew by 60%, reaching 4,037,043 in 2016. The population pyramid has become less expansive, reflecting greater aging. The indigenous population is 12.3% of the total.

In 2015, life expectancy at birth was 78.0 years nationwide (80.6 in women and 73.4 in men), and 70 years in indigenous regions.

Economic conditions are determined largely by airport activity and trade through the Panama Canal and the Colón Free Trade Zone.

Estimated gross domestic product (GDP) growth in 2016 was 6.2%, the highest in the Region of the Americas.



SOCIAL DETERMINANTS OF HEALTH

In 2014, the overall poverty rate was 21.4% (11.9% in urban areas and 41.0% in rural ones), while 11.5% of the population lived in extreme poverty (3.3% in urban and 28.0% in rural areas).

In 2016, unemployment among the working-age population was 5.2%. Overall, 79.5% of men and 51.2% of women are in the labor market.

The Panama Canal accounts for 2% of the country's GDP; revenue from the Colón Free Trade Zone, which once represented 8% of the country's GDP, fell by 12% between 2013 and 2014.

In 2015, improved-water coverage in the country was 95% (98% in urban areas and less than 50% in rural and indigenous communities), while 75% of the population (84% in urban areas and 58% in rural ones) was covered by improved sanitation services.

The health impact of growing deforestation is unknown, as is that of energy development initiatives such as thermoelectric and hydroelectric power plants, some of which directly affect indigenous populations, since these plants are located partially within indigenous regions.

In 2016, 2,119 investigations of drug-related crimes were conducted, more than half (53.6%) of which involved possession, with 11.8% involving trafficking.

There are major socioeconomic and health inequalities between the country's urban and rural populations. The indigenous population lives in more disadvantaged conditions and experiences greater vulnerability in health. The population

living in more marginalized areas has less service coverage and less access to health care.

HEALTH SITUATION AND THE HEALTH SYSTEM

The maternal mortality ratio in 2014 was 58.5 deaths per 100,000 live births (30.6 in urban areas and 110.8 in rural ones). That same year, the infant mortality rate was 13.8 deaths per 1,000 births, with wide geographical variation (ranging from 21.0 in the Guna Yala region to 6.6 in Los Santos).

The overall national mortality rate was 4.6 deaths per 1,000 population in 2014.

Diseases of the circulatory system caused 28% of deaths and neoplasms 17%.

In recent years, the incidence of malaria has remained stable, with no deaths. More than 90% of total cases were reported in indigenous regions. In the case of dengue, the case-fatality rate between 2011 and 2015 was 0.17%, and serotypes 1, 2, and 3 were in circulation.

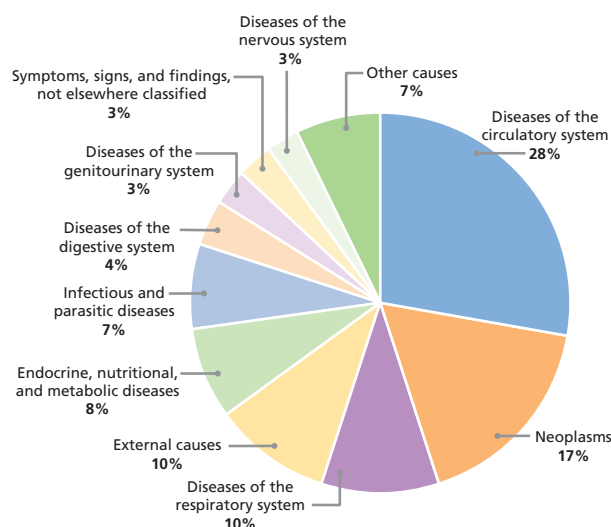
Cutaneous leishmaniasis is endemic in Bocas del Toro, Coclé, Colón, and Panamá Oeste, although its incidence has declined. In 2015, 72 confirmed cases of Chagas disease were diagnosed, 35 of them in blood banks.

The first 68 cases of chikungunya virus were confirmed in 2014, with no deaths. At the end of 2015, the first outbreak of Zika virus infection with autochthonous transmission was reported, with four cases of microcephaly and three of Guillain-Barré syndrome.

Distribution of the population by age and sex, Panama, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2014



In 2015, the estimated prevalence of HIV was 0.6% in the general population and 0.4% in pregnant women. The incidence of tuberculosis declined from 63.3 cases per 100,000 population in 2005 to 46.5 in 2014.

As of 2010, hypertension and diabetes mellitus were the leading risk factors for cardiovascular disease in the adult population.

In 2013, 15.9% of school-age children (first graders) suffered from chronic malnutrition, and 3.4% had serious stunting. Chronic malnutrition is more prevalent in areas with indigenous populations. Some 33.8% of children aged 6-59 months and 23.2% of pregnant women suffer from anemia.

In 2008, an increase in overweight was observed at the national level, with a prevalence of 10% in preschoolers, 30% in schoolchildren, 25% in adolescents, and 57% in adults.

In 2012, the prevalence of tobacco use in the population over the age of 15 was 6.4%, reaching 11.6% in young men (aged 13-15). Estimated alcohol consumption in the over-15 population was 5.5 liters of pure alcohol per year, with alcohol consumption beginning at the age of 12 on average.

The Ministry of Health (MoH) has the responsibility of determining, regulating, and implementing Government health policy and the essential public health policies. The public health system is composed of the MoH, organized into 15 health regions, and the Social Security Fund (CSS), which is organized in a similar regional fashion and by levels of complexity.

Health services delivery, financing, and insurance roles are shared by the Ministry and the CSS. The country allocates

7.6% of its GDP to public health expenditure, while private spending represents 23.2% of total health expenditure. Some 70% of the public health budget is allocated to the CSS and 30% to the MoH.

The public health sector covers 100% of the population. In 2015, the MoH provided services to 47% of the population, under agreements between the two institutions that offer service in areas with no CSS facilities; 84.4% of the population had CSS coverage that year. There are 2.3 hospital beds per 1,000 population and 7.2 medical specialists per 10,000 population.

The joint services network comprises 912 establishments, 836 of which belong to the MoH and 76 to the CSS (almost all CSS facilities are secondary and tertiary). Indigenous regions and remote rural areas are covered by Ministry-run outpatient primary care services.

Private health services are available to those who pay out of pocket or have private health insurance. The health services are still not sufficiently organized into integrated networks, leading to duplication of efforts and gaps in care, and, consequently, fragmentation of the health care system. This hinders implementation of the Primary Health Care Strategy.

This fragmentation is also the result of hospital management; hospitals have legal autonomy and employ mixed management models, which gives rise to long waits for medical-surgical care, among other services. For the 2016-2025 period, priority has been given to transforming the health system, in accordance with the new National Health Policy, which was formulated on a sectoral basis and implemented by the MoH.

The State has invested in improving the production of scientific information, which is still not sufficiently available. Information management tools for health care and epidemiological surveillance have been implemented, especially electronic medical records and the Epidemiological Surveillance System.

During 2010-2015, the country saw an increase in the development and incorporation of technologies for managing and delivering health services. Five hospitals and 20 Innovative Primary Health Care Centers were built.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

At present, chronic noncommunicable diseases (especially those of the circulatory system) are the leading causes of death in both men and women. These diseases will become even more important in the future as the population continues to age.

This scenario means that the country must address the risk factors for these determinants globally and beyond the health sector. The health system must also adapt so that it can respond appropriately.

The country must address the marked inequalities between the urban and rural populations, in regard to both the social determinants of health and the health situation of the various population groups.

The country must eliminate the existing differences in service coverage and access to comprehensive, high-quality health services. This will require greater availability and better

distribution of human resources, health infrastructure of all types, health technology, drugs, and other medical supplies.

Government plans provide for the modernization of State infrastructure through the transformation of the health system, the purpose of which is to strengthen the leadership role of the MoH, improve service efficiency, and ensure access to higher-quality services, with particular attention to the most vulnerable populations.



ADDITIONAL POINTS

The country has addressed the issue of tobacco use, considering that unless vigorous action is taken (especially through the promotion of effective smoking prevention measures among young people), a continued rise in tobacco use is very likely.

Panama has achieved full implementation of the measures and recommendations established in the WHO Framework Convention on Tobacco Control and has ratified the Protocol to Eliminate Illicit Trade in Tobacco Products.

This involved passing legislation that guarantees smoke-free environments; making graphic health warnings larger;

banning all tobacco advertising, promotion, and sponsorship, including the display of tobacco products at points of sale; and increasing taxes on tobacco (with some of the proceeds going to public health and customs).

This has reduced the prevalence of tobacco use in the adult population to 6.4%, the lowest in the Region of the Americas and one of the lowest in the world. Finally, the country has been able to provide technical and financial cooperation to strengthen tobacco control elsewhere in the Region.



PARAGUAY

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	8,470 (2014)	...
Human development index	0.580	0.679 (2013)	17.1
Mean years of schooling	5.8	8.1 (2014)	39.7
Improved drinking-water source coverage (%)	53.0	98.0 (2015)	84.9
Improved sanitation coverage (%)	52.0	89.0 (2015)	71.2
Life expectancy at birth (years)	68.0	70.1 (2015)	3.1
Infant mortality (per 1,000 live births)	36.9	14.2 (2013)	-61.5
Maternal mortality (per 100,000 live births)	...	81.8 (2015)	...
TB incidence (per 100,000 population)	66.0	55.0 (2013)	-16.7
TB mortality (per 100,000 population)	4.6	2.9 (2013)	-37.0
Measles immunization coverage (%)	69.0	66.0 (2015)	-4.3
Births attended by trained personnel (%)	...	96.2 (2015)	...



Paraguay is located in central South America and borders Argentina, Bolivia, and Brazil. It is administratively divided into 17 departments plus a capital district, Asunción.

In 2015, the population numbered 6,755,756, 1.8% of it indigenous.

The population grew by 59.5% between 1990 and 2015. Its structure has become less expansionary, and is stationary in the under-20 age groups. In 2015, the life expectancy at birth was 70.1 years.

The Paraguayan economy is growing. The country is the largest exporter of electricity in the Americas and the fourth-largest exporter of soybeans and sixth-largest exporter of beef in the world.

During the past decade, the Paraguayan economy grew at an average annual rate of 5%. Its per capita gross domestic product (GDP) was US\$ 8,911 in 2014, while per capita gross national income was US\$ 8,470 that year.



SOCIAL DETERMINANTS OF HEALTH

In the period 2010-2015, the employment rate ranged from 90% to 92%. Self-employed workers constituted the predominant group (33.5%) in the workforce.

Between 2009 and 2014, the population living below the poverty line (less than US\$ 4/day) fell from 32.5% to 18.8%.

In 2015, 98% of households had access to clean drinking water. Sewer system coverage in Paraguay was 12.3%; 42.8% of homes had a septic tank and drainage well; 26.7% had a pour-flush pit latrine; and 18% had some other latrine system.

Some 52% of households have refuse collection services (76% in urban areas and 16.3% in rural areas); 15% of urban municipalities have an authorized dump.

In the past 50 years, Paraguay has lost nearly 90% of its original forest cover. The worst natural disasters have been related to floods and droughts, especially due to El Niño, in some areas of the Paraguayan Chaco.

Paraguay currently has areas that are free of foot-and-mouth disease as a result of vaccination.

HEALTH SITUATION AND THE HEALTH SYSTEM

The maternal mortality ratio was 81.8 per 100,000 live births in 2015; the leading causes of death were preeclampsia, hemorrhage, and complications of abortion.

In 2013, 80.6% of pregnant women had at least four prenatal checkups, and 96.2% of deliveries took place in health facilities. In all, 18.3% of births were to adolescent mothers.

Mortality in children under 1 and children under 5 was 14.2 and 16.8 deaths per 1,000 live births, respectively. The leading causes of death were pneumonia, influenza, and diarrheal diseases.

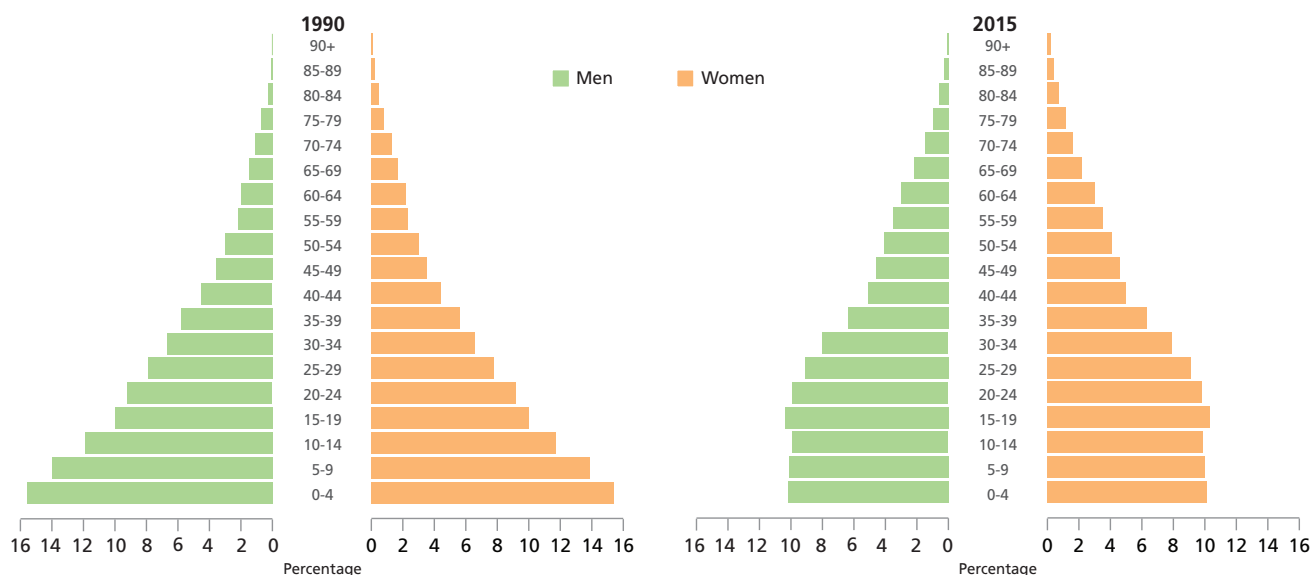
In 2015, vaccination coverage reached 89% for the pentavalent vaccine (DPT-3) and 66% for the measles vaccine. Six new vaccines were added to the national vaccination schedule to prevent chickenpox, influenza, hepatitis A, whooping cough, and human papillomavirus and pneumococcal infections.

In 2014, 25% of deaths were caused by circulatory system diseases, 15% by neoplasms, and 11% by ill-defined symptoms and signs not elsewhere classified. The leading specific causes of death were ischemic heart disease and cerebrovascular disease.

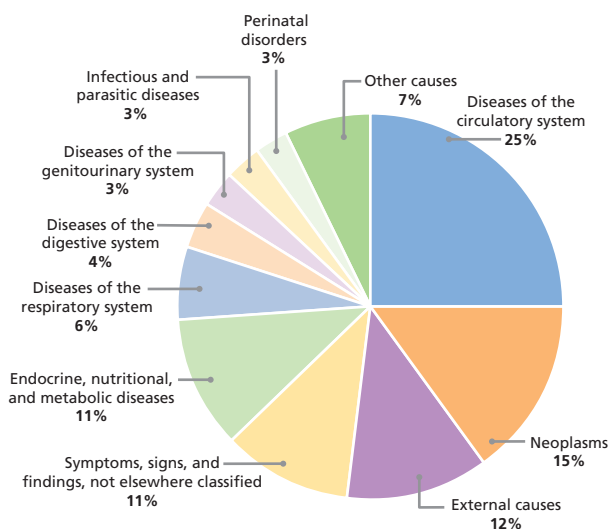
The leading causes of death in the indigenous population were respiratory system diseases, accidents, tuberculosis, nutritional disorders and anemia, and homicides.

The last yellow fever outbreak in Paraguay was reported in 2008, with a total of 28 reported cases. Later, in 2013, Paraguay endured one of the worst dengue epidemics in its history, which resulted in 133,718 cases and 251 deaths. Introduction of the chikungunya virus was reported in June 2014 and the Zika virus, in 2015. The country has successfully eliminated indigenous transmission of malaria and has

Distribution of the population by age and sex, Paraguay, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2014



succeeded in eliminating vector-borne transmission of Chagas disease in 17 of the country's 18 departments.

During the five-year period studied, Paraguay had no indigenous cases of measles, rubella, or congenital rubella syndrome. In 2014, the country was formally declared free of the endemic transmission of these diseases. The final phase of polio eradication began in 2015, with the introduction of the inactivated polio vaccine.

An estimated 17,564 people were living with the human immunodeficiency virus (HIV) in 2015; more than half of them were between the ages of 20 and 34.

There are 4 cases of congenital syphilis per 1,000 live births.

The incidence of tuberculosis is 55 cases per 100,000 population, with a mortality rate of 2.9 deaths per 100,000 population.

An estimated 10.7% of the population is living with a disability. The most frequent forms are multibody system disorders (28%), body system disorders (28%), physical disability (19%), and vision disorders (18%).

Some 32.3% of the population reported having been diagnosed with hypertension and 9.7% with diabetes mellitus. Obesity is present in 23.2% of the population.

In 2011, the prevalence of acute malnutrition in children under 5 was 5.2%, and chronic malnutrition, 12.9%; 26% of schoolchildren and adolescents were overweight or obese. In people over 20, the figure was 57%.

In 2011, 14.5% of adults reported smoking. Some 50.9% had consumed alcohol in the past month; it was striking

that 75.2% of them reported excessive consumption in the past year. Some 4.7% reported regular marijuana use, and 2.0% reported that they had used cocaine at some point in their lives.

From 2009 to 2013, there was a 2.1 percentage point increase in deaths from traffic accidents. The percentage of deaths from motorcycle accidents increased from 44.4% to 55.8%.

The national health system is made up of the public, private, and mixed sectors. It operates with diverse financing, regulatory, enrollment, and service delivery modalities. The Ministry of Public Health and Social Welfare serves as the health sector authority.

The public sector consists of the Ministry of Public Health and Social Welfare; the Military, Police, and Navy Health Services; the Institute of Social Welfare (IPS); the Clinics Hospital; and the Maternal and Child Health Center. The private sector includes nonprofit and for-profit organizations. The Ministry and IPS cover 95% of the population.

Total health expenditure in 2014 was 7.7% of GDP (54.3% financed by the public sector and 45.7% by the private sector).

Health service delivery has been concentrated in urban areas, with more than 90% of health facilities located in the Eastern Region, where more than 95% of the country's population lives. Nationally, there are 34.4 health workers per 10,000 population (ranging from 69.3 in the capital to 7.9 in Alto Paraná); 8.2% of the health workforce is employed in primary health care.

Primary health care is particularly important, but that system currently covers less than 30% of the population. As part of the effort to improve primary care and increase access to health services, in December 2008, the Ministry of Health began creating family health units (USFs). By the end of 2015, there were 754 USFs and by the end of 2016, 796.

The National Health Information System (SINAIS) has developed the epidemiological information system; the economic, financial, and administrative information system; the sociodemographic information system; and the clinical information system.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

The country has made significant progress toward guaranteeing the full right to health for all Paraguayans. Between 2011 and 2015, health care coverage for the population in the poorest quintile increased, reaching 66% in 2015.

That achievement was facilitated by free access to services and progress in the coordination and decision-making capacity of the Integrated Health Services Network.

Progress was made in the elimination of malaria, measles, and congenital rubella syndrome, and with the potential elimination of rabies and Chagas disease. There was also progress in the development and introduction of information and communication technologies.

Although by law, the health authority is the Ministry of Public Health and Social Welfare, leadership is weak and in actual practice, national health system operations are uncoordinated and fragmented, with different financing, regulatory, enrollment, and service delivery modalities.

The rise in direct out-of-pocket payments (60%) for health care is being addressed in the strategies of the National Health Policy 2015-2030, which should be extended to the entire country, until substantial changes are achieved that guarantee all citizens the right to health.

The growing prevalence of noncommunicable diseases (NCDs) and their risk factors poses a challenge. Policies, legal instruments, and strategic plans have been created to prevent risk factors and treat the leading NCDs. This effort should emphasize and guarantee an intersectoral and integrated national response with strong citizen participation.

ADDITIONAL POINTS

The right to health is enshrined in the National Constitution of the Paraguayan Republic in terms of the right to life, to physical and mental integrity, and to quality of life. The Constitution also establishes the State's responsibility to protect and promote health.

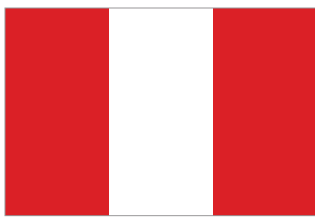
In Paraguay, the Indigenous Health Act, prepared in consultation with indigenous populations, was passed in September 2015.

Despite the progress in health services coverage, broader access and coverage, especially for the most vulnerable groups, is still needed. One of the necessary efforts is to continue creating family health units (USFs).

USFs are physical structures in which many of the activities included in the primary health care strategy are carried out in a coordinated, comprehensive, and ongoing manner.

By creating a basic family health team responsible for the health of the assigned population, these units offer consultations, home care, reentry into the community, disease prevention and health promotion activities, medical care, and habilitation, rehabilitation, and social inclusion.

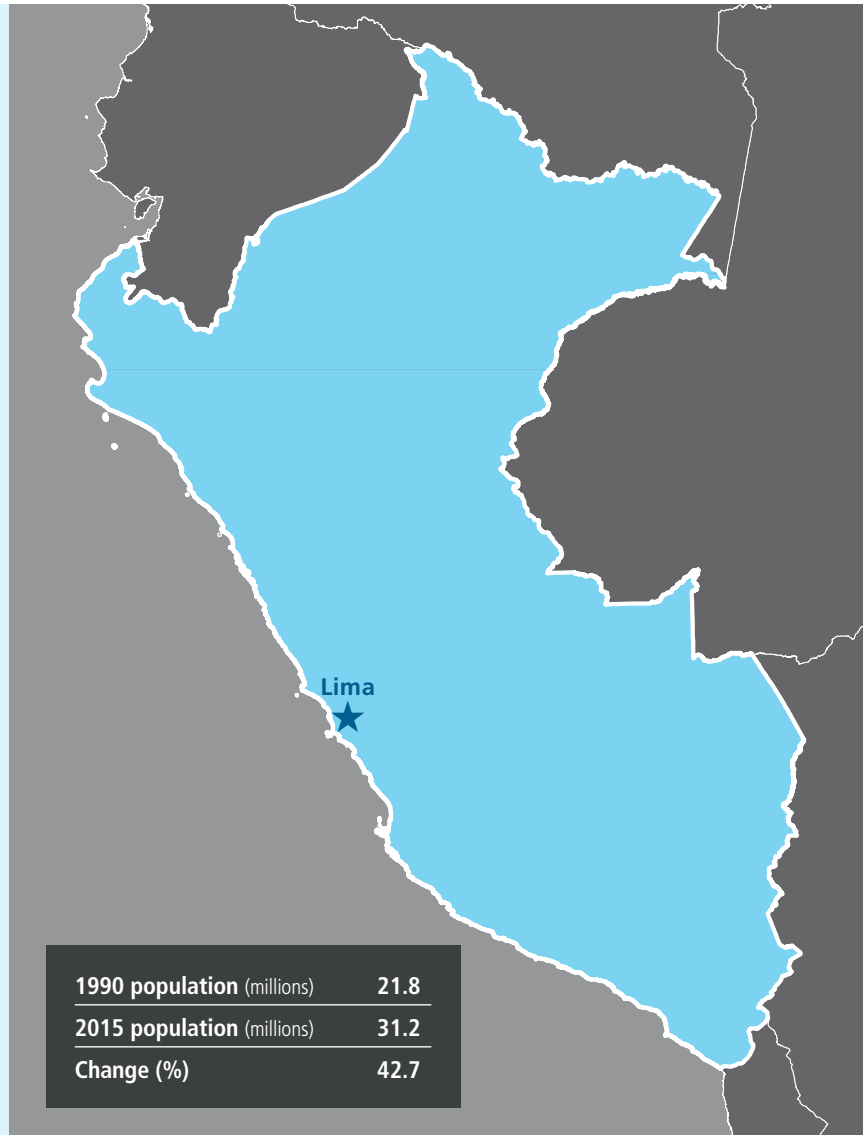
Moreover, each USF conducts activities related to sanitation, education, research, and social organization.



SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	11,440 (2014)	...
Human development index	0.613	0.734 (2013)	19.9
Mean years of schooling	6.6	9.0 (2014)	35.9
Improved drinking-water source coverage (%)	74.0	87.0 (2015)	17.6
Improved sanitation coverage (%)	53.0	76.0 (2015)	43.4
Life expectancy at birth (years)	65.5	75.1 (2016)	14.6
Infant mortality (per 1,000 live births)	56.5	15.0 (2013)	-73.5
Maternal mortality (per 100,000 live births)	...	68.0 (2015)	...
TB incidence (per 100,000 population)	246.0	96.9 (2013)	-60.6
TB mortality (per 100,000 population)	34.0	7.7 (2013)	-77.4
Measles immunization coverage (%)	64.0	92.0 (2015)	43.8
Births attended by trained personnel (%)	...	91.8 (2015)	...



Peru is located in west central South America and borders on Ecuador, Colombia, Brazil, Bolivia, Chile, and the Pacific Ocean. Administratively, it is divided into 26 regions, 196 provinces, and 1,854 districts.

Between 1990 and 2015, the population grew by approximately 42.7%, reaching 31.2 million, and its structure shifted from an expansive trend toward a near-stationary one in 2015. Overall, 76.7% of the population lived in urban areas. In 2016, life expectancy at birth was 75.1 years.

A 2006 survey on ethnic self-identification found that 1.6% of the Peruvian population considered themselves black, mulatto, or zambo (of mixed indigenous and African ancestry).

Basic development and health indicators systematically improved between 1990 and 2015.

Peru is an upper-middle-income country, with a per capita gross domestic product (GDP) adjusted for purchasing power parity of US\$ 11,960 in 2015.

SOCIAL DETERMINANTS OF HEALTH

Unemployment stood at 4.2% in 2015. In 2014, 72.8% of the workforce was employed in the informal sector.

In 2015, 21.8% of the population was living in poverty, and 4.1% in extreme poverty.

The illiteracy rate was 5.7% in 2014 (15.5% in rural areas and 2.8% in urban areas).

Improved drinking-water source coverage increased from 84.6% to 87.0% between 2010 and 2015. In 2015, 81.3% of the population had access to the public water system (85.4% in urban areas and 69.6% in rural areas) and 66.8% to the public sewerage system (84.9% in urban areas and 15.6% in rural areas); 7.7% of homes did not have any excreta disposal system.

Improved sanitation facility coverage increased from 53% to 76% between 1990 and 2015, the population grew by approximately 42.7%, reaching 31.2 million, and its structure shifted from an expansive trend toward a near-stationary one in 2015.

and the proportion of people defecating in the open declined from 10% to 5%.

There is social conflict in the country, and almost 70% is related to mining. In 2015, 19 deaths and 872 injuries were reported as a result of such conflict.

There is substantial internal migration from rural to urban areas.

In 2013, the main destinations of emigrants were the United States (31.4%), Spain (15.4%), Argentina (14.3%), Italy (10.2%), and Chile (9.5%).

From 2003 to 2015, the country was hit by earthquakes, urban and industrial fires, heavy rainfall, high winds, frosts, and flooding, including from the influence of El Niño. The last major earthquake was in Pisco in 2007.

Although official data are lacking, oil spills in the Peruvian Amazon region and mercury runoff into Amazon aquifers have been reported, negatively impacting native communities in the affected areas.

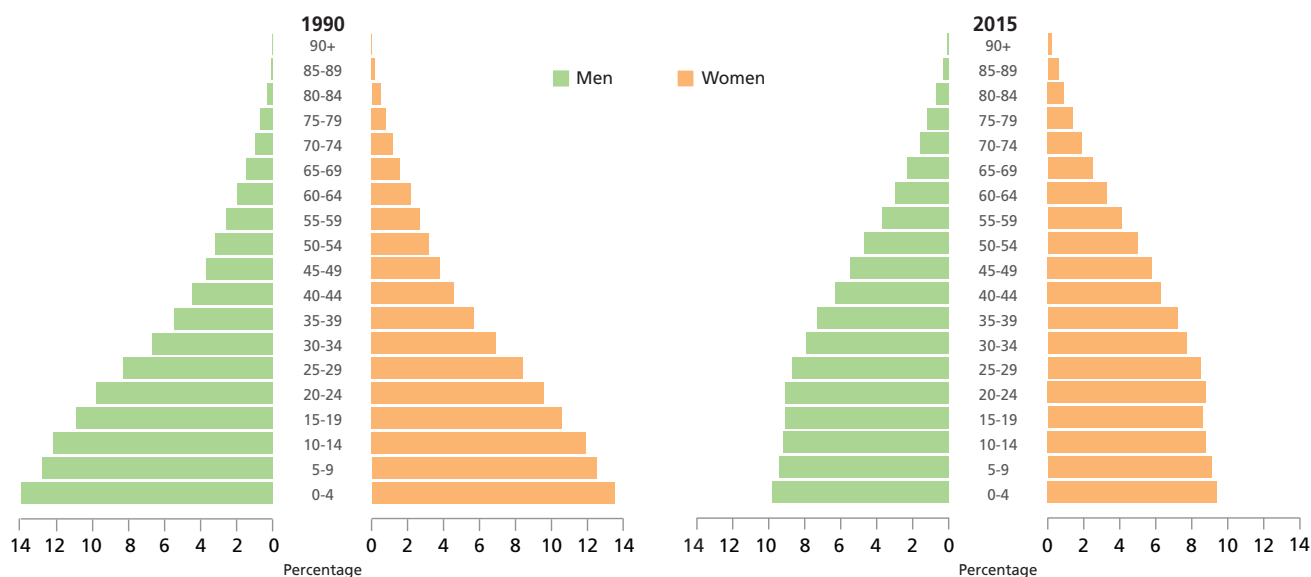
Between 2001 and 2014, 1.6 million hectares of rain forest were lost; only 20.4% of the deforested area was reforested in the same period. In 2012, 24% of the land area had been desertified and 24% was in the process of desertification. The annual land degradation rate reached 4.5%, affecting almost 11% of the population.

HEALTH SITUATION AND THE HEALTH SYSTEM

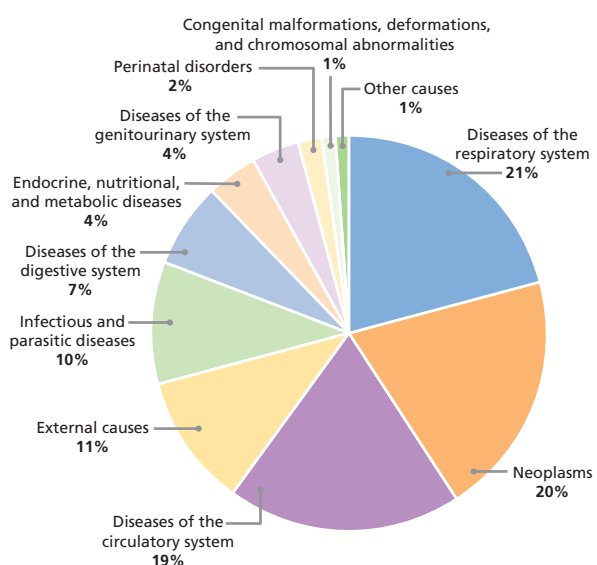
The maternal mortality ratio was 93 deaths per 100,000 live births in 2011 and 68 per 100,000 live births in 2015, according to estimates by the United Nations interagency group. Increased coverage of prenatal care and skilled birth attendance contributed to this reduction.

The most frequent causes of maternal death were hemorrhage (33%), hypertensive diseases of pregnancy (31%), infection (13.3%), and miscarriage (9%).

Distribution of the population by age and sex, Peru, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2014



In 2015, the infant mortality rate (children under 1) was 15 deaths per 1,000 live births (10 neonatal and 5 post-neonatal). Also in 2015, the mortality rate in children under 5 was 18 deaths per 1,000 live births. The highest mortality was reported in the mountain and jungle regions and in the lowest income quintile.

The national immunization schedule includes 15 vaccines for various age groups. The most recently introduced vaccines were the human papillomavirus (HPV) vaccine (in 2011) and the inactivated polio vaccine (in 2013). In 2013 and 2014, coverage of the pentavalent, polio, rotavirus, and triple viral (MMR) vaccines declined. Although it began to rise again in 2015, 95% coverage was not reached.

In the population aged 44-59, cardiovascular diseases were the leading cause of healthy years of life lost (32.7 years per 1,000 population), followed by musculoskeletal and connective tissue diseases (30.9) and malignant neoplasms (28.3).

Underreporting of mortality is a major problem, estimated at 47.2% for 2014. The overall mortality rate in 2014, adjusted for this issue, was 6.4 per 1,000 population (7.6 for men and 5.3 for women).

The age-adjusted mortality rate for communicable diseases was 154.4 per 100,000 population (179.0 in men and 132.2 in women), while the rate was 127.6 for malignant neoplasms (134.1 in men and 123.6 in women).

Among the most frequent causes of mortality in 2014 were diseases of the respiratory system (21%), neoplasms (20%),

diseases of the circulatory system (19%), and external causes (11%).

Between 2010 and 2016, 170,545 cases of dengue were reported, with cases trending upward, and 227 deaths, with an annual average of 32 deaths. The increase in the severity of the disease has been associated with the emergence of the DENV-2 Asian/American genotype in 2010. In 2016, the *Aedes aegypti* mosquito was distributed across 20 regions of the country (60% of the population).

Between 2010 and 2015, 102 cases of jungle yellow fever and 367 cases of Chagas disease were reported. In 2015, 62,220 cases of malaria were reported, 95.4% of them in the Loreto district.

The first four cases of hantavirus were reported in 2011, with two additional cases reported in 2012 and 2013.

As of May 2017, 6,447 cases of Zika virus infection had been reported. Since the start of the epidemic, 349 cases have been detected in pregnant women.

Between 2010 and 2015, influenza A (H1N1) remained epidemic, with three peaks in circulation (2010, 2012, and 2013).

Between 2011 and 2015, five cases of human rabies transmitted by dogs were reported. In the Amazon jungle, there are periodic outbreaks of rabies transmitted by vampire bats.

Between 2010 and 2015, the reported TB incidence fell from 95.7 to 88.0 per 100,000 population. Between 2010 and 2014, the number of cases of TB/HIV coinfection grew from 861 to 1,385 (2.7% to 4.4% of all TB cases, respectively).

In 2014, ischemic heart disease caused 29.1 deaths per 100,000 population (38.2 in men and 21.1 in women).

Cerebrovascular diseases caused 26.8 deaths per 100,000 population in 2014 (30.2 in men, 23.8 in women).

The most common types of neoplasms in men were cancer of the stomach (15.1%), prostate (15.1%), skin (7.8%), hematopoietic system (7.3%), and lungs (6.3%). In women, the most common types were cervical (24.1%), breast (16.6%), stomach (8.6%), skin (5.8%), and hematopoietic malignancies (3.7%).

Between 2011 and 2015, the homicide rate increased from 5.4 to 7.2 per 100,000 population.

In 2012, neuropsychiatric diseases were one of the leading causes of healthy years of life lost. The suicide rate was 3.5 per 100,000 population in 2013.

The prevalence of smoking in adolescents in 2014 was 9.7% (10.9% in boys and 8.4% in girls).

In 2015, 35.5% of people over the age of 15 were overweight and 17.8% were obese (22.4% of women and 13.3% of men).

Between 2010 and the first semester of 2016, 67 cases of human plague were reported.

The health system operates under a highly fragmented mixed model, with a mix of public and private service providers. It is organized by specialized functions, the Ministry of Health (MINSA) being the systemwide regulatory entity.

The public sector provides health services in two ways: through the subsidized or indirect contributory regimen and the direct contributory regimen (which corresponds to social security).

The Comprehensive Health Insurance (SIS) system subsidizes the delivery of services to the population living in poverty and extreme poverty.

In 2014, health financing came from three main sources: out-of-pocket expenditure (31.1%), public funds (34.2%), and social security contributions (31.3%). In 2015, health expenditure represented 5.3% of the GDP (3.1% public spending and 2.2% private).

In 2013, an “inclusive pharmacy” mechanism was established. A price observatory for drugs has been established, and there is a dedicated regulatory framework for biologic pharmaceutical products.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

Implementation of the health reform process has been ongoing since 1990. Its major milestones include approval of

the Framework Law on Universal Health Insurance in 2009 and the issuance of 23 legislative decrees in 2013.

Between 1990 and 2015, the population grew by approximately 42.7%, reaching 31.2 million, and its structure shifted from an expansive trend toward a near-stationary one in 2015.

The Framework Law provides an important regulatory structure for the organization and operation of the health system, covering areas such as financing, compensation, access, and even the functional reorganization of the Ministry of Health.

Ending the exclusion of a significant portion of the population from access to any level of health insurance remains a challenge.

Greater effort is needed to increase coordination across the health system, with primary health care as the first point of contact, since primary health centers still have limited problem-solving capability and their territorial coverage is insufficient, for instance, to meet the needs of the country's aging population.

Standardization of vocational training systems should be increased, and adequate incentives for the health work force should be created in the public health sector.

Continuing improvement of health records in the country is necessary, especially in terms of the timeliness and quality of mortality reporting and other relevant health indicators.

Violence against women and human trafficking are phenomena that must be tackled through a comprehensive approach based on specific public policies.

ADDITIONAL POINTS

The National Agreement is the basis for defining the national policies of Peru.

In October 2015, after dialogue and consensus-building among Government authorities, political parties, civil society organizations, and other National Agreement stakeholders, the Health System Reform objectives were adopted. Their purpose is to ensure the political feasibility and continuity of this process and put the country on the path to achieving universal health by the year 2021.

The Agreement underscores the need to achieve individual and collective access to comprehensive health care as a universal right, regardless of socioeconomic status or geographic location, with a gender, health rights, and intercultural approach.

Health reform is expected to ensure and enhance the effectiveness of Ministry of Health leadership in the sector and within the National Health System, as well as strengthen and boost capacity for decentralized and coordinated health system management at all three levels of government.

Furthermore, these reforms seek to strengthen the Comprehensive Health Insurance (SIS) system as a public insurance scheme that will make it possible to advance toward universal social security in health, serving as the major instrument for universal access to comprehensive health care and ensuring adequate complementarity between the public and private systems.

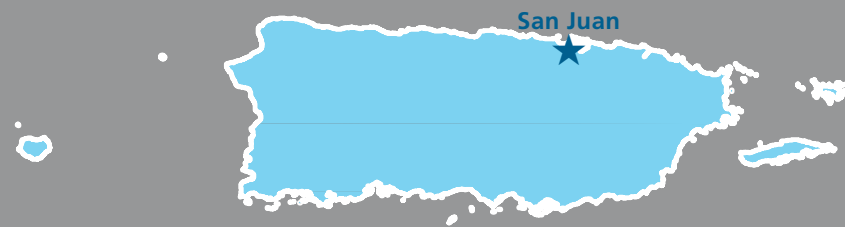


PUERTO RICO

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	23,960 (2014)	...
Human development index	...	...	...
Mean years of schooling	...	12.1 (2014)	...
Improved drinking-water source coverage (%)	94.0	...	...
Improved sanitation coverage (%)	99.0	99.0 (2015)	0.0
Life expectancy at birth (years)	...	79.5 (2013)	...
Infant mortality (per 1,000 live births)	...	7.1 (2013)	...
Maternal mortality (per 100,000 live births)	...	8.7 (2013)	...
TB incidence (per 100,000 population)	...	1.2 (2013)	...
TB mortality (per 100,000 population)	2.0	0.3 (2013)	-85.0
Measles immunization coverage (%)	...	...	...
Births attended by trained personnel (%)	...	99.3 (2015)	...



1990 population (millions)	3.5
2015 population (millions)	3.4
Change (%)	-3.4

Puerto Rico is an archipelago in the Greater Antilles, located in the northeastern Caribbean Sea. It consists of the main island and a number of smaller islands, the largest of which are Mona, Vieques, and Culebra. The territory is organized into 8 senatorial districts and 78 municipalities.

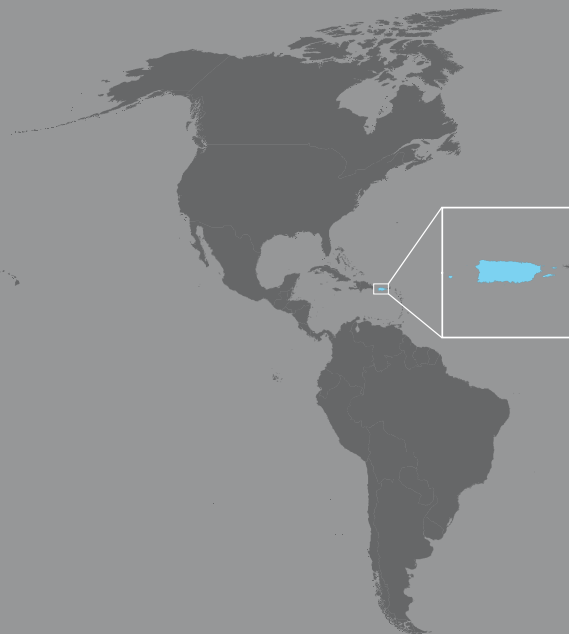
A commonwealth of the United States, Puerto Rico has a total land area of 9,105 km²; the main island measures 170 km by 60 km.

The estimated population in 2015 was 3,474,182, a 6.6% decline from 2010.

In 1990, the population pyramid had an expansive structure, but it has since become regressive with population aging (14.6% of the population was over 65 in 2015).

The population's age structure has also been affected by lower fertility and premature mortality, as well as emigration. Life expectancy at birth in 2013 was 79.5 years (75.8 in men and 83.1 in women).

Puerto Rico has been classified as a high-income economy, since its average annual per capita income between 2010 and 2015 was above US\$ 12,476.



SOCIAL DETERMINANTS OF HEALTH

The overall literacy rate was 92% in 2010.

The unemployment rate declined by 3.4 percentage points (from 16.3% in 2010 to 12.9% in 2015). The percentage of the population under the federal poverty line rose slightly, from 45% in 2010 to 46.1% in 2015.

The Gini index of economic inequality increased slightly, from 0.537 in 2010 to 0.559 in 2015.

Gross national product (GNP), at constant prices, fell from US\$ 6.347 billion to US\$ 6.312 billion between fiscal year 2014 and 2015.

Gross public debt stood at US\$ 66.182 billion in 2015. The economic crisis that began in 2006 intensified: the economy, including the banking industry and housing sales, slumped; oil prices rose; and there were persistent deficits, leading the bond markets to lose confidence.

In May 2017, Puerto Rico filed for bankruptcy relief in U.S. federal court for its debt and pension obligations of US\$ 123 billion.

Between 2010 and 2015, an estimated 457,000 people left Puerto Rico, moving mainly to the southern and northeastern regions of the United States.

The homicide rate was 31.6 per 100,000 population in 2011, falling to 16.8 in 2015.

Puerto Rico's geographic location puts it in the path of tropical storms and hurricanes that trigger flooding and landslides.

An environmental problem throughout the archipelago is the use of dangerous pesticides. This issue has given rise to new strategies and practices supported by Government agencies.

Droughts like the one in 2015 can lead to economic crises and losses in agriculture and livestock production and can harm the territory's fauna and flora. In addition, the need for water rationing adversely affects services in hospitals, health care centers, schools, and homes.

HEALTH SITUATION AND THE HEALTH SYSTEM

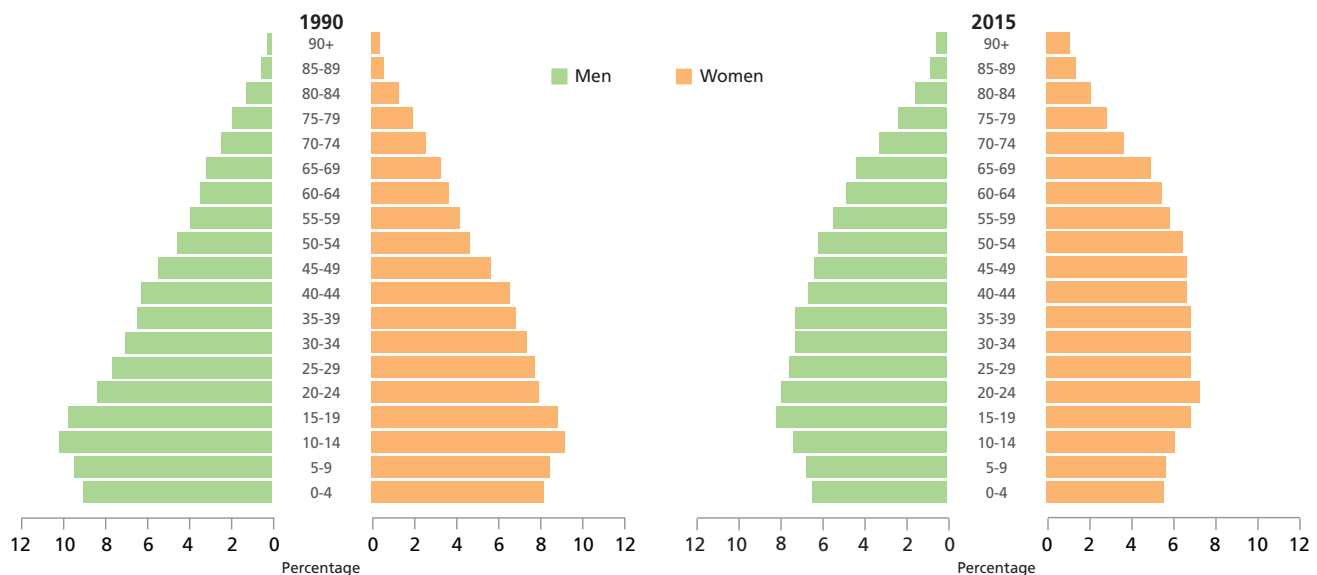
In 2012, 45.4% of the women participating in a reproductive health survey stated that they did not use contraceptives. In 2014, although 83.4% of pregnant women began prenatal care in the first trimester and 35.7% experienced adequate weight gain, 47.2% of them had cesarean deliveries.

Maternal deaths declined from six in 2010 to three in 2014.

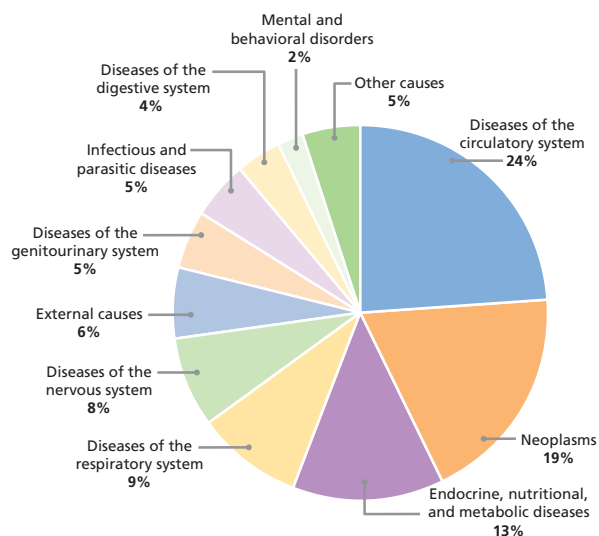
The three leading causes of infant mortality in 2011 were congenital malformations (18.3%, falling to 13.1% in 2014); respiratory distress of the newborn (12.1%, with a similar rate in 2014); and bacterial sepsis (10.7%, falling to 5.7% in 2014).

The leading causes of neonatal mortality are respiratory distress, congenital malformations, chromosome abnormalities, and bacterial sepsis of the newborn. In 2011 and 2014, the leading causes of fetal death were disorders related to short gestation, low birthweight, and complications of the placenta or umbilical cord.

Distribution of the population by age and sex, Puerto Rico, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2014



In 2012, 85% of children younger than 35 months were vaccinated. In 2015 this percentage declined to 77.3%.

In 2012, 18.6% of students in grades 10 through 12 reported having had symptoms of major depression, and 24.4% had seriously considered suicide. Of this age group, 60.4% reported having consumed alcohol in the previous year, and 17.0% had used illegal drugs.

That same year, the lifetime prevalence of depression in adults was 18.5%. It was higher in women (20.4%) than in men (16.4%) and higher among people aged 55-64 years (31.4%).

The crude death rate was 813.8 per 100,000 population in 2011, rising to 854.8 in 2014. For men, the rate increased from 928.3 in 2011 to 964.9 in 2014, while the rates were lower for women: 708.6 in 2011 and 753.5 in 2014.

Among groups of causes, 24% of deaths were attributed to circulatory system diseases, 19% to neoplasms, and 13% to endocrine disorders. The most frequent specific causes of death in 2014 were malignant tumors (119.2 per 100,000 population), heart disease (116.1), and diabetes mellitus (71.9).

Dengue is endemic in Puerto Rico, and in 2015 there were 1,866 presumptive cases and 57 laboratory-confirmed cases. There were no confirmed cases of dengue hemorrhagic fever and no deaths.

Chikungunya is a new disease in Puerto Rico, with the first case occurring in May 2014. In 2015, there were 1,043 presumptive cases, 216 confirmed cases, and 1 death. In 2014, the Department of Health issued a protocol for chikungunya management and control.

Zika virus disease was declared a public health emergency in 2016, and a comprehensive plan for the prevention and treatment of arboviral diseases was drafted.

As of November of that year, 34,060 confirmed cases of Zika virus infection had been reported, 2,631 of which were in pregnant women; 63% of this group were symptomatic. There were also reports of 46 cases of Zika-associated Guillain-Barré syndrome (with 2 deaths), and 4 newborns with Zika-associated birth defects.

In 2013, a disbursement of US\$ 1 million from the Emergency Fund was authorized to control the influenza epidemic.

Tuberculosis incidence increased slightly between 2011 (50 cases) and 2015 (52 cases). The adjusted rate was 1.4 per 100,000 population for 2011 and 1.5 for 2015.

In 2015, 24 cases of hepatitis B were reported, with another 10 cases through the end of October 2016. There were 10 cases of whooping cough in 2015, and 9 more through the end of 2016; 1 case of tetanus was reported in 2015. Only 39 cases of animal rabies were reported in 2014, and in 2015, 12.

The prevalence of stroke in 2011 was 1.7% overall and was higher in women (2.0%) than in men (1.4%). In 2014 the prevalence increased slightly to 2.2%, with the highest rate in people aged 65 or over (5.2%).

In 2014, 3.8% of the population suffered from chronic obstructive pulmonary disease (COPD), largely people aged 65 and over.

The prevalence of vision problems in adults in 2012 was 32.1%.

The prevalence of hypertension in adults in 2013 was higher in women (43.9%) than in men (40.5%), and highest in the group aged 65 or over, at 72.0%.

In 2014, 18% of the population aged 18-64 had at least one disability. The prevalence of depression in adults is 18.5%. In the population aged 65 or over, the percentage of people with some disability was 49.7%.

The prevalence of diabetes mellitus in adults increased from 13.5% in 2011 to 15.7% in 2014 (16.4% in women and 14.8% in men).

The average number of suicide deaths per year is 311. In 2015, men accounted for 9 out of 10 suicides. The highest rates were reported in the 80-84 age group (17.9 per 1,000 population), followed by the 55-59 age group. There were 9 murders related to domestic violence, and 8 of the victims were women.

In 2015, there were 297 road traffic accidents, with 310 deaths, 6 more than in 2014.

The prevalence of overweight and obesity declined from 66.1% in 2011 to 65.6% in 2014. The prevalence of obesity in men decreased to 26.8%, but increased to 29.6% in women. The highest prevalence of obesity was seen in the 55-64 age group (35.2%).

The health system is under the Department of Health and consists of various insurance entities and health care providers, both public and private. They are organized mainly according to a coordinated care model.

The health system is financed with federal contributions, employer contributions, contributions from the Puerto Rican Government, and direct payments by individuals.

In 2014, health expenditure accounted for 10.5% of gross domestic product (GDP). Per capita health expenditure was approximately US \$3,065.

Health service delivery is organized by levels of care, beginning with a package of benefits provided through an insurance plan, followed by primary, secondary, and tertiary services.

Services are provided through the Government Health Plan (PSG), which also coordinates efforts with the Puerto Rico Health Insurance Administration and the Department of Health, which provide health services to the general population.

Additionally, there are programs such as Medicare, Medicaid, and the benefits of the Affordable Care Act of the United States, together with the Health Insurance Code.

Since 2010, executive orders have been issued to safeguard the rights of patients, ensure compliance with health

protocols, and require agencies to create surveillance systems and keep them current.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

Puerto Rico has worked to meet the targets of the Sustainable Development Goals (SDGs), especially in regard to Goal 3, "Ensure healthy lives and promote well-being for all at all ages." The Commonwealth has achieved reductions in the maternal mortality ratio and preventable deaths in children.

The Chronic Disease Action Plan 2014-2020 has also been developed.

In 2016, the Obesity Prevention Action Plan was launched, based on the PAHO model and under PAHO's auspices, with the Food and Nutrition Commission as the regulatory body.

The Institute of Statistics established a violent deaths surveillance system to compile data on homicides and murders reported by the Department of Health, the Puerto Rican Police Force, and the Institute of Forensic Sciences.

The Department of Health issued the Tobacco Control Plan (2016), the Strategic Asthma Plan (2016), and the Alzheimer's Action Plan (2015)—the latter especially important, given Puerto Rico's aging population.

Efforts are under way to modify the Medicaid State Plan so that Puerto Rico can implement a new health model aimed at achieving higher levels of efficiency and local cost containment by the year 2019.

ADDITIONAL POINTS

Ten essential health benefits are guaranteed to the population under the Affordable Care Act of the United States together with the Health Insurance Code.

These benefits are outpatient and medical-surgical services; hospitalization; emergency services; maternity and neonatal care; mental health services; diagnostic tests; pediatric services, including vision and dental; medicines; habilitation and rehabilitation; and preventive and wellness services.

Areas to be addressed through technical cooperation include chronic diseases, health promotion, nursing, bioethics, healthy aging, communicable diseases, environmental

health, information management, disaster management, and humanitarian assistance.

Furthermore, the Department of Health has forged partnerships with several sectors to develop the Chronic Disease Action Plan, the 10-Year Health Plan, the School Health Program, and the Suicide Prevention Commission, and to deliver recovery and treatment services to homeless people with serious mental illness or concurrent substance use disorders.



SAINT KITTS AND NEVIS

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	22,600 (2014)	...
Human development index	...	0.752 (2013)	...
Mean years of schooling	...	8.4 (2014)	...
Improved drinking-water source coverage (%)	98.0	98.0 (2015)	0.0
Improved sanitation coverage (%)	87.0	87.0 (2015)	0.0
Life expectancy at birth (years)	67.3	75.5 (2011)	12.2
Infant mortality (per 1,000 live births)	22.9	25.3 (2015)	10.5
Maternal mortality (per 100,000 live births)	...	...	...
TB incidence (per 100,000 population)	...	13.5 (2013)	...
TB mortality (per 100,000 population)	...	2.9 (2013)	...
Measles immunization coverage (%)	99.0	95.0 (2015)	-4.0
Births attended by trained personnel (%)	...	100.0	...



1990 population (thousands)	41.7
2011 population (thousands)	47.2
Change (%)	12.9

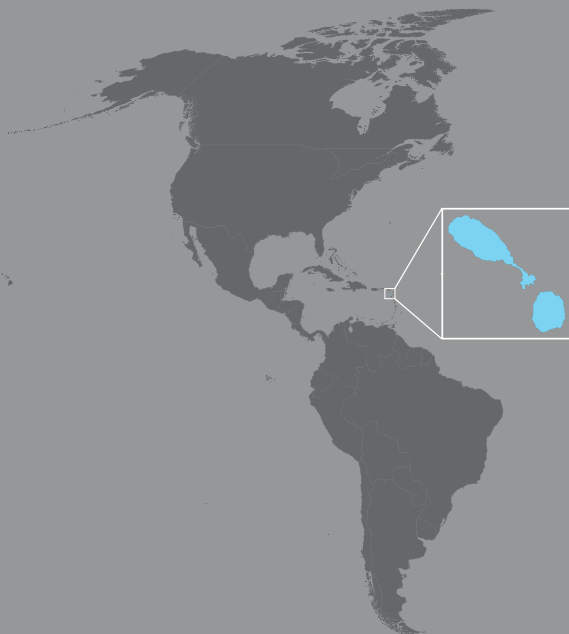
Saint Kitts and Nevis is formed by two islands located in the Leeward Islands of the Lesser Antilles. Saint Kitts is the larger and more populous island, with a total area of 168 km². Nevis, located to the southeast of Saint Kitts, covers an area of 93 km².

The country is divided administratively into 14 parishes (9 in Saint Kitts and 5 in Nevis).

Its estimated population in 2011 was 47,196 (Saint Kitts 34,918; Nevis 12,278). In 1990, the population structure was stationary among people over the age of 40 and slowly expansive in the population under 40. The population structure currently has a mixed configuration, alternating between stationary and slowly regressive.

The population is mainly of African descent (90%). In 2011, the life expectancy at birth was estimated at 73.1 years for men and 78.0 years for women.

Saint Kitts and Nevis is classified as a high-income country and in 2013 had the highest annual per capita income in the Caribbean (US\$ 13,330).



SOCIAL DETERMINANTS OF HEALTH

In 2008, the prevalence of poverty was 22%, with 1% living in extreme poverty. In 2014, the unemployment rate was 6.5%.

The literacy rate is higher for women (97.4%) than for men (96.5%) in the 15-to-24 age group. Access to pre-elementary, primary, and secondary education is universal and free of charge.

There is low representation of women in leadership roles in politics, and in 2015, women held only 20% of seats in the Parliament of Saint Kitts and Nevis and the Nevis Assembly.

An estimated 98% of the population in the country had access to clean drinking water in 2015 and 87% had access to improved sanitation facilities. Surface and ground water sources are susceptible to agricultural pollution, as well as to salt water intrusion due to the islands' low-lying position.

Drought conditions related to the effects of El Niño in 2015-2016 put pressure on drinking water resources and agricultural production. Mount Liamuiga poses a latent threat of volcanic eruption. The country is also exposed to floods and tropical storms.

Land degradation has led to landslides and soil erosion; this degradation is the result of historically intensive land use for the cultivation of sugarcane and other crops.

Demographic changes in the country have resulted in increased construction and waste generation, and the upsurge in cruise and cargo vessel traffic may raise the levels of air and water pollution.

There has been an increase in the number of youths affiliated with gangs, which are generally not organized and engage in petty street crime, robberies, and drug trafficking. The Government is attempting to encourage youth to disassociate themselves from gangs through targeted programs, services, and employment. There is no confirmed presence of transnational criminal organizations.

A National Food and Nutrition Security Policy has been developed, which is systematically applied to ensure that national food production is safe and sufficient to meet the current needs of the population.

Social assistance programs provide food and cash transfers to poor households and assist with unanticipated expenses, such as hurricane damage, fires, and special emergency medical expenses.

The social protection system includes social security and social assistance components. In 2015, 16.9% of the population was insured.

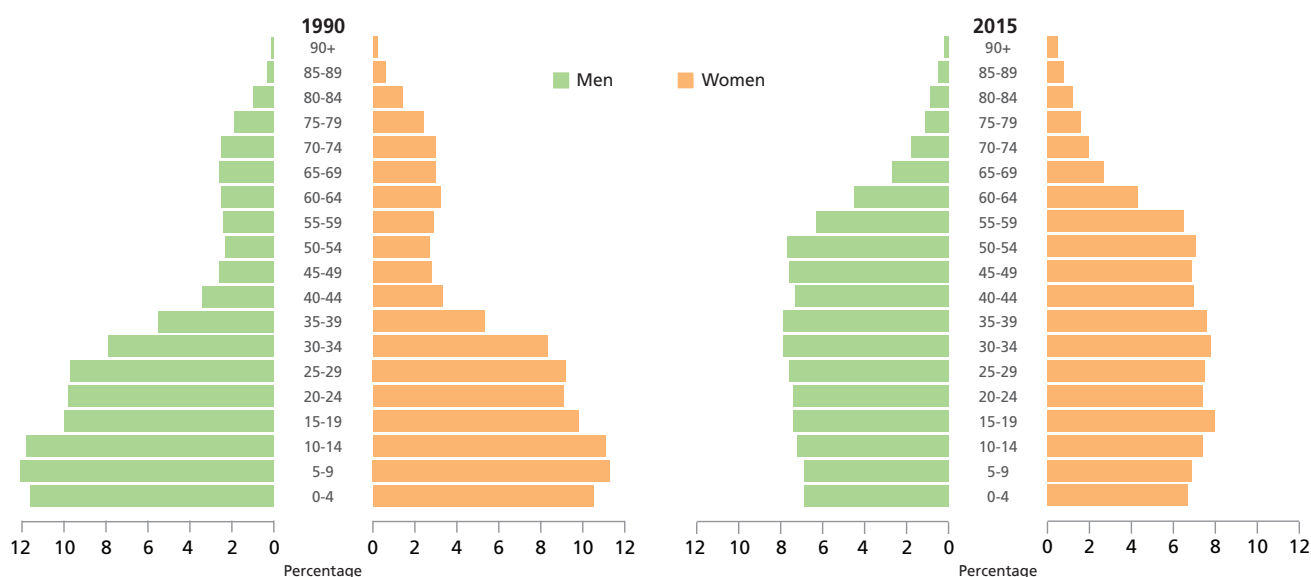
HEALTH SITUATION AND THE HEALTH SYSTEM

Between 2011 and 2015, five maternal deaths were recorded (none to two per year). The leading cause of maternal death was eclampsia.

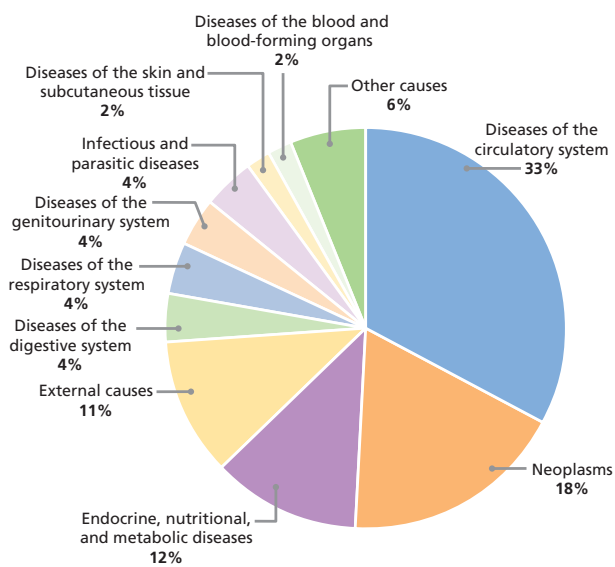
Major efforts are being made to eliminate mother-to-child transmission of HIV, syphilis, and hepatitis B.

With a low number of annual deaths, the infant mortality rate fluctuated between 12.0 and 25.3 deaths per 1,000 live births

Distribution of the population by age and sex, Saint Kitts and Nevis, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2012



in the period 2011-2015. In 2015, the neonatal mortality rate was 22.2 per 1,000 live births. The main causes of neonatal mortality were perinatal asphyxia and respiratory distress of the newborn.

In the period 2010-2015, the immunization coverage rate exceeded 90% for all vaccines.

In 2015, acute respiratory infections and gastroenteritis were the leading causes of morbidity in children under 5. Adolescents are exposed to significant risks, including overweight and obesity, a sedentary lifestyle, substance abuse, physical violence, and sexual assault.

In 2012, 33% of all deaths were caused by diseases of the circulatory system and 18% by neoplasms. Together, these two groups of causes accounted for more than half of all deaths in the country.

In 2013, the leading specific causes of mortality in adults were malignant neoplasms (163.8 deaths per 100,000 population), cerebrovascular diseases (71.1), diabetes mellitus (62.5), ischemic heart disease (32.3), and intentional injuries (25.9).

A total of 314 cases of malignant neoplasms were reported between 2011 and 2014. The most prevalent types of cancer were breast (19.1%), cervical (19.7%), and prostate (19.7%).

The leading causes of morbidity in adults are overweight, hyperlipidemia, hypertension, diabetes mellitus, schizophrenia, depression, and substance abuse.

Between 1984 and 2014, a total of 385 cases of HIV were reported, 149 of which were AIDS cases, with 112 deaths. The

total number of HIV infections increased from 57 in 2006-2010 to 65 in 2011-2015.

Antiretroviral treatment is available free of charge, and all confirmed cases of tuberculosis are tested for HIV. Since 2011, no cases of TB/HIV coinfection have been reported.

Twelve cases of tuberculosis were reported in 2011-2015, a slight reduction from the 15 cases reported in 2006-2010.

A total of 63 cases of endemic dengue were recorded during 2011-2014; no cases were recorded in 2015. Two cases of imported malaria were reported from 2011 to 2015.

There were 28 confirmed and 627 suspected cases of chikungunya virus infection in late 2014, and 3 cases of Zika virus infection were reported in 2016.

There were no reported cases of cholera, rabies, leprosy, or other neglected diseases in the period 2010-2015.

The prevalence of diabetes mellitus, the third leading cause of death in 2013, has been estimated at 20%.

The leading psychiatric disorders in the period 2011-2015 were schizophrenia (793 cases), schizoaffective disorders (297), bipolar disorder (190), depression (120), and cannabis-induced psychosis (54).

In 2011, 32.5% of secondary students were overweight and 14.4% were obese. That same year, six adolescent deaths were recorded, five of which were homicides.

In 2008, 33.5% of adults aged 25-64 were overweight and 45% were obese.

As a two-island federation, there are two ministries of health with parallel organizational structures. Each island has a minister and permanent secretary, who are responsible for organizing and managing public health services.

Each Ministry of Health is organized into three programs: the Office of Policy Development and Information Management, which includes the health information unit; Community-Based Health Services, which includes family health services, environmental health, and health promotion; and Institution-Based Health Services, which includes patient care services. There is a single Chief Medical Officer for the Federation.

Leadership and governance in health are guided by the health policy and essential services established in the current legislation.

Health expenditure increased from 2.54% of gross domestic product (GDP) in 2010 to 2.72% in 2014.

In 2015, Saint Kitts and Nevis had 23.3 physicians, 36.6 nurses, and 3.5 dentists per 10,000 inhabitants. Of the 118 physicians registered in 2015, 21% worked in the public sector and 32% in both the private and public sectors.

The main public referral hospital is the 150-bed Joseph N. France General Hospital, located in Saint Kitts. The Alexandra Hospital is a 50-bed hospital located in Nevis. There are 2 district hospitals on Saint Kitts that provide basic inpatient care. There are 17 public primary care facilities (11 on Saint Kitts and 6 on Nevis).

There are also long-term public and private geriatric services. Persons requiring tertiary-level care, such as chemotherapy and radiotherapy, must usually go abroad, which entails substantial personal expenditure.

Medical care is provided free of charge at all levels (primary, secondary, and tertiary) to all residents (citizens or foreigners with legal residency in the Federation of Saint Kitts and Nevis) who cannot afford the associated costs. The Government is currently working on a registry of disabled persons in order to develop a policy and plan for this population.

The Caribbean Civil Registry and Identity System (CCRIS) was created in 2013 to facilitate computerized birth and death registration and provide timely vital statistics.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

The transition from the Millennium Development Goals to the Sustainable Development Goals has been made primarily through the restructuring of the national debt

(with a significant reduction in the debt-to-GDP ratio), the development of a draft Food and Nutrition Security Policy, and continued emphasis on human development.

Perceived risks to sustainable development may be due to climate and environmental vulnerabilities, and progress has been made toward the demarcation of habitable areas. The country has developed a risk map that can be used to establish which areas are appropriate for human settlement.

The National Social Protection Strategy 2012-2017 seeks, through social and educational programs, to address issues such as the impact of poverty on women and men, the effect of unemployment on heads of household, and the challenges faced by at-risk children.

Customer service and overall patient satisfaction have improved but should be optimized through a "patients' statute" and policy that governs the quality of care.

A draft strategic plan on mental health and substance abuse, a strategic plan to control drug abuse, and a mental health law are in the final stages of preparation.

Population aging points toward a higher demand for social protection and health services.

The Government has established a national information and communication technology governance board.



ADDITIONAL POINTS

The progress in health in recent decades is a result of overall improvements in the country, which has managed to sustain and grow its economy. Another important factor is that health policymakers are very concerned about addressing the social determinants of health.

The Government has identified universal health coverage as a priority area for the formulation of policies and programs geared to gradual progress toward higher levels of coverage for the population. The Government is exploring the introduction of a national medical insurance plan, which it expects to finance with premiums from the economically active population that is employed.

Future efforts should maintain the same approach. Along those lines, the Government has implemented strategies

to address rational investment in services; commitment to equity in resource allocation and health sector management; achievement of a healthy, educated, and properly trained workforce; and the protection of vulnerable groups.

Proposals aimed at improving the nutritional status of the population include consumer education and health-centered policy-making. This will help control factors that encourage excessive calorie, fat, sugar, and salt intake, including price fixing and advertising.

Policies to be implemented going forward take into consideration that new health technologies are integral to those policies and underscore the need for medical teams with appropriate technology for diagnosis and treatment.



SAINT LUCIA

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	10,540 (2014)	...
Human development index	...	0.729 (2013)	...
Mean years of schooling	...	8.4 (2014)	...
Improved drinking-water source coverage (%)	93.0	96.0 (2015)	3.2
Improved sanitation coverage (%)	78.0	92.5 (2015)	18.6
Life expectancy at birth (years)	71.1	77.8 (2016)	9.4
Infant mortality (per 1,000 live births)	18.6	17.0 (2014)	-8.6
Maternal mortality (per 100,000 live births)	...	...	...
TB incidence (per 100,000 population)	11.0	6.3 (2015)	-42.7
TB mortality (per 100,000 population)	4.0	1.2 (2013)	-70.0
Measles immunization coverage (%)	82.0	97.0 (2015)	18.3
Births attended by trained personnel (%)	...	99.1 (2015)	...



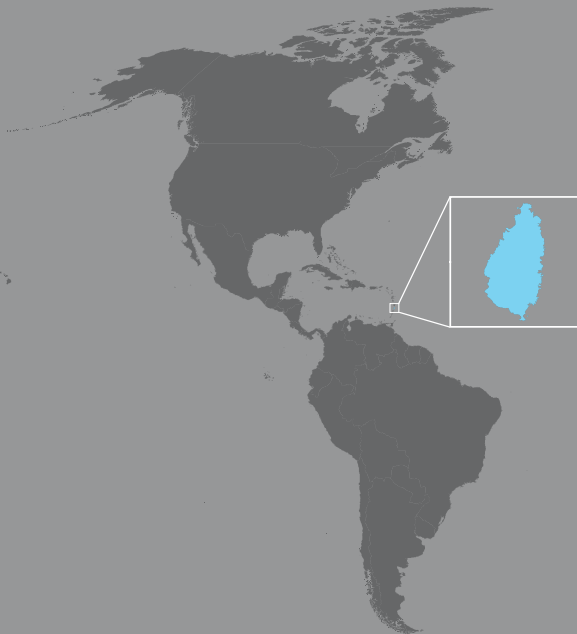
1990 population (thousands)	138.2
2014 population (thousands)	172.2
Change (%)	24.6

Saint Lucia is an island nation in the Caribbean, located between Martinique and Saint Vincent and the Grenadines. With a land area of 620 km², it is divided into 11 districts. It is a parliamentary democracy and holds elections every 5 years.

The population was 172,255 in 2014, with 21.8% over the age of 60. The population pyramid is moving toward a regressive structure as a result of lower fertility and the reduction in premature deaths.

The population is mainly of African descent (85.3%), followed by those of mixed race (10.8%). Average life expectancy in 2016 was estimated at 77.8 years (75.0 in men, 80.7 in women).

Per capita gross domestic product (GDP) was US\$ 6,848 in 2014. The economy depends mainly on tourism (65% of GDP).



SOCIAL DETERMINANTS OF HEALTH

The most recent assessment, in 2005, showed that 18.7% of households and 25.1% of individuals lived below the poverty line. Some 5.3% of households and 7.1% of individuals lived in extreme poverty, chiefly in rural communities.

Literacy among young females aged 15-24 in 2012 was 99.3%. In 2014, unemployment was 24.4%, and youth unemployment increased to 41.8%.

More than 80% of households have access to clean drinking water through household connections to the system. The rest of the population obtains its water from public standpipes, trucks, and private cisterns. Most homes (92.5%) have sanitary facilities in the form of sewer connections, septic tanks, or pit latrines.

The majority (88%) of households have trash collection. Trash is deposited in two sanitary landfills on the island. The remaining households dispose of trash by composting, dumping, or burning it.

Natural disasters are associated with a high risk of disease outbreaks. Hurricane Tomas hit the island in 2010, resulting in 7 deaths and 36 injuries. In 2013, flooding over the Christmas holiday caused 6 deaths, with some 1,050 people gravely affected.

HEALTH SITUATION AND THE HEALTH SYSTEM

The crude birth rate remained constant during the period 2010-2015, at 12 live births per 1,000 population. In 2014,

hospital delivery coverage was 98%, with a 24% rate of cesarean births. Four maternal deaths were recorded between 2012 and 2014.

Exclusive breastfeeding at 6 weeks remained under 50% every year, and contraceptive use was 47% among women aged 15-49 in 2008.

The infant mortality rate was 17 deaths per 1,000 live births in 2014, with most of the deaths occurring during the neonatal period. Over the last 10 years, the percentage of low birthweight infants ranged from 9% to 12%; mortality in children under 5 in 2012 was 24.1 per 1,000 live births. In 2014, most hospitalizations of children aged 1-4 were the result of perinatal conditions, congenital anomalies, and respiratory infections.

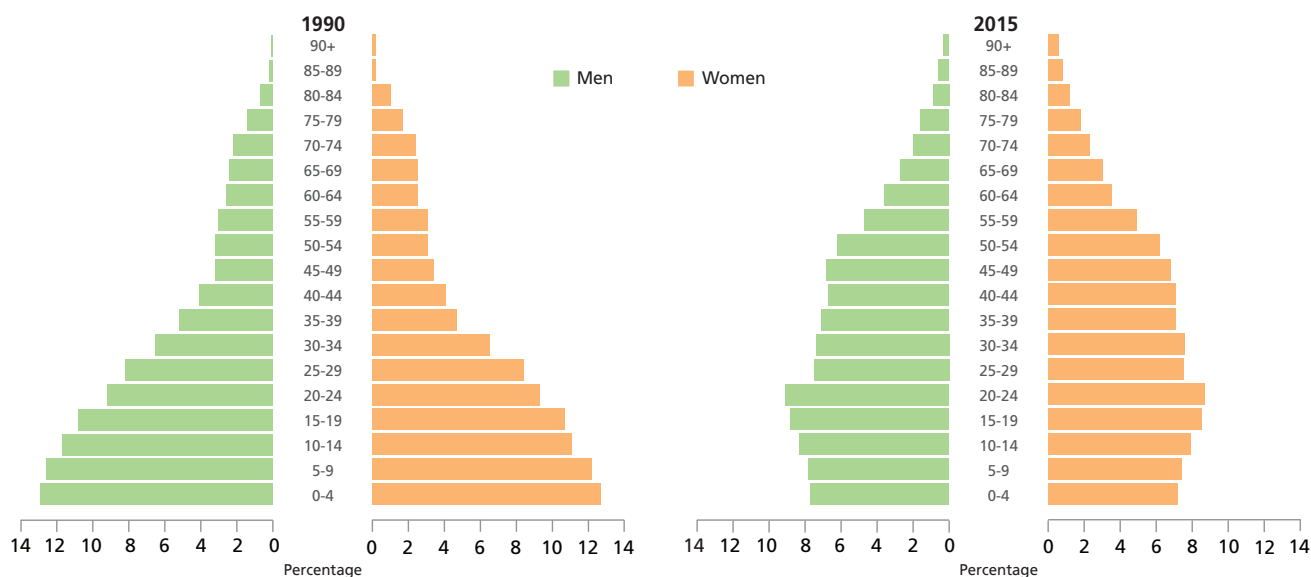
The Expanded Program on Immunization provides protection against the following diseases: poliomyelitis; diphtheria, whooping cough, tetanus, hepatitis B, and *Haemophilus influenzae* type b; tuberculosis (BCG); and measles, mumps, and rubella (MMR). In 2014, around 98% of infants completed the pentavalent vaccine schedule, 83% received the BCG vaccine, and 98% received the MMR1.

In 2014, children aged 5-14 accounted for 14.4% of the population. The principal problems of children and adolescents aged 5-19 were related to adolescent pregnancy, drug and alcohol abuse, accidents and violence, homicide, and suicide.

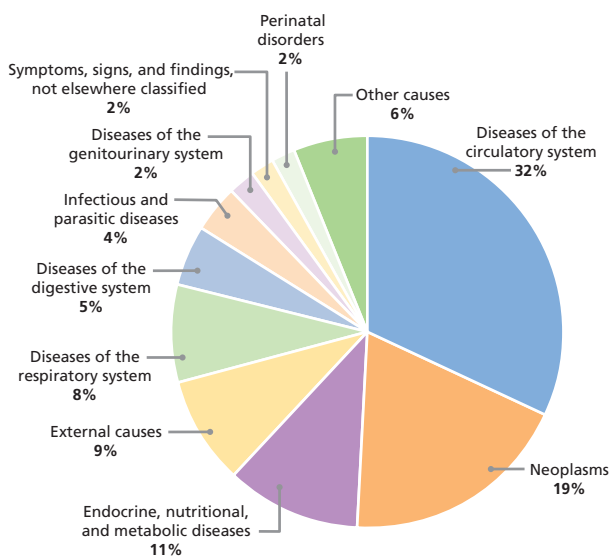
In 2014, the birth rate among adolescents was 22 per 1,000 females aged 10-19, accounting for 15% of total births.

In 2012, chronic noncommunicable diseases were responsible for 58% of premature deaths.

Distribution of the population by age and sex, Saint Lucia, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2014



Years of productive life lost as a result of chronic diseases in the population aged 16-64 were slightly higher in men than in women (24.7 years and 24.3 years, respectively).

In 2014, the total death rate was 7.6 per 1,000 population (54.5% in men and 45.5% in women). Some 32% of deaths were caused by circulatory system diseases and 19% by neoplasms; these two groups of causes together were responsible for half of the total deaths.

In 2014, the leading causes of death from chronic noncommunicable diseases included heart disease, stroke, diabetes mellitus, and hypertension.

Although communicable diseases no longer rank among the 5 leading causes of death, influenza, pneumonia, and perinatal conditions remain among the top 10 causes.

Dengue is endemic in Saint Lucia, with 1,253 confirmed cases in the period 2010-2014, 749 of them during the outbreak of 2011. There were three deaths in 2011 and one in 2014.

An outbreak of chikungunya in April 2014 resulted in 899 suspected cases. Children aged 0-4 accounted for 22% of all cases. It was estimated that roughly 60% of the suspected cases actually were chikungunya.

Zika was first confirmed in 2016. By September of that year, 50 cases had been reported, with 1 Zika-associated case of Guillain-Barré syndrome and 40 confirmed cases in pregnant women.

In the period 2011-2015, there were 101 cases of leptospirosis, with 6 deaths.

Prevention and control activities to reduce the presence of the *Aedes aegypti* mosquito continue through the program for integrated management of vector-borne diseases.

Between 2010 and 2014 there were 44 confirmed cases of influenza A (H1N1), but there were no confirmed cases in 2015.

Since 1985, 1,091 cases of human immunodeficiency virus (HIV) infection have been diagnosed. During the 5 years between 2011 and 2016, no cases of vertical transmission were recorded.

In the period 2011-2013, there were 45 recorded cases of tuberculosis (33 in women and 12 in men), with 2 deaths from HIV coinfection. In 2015 there were 11 cases of tuberculosis, with an incidence rate of 6.3 cases per 100,000 population.

Between 2010 and 2014 a total of 98 people died in road traffic accidents, with a male-female ratio of 5:1. There were a total of 166 homicides between 2010 and 2014, but the number per year declined over that period. There were 54 suicides recorded during those years, with an upward trend.

Within the framework of the National Strategic Plan for Health (2006-2011), aimed at achieving universal coverage, a national policy for the health sector was prepared that addresses four main imperatives: investing in health, tackling health challenges, strengthening people-centered health systems, and creating resilient communities.

This strategy provides a general framework for achieving equity. In this context, the Ministry of Health has designed an approach that seeks to reduce segmentation, ensure fair access, and respect human rights. Services are provided free of charge through 36 health care facilities and 2 hospitals.

In the recent development of health policies, emphasis has been placed on chronic noncommunicable diseases, mental health, and nutrition.

The Ministry of Health is responsible for health policy and for the financing and regulation of the health system. The system has three levels of care: primary, secondary, and tertiary. Primary health care is delivered through a network of 33 health centers, 2 district hospitals, and 1 polyclinic in each of the 8 health regions. There are 2 general hospitals and a private hospital that mainly provides secondary care; there also is a psychiatric hospital.

Funding for health services comes primarily from four sources: a consolidated government fund, donor contributions, payments by users, and private health insurance schemes. Under the new governance strategy, these financing mechanisms will be consolidated in a single fund, the health fund.

Health expenditure accounted for 2.5% of GDP in the period 2014-2015. The bulk of recurrent expenditure in health goes to secondary and tertiary care—that is, to the public hospitals.

Efforts have been made in recent years to establish the virtual integration model and improve the health financing strategy and quality management framework.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

As a result of a national survey on risk factors conducted in 2012, recreational fitness programs were introduced for all age groups.

A food security policy and emergency response plan were developed and implemented in 2015. These plans guide programming and surveillance activities for food safety and security.

The National Strategic Plan for Health outlines the need to support implementation of the national model of care and address staffing needs.

Establishment of the virtual integration model, the health financing strategy, and the quality management framework are Ministry of Health priorities.

Climate change will pose a major threat to ecosystems and populations, as a rising sea level, extreme weather events, rising temperatures, and altered precipitation patterns interfere with people's activities and means of subsistence.



ADDITIONAL POINTS

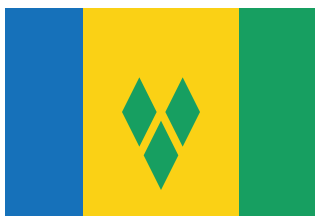
The main components of health system strengthening, implemented under the National Strategic Plan for Health (2006-2011), include universal coverage to improve health equity and service delivery, use of a defined national model of care, adequate standards (clinical governance and physical determinants), integrated service delivery, a road map for accreditation, leadership reforms through the evaluation and redesign of the health governance model, and public policy reforms through the development of appropriate policies and related legislation.

In 2012, through a financial agreement with the European Development Fund, a project designed to support the

implementation of universal health care in Saint Lucia was launched.

Since its implementation in 2013, the project has granted some 250 scholarships in priority areas such as the training of family nurse practitioners, environmental health, diabetes, physiotherapy, midwifery, and mental health.

At the close of the current planning cycle in 2017, the new strategic plan will attempt to complete the unfinished agenda, focusing on gaps and implementing health systems development models designed during the previous implementation period.

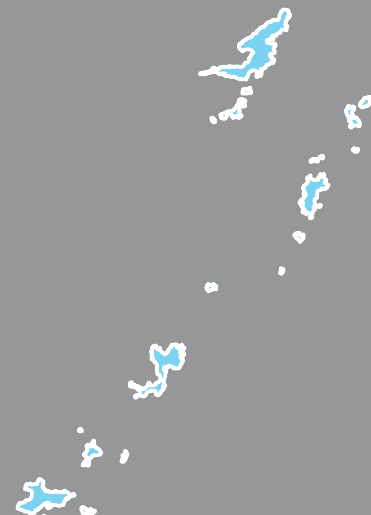


SAINT VINCENT AND THE GRENADINES

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	10,730 (2014)	...
Human development index	...	0.719 (2013)	...
Mean years of schooling	...	8.6 (2014)	...
Improved drinking-water source coverage (%)	88.0	95.0 (2015)	8.0
Improved sanitation coverage (%)	63.0	76.0 (2015)	20.6
Life expectancy at birth (years)	70.1	75.3 (2013)	7.4
Infant mortality (per 1,000 live births)	20.5	15.8 (2014)	-22.9
Maternal mortality (per 100,000 live births)	...	...	...
TB incidence (per 100,000 population)	27.0	4.9 (2013)	-81.9
TB mortality (per 100,000 population)	1.0	2.8 (2013)	180.0
Measles immunization coverage (%)	96.0	100.0 (2015)	4.2
Births attended by trained personnel (%)	...	98.7 (2015)	...



1991 population (thousands)	107.6
2012 population (thousands)	109.9
Change (%)	2.2

Saint Vincent and the Grenadines is a multi-island state in the Eastern Caribbean. The islands have a combined land area of 389 km², and the largest of them, Saint Vincent, has an area of 344 km². The Grenadines consist of 7 islands and 23 uninhabited cays and islets. The country is divided into 6 parishes, including 1 covering all the Grenadine islands.

Between 1990 and 2015, the population decreased by 2.1%. The population pyramid had an expansive structure in 1990 but has since become more regressive, with a population of only 109,991 in 2012, relatively similar to the 1991 figure of 107,598.

A large majority of the population is of African descent (71.2%), followed by people of mixed (23%), indigenous (3%), and East Indian (1.1%) ancestry. Life expectancy at birth in 2015 was 77.1 years among women and 73.1 among men.

Per capita income in 2013 was EC\$ 17,395 (US\$ 1.00 equals EC\$ 2.70). The human development index has held relatively steady, reaching 0.719 in 2013. The economy is that of an upper-middle-income country dependent on agricultural activity and, to a lesser extent, tourism.



SOCIAL DETERMINANTS OF HEALTH

Adult literacy is 70.1%, and primary and secondary education is free.

In 2008, an estimated 30.2% of the population was poor, down from 37.5% in 1996.

Internal and international migration does not have a significant impact on population health, and migrants have access to the local health system.

In 2015, 95% of the population had access to clean drinking water; the water supply is monitored for residual chlorine.

In 2012, 94.3% of households had toilets with a cistern (68.5%) or pit latrines. The Government commissioned the construction of a stabilization lake to receive septic tank effluents for decomposition.

The solid waste management unit and private trash haulers collect garbage from 100% of households, which is disposed of in five Government-operated landfills, two in St. Vincent and three in the Grenadines.

Because of its geographic location, the country is at risk of natural disasters, especially tropical storms and hurricanes. The National Emergency Management Organisation is the agency tasked with responding to this type of disaster. The country is still recovering from Hurricane Tomas in 2010, which left US\$ 50.7 million in damage in its wake.

In 2014, total health expenditure, including both public and private expenditure, represented 5.3% of gross domestic product (GDP).

Access to health services is almost universal, with a minimal service fee at the secondary and tertiary level.

HEALTH SITUATION AND THE HEALTH SYSTEM

No maternal deaths were reported in 2015. Major efforts have been made to eliminate mother-to-child transmission of HIV, syphilis, and hepatitis B.

All births are attended by trained personnel, and over 95% of pregnant women receive antenatal care. Clinical data from 2012 indicate that 78.4% of children aged 0-6 months have been exclusively breastfed.

In 2015, there were 1,867 births, and the total fertility rate was 1.8 children per woman.

Between 2010 and 2013, pregnancy in adolescents accounted for 17.6% to 20.0% of all births.

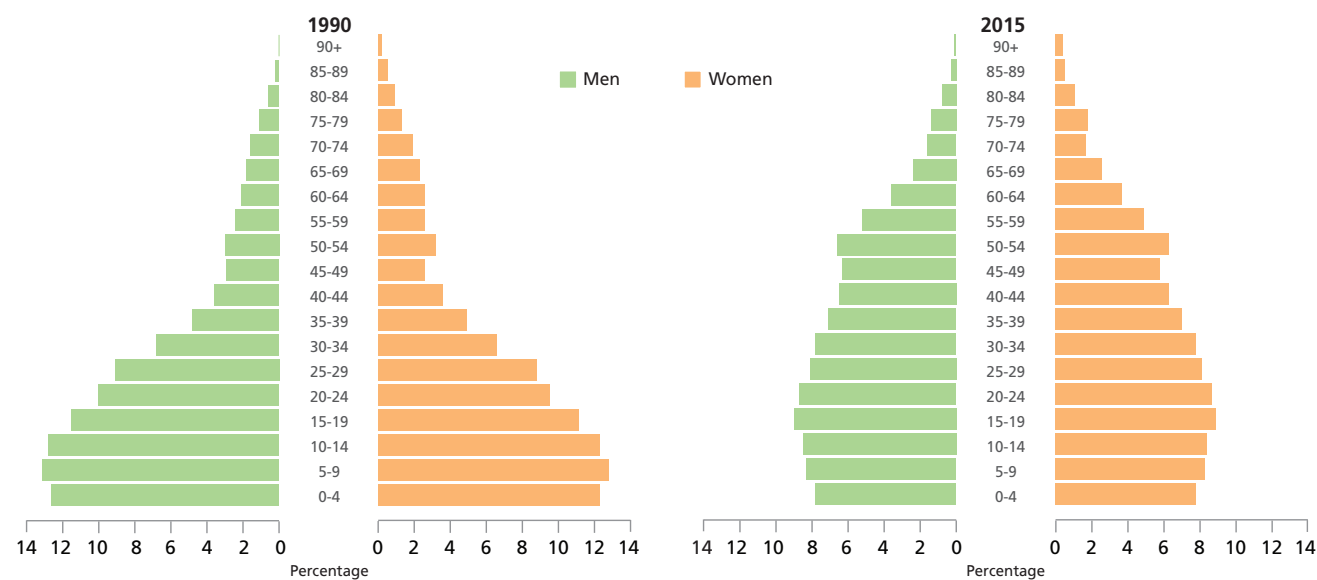
The infant mortality rate was 15.8 per 1,000 live births in 2014. The deaths were attributed to conditions originating in the perinatal period.

Between 2010 and 2014, there were seven deaths among children aged 1-4.

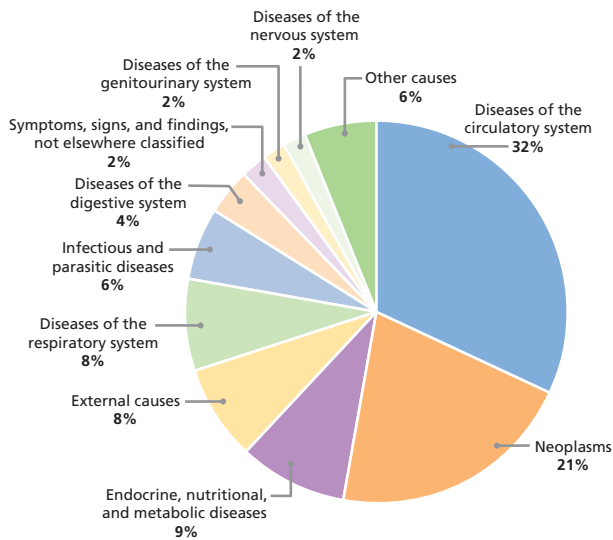
The leading causes of morbidity in children under 5 were acute respiratory infections, skin diseases, and diarrheal diseases. There have been no reported cases of deaths from vaccine-preventable diseases.

In 2015, there were 11 deaths among adolescents, caused mainly by accidents and injuries.

Distribution of the population by age and sex, Saint Vincent and the Grenadines, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2015



Diseases of the circulatory system caused 32% of all deaths in 2015, and neoplasms 21%. Those two groups of diseases were responsible for more than half of all deaths.

In 2014, deaths in the 20-59 age group were due principally to malignant neoplasms and diseases of the circulatory system.

Malignant neoplasms (121-174 per 100,000 population), ischemic heart disease (96-130 per 100,000 population), and communicable diseases (82-101 per 100,000 population) were the three leading causes of death in the period 2009-2013, followed by diabetes mellitus, cerebrovascular disease, and hypertensive disease.

Diabetes mellitus is the main endocrine and metabolic disorder contributing to mortality, with 43-109 deaths per 100,000 population.

The most common causes of unintentional death are motor vehicle accidents and other external causes of accidental injury, such as falls.

A total of 619 cases of dengue were reported in the period 2010-2014, with 95 in 2013 and 11 in 2014. In 2014, chikungunya virus infection reached epidemic levels, with 181 confirmed cases, and then 8 in 2015.

In February 2016, the first case of Zika virus was confirmed; by August of that year, there were already 38 confirmed and 156 presumptive cases.

Leptospirosis persists as a public health problem, with 120 cases and 11 deaths in the period 2010-2014.

HIV prevalence remained low, at less than 1% of the population.

There were 67 reported cases of tuberculosis (TB) in 2011-2015. TB/HIV coinfection continues to be a problem, with 14.9% of TB cases also diagnosed with HIV during that period.

In 2011-2014, the most commonly diagnosed conditions were hypertension, diabetes, and breast, cervical, and prostate cancer.

Access to the health services is almost universal and is free at the primary and secondary level. There are minimal user fees at the more complex levels of care.

Public health services are provided mainly in primary care clinics, rural district hospitals, and the Milton Cato Memorial Hospital for secondary and tertiary care. These facilities are supplemented with private clinics. The only private hospital is the Maryfield Hospital, with 12 beds. As in many other Caribbean countries, some complex health services are provided in neighboring countries.

In 2012-2014, the health workforce in Saint Vincent and the Grenadines numbered 793, including 87 physicians, 341 registered nurses, 46 community health aides, 7 dentists, and 23 pharmacists. Continuing education is required for renewing authorization to practice for some categories of health personnel.

The Mental Health Centre is the only institution that cares for acute and chronic patients with psychiatric disorders, such as schizophrenia, depression, bipolar disorder, and mental retardation. The annual patient load (outpatient and inpatient) ranges from 165 to 179.

Although a national electronic information system is in place, paper-based records are still widely used. Mobile technology and the use of telemedicine services support patient care by specialists.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

The National Insurance Service (NIS) provides social security protection through sickness, maternity, disability, funerary, and survivor's benefits. There is no national health insurance, and discussions are under way to assess its feasibility. Progress has been made on environmental issues, with improved access to clean drinking water and sanitation services. Adequate mechanisms are in place for solid and liquid waste disposal.

In terms of progress in environmental issues, emphasis has been placed on vector control, the Environmental Health Regulations, and climate change.

The prevalence of infections and communicable diseases has declined markedly over the past 10 years.

In 2011, an evaluation noted the absence of human resources for a health plan and the need to prepare one.

How to cope with the aging of the population and the growing needs of older persons, fight drug and substance abuse among youth, and stem the rising violence throughout the country are all matters of concern.

The construction of a system to protect against meteorological disasters needs adequate coordination mechanisms for receiving early warnings and coordinating the response.

In 2016, the country completed the report on the elimination of mother-to-child transmission of syphilis and HIV and is making progress with the verification of data to prepare for the validation process. The country implemented a new policy for the period 2014-2015 aimed at combating HIV/AIDS and sexually transmitted diseases.

The early detection of malignant neoplasms requires adequate coordination of access to medical care in neighboring

territories, as well as timely systems of referral and medical evacuation.

Chronic noncommunicable diseases should be addressed through multisectoral efforts aimed at prevention of risk factors. In addition, primary health care systems should provide sufficient territorial coverage.

In 2012-2015, medicines for the public sector were procured through the Pharmaceutical Procurement Services of the Eastern Caribbean States, at a cost of approximately US\$ 4-5 million annually. Drugs for the private sector were purchased on the open market.

Control of vectors of the chikungunya and Zika viruses requires sustained efforts and integrated management through action involving communities, since these diseases remain serious public health threats.

ADDITIONAL POINTS

Meeting the Sustainable Development Goals is the heart of the Government strategy to fight poverty, adopted in 2003.

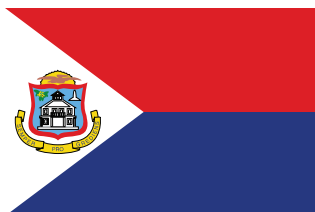
Great strides have been made in aspects related to the social determinants of health and the health system.

Maternal and child health clearly will remain as priorities, and the country will strive to maintain or improve its 95%-plus immunization coverage.

Of particular note are strategies for the referral of patients who require higher levels of care and the purchase of

medicines through pooled regional procurement mechanisms. The creation of different levels in the health system, with special emphasis on local capacity to deliver primary care and implement communicable disease prevention programs, appears to be a real challenge for the country and its Government authorities.

The Government has launched a plan to phase out the use of hydrochlorofluorocarbons as part of the country's obligations under the Montreal Protocol.



SINT MAARTEN

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)
Human development index
Mean years of schooling
Improved drinking-water source coverage (%)
Improved sanitation coverage (%)
Life expectancy at birth (years)	...	78.1 (2015)	...
Infant mortality (per 1,000 live births)	...	16.0 (2013)	...
Maternal mortality (per 100,000 live births)	...	195.7 (2013)	...
TB incidence (per 100,000 population)
TB mortality (per 100,000 population)
Measles immunization coverage (%)	...	98.0 (2015)	...
Births attended by trained personnel (%)	...	100.0 (2015)	...



1992 population (thousands)	32.2
2015 population (thousands)	37.2
Change (%)	15.5

Sint Maarten is situated in the northeastern Caribbean Sea, at the northern end of the Leeward Islands of the Lesser Antilles. It borders to the north with Saint Martin, one of the French municipalities in the Americas. The total area is estimated at 34 km². Sint Maarten became a constituent country of the Kingdom of the Netherlands in 2010.

In 2015, the estimated population was 37,224. All its inhabitants reside in urban areas.

In 1990, the population structure showed an expansive trend, with a population increase in the intermediate ages. That population is now in the older age groups, while the structure remains relatively stationary for groups younger than 30. In 2015, the average life expectancy at birth was 80.6 years for women and 75.8 years for men.

In 2002, 5% of the population was aged 60 or over, compared to 11% in 2012. Tourism and construction are the main drivers of economic activity. More than 90% of food products are imported.



SOCIAL DETERMINANTS OF HEALTH

The economy is projected to grow at less than 1% in 2016 and 2017, according to the International Monetary Fund.

The national budget allocated to education was 18.4% and 19.4% in 2013 and 2014, respectively. An estimated 30% of the population does not have insurance and 10% has private health insurance.

Those 50 to 60 years old represent 22% of the population, with the older segment of that group projected to grow the most.

This demographic shift will be a major contributor to the rise in health care costs and will put added pressure on the limited financial and human resources in the health sector.

In 2009 there were 216 ambulance calls associated with violence (for wounds, cuts, stabbings, and gunshots). This figure fell by almost 50% in 2010, to 110.

The main environmental problems are related to the availability of water and sanitation, water pollution, trash collection, hospital waste management, and landfill management.

Drinking water is obtained from the sea through desalinization plants. Wastewater disposal coverage is scarce, with only a small portion of households in the country connected to the sewerage system.

HEALTH SITUATION AND THE HEALTH SYSTEM

In 2013, one maternal death was recorded, and in 2014, the Sint Maarten Medical Center attended 523 births.

One hundred percent of antenatal care was provided by trained personnel in 2016, and hospital deliveries that year were also at 100%.

Between 2010 and 2013 there were 685 deaths, for an average of 171 per year. Ischemic heart disease was the main cause of death in 2012, followed by diabetes. A significant increase in neoplasms as the cause of death has been observed.

In 2010, a single case of measles was reported.

In May 2013, the pneumococcal vaccine was introduced. In September of that year, the human papillomavirus vaccine (HPV) was introduced for girls aged 9-10.

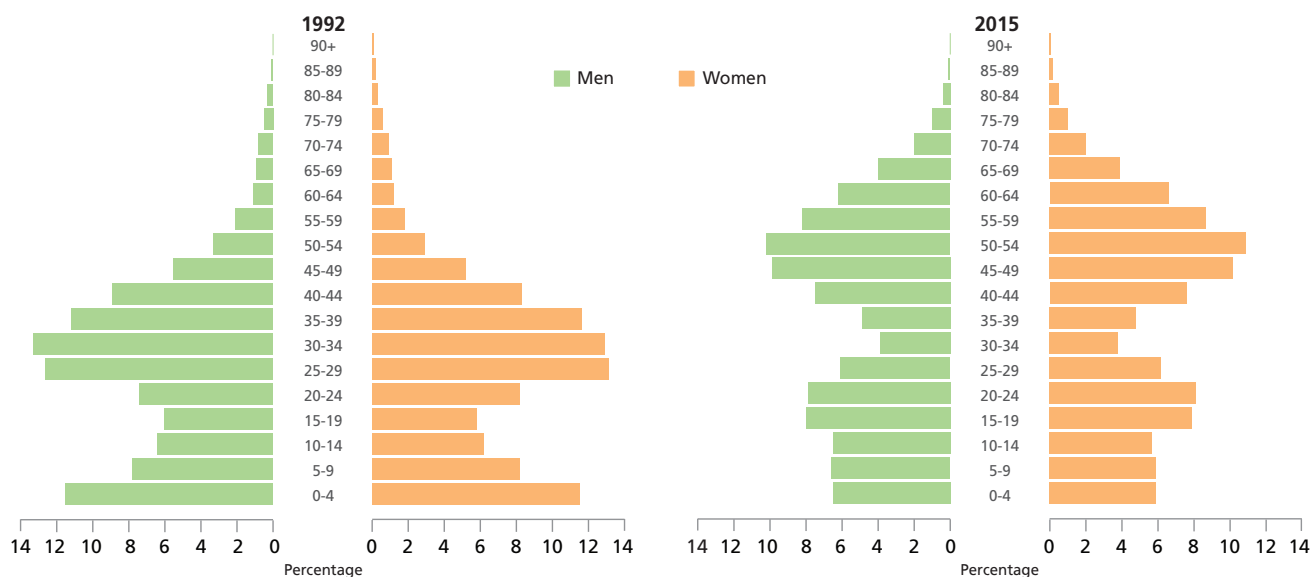
Cases of dengue were reported in 2010. Sint Maarten reported its first confirmed case of chikungunya virus in December 2013, with a total of eight cases that year.

In 2015, 13 cases of dengue were reported. There were no autochthonous cases of malaria in 2010-2013, but two imported cases were recorded.

No cases of cholera were reported in the 2010-2013 period.

Salmonellosis was the leading enteric disease reported, with 11 cases between 2010 and 2013. Two cases of shigellosis were reported.

Distribution of the population by age and sex, Sint Maarten, 1992 and 2015



In 2011, 18 new cases of human immunodeficiency virus (HIV) were recorded, 51.1% in men and 49.9% in women, of which four were diagnosed as AIDS.

The age groups most affected by HIV were 20-24-year-olds and 40-44-year-olds.

In 2013, 83.3% of adults diagnosed with HIV began antiretroviral treatment within 12 months of diagnosis.

In 2009, almost 40% of children (aged 12-18) were overweight and, of those overweight, around 54% were obese.

The Ministry of Public Health, Social Development and Labor (VSA) oversees the health system. The Ministry faces great challenges as it strives to ensure universal access to health services, good governance, and effective leadership.

An estimated 30% of the population is uninsured. Public health expenditure is approximately 2% of the gross domestic product (GDP). In 2014, 6.3% (US\$ 15 million) of the fiscal budget was allocated to the health system.

Primary and secondary care are provided through a combination of private and nonprofit facilities that offer a variety of plans, which means that the system is fragmented.

Two State-funded agencies provide care: the White and Yellow Cross and the Baby Clinic.

The White and Yellow Cross serves the older population, providing care in nursing homes, geriatric care, rehabilitation, and a residence for persons with disabilities.

The Baby Clinic provides maternal and child health services to pregnant women and 90% of the children under 4; private pediatricians cover the remaining 10%. The team includes a general practitioner, three nurses, a dentist, and a receptionist. The Clinic also offers dental care coordinated by an oral health promoter. In its school program, the team includes a general practitioner, two registered nurses, and a dental and oral health promoter.

Other entities that provide primary care services include voluntary health care services and some nongovernmental organizations, such as the Sint Maarten AIDS Foundation, the Diabetes Foundation, and the Positive Foundation (for cancer prevention).

Complex health care services are guaranteed through an agreement between the insurer—mainly Social and Health Insurance (SVZ)—and facilities in Aruba, Colombia, Cuba, Curaçao, the Dominican Republic, the United States, and Venezuela.

The Sint Maarten Medical Center (SMMC) is private and unsubsidized and provides primary and secondary care. It also provides health care support to nearby islands, including Saba,

Saint Eustatius, and Anguilla, serving a total population of approximately 54,000.

In 2014, the Medical Center had 66 beds and 260 employees, including patient care, administrative, and technical staff. It has both outpatient and inpatient departments, in addition to emergency, radiology, and dialysis wards. The inpatient section includes medical, pediatric, and surgical wards; an intensive care unit and delivery room; an operating theater and a recovery room with an on-call system in case of emergency surgery; an admissions department; and a patient care department.

In 2014, there were 12 pharmacies and 12 pharmacists. In 2011, there were 130 physicians, with 26 registered specialties.

Educational efforts are currently under way at the SMMC to license nurses who are already practicing.

Health and statistical information continues to be generated and recorded on paper, which hinders data consolidation and, consequently, hampers effective and timely decision-making.

In order to alleviate this situation, the Government is currently looking into various computer software and hardware in an effort to integrate health information from the many health-related institutions involved.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

Although it is a small country and economy, Sint Maarten has legislation that establishes various social security and insurance systems for different interest groups, including general old-age insurance, widower's and orphan's insurance, accident insurance, illness insurance, and severance pay insurance.

In 2014, the Government launched the National Mental Health Plan 2014-2018.

The Ministry of Public Health, Social Development and Labor subsidizes the Mental Health Foundation (MHF), the only community mental health service provider on the island. Social security covers 80% of the population, providing full coverage for psychotropic drugs.

Civil servants are covered by the General Specialized Illness Insurance Act, which includes health plan coverage, and the Government Health Insurance Fund.

Furthermore, the General Pension Fund provides pensions for the elderly, persons with disabilities, dependent persons, orphans, and civil servants.

The Government finances social programs through the national budget, providing financial assistance to households based on income level.

The challenges are to strengthen the health system, achieve higher levels of organization and coverage, and increase the recording of data and statistics to improve the capacity to monitor the health of the population, with special emphasis on chronic noncommunicable diseases and the social determinants of health.

The evolving demographic and epidemiological profile of the population (marked by progressive population aging and increased chronic diseases) will drive up the cost of health care and put additional pressure on the health sector's limited financial and human resources.



ADDITIONAL POINTS

The State should analyze the current health system and its sustainability, as well as ways to cushion this sector from economic shocks, since national income is closely tied to the external economic situation.

The government finances social programs through the national budget, providing financial assistance to needy families and even covering medical expenditures for nationals and the elderly based on their income.

In meeting this responsibility, Sint Maarten faces significant challenges in terms of the financing and sustainability of its health services. The Ministry of Public Health, Social Development and Labor seeks to guarantee universal access to health services, ensure good governance, and provide effective leadership. It should be noted that 30% of the population is uninsured and that the public health budget is 2% of GDP.



SURINAME

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	17,040 (2014)	...
Human development index	...	0.714 (2013)	...
Mean years of schooling	...	9.0 (2014)	...
Improved drinking-water source coverage (%)	88.0	95.0 (2015)	8.0
Improved sanitation coverage (%)	81.0	79.0 (2015)	-2.5
Life expectancy at birth (years)	67.4	71.4 (2013)	5.9
Infant mortality (per 1,000 live births)	40.8	15.9 (2013)	-61.0
Maternal mortality (per 100,000 live births)	...	139.8 (2013)	...
TB incidence (per 100,000 population)	64.0	5.7 (2013)	-91.1
TB mortality (per 100,000 population)	3.3	2.2 (2013)	-33.3
Measles immunization coverage (%)	65.0	80.0 (2015)	23.1
Births attended by trained personnel (%)	...	...	...



1990 population (thousands)	408.3
2012 population (thousands)	541.6
Change (%)	32.7

The Republic of Suriname lies on the northeastern coast of South America and borders Guyana on the west, French Guiana on the east, and Brazil on the south. The country is divided into 10 administrative districts: the 2 urban districts of Paramaribo (the capital) and Wanica, 6 rural districts in the coastal area, and 2 districts in the interior. The urban districts occupy 0.5% of the country's territory and contain 70% of the population.

In 2012, Suriname had a population of 541,638, 80% of whom lived in the coastal area. In 1990, the population structure was expansive—but it has become stationary in the under-20 age groups, with an aging population. Population growth in the over-60 age group was very pronounced, increasing by nearly 30% over a nine-year period, while the 0-14 age group grew by only 1.6%.

The population of Asian Indian ancestry is the largest ethnic group (27% of the population), followed by the Maroons (22%, of African descent), Creoles (16%), people of Javanese ancestry (14%), mestizos (13%), and Amerindians (4%).

The economy was stable in the period 2008-2012, with average annual growth of 4.1%. The principal drivers of the economy are the gold mining and oil sectors.



SOCIAL DETERMINANTS OF HEALTH

According to the census, the unemployment rate in 2012 was between 10.3% and 12.8%. It was estimated that 6% of the population over 15 had received no schooling, while the illiteracy rate was approximately 6%.

Due to diminishing foreign exchange reserves, the official exchange rate had been devalued by approximately 90% as of mid-2016. The population has had to endure a dizzying increase in the price of virtually all products and services, including gasoline, electricity, and other basic goods.

Approximately 70% of the population has access to running water at home or within 200 meters of home. In some rural districts and in the interior, people depend mainly on rainwater or streams and rivers for their water.

The number of undocumented immigrants is unknown but is estimated to be higher than that of documented immigrants, especially in the case of immigrants from Brazil and Guyana. This population group has no right to social services of any sort, including free medical care.

Social inequalities persist in the urban, rural, and interior regions and peri-urban slums. To address this situation, several major investment projects have been planned, with a view to increasing access to affordable housing and piped water and promoting agriculture and local production.

In 2012, the expansion of illegal small-scale gold mining and the associated use of mercury were declared to be detrimental to the forest and its ecosystems. Diseases resulting from deforestation and alterations in ecosystems (e.g., vector-borne diseases such as leishmaniasis) are on the rise.

The country has a multiyear development plan, though its implementation has been hindered since 2015 by the financial recession.

HEALTH SITUATION AND THE HEALTH SYSTEM

The maternal mortality ratio averaged 125 deaths per 100,000 live births in 2000-2013. This figure was 154 per 100,000 live births in 2010 and 139.8 in 2013. The leading causes were gestational hypertension and hemorrhage.

In 2010, prenatal checkup coverage was 94.9%; 67% of pregnant women had four prenatal checkups; 92.3% of births took place in a health facility; and 94.3% of births were attended by trained health workers. Nearly 48% of women used some form of contraception in that year.

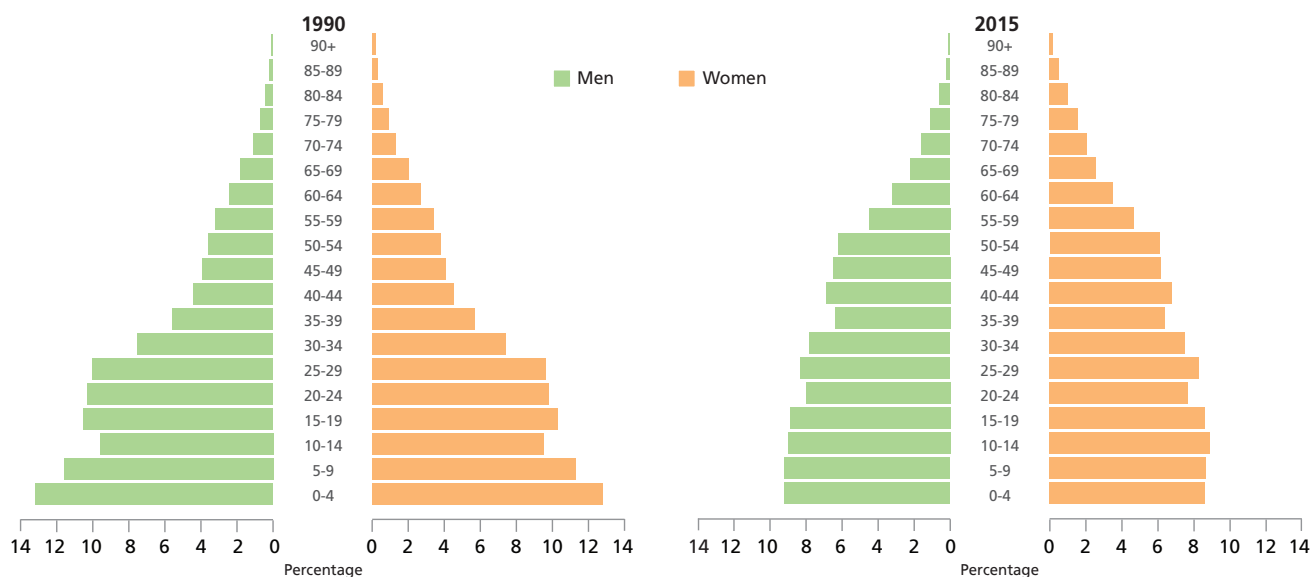
The infant mortality rate in 2013 was 15.9 deaths per 1,000 live births. The most common causes of mortality reported in children under 1 year of age were respiratory problems, fetal growth retardation, congenital diseases, neonatal septicemia, and external causes. There is inadequate reporting of deaths in children under 1; thus, the mortality rate is probably underestimated. The under-5 mortality rate was 18.5 in 2013.

In 2015, vaccination coverage was 89% for DPT3 and 94% for the trivalent vaccine (MMR1).

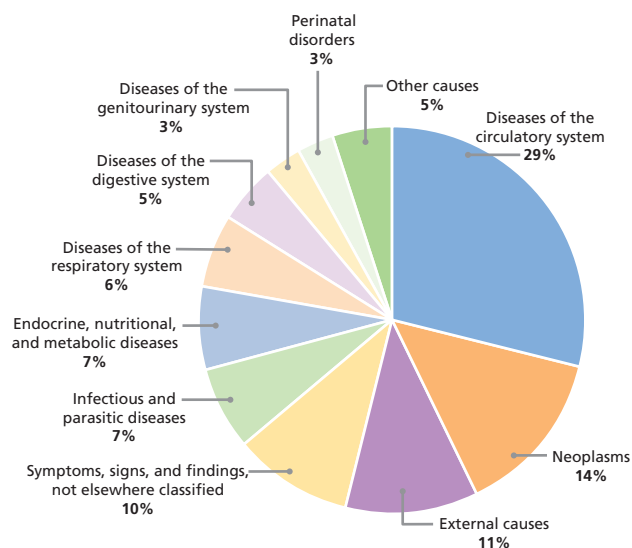
In 2014, the causes of death were distributed as follows: circulatory system diseases (29%), neoplasms (14%), and external causes (11%).

Some 30% of adults aged 55-64 had three or more risk factors for cardiovascular disease versus 23% in the 45-54 age group.

Distribution of the population by age and sex, Suriname, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2014



In adults over 65, the leading specific causes of mortality were cardiovascular disease, neoplasms, and diabetes mellitus. Notably, deaths from diabetes are increasing. The median age at death was 67 in 2013.

Malignant neoplasms have replaced external causes as the second leading cause of death.

The first case of Zika virus was confirmed in late 2015; since then, the disease has spread through the 10 districts, including rural areas and the interior. As of June 2016, 15 cases of Zika-related Guillain-Barré syndrome had been reported. Zika was confirmed in one out of eight newborns with presumed Zika-related microcephaly.

Dengue continues to be endemic, and new chikungunya and Zika epidemics suggest the need for more effective control of the *Aedes aegypti* vector.

The incidence of malaria has declined below elimination levels in all subdistricts except for one in the interior. Nevertheless, the proportion of imported cases (principally among gold miners from French Guiana) increased to over 70% of the total in 2015, *Plasmodium vivax* being the predominant parasite.

The number of diagnosed and treated cases of cutaneous leishmaniasis increased during the period 2004-2012. This phenomenon was influenced by deforestation in the interior related to gold mining and logging.

In 2014, the recorded prevalence of human immunodeficiency virus (HIV) infection in the 15-49 age group was 0.9%. In 2000-2013, the disease remained undiagnosed in some 40% of people with the infection. Mortality from HIV/AIDS was 22.4 deaths per 100,000 population in 2010 and 16.4 in 2013.

The estimated tuberculosis diagnosis rate rose from 58% in 2012 to 71% in 2014; the reporting rate was 28.6 per 100,000 population in 2013.

HIV prevalence in TB patients declined from 34% in 2010 to 29% in 2014, but mortality in TB patients continued to be highly correlated with HIV infection. In 2011, the country began implementing directly observed treatment, resulting in higher treatment success, from 61% in 2010 to 75% in 2013.

Stroke, ischemic heart disease, and diabetes rank high among the diseases responsible for the most disability-adjusted life years.

Suicide rates have increased: in 2012, the rate was 26.7 per 100,000 population, far higher than the world average of 16 per 100,000 population. The male-female suicide ratio averages between 2 and 3 to 1, while the suicide attempt ratio is the reverse (0.7 men to 1 woman).

Malnutrition rates in children under 5 were low (5.8%).

In 2013, 15% of male and 25% of female adolescents were overweight or obese, and 40% drank sugary beverages daily; 11% consumed at least five servings of fruits and vegetables; 62.7% had adequate levels of physical activity; and 10% stated that they were smokers.

In 2013, more than half of adult women and one-quarter of adult men were obese and had experienced an increase in waist circumference (central obesity).

The overall prevalence of smoking was 20% (six times higher among men than women). The prevalence of diabetes and hypertension was 11% in men and 20% in women. Both diseases increased with age and were more frequent in certain ethnic groups (particularly the populations of Asian Indian and Javanese descent).

Overall, 60% of adults met recommended levels of physical activity. The rate of inactivity in women (51.0%) was higher than in men (38.0%).

The country lacks an integrated waste management policy to deal with open dumps, illegal dumps, and refuse accumulating on roadsides and in the country's open waters, posing health and environmental hazards. The country also has no provision for storing or eliminating hazardous waste, and there is no regulation on safe pesticide use and storage.

Migrants legally working in Suriname have the right to public pensions but to no other social welfare benefits.

Total estimated health expenditure as a percentage of gross domestic product was 6% in 2014.

Employees pay up to 50% of the health insurance premium, employers pay the other half, and the Government subsidizes coverage for people unable to pay.

The regional health services consist of 43 primary care facilities in the coastal area.

Misión Médica, a faith-based organization, receives financing from the Government to administer nearly 56 primary care facilities in the districts in the interior.

There are five hospitals, four located in Paramaribo and one in the district of Nickerie, on the western border. The only psychiatric hospital is in Paramaribo. The Bureau of Public Health is responsible for the country's public health programs, including environmental health and sanitation, and for overseeing the operations of a public health laboratory.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

In 2014, the national basic health insurance law was passed, providing access to a basic package of primary, secondary, and tertiary care services for all Suriname residents. In 2013, all people under the age of 16, as well as older persons (aged 60 and over), had the right to free health care paid for by the Government.

The decentralization of health facilities, particularly hospitals, began with the construction of a hospital on the country's eastern border.

Universal access to health care for pregnant women and newborns remains a pending challenge. Persistent deficiencies in access to health care are related to lack of access to insurance systems.

Maternal and child health services must be improved to ensure sustainability. Universal access to high-quality maternal

and neonatal care will remain a priority in the coming years, as will incorporating a greater number of vaccines into the immunization program.

The endemic nature of the four dengue virus serotypes and the outbreaks of chikungunya and Zika virus infection throughout Suriname (rural, coastal, and interior areas) reflect the failure of vector control measures targeting the *Aedes aegypti* mosquito.

Malaria has been virtually eliminated in towns in the interior since 2007. However, there are groups at risk—principally migrant miners coming to extract gold on a small scale, especially from Brazil.

The national suicide prevention plan for 2016-2020 calls for the adoption of a vigorous intersectoral approach to address the factors underlying this public health problem.

The principal threat to the entire health sector is the overall cut in financing. Bills and subsidies are not paid on time, and rates are no longer high enough to keep the services functioning adequately.

Recently, both the Medical Association and Parliament urged the Government to intervene to prevent the health care system from collapsing and endangering the health and life of the country's residents.

Adequate legislation is needed to promote healthy lifestyles in schools and workplaces and to increase the population's access to healthy food and recreational and sports facilities to reduce the prevalence of chronic noncommunicable diseases (NCDs).

ADDITIONAL POINTS

The Government of Suriname's Multi-year Development Plan 2012-2016 states that economic development is the basis for social security, which in turn stimulates economic growth.

The Development Plan underscores the importance of priority policies to provide social protection for the population, particularly for certain high-priority groups such as young people.

The Government has presented a stabilization and recovery plan for the period 2016-2018, one of whose objectives is to protect the population—especially the very poor and other vulnerable groups—from a more severe recession.

In 2014, three important laws relating to social security were passed: the basic health insurance law, the law expanding pension benefits, and the law establishing a minimum wage.

The 2012-2016 action plan for the control of NCDs includes measures to address a number of priorities and emphasizes the importance of an intersectoral approach.

The Development Plan proposes major investment projects to increase affordable housing, improve access to safe drinking water and health services, and promote local livestock production.

A national action plan to protect biodiversity provides a framework for incorporating measures and values related to the conservation of biodiversity, cultural diversity, and natural diversity in national development plans and sectoral plans.

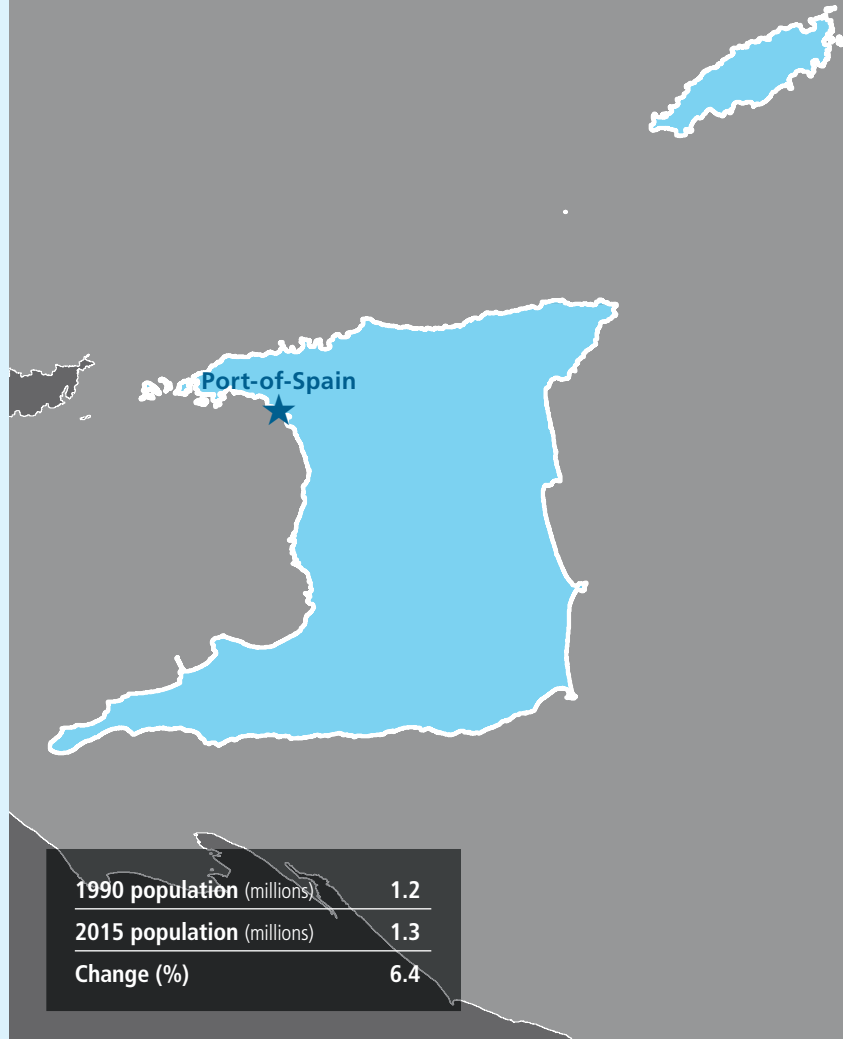


TRINIDAD AND TOBAGO

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	18,600 (2014)	...
Human development index	0.670	0.772 (2013)	15.2
Mean years of schooling	7.9	10.8 (2014)	36.2
Improved drinking-water source coverage (%)	92.0	94.0 (2015)	2.2
Improved sanitation coverage (%)	90.0	94.0 (2015)	4.4
Life expectancy at birth (years)	68.0	71.0 (2013)	4.4
Infant mortality (per 1,000 live births)	26.9	15.0 (2015)	-44.2
Maternal mortality (per 100,000 live births)	...	46.9 (2015)	...
TB incidence (per 100,000 population)	11.0	17.0 (2015)	54.5
TB mortality (per 100,000 population)	2.6	1.1 (2015)	-57.7
Measles immunization coverage (%)	70.0	99.9 (2015)	42.7
Births attended by trained personnel (%)	...	...	...

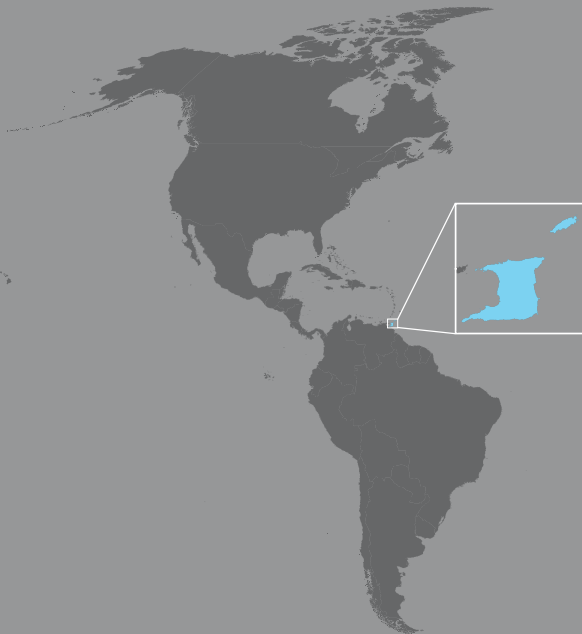


Trinidad and Tobago is a country made up of two main islands (Trinidad and Tobago) and other smaller islands, located in the far south of the Caribbean, near the northern coast of Venezuela.

Between 1990 and 2015, the population grew by 6.4%, reaching 1,328,019 in 2015. Its structure was on an expansive trend in 1990, but by 2015, it had taken on a relatively stationary configuration in the over-50 age groups. In 2013, life expectancy at birth was 71 years.

Between 1990 and 2010, the population aged 60 and over increased by an average of 4.0% annually, compared with the annual reduction of 2.5% seen in the 5-19 age group.

The economy is predominantly industrial and highly dependent on the energy sector, although it has been shifting from oil dependence to an economy based mainly on natural gas.



SOCIAL DETERMINANTS OF HEALTH

The unemployment rate ranged from 3.5% to 5.9% in 2015. Between 2010 and 2015, average youth unemployment was 12.1%, versus 4.4% in the general population.

In 2011, 29.8% of the population had a primary education, 43.5% had completed secondary or postsecondary education, and 14.6% had a university or non-university higher education.

Both improved drinking-water and improved sanitation coverage stood at 94% in 2015. In both cases, there was no major difference in coverage between urban and rural areas.

The country has difficulty ensuring continuous water supply, and the establishment of an indirect water source is still pending.

Trinidad and Tobago is at low risk for hurricanes but is more vulnerable to earthquakes. The country tends to receive the indirect impact of tropical storms in the form of heavy rains, floods, and landslides.

Food security and crops tend to be at risk from the effects of climate change, the scarcity of arable land and farm labor, and the impact of floods, landslides, and droughts.

HEALTH SITUATION AND THE HEALTH SYSTEM

In 2015, the maternal mortality ratio (based on hospital utilization) was 46.9 per 100,000 live births. Some fluctuations in these data may be due to poor record-keeping. The leading maternal risk factors are complications of hypertension, diabetes, and premature delivery.

In 2015, the infant mortality rate was 15.0 per 1,000 live births. The leading causes of death in children under 1 were birth defects, prematurity, and birth asphyxia.

The national immunization scheme is directed to children during the first 5 years of life, and vaccination is mandatory for enrollment in the primary school system, which probably accounts for the high immunization coverage rates (usually over 90%). No cases of vaccine-preventable diseases have been reported since 2006.

In 2010, the three main groups of causes of death were diseases of the circulatory system (32.6%), endocrine disorders (16.3%), and neoplasms (16.1%).

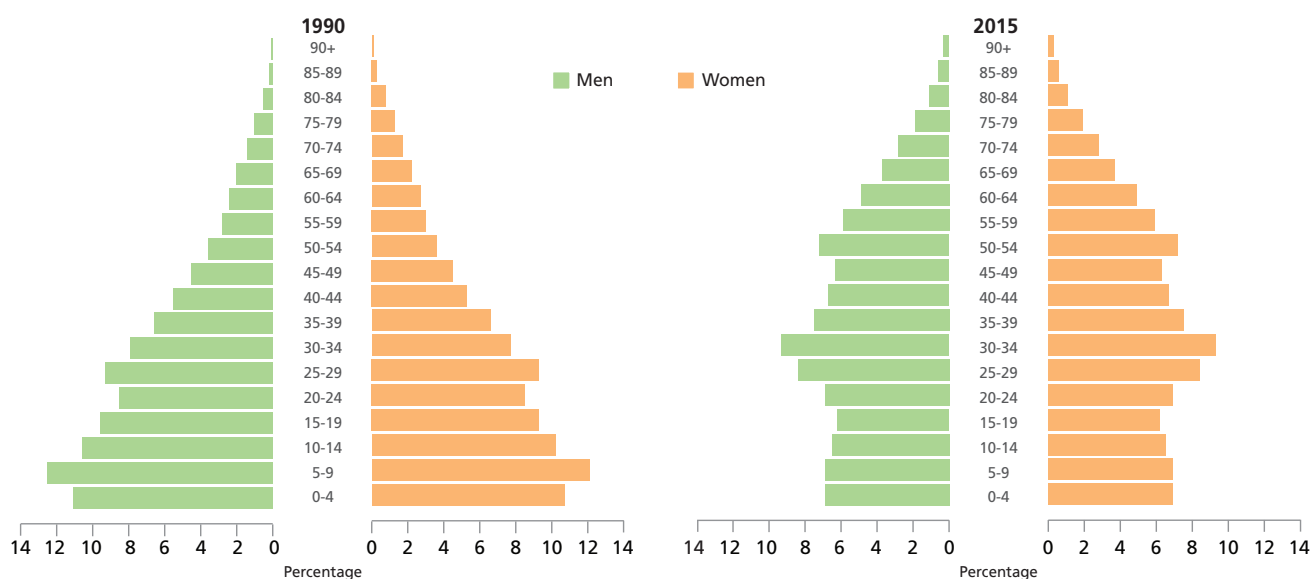
Also in 2010, the five leading specific causes of death were heart disease, diabetes, cerebrovascular disease, homicide, and hypertension.

Large flows of people into the country have facilitated introduction of the chikungunya and Zika viruses, which were initially detected in 2014 and 2016, respectively. By the end of September 2016, 243 cases of chikungunya infection and 498 cases of Zika virus disease, including 294 pregnant women, had been confirmed.

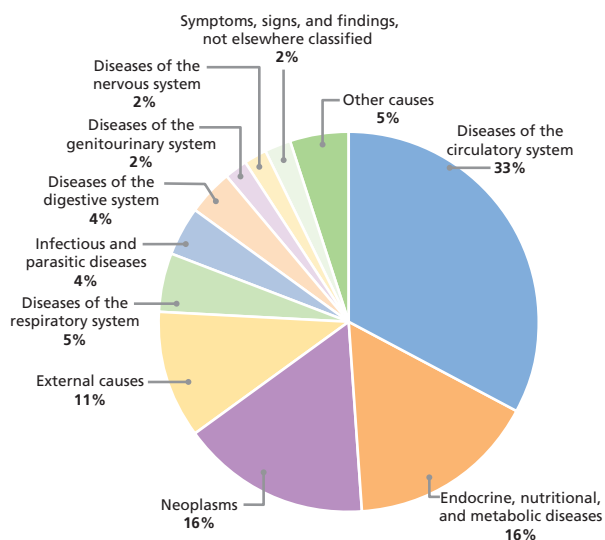
The prevalence of HIV/AIDS remained relatively stable at around 1.5% of the population between 2009 and 2012, rising slightly to 1.6% in 2014. That same year, 1,053 new cases of HIV infection were reported, with women representing 43% of cases. The 15-49 age group accounted for 64% of cases.

In 2015, the incidence of tuberculosis was 17 per 100,000 population, with coinfection in 2.9 per 100,000 population.

Distribution of the population by age and sex, Trinidad and Tobago, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2010



Between 2010 and 2015, chronic noncommunicable diseases caused approximately 53% of hospitalizations.

In 2011, the prevalence of diabetes in the population aged 15-64 was 20.6% (19.8% in men and 21.2% in women). The prevalence of hypertension in this group was 20.8% (25.5% in men and 16.4% in women).

That same year, the prevalence of overweight was 36.9% (40.3% in men and 33.7% in women), while 25.7% of the population (19.4% of men and 31.7% of women) was obese.

During the period 2010-2012, there were 5,909 reported cases of domestic violence. The victims were under the age of 19 in 6.6% of cases, aged 20-29 in 29.2%, and aged 30-39 in 44.2% of cases.

The leading mental health problems are schizophrenia, mood disorders, mental and behavioral disorders, and substance abuse.

In 2010, there were 12.1 deaths from suicide per 100,000 population (4.6 in women and 19.6 in men).

In 2010, the overall prevalence of daily smoking was 18.4% in adolescents. Among smokers, the average age they began smoking was 17 years in men and 19 years in women.

As of 2013, 61.4% of the population did not engage in sufficient physical activity (55.4% of men and 67.2% of women).

The Ministry of Health is the supervisory agency for the health care system. It is also responsible for financing, regulating,

and governing the system, and for establishing the necessary policies and legislation.

The health system includes the public and private sector, the latter of which includes nongovernmental organizations.

The public system predominates and offers all care free of charge. The system is funded by the Government and subscribers.

Health care management and delivery care have been decentralized among five semiautonomous regional health authorities (RHAs), four in Trinidad and one in Tobago.

The Ministry of Health also administers several vertical services and national programs.

The private health sector charges by type of service. Fees are often high and unaffordable for the majority of low-income salaried workers.

The system has a network of 96 health centers, 9 district health facilities, and 9 hospitals. All five health regions have at least one district health facility and one referral hospital. Approximately two-thirds of the health centers are in the western half of the island, which is the most densely populated area.

The country is facing a labor shortage in all health occupations. Given these constraints, the Government is finishing the 10-year Human Resources for Health Strategic Plan (2016-2025) and making efforts to recruit and train more personnel, in cooperation with local universities.

Ministerial action has also been taken to hire foreign health professionals. Since 2011, the country has recruited 446 health professionals, including 109 physicians and 228 nurses from Cuba.

Although computerized systems for health data collection are available, there is still a significant unmet need for broader, more comprehensive, and effective integration and automation.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

The country has improved the social and health situation, in particular achieving high immunization coverage: no cases of vaccine-preventable diseases have been reported since 2006.

Population aging, stemming from the reduction in fertility and mortality, constitutes both an achievement and a foremost challenge. In 2015, 15.8% of the population was over 60 years of age.

Hypertension, diabetes, arthritis, Alzheimer's disease, and heart disease, all of which become more common in old age, are the leading causes of hospitalization among the elderly. The expected growth of this population, which, in turn, is related to a higher prevalence of chronic diseases, will have a

significant impact on care requirements and heighten the need for resources in the health system.

Accordingly, the Government is making efforts to meet the expected demand for health care among older adults. It has taken on the challenge of implementing a special approach for the reduction of chronic noncommunicable diseases and their risk factors over the next 5 to 10 years.

The key objectives for the health system are focused on securing adequate levels of financing for the management of noncommunicable diseases, health service delivery,

infrastructure, human resources, and support for sector expansion.

The 10-year Human Resources for Health Strategic Plan 2016-2025 will have to address current deficiencies in the health care workforce, especially in professional occupations, to provide for future needs and sustainably strengthen human resources.

Primary health care facilities need to be modernized to offer not only access to comprehensive services but to ensure that health care centers have proper health information systems.

ADDITIONAL POINTS

The Ministry of Health has a strategic plan for health (2012-2016) whose objectives include strengthening effective leadership in the health sector. Furthermore, it focuses on essential aspects such as evidence-based policy-making, planning, supervision, and evaluation, as well as necessary cooperation and regulatory mechanisms.

The Ministry of Health has set 12 essential strategic priorities, which include chronic noncommunicable diseases, communicable diseases, maternal and child health, mental health, human resources planning, integration of information and communication technology, and management of the health sector.

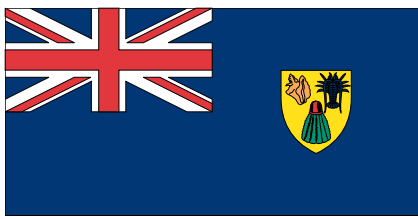
The work of the Ministry of Health is supported by partnerships with regional and international organizations that provide technical assistance, training, and mentoring.

These organizations include the Caribbean Community (CARICOM) Secretariat, the Caribbean Public Health Agency, the Pan American Health Organization/World Health Organization and other agencies of the United Nations system, the World Bank, the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), and the European Union.

In addition, policy-making and guidelines adhere to the various health-related international and subregional conventions and agreements that the Government has entered into.

The Government has outlined a strategy for achieving universal health care; implementation is under way.

Gaps in health care are expected to be bridged significantly as the primary health care system is strengthened.



TURKS AND CAICOS ISLANDS

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)
Human development index
Mean years of schooling
Improved drinking-water source coverage (%)	87.0	87.0 (2015)	0.0
Improved sanitation coverage (%)	81.0	81.0 (2015)	0.0
Life expectancy at birth (years)	...	79.7 (2015)	...
Infant mortality (per 1,000 live births)	...	2.3 (2013)	...
Maternal mortality (per 100,000 live births)
TB incidence (per 100,000 population)	...	2.0 (2013)	...
TB mortality (per 100,000 population)	...	3.5 (2013)	...
Measles immunization coverage (%)	...	95.0 (2015)	...
Births attended by trained personnel (%)	...	98.9 (2015)	...



1990 population (thousands)	11.5
2012 population (thousands)	31.4
Change (%)	172.7

The Turks and Caicos Islands is a British Overseas Territory located southeast of the Bahamas. An archipelago of approximately 40 islands and cays distributed in two groups (Turks Islands and Caicos Islands), it has a combined land area of 417 km².

The total population was 31,458 in 2012. The population pyramid in 1990 was expansive but has since widened in the intermediate age groups, due in part to the immigration of working-age adults.

Life expectancy at birth in 2015 was 76.9 years in men and 82.6 years in women.

The 2012 census showed substantial internal migration, from South Caicos to Grand Turk and from North Caicos to Providenciales, which is home to 75% of the territory's residents; between 2001 and 2012, this island saw an 82% increase in population.



SOCIAL DETERMINANTS OF HEALTH

In 2012, the unemployment rate was 17% (12% among nationals and 20% among foreigners). Nearly 20% of the workforce was employed part-time.

That same year, the poverty rate was 22% for the population and 16% for households. Turks and Caicos nationals had a poverty rate of 18% and made up 34% of the poor population.

Literacy is 98.0%. Primary and secondary education is free and compulsory for children aged 5-16, with both public and private schools available. Higher education is offered through the Turks and Caicos Islands Community College.

Housing conditions in the Turks and Caicos Islands were generally good in 2012, as the vast majority of the population had access to electricity, clean drinking water, and in-home sanitation. An estimated 10% of dwellings had two or more indicators of deficiency.

The islands are highly dependent on food imports, which represent over 90% of the food consumed. Local agriculture accounts for less than 1% of gross domestic product (GDP), due primarily to the scarcity of arable land (2.3% of total land area) and low annual rainfall.

For 2015-2016, the records show 352 cases of domestic violence.

A climate change policy was developed in 2011. National public health surveillance systems have been strengthened, especially for waterborne and foodborne diseases.

In 2012, 82% of households had access to safe drinking water through indoor (piped) plumbing, and 67% collected rainwater in cisterns for personal use. More than 90% of the population used bottled or filtered water for drinking.

Approximately 16% of households used pit latrines or had no toilet facilities in 2012. Domestic wastewater is collected mainly in septic tanks. There were 75 wastewater treatment plants.

Since 2012, personal income has steadily risen, even for undocumented immigrants, who come mainly from Haiti and the Dominican Republic. This affluence is due in part to the demand to fill construction and service jobs. Many undocumented immigrants are not enrolled in the National Health Insurance Plan and could therefore overwhelm the health care delivery system.

HEALTH SITUATION AND THE HEALTH SYSTEM

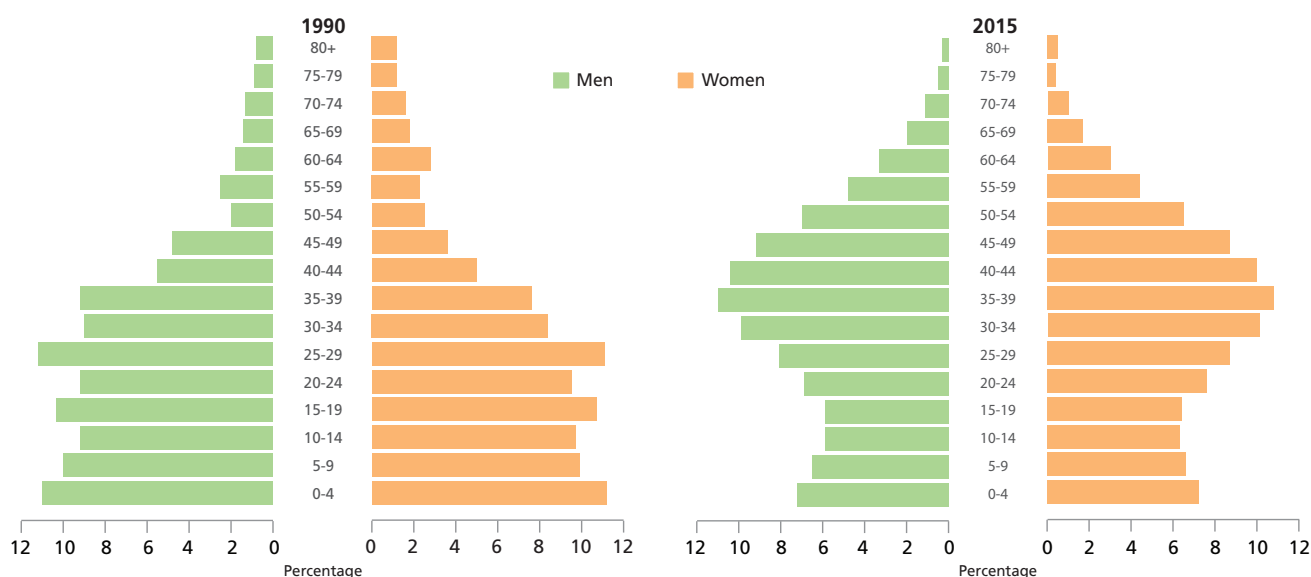
Given the relatively small population, health indicators can show marked variations between consecutive years, and there may even be some years in which no events of public health importance were recorded.

No maternal deaths were recorded between 2011 and 2015, a period that saw one or two neonatal deaths per year. One post-neonatal death occurred in 2014.

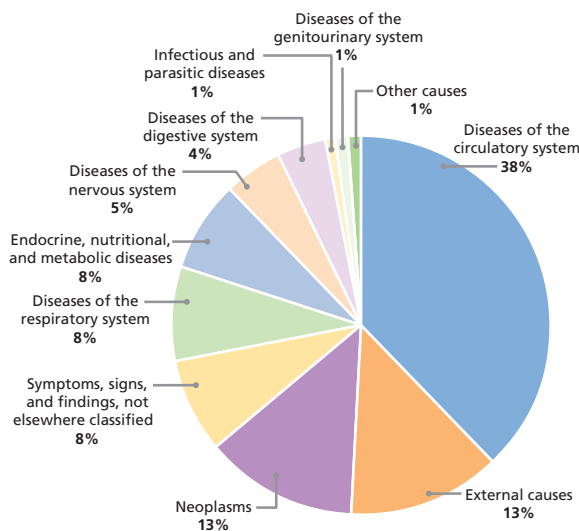
Immunization coverage reached 80% in 2012, with higher levels for the pentavalent (95.3%), oral polio (95.3%), and triple viral (MMR1) vaccines (98.2%).

In 2013 there were 53 deaths in people over 60 years of age, representing 66.1% of all deaths that year.

Distribution of the population by age and sex, Turks and Caicos Islands, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2014



In 2014, 78 deaths were recorded (26 in women and 52 in men). The leading causes of death were circulatory system diseases (38%), external causes (13.0%), and neoplasms (13%).

There were 9,354 recorded visits to public health clinics in 2015, 61.0% of which were by women. Among women who received prenatal care, Haitian nationals accounted for the largest share (38.3%), followed by Turks and Caicos Islands nationals (28.0%).

In the period 2010-2016, vector-borne diseases that posed new and emerging threats included dengue, chikungunya virus, and Zika virus. Integrated vector management practices and other public health measures have been adopted to mitigate and respond to these threats.

During that same period, dengue became endemic, with spikes in cases after the rains. Chikungunya virus was first detected in June 2014 in travelers, with subsequent local transmission; as of September 2016, a total of 26 cases had been confirmed.

Zika virus infection was first detected in June 2016 in travelers, with subsequent local transmission. As of September 2016, eight cases had been confirmed.

In the period 2009-2014, 119 people tested positive for human immunodeficiency virus (HIV), 58.8% of whom were men and 41.2% women. Four pregnant women tested positive for HIV in 2015.

Chronic noncommunicable diseases (NCDs) contribute substantially to morbidity, mortality, and the cost of medical care in the Turks and Caicos Islands.

Three categories of noncommunicable diseases accounted for most NCD-related deaths in 2013: circulatory system disorders, such as heart disease, cerebrovascular disease, and hypertensive disease (40%); malignant neoplasms (20%); and endocrine disorders, such as diabetes mellitus (11%).

The Tobacco Control Ordinance was enacted in 2015 to protect the population and visitors from the harmful effects of smoking.

The Domestic Violence Ordinance of 2014 provides greater protection for victims of domestic violence.

The health system has public and private service providers. Universal coverage has been achieved through the implementation of the National Health Insurance Plan (NHIP) in 2010. This is a social insurance program that provides universal coverage of basic health care for all residents free of charge at the point of care.

Primary health care is delivered through Government-run public health clinics across the islands, as well as by private clinics staffed with primary care physicians. The Ministry of Health and Human Services operates eight primary health care clinics: one in Grand Turk, two in Providenciales, two in North Caicos, and one each in South Caicos, Middle Caicos, and Salt Cay. There are six private primary care clinics, all located in Providenciales.

In 2008, the Government contracted Inter-Health Canada Ltd. to manage Turks and Caicos Islands Hospital for 25 years.

Many patients continue to use Turks and Caicos Islands Hospital, instead of the primary care system, as the first point of care.

The Vision 2020 health sector plan includes a primary health care renewal strategy aimed at reducing the use of expensive hospital services and increasing access to primary care.

The density of health care professionals was 18.7 physicians, 57.1 nurses, and 1.8 dentists per 10,000 population in 2015.

A total of 3,514 hospital admissions were recorded in 2013-2014 (18.2% in Grand Turk and 81.8% in Providenciales). Women accounted for 64.0% of hospitalizations.

In 2013, 35 people were receiving kidney dialysis at the two centers in Grand Turk and Providenciales.

Most medicines in the Turks and Caicos Islands are subsidized by the Government through the insurance system and dispensed through private pharmacies. A National Pharmaceutical Policy was developed in 2016 to ensure equitable access to efficacious quality medicines and medical products and their rational use at an affordable cost.

The health insurance system includes a program for treatment abroad that covers the cost of medical care that cannot be provided within the territory, including travel and subsistence expenses.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

In 2015, the Ministry of Health and Human Services adopted six strategic orientations to address gaps and challenges in the period 2016-2020, namely: strengthen human resources for health; deliver services based on the principles of primary health care; strengthen capacity to respond to identified priority diseases/conditions and programs; provide high-quality services; ensure financial affordability; and strengthen intersectoral coordination.

A national plan of action for the prevention and control of noncommunicable diseases and health promotion in the Turks and Caicos Islands has been developed for the period 2016-2020. The plan's guiding framework includes the following approaches: human rights, equity, leadership, and stewardship of the health sector; multisectoral action; and the empowerment of people and communities.

In 2013, a review of local capacity to comply with the International Health Regulations was conducted. Based on this analysis, an action plan was developed to address deficiencies in four areas: legislation, diagnostic laboratory capacity, port health, and surveillance and capacity to respond to chemical and radiological incidents.

In 2016, in collaboration with the Caribbean Public Health Agency (CARPHA), the Turks and Caicos Islands launched the Tourism Health and Safety Initiative. It includes a multisector program to ensure the health and safety of tourists, recognizing the tourist sector's importance to the economy.

The program is also a part of an ongoing initiative to improve public health surveillance.



ADDITIONAL POINTS

The three priority challenges facing the territory in the coming years are the health of migrant populations; health service access barriers; and intersectoral work, especially in relation to chronic noncommunicable diseases.

Notable among the initiatives to address these challenges are the National Health Insurance Plan; the promotion of universal access and universal health coverage, including for migrant populations; and the strengthening of human resources for health, aimed at bolstering the health care workforce and ensuring that the population has access to adequate care at the appropriate level, with emphasis on primary care.

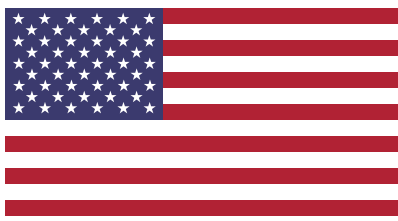
Recent achievements in health legislation in the Turks and Caicos Islands include the restructuring of the Ministry of Health and Human Services in 2015, in which the Department

of Agriculture portfolio was added to underscore the impact of this sector on health.

The Vision 2020 health sector plan includes a primary health care renewal strategy aimed at reducing the use of expensive hospital services and increasing access to primary care.

The Mental Health Ordinance of 2016 promotes compliance with international human rights law relevant to the field of mental health. The Tobacco Control Ordinance was enacted in 2015.

The purpose of the Health Regulation Ordinance, issued in 2016, is to enforce regulations pertaining to the health sector and ensure compliance with standard operating procedures for health care facilities and quality of care.

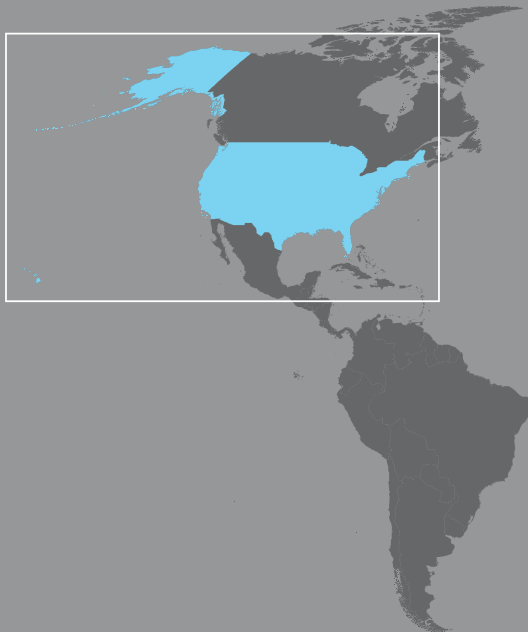
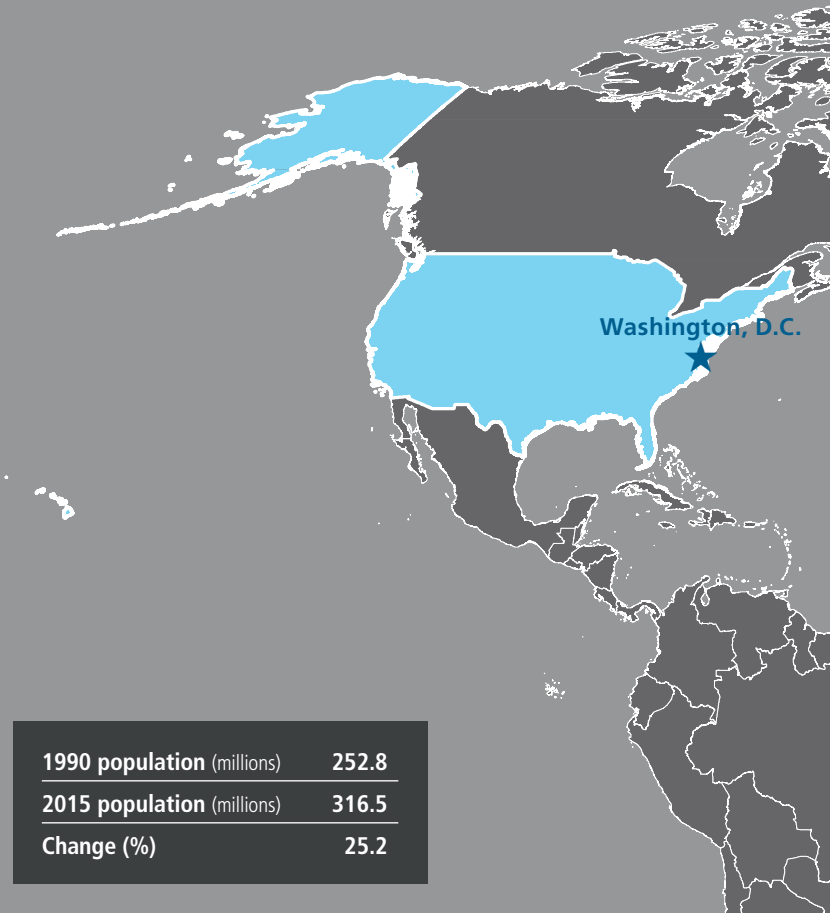


UNITED STATES

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	56,116 (2014)	...
Human development index	0.860	0.915 (2013)	6.4
Mean years of schooling	12.3	13.6 (2014)	10.6
Improved drinking-water source coverage (%)	98.0	99.0 (2015)	1.0
Improved sanitation coverage (%)	100.0	100.0 (2015)	0.0
Life expectancy at birth (years)	75.2	78.8 (2014)	4.8
Infant mortality (per 1,000 live births)	9.4	6.0 (2013)	-36.2
Maternal mortality (per 100,000 live births)	...	23.8 (2014)	...
TB incidence (per 100,000 population)	12.0	2.8 (2013)	-76.7
TB mortality (per 100,000 population)	0.7	0.2 (2013)	-71.4
Measles immunization coverage (%)	90.0	92.0 (2015)	2.2
Births attended by trained personnel (%)	...	98.5 (2015)	...



The country is comprised of 50 states and several politically designated territories and commonwealths, of which Puerto Rico, the U.S. Virgin Islands, Guam, and American Samoa are just a few.

Between 2010 and 2015, the U.S. population grew by 4.1%, from 303,956,272 to 316,515,021, making it the third most populous country in the world.

The population has become more socially and ethnically diverse. Between 2010 and 2015, the foreign-born share of the population increased to 13.2%.

Life expectancy at birth was 78.8 years in 2014 (81.2 in women and 76.4 in men).

The U.S. economy is the largest in the world, with a gross domestic product (GDP) of over US\$ 18 trillion and per capita income of US\$ 56,116.

SOCIAL DETERMINANTS OF HEALTH

In 2010-2014, of the 3,142 counties in the United States, 1,301 (41%) were considered to be high-inequality, high-poverty ones, compared to only 29% in 1989; 379 (12%) were considered to be high-poverty, low-inequality ones.

In 2015, 11.1% of households were living in poverty. Nearly 22% of the total U.S. population under 18 years lived in poverty. Over 9% of persons over 65 years of age were in poverty.

Income inequality has worsened. In 2014, the Gini coefficient reached its highest level since 1969. Along with the high rates of poverty and income inequality, food and housing insecurity are key social determinants that have an impact on health disparities.

Food security was highest in persons with 4 years or more of college education (89.0%), lower in persons with a high school degree or less than 4 years of college (75.7%), and lowest in those without any high school education (59.9%).

Mining and drilling operations often pose serious localized threats to contamination of underground and above ground water supplies, as has been witnessed in many areas of rural Appalachia.

Between 2005 and 2015, the United States was hit by extreme or exceptional droughts. In 2012, the country experienced its most extensive drought since the 1930s, affecting more than half the nation, at a cost of US\$ 31 billion. Droughts directly affect water quality and access, and threaten air quality by increasing the risk of fires and dust storms.

HEALTH SITUATION AND THE HEALTH SYSTEM

In addition, the maternal mortality rate increased by 26.6% in 48 states and in Washington, D.C., rising from 18.8 per 100,000 live births in 2000 to 23.8 in 2014; these rates are higher than previously reported.

The leading causes of pregnancy-related deaths in 2011 were cardiovascular disease (15.1%), non-cardiovascular diseases (14.1%), sepsis (14.0%), and hemorrhage (11.3%).

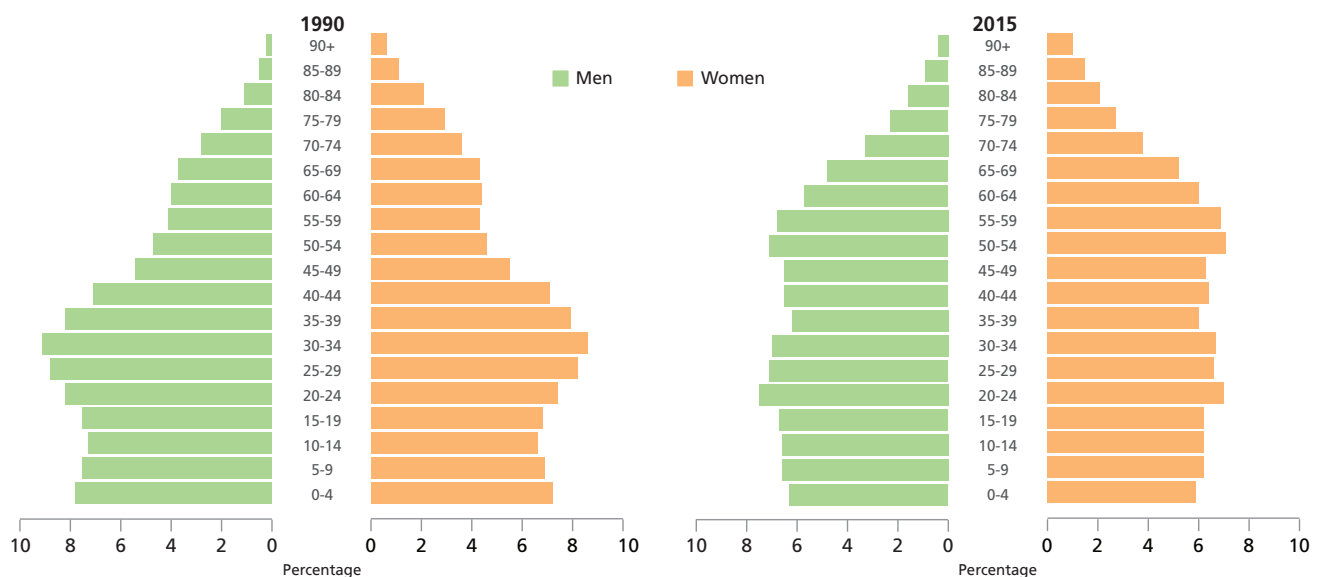
From 2010 to 2014, both infant and neonatal mortality rates declined by 13%, from 6.9 to 6.0 deaths per 1,000 live births for the first year of life, and from 4.6 to 4.0 deaths per 1,000 live births for the first 28 days.

Immunization coverage for children aged 19-35 months remains above 90% for some vaccines, such as those against polio, measles, mumps, rubella, hepatitis B, and chickenpox. However, coverage is lower for certain others, including those against pneumococcal diseases (PCV) (83%), *Haemophilus influenzae* type b (Hib) (82%), and diphtheria, tetanus, and whooping cough (84.2%).

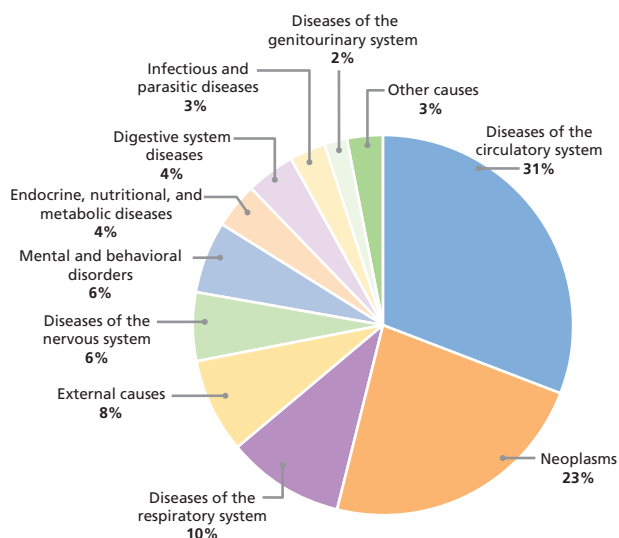
In 2014, circulatory system diseases were responsible for 31% of all deaths, and neoplasms, for 23%. These two groups together accounted for more than half of all deaths in the country.

Diseases of the heart remained the leading cause of death in 2014, but their percentage of total deaths decreased from 38.2% to 23.4% from 1980 to 2014. Cancer's percentage

Distribution of the population by age and sex, United States, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2014



increased slightly from 20.9% to 22.5% from 1980 to 2014, and remained the second leading cause of death.

Since the arrival of Zika virus in the United States in 2015 through March 2017, 5,158 symptomatic cases of Zika infection have been recorded on the U.S. mainland and 38,212 cases in U.S. territories (97% of them in Puerto Rico).

There were 164 confirmed cases of chikungunya in 2016, down from the 896 cases reported in 2015. Reported dengue cases rose 11%, from 690 in 2010 to 764 in 2016.

Both chikungunya and dengue cases are due to travel-related exposure. However, the mosquitoes that transmit these two viruses are found in many regions in the country. In 2016, 1,938 cases of West Nile disease were reported.

Malaria was eliminated from the country many decades ago, and the majority of reported cases are due to travel-related exposure.

There were 40,234 people diagnosed with human immunodeficiency virus (HIV) infection in 2014. Although mortality from this cause has declined, HIV diagnoses increased by 10.6% between 2010 and 2016. In 2015, 9,557 cases of tuberculosis were reported, representing a 14.5% reduction since 2010. Cases of hepatitis C rose substantially, by nearly 160%, from 850 to 2,207 cases.

In 2014, approximately 117 million adults (about half of all adults in the country) had one or more chronic health condition. In 2014, an estimated 9.8 million adults (4.1%) had a serious mental illness (5.0% of women and 3.1% of men).

Post-traumatic stress disorder (PTSD) has recently become a major health concern in the country, driven by exposure to violent personal assaults or gun violence, natural or man-made disasters, accidents, military combat, and other traumatic events. The lifetime prevalence of PTSD in the U.S. population is 6.8%.

In 2014, around 4.9% of adolescents aged 12-17 had smoked cigarettes, and 9.4% had used illicit drugs in the preceding month. More than 6% of adolescents reported binge drinking in the preceding month.

Mortality from drug poisoning has skyrocketed, increasing by 137.1% between 2000 and 2014, from 6.2 to 14.7 deaths per 100,000 population.

The U.S. Centers for Disease Control and Prevention (CDC) reported 36,132 gun-related deaths in 2015, with an age-adjusted death rate of 11.1 per 100,000 population.

The country's health system is vast and complex, with one of the largest and most complicated health care delivery structures in the world. It is financed through publicly funded programs such as Medicare, Medicaid, the Indian Health Service, and the Military Health System, and through private individual and employer-based insurance coverage.

Private employer-based insurance accounts for the largest share of health insurance coverage in the United States. Unlike most countries, the United States does not have a comprehensive health insurance plan, but instead has a patchwork of private insurance plans along with public mechanisms administered by the federal and state governments.

Medicare is a federal health insurance program for people aged 65 and over, as well as some younger people with disabilities and a few other specific groups.

Medicaid is a means-tested health insurance program administered by the states based on federal requirements, and funded jointly with state and federal taxes.

The Patient Protection and Affordable Care Act (ACA), enacted in 2010, seeks to contain rising health care costs and expand insurance coverage to the uninsured. After its implementation, the share of the population without health insurance fell from 18.2% in 2010 to 10.5% in 2015.

In 2015, health care expenditure as a share of GDP reached 17.8%, or almost US\$ 10,000 per person. Of total health expenditure, Medicare represented 20%, Medicaid 17%, and private insurance 33%, while 11% was out-of-pocket expenditures by patients. Hospital care accounted for 32% of health care expenditure.

The health sector employs more than 12.5 million people, about 9.0% of the workforce. In 2013 there were slightly more than 1 million physicians in the country, 82% of whom were actively practicing; 74% are graduates of U.S.

medical schools and 26% were trained abroad. Of practicing physicians, 74.2% provide mainly outpatient care and 25.8% concentrate on hospital care. There were 60.5 dentists per 100,000 population in 2013. The number of registered nurses increased from 2,655,020 in 2010 to 2,687,310 in 2014 (or 1.2%), and the number of nurse practitioners soared by 15.4%, from 105,780 in 2012 to 122,050 in 2014.

In 2013 there were 5,686 hospitals in the country, 96.3% of them nonfederal. Of the 4,974 community hospitals, 58.4% are nonprofit and 21.3% are run by the state or locality. More than 21% are for-profit (1,060 community hospitals). There were 914,513 beds for inpatient care in 2014.

In 2015, almost 78% of office-based physicians had an electronic health records system. From 2007 to 2011, the percentage of hospital-based emergency services with an electronic records system that met the criteria for a basic system rose from 18.5% to 53.6%.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

Recent health system reforms, notably the expansion of Medicaid coverage and the protection of people with preexisting conditions, have helped improve key aspects of health insurance and health care.

Many health programs have contributed to the improvement of maternal and child health, the reduction of communicable (especially vaccine-preventable) diseases and chronic diseases, and increased food security and better nutrition.

Unresolved issues include the rising cost of insurance premiums and the attrition of private insurance providers from the market in many states. The continuing growth of health expenditure poses a major challenge that needs to be addressed in a future health agenda.

It is important for the country to continue to develop initiatives and innovative local services to address the highly diverse social and health needs of rural areas and specific population groups.

ADDITIONAL POINTS

The prevalence of overweight or obesity in the population increased from 40.5% in 1960 to 66.1% in 2010.

It is estimated that more than a third of adults in the United States are prediabetic, which can increase the risk of type 2 diabetes, heart disease, and stroke. By 2050, as many as one in three adults could have diabetes.

In 2014, the overall age-adjusted mortality rate in the United States was 724.6 deaths per 100,000 population, a historic low. However, the death rate has declined more slowly in rural areas than in urban areas, meaning that the gap between them has widened (830.5 versus 704.3 deaths per 100,000 population, respectively).

Among the five leading causes of death, accidental injuries showed the widest rural-urban gap: age-adjusted rates of accidental injuries were 50% higher in rural areas than in urban areas.

The death rate from drug overdoses rose faster in females (177% increase) than in males (120%) between 2000 and 2014. Mortality from drug poisoning, opioid painkillers included, rose 293%; most alarming was the 386% increase in deaths involving heroin.

The U.S. population is aging and at the same time is becoming more racially and ethnically diverse. This will place different demands and pressures on social support and health systems, especially at a time of already tight state and federal budgets.

In light of the increases in certain health problems, such as emerging diseases, excess mortality in certain population groups, and health gaps between the urban and rural populations, political and social will is required to build a stronger, more integrated health care system, from primary care all the way through specialized health services.



URUGUAY

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	20,220 (2014)	...
Human development index	0.692	0.793 (2013)	14.5
Mean years of schooling	7.2	8.6 (2014)	19.2
Improved drinking-water source coverage (%)	95.0	100.0 (2015)	5.3
Improved sanitation coverage (%)	92.0	96.0 (2015)	4.3
Life expectancy at birth (years)	72.6	77.5 (2015)	6.8
Infant mortality (per 1,000 live births)	20.3	7.5 (2015)	-63.1
Maternal mortality (per 100,000 live births)	...	18.6 (2014)	...
TB incidence (per 100,000 population)	31.0	8.6 (2013)	-72.3
TB mortality (per 100,000 population)	2.7	1.2 (2013)	-55.6
Measles immunization coverage (%)	97.0	99.7 (2015)	2.8
Births attended by trained personnel (%)	...	99.7 (2015)	...



The Oriental Republic of Uruguay is located east of Argentina and south of Brazil and has a land area of 176,215 km². Uruguay is a unitary state and is territorially divided into 19 departments.

Between 1990 and 2015, the population increased by 10.7%, reaching 3.4 million in 2015 and 2016. In 2016, 95.3% of the population resided in urban areas and was concentrated in greater metropolitan Montevideo.

The population pyramid was expansive in 1990 but became regressive by 2015. The proportion of the population over 65 was 14.1% in the 2011 Census.

Afro-descendants are the principal ethnic-racial minority in the country (8.1%), followed by those who claim indigenous ancestry (5.1%).

In 2011-2015, life expectancy at birth was 80.2 years in women and 73.2 in men.



SOCIAL DETERMINANTS OF HEALTH

The Gini coefficient was 0.453 in 2014. In urban areas, poverty, as measured by income, declined from 39.9% in 2004 to 9.7% in 2014, while extreme poverty fell from 4.7% to 0.3% in the same period.

In 2014, female unemployment continued to be higher than male unemployment (8.4% versus 5.1%). Women earned 20% less than men with equal schooling. High rates of informality persist, particularly in the youngest and poorest segments of the population.

Literacy among young people aged 15-24 reached 98.4% in 2015 (99.0 in women and 98.0 in men). In 2014, 78.5% of adolescents in the country attended secondary school.

Along with economic growth and declining unemployment, there are signs of increased immigration and an uptick in the flow of returning Uruguayan emigrants.

Between 2005 and 2013, the State education budget rose from 3.2% to 4.8% of the gross domestic product (GDP), making it possible to expand early childhood education.

The principal environmental disasters are seasonal river flooding, droughts, forest fires, and, recently, tornadoes.

The strategic measures to improve air quality include the monitoring of baseline air quality, continuous monitoring of pollution sources, and promotion of renewable energy sources, as stipulated in the National Energy Policy 2005-2030.

HEALTH SITUATION AND THE HEALTH SYSTEM

In 2014, the maternal mortality ratio was 18.6 deaths per 100,000 live births. That same year, vertical transmission of HIV/AIDS represented 1.6% of reported cases, less than the regional elimination goal (< 2%).

The prevalence of contraceptive use in the period 2011-2014 was 77%.

In 2015, hospital delivery coverage reached 97.0%.

In 2014, premature births represented 9% of total births, and 1% of all newborns had low birthweight (less than 1,500 g).

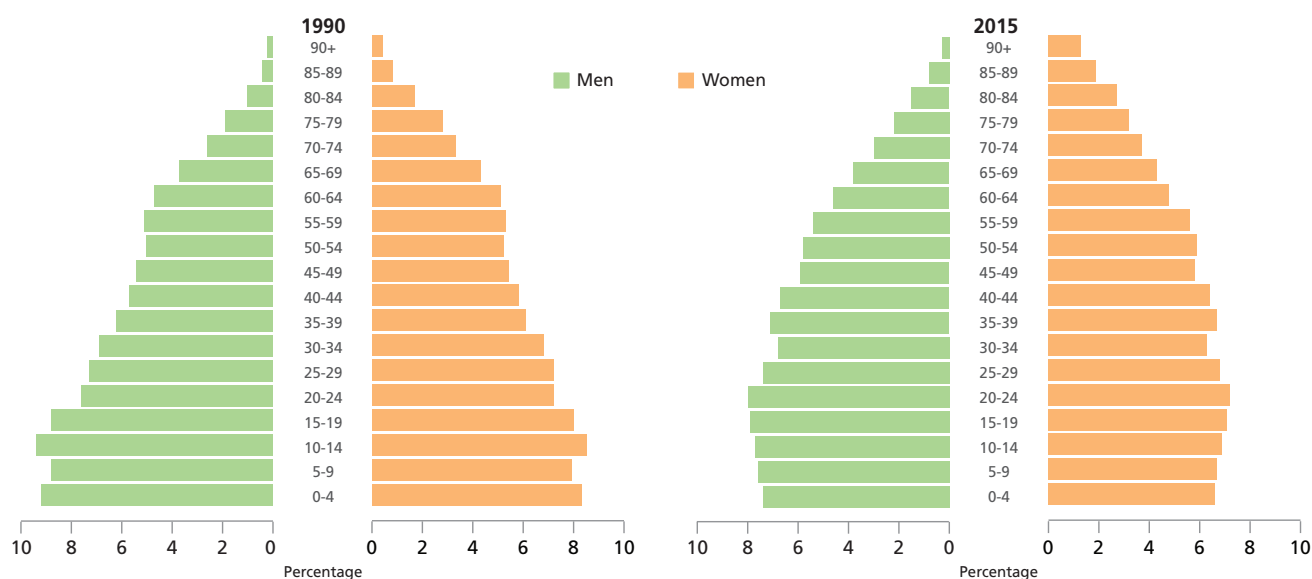
In 2015, the infant mortality rate was 7.5 per 1,000 live births, while neonatal mortality was 5 per 1,000 live births. Thus, the goal of reducing infant mortality by two-thirds by 2015, as proposed in the Millennium Development Goals (MDGs), has been met. The leading causes are conditions originating in the perinatal period linked to prematurity (52.1%) and congenital malformations (28.7%). Some 60% of neonatal deaths occurred in the early neonatal period.

Mortality in children under 5 was 23.4 per 1,000 live births in 1990, decreasing to 8.7 in 2015.

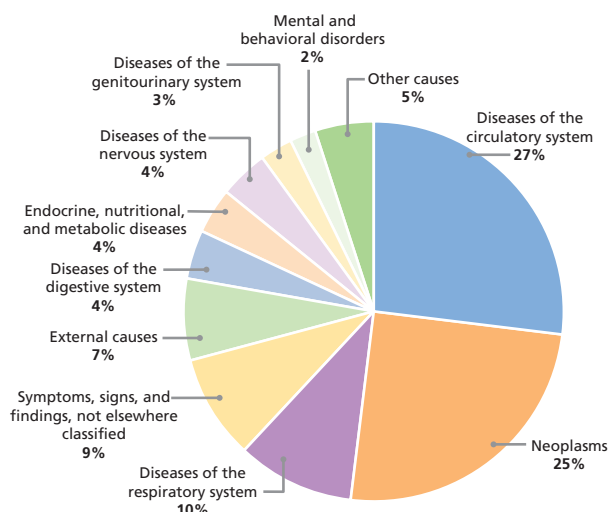
The current immunization schedule in Uruguay includes 13 vaccines for the prevention of 15 diseases. Immunization is universal, free, and compulsory, with close to 96% coverage.

The total death rate in 2014 was 9.5 per 1,000 population. Mortality from diseases of the circulatory system shows a sustained decline, as does mortality from ischemic heart disease, which fell from 75.2 deaths per 100,000 population

Distribution of the population by age and sex, Uruguay, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2014



in 2010 to 66.0 in 2014. Furthermore, mortality from cerebrovascular disease declined from 83.60 per 100,000 to 71.41 in the same period.

There is no underreporting of deaths; ill-defined or unknown causes represented 8.8% of deaths in 2014.

There are no reported cases of measles and rubella. In 2014, a single tetanus case was reported; diphtheria has been absent since 1975.

There were 213 reported cases of whooping cough in 2014, for a rate of 6.2 per 100,000 population.

Hantavirus and leptospirosis were endemic in 2014, with an incidence of 0.6 and 4.9 cases per 100,000 population, respectively.

The last reported case of human rabies was in 1966 and of canine rabies, in 1983.

Three cases of brucellosis were reported in 2014, with an incidence of 0.1 per 100,000 population. Cystic echinococcosis is endemic in rural areas but is subject to a very high level of control.

Leprosy was successfully eliminated in 2002 at both the national and subnational levels. In 2015, the prevalence was five cases.

Suicide is a significant problem in adolescents, 10.1% of whom reported having attempted suicide at least once in the past 12 months.

In 2015, the prevalence of risk factors in the adult urban population (aged 25-64) was 64.9% for overweight or obesity, 36.6% for hypertension, and 21.5% for elevated cholesterol.

In 2011, 17% of the population reported suffering from at least one disability, which was mild in 70.5% of cases, moderate in 25%, and severe in 4.5%.

In 2014, motor vehicle accidents were the leading cause of death among young people aged 15-24 (20.17 deaths per 100,000), with a significant difference between the sexes (33.21 in men versus 6.65 in women).

There were 601 suicides in 2014. The suicide rate was 26.0 per 100,000 in men and 6.8 in women.

The prevalence of diabetes in the population aged 25-64 was 7.6% in 2015.

Between 2007 and 2011, the cancers with highest incidence in women were breast (73.1 cases per 100,000 population), colorectal (27.3), and cervical (15.7), and in men, prostate (61.7), lung (47.9), and colorectal (38.1).

The prevalence of overweight and obesity in the population aged 25-64 was 64.9% in 2013.

In 2013, 5% of children aged 0-3 years had low height for age; 9.6% of children under 2 were overweight or obese, and there was a prevalence of 11.3% in children aged 2-4.

In 2010-2011, the prevalence of dental caries, measured as an average on the DMFT (decayed, missing, and filled teeth) index, was 4.15 in young people, 15.2 in adults, and 24.1 in older persons.

In the population aged 25-64, the percentage who were daily smokers declined from 32.7% in 2006 to 28.8% in 2013. Among adolescents aged 13-17 who were in school, the percentage dropped to 9.2% in 2014.

The average age for the start of alcohol consumption is 12.8 years. It is estimated that only 10% of problem drinkers have sought professional help at specialized centers.

The most commonly used drug is cannabis. In 2014, annual prevalence of cannabis use in the population aged 13-17 exceeded that of tobacco use (17% and 15.5%, respectively). In 2013, Uruguay began efforts to establish a regulated market for cannabis.

Some 22.8% of the population aged 25-64 does not engage in physical activity. Among students aged 13-15, 42.6% of males and 17.1% of females had an acceptable level of physical activity.

Entry and exit of the insecticide endosulfan has been prohibited by decree since 2012.

The Ministry of Public Health has nondelegable leadership responsibilities for oversight, essential public health functions, regulation, and the qualification and accreditation of health services and health professionals. The General Health Directorate coordinates and oversees public health policies, while the General Administrative Directorate oversees administration, finances, and human resources management.

The National Health Board (JUNASA) administers the national health insurance, the General Coordination Directorate coordinates public-private integration, and the National Health Fund (FONASA) is a mandatory public fund that finances the system.

Health expenditure grew by 53% between 2007 and 2014, reaching 8.6% of gross domestic product in 2014 (public, 6.5%; private, 2.1%).

Per capita health expenditure grew by 45% in that same period (2007-2014). In 2007, 53% of expenditure was financed with public funds, rising to approximately 70% by 2014.

The density of human resources for health was 63 professionals per 10,000 population in 2012, of whom 73.2% were physicians, 23.8% nurses, and 3.0% midwives.

The management and care model has shifted from a curative to a preventive model, based on the principles of primary health care.

Funding incentives have not been sufficient to produce significant movement toward a health care model that provides uniform quality of care for the entire covered population.

There has been modest progress in assigning users to providers and ensuring that users choose a physician assigned to their respective population—goals set for the institutions of the Integrated National Health System (SNIS).

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

Between 1990 and 2015, the country made great progress in health and other areas. Uruguay ranks 52nd on the human development index, with an HDI of 0.793.

Life expectancy at birth has increased and the population has aged, with a greater burden of chronic noncommunicable diseases.

Strengthening the health system through the reform process has contributed to better health conditions and better care. However, there are continuing challenges associated with the health care system itself and the demands imposed by an aging population and a changing epidemiological profile.

Among the most important challenges are climate change and human security, especially violence and food security.

Despite the availability of antiretroviral therapy, complications of and mortality from HIV/AIDS remain a significant problem. A project launched in 2012 aims to achieve social inclusion and universal access to prevention and comprehensive care for HIV/AIDS in Uruguay's most vulnerable populations.

ADDITIONAL POINTS

The transformation of the health system began in 2005, leading to the establishment of the Integrated National Health System (SNIS).

Throughout the decade of 2005 to 2015, Uruguay witnessed a steady improvement in the quality of life of its population. This was reflected in such indicators as poverty, employment, distribution of wealth, access to goods and social services, infant mortality, recognition and formalization of civil rights, and the reversal of migration flows.

Since 2008, implementation of the SNIS has improved the country's health situation, reducing the segmentation that created sharp inequities and making the system more stable.

The National Health Fund (FONASA) is a centerpiece of the financing model, based on a tripartite mechanism whereby the insured contribute based on their income.

In June 2016, coverage reached 73% of the country's total population.

The purposes of the National Health Objectives for 2020 are to improve the population's health status, reduce inequities in the exercise of the right to health, improve the quality of health care, and create the conditions for users to have a positive health care experience.



VENEZUELA (BOLIVARIAN REPUBLIC OF)

SELECTED BASIC INDICATORS

1990–2015

	1990 value	Value and year	Change (%)
Gross national income by purchasing power parity (PPP, US\$ per capita)	...	17,700 (2014)	...
Human development index	0.634	0.762 (2013)	20.2
Mean years of schooling	4.6	9.4 (2014)	104.3
Improved drinking-water source coverage (%)	89.0	93.0 (2015)	4.5
Improved sanitation coverage (%)	82.0	94.0 (2015)	14.6
Life expectancy at birth (years)	71.1	74.6 (2016)	4.9
Infant mortality (per 1,000 live births)	24.6	14.7 (2013)	-40.2
Maternal mortality (per 100,000 live births)	...	68.7 (2013)	...
TB incidence (per 100,000 population)	35.0	22.2 (2015)	-36.7
TB mortality (per 100,000 population)	4.3	1.6 (2013)	-62.8
Measles immunization coverage (%)	61.0	97.3 (2015)	59.5
Births attended by trained personnel (%)	...	...	...



Venezuela is a federal republic located in the northern part of South America, consisting of a capital district, 23 states, 335 municipalities, and 1,091 parishes. It also includes federal dependencies that comprise 311 islands, islets, and keys. It has a land area of 912,446 km², with great climate diversity due to its geography.

The estimated population in 2015 was 30.6 million, 88.8% of which was concentrated in urban areas; 2.7% of Venezuelans belonged to indigenous groups. In 2016, the life expectancy at birth was 74.6 years (78.8 years in women and 70.6 years in men).

Since the 1990s, the population pyramid has shifted from an expansive structure to a more stationary structure (especially in relation to the population under 25), as a result of the decline in fertility and mortality over the past 25 years. Annual population growth was 1.7%, with a birth rate of 19.7 per 1,000 population.

The country's principal source of income is oil exports, which represent more than 85% of total revenues.



SOCIAL DETERMINANTS OF HEALTH

Between 1998 and 2011, the percentage of households in poverty declined from 49.0% to 27.4%, while the rate of extreme poverty fell from 21.0% to 7.3%. However, in 2013 poverty increased to 32.1%, and extreme poverty to 9.8%.

The employment rate between 2010 and 2014 remained above 90%, with no significant differences between men and women.

According to the Central Bank of Venezuela, the cumulative inflation rate from 2015 to February 2016 was 180.9%.

Since 2012, there has been a steady decline in international oil prices that has impacted the country's economic activity, particularly imports of basic goods such as food and medicines, some of which have regulated prices and are subsidized by the Government.

Nearly 70% of energy production in the country is hydroelectric. This is adversely affected in periods of drought, having both a financial and social impact.

Between 2010 and 2013, school enrollment increased by 4.16% at the primary level and 2.73% at the secondary level. Mean years of schooling stood at 9.4 in 2014.

In 1999-2014, amid growing access to new technologies, the number of Internet users increased from 680,000 to 12.56 million.

In 2015, 93% of the population had access to clean drinking water, and 94% used improved sanitation facilities. About 80% of trash is sent to sanitary landfills, while just 2.3% is recycled.

Caracas had a homicide rate of 63.5 deaths per 100,000 population in 2015.

The country is highly vulnerable to the effects of climate change and natural hazards, including major floods, droughts, wildfires, explosions, spills, and earthquakes.

The country has great natural wealth, with many different species of flora and fauna. In the past two decades, deforestation has been reduced by 43.2%.

HEALTH SITUATION AND THE HEALTH SYSTEM

Between 1990 and 2009, maternal mortality held stable at 60 deaths per 100,000 live births. It subsequently increased, however, to 70 deaths per 100,000 live births in 2015.

The leading causes of maternal death in 2016 were hemorrhage and hypertensive disorders. Indigenous mothers accounted for 3.17% of total maternal deaths, while those of African descent accounted for 1.85%.

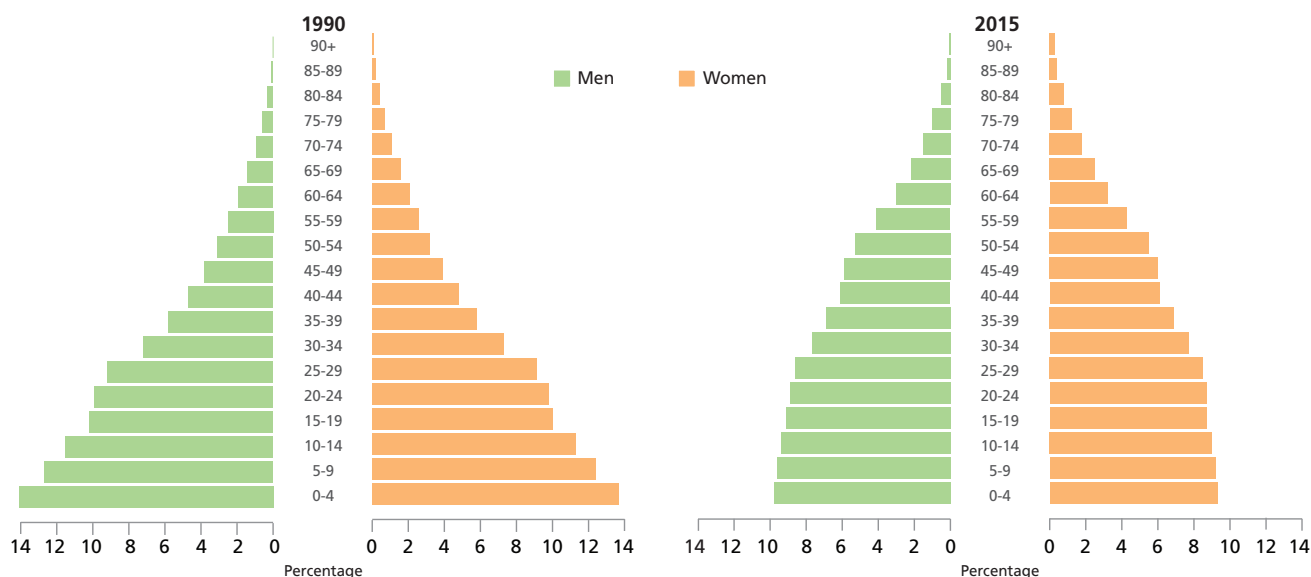
Nearly all births (98%) take place in health facilities; one in five pregnancies are in women under the age of 20.

In 2013, the infant mortality rate was 14.7 per 1,000 live births, according to PAHO data on basic indicators. Perinatal disorders and congenital malformations are the leading causes of infant death.

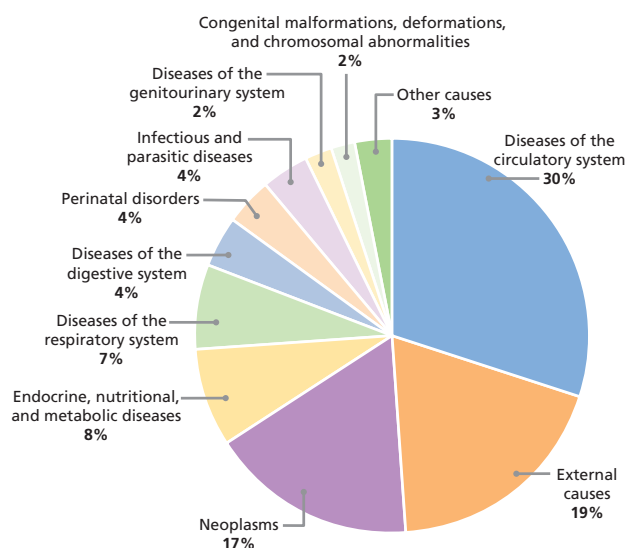
Chronic malnutrition in children under 5 decreased from 13.4% in 2009 to 3.37% in 2013.

In the five-year period from 2011 to 2015, immunization program coverage remained below 95% in children up to 1

Distribution of the population by age and sex, Venezuela, 1990 and 2015



Proportional mortality (% of all deaths, all ages, both sexes), 2013



year of age. In 2016, in 1-year-olds, coverage against measles, mumps, and rubella (MMR) was 88.3%, with 84.0% coverage for yellow fever and 6.7% for the third dose of pneumococcal conjugate vaccine. At the state and municipality level, varying levels of coverage have been observed.

The country has remained free of polio, rubella, congenital rubella syndrome, yellow fever, and diphtheria, with no reported cases of these diseases since 2011. However, 7 cases of neonatal tetanus and 68 cases of tetanus in other age groups have been reported, along with 18 cases of whooping cough, 3,000 cases of mumps, and 8 cases of meningitis caused by *Haemophilus influenzae* type b.

In 2013, the total death rate was 4.9 per 1,000 population (6.1 in men and 3.8 in women). The leading groups of causes were circulatory system diseases (30%) and external causes (19%), which together accounted for half of all deaths in the country.

The most important specific causes of death are chronic noncommunicable diseases, including heart disease (20.7%), cancer (15.4%), diabetes (7.6%), and cerebrovascular disease (7.5%).

The five leading malignant neoplasms were prostate, breast, cervical, lung, and colorectal cancers, which together represented 54% of all cases.

In 2013, there were 9,720 deaths from accidents, which accounted for 6.51% of all deaths. Of that total, 72.31% were due to road traffic accidents.

In 2015, the first autochthonous vector-borne case of Zika virus was reported. In 2016, there were 2,200

laboratory-confirmed cases of Zika, with an incidence rate of 192.9 per 100,000 population, without notification of associated Guillain-Barré cases.

The first cases of chikungunya virus infection were reported in 2014. In 2015, the cumulative incidence rate was 54 cases per 100,000 population, declining to 11.2 cases per 100,000 in 2016.

Between 2011 and 2015, there were 285,960 reported cases of dengue, with evidence showing that the four serotypes were circulating. There were 90 deaths from dengue in 2015 and 30 in 2016.

The malaria incidence rate tripled between 2011 and 2015 (from 1.58 to 4.45 per 1,000 population), with a total of eight deaths in 2015, making it a priority on the domestic health agenda.

There were 76 reported cases of Chagas disease by oral transmission in 2011-2015.

Visceral leishmaniasis is endemic, with an incidence rate of 0.12 cases per 100,000 population in 2013. Between 2013 and 2015, the incidence rate of cutaneous leishmaniasis remained close to 7 per 100,000 population.

In January 2011, there were 99 confirmed cases of imported cholera. No new cases have been reported.

Between 2011 and 2016, only 1 case of human rabies was reported, with 2 cases in cats and 35 cases in dogs.

A total of 303 new cases of leprosy were reported in 2016, 87 of which were in women and 8 in children under the age of 15.

Onchocerciasis transmission continues in the Yanomami indigenous area. However, transmission declined by 75% from 2014 to 2015.

In 2015, tuberculosis incidence was 22.19 cases per 100,000 population; 83.6% of cases were pulmonary and 16.4% extrapulmonary. The 15-34-year age group accounted for 38.9% of total cases.

An estimated 108,575 people are living with human immunodeficiency virus (HIV), 64.7% of them men. More than 60,000 people with HIV receive antiretroviral therapy. The prevalence rate is 0.56% in the general population and above 5% in the most vulnerable groups.

In 2014, the prevalence of overweight in adults over age 20 was 62.3%.

The prevalence of smoking was 17.0% in adults and 5.6% in adolescents 13-15 years of age.

In 2011, a total of 37,531 patients were seen in psychiatric hospitals, 53% of whom were women and 7% children

or adolescents. One percent of patients received inpatient treatment in psychiatric hospitals lasting 5 to 10 years.

The National Public Health System (SPNS) is based on principles enshrined in the National Constitution of 1999, which stipulates that health is a fundamental social right guaranteed by the State through the provision of free health services in a single health care system that is universal, decentralized, and participatory.

The National Health System (SNS) is made up of the public and private subsectors. The Ministry of Health is the Government's regulatory agency and has the following vice-ministries: Comprehensive Health; Public Health Networks; Hospitals; Resources, Technology, and Regulation; and Outpatient Health Care Networks.

The public sector consists of the Venezuelan Social Security Institute (IVSS), the Institute for Social Welfare of the Ministry of Education (IPASME), the Institute of Social Welfare of the Armed Forces (IPSFA), the Corporación Venezolana de Guayana (CVG), and Petróleos de Venezuela S.A. (PDVSA).

In 2016 there were 16,908 facilities in the Community Care Network and 293 hospitals in the public sector.

Between 2010 and 2014, total health expenditure as a share of gross domestic product (GDP) increased by 49%, from 4.75% to 7.09%.

Since 2011, "comprehensive community physicians" have been authorized to practice medicine. Between 2010 and 2015, the Ministry of Health granted 5,873 scholarships for undergraduate studies and 8,959 for graduate studies in the health sciences.

The Ministry's Health Information System includes an electronic medical records system, which is a very useful tool for the epidemiological surveillance of health programs.

ACHIEVEMENTS, CHALLENGES, AND OUTLOOK

The National Health Plan 2014-2019 establishes objectives, policies, projects, and strategies to guide the Government's management of the system, aimed at ensuring health as a universal right; health care as a public good and a State responsibility; and comprehensive public health care, including promotion, prevention, treatment, and rehabilitation.

Based on efforts made and the trends observed, it is expected that neglected diseases such as leprosy and rabies can be eliminated by building consensus on common objectives, with all sectors involved in addressing the social determinants of health.

Maternal mortality and malaria control have become priority issues on the domestic health agenda.

The objective of preventing and controlling chronic noncommunicable diseases has led to the development of intersectoral policies that cover the promotion of healthy practices, quality of care, regulation, and legislation.

Given the rapid increase in the number of older adults, preserving the functional capacity of the elderly has become a priority. This requires specialized services for this group, including sustainable long-term care.

The National Agreement for the Universalization of Health Services reflects the political will to improve access for the entire population.

ADDITIONAL POINTS

By 2012, progress had been made in the social determinants of health, including a 7.7% reduction in the population living in extreme poverty and a 2.7% reduction in global malnutrition in children under 5, as well as increases in the coverage of drinking water (95%) and wastewater collection (84%).

Between 2011 and 2015, 1 million homes were built as part of the Misión Vivienda housing initiative, meeting 26.7% of the housing needs of families enrolled in the National Housing Registry.

As of May 2014, 2.6 million Venezuelans had benefited from Misión Robinson, a social literacy initiative that helps the

illiterate population learn to read and write, using innovative educational materials.

The SPNS, by strengthening and integrating the health network through the strategy known as 100% Barrio Adentro, is working to achieve full access to quality universal health coverage for the country's population.

The country has a plan of action to improve vital and health statistics, which helps improve basic data collection for issuing birth certificates at birthing centers and death certificates at the place of death, ensuring broad coverage, as well as the quality and timeliness of data.

Health in the Americas+ 2017—the Pan American Health Organization’s flagship publication—reports on health advances and challenges in the Region of the Americas since the preceding edition of 2012. This edition features profiles of the health situation in each of the Region’s countries and territories based on the latest available data. The printed volume offers a summary of achievements and obstacles, which are detailed in full in the interactive online platform. Together, the *Health in the Americas+ 2017* package provides a comprehensive picture of health regionwide, covering topics such as universal health and major health problems and accomplishments of the past 5 years. This edition also incorporates a forward-looking dimension, projecting current trends to anticipate potential scenarios and issues that lie ahead as we forge a common regional health agenda, aligned with the 2030 global agenda.

Health in the Americas+ 2017 offers important insights and analyses of the major health challenges and opportunities facing our Region today. It is our hope that these findings will be used by countries to develop and refine health frameworks that will allow each individual the possibility of achieving the highest attainable standards of health.

—Carissa F. Etienne, Director

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