

# Final Report on the Health-Related Millennium Development Goals in the Region of the Americas



Pan American  
Health  
Organization



World Health  
Organization

REGIONAL OFFICE FOR THE Americas



# Final Report on the Health-Related Millennium Development Goals in the Region of the Americas



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# ABBREVIATIONS

AMI	Amazon Malaria Initiative
ART	antiretroviral therapy
CCT	conditional cash transfers
CELAC	Community of Latin American and Caribbean States
CELADE	Latin American Demographic Center
COMISCA	Council of Ministers of Health of Central America and the Dominican Republic
ECLAC	Economic Commission for Latin America and the Caribbean
FAO	Food and Agriculture Organization of the United Nations
GCTH	Horizontal Technical Cooperation Group
GLAAS	Global Analysis and Assessment of Sanitation and Drinking-Water
HIV	Human immunodeficiency virus
IDB	Inter-American Development Bank
IGME	United Nations Inter-agency Group for Child Mortality Estimation
IHME	Institute for Health Metrics and Evaluation
IMCI	Integrated Management of Childhood Illness
IMF	International Monetary Fund
IMR	Infant mortality rate
INCAP	Institute of Nutrition of Central America and Panama
ITNs	Insecticide-treated nets
MDGs	Millennium Development Goals
MERCOSUR	Southern Common Market
OECD	Organisation for Economic Co-operation and Development
OECS	Organization of Eastern Caribbean States
PAHO	Pan American Health Organization, Regional Office of the World Health Organization
PASB	Pan American Sanitary Bureau
SDE	Special Program on Sustainable Development and Health Equity (PAHO/WHO)
SDGs	Sustainable Development Goals
TB	Tuberculosis
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VWA	Vaccination Week in the Americas
WHO	World Health Organization
WSP	Water safety plan

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The first draft was reviewed by the PAHO country offices, Regional Advisors of the technical areas involved in the MDGs, and the SDE program. The second draft was shared with PAHO/WHO Country Representatives (PWR) and Regional Advisors to approve this final report.

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# TABLE OF CONTENTS

<b>ABBREVIATIONS</b> .....	<b>iii</b>
<b>PREFACE</b> .....	<b>1</b>
<b>EXECUTIVE SUMMARY</b> .....	<b>3</b>
<b>INTRODUCTION</b> .....	<b>5</b>
<b>CHAPTER I. Social determination of health: poverty and gender</b> .....	<b>7</b>
Poverty and inequality .....	7
Gender and inequality .....	10
<b>CHAPTER II. Regional progress towards the health-related MDGs, 1990-2015</b> .....	<b>13</b>
<b>MDG 1: Eradicate Extreme Poverty and Hunger</b> .....	<b>13</b>
<i>Target 1.C: Halve, between 1990 and 2015, the proportion of people who suffer from hunger</i> .....	13
Indicator 1.8. Prevalence of underweight children under 5 years of age .....	13
Indicator 1.9. Proportion of population below minimum level of dietary energy consumption .....	14
MDG 1 contributions .....	14
<b>MDG 4: Reduce Child Mortality</b> .....	<b>18</b>
<i>Target 4.A: Reduce by two-thirds, between 1990 and 2015, the under-5 mortality rate</i> .....	18
Indicator 4.1. Under-5 mortality rate .....	18
Indicator 4.2. Infant mortality rate .....	20
Indicator 4.3. Proportion of 1-year-old children immunized against measles .....	21
MDG 4 contributions .....	21
<b>MDG 5: Improve Maternal Health</b> .....	<b>25</b>
<i>Target 5.A: Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio</i> .....	25
Indicator 5.1. Maternal mortality ratio .....	25
Indicator 5.2. Proportion of births attended by skilled health personnel .....	26
<i>Target 5.B: Achieve, by 2015, universal access to reproductive health</i> .....	27
Indicator 5.3. Contraceptive prevalence rate .....	27
Indicator 5.4. Adolescent fertility rate .....	27
Indicator 5.5. Antenatal care coverage (at least one visit and at least four visits) .....	27
Indicator 5.6. Unmet need for family planning .....	28
MDG 5 contributions .....	29

<b>MDG 6: Combat HIV/AIDS, Malaria, Tuberculosis, and Other Diseases .....</b>	<b>32</b>
HIV/AIDS .....	32
<i>Target 6.A: Have halted by 2015 and begun to reverse the spread of HIV/AIDS .....</i>	<i>32</i>
Indicator 6.1. HIV prevalence among the population aged 15-24 years .....	32
Indicator 6.2. Condom use at last high-risk sex .....	34
Indicator 6.3. Proportion of population aged 15-24 years with comprehensive, correct knowledge of HIV/AIDS ..	34
<i>Target 6.B: Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it .....</i>	<i>34</i>
Indicator 6.5. Proportion of people with advanced HIV infection with access to antiretroviral drugs .....	35
Contributions in the fight against HIV/AIDS .....	35
Malaria .....	37
<i>Target 6.C: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases .....</i>	<i>37</i>
Indicator 6.6. Incidence and death rates associated with malaria .....	37
Indicator 6.7. Proportion of children under 5 sleeping under insecticide-treated bed nets .....	37
Contributions to combat malaria .....	38
Tuberculosis .....	39
Indicator 6.9. Incidence, prevalence and death rates associated with tuberculosis .....	39
Indicator 6.10. Proportion of tuberculosis cases detected and cured under directly observed treatment short course .....	41
Contributions to combat tuberculosis .....	42
<b>MDG 7: Ensure Environmental Sustainability .....</b>	<b>45</b>
<i>Target 7.C: By 2015, halve the proportion of people without sustainable access to safe drinking water and basic sanitation .....</i>	<i>45</i>
Indicator 7.8. Proportion of population using an improved drinking water source .....	46
Indicator 7.9. Proportion of population using an improved sanitation facility .....	46
Contributions to promote safe water and basic sanitation .....	48
<b>MDG 8: Develop a Global Partnership for Development .....</b>	<b>50</b>
Finance .....	50
Contributions in financing .....	50
<i>Target 8.E: In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries .....</i>	<i>51</i>
Indicator 8.13. Proportion of population with access to affordable essential drugs on a sustainable basis .....	51
MDG 8 contributions .....	52
<b>CHAPTER III. Reflections on the regional experience and lessons learned .....</b>	<b>55</b>
MDG 1: Eradicate extreme poverty and hunger .....	55
MDG 4: Improve child health .....	57



MDG 5: Improve maternal health .....	58
MDG 6: Combat HIV/AIDS, malaria, and tuberculosis .....	60
MDG 7: Ensure environmental sustainability .....	63
MDG 8: Develop a global partnership for development .....	64
Financing .....	64
Populations with sustainable access to medicine .....	64
Identifying possible actions for improvement.....	65
Additional lessons .....	65
Investment in health workers .....	65
Information systems, evidence generation, consensus-building, and decision-making .....	65
Success factors in cooperation .....	66
Education and gender .....	67
Poverty .....	67
Final considerations .....	68
<b>CHAPTER IV. Beyond 2015 .....</b>	<b>69</b>
Remaining challenges .....	69
Looking back and looking ahead .....	70
Health information systems (HIS) within the MDG framework and beyond .....	70
Collaborating Centers .....	71
Access and universal health coverage .....	71
Health in all policies .....	71
Environment .....	71
Equity in health .....	72
<b>References .....</b>	<b>73</b>

## Figures

Figure 1. Under-5 mortality (per 1 000 live births) by country quartile of income, Latin America and the Caribbean, 1990 and 2010 .....	7
Figure 2. Proportion of underweight and stunted children under 5, Latin America and the Caribbean, 1990-2013 .....	13
Figure 3. Hunger worldwide and in Latin America and the Caribbean (in millions of people affected), 1990-2014 .....	14
Figure 4. Number of people suffering from hunger and contributions to address it, Latin America and the Caribbean, 1990-2014 .....	15
Figure 5. Under-5 mortality rate (per 1 000 live births), Latin America and the Caribbean, 1990-2015 .....	18

Figure 6. Under-5 mortality rate by country quartile of access to safe water, Latin America and the Caribbean, 1990 and 2010 .....	19
Figure 7. Under-5 mortality rate by country quartile of female educational attainment, Latin America and the Caribbean, 1990 and 2010 .....	19
Figure 8. Deaths of children under 5, proportionally disaggregated by age group (%), Latin America and the Caribbean, 2015 .....	20
Figure 9. Infant mortality rate (IMR), WHO Regions, 1990 and 2015 .....	20
Figure 10. Percent distribution of neonatal mortality by cause, Latin America and the Caribbean, 2012 .....	21
Figure 11. Under-5 mortality rate (per 1 000 live births) and contributions undertaken to reduce it, Latin America and the Caribbean, 1990-2015 .....	22
Figure 12. Maternal mortality ratio (MMR) estimated per 100 000 live births, the Americas and Latin America and the Caribbean, 1990-2015 .....	25
Figure 13. Maternal mortality ratio by country quartile of income, Latin America and the Caribbean, 1990 and 2010 .....	26
Figure 14. Percentage of births attended by skilled health personnel, by type, seven countries in the Americas, 2008-2012 .....	26
Figure 15. Estimated percentage of married or cohabiting women who use some form of contraception, Latin America and the Caribbean, 1990-2014 .....	27
Figure 16. Antenatal care coverage (%) (one visit and four or more visits) per country, Latin America and the Caribbean, 2014 .....	28
Figure 17. Estimated percentage of women aged 15–49 years, married or cohabiting, with an unmet need for access to contraceptive methods, Latin America and the Caribbean, 1990-2014 .....	29
Figure 18. Estimated maternal mortality ratio and contributions to address it, the Americas and Latin America and the Caribbean, 1990-2015 .....	29
Figure 19. Estimated number of new HIV infections, Latin America and the Caribbean, 1990-2013 .....	32
Figure 20. Estimated prevalence of HIV, women aged 15–24 years by country, Latin America and the Caribbean, 1990 and 2014 .....	33
Figure 21. Estimated prevalence of HIV, men aged 15–24 years by country, Latin America and the Caribbean, 1990 and 2014 .....	33
Figure 22. Percentage of Knowledge about HIV prevention, population aged 15-24 years, by country, Latin America and the Caribbean, 2007 and 2013 .....	34
Figure 23. Number and proportion (%) of HIV-positive adults and children receiving antiretroviral therapy in Latin America and the Caribbean, by year, 2003-2013 .....	35
Figure 24. Estimated number of persons living with HIV and contributions to address it, Latin America and the Caribbean, 1990-2013 .....	36
Figure 25. Percentage change in number of confirmed cases of malaria, by country, Latin America and the Caribbean, 2000-2013 .....	37
Figure 26. Number of persons protected by indoor residual spraying (IRS) and insecticide-treated mosquito nets (ITNs), Latin America and the Caribbean, by year, 2000-2013 .....	38
Figure 27. Morbidity and mortality from malaria and contributions to combat the disease, Latin America and the Caribbean, by year, 2000-2013 .....	39

Figure 28. Estimated incidence of tuberculosis, all forms, by year (per 100 000 population) and levels of uncertainty, Region of the Americas, 1990-2015 .....	40
Figure 29. Estimated trend in mortality from tuberculosis, all forms, and levels of uncertainty, Region of the Americas, 1990-2013 .....	40
Figure 30. Estimated prevalence of tuberculosis, all forms, and levels of uncertainty, Region of the Americas, 1990-2013 .....	41
Figure 31. Tuberculosis cohort, successfully treated cases and relapses, Region of the Americas, 1994-2012 .....	41
Figure 32. Incidence of tuberculosis by country quartile in the Human Development Index, Region of the Americas, 2000, 2005, 2009, and 2013 .....	42
Figure 33. Estimated incidence of tuberculosis, in all forms and contributions, Region of the Americas, 1990-2015 .....	43
Figure 34. Use of improved safe water sources, by regions and subregions of the world, 1990 and 2015 .....	46
Figure 35. Population (%) with sustainable access to drinking water supply, by urban or rural residence, Latin America and the Caribbean, 1990-2015 .....	46
Figure 36. Use of improved sanitation facilities, by regions and subregions of the world, 1990 and 2015 .....	47
Figure 37. Population with access to sanitation services, by urban or rural residence, Latin America and the Caribbean, 1990-2015 .....	47
Figure 38. Maternal mortality by country quartiles of access to drinking water, Latin America and the Caribbean, 1990 and 2010 .....	48
Figure 39. Procurement of medicines with the support of the PAHO Strategic Fund and related contributions, Latin America and the Caribbean, by year, 2004-2010 .....	52
Figure 40. Purchases of medicines through the Strategic Fund, by product category, Latin America and the Caribbean, 2010 .....	53

## Tables

Table 1. Gini index: advanced and developing economies, 1995-2010 .....	8
Table 2. Gini index: per capita household income, stratified by region, 1970-1990 .....	9
Table 3. National policies, plans, and strategies for food and nutrition security in Latin America and the Caribbean and their dates of implementation .....	16
Table 4. Funding for water and sanitation in selected countries of Latin America and the Caribbean .....	48

## Boxes

Box 1. PAHO Governing Body resolutions related to MDG 1 .....	17
Box 2. PAHO Governing Body resolutions related to MDG 4.....	24
Box 3. PAHO Governing Body resolutions related to MDG 5 .....	31
Box 4. PAHO Governing Body resolutions related to MDG 6 .....	44
Box 5. PAHO Governing Body resolutions related to MDG 7.....	49
Box 6. PAHO Governing Body resolutions related to MDG 8 .....	54



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# PREFACE

The Declaration of the Millennium Summit, in September 2000, and the subsequent adoption of the Millennium Development Goals (MDGs) reaffirmed the international community's commitment to the universal principles of the United Nations Charter and enshrined the timeless role of peace, justice, and prosperity in the deliberate, collective search for a common future with dignity, inclusiveness, and equity for humankind in all its diversity. At the dawn of the third millennium, this has a historical importance that cannot be ignored.

Health has held an explicit and privileged place within this universal framework for development and, in fact, the MDGs became the inspiration and reference point for myriad initiatives that shaped and invigorated the global health agenda in the first 15 years of this millennium. As we cross this threshold and look back from a public health perspective, it is clear that the MDGs both inherited and renewed the noble commitment made in Alma-Ata to continue to aspire for Health For All.

In the course of the 15 years that we gave ourselves in 2000 to take collective, positive, objective, and deliberate action to transform the Region's health with respect to a 1990 baseline, the countries of the Americas have made clear and determined progress, collecting a significant body of evidence and a vast and varied array of experiences. This document offers a synthesis of these experiences and evidence from a regional perspective, and illustrates the catalytic role of strategic collaborative efforts, as stated in the mission of the Pan American Health Organization, toward the health-related MDGs.

In a broad sense, we recognize that all the MDGs are health-related. The most immediate goals have also been the most pressing ones in the Region: maternal and child survival, and combatting HIV/AIDS, malaria, and tuberculosis. The other goals capture dimensions that act as determinants of health: poverty and hunger, primary education, gender equality and the empowerment of women, environmental sustainability, access to water and sanitation, and the global partnership for development. The Region's significant progress toward attaining the MDGs in general and their health targets in particular reflects the advances made toward universal access to health and universal health coverage, as well as the impetus given to intersectoral action on the social and environmental determinants of health. However, it is also evident that inequity, in the form of unjust and avoidable inequalities, continues to negatively affect the distribution of these advances among the people of the Americas.

Now that the Region of the Americas is gearing up for the transformative challenges involving people, planet, prosperity, peace, and partnership (the five "Ps" contained in "Transforming Our World: the 2030 Agenda for Sustainable Development" and its 17 SDGs), it is necessary to critically review the evidence and experiences accumulated in the progress toward the MDGs. Even more importantly, by building upon them, we can restore equity as the guiding principle of actions to "ensure healthy lives and promote well-being for all at all ages," as proposed in SDG 3.

It is up to us to ensure that health plays a key role in sustainable development. And at the heart of sustainable development is the principle of equity both as an imperative of social justice, universality, and inclusion, and as a political imperative of good government and democracy. Achieving SDG 3, therefore, will mean recognizing the direct link between health and its social determinants, because sustainable development, as defined by the Río+20 United Nations Conference in 2012, rests on three pillars: social, economic, and environmental. From this new public health paradigm emerges the great lesson of the MDGs: we need to reduce unjust social inequalities affecting health and not just aim to change statistical averages. Action on the social determinants of health needs to be a fundamental part of our post-MDG and pro-SDG efforts. There is therefore no choice but to step up our efforts toward universal health, health in all policies, and greater institutional capacity to command the evidence.

**Dr. Carissa F. Etienne**

Director

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Photo: Guadalupe Verdejo

# EXECUTIVE SUMMARY

The experience gained during 15 years of pursuing the health-related Millennium Development Goals (MDGs) has been vast and invaluable for the Governing Bodies of the Pan American Health Organization (PAHO). From a regional perspective, this document presents a summary of the achievements toward the health-related MDGs and the remaining challenges to be considered by the post-2015 agenda. Its intent is to supplement the evaluations that will be conducted by Member States at the national, subnational, and municipal levels.

Given this regional perspective; the political and socio-economic structural determinants such as income, education, gender, occupation, ethnicity or social class, and health systems; the determinants intermediates such as conditions and lifestyle determine the prevailing health standards for different segments of the population, highlighting the critical need to transform the aforementioned determinants into positive factors, through implementation of targeted social protection programs designed to increase access to and universal coverage by the health services, and by encouraging deliberate national policies that act positively on the social determinants of health. Said transformation is illustrated through descriptions of the positive impact that economic growth—approximately 5% per year—has had on the Region during the last decade. Finally, this contextual background concludes by recognizing that, in addition to ethnic minority status or urban or rural location, gender is one of the most relevant determinants of inequality. However, promotion of gender equality first required carrying out a set of core tasks to lay the groundwork for a plan of action, one that may yield its first results in the near future.

These general considerations provide the basis for a summary of the progress and remaining challenges revealed by the regional indicators for each health-related MDG. The conclusion reached is that, in some cases, many of the MDG targets were met in the Region. Nevertheless, as pointed out throughout the document, gaps persist and will require special attention in the forthcoming stage.

PAHO has continuously collaborated, even prior to the Millennium Declaration, with Member States to transform objectives and goals into results; those are mentioned in this report. In addition, this MDG period represents a valuable source of experience for the countries of the Region and for PAHO itself. The lessons learned by countries and by PAHO provide essential conclusions that will shape new targets and the recently-adopted Sustainable Development Goals (SDGs).

This review concludes by looking ahead, beyond 2015. First, it summarizes the remaining challenges, highlighting the persistent high maternal, neonatal, and child mortality rates in some countries, especially among the poorest and those in the most vulnerable of situations, where the highest rates of chronic malnutrition also persist.

Gaps in reproductive health contribute to the persistence of high fertility rates, especially among young people 15-24 years old. In the Region, no significant reduction in HIV/AIDS prevalence has been achieved; simultaneously, antiretroviral drug coverage and access has required even further expansion.

Limited access to basic sanitation, in contrast to the increase in water service coverage, continues to create high health risks. Furthermore, because Latin America has become largely urban since the second half of the 20th century, the challenge of ensuring a safe water supply and basic sanitation requires massive investment in infrastructure. Such investment should not, however, surpass coverage of broad segments of the population that live in poorer areas, especially rural and peri-urban regions.

By acknowledging these remaining challenges, one deduces there is a need for more universalization of social policies to address local gaps, particularly gaps masked by national and regional averages. Broad demographic segments remain vulnerable due to geographic location, educational level, wealth, ethnicity, and gender issues. Furthermore, in view of the synergy in health and economic growth, it is essential that business cycles be closely monitored because recessions increase the vulnerability of the poorest populations. Social spending, in particular, decreases when biased austerity measures are imposed during adjustments made to overcome recessions.

This extensive experience and the networks that have been established should continue to support the process of sustainable development in the Americas and the Sustainable Development Goals. The last part of this document includes a set of suggested initiatives, the execution of which will help achieve the health-related SDG 3 and boost the generation of reliable evidence to support effective decision-making.



# INTRODUCTION

## The Region before the Millennium Declaration

Prior to the Millennium Declaration, and in fact, for more than 113 years, PAHO and the Member States of the Region of the Americas have been engaged in an organized, mutual effort toward better health and greater development for their citizens, through technical programs and direct cooperation in health.

This history of collaboration began in 1902, when the governments of the countries of the Americas came together in Washington, D.C., for the First General International Sanitary Convention of the American Republics. The Convention voted to create the International Sanitary Bureau, later to become the Pan American Sanitary Bureau (PASB). The participating governments committed to submitting timely and regular reports to the Bureau on the health status of their ports and national territories, and to assisting with the investigation of epidemic outbreaks. The year 1924 saw the adoption of the Pan American Sanitary Code, which emphasized preventing the international spread of infectious diseases and called for cooperation between the governments of the Member States. In 1946, after the World Health Organization (WHO) was established, the Institute of Nutrition of Central America and Panama (INCAP) was founded in Guatemala, and in 1950, the PASB recommended that the countries develop programs for vaccination and revaccination against smallpox with the intention of eradicating the disease.

The Pan American Sanitary Conference held in 1954 called for the eradication of malaria in the Western Hemisphere. The meeting reviewed reports from 118 field programs, 45 inter-area projects, and 7 inter-regional projects. A year later, WHO took up the challenge to strive for the same goal. Another important milestone was adoption of the Charter of Punta del Este in 1961, leading to establishment of the Alliance for Progress. Under the auspices of the Alliance, PAHO undertook to meet the following health goals for the decade: increase life expectancy at birth by 5 years; increase the supply of drinking water and sewerage services in rural and urban areas; reduce mortality in children under 5 by half; control the most serious communicable diseases, eradicating certain ones, including malaria; improve nutrition and basic health services at the national and local level; and step up scientific research.

Subsequent initiatives have had an impact both on a Regional scale, as well as in various countries. For example, in 1969 the International Health Regulations were adopted with a view to reducing quarantinable diseases and to work toward the eradication of smallpox; these regulations were updated in 2005. The year 1977 saw approval of the Resolution on the Expanded Program on Immunization (EPI) in the Americas, and in 1979 the Revolving Fund for Vaccine Procurement was implemented to strengthen and accelerate the work of the EPI (1).

Other milestones in the Region were: the First Summit of the Americas, held in Miami in 1994, at which the participating States made the commitment, based on PAHO recommendations, to achieve equitable access to basic health services; the Second Summit of the Americas, held in Santiago, Chile, in 1998, at which the States agreed to develop and implement low-cost and effective health technology, with PAHO support, in an effort to help eradicate poverty; and the Third Summit of the Americas, held in Quebec in 2001, at which the States prioritized the eradication of poverty within a context of equity, democratic governance, and environmental sustainability, while requesting ongoing PAHO technical cooperation in this area (2).

## The Millennium Declaration

The Millennium Summit was held in the year 2000, during the Millennium Assembly of the United Nations (UN). The Summit brought together 189 Heads of State and representatives of Member States, after which, the Millennium Declaration was adopted. The Declaration enshrined a commitment to reducing poverty, hunger, disease, illiteracy, environmental degradation, and discrimination against women. It contained specific, precise goals—the Millennium Development Goals (MDGs)—expressed as quantifiable targets and indicators that could be periodically evaluated to monitor national and international progress.

The announcement of the MDGs by the United Nations Member States set a great challenge for the governments themselves, as well as for international organizations with a stake in socioeconomic development: how to turn these goals into results. The Pan American Health Organization (PAHO), during its 45th Directing Council, resolved to urge its Member States to prepare national plans of action, strengthen political commitment, prioritize action on national health and social development, foster partnerships, and support civil society involvement to attain the goals of the UN Millennium Declaration.

The governments and international organizations responded to the MDGs pursuant to their own mandates, promoting knowledge management, South-South cooperation, interagency and intersectoral work, and strengthening partnership building. During the 15 years since the MDGs announcement, some international organizations have periodically produced status reports on the work performed to reach the goals and targets.

Within the UN system, for instance, the Secretariat led the preparation of a periodic interagency report on the progress and challenges hindering each MDG. Those reports were based on the input of various UN agencies (3). PAHO actively participated in the preparation of those reports with respect to the health-related goals and targets in Latin America and the Caribbean. During that period, the Economic Commission for Latin America and the Caribbean (ECLAC) coordinated the participation of 18 UN organizations, funds, and specialized entities that held a stake in the Region's socioeconomic development.

The report on Latin America and the Caribbean, in addition to quantifying progress toward the achievement of each goal and its targets, focused on a cross-cutting subject—health—essential to their attainment. In fact, one of the reports was dedicated to health (4), while another analyzed how to achieve goals in an equitable manner (5).

Furthermore, the World Bank and the International Monetary Fund (IMF) prepared annual reports on worldwide progress toward the MDGs. Special attention was also given to specific topics on an annual basis. One such report analyzed the impact of the global recession on the achievement of the MDGs (6), and another assessed the likelihood of achieving the expected results within the designated time frame (7). The most recent World Bank/IMF report explored how to end poverty and share prosperity (8).

During the 15 years that have transpired since the MDGs announcement, many of its expected results have been attained in Latin America and the Caribbean. Furthermore, much experience has been gained, allowing a hindsight view of the achievements claimed by 2015. The present document provides such a retrospective, drawing from the results achieved and the experience acquired to form conclusions that will underpin future planning. The intention of this document is to provide an experience-based contribution to the tasks that will be undertaken in response to the recent announcement of the Sustainable Development Goals (SDGs).

By presenting this document on the health-related MDGs, PAHO contributes additional information to the periodic ECLAC and World Bank evaluations; in fact, these evaluations serve as a basis for further reflecting on the experiences gained.

This retrospective is not, however, a detailed description of the last 15 years of PAHO activities, which have already been extensively analyzed in periodic reports submitted by the Director of PAHO to its Executive Committee and Governing Bodies regarding the state of health in the Americas. Nor, is this document a comprehensive inventory of all activities carried out to promote achievement of the health-related MDGs; nevertheless, it's needed to emphasize those contributions which were most significant and effective in attaining the results seen. It may be considered an introspective document, insofar as it probes the our experiences garnered in an attempt to derive a set of pertinent and relevant reflections and recommendations.

This document is divided into four chapters. Chapter I describes the social determination of health and the relationships among poverty and gender; Chapter II, the most discusses, summarizes the regional progress of each health-related MDG and describes the contributions carried out; Chapter III has some of the lessons learned from the regional experience; and Chapter IV proposes some experience-based recommendations for the next stage.

# CHAPTER I.

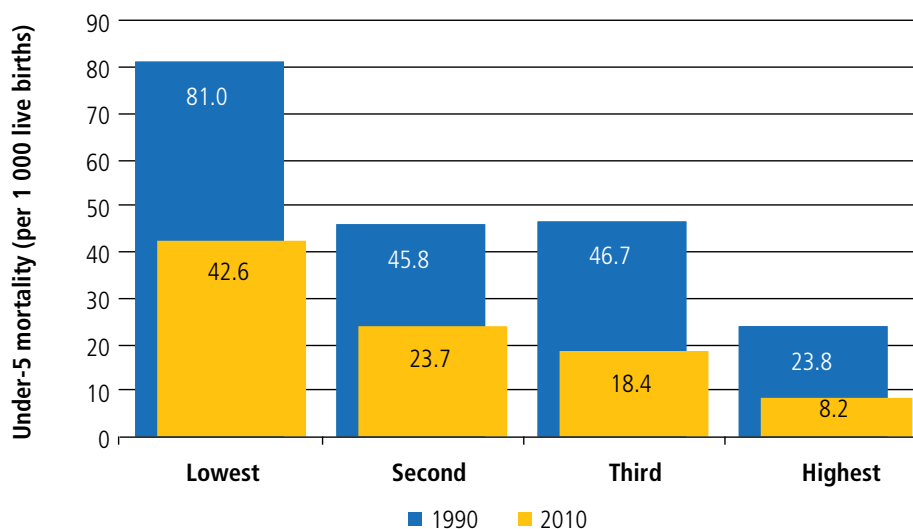
## Social determination of health: poverty and gender

Among the social determinants that affect the health of the population, poverty, education, and gender stand out. This was recognized by MDG 1, which proposed the eradication of extreme poverty: Target 1.A was to halve, between 1990 and 2015, the proportion of people living on less than US\$ 1.25<sup>1</sup> a day. Moreover, the MDG 2 promoted ensure, by 2015, that boys and girls alike, will be able to complete a full course of primary schooling. Furthermore, the MDG 3 encouraged gender equality and empower women: Target 3.A searched for eliminate gender inequalities in all levels of education by 2015. This chapter describes the detrimental relationship between poverty and gender, with an emphasis on the negative impact of inequality due to themselves (9).

### Poverty and inequality

Health, poverty, and inequality are interlocked in a close, damaging relationship. On the one hand, health is determined by factors related to inequality. An example is that of chronic malnutrition, which is twice as prevalent among indigenous children as it is among the rest of the population (10). Children's health is determined by their place of birth (rural or urban), by the mother's educational attainment, by belonging to a minority, and by family purchasing power; Figure 1, shows the contrast of progress in under 5 mortality as national average. When these results are disaggregated by income; showing that persist high mortality rates in the most disadvantaged groups.

**Figure 1. Under 5 mortality (per 1 000 live births) by country quartile of income, Latin America and the Caribbean, 1990 and 2010**



**Source:** Mujica SDE/OPS, 2015.

Furthermore, access to health services is determined by income level; as a result, economic and social inequality, compounded by factors such as gender or ethnic identity, have a damaging effect on health, decreasing access to the benefits of growth and development, such as employment.

Economic growth is one of the factors that most influences poverty reduction. It is now common knowledge that, if the economy grows rapidly, poverty declines in direct proportion (11). Overall, economic growth helps reduce poverty and improve equality through job creation (12).

<sup>1</sup> All economic figures in this document are given in U.S. dollars (US\$), unless stated otherwise.

There are contemporary cases of rapid economic growth that have resulted in impressive poverty reductions. This does not mean that economic growth and reduction of inequality are concomitant, because specific and deliberate measures are required to achieve the latter. Furthermore, in case unless public policies, the acceleration of economic growth can help perpetuate and increase inequality. An example of the positive effects of economic growth was seen in East Asia, where annual economic growth rates on the order of 10% helped reduce the number of people living in extreme poverty. Between 1990 and 2005, the World Bank estimated that the number of people in China living on less than US\$ 1.25 a day had dropped from 680 million to 200 million, i.e., from 60% to 16% of the population (7).

During the first years of this century, Latin America and the Caribbean similarly experienced the effects of economic growth and decreases in extreme poverty and inequality. Though less impressive than East Asia's rates, and after their erratic economic growth in the 1990s (13), the economies of Latin America and the Caribbean reported average growth rates of 5% annually in 2000 to 2012 (14). This boom was propelled by increased returns on raw materials traditionally exported by these countries, stimulated in turn by economic growth in China and India. This growth enabled substantial reductions in poverty, including extreme poverty (15).

The development of Latin America and the Caribbean in the first decade of this century can be considered most impressive. Except for 2009, which was a year of contraction due to global recession, the rest of the decade saw poverty decline 16 percentage points, from 41.6% in 2003 to 25.3% in 2012. During the same period, the proportion of the population living in extreme poverty was halved, from 24.5% to 12.3%. The World Bank estimated that a total of 70 million people ceased being poor in Latin America and the Caribbean, one of the most consistent reductions of poverty in several decades (16).

According to the World Bank, inequality in Latin America and the Caribbean decreased, as reflected by the reduction of the Gini coefficient<sup>2</sup> from 0.57 in 2000 to 0.52 in 2012 (16). Also, according to the International Monetary Fund (IMF), in the 1990s the same subregion had rising inequality; but, like the World Bank report before 2000, inequalities then started to decrease (17), as shown in Table 1. This is considered an unprecedented and novel reduction (16).

**Table 1. Gini index<sup>3</sup>: advanced and developing economies, 1995-2010**

Region	1990	1995	2000	2005	2010
Latin America and the Caribbean	49.7	51.7	51.0	50.3	48.6
Advanced economies	28.4	29.4	29.8	30.1	30.1
Emerging Europe	29.4	33.6	33.6	33.9	33.0
Asia Pacific	28.4	29.4	29.8	30.1	30.1

**Source:** Bastagli, F. et al. IMF 2012 (17).

These figures suggest that Latin America and the Caribbean is a less unequal region, unlike in some comparisons performed 10 or more years ago (Table 2).

<sup>2</sup> In this case, the Gini coefficient measures income inequality; a coefficient of "0" denotes complete equality, and a coefficient of "1," complete inequality.

<sup>3</sup> Gini index is the Gini coefficient as a percentage.

**Table 2. Gini index: per capita household income, stratified by region, 1970-1990**

Region	Gini coefficient			
	1970	1980	1990	Average
Latin America	48.4	50.8	52.2	50.5
Asia	40.2	40.4	41.2	40.6
OECD	32.3	32.5	34.2	33.0
Eastern Europe	28.3	29.3	32.8	30.1

OECD: Organisation for Economic Cooperation and Development.

**Source:** World Bank (2004) (18).

Just as periods of economic “boom” help reduce poverty and inequality, economic downturns reverse those achievements. For example, in the 1980s, known as the Region’s “lost” decade, there was a severe economic contraction during which up to 48.3% of the population was living in poverty, according to IMF estimates (19). Similarly, during the 2009 downturn resulting from the global recession, the World Bank estimated that the number of people living in poverty in Latin America and the Caribbean grew by 2.1 million (20). Based on recent experience with economic cycles, ECLAC estimates that poverty declined 0.6% during boom periods and increased 1.8% during recessions (13).

The impact of economic contractions on poverty is also observed in advanced economies, as shown by U.S. Census Bureau data (21). From the start of the Great Recession in December 2007 to late 2009, the real median annual household income in the country declined from US\$ 52 163 to US\$ 49 777. Furthermore, the number of persons living in poverty rose from 39.8 million in 2008 to 43.6 million in 2009, i.e., from 13.2% to 14.3% of the population, respectively.

Currently, the economies of Latin America and the Caribbean are entering another stage of limited growth, with a consequential risk for increased poverty and inequalities. International organizations agree that annual economic growth for the area in 2015 will be as low as 1%, mainly due to a decline in commodity prices, which primarily affects South American economies.

Recent estimates of the current economic slowdown’s impact on poverty and inequality in Latin America and the Caribbean indicate that initially, the decline in growth will have a negative effect on personal income, as a consequence of a reduction in employment. A World Bank study estimates that almost two-thirds of the area’s reductions in extreme poverty in 2003 to 2013 can be attributed to increased job earnings. In turn, these earnings account for almost one-half of the inequality reduction observed for the same time period. From these estimates, one may conclude that, as a result of the decline in growth which started with the Great Recession of 2009, inequality reduction in Latin America has stagnated (22).

However, economic growth by itself does not guarantee better health outcomes, unless deliberate efforts are made to improve social protection. In any case, it is useful to recognize that health and growth are part of a virtuous cycle and that higher growth rates are needed to improve the former. According to the World Bank, as a result of this synergy, “good health boosts economic growth, and economic growth enables further gains in health” (23).

In addition, will be important, vigorous economic growth must be supplemented by social welfare policies, especially to reduce inequality. Among such policies, conditional cash transfers (CCTs) and the drive for universal health care and social security stand out. On a par with those programs, in some countries of the Region, private transfers also helped reduce poverty and inequality, with particular emphasis on migrants’ remittances to their countries of origin.

In 1997, the Government of Mexico started a CCT program known as *Progresa*, that covered 300 000 people and was designed to reduce poverty and prevent its intergenerational transmission. Almost simultaneously, the cities of Brasília and Campinas in Brazil began municipal CCT programs known as *Bolsa Escola*. The core characteristic of these programs is the provision of cash transfers under specific conditions, particularly regarding improvement of the human capital of children, — e.g., taking children under 5 years of age to medical visits for vaccinations and growth evaluation. For pregnant women,

conditions include attendance of educational sessions and skilled antenatal and postnatal care. The intersectoral nature of CCT programs generates synergies between health, education, and development, a fact that, coupled with their focus on the families in the most vulnerable situations, has helped reduce the effects of poverty and inequality in Latin America and the Caribbean (24).

During the last decade, Mexico's pioneering program was expanded to reach 5 million homes in 2008 (*Oportunidades* program). In Brazil, the *Bolsa Escola* program was turned into the *Bolsa Família* program, which reached 12 million families in 2008 (24).

In 2009, ECLAC estimated that CCT programs reached 25 million families, or more than 113 million people, across 20 countries (25). In Colombia, for instance, the *Familias en Acción* program covered 20% of all households; while in Jamaica, the *Program of Advancement through Health and Education* (PATH) reached nearly 12% of the population. Examples in other countries include the *Chile Solidario* program, which is geared toward the segment of the population in the most vulnerable situations of the population and benefitting 215 000 households as of 2010. An evaluation of this program revealed that poverty had been reduced by 18% (and extreme poverty by 35%) among rural beneficiaries. As of 2014, ECLAC was aware of 49 CCT programs in Latin America and the Caribbean (24).

In 2009, the World Bank carried out an evaluation of several CCT programs in place in Latin America and the Caribbean (26). The report provided sufficient evidence that these programs have largely focused on the poorest segments of the population and have helped increase consumption and reduce poverty. A significant increase in health services utilization and education among beneficiary households was also documented (27). Still, the available data did not indicate any long-term improvements, such as effects on life expectancy at birth, nutrition, or learning ability. The evaluation concludes that CCT programs by themselves are not sufficient to yield end results. This requires adoption of supplemental measures, such as improving the quality of health and education services. As a result, CCT should be considered only one element of a comprehensive social protection program (26).

## Gender and inequality

Since 1946, the WHO Member States have agreed 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, economic or social condition” (28). Nevertheless, in comparison with other goals on which PAHO has over a century's worth of experience, there was little precedent for analysis of how gender disparities contribute to health inequities in the Americas.

As a result, the search for that information did not begin until after 2002, when the mandate that poverty, gender, and ethnicity should be considered “determinants of inequities in the health situation and in access to health care” was included in the Strategic Plan of the Pan American Sanitary Bureau (PASB) (29). Compliance with that mandate began through a series of institutional measures, including the establishment of the PAHO Gender, Ethnicity, and Human Rights Unit under the Office of the Assistant Director. Since then, focal points on gender have gradually been established in each PAHO/WHO Representative Office, as well as in the Ministries of Health of each Member State.

The next step consisted of addressing the lack of data on the relationship between gender and health, as neither health statistics nor national figures had reliable data disaggregated by sex. To bridge this gap, the *Gender Mainstreaming in Health: A Practical Guide* document was created, and the staff charged with compiling statistical information were given the proper training (30).

In addition to its intrinsic value, data collection lays bare inequalities in health services delivery, highlighting a health system's deficiencies and challenges. Furthermore, the availability of reliable information promotes research by academia and civil society organizations, which in turn, helps increase documentation, in this case of the relationship between gender and health. For example, PAHO itself conducted an analysis of the deficiencies of the concepts of gross domestic product (GDP) and economically active population (EAP), which found that these indicators did not include unpaid domestic work, which is predominantly—almost always— carried out by women (31).

The accumulated evidence generated institutional capacity among Member States and in the Organization to address the relationship between gender and health, culminating with the adoption by the PAHO Directing Council of Resolution CD 46.R16, which contains the elements of the policy of the Organization, aimed to “contribute to the achievement of gender equality in health status and health development” in order to “actively promote equality and equity between women and men” (32). Subsequently, in 2009, the Organization approved the Plan of Action for Implementing the Gender Equality Policy 2009-2014, which identifies activities in four strategic areas (33):

- Increase collection of information disaggregated by sex with the purpose of constructing a scientific evidence base on gender and health.
- Develop instruments for advancing the integration of gender equality in health policies, programs, and projects.
- Promote and strengthen civil society involvement, especially of the organizations that advocate for gender equality, in decision-making and implementation of activities.
- Institutionalize gender equality policies and strengthen supervisory mechanisms to evaluate the effectiveness of measures and activities carried out to that end.



Photo: PAHO



## CHAPTER II.

# Regional progress towards achieving the health-related MDGs, 1990-2015

This chapter evaluates the health-related Millennium Development Goals and the progress made through contributions toward their achievement, many of them represented by the mandates of PAHO Governing Bodies in the period 2000-2015. Relevant indicators for each target are included when applicable.

## MDG 1: Eradicate Extreme Poverty and Hunger

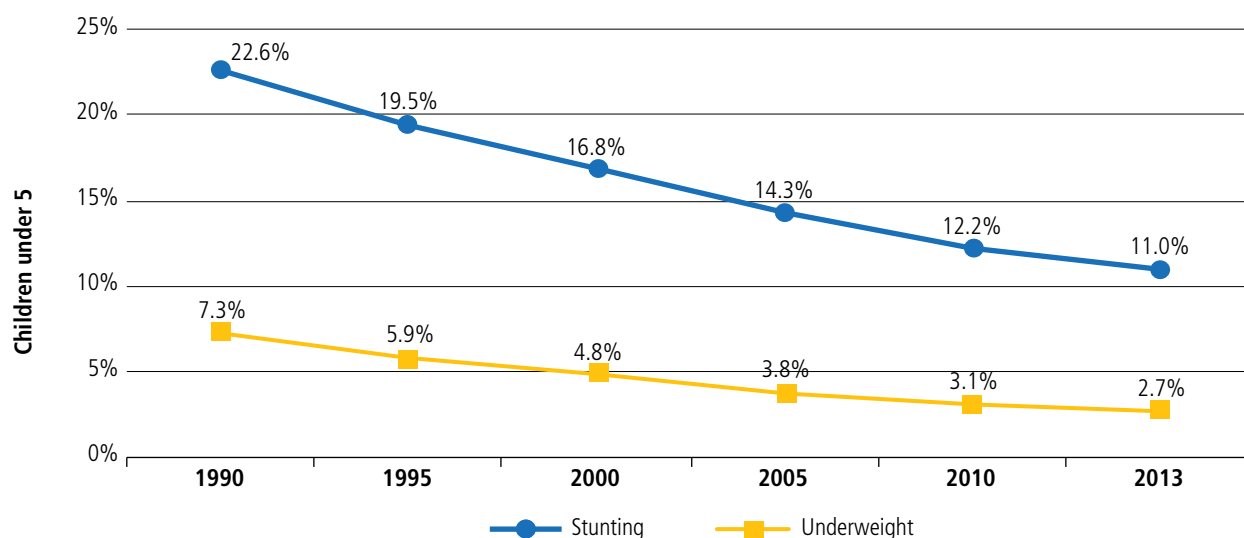
### *Target 1.C: Halve, between 1990 and 2015, the proportion of people who suffer from hunger*

In Latin America and the Caribbean, this target was reached with time to spare, but 11 countries are still in the process (34). Despite unquestionable improvement in this regional indicator, there are still nearly 37 million people lacking the means to obtain food in sufficient quantity or of sufficient quality. Furthermore, the socio-economic development, the country policies, and the changes in lifestyles related to diet and physical activity in the Region of the Americas is leading to chronic nutrition-related complications, such as obesity (35).

#### **Indicator 1.8<sup>4</sup>. Prevalence of underweight children under 5 years of age**

In Latin America and the Caribbean, the proportion of underweight children under 5 years of age has declined steadily, from 7.3% in 1990 to 2.7% in 2013 (36). However, as Figure 2 shows, progress has been less encouraging with regard to height-for-age, an epidemiological indicator that measures chronic malnutrition (37). According to this indicator, LAC has succeeded in reducing stunting by nearly one-half, from 12.6 million (22.6%) in 1990 to about 6 million (11.0%) in 2013 (36).

**Figure 2. Proportion of underweight and stunted children under 5, Latin America and the Caribbean, 1990-2013**



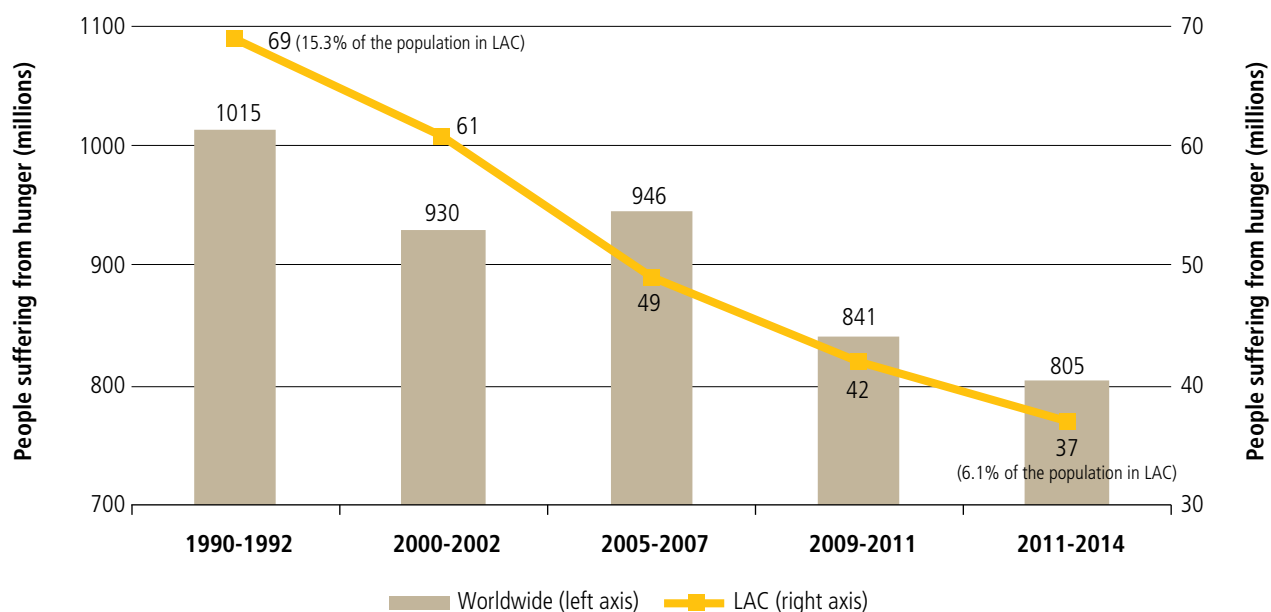
Source: WHO, 2014 (36).

<sup>4</sup> This numbering corresponds to the official list of MDG indicators.

### Indicator 1.9. Proportion of population below minimum level of dietary energy consumption

According to recent estimates, in 2014, nearly 37 million people, or 6.1% of the total population of Latin America and the Caribbean, suffered from hunger and lacked access to enough food to meet minimum dietary energy requirements. This represents a reduction of almost one-half since the 1990-1992 period, during which 69 million people, or 15.3% of the population, were living in such conditions, thereby achieving the target set with a reduction in hunger of 60.1% in LAC. (Figure 3) (34).

**Figure 3. Hunger worldwide and in Latin America and the Caribbean (in millions of people affected), 1990-2014**



LAC: Latin America and the Caribbean

Source: FAO, 2014 (34).

### MDG 1 contributions

PAHO has 60 or more years of experience in tackling malnutrition. Since the late 1940s, PAHO has provided decisive support to the Institute of Nutrition of Central America and Panama (INCAP)<sup>5</sup>, both for its establishment and for its operations in this subregion, on matters ranging from research and development of food technologies to expert training (38). INCAP<sup>5</sup> is one of the richest sources of data concerning the impact of nutrition on the first years of life; those data were obtained as the result of a longitudinal study conducted in four villages of Guatemala that began between 1969 and 1977 and lasted 35 years (39).

In 2005, the Hunger-Free Latin America and the Caribbean Initiative, which established a political commitment to eradicate hunger in the Region, was proposed and adopted by 33 members of the Community of Latin American and Caribbean States (CELAC).

Recognizing that tackling malnutrition requires medium- and short-term work, in 2006, PAHO approved a Regional Strategy and Plan of Action on Nutrition in Health and Development (40). Its goal is to improve the nutritional status of groups in most vulnerable situations, given that the incidence of malnutrition is highest among the poor and ethnic minorities (41).

Furthermore, to address the fact that nutrition and its impact on health constitute cross-cutting topics that are part of the working programs of several institutions, in 2008, PAHO Headquarters hosted a meeting of regional directors of United Nations agencies, which led to the establishment of the Pan American Alliance for Nutrition and Development (*Alianza Panamericana por la Nutrición, la Salud y el Desarrollo*) (42). The Alliance was created with the purpose of addressing the

<sup>5</sup> A sub-regional organization, headquartered in Guatemala, which receives PAHO support.

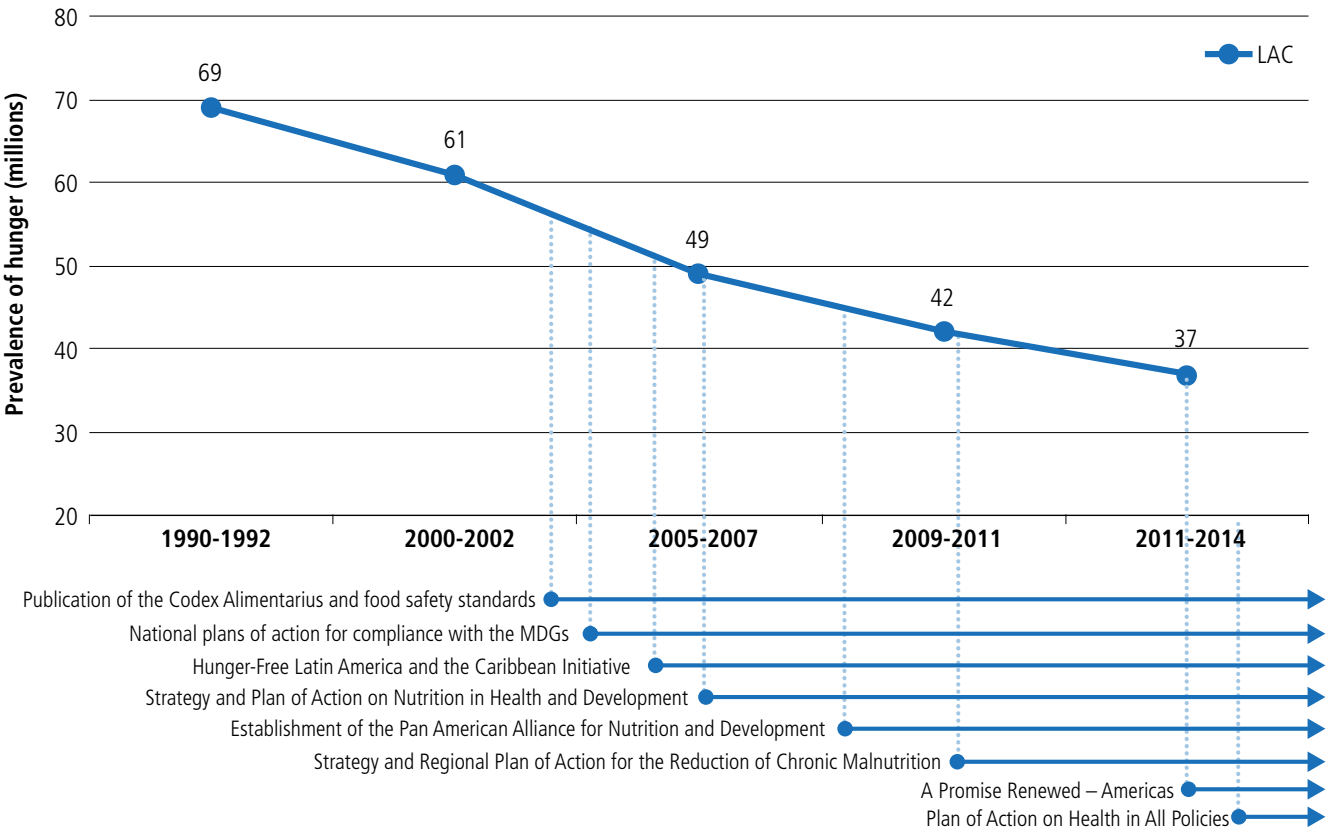
social determinants of health and nutrition in a coordinated manner, especially among social groups in the most vulnerable situations. Its core activities are:

- Development of approaches to designed to modify social determinants.
- Use of a multisectoral approach.
- Construction of an effective institutional framework to coordinate joint activities at the local, national, regional, and transnational levels.
- Selection and implementation of evidence-based, integrated, and sustainable interventions.
- Identification of scenarios and geodemographic spaces for said contributions to yield the best possible results.

Finally, in view of the higher prevalence of chronic malnutrition in the Region, in 2010, the PAHO Directing Council approved the Strategy and Regional Plan of Action for the Reduction of Chronic Malnutrition (43).

Encouraging trends in the reduction of hunger and malnutrition over the last 15 years can be explained by a combination of regional and global factors (44), both contextual and specific (Figure 4), particularly in those countries whose governments have made progress toward the consolidation of food and nutrition security (Table 3).

**Figure 4. Number of people suffering from hunger and contributions to address it, Latin America and the Caribbean, 1990-2014**



LAC: Latin America and the Caribbean.  
**Source:** FAO, 2014 (34); PAHO/SDE, 2015.

**Table 3. National policies, plans, and strategies for food and nutrition security in Latin America and the Caribbean and their dates of implementation**

Country	Year implemented	Name	Availability	Access	Utilization	Stability
Antigua and Barbuda	Since 2012	Food and Nutrition Security Policy	*	*	*	*
Argentina	SINCE 2013	National Food Security Plan ( <i>Plan Nacional de Seguridad Alimentaria</i> )		*	*	
Belize	SINCE 2010	The National Food and Nutrition Security Police of Belize	*	*	*	
Brazil	SINCE 2010	National Food and Nutrition Security Policy ( <i>Política Nacional de Segurança Alimentar e Nutricional</i> )	*	*	*	
Brazil	2012-2015	National Food and Nutrition Security Plan ( <i>Plano Nacional de Segurança Alimentar e Nutricional</i> )	*	*	*	
Colombia	SINCE 2008	National Food and Nutrition Security Policy ( <i>Política Nacional de Seguridad Alimentaria y Nutricional</i> )	*	*	*	*
Colombia	2012-2019	National Food and Nutrition Security Plan ( <i>Plan Nacional de Seguridad Alimentaria y Nutricional</i> )	*	*	*	*
Costa Rica	2011-2021	National Food Security Policy ( <i>Política Nacional de Seguridad Alimentaria</i> )	*	*	*	*
Costa Rica	2011-2015	National Food and Nutrition Security Policy ( <i>Política Nacional de Seguridad Alimentaria y Nutricional</i> )	*	*	*	*
El Salvador	2011-2015	National Food and Nutrition Security Policy ( <i>Política Nacional de Seguridad Alimentaria y Nutricional</i> )	*	*	*	*
El Salvador	2013-2016	National Food and Nutrition Security Policy ( <i>Política Nacional de Seguridad Alimentaria y Nutricional</i> )	*	*	*	*
Guatemala	SINCE 2005	National Food and Nutrition Security Policy ( <i>Política Nacional de Seguridad Alimentaria y Nutricional</i> )	*	*	*	*
Guatemala	2012-2016	National Food and Nutrition Security Policy ( <i>Política Nacional de Seguridad Alimentaria y Nutricional</i> )	*	*	*	*
Guatemala	2012-2015	Zero Hunger Pact Plan ( <i>Plan de Pacto Hambre-Cero</i> )		*	*	
Guyana	SINCE 2011	Food and Nutrition Security Strategy for Guyana	*	*	*	*
Haiti	2010-2025	Plan National de Sécurité Alimentaire et Nutritionnelle	*	*	*	*
Honduras	SINCE 2006	Long-term Food and Nutrition Security Policy ( <i>Política de Seguridad Alimentaria y Nutricional de Largo Plazo</i> )		*	*	*
Jamaica	SINCE 2012	Food and Nutrition Security Policy	*	*	*	*
Jamaica	SINCE 2013	Food and Nutrition Security Policy Action Plan	*	*	*	*
Mexico	SINCE 2013	National Crusade Against Hunger Strategy ( <i>Estrategia de la Cruzada Nacional Contra el Hambre</i> )	*	*	*	*
Nicaragua	SINCE 2009	Food and Nutrition Security and Sovereignty from the Agricultural and Rural Public Sector Policy ( <i>Política de Seguridad y Soberanía Alimentaria y Nutricional desde el Sector público Agropecuario y Rural</i> )	*	*	*	
Panama	2009-2015	National Food and Nutrition Security Plan ( <i>Plan Nacional de Seguridad Alimentaria y Nutricional</i> )	*	*	*	*
Peru	2013-2021	National Food and Nutrition Security Strategy ( <i>Estrategia Nacional de Seguridad Alimentaria y Nutricional</i> )	*	*	*	*
Saint Lucia	SINCE 2013	Food and Nutrition Security Policy and Action Plan	*	*	*	*

Source: FAO, 2014 (34).

PAHO Governing Body resolutions related to MDG 1 are listed in Box 1 below.

**Box 1. PAHO Governing Body resolutions related to MDG 1**

CD44.R7	Report of the 13th Inter-American Meeting, at the Ministerial Level, on Health and Agriculture, 44th PAHO Directing Council, 2003 (45)
CD47.R8	Regional Strategy and Plan of Action on Nutrition in Health and Development, 2006-2015, 47th PAHO Directing Council, 2006 (40)
CD50.R11	Strategy and Plan of Action for the Reduction of Chronic Malnutrition, 50th PAHO Directing Council, 2010 (43)
CD51.R5	Strategy and Plan of Action on eHealth, 51st PAHO Directing Council, 2011 (46)
CD51/DIV/7	Health and the Millennium Development Goals: From Commitment to Action (PAHO Director's Annual Report 2011), 51st PAHO Directing Council, 2011 (47)
CE154.R2	Plan of Action for the Prevention of Obesity in Children and Adolescents, 154th Session of the PAHO Executive Committee, 2014 (48)

# MDG 4: Reduce Child Mortality

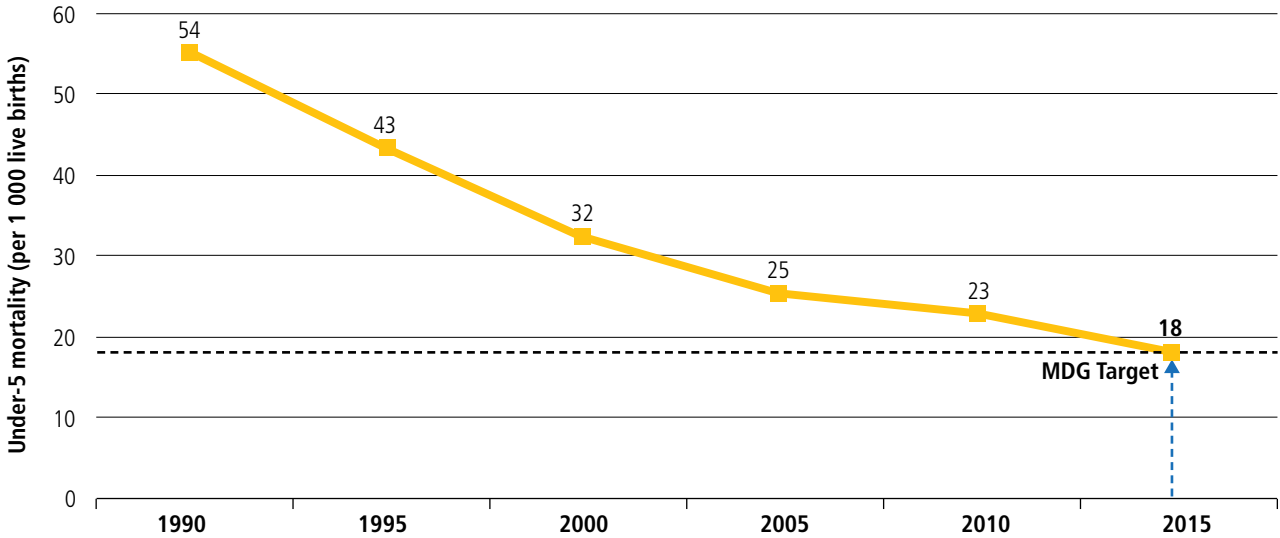
## Target 4.A: Reduce by two-thirds, between 1990 and 2015, the under-5 mortality rate

Since 1990, there have been remarkable advances in terms of reducing the under-5 mortality rate in the Americas, so much so that the target was reached before the expected deadline. This is the result of a confluence of different factors. On the one hand, basic health services coverage has been expanded significantly in the primary level of care, through interventions such as vaccination, oral rehydration, and monitoring of child growth. In tandem, the coverage of some public services, such as drinking water and basic sanitation, increased markedly, alongside increases in the education of women and in access to family planning methods.

### Indicator 4.1. Under-5 mortality rate

According to the United Nations Inter-agency Group for Child Mortality Estimation (IGME), made up of UNICEF, WHO, the World Bank, and the United Nations Population Division, in 1990, the under-5 mortality rate was 54 per 1 000 live births. In 2015, that rate declined to 18 per 1 000 live births (Figure 5); thus, the proposed target was reached (49).

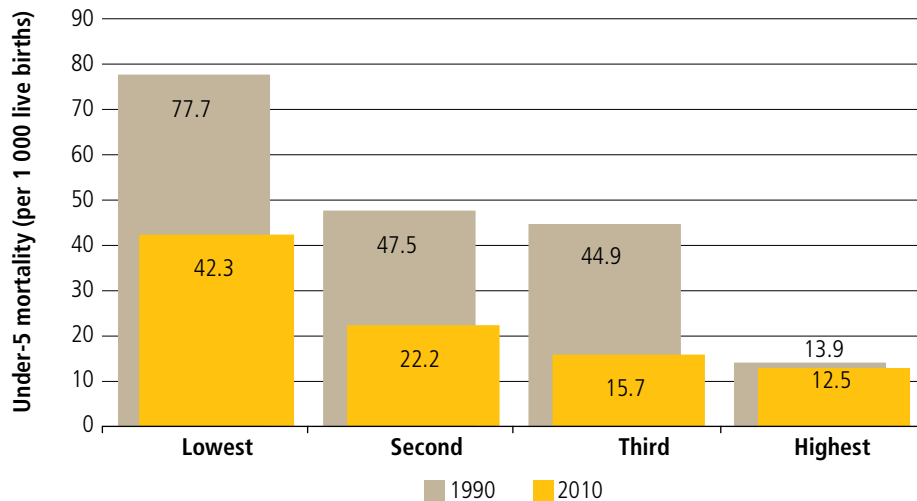
Figure 5. Under 5 mortality rate (per 1 000 live births), Latin America and the Caribbean, 1990-2015



Source: IGME, 2015 (49).

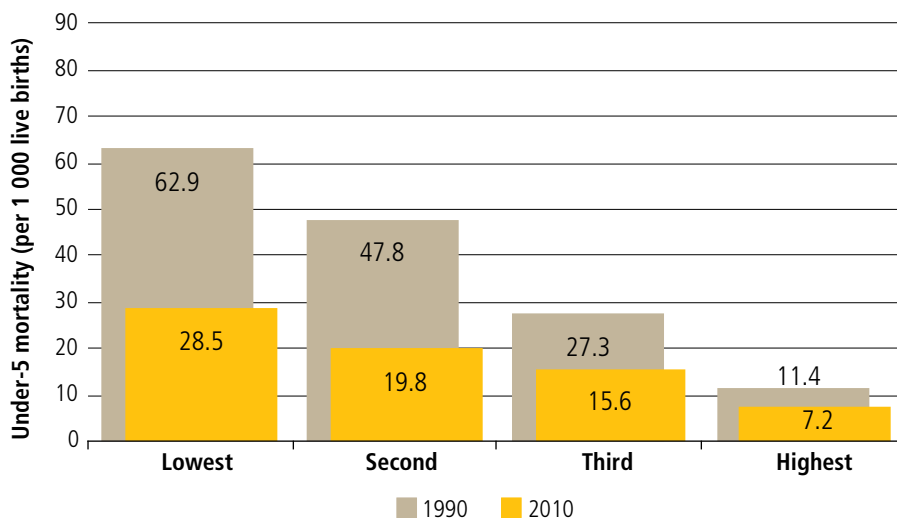
However, achievements reflected in regional averages conceal differences in the manner in which each country approached the target. In turn, national averages conceal the differences that exist within each country, across different geographic areas and administrative divisions, as well as among different demographic groups and urban areas. Indicators have improved, but inequalities persist as seen in Figures 6 and 7, where mortality rates among children under 5 years in countries of the Region are different, when assessed by quartiles, in terms of access to safe water and years of schooling of women.

**Figure 6. Under 5 mortality rate by country quartile of access to safe water, Latin America and the Caribbean, 1990 and 2010**



Source: PAHO/SDE, 2015.

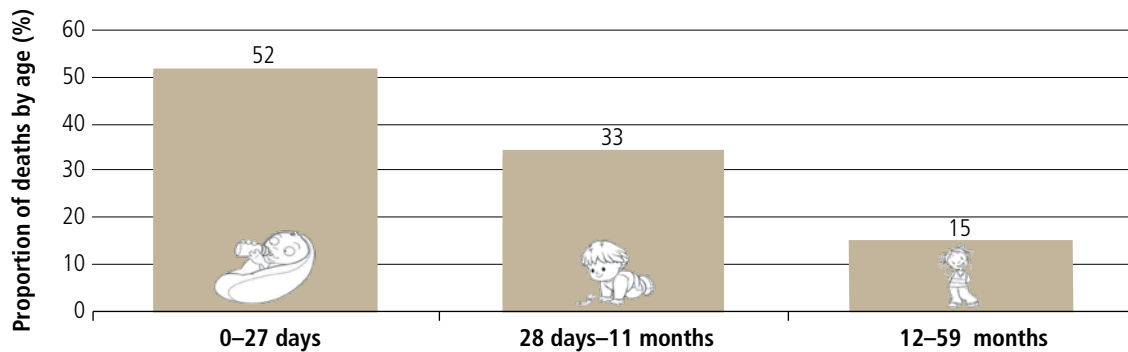
**Figure 7. Under 5 mortality rate by country quartile of female educational attainment, Latin America and the Caribbean, 1990 and 2010**



Source: PAHO/SDE, 2015.

If the group of children under 5 years is proportionally disaggregated into more specific age groups, differences in mortality (Figure 8) are observed. For example, in 2015, using the estimations, the number of deaths in the 12- to 59-month age group was 29 000, which corresponds to 15% of all deaths of children under 5. Among children aged 28 days to 11 months, there were 65 000 deaths, accounting for 33% of the total. Finally, the greatest number of deaths occurred in the neonatal group (0-27 days of age), with 102 000 deaths, or 52% of the total (49).

**Figure 8. Deaths of children under 5, proportionally disaggregated by age group (%), Latin America and the Caribbean, 2015**



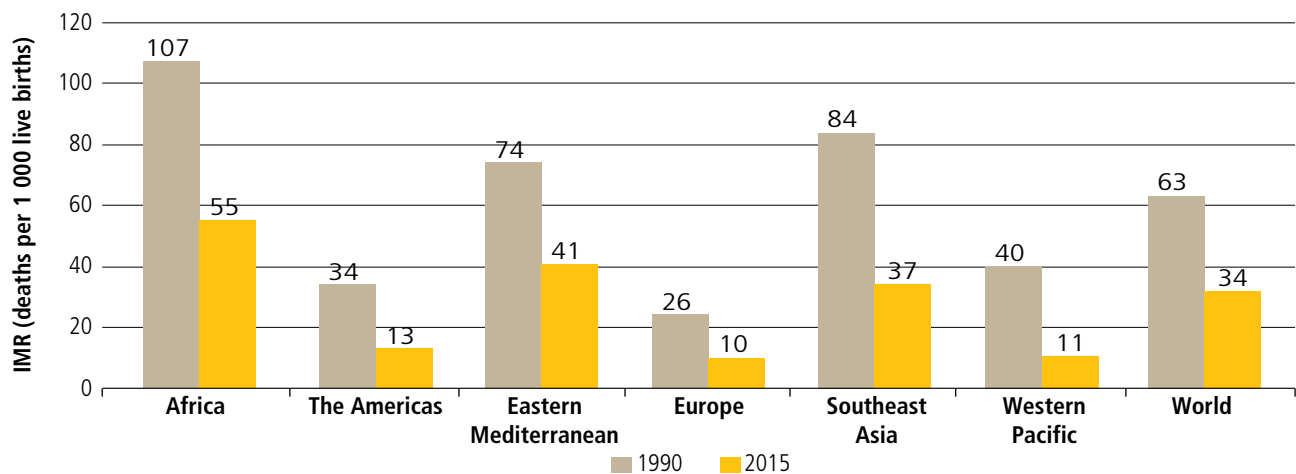
Source: IGME, 2015 (49).

Furthermore, the causes of mortality differ among different groups of children under 5. After the neonatal period, the leading causes of infant mortality are infectious diseases, such as pneumonia, diarrheal diseases, and other vaccine-preventable diseases. Malnutrition causes approximately 45% of deaths of children under 5 (50).

#### Indicator 4.2. Infant mortality rate

The infant mortality rate (IMR) per 1 000 live births in the Region of the Americas was 34 in 1990; by 2015, it had dropped to 13 per 1 000 live births, i.e., a 62% reduction (Figure 9). However, reductions have been unequal, because many regions continue to have high IMRs (49).

**Figure 9. Infant mortality rate (IMR), WHO Regions, 1990 and 2015**

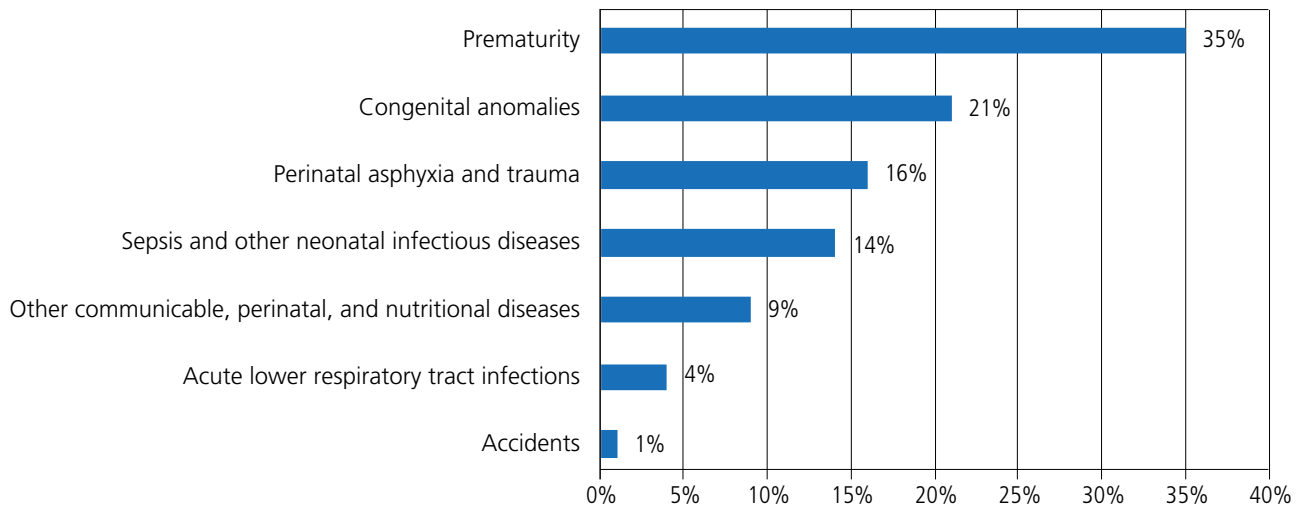


Source: IGME, 2015 (49).

In 2012, prematurity was the leading cause of neonatal death, as illustrated in Figure 10. Furthermore, although low birth weight is not considered a direct cause of neonatal mortality, it is a contributing factor (51).



**Figure 10. Percent distribution of neonatal mortality by cause, Latin America and the Caribbean, 2012**



**Source:** IGME, 2015 (49).

It bears stressing that many of the causes of neonatal mortality are preventable, but one of the obstacles to achieving prevention is that most neonatal deaths occur in rural areas and among indigenous groups, where access to high-quality health services is limited (52).

#### **Indicator 4.3. Proportion of 1-year-old children immunized against measles**

In 1990, 76% of children in this age group had received at least one dose of the measles vaccine. Since then, vaccine coverage has increased; in 2012, the year with the best coverage, it reached 95%, but, in 2013, it dropped to 92% (53). Since 2002, Latin America and the Caribbean have eliminated endemic measles as a cause of infant mortality (54). This was achieved largely as a result of tools provided and activities undertaken with the support of PAHO to promote vaccination. Among children aged 12 to 23 months, measles has been effectively and successfully eliminated through administration of a low-cost vaccine and later revaccination to confer lifelong protection.

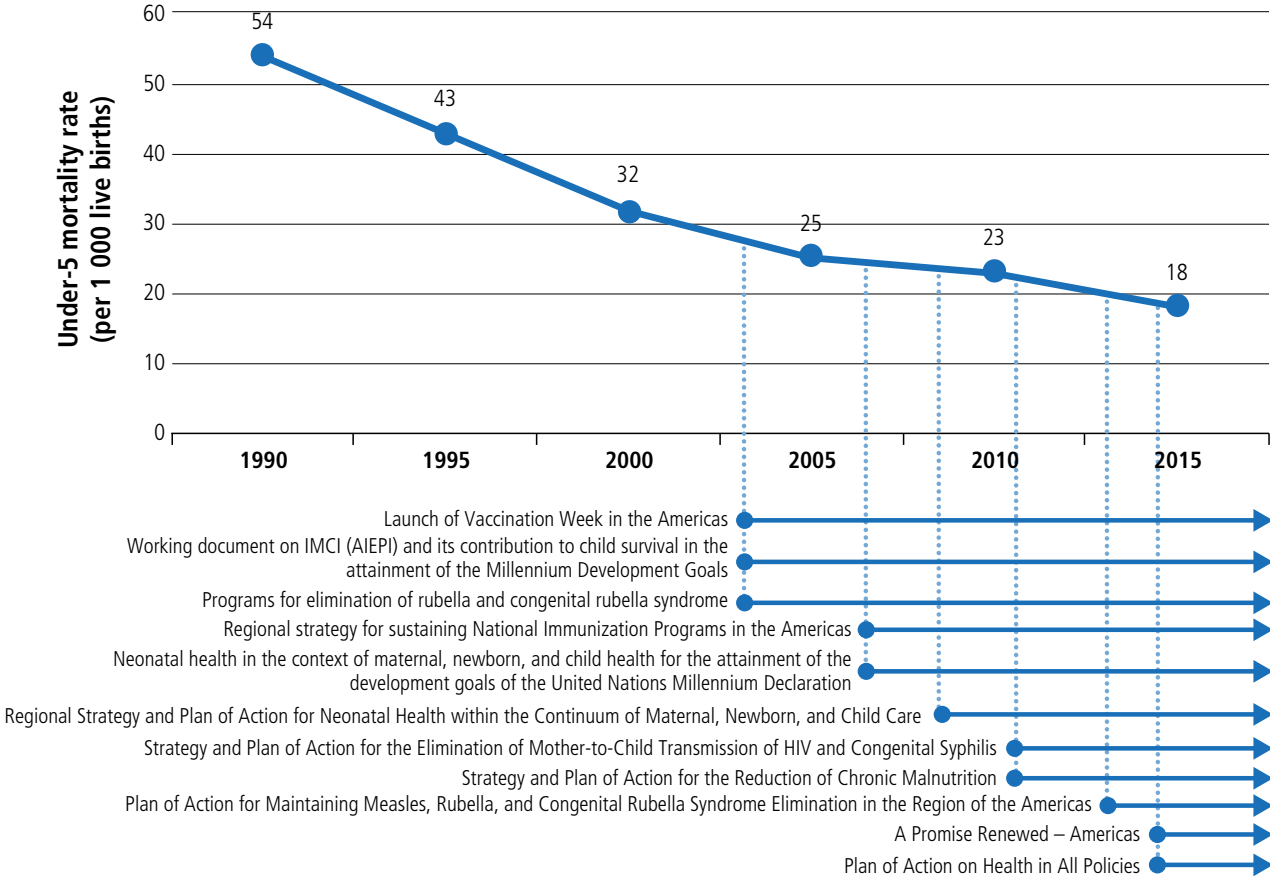
#### **MDG 4 contributions**

Reduction of child mortality was the result of several contributions implemented with PAHO support. Highlights include partnerships established with multilateral agencies, governments, and civil society organizations; the creation of an effective mechanism to promote vaccination; and the development of strategies to reduce the incidence of the leading causes of infant mortality (Figure 11).

In August 1977, the PAHO Directing Council approved the Expanded Program on Immunization (EPI) to support national immunization programs. This decision included the establishment of the Revolving Fund for Vaccine Procurement, known as the PAHO Revolving Fund. Therefore, PAHO Member States have over three decades' worth of experience with joint promotion of vaccination in the Region. EPI assigned the following goals to the Revolving Fund (55):

- Prevent interruptions in national vaccination programs due to lack of inputs or funds.
- Allow use of national currencies to reimburse funds provided by the Revolving Fund.
- Create economies of scale through centralized procurement of vaccines at the lowest price.
- Ensure that the purchased vaccines meet the quality standards stipulated by PAHO/WHO.
- Establish agreements with suppliers to ensure timely delivery of vaccine orders.

**Figure 11. Under 5 mortality rate (per 1 000 live births) and contributions undertaken to reduce it, Latin America and the Caribbean, 1990-2015**



Source: IGME, 2015 (49); PAHO/SDE, 2015.

The initial working capital of the Fund, to offer a 60-day line of credit to Member States, was established with contributions from PAHO itself and from the Governments of Barbados and the Government of the Netherlands. Those resources were subsequently supplemented with contributions from the Government of the United States of America and from UNICEF. These initial contributions amounted to US\$ 1 million and enabled the Fund to initiate operations in 1979, with the participation of eight Member States and coverage of six antigens. More than 35 years later, 41 countries participate in the Revolving Fund, which now manages the supply of 46 vaccine formulations from 31 manufacturers. The Fund's working capital is over US\$ 120 million. In 2013, nearly 15 million people were vaccinated in the Region, and more than 95% of the cost of these vaccines was covered by national funds. In 2014, approximately 283.6 million doses of vaccines were purchased through the Revolving Fund (56).

In 2002, a measles outbreak in Colombia and Venezuela resulted in the countries setting their sights on preventing further outbreaks through international vaccination. Immediately thereafter, in 2003, the first Vaccination Week in the Americas (VWA) took place backed by a PAHO Directing Council resolution (57). In 2014, a total of 44 countries participated in VWA, with approximately 51 million people of all ages being vaccinated. Each participating country is given the flexibility to choose which VWA activities to carry out, depending on its local or national needs. Thus, most countries take the opportunity to strengthen their routine vaccination programs, administering vaccines to prevent the following: bacterial pneumonia, congenital rubella, diphtheria, human papillomavirus, influenza, measles, mumps, neonatal tetanus, poliomyelitis, rotavirus

diarrhea, whooping cough, and yellow fever (57). VWA also provides an opportunity for integration of primary care activities, such as administration of vitamin A supplements and deworming.

Vaccination Week in the Americas requires detailed planning and logistics coordination over several months. Preparations range from defining goals and priority populations to drafting a budget, estimating demand and necessary equipment, personnel training, and calculation of operating expenses, all of which are carried out with PAHO technical and financial cooperation (57).

The results of this joint effort by the Member States and the support of the Revolving Fund are reflected in the reduction of infant mortality in the Region. Achievements to date include the eradication of polio, the elimination of indigenous measles and neonatal tetanus, the control of yellow fever, and advances toward the elimination of rubella and congenital rubella syndrome. Epidemiological control of whooping cough and diphtheria has also been achieved (53, 54).

Other PAHO interventions that have contributed to the progress seen in child health include the merging of the Latin American Center for Perinatology with the Women and Reproductive Health Unit (CLAP/WRH), as well as the Integrated Management of Childhood Illness (IMCI) strategy, established in 1996 by WHO and UNICEF. The three main components of this strategy are to (58):

- Improve the performance of health personnel in the prevention and treatment of childhood illness.
- Improve the organization and operation of the health services.
- Improve family and community practices for child care.

In December 2002, a Regional Alliance with the Red Cross of the Americas was established in support of the Healthy Children: Goal 2002 initiative, adopted by 10 countries of the Region with the purpose of improving the delivery of care to children in communities with the most vulnerable situations. The essential commitment of the Partnership was to provide technical and financial support for implementation of the IMCI strategy in these communities (59).

In October 2008, the PAHO Directing Council adopted the Regional Strategy and Plan of Action for Neonatal Health within the Continuum of Maternal, Newborn, and Child Care. To develop this strategy, PAHO led an extensive process of consultations with Member States, other multilateral and bilateral international agencies, and civil society institutions. The purpose of the initiative is to strengthen governments' capacity to reduce maternal and neonatal mortality (52, 60).

In 2013, in Panama City, the Inter-American Development Bank (IDB), PAHO, the Central America Healthcare Initiative (*Salud Mesoamérica 2015*), the Joint United Nations Programme on HIV/AIDS, UNFPA, UNICEF, USAID, and the World Bank met to establish a regional forum for evaluating the progress made by countries of the Region in matters of reproductive, maternal, neonatal, and child health. The initiative led to the regional compromise of a strategy designated, "A Promise Renewed." It seeks to detect significant problems, serve as a venue for sharing models and approaches, and promote joint efforts by mobilizing resources to quicken the pace toward attaining the MDGs and the post-2015 health agenda (9).

PAHO Governing Body resolutions related to MDG 4 are listed in Box 2 below.

#### Box 2. PAHO Governing Body resolutions related to MDG 4

CD25.R27	Expanded Program on Immunization, 25th PAHO Directing Council, 1977 (55)
CD44/12	Integrated Management of Childhood Illnesses (IMCI) and Its Contribution to Child Survival in the Attainment of the Millennium Development Goals, 44th PAHO Directing Council, 2003 (61)
CD44.R1	Sustaining Immunization Programs - Elimination of Rubella and Congenital Rubella Syndrome (CRS), 44th PAHO Directing Council, 2003 (62)
CD45.R3	Millennium Development Goals and Health Targets, 45th PAHO Directing Council, 2004 (63)
CD46/21	Progress Report on Family and Health, 46th PAHO Directing Council, 2005 (64)
CD47.R10	Regional Strategy for Sustaining National Immunization Programs in the Americas, 47th PAHO Directing Council, 2006 (65)
CD47.R19	Neonatal Health in the Context of Maternal, Newborn, and Child Health for the attainment of the Millennium Development Goals , 47th PAHO Directing Council, 2006 (66)
CD48.R4	Regional Strategy and Plan of Action for Neonatal Health within the Continuum of Maternal, Newborn, and Child Care, 48th PAHO Directing Council, 2008 (52)
CD50.R11	Strategy and Plan of Action for the Reduction of Chronic Malnutrition, 50th PAHO Directing Council, 2010 (43)
CD50.R12	Strategy and Plan of Action for the Elimination of Mother-to-Child Transmission of HIV and Congenital Syphilis, 50th PAHO Directing Council, 2010 (67)
CD51/INF/5	Progress Reports on Technical Matters: Progress toward Achievement of the Health-related Millennium Development Goals in the Region of the Americas, 51st PAHO Directing Council, 2011 (68)
CSP28.R14	Plan of Action for Maintaining Measles, Rubella, and Congenital Rubella Syndrome Elimination in the Region of the Americas, 28th Pan American Sanitary Conference, 2012 (69)
CSP28.R20	Strategy and Plan of Action for Integrated Child Health, 28th Pan American Sanitary Conference, 2012 (70)
CD52/INF/4C	Millennium Development Goals and Health Targets in the Region of the Americas, 52nd PAHO Directing Council, 2013 (71)
CD53.R3	PAHO Strategic Plan 2014-2019 Amended, 53rd PAHO Directing Council, 2014 (72)
CD53.R2	Plan of Action on Health in All Policies, 53rd PAHO Directing Council, 2014 (73)
CD53.R13	Plan of Action for the Prevention of Obesity in Children and Adolescents, 53rd PAHO Directing Council, 2014 (74)

## MDG 5: Improve Maternal Health

### Target 5.A: Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio

Sexual and reproductive health is a priority topic in the Region. To reduce inequalities in access to health, it is imperative that women be offered continuous care prior to conception and through pregnancy, childbirth, and the puerperal period, including newborn care (75).

#### Indicator 5.1. Maternal mortality ratio

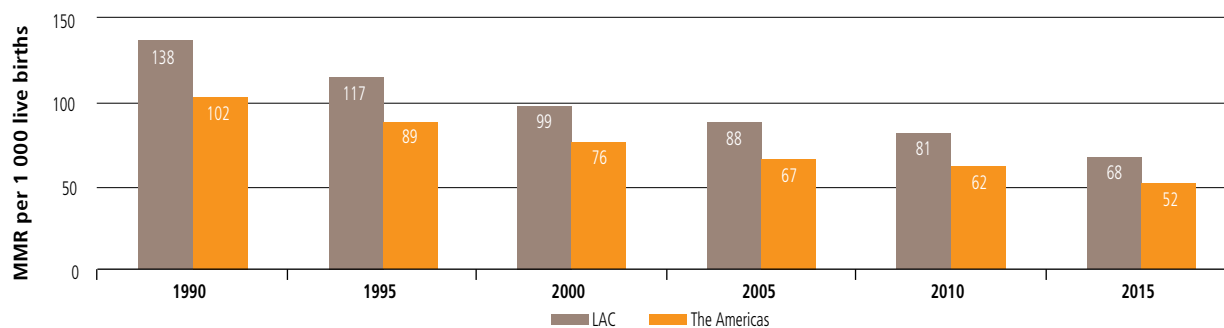
The maternal mortality ratio is defined as the number of deaths of women related to pregnancy, miscarriage, childbirth, and puerperal conditions per 100 000 live births. Pregnancy-related death is defined as the death of a woman while pregnant until 42 days of termination of pregnancy, irrespective of the cause of death. Currently, various institutions calculate estimates of this indicator. This document uses 2015 data from the United Nations Maternal Mortality Estimation Inter-agency Group (MMEIG), which includes WHO, UNICEF, UNFPA, and the World Bank, and data provided by PAHO Member States (76).

The available data on maternal mortality worldwide, in the Americas, and in Latin America and the Caribbean are indicative of a downward trend, which has been confirmed by MMEIG estimates and by other international agencies. However, there are differences between the sources of estimated data.

MMEIG estimates suggest that, between 1990 and 2015, the MMR in the Americas decreased from 102 to 52 per 100 000 live births; and that in Latin America and the Caribbean, it declined from 138 to 68 per 100 000 live births (Figure 12). During this period, the ratio declined on average 2.7% and 2.8% annually in the Americas and in Latin America and the Caribbean, respectively. Therefore, despite progress on maternal mortality, the goal of a 75% reduction was not achieved. Moreover, if maternal mortality rates are calculated by quartiles of income in the countries of the Region, the differences are obvious between the poorest quartiles and the richest (Figure 13) (76).

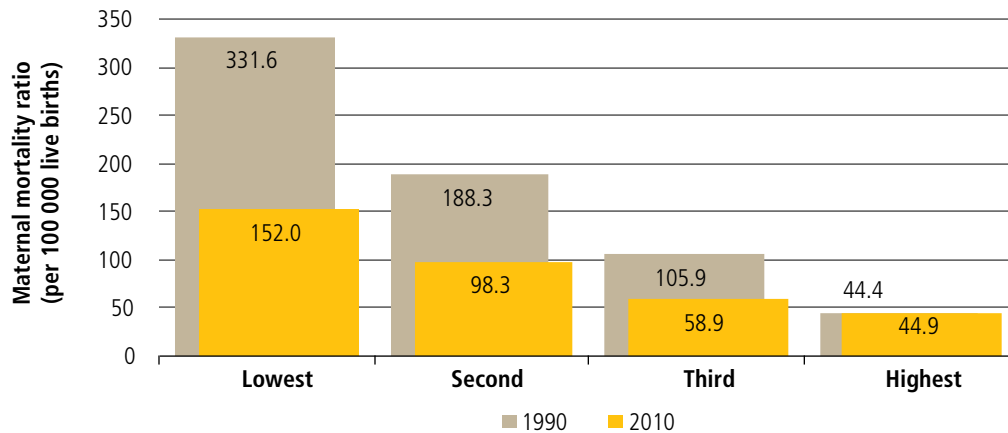
**Figure 12. Maternal mortality ratio (MMR) estimated per 100 000 live births, the Americas and Latin America and the Caribbean, (1990-2015)**

Source: MMEIG (76).



In the Region of the Americas, some maternal mortality figures are not reliable due to deficiencies in death registry coverage. Hence, there was an urgent need to boost capacity for data collection, control, and entry of statistics into health information systems, an initiative promoted by PAHO (77).

**Figure 13. Maternal mortality ratio by country quartile of income, Latin America and the Caribbean, 1990 and 2010**



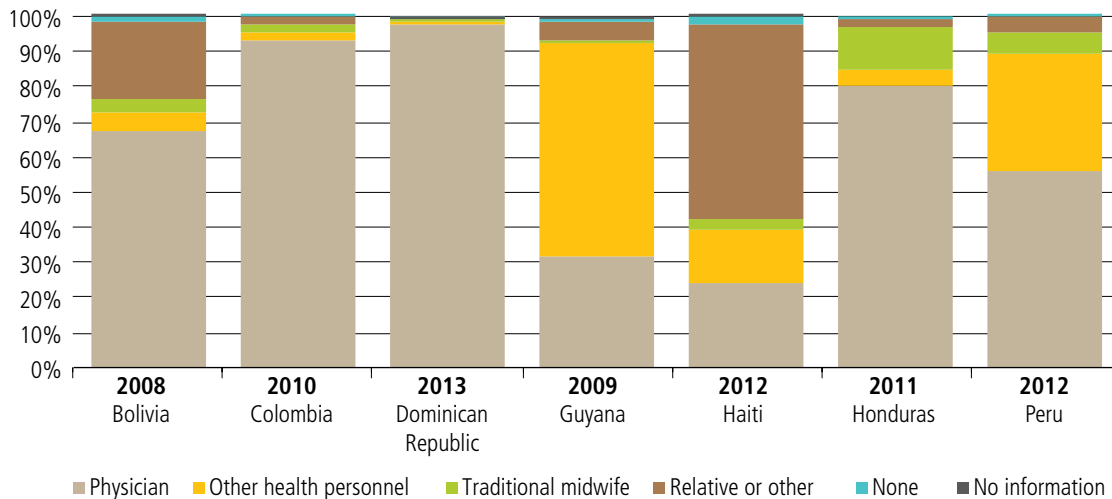
Source: Mujica PAHO/SDE, 2015.

**Indicator 5.2. Proportion of births attended by skilled health personnel**

Maternal mortality is due to direct obstetric causes in 70% of cases, indirect in 27%, and nonspecific in 3%. The fact that most maternal mortality is due to direct obstetric causes highlights the need for pregnancy, childbirth, and puerperium care provided by obstetrics physicians, nurses, or other personnel with the applicable technical and practical training. Nonetheless, some maternal deaths from other causes will always be unavoidable, even if all deliveries are attended by skilled personnel (78).

The proportion of deliveries attended by skilled personnel in the Region improved substantially, from 74% in 1990 to 94% in 2014 (79); these findings are very similar to PAHO data, which indicate that as of 2014, 95.2% of deliveries were optimally served by personnel (77). Currently, 27 of the 36 PAHO Member States have achieved the target of 90% of births attended by a health professional (80). Figure 14 illustrates this proportion in seven countries of the Region.

**Figure 14. Percentage of births attended by skilled health personnel, by type, seven countries in the Americas 2008-2012**



Source: PAHO/SDE, 2014 (80).

For example, in 2012 Haiti had twice as many births attended by health personnel in urban areas than in rural ones. Furthermore, there are significant inequalities in the proportion of births attended by health personnel. For instance, in Bolivia in 2008, the highest income quintile had more than 95% of births attended by health personnel, in contrast with less than 45% in the lowest quintile (80).

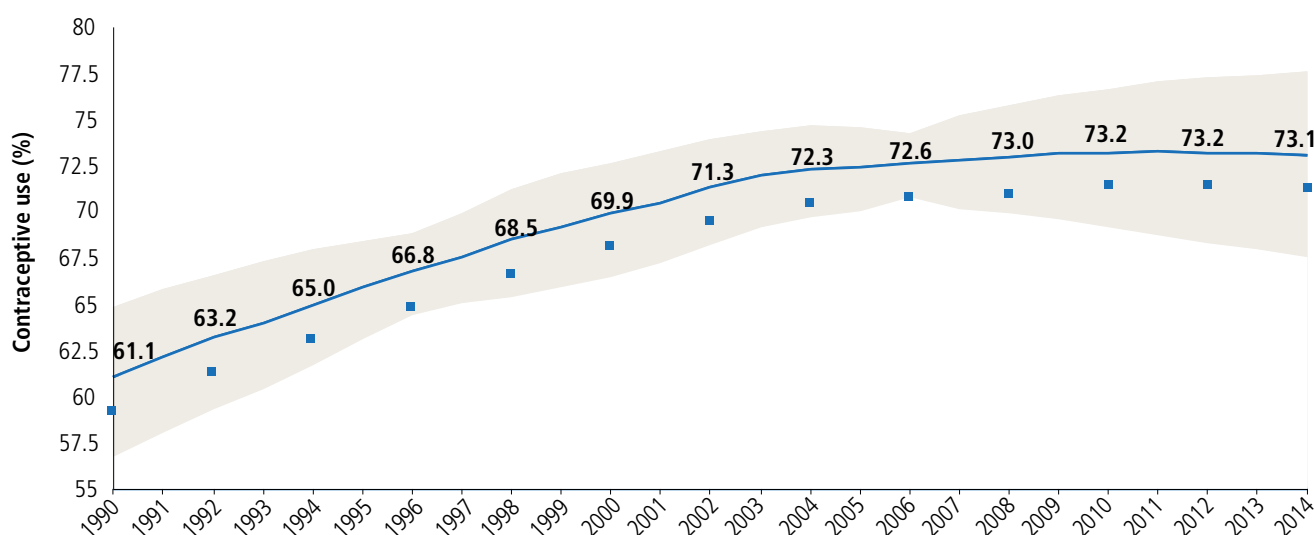
## Target 5.B: Achieve, by 2015, universal access to reproductive health

To reduce maternal mortality and improve maternal health, women must have access to effective, high-quality reproductive health interventions, and many countries have launched programs for this purpose.

### Indicator 5.3. Contraceptive prevalence rate

In 1990, the United Nations estimated that the overall prevalence of contraceptive use (any method) in Latin America and the Caribbean was 61%, while in North America it was 71.9%. After a steady increase, that prevalence by 2014 was 73.1% and 75.1%, respectively, although Figure 15 shows that improvement seems to have stagnated in the last decade (81, 82).

**Figure 15. Estimated percentage of married or cohabiting women who use some form of contraception, Latin America and the Caribbean, 1990-2014**



Source: UN, 2014 (81, 82).

Note: The shaded area represents the 95% confidence interval.

### Indicator 5.4. Adolescent fertility rate

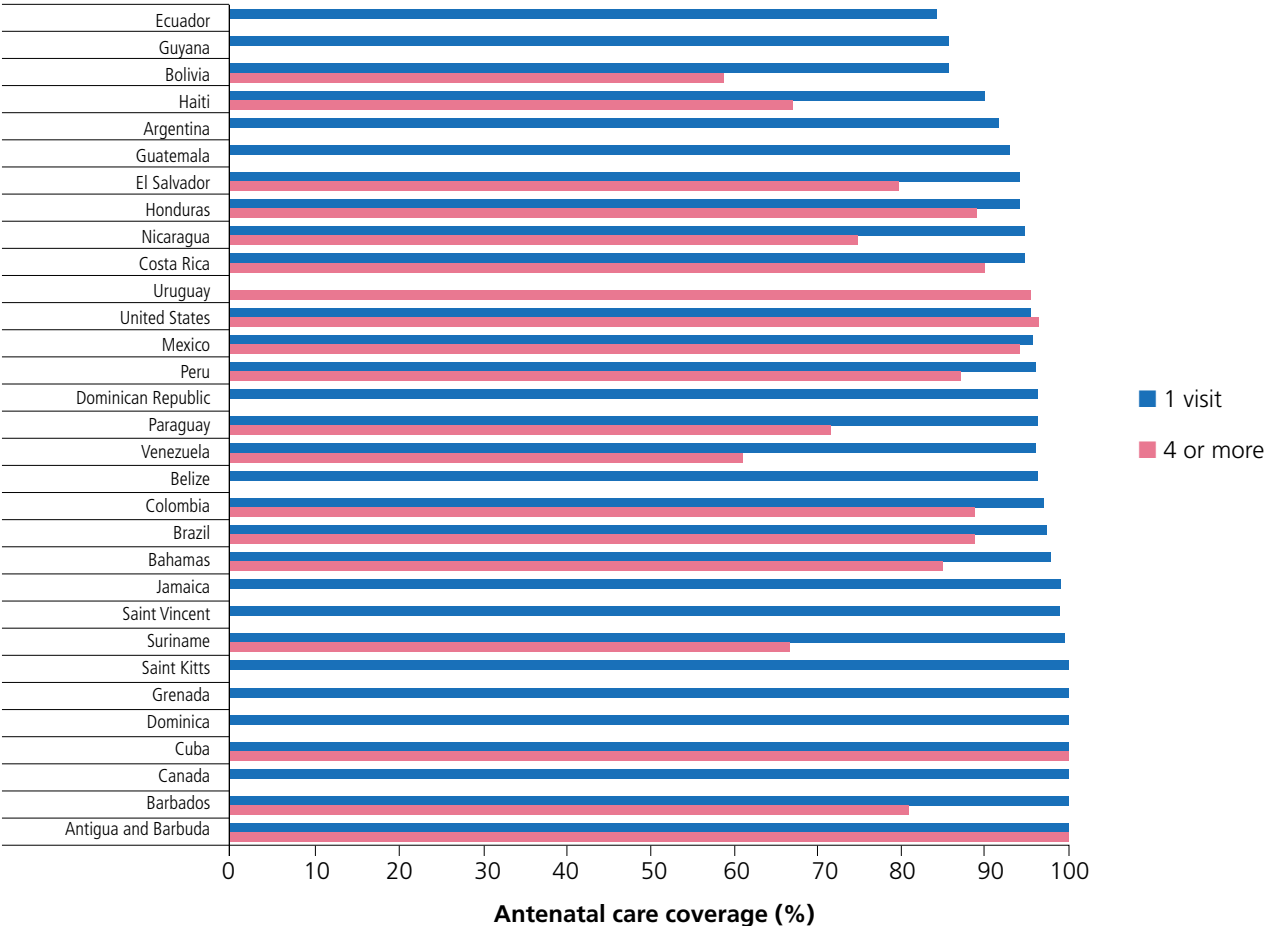
Despite a decline, the fertility rate among adolescents remains very high in the Region. For example, in 2013 the worldwide adolescent fertility rate was estimated at 45.3 births per 1 000 women aged 15 to 19 years, while in Latin America and the Caribbean, the rate was 67.1 per 1 000 (83), largely because generally adolescents have greater difficulty accessing and using sexual and reproductive health resources.

Furthermore, adolescent pregnancy is associated with an increased risk of obstetric complications. The available data suggest that one-third of pregnancies occur in women under 18 years of age, and of these, approximately 20% of complications occur among those less than 15 (84).

### Indicator 5.5. Antenatal care coverage (at least one visit and at least four visits)

In Latin America and the Caribbean, the percentage of antenatal care by skilled personnel has increased steadily since 1990. Coverage with at least one antenatal visit is close to 100% (85) and, in 2014, 86.2% of pregnant women had attended four or more antenatal visits (77) (Figure 16).

**Figure 16. Antenatal care coverage (%) (one visit and four or more visits) per country, Latin America and the Caribbean, 2014**



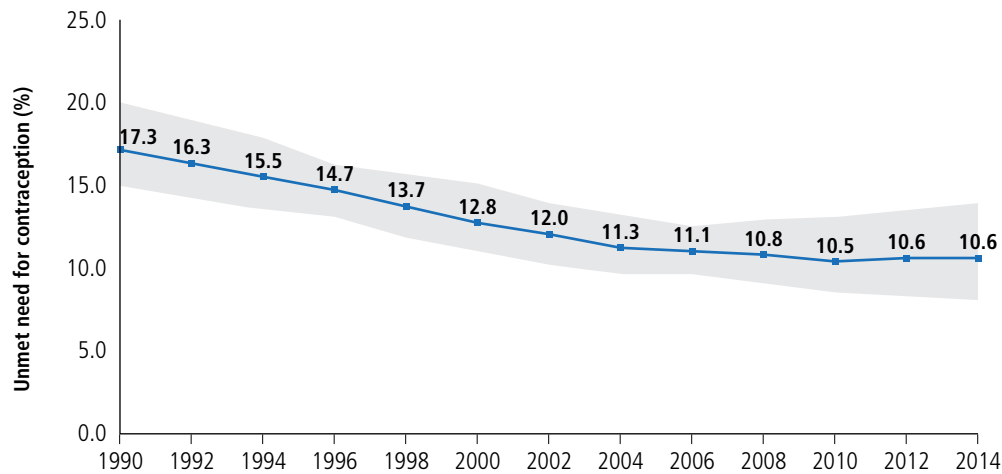
Source: PAHO, 2014 (77).

**Indicator 5.6. Unmet need for family planning**

There was a progressive decrease in the population with unmet need for access to family planning methods. In 1990, 17.3% of the population of Latin America and the Caribbean, and 7.6% in North America did not have access to these methods; in 2014, this rate declined to 10.6% and 6.6%, respectively (Figure 17).



**Figure 17. Estimated percentage of women aged 15-49 years, married or cohabiting, with an unmet need for access to contraceptive methods, Latin America and the Caribbean, 1990-2014**



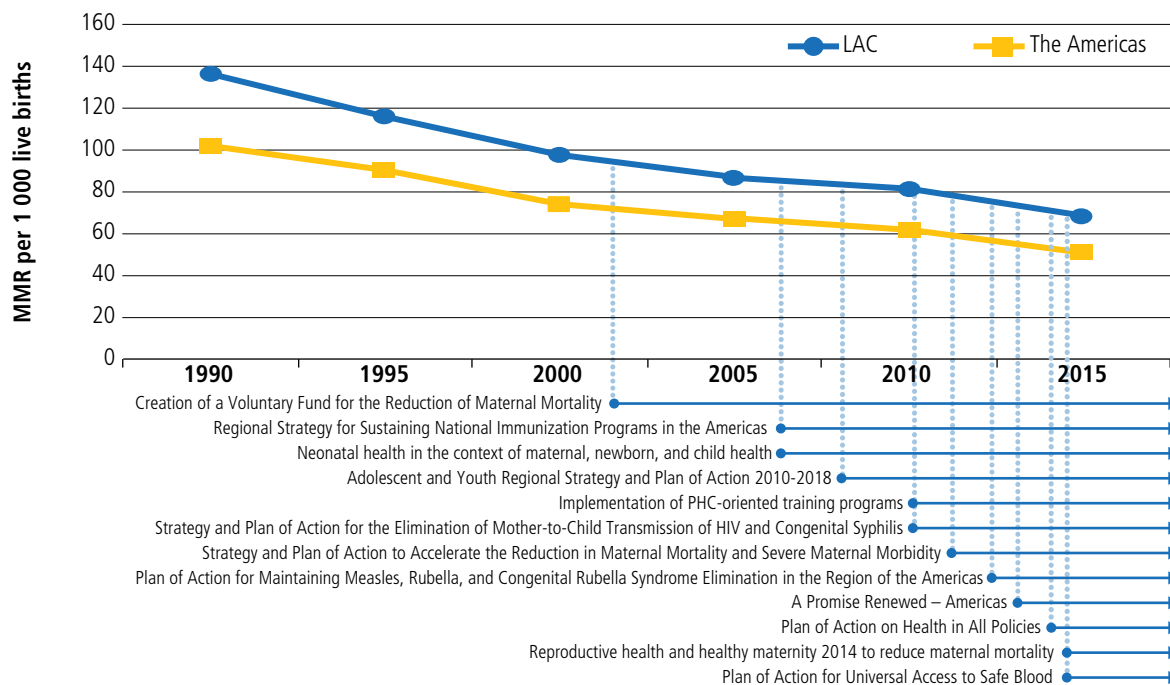
Source: UN, 2014 (83).

Note: The shaded area represents the 95% confidence interval.

### MDG 5 contributions

Even though the proposed targets will not be reached, remarkable progress has been made for women's health in Latin America and the Caribbean. This positive trend is the result of regional and national initiatives implemented with PAHO support (Figure 18); now, the Region must bolster efforts on sexual and reproductive health.

**Figure 18. Estimated maternal mortality ratio and contributions to address it, the Americas and Latin America and the Caribbean, 1990-2015**



MMR, maternal mortality ratio; PHC, primary health care.

Source: MMEIG, 2015 (76); PAHO/SDE, 2015.

For the purpose of cooperating with Member States toward achievement of the MDGs related to maternal mortality and access to reproductive health, in 2006, PAHO launched a new regional framework for the promotion of primary health care services (3). Within that context, several training programs designed to increase the skill level of health personnel have been approved and carried out (86).

Two years later, in 2008, the PAHO Member States adopted the Adolescent and Youth Regional Strategy and Plan of Action (87). The first activity, delineated by the plan's framework, prompted collection of qualitative and quantitative data on the effectiveness of reproductive health services geared toward young people in the countries of the Region.

In 2009 the PAHO Member States approved a declaration known as the Mexico City Declaration on comprehensive sexuality education for the young population (13). This declaration conferred legitimacy to data collection tasks and helped increase the pool of national resources, supplemented by international cooperation, to improve the effectiveness of reproductive health services geared to youth (88).

In 2011, the slow progress toward reduction in maternal mortality prompted adoption of the Plan of Action to Accelerate the Reduction in Maternal Mortality and Severe Maternal Morbidity. It urged governments to include initiatives to reduce maternal mortality in their health programs for 2008 to 2017 by adopting policies, national programs, and strategies that increase women's access to high-quality health services specifically adapted to their needs (77).

With a view to improving awareness and promoting best practices regarding safe motherhood, in 2011, PAHO sponsored national competitions and a regional competition designed to reward activities held for both purposes. A national and regional photography competition was also organized to select the best images related to the promotion and protection of the rights of women, mothers, and newborns to enjoy the highest attainable standard of health (89).

Although achievement of MDG 5 is still far off, relevant national and regional interventions include:

- The shift from a maternal and child health model to a reproductive health model.
- Reduction of the number of unwanted pregnancies and abortions performed under high-risk conditions.
- Increased institutionalization of childbirth, as well as improvement of health services.
- Incorporation of an ethno-cultural approach to institutional births in indigenous communities.
- Recent incorporation of the "Zero Maternal Deaths from Hemorrhage" interdepartmental PAHO initiative.

Women's health, and in particular its maternity-related aspects, is a priority subject in Latin America and the Caribbean, and Member States have agreed to strengthen activities that address the following indicators (9): universal health coverage, care quality and information systems, and surveillance and monitoring.

PAHO Governing Body resolutions related to MDG 5 are listed in Box 3 below.

### Box 3. PAHO Governing Body resolutions related to MDG 5

- CSP26.R13 Regional Strategy for the Reduction of Maternal Mortality and Morbidity, 26th Pan American Sanitary Conference, 2002 (90)
- CSP26.R14 Creation of a Voluntary Fund for the Reduction of Maternal Mortality in the Americas, 26th Pan American Sanitary Conference, 2002 (91)
- CD47.R10 Regional Strategy for Sustaining National Immunization Programs in the Americas, 47th PAHO Directing Council, 2006 (65)
- CD47.R19 Neonatal Health in the Context of Maternal, Newborn, and Child Health for the Attainment of the Development Goals of the United Nations Millennium Declaration, 47th PAHO Directing Council, 2006 (66)
- CSP27.R2 Elimination of Rubella and Congenital Rubella Syndrome in the Americas: Progress Report, 27th Pan American Sanitary Conference, 2007 (92)
- CD48.R4 Regional Strategy and Plan of Action for Neonatal Health within the Continuum of Maternal, Newborn, and Child Care, 48th PAHO Directing Council, 2008 (52)
- CD50.R12 Strategy and Plan of Action for the Elimination of Mother-to-Child Transmission of HIV and Congenital Syphilis, 50th PAHO Directing Council, 2010 (67)
- CD50/INF/6C Progress Reports on Technical Matters: Plan of Action for Strengthening Vital and Health Statistics, 50th PAHO Directing Council, 2010 (93)
- CD51.R12 Plan of Action to Accelerate the Reduction in Maternal Mortality and Severe Maternal Morbidity, 51st PAHO Directing Council, 2011 (75)
- CD53.R14 Strategy for Universal Access to Health and Universal Health Coverage, 53rd PAHO Directing Council, 2014 (94)
- CD53.R6 Plan of Action for Universal Access to Safe Blood, 53rd PAHO Directing Council, 2014 (95)
- CD53.R2 Plan of Action on Health in All Policies, 53rd PAHO Directing Council, 2014 (73)
- CD53/INF/6C Progress Reports: Plan of Action to Accelerate the Reduction in Maternal Mortality and Severe Maternal Morbidity, 53rd PAHO Directing Council, 2014 (96)

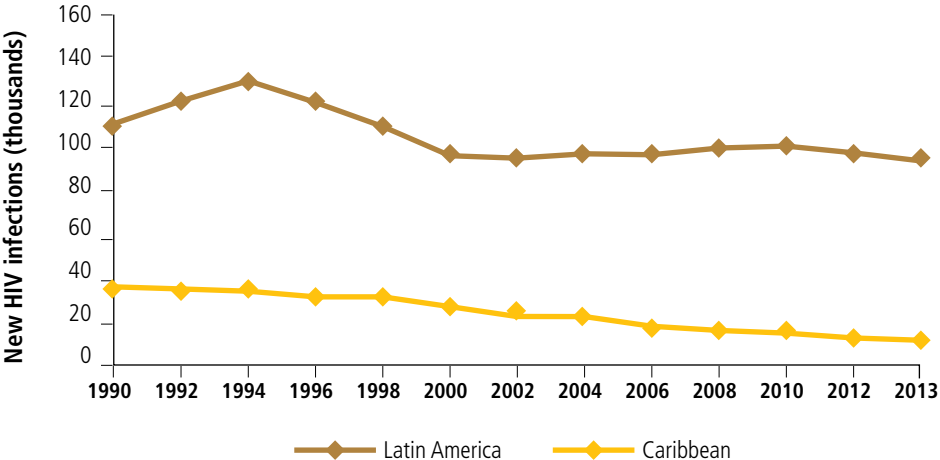
# MDG 6: Combat HIV/AIDS, Malaria, Tuberculosis, and Other Diseases

## HIV/AIDS

### Target 6.A: Have halted by 2015 and begun to reverse the spread of HIV/AIDS

According to estimates by the United Nations Joint Programme on HIV/AIDS (UNAIDS), as of 2013, there were 160 000 new reported cases of HIV infection, distributed as follows: 94 000 cases in Latin America (Figure 19); 54 000 in North America; and 12 000 in the Caribbean (97).

**Figure 19. Estimated number of new HIV infections, Latin America and the Caribbean, 1990-2013**



Source: UNAIDS, 2014 (97).

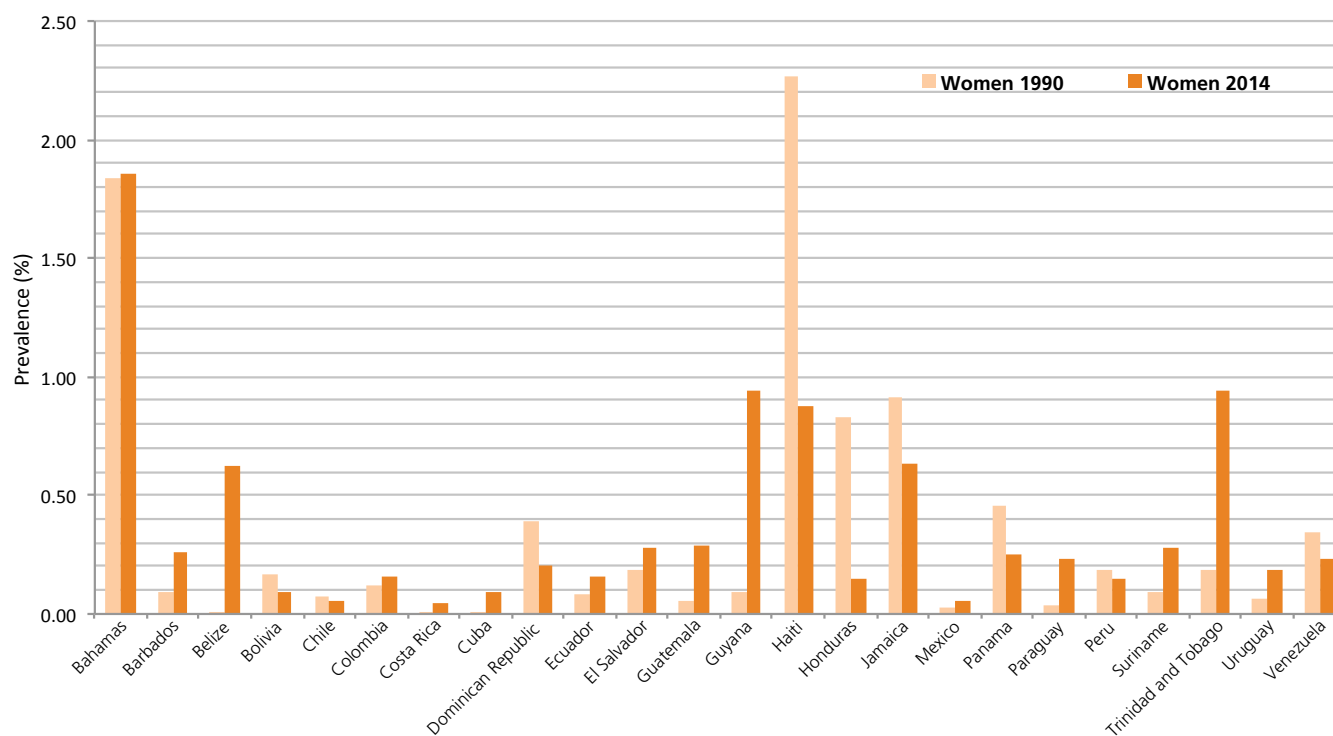
In 1990-2013, Latin America and the Caribbean were able to reduce the proportion of HIV infection by 15% and 66%, respectively. During the 10-year span from 2003-2013, the number of people living with HIV in Latin America increased 33%, whereas in the Caribbean that figure fell by 11% (97).

In 2001-2013, the number of new HIV infections in children 0-14 years of age declined significantly, by 22% in Latin America and 72% in the Caribbean. For 2013 alone, UNAIDS estimated a total of 2 300 new HIV infections in LAC (97). According to PAHO, the slow containment and lagging reversal of the spread of HIV is due to a persistent gap in preventive interventions, as well as to its high incidence among demographic groups in the most vulnerable situations (98).

### Indicator 6.1. HIV prevalence among the population aged 15-24 years

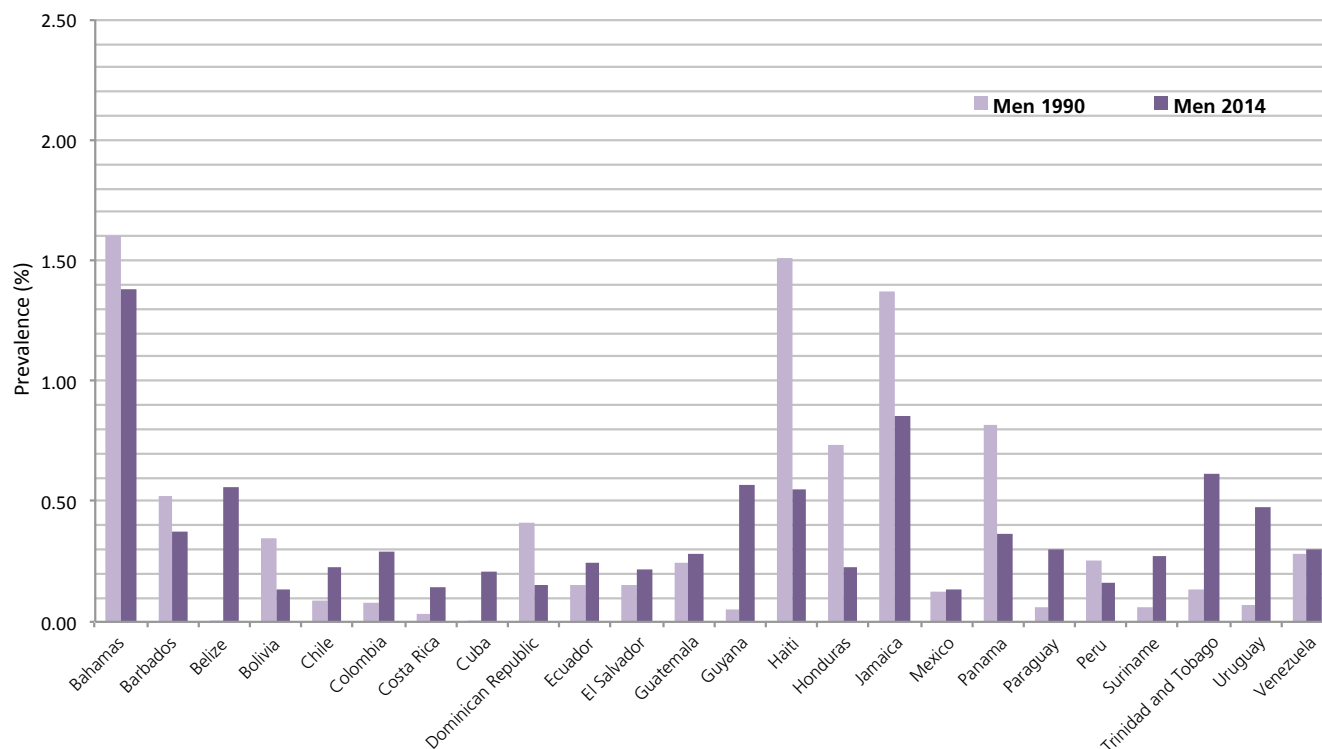
UNAIDS estimates of HIV prevalence among 15- to 24-year-olds in Latin America and the Caribbean for 1990-2013 show a decreasing trend in the Caribbean, but little rate change in Latin America since 2000 (97). Figures 20 and 21 from UNAIDS, show the estimated prevalence of HIV in women and men, respectively, for 1990 and 2013 in 24 countries in the Region of the Americas.

**Figure 20. Estimated prevalence of HIV, women aged 15–24 years by country, Latin America and the Caribbean, 1990 and 2014**



Source: UNAIDS, 2014 (97); SDE/PAHO, 2015.

**Figure 21. Estimated prevalence of HIV, men aged 15–24 years by country, Latin America and the Caribbean, 1990 and 2014**



Source: UNAIDS, 2014 (97); SDE/PAHO, 2015.

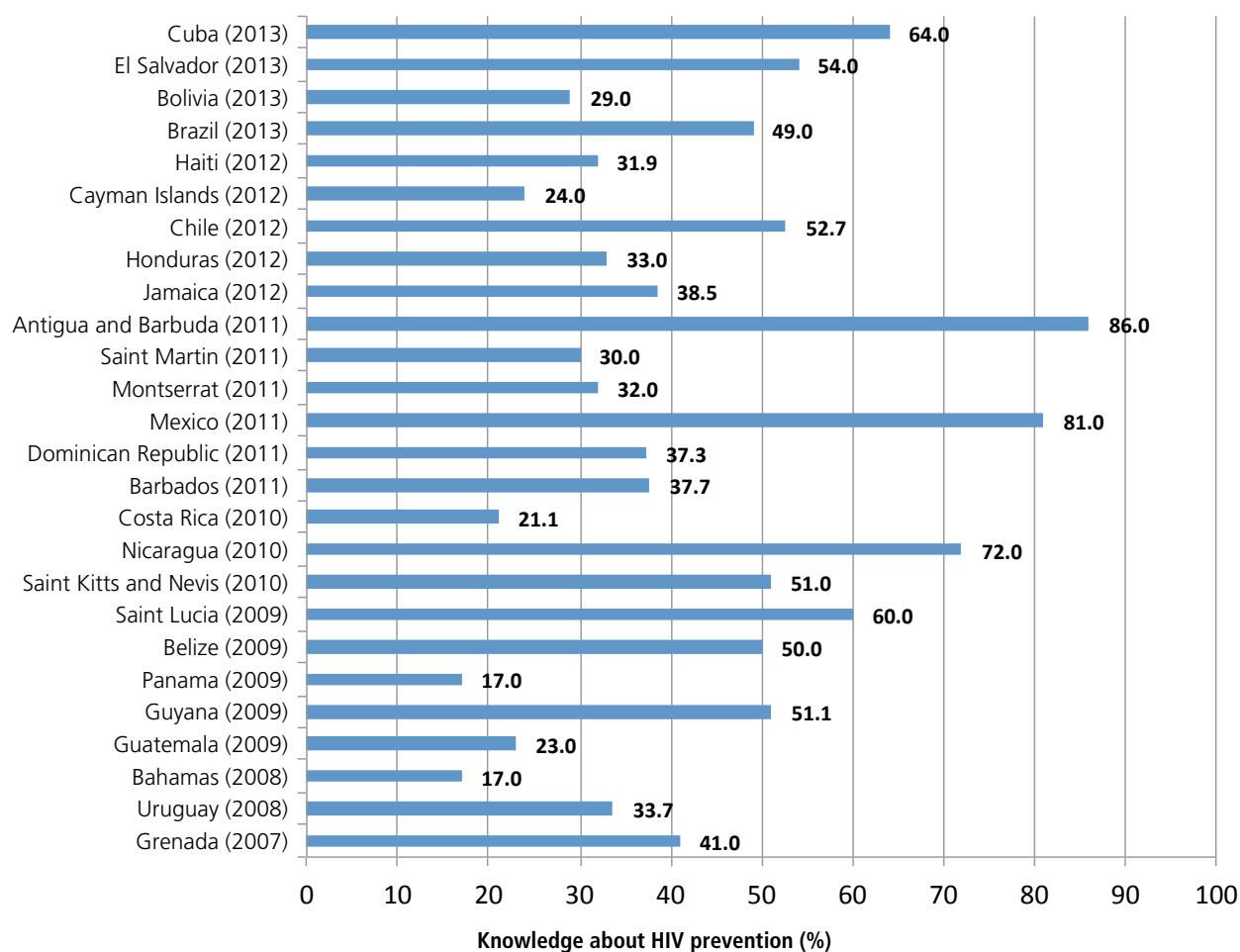
## Indicator 6.2. Condom use at last high-risk sex

Regular condom use during sexual intercourse reduces the risk of HIV transmission; it is therefore, indispensable to preventing the spread of the infection, even in countries with low incidence (99). In half of the countries of the Region, more than 57.8% of the population reports using a condom at last high-risk sex.

## Indicator 6.3. Proportion of population aged 15-24 years with comprehensive, correct knowledge of HIV/AIDS

The proportion of young people with a comprehensive understanding of HIV infection has steadily risen, with increases in 11 countries of the Region. Even so, ignorance regarding the importance of preventive methods continues to be high, especially among young people. For example, in half of the countries of the Region, less than 38.1% of young people 15-29 years of age had comprehensive, correct knowledge of HIV/AIDS (97).

**Figure 22. Percentage of Knowledge about HIV prevention, population aged 15-24 years, by country, Latin America and the Caribbean, 2007 and 2013**



Source: UNAIDS, 2014 (97); SDE/PAHO, 2015.

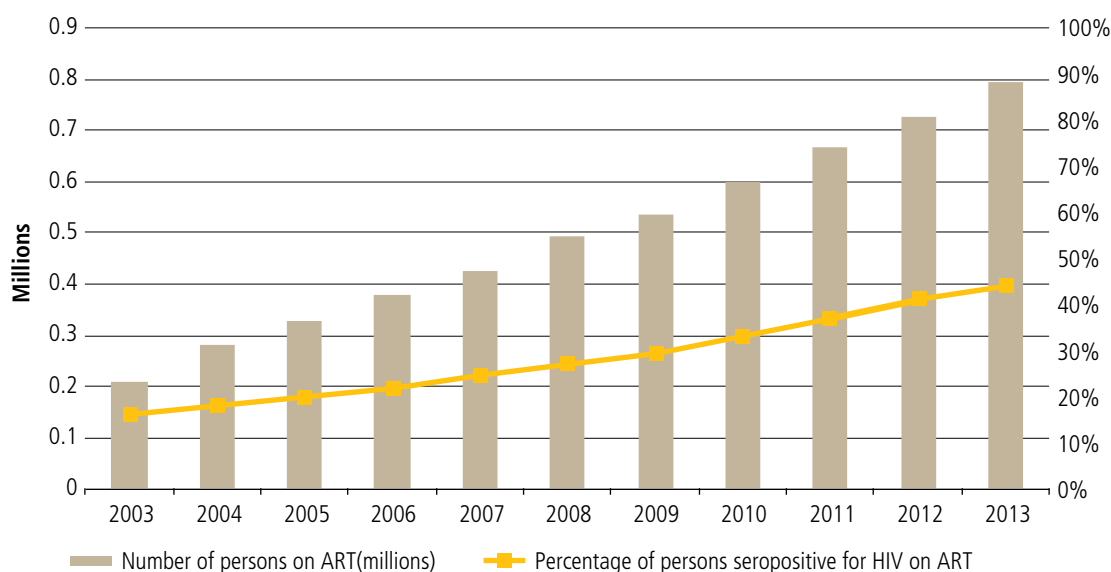
## Target 6.B: Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it

In Latin America and the Caribbean, antiretroviral therapy (ART) coverage in the eligible population was 56% in 2013. New WHO guidelines approved that same year recommended initiating ART as soon as possible, which increased the size of the eligible population and, decreased coverage (100).

### Indicator 6.5. Proportion of people with advanced HIV infection with access to antiretroviral drugs

In Latin America and the Caribbean, the proportion of people with access to ART continues to increase, with an estimated total of 795 000 individuals currently in treatment. Based on the new WHO criteria for eligibility, this figure was equivalent to 44% of the total population with HIV in the Region, as of 2013 (Figure 23). The proportion was estimated at 51% in children under 14 years of age (101).

**Figure 23. Number and proportion (%) of HIV-positive adults and children receiving antiretroviral therapy in Latin America and the Caribbean, by year, 2003-2013**



Source: PAHO, 2014 (101).

In 2013, the proportion of pregnant women on ART to prevent transmission of the infection to their newborn was 95% in the Caribbean and 90% in Latin America (102).

### Contributions in the fight against HIV/AIDS

Since 2004, the PAHO Directing Council has emphasized the need to steadily scale up HIV treatment (103), recognizing the imperative to make access to treatment more efficient (98, 104). Even though regional treatment figures are high, there are still major disparities between and within countries and among treatment programs. Positive regional results often conceal weaknesses and inefficiencies in national health system operations, and intersectoral programs of prevention.

With a view to improving the efficiency of HIV care and treatment, PAHO collaborates technically with national health systems in Latin America and the Caribbean as part of the initiative known as Treatment 2.0. This initiative is based on a joint WHO/UNAIDS program launched in June 2010 and aims to maximize the efficiency and efficacy of HIV treatment. The goal of the initiative is to reach the global target of “15 in 15,” or 15 million receiving ART by the end of 2015 (105).

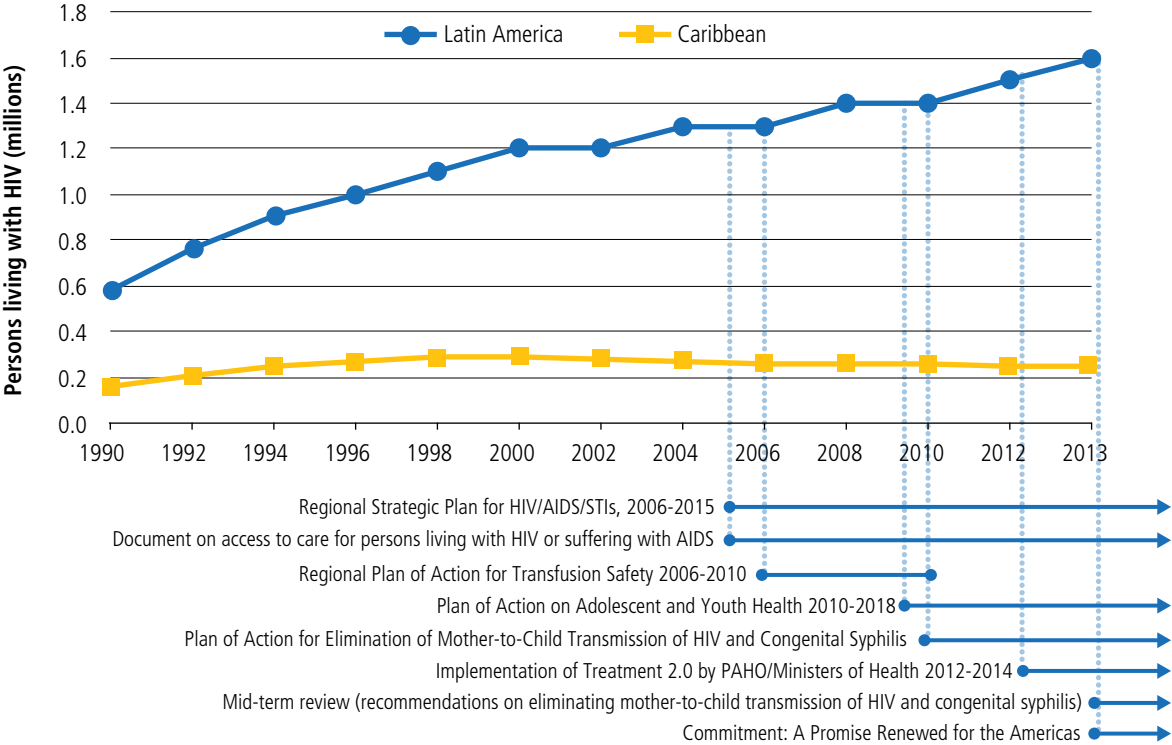
In implementing Treatment 2.0 in Latin America and the Caribbean, PAHO has become partners with a number of different entities, including the Council of Ministers of Health of Central America and the Dominican Republic (COMISCA), the Andean Health Organization (*Organismo Andino de Salud*), the Pan Caribbean Partnership Against HIV&AIDS (PANCAP), and the Horizontal Technical Cooperation Group (*Grupo de Cooperación Técnica Horizontal*). One of the main activities under this initiative has been joint PAHO/Ministry of Health missions, 14 of which were conducted in 2012-2014 (101).

In 2010, PAHO and UNICEF promoted a joint initiative to support Latin American and Caribbean governments in halting mother-to-child transmission of HIV and congenital syphilis (106). On June 30, 2015, a regional committee of PAHO/WHO

and UNICEF experts recognized Cuba as the first country in the world to eliminate maternofetal transmission of HIV/AIDS and congenital syphilis (107).

As noted earlier, to encourage effectiveness and lend legitimacy and credibility to sex education programs for young people, the Member States of the Region issued the Declaration of Mexico in August 2008, providing the basis for the Adolescent and Youth Regional Strategy and Plan of Action (87). In addition, in an initiative to foster joint efforts between national programs, health services, physicians, and representatives of civil society, PAHO promoted celebration of the first Latin American and Caribbean Forum on the HIV Continuum of Care, held in Mexico City on 26-28 May 2014. More than 100 people from 26 countries participated, including representatives of national programs, scientists, academics specializing in HIV/AIDS, and representatives of the sponsoring organizations (Figure 24) (107).

**Figure 24. Estimated number of persons living with HIV and contributions to address it, Latin America and the Caribbean, 1990-2013**



Source: UNAIDS, 2014 (97); SDE/PAHO, 2015.

PAHO technical cooperation has also been the catalyst for adoption of new regional goals in response to HIV/AIDS, including the following targets for 2020 (100):

- Diagnose 90% of persons suffering from HIV infection.
- Provide ART to 90% of the eligible population.
- Achieve viral suppression in 90% of persons receiving ART.
- Reduce late diagnosis to 10% of initially diagnosed persons.

Finally, for the third consecutive year since 2012, PAHO, working jointly with the GCTH and representatives of civil society, has published Antiretroviral Treatment in the Spotlight: A Public Health Analysis in Latin America and the Caribbean. This yearbook examines the vulnerability of ART programs in Latin America and the Caribbean and makes recommendations to ensure the sustainability of programs and the success of universal access to treatment (101).



## Malaria

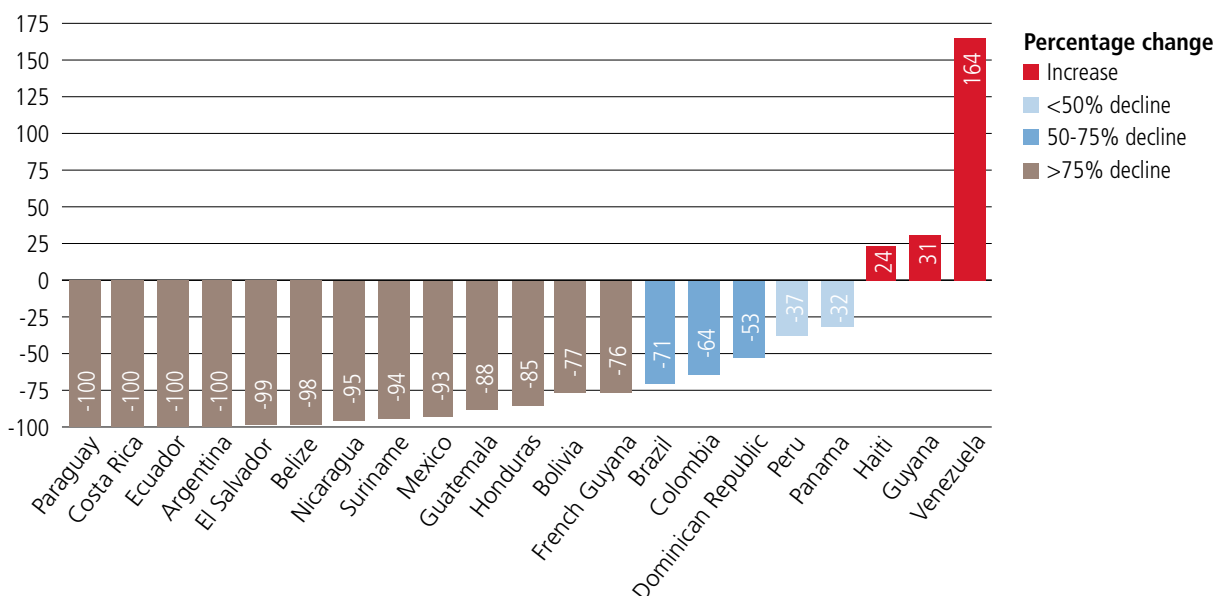
### Target 6.C: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases

Around 120 million people in 21 countries and territories of the Region, live in areas at risk of contracting the disease, including 25 million at high risk.

#### Indicator 6.6. Incidence and death rates associated with malaria

In 2013, a total of 427 904 people in the 21 countries and endemic territories of the Region contracted malaria. This number represents a 64% reduction in morbidity since 2000. There were only 84 deaths from malaria in 2013, for a reduction of 78% with respect to 2000 (108, 109). Figure 25 shows that 13 countries in the Region reached the regional target of reducing confirmed cases of malaria by 75%, while five more countries are approaching this goal.

**Figure 25. Percentage change in number of confirmed cases of malaria, by country, Latin America and the Caribbean, 2000-2013**



Source: PAHO, 2013 (108).

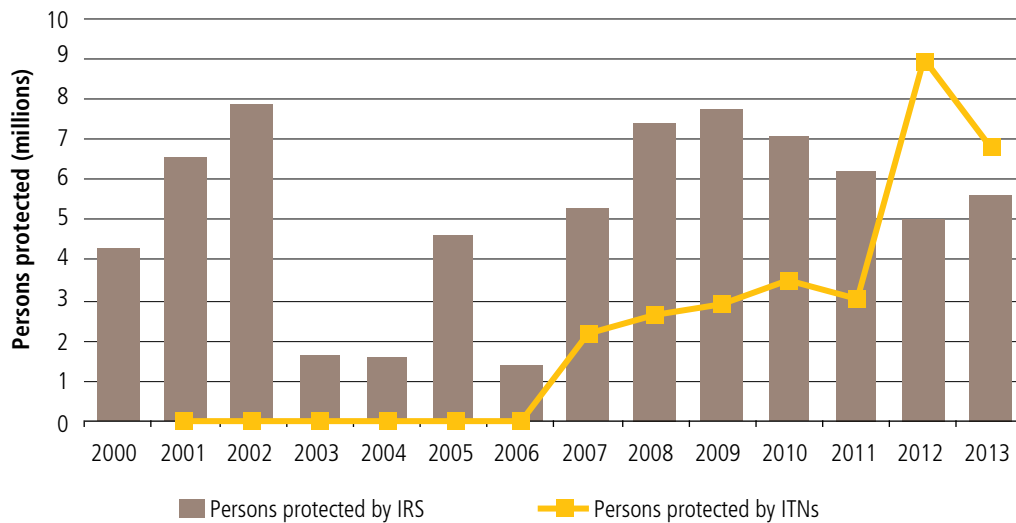
In all, 14 PAHO Member States are in the control phase of curtailing local malaria transmission, while six are in the pre-elimination phase and one country is in the elimination phase (108).

#### Indicator 6.7. Proportion of children under 5 sleeping under insecticide-treated bed nets

Compared to Regions such as Africa, the use of insecticide-treated mosquito nets (ITNs) in the Americas is low, largely because its malaria-affected populations live in areas where transmission occurs during work-related activities outside the home.

In addition, thanks to declining malaria incidence and greater areas of low transmission in recent years, the use of indoor residual spraying (IRS) has decreased as well. Although 2 million ITNs were distributed in Haiti in 2012, other countries—especially Guatemala—experienced a downward trend in net usage. This indicator is not monitored in the Region, but the numbers of protected persons by indoor residual spraying and insecticide-treated nets are reported (Figure 26) (108).

**Figure 26. Number of persons protected by indoor residual spraying (IRS) and insecticide-treated mosquito nets (ITNs), Latin America and the Caribbean, by year, 2000- 2013**



**Source:** PAHO, 2013 (108).

In 2004 to 2008, nearly 2.7 million ITNs were distributed in 15 of the 21 malaria-endemic countries in the Region. The World Malaria Report published by WHO in 2014 notes that of the 21 at-risk countries in the Region, only Argentina and Paraguay did not use ITNs because they are in the final phase of disease elimination (109).

Much of the distribution of ITNs has been financed by grants from the Global Fund to Fight AIDS, Tuberculosis, and Malaria, as well as the Amazon Malaria Initiative (AMI), which receives funding from the United States Agency for International Development. AMI has also promoted the use of drug combinations for the treatment of malaria caused by *Plasmodium falciparum*, since there is evidence that this agent in particular has developed resistance to past drugs (110).

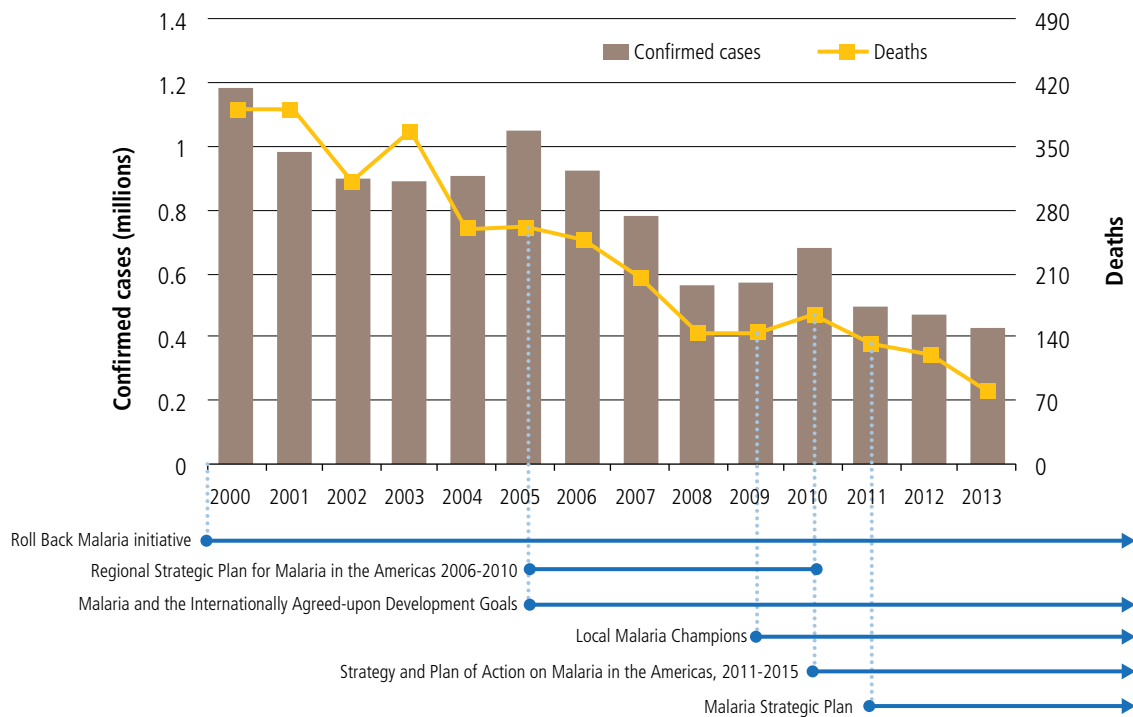
### Contributions to combat malaria

With a view to achieving the proposed malaria incidence reductions, PAHO undertook activities on a variety of fronts, including coordinating the work of a number of multi- and bilateral international cooperation agencies (Figure 27). PAHO also saw a need to work locally by providing incentive programs and acknowledging the efforts of communities and local health sector teams. A few of these activities are briefly described here.

At the international level, WHO launched an interagency initiative in 1998. Called Roll Back Malaria, it enlisted the participation of multilateral organizations, such as the World Bank, UNICEF, and the Global Fund, as well as bilateral entities that included the international development agencies of the United States and the United Kingdom (111). Against this backdrop, in 2005 PAHO approved the Regional Strategic Plan for Malaria in the Americas 2006-2010 (112), which led to a malaria morbidity reduction in the Region by 52% and malaria-related mortality by 69%. This effort was followed, in turn, by the current Strategy and Plan of Action for Malaria in the Americas 2011-2015 (113), which has basically consisted of providing technical assistance and following the activities of each PAHO Member State’s national malaria program. This capacity-building effort has also contributed to the fight against other communicable diseases. Attention has also focused on improving early detection by developing the monitoring capacity of national health systems. These efforts have been carried out in high-risk areas, as well as where risk has declined and preventive measures are emphasized (114).

In 2009, PAHO established an award—Malaria Champions of the Americas—to recognize innovative efforts that have helped overcome specific obstacles to malaria control and elimination at both the community and national level. The program has the support of the Pan American Health and Education Foundation, the George Washington University Center for Global Health, and the Johns Hopkins Center for Communication Programs at the Bloomberg School of Public Health. So far, the

**Figure 27. Morbidity and mortality from malaria and contributions to combat the disease, Latin America and the Caribbean, by year, 2000-2013**



Source: PAHO, 2013 (108).

program has recognized 15 Malaria Champions of the Americas from the following countries: Brazil, Colombia, Dominican Republic, Ecuador, Honduras, Mexico, Nicaragua, Paraguay, and Suriname (115).

## Tuberculosis

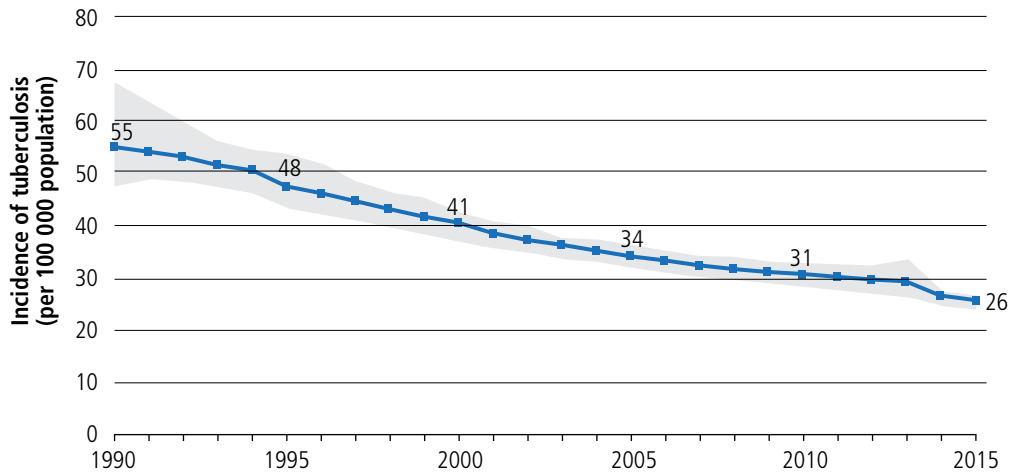
Even though tuberculosis is a preventable and curable disease, it continues to cause suffering and death among the inhabitants of the Americas. Furthermore, as shown in the details that follow, tuberculosis incidence is closely correlated with income: poverty, social exclusion, and discrimination predispose the most disadvantaged sectors of the population to develop the disease due to delayed access to quality health services.

### Indicator 6.9. Incidence, prevalence and death rates associated with tuberculosis

According to WHO estimates, the incidence of tuberculosis has been steadily declining in the Americas since 1990. During the 1990s, it declined 3% per year, from 56 to 40 cases per 100 000 population. In 2000-2013, the annual decline was 2.1% (Figure 28), from 40 to 29 cases per 100 000 population. WHO projections indicate that from 2013-2015, the rate should decline from 29 to 26 cases per 100 000 population in the Region of the Americas (116).

Mortality from tuberculosis also declined, from 5.3 to 1.7 deaths per 100 000 population annually in 1990-2010 (Figure 29), equivalent to an overall decline of 68%. With regard to prevalence, WHO has estimated a decline of 57%, from 89 to 38 cases per 100 000 population. Thus, the WHO target—to reduce tuberculosis prevalence and mortality by more than half between 1990 and 2015—has been exceeded (116) (Figure 30).

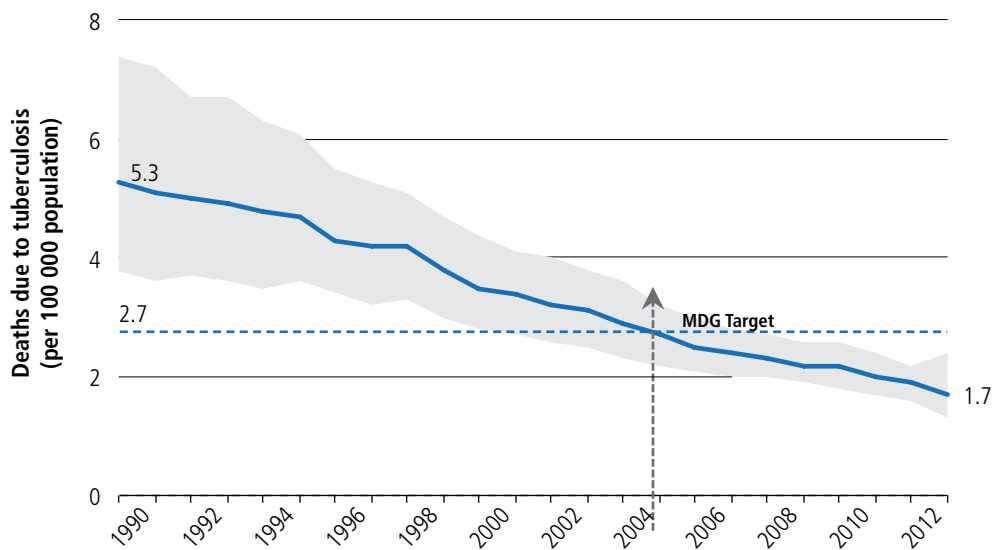
**Figure 28.** Estimated incidence of tuberculosis, all forms, by year (per 100 000 population) and levels of uncertainty, Region of the Americas, 1990-2015



**Source:** WHO, 2014 (116).

Note: The shaded area represents the level of uncertainty at 95%, and within which the true value can be found.

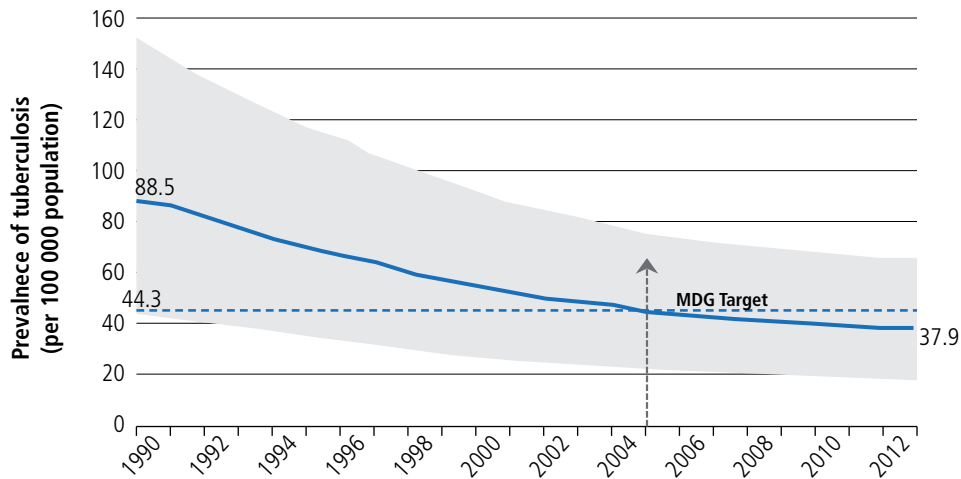
**Figure 29.** Estimated trend in mortality from tuberculosis, all forms, and levels of uncertainty, Region of the Americas, 1990-2013



**Source:** WHO, 2014 (116).

Note: The shaded area represents the level of uncertainty at 95%, and within which the true value can be found.

**Figure 30. Estimated prevalence of tuberculosis, all forms, and levels of uncertainty, Region of the Americas, 1990-2013**



Source: WHO, 2014 (116).

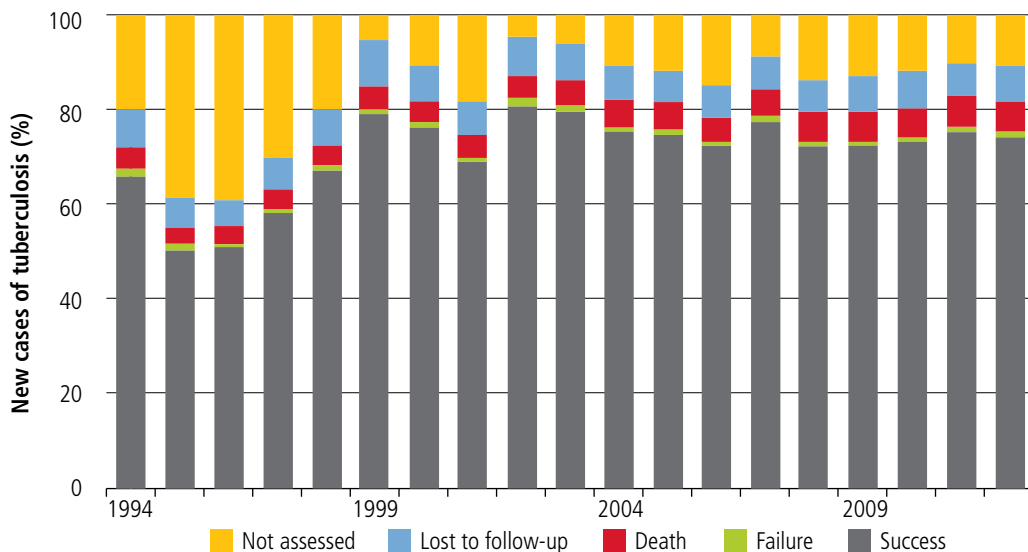
Note: The shaded area represents the level of uncertainty to 95%, within which the true value can be found.

**Indicator 6.10. Proportion of tuberculosis cases detected and cured under directly-observed treatment short course<sup>6</sup>**

In 2013, WHO estimated in the Region, the number of new cases of all forms of tuberculosis in the Region at 280 500. During that year, a total of 220 510 new cases were reported, amounting to 77% of the estimated total. These figures reflect improvements in detection, which increased from 71% of the estimated number in 2000 to 77% in 2013. They also indicate that the WHO target of 70% detection has been exceeded (116).

Since 2005, by applying DOTS to manage new cases of all forms of tuberculosis, 75% have been treated successfully (Figure 31). However, the Region will not have reached the global target of 85% by the end of 2015 (116).

**Figure 31. Tuberculosis cohort, successfully treated cases and relapses, Region of the Americas, 1994-2012**

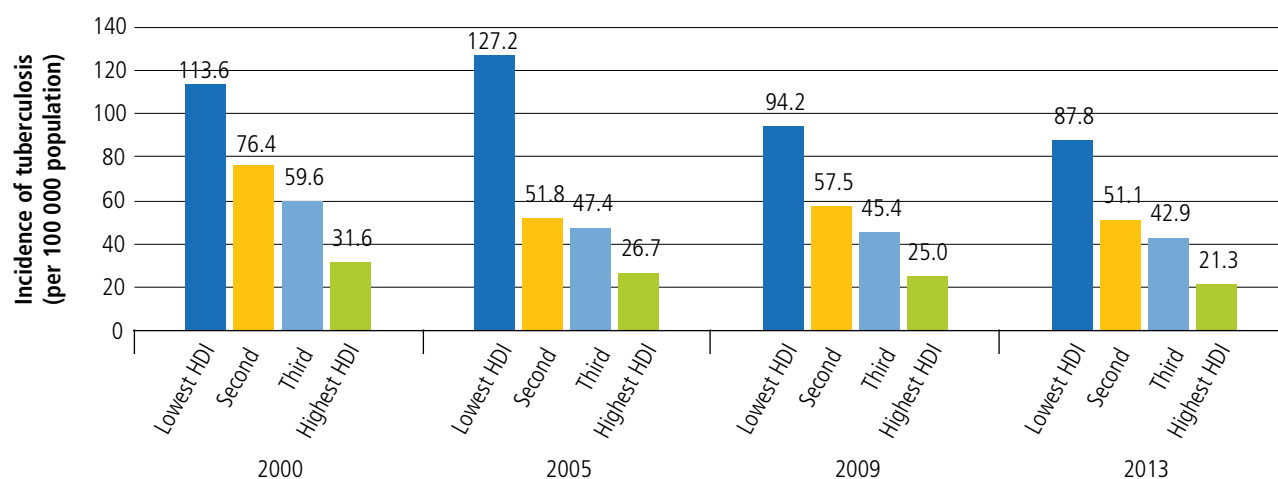


Source: WHO, 2014 (116).

<sup>6</sup> Known as DOTS.

As mentioned, tuberculosis is determined with social inequality. In fact, its incidence is one of the clearest indicators of the negative impact of economic and social inequality on health. Figure 32 shows that tuberculosis incidence is higher in the countries of the Americas that are classified in the lower quartiles of the Human Development Index. As a result, even though tuberculosis incidence has declined in the last two decades, inequality in terms of the risk of becoming ill has not changed significantly because the population groups in the most vulnerable situations continue to be excluded from social and health-related services.

**Figure 32. Incidence of tuberculosis by country quartile in the Human Development Index, Region of the Americas, 2000, 2005, 2009, and 2013**



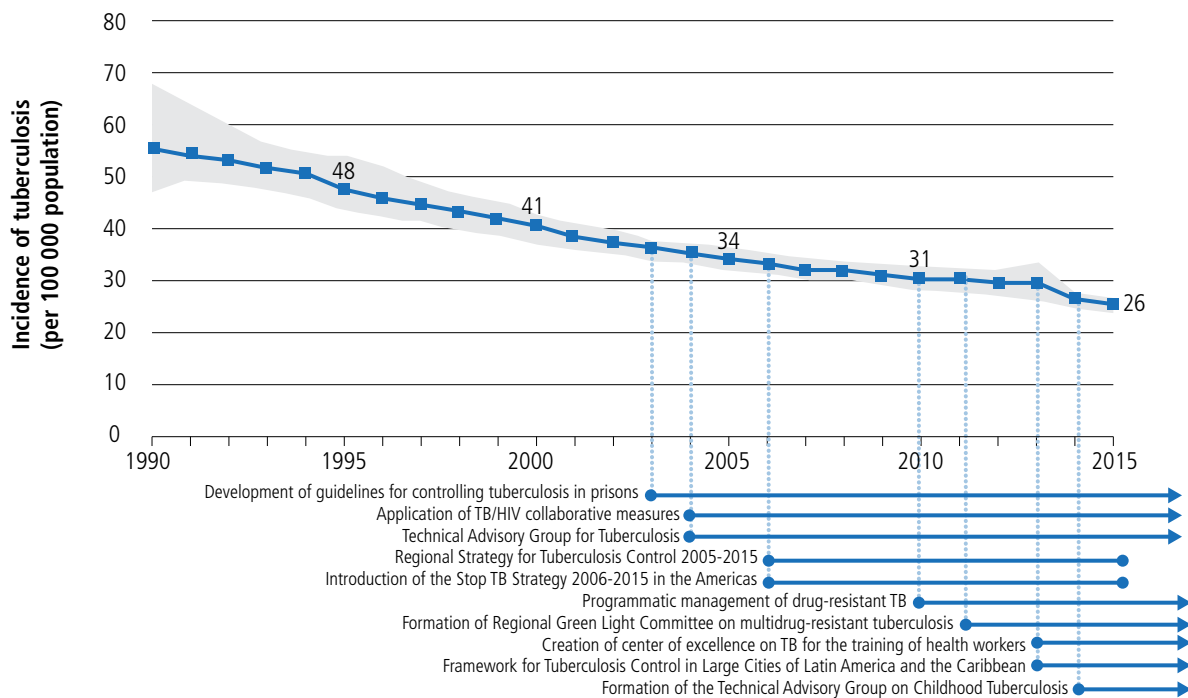
**Source:** PAHO, 2014. Tuberculosis Program.

### Contributions to combat tuberculosis

PAHO has promoted a number of initiatives that have contributed to the achievement of the proposed outcomes. Some have focused on reducing tuberculosis incidence among specific demographic groups or in lower-income countries where progress toward the targets has lagged behind (Figure 33). The contribution has been mainly in the form of technical cooperation and ongoing theoretical and practical training in the countries, with a view to strengthening the response capacity of national tuberculosis programs. As part of this effort, PAHO joined forces with other agencies and international organizations within the framework of the Stop TB Partnership administered by WHO and involving Health Ministries and civil society organizations (117). Some of the milestones were the following:

- 2000 – formed a group of low-prevalence countries to conduct control activities aimed at tuberculosis elimination (118).
- 2003 – implementation of activities to control tuberculosis in prisons based on the by defining interventions and preparing a set of guidelines (119).
- 2004 – start of application of WHO policy in collaborative activities on TB/HIV comorbidity (120).
- 2005 – application of successful tuberculosis control initiatives and recommendations adapted to indigenous populations (121).
- 2013 – initiation of work within the Framework for Tuberculosis Control in Large Cities of Latin America and the Caribbean (122).

**Figure 33. Estimated incidence of tuberculosis, in all forms and contributions, Region of the Americas, 1990-2015**



**Source:** PAHO, 2014; SDE/PAHO, 2015.

Other initiatives included strategy development and setting up programs and mechanisms to reduce incidence and, wherever possible, eliminate tuberculosis (123):

- 2004 – establishment of the PAHO/WHO Regional Technical Advisory Group (TAG) on Tuberculosis and, that same year, the Laboratory Working Group on Tuberculosis.
- 2006 – introduction of the Stop TB Strategy (124) and launch of the Regional Plan for Tuberculosis Control 2006-2015 (125).
- 2008 – preparation of the first Tuberculosis in the Americas Regional Report, followed in 2009 with a meeting of national experts to define WHO tuberculosis estimates for the Region (126).
- 2010 – expansion of the Guidelines for the Programmatic Management of Drug-resistant Tuberculosis and start of execution of the Regional Plan to Reduce the Spread of the Multidrug-resistant Tuberculosis (MDR-TB) (123).
- 2011 – creation of a Regional Green Light Committee for the programmatic management of drug-resistant tuberculosis and introduction of a new tool for rapid diagnosis of tuberculosis and tuberculosis resistant to rifampicin (Xpert MTB/Rif) (127).
- 2013 – creation of the Center of Excellence for Tuberculosis, devoted to the training of human resources in several countries of the Region (123).
- 2014 – establishment of an Advisory Group on Childhood Tuberculosis; introduction of new tuberculosis medicines; and initial steps to prepare the Regional Plan for 2016-2025, which will guide progress under the Plan of Action and the present End TB Strategy for post-2015 (123).

The PAHO Governing Body resolutions related to MDG 6 are listed in Box 4 below.

#### Box 4. PAHO Governing Body resolutions related to MDG 6

CD45.R10	Scaling-up of Treatment within a Comprehensive Response to HIV/AIDS, 45th Meeting of the PAHO Directing Council, 2004 (103)
CD46.R13	Malaria and the Internationally Agreed-upon Development Goals, Including Those Contained in the Millennium Declaration, 46th Meeting of the PAHO Directing Council, 2005 (112)
CD46.R15	PAHO Regional Strategic Plan for HIV/AIDS/STIs, 2006-2015, 46th Meeting of the PAHO Directing Council, 2005 (104)
CD46.R12	Regional Strategy for Tuberculosis Control for 2005-2015, 46th Meeting of the PAHO Directing Council, 2005 (124)
CD46/20	Access to Care for People Living with HIV/AIDS, 46th Meeting of the PAHO Directing Council, 2005 (98)
CSP27.R11	Malaria in the Americas (progress report), 27th Pan American Sanitary Conference, 2007 (128)
CD50.R12	Strategy and Plan of Action for the Elimination of Mother-to-Child Transmission of HIV and Congenital Syphilis, 50th Meeting of the PAHO Directing Council, 2010 (67)
CD51.R9	Strategy and Plan of Action on Malaria, 51st Meeting of the PAHO Directing Council, 2011 (129)
CD51/15	Roundtable on Antimicrobial Resistance, 51st Meeting of the PAHO Directing Council, 2011 (130)
CD51/INF/5	Regional Initiative and Plan of Action for Transfusion Safety 2006-2010: Final Evaluation, 51st Meeting of the PAHO Directing Council, 2011 (68)



## MDG 7: Ensure Environmental Sustainability

The environment is another core determinant of population health. The inclusion of environmental sustainability in the Millennium Declaration wasn't made only in recognition of intrinsic environmental value, but also, of its importance for overcoming poverty, health, gender equality and the other components of human welfare. In light of this, WHO and PAHO have implemented initiatives to improve indoor air quality by reducing solid fuel use in households and fostering the use of cleaner fuels (131). PAHO's Strategic Plan 2015- 2019 provides support for Member States with a view to reducing by at least 5% the proportion of the population that depends on solid fuels to cook in countries with a solid fuel use rate greater than 10% (132).

Use of solid fuels to cook drives one of the most significant environmental risks in the Region and, thus, constitutes a public health problem because it affects approximately 90 million people. According to WHO estimates, more than 80 000 deaths every year are attributable to solid fuel use, largely among the population living in the most vulnerable situations. For example, 50% of deaths from pneumonia in children under 5 are caused by indoor air pollution. Solid fuel use rates vary among the countries of the Region; in Guatemala, Haiti, Honduras, Nicaragua, Paraguay, and Peru, more than 40% of the population is dependent on these fuels (132).

### ***Target 7.C: By 2015, halve the proportion of people without sustainable access to safe drinking water and basic sanitation***

Latin America has an abundance of water, but the supply is fraught with paradoxes. One-third of the continental surface water of the planet flows through the Amazon, Magdalena, Orinoco, Paraguay, Paraná, and San Francisco rivers. In other words, water resources are abundant. However, delivering these resources to the population has been a challenge because of the way human settlements have evolved.

Two-thirds of the population of Latin America resides in one-fifth of its territory, where only 5% of the available water is located. It is also paradoxical that, with such an abundance of water, two-thirds of the territory in the Region is arid or semiarid, including the central and northern part of Mexico, the Brazilian northeast, the north of Argentina and Chile, and the Bolivian and Peruvian altiplano.

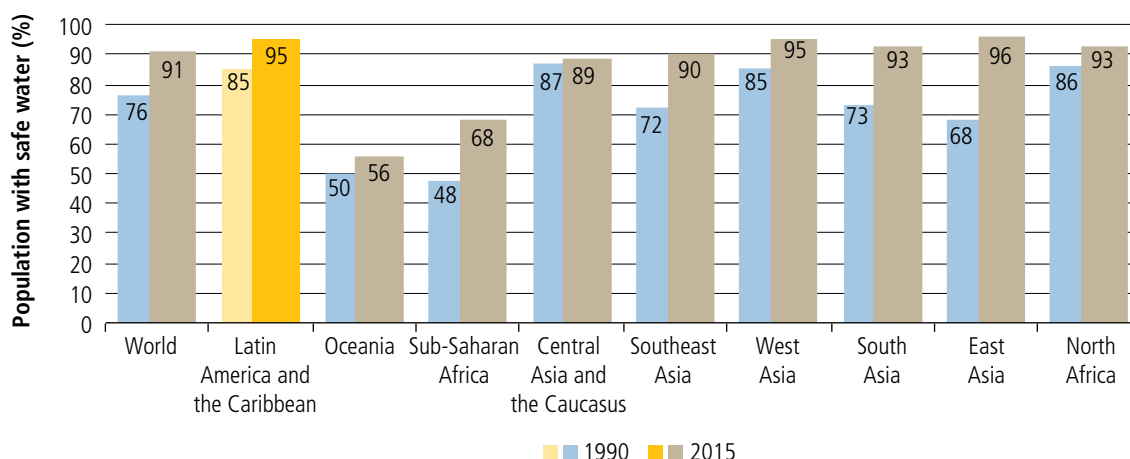
In 2010, the United Nations General Assembly explicitly recognized the human right to water and sanitation, reaffirming that these are essential to the realization of all human rights (133). Specifically, the most effective public intervention for improving public and individual health, especially the health of children, pregnant women, and the elderly, is the availability of drinking water and sanitation (134).

A number of other circumstances also affect access to drinking water and sanitation in the Region; among them, urban growth has substantially transformed the delivery of public services, including water supply and basic sanitation. According to estimates by the Latin American Demographic Center (CELADE), as of 2013 the total population of Latin America will reach 612.6 million in 2015, 80% of which resides in urban areas (135). Almost all Latin American societies ceased to be rural during the second half of the last century. In 2014, Latin America had 4 of the 28 largest urban concentrations on the globe. These are megacities with populations of more than 10 million, namely: Buenos Aires, Mexico City, Rio de Janeiro, and São Paulo, with Bogotá and Lima on the verge of joining their ranks. The United Nations Human Settlements Program has estimated that one-third of the people in Latin American cities live in marginal areas (136).

### Indicator 7.8. Proportion of population using an improved drinking water source

According to WHO and UNICEF estimates, as of 2015, about 95% of the people in Latin America and the Caribbean have access to potable water (Figure 34), which means the 91.5% target has already been surpassed (137).

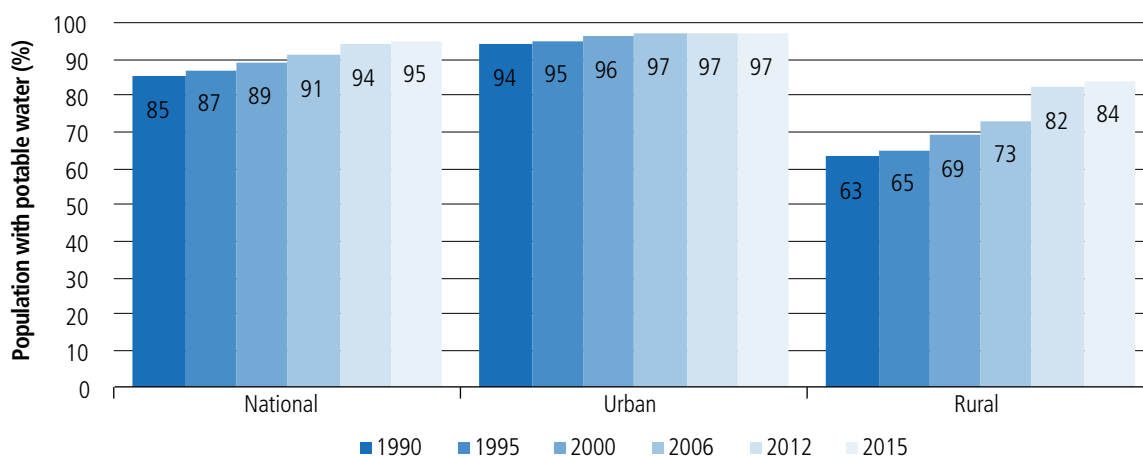
**Figure 34. Use of improved safe water sources, by regions and subregions of the world, 1990 and 2015**



Source: WHO/UNICEF, 2015 (138, 139).

Still, differences continue to exist between urban and rural populations. For example, in the same year, 97% of urban, but only 84% of rural residents had access to water (Figure 35). There are also differences in access between and within cities and between municipalities, provinces, states, and regions. In all cases, lack of access to safe water is more of a problem in the poorer sectors (138, 139).

**Figure 35. Population (%) with sustainable access to drinking water supply, by urban or rural residence, Latin America and the Caribbean, 1990-2015**

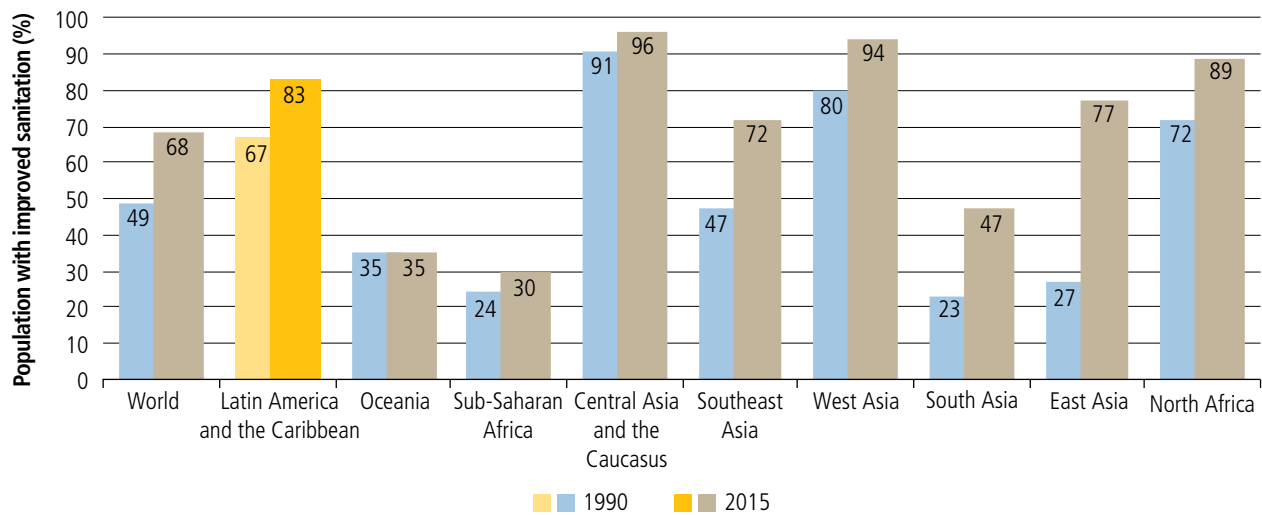


Source: WHO/UNICEF, 2015 (138, 139).

### Indicator 7.9. Proportion of population using an improved sanitation facility

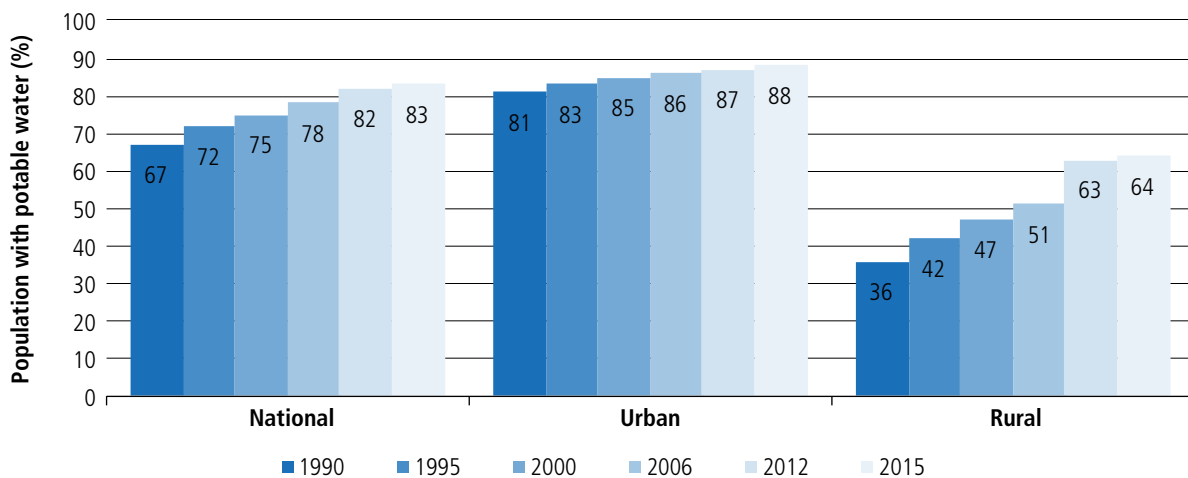
The regional averages for drinking water are better than those for basic sanitation, and the averages for sanitation are better in cities than in rural areas. According to estimates by WHO/UNICEF, 83% of the inhabitants in Latin America and the Caribbean were expected to have access to basic sanitation services by 2015, and 88% of them were living in urban areas (67% in 1990), compared with 64% in rural areas (36% in 1990) (Figures 36 and 37).

**Figure 36. Use of improved sanitation facilities, by regions and subregions of the world, 1990 and 2015**



Source: WHO/UNICEF, 2015 (138, 139).

**Figure 37. Population with access to sanitation services, by urban or rural residence, Latin America and the Caribbean, 1990-2015**



Source: WHO/UNICEF, 2015 (138, 139).

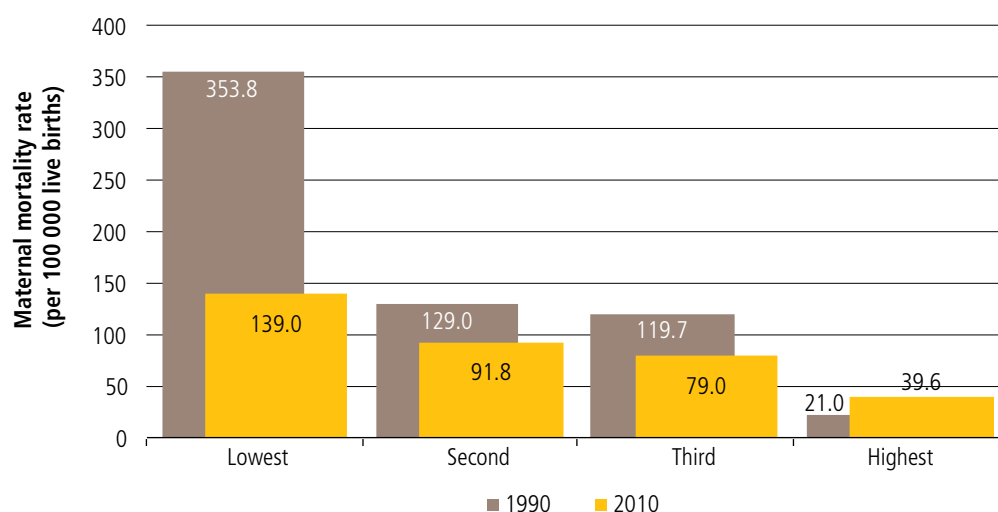
According to United Nations estimates for Latin America and the Caribbean, in 1999-2010, 179 million people obtained access to safe water for the first time and 169 million gained access to improved sanitation services (137). In LAC, the target for access to safe water has been reached and good progress has been made in sanitation, but there are still environmental risks, and those will be covered by the agenda of the SDGs. The remaining gap in access to water supply and sanitation services gives rise to one of the chief environmental threats to water quality, and constitutes one of the leading causes of common diseases in the Region. Furthermore, there is continued reluctance to use latrines, especially in rural areas. It is also very common in the Region to use polluted water to meet the demand for agricultural irrigation, which creates enormous health risks and raises conflicting priorities, especially in places where water supplies are limited (140).

On top of everything else, the juxtaposition of urban poverty and industrial development, without adequate and comprehensive sanitation systems to handle the direct discharge of household and industrial waste into surface and underground water sources, is one of the main causes of water pollution (136).

### Contributions to promote safe water and basic sanitation

As the foregoing data indicate, there is still an enormous unmet demand in Latin America and the Caribbean for infrastructure to protect the region's water resources and provide safe water and basic sanitation for marginalized urban sectors and neglected rural communities (140). Figure 38 illustrates the social determination of access to safe water and maternal mortality rates in 1990-2010.

**Figure 38. Maternal mortality by country quartiles of access to drinking water, Latin America and the Caribbean, 1990 and 2010**



**Source:** Mujica PAHO/SDE, 2015.

The financial resources needed to meet the demand for water quality and sanitation in the Region are enormous, and they must come from multilateral lending agencies and public and private funding sources. In 2005, the Inter-American Development Bank (IDB) estimated that it would take US\$ 65 billion to eliminate the water and sanitation deficiencies in Latin America and the Caribbean, and that US\$ 27 billion would be needed just to reach Millennium Development Goal 7.C (136).

To get an idea of the magnitude of the investments needed to overcome the current problems and deficiencies, Table 4 shows some examples of funds that have been allocated to the water and sanitation sector in the past.

**Table 4. Funding for water and sanitation in selected countries of Latin America and the Caribbean**

Country and year	Funding source	Amount (US\$)	Objectives
Brazil—São Paulo 2010 (142)	World Bank	64.5 million	4.3 million people who lacked access to adequate sanitation
Mexico 2010 (143)	World Bank	450 million	Increase in water treatment coverage from 36% to 60% to mitigate the harmful effects of climate change on the most vulnerable populations
Mexico—Mexico City 2010 (144)	Public—private	1 billion	60-km drainage tunnel from the Federal District to a water treatment plant
Uruguay—DARES 1988-2010 (145)	World Bank (3 loans)	105 million	Investment in water and sanitation infrastructure and technical cooperation
Paraguay—Asunción 2010 (146)	Inter-American Development Bank	110 million	Integrated Sanitation Program
Ecuador—Guayaquil 2015 (147)	World Bank European Investment Bank Public water utility	247.8 million	Wastewater management, benefiting 1 million people.

**Source:** SDE/PAHO, 2015.

Another example of the close correlation between the access to safe water and health is the effect of the drought that has ravaged the Brazilian southeast since 2014 and reduced water levels in the reservoirs that supply the cities of São Paulo and Rio de Janeiro to alarming levels. Because of the drought, many residents in the country's two most important metropolises have stored water in barrels that have become breeding sites for vectors that carry diseases such as dengue. And in fact, half of the 460 502 cases of dengue reported in the country in the first quarter of 2015 were from the state of São Paulo (141).

When infrastructure investments have been made, examples like these illustrate the need for maintenance programs and activities to sustain project effectiveness and efficiency; otherwise, the resources invested are at risk of being wasted. To improve the capacity of agencies handling the drinking water supply, PAHO is encouraging the adoption of water safety plans (WSPs), in line with a WHO initiative to promote adoption of drinking water quality guidelines. Originally prepared in 2004, these guidelines were updated and enhanced in 2006-2008 to improve the efficiency and effectiveness of water supply agencies through risk management programs that follow guidelines from a WHO manual (148).

The main objective of a WSP is to ensure the safety and acceptability of the drinking water supply. In practice, achieving this goal involves the systematization, detailed evaluation, and prioritization of the microbiological, chemical, and physical risks involved in maintaining the quality of the water supply. The primary activity is the constant monitoring of operations using barriers and quality control measures that are confirmed, validated, and communicated on an ongoing basis.

WHO also encourages adoption of the UN-Water Global Analysis and Assessment of Sanitation and Drinking Water (GLAAS), which calls for supervising water and sanitation systems and services while sustaining and expanding them based on four key pillars: policy frameworks, monitoring, human resources, and the mobilization of national and international funding for drinking water and sanitation. The number of PAHO Member States participating in the GLAAS system increased from nine in 2011-2012 to 16 in 2013-2014. However, there are persistent challenges that still demand attention, such as inequalities in access to water and sanitation and the need to strengthen supervisory capacity for water sources, develop action plans to bridge the gap in human resources, and set up national systems to plan and utilize the funds allocated for water and sanitation services (137).

Promoting integrated water management means involving various government institutions, being in compliance with WSPs and GLAAS, and requires the participation of non-governmental social and grassroots sectors as well. For example, WHO has official relations with the International Water Association, a world network of water professionals that supports the implementation of WSPs. For the Americas, the network chapter is the Inter-American Association of Sanitary and Environmental Engineering (AIDIS), which actively participates in monitoring fulfillment of drinking water and basic sanitation targets, as well as WSP implementation.

In 2010, PAHO and the Ministry of Health of Peru signed an agreement to establish a Regional Technical Team on Water and Sanitation (ETRAS) to advise the Region's countries on basic sanitation, with special emphasis on neglected and vector-borne diseases and overall living conditions (149).

The PAHO Governing Body resolutions related to MDG 7 are listed in Box 5 below.

#### Box 5. PAHO Governing Body resolutions related to MDG 7

CD35.R15	International Drinking Water Supply and Sanitation Decade: Report on the Situation in the Region at the End of the Decade (1981-1990), 35th Meeting of the PAHO Directing Council, 1991 (150)
CD43.R15	Health, Drinking Water, and Sanitation in Sustainable Human Development, 43rd Meeting of the PAHO Directing Council, 2001 (151)
CD50.R14	Pan American Centers (takes note of the signing of the Agreement between the Government of Peru and PAHO for the transformation of the Pan American Center for Sanitary Engineering and Environmental Sciences (CEPIS) into the Regional Technical Team on Water and Sanitation (ETRAS) located in Peru), 50th Meeting of the PAHO Directing Council, 2010 (152)
CD51.R4	Strategy and Plan of Action on Urban Health, 51st Meeting of the PAHO Directing Council, 2011 (153)

# MDG 8: Develop a Global Partnership for Development

## Finance

In reality, the area most in need of a global partnership for development, as called for in MDG 8, is financing. This need is so pressing that in the run-up to proclamation of the new Sustainable Development Goals in September 2015, the United Nations Member States convened the Third International Conference on Financing for Development in July 2015 in Addis Ababa, Ethiopia.

Since the MDGs were proclaimed in 2000, financing for development has undergone profound changes. For example, the relative importance of official bilateral and multilateral development assistance has declined in middle-income countries, the current ranking of almost all the countries of Latin America and the Caribbean. On the other hand, official flows are becoming more focused on low-income countries, where they are increasingly relevant.

Official assistance flows increased steadily from 1997 until they reached a peak in 2010. At that point, the Great Recession forced austerity measures that reduced these flows in 2011 and 2012. The next year saw an uptick again in official bilateral and multilateral assistance. Thus, in current prices, total financing in the amount of US\$ 126 billion in 2012 rose to US\$ 134 billion in 2013. However, in the latter year official flows of financing in Latin America and the Caribbean declined by 16% (154). Of the total official resources, 70% were bilateral and 30% came from multilateral lending institutions.

At the same time, alternative sources of financing have risen. Middle-income countries, especially, have been able to obtain funds from private capital markets through direct investments, bond issues, or bank credit. Remittances from emigrants to their countries of origin have gained importance in some countries, and contributions from well-endowed private philanthropies have also arisen. Finally, countries in the BRICS group (Brazil, Russia, India, China, and South Africa) have started to offer international funding for projects and to extend supplier credits.

This general pattern is mirrored in international financing for health, which was on the increase during the first decade of the century until the trend was interrupted by the Great Recession in 2008. The Organisation for Economic Cooperation and Development (OECD) (155) estimates that official assistance for health grew at 10% annually during 1980-2007, and 17% annually in 2000-2007. According to the World Bank, the annual commitment of funds for health from all financing sources (bilateral, multilateral, and private) more than doubled in 2000-2005, from US\$ 6 billion to US\$ 14 billion (23).

Furthermore, the economies toward which those international financing flows were targeted have become increasingly attractive for the mobilization of national financing, which is becoming one of the main sources of funding for development plans and projects. The World Bank estimates that the treasuries of developing and emerging economies received US\$ 7.7 trillion in fiscal revenues in 2012, more than the US\$ 6 billion received by the governments of those economies in 2000. As these fiscal revenues become more robust, especially as a result of greater economic growth, developing and emerging economies will rely less and less on international financial assistance (154).

As a result of the changes just described, the multilateral financing institutions now see that there is a new architecture for financing development, one characterized by a diversity of funding sources (154).

## Contributions in financing

The activities of PAHO fall precisely within the space between the availability of financing and the execution of programs and projects, since the Organization helps to overcome obstacles that stand in the way of absorbing funds. For example, PAHO administers trust funds to help channel resources coming from international agencies and Member Governments, some of them through agreements with the Governments of Canada, Spain, the United States, Norway, and Sweden. PAHO also administers trust funds for national projects under agreements signed with Member Governments such as Argentina, Brazil, Colombia, and Ecuador. PAHO also participates in building the execution capacity of governments through two revolving funds, one that supports the Expanded Program on Immunization and another for strategic public health supplies.

## **Target 8.E: In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries**

### **Indicator 8.13. Proportion of population with access to affordable essential drugs on a sustainable basis**

It is essential that medicine be included among the health guarantees that ensure universal access to health. In 2010, of 20 governments in the Region that responded to a survey on their pharmaceutical profile, 18 indicated that they have a public health or social security system that provides products on their list of essential drugs at no cost to the patient. In 17 of those countries, there were also insurance programs or plans that covered the cost of medicines to treat noncommunicable diseases (156).

WHO considers any type of direct payment by the patient at the time of treatment to be a barrier to health services access. In Latin America and the Caribbean, health services in nine of 23 countries surveyed required a patient copayment when medicine was dispensed (157).

Coverage is another factor that influences access to medicines. In 2008, estimates of spending on pharmaceutical products as an indicator of access in 21 Latin American and Caribbean countries showed that disbursements by public institutions only accounted for 22% of the total expenditure; the remaining 78% was paid by patients out-of-pocket. That same year, patients' average annual per-capita expenditure on medicines came to US\$ 97, ranging from a low of US\$ 7.50 in Bolivia to a high of US\$ 160 in Argentina and Brazil (158).

Several countries of the Region have prepared evidence-based lists of essential medicines in an effort to promote the most efficient use of medicines. In 2007, for example, 24 countries had an up-to-date list of essential medicines and 16 had up-to-date national formularies. In addition, 24 countries had committees on pharmaceutical treatment, and 12 had up-to-date national treatment guidelines. A follow-up survey in 2010 confirmed that the same number of countries had a list of essential drugs. According to the latter survey, most of the countries surveyed used the lists for public drug purchasing (159).

Despite this progress, there are still some problems around the rational use of medicines. For example, a study conducted in 2005-2008 in four countries of the Region estimated that antibiotics had been used inappropriately in more than 50% of the patients. Moreover, a 2007 survey revealed that only 12 countries had a strategy in place to contain antimicrobial resistance (160, 161).

One mechanism that is useful for improving access to medicines is the development and implementation of strategies for promoting the use of generic medicines. However, a survey conducted in 2010 revealed that in 17 of 23 countries (79%), the public sector required generic prescribing, but in the private sector this requirement only existed in seven of them (26%). All 23 countries allowed public sector pharmacies to substitute generic medicines, but substitution was only allowed in 72.7% of the pharmacies in the private sector (162).

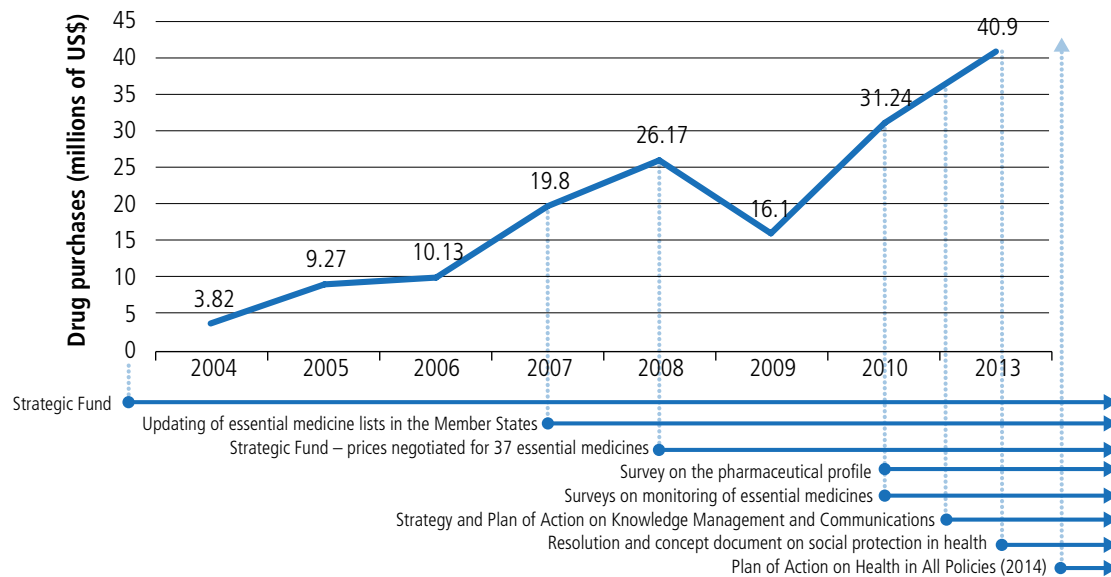
Despite the fragmented health services situation in most countries of Latin American and the Caribbean, a few initiatives have emerged to promote the joint procurement of medicines. Examples include activities within the framework of the Organization of Eastern Caribbean States (OECS) and a joint undertaking by the Central American countries and the Dominican Republic to procure drugs that are expensive and difficult to obtain. That latter initiative led to the negotiation of prices on 37 drugs, resulting in a 46% savings. Price observatories have been established in the Central American Integration System (SICA), the Southern Common Market (MERCOSUR), and the Andean subregion within the framework of the Andean Integration System (AIS) (160).

## MDG 8 contributions

PAHO actively supports the individual and collective work of countries in the Region to reduce the price of drugs through economies of scale. In line with this commitment, in 2000 the 42nd Meeting of the Organization's Directing Council voted to establish a Regional Revolving Fund for Strategic Public Health Supplies, known as the Strategic Fund (163).

The purpose of the Strategic Fund is to support Member States by increasing their access to high-quality drugs and medical supplies at reasonable prices (Figure 39). To achieve this goal, PAHO helps countries build national capacity for managing their drug supply through the planning and programming of purchases. This approach also encourages competition and transparency in the supply of medicines based on an ongoing, sustainable system of joint cyclic procurement (160).

**Figure 39. Procurement of medicines with the support of the PAHO Strategic Fund and related contributions, Latin America and the Caribbean, by year, 2004-2010**



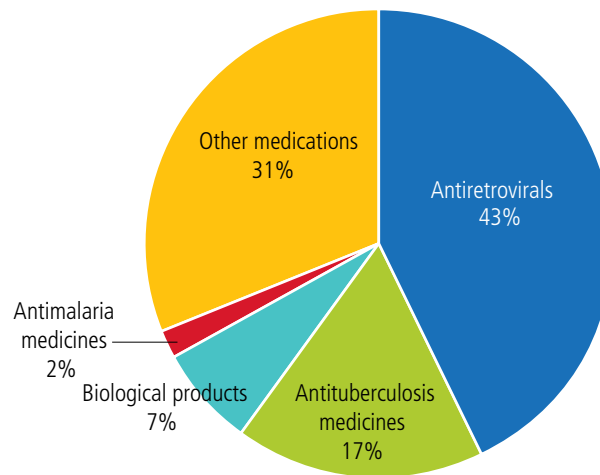
Source: PAHO, 2014 (160).

Today, 24 countries participate in the Strategic Fund. PAHO supports the strengthening of national procurement and supply systems in 16 of the 24 countries. In the last 5 years, 19 countries have procured medicines through the Fund, either individually or as part of an existing subregional integration processes (160).

The amount of purchases has steadily grown, as reflected in the 56% increase in the value of the products procured in 2008-2013, from US\$ 26.2 million for 10 countries in 2008 to US\$ 40.9 million for 17 countries in 2013 (164). The cost savings have been significant, especially in the case of antiretrovirals, where it has been possible to consolidate regional demand and sign long-term agreements with producers of high-quality generic products (Figure 40). The price of these drugs fell 33% in 2011-2013 (165).



**Figure 40. Purchases of medicines through the Strategic Fund, by product category, Latin America and the Caribbean, 2010**



**Source:** PAHO, 2014 (160).

Along with establishing and implementing the Strategic Fund, strengthening national drug supply and distribution systems has been imperative to complying with its requirements and procedures. Also, striving to bolster official control over the quality of medicines, a network of 21 national laboratories was established to support the regulatory function. Starting in 2009, an evaluation system was adopted so that national laboratories might obtain recognition as international reference bodies and allow them to perform quality control over medicines purchased by international agencies. For example, in 2010 and 2011 the United Nations prequalified national facilities in Bolivia, Brazil, Peru, and Uruguay as international reference laboratories (166).

Other PAHO-supported contributions to improve the access, quality of, and use of health products in the Americas are summarized below:

- In 2010, the PAHO Directing Council adopted the resolution Strengthening National Regulatory Authorities for Medicines and Biologicals, which led to the evaluation of 17 national regulatory authorities and the designation of seven of them as regional reference sites (167).
- World conferences brought national authorities together to share experiences and disseminate best practices. Most recently, conferences were held in Canada in 2013 and Brazil in 2011 and 2014 with the participation of over 400 specialists in the regulation of medicines from over 121 countries (168).
- An external group conducted an evaluation of the Regional Plan of Action for Blood Transfusion Safety 2006-2010, the results of which were presented at the 51st Meeting of the Directing Council in 2011 and will serve as the basis for a new regional plan (169).
- May 2012 saw the inauguration of the Regional Platform on Access and Innovation for Health (*Plataforma Regional sobre Acceso e Innovación para Tecnologías Sanitarias*). This tool is designed to support application of the Global Strategy and Plan of Action on Public Health, Innovation, and Intellectual Property. Currently there are 25 active practitioner communities with more than 1 000 participants who collaborate on policies and innovation, regulation, and the use of health technologies (170).
- In 2012-2013, the Strategy for the Rational Use of Medicines was implemented in Bolivia, Chile, and Nicaragua, emphasizing an integrated approach to the coordination of regulatory, educational, administrative, and research initiatives designed to promote primary health care (160).
- The Health Technology Assessment Network of the Americas (RedETSA) began to function in 2011 with the signing of cooperation agreements with Brazil's National Health Surveillance Agency (ANVISA), the Canadian Agency for Drugs and Technologies in Health, and USAID (171).

- As the countries of the Region move forward in their process of demographic and epidemiological transition, there is an increasing demand for high-quality drugs to address the growing incidence of noncommunicable diseases. The Strategic Fund has responded to this concern with scaled-up procurement of these drugs.

PAHO Governing Body resolutions related to MDG 8 are listed in Box 6 below.

#### Box 6. PAHO Governing Body resolutions related to MDG 8

CD45.R7	Access to Medicines, 45th Meeting of the PAHO Directing Council, 2004 (164)
CD46/9	Technical Cooperation among Countries in the Region, 46th Meeting of the PAHO Directing Council, 2005 (172)
CD46/19	Country-focused Cooperation and National Health Development, 46th Meeting of the PAHO Directing Council, 2005 (173)
CE142.R5	Blood Transfusion Safety: Progress Report, 142nd Session of the PAHO Executive Committee, 2008 (174)
CD48.R15	Public Health, Innovation, and Intellectual Property: A Regional Perspective, 48th Meeting of the PAHO Directing Council, 2008 (170)
HHS/MT/ARN/001	System for Evaluation of the National Regulatory Authorities for Medicines, PAHO, July 2010 (166)
CD50.R9	Strengthening National Regulatory Authorities for Medicines and Biologicals, 50th Meeting of the PAHO Directing Council, 201052 (167)
CD51.R5	Strategy and Plan of Action on eHealth, 51st Meeting of the PAHO Directing Council, 2011 (46)
CSP28.R9	Health Technology Assessment and Incorporation into Health Systems, 28th Pan American Sanitary Conference, 2012 (175)
CD52/INF/2	WHO Twelfth General Program of Work 2014-2019 and Program Budget 2014-2015, 52nd Session of the Executive Board, 2013 (176)
CD53.R2	Plan of Action on Health in All Policies, 53rd Meeting of the PAHO Directing Council, 2014 (73)
CD53/INF/6D	Status of the Millennium Development Goals: Progress Reports on Technical Matters, 53rd Meeting of the PAHO Directing Council, 2014 (177)

## CHAPTER III.

# Reflections on the regional experience and lessons learned

Since announcing the Millennium Development Goals (MDGs), the Pan American Health Organization (PAHO) has been working with its Member States to transform goals and targets into results. These years of effort have left a legacy of experience that is constantly showing progress toward achievement of the MDGs. The lessons learned by the countries are now becoming the basis for the forming new targets, especially as they move toward addressing the Sustainable Development Goals (SDGs) adopted in 2015. This chapter mentions the effort gone into systematizing the experiences of the countries of the Region, working in tandem with PAHO, during the years devoted to achieving the MDGs.

### MDG 1: Eradicate extreme poverty and hunger

#### Identification of adequate and timely instruments and indicators

A major challenge is identify instruments and indicators that can assess risks in a timely manner, and to develop interventions for preventing situations where the long-term effects of risks might impact quality of life. For example, the indicator used to assess nutritional status in children under-5 is weight-lower-than-normal, which only determines if a child is thin and does not take into account the more serious issue of growth stunting, which is measured by height-for-age (10).

#### Food security as a broader concept

The issue of hunger is usually linked to food insecurity. However, the concept of food security, repeatedly mentioned in connection with the MDGs, is actually broader—it includes physical and economic access to food that is sufficient in quantity, safe, and adequately meets nutritional needs so that a person can lead an active and healthy life. It is, therefore, important to be careful in developing an indicator that measures this condition within the framework of the SDGs.

#### Productivity and sustainable structural transformation

While there has clearly been a great improvement in the nutritional status of people in the Americas, many still live below the poverty line. If governments want to change this reality, forces need to be marshaled to increase productivity, promote sustainable structural transformation, and expand social protection systems to ensure the availability of basic social services that focus on interventions to improve the lives of workers, populations in vulnerable situations, and their families.

#### Environmental and individual criteria for determining vulnerability

Food vulnerability consists of “the probability of an acute decline in food access or consumption in reference to some critical value that defines minimum levels of human well-being.” Nutritional vulnerability, on the other hand, has to do with the biological utilization of food, which is affected by factors related to the quality of diet and a person’s individual state of health. Here, those in the most vulnerable situation are those facing the greatest risk, yet having the most limited ability to respond. From this perspective, vulnerability should be examined along two interacting dimensions: the first, corresponding to the natural, social, and economic conditions of the situation, and the second, the capacity and determination of the individual and community to address them (178).

## Healthy school breakfast and lunch programs

In recent years, several countries in Latin America and the Caribbean have begun to make school feeding programs a matter of public policy, with provisions for activities related to the strengthening and coordination of school food programs, the development of human and material capacity, and the generation and dissemination of knowledge.

In El Salvador, for example, national technical assistance focused on drafting legislation on school feeding programs that is also tied to purchasing from family farms and planting school gardens as part of a teaching-learning process. Colombia, for its part, has given priority to technical assistance on redrafting its current legislation with a view to strengthening its school feeding program.

Another example of country actions in this regard can be seen in Bolivia, where intersectoral meetings are being held with representatives in the health, education, and agriculture sectors, along with civil society, to work on draft regulations for supplementary school feeding and food fortification. Similarly, meetings are being held in Paraguay on drafting a decree and defining the terms for public purchasing from family farms, to be followed by local authorities, civil organizations, and producers. In addition, this country is conducting national studies on the subject. In Guatemala, technical assistance has focused on the drafting of legislation on school feeding, and Honduras, Nicaragua, and Peru have also had successful experiences with such legislation (179).

## Experiences with child malnutrition: Brazil, Mexico, and Peru

In Brazil, chronic malnutrition in children under-5 declined significantly between 1996 and 2006, from 13.5% to 6.8%. These changes were more evident in the most disadvantaged areas of the country, where the percentage fell from 22.2% to 5.9%. The factors that contributed the most to this success were, in descending order: higher levels of schooling for women; increased purchasing power for poor families; greater access to maternal and child health services as part of the family health program, along with a focus on the quality of these services; and improvement in the quality of water and basic sanitation.

In Mexico, the prevalence of short stature declined from 27% in 1988 to 13.6% in 2012. In the south, which is the poorer part of the country, the proportion dropped from 39% in 1988 to 22% in 2006. Starting in 1999, the *Progres*a program, later called *Oportunidades* and more recently, *Prospera*, has focused on rural and poorer communities by providing conditional cash transfers along with improved child health care by the health system and the schools. This strategy prioritized the creation of services and the establishment of a surveillance and impact assessment system that not only proved the actions' effectiveness, but also justified their continuance through successive government administrations.

In Peru, chronic malnutrition declined from 31.6% in 2000 to 19.6% in 2011. Its persistent prevalence was associated with the following factors: mother's level of education, life in the highlands at altitudes over 2 500 meters, two or more children living at home, and being the third or subsequent child. In 2007, a study by the Center for Research, Education, and Development (*Centro de Investigación, Educación y Desarrollo*) of the National Institute of Statistics and Informatics (*Instituto Nacional de Estadística e Informática*) suggested that the declines were also related to children being breast-fed during the first hour of life, improved weaning practices, hygiene, and the treatment of diarrheal disease and acute respiratory infections. Also, in 2006 the Government implemented a national development and social inclusion strategy known as *Crece*r ("Grow"). It includes five strategic lines of action: child nutrition, early child development, integrated development of children and adolescents, economic inclusion, and social protection. The strategy promotes the reduction of extreme poverty, coordinates intersectoral work and the participation of the regional and local governments, and deploys a wide spectrum of interventions on the most critical social determinants.

## MDG 4: Improve child health

### Breastfeeding

Incentives to encourage exclusive breastfeeding of children until 6 months of age have played an important role in reducing neonatal and child mortality. This has been seen in countries where reported infant mortality has declined. Both WHO and UNICEF encourage countries to promote, protect, and support breastfeeding. In places where resources are limited, sanitary conditions are poor, and potable water is scarce, breastfeeding can save the life of newborns. Among other advantages, it provides protection against infectious diseases, especially gastrointestinal illnesses, which are major contributors to infant morbidity and mortality in developing countries. Breastfeeding also reduces the risk of child obesity (180). Hence, the promotion, continuing education, and systematic communication campaigns, remain a priority in the future agenda, as well as providing food supplementation for pregnant and lactating women, lactating infants, and preschoolers.

### Family health teams for monitoring child health: promotion, prevention, and diagnosis

The monitoring of child health using family health teams is an important step forward. Measures such as evaluating nutritional status based on children's height and weight, oral rehydration, and vaccination are examples of effective approaches to reducing morbidity and mortality. Primary health care personnel rely on such actions as prevention and health promotion, early diagnosis, treatment, and rehabilitation for the entire population, especially among those in the most vulnerable situations. The community-oriented primary care model is an extension of family and community medicine that is designed to streamline, organize, and standardize existing health resources, with emphasis on actions focused on a given population. For more than 50 years, countries such as Bolivia, Colombia, Costa Rica, Cuba, Nicaragua, Mexico, the United States, and Uruguay have been implementing medical education programs focused on community-oriented primary health care with varying results, both encouraging and challenging.

### Adequate sanitary and environment conditions, especially in areas of greatest vulnerability

An important aspect of infant mortality has to do with sanitary and social conditions. Neonatal death within the first 7 days of life is associated with inadequate prenatal and delivery care and also with precarious sanitary conditions, illiteracy of the mother, and poverty. Despite achievements in the reduction of neonatal and infant mortality, it is still necessary to develop policies that intervene in environmental, social, economic, demographic, and political determinants, and reduce inequalities in health. Other challenges include maternal conditions such as multiparity, low educational level, limited health care, inadequate access to family planning methods, and malnutrition. To reduce infant mortality, it is important to step up health interventions that improve prenatal and pregnancy care, increase breastfeeding, and upgrade sanitary conditions, and to take action on the social determinants of health (181).

### Vaccination

The first developing countries in the world to eliminate poliomyelitis, measles, and rubella were in the Region of the Americas. This achievement was owed to high vaccination coverage and legislation to protect budgetary allocations for vaccination through regular child immunization programs. As a result of this 30-year undertaking, the Region is in a position to support developing countries elsewhere in addressing the challenges related to disease reduction and elimination, the management of vaccination programs, and the drafting of laws and policies that protect vaccination as a public resource. Furthermore, many countries in Latin America and the Caribbean use nominal vaccination registries to facilitate the monitoring of coverage. These registries help countries to identify the areas where projected coverage levels have not been reached, to apply corrective measures, and, ultimately, to reach their strategic objectives. Hence, it is important to strengthen capacity and provide continuity of this experience that serves as an instrument of regional and global cooperation (182).

### **Promote increased budgets for children**

All estimates of poverty, regardless of what method was used, show that children are the population group most egregiously affected by poverty. Progress in the evidence-based dialogue with governments needs to be significant in order to increase the maternal and child budget. It must be understood that investing in children is investing in the country's present and future development, and it needs to be sustainable over time. For example, in Peru, as the result of a joint technical effort by the Ministry of Health and the State, the allocation of extra resources for the enforcement of plans and programs made it possible to reduce mortality by more than 115% in children under-5 between 1990 and 2015. Several other countries have had similar success, including Antigua and Barbuda, Bolivia, Brazil, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, and Saint Kitts and Nevis, with reductions of more than 90% (49). Other problems that call for a joint approach to maternal and child health are accidents inside and outside the home, violence, and child mental health.

### **Integrated management of childhood illness**

Integrated health service models and policies are gaining presence in the Region. Some countries have incorporated the strategy for integrated management of childhood illness. For example, in Bolivia, Brazil, Guyana, Honduras, Nicaragua, and Peru, this strategy is being used to deal with the prevention, control, and treatment of illnesses and conditions that affect women, fetuses, newborns, and children; address issues such as malnutrition, periconceptional calcium and folic acid deficiency, tuberculosis, caries, Chagas disease, perinatal and neonatal disorders, accidents, domestic abuse and violence, mental health disorders, respiratory conditions, development problems in childhood, and HIV/AIDS; and improve health in indigenous communities (183).

## **MDG 5: Improve maternal health**

### **Reduction of health service barriers and prenatal monitoring**

Even though fertility rates have declined, maternal mortality continues to be a challenge in the countries of the Region, often related to a lack of adequate and timely access to health services. Removing barriers to access and providing universal coverage make it possible to expand prevention and health promotion programs, treatment, rehabilitation, and palliative care. Families are also protected against financial risk associated with the cost of care (100). For example, Brazil created its Universal Health System (*Sistema Único de Saúde; SUS*) in 1988, launching a broad program of health sector reforms aimed at increasing coverage of those in vulnerable situations, including pregnant women. In addition, LAC countries have developed laws and policies of strengthening health systems to care for child and maternal health and, establishing community health strategies (184).

### **Reduction of deaths from direct obstetric causes**

It has been shown that continuing education for maternal health care professionals, access to medicine, and improvements to health facilities, including equipment and personnel, considerably reduce maternal deaths from direct obstetric causes (78). These deaths, often associated with hemorrhage during the third trimester, are preventable and easily managed by skilled personnel. The incorporation of traditional midwives into health programs has helped to improve access to services for pregnant women from rural and indigenous areas. There are several successful examples from the Region, among them the case of Haiti and its Free Obstetric Care (*Soins Obstétricaux Gratuits*) program. These experiences can be summarized by the following initiatives: developing and applying appropriate and sustainable public policies, including mechanisms for social protection; strengthening community health by promoting cultural diversity and community-oriented primary health care; increasing the educational level of women; bolstering national and international cooperation; improving information and surveillance systems; and continuing education for health workers according to the population's needs (185).

### **Standardizing of information on pregnancy**

Discrepancies in maternal mortality data between national records and the estimates of an interinstitutional group led countries to improve their maternal death surveillance systems and to develop accountability processes for reporting maternal mortality. PAHO promoted active searching for deaths among women of childbearing age and other processes for detecting deaths through direct technical support to the countries and the facilitation of South-South cooperation. This process of systematizing information should include data at the national level, as well as subnational disaggregation. Experience has shown that committees on maternal and neonatal mortality can play a role not only in identifying and investigating maternal deaths, but also in examining the data and recommending needed measures. Monitoring and evaluation at all levels are key elements for planning and delivering program services within health systems and the maintenance of health information systems (185).

### **Cesarean sections as a risk factor for maternal and neonatal morbidity and mortality**

According to WHO recommendations, the maximum rate of cesarean section deliveries should be around 15%. The rising proportion observed in several countries of the Region in recent years, even exceeding 40% in some cases, increases the risk for maternal and perinatal morbidity and mortality and imposes an added cost-burden on families and the health system. Strategies that have yielded good results in reducing cesarean deliveries focus on interventions both with pregnant women, through education, communication, and prenatal orientation, and with professionals, through guidelines and the requirement for a second opinion (186).

### **Teen pregnancy: a persistent problem in the Region**

Latin America and the Caribbean have the second highest rate of teen pregnancies in the world. On average, 38% of the women in the Region have a pregnancy before the age of 20. This is one of the main causes of death among adolescent women in the Region. Moreover, the percentages of teen pregnancy are 3-5 times higher among low-income populations than among the most privileged. Girls under 15 years of age have a higher likelihood of dying during delivery, and when a mother is less than 18 years old, her baby has a 60% greater probability of dying during the first year of life (187). Interventions that may help to reverse this problem include building self-confidence and knowledge among teenage girls through sex education, eliminating stigma in the health services, guaranteeing confidentiality, and offering preventive services, including the timely supply of contraceptives (188).

### **Progress in women's health moves forward with action at various levels**

Although no country has managed to reach the goal of reducing maternal mortality by 75%, tremendous efforts and progress have been made. For example, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Mexico, Peru, and Uruguay have seen reductions of more than 50% since 1990.

At the interinstitutional level, the Regional Working Group for the Reduction of Maternal Mortality, United Nations organizations, cooperation agencies, international banks, nongovernmental organizations, and a number of regional professional associations have joined together to promote improved care and involvement in maternal health issues through an annual plan of work. This plan has been used to generate synergies, facilitate the rational use of financial resources, avoid duplication of effort, and establish a strategic framework for promoting technical cooperation (185).

At the regional level, in light of slow progress toward achieving MDG 5, in 2010, PAHO called on the countries to develop a plan to accelerate the reduction of maternal mortality and severe maternal morbidity (78). While the program was approved by all the Member States, the resources called for in the resolution were not available, and therefore, the recommended actions were not taken. The result was that most of the countries did not update their plans. This situation shows that approving a resolution does not guarantee its enforcement or implementation, and that in the future, other mechanisms should be explored to ensure that commitments are fulfilled.

At the national level, one of the most effective ways to promote access to prenatal, delivery, and post-delivery care has been through incentives offered by the Latin American and the Caribbean countries as part of policies to extend social protection in the area of maternal health. A number of the countries have promoted free access to maternal health services or conditional cash transfers, for example, the Universal Maternal and Child Insurance (*Seguro Universal Materno Infantil*) program and the Juana Azurduy Benefit (*Bono Juana Azurduy*) in Bolivia and similar programs in other countries of the Region.

## **MDG 6: Combat HIV/AIDS, malaria, and tuberculosis**

### **HIV/AIDS**

#### **Prioritizing the reduction of new infections**

An estimated 75% of pregnant women in the Region were screened for HIV in 2014. Moreover, 81% of pregnant women who tested positive for the virus received treatment, which has, in turn, reduced new infections in newborns. However, it is worth noting that extraordinary advances in access to treatment for other population groups have not been associated with similar reductions in cases. To guarantee a sustainable response, it is important to not only increase the proportion of patients under treatment, but also to ensure a decrease in new infections.

#### **Precautions in the interpretation of information**

Attention should be given to the interpretation of information, since points of reference can shift in the course of the execution process. For example, it was observed that during the period corresponding to implementation of the MDGs, and specifically in 2013, it was initially reported that 56% of patients diagnosed with HIV and eligible for treatment were receiving ART, but this proportion dropped to 44% for the same year when the criteria for eligibility were modified.

#### **HIV/AIDS and congenital syphilis**

Cuba was the first country in the world to receive validation from WHO that it had eliminated mother-to-child transmission of HIV/AIDS and congenital syphilis—a milestone that could possibly be achieved by other countries of the Region as well. This success sets the stage to follow up on the related Plan of Action and fully achieve the targets that have been set. Countries should work to develop information systems that provide data on basic prenatal health care, including the prevention of HIV/AIDS and syphilis; improve the coverage and quality of these systems; and expand the coverage of surveillance systems that track cases of pediatric HIV and congenital syphilis to include reports from private providers. So far, 17 other countries—Anguilla, Antigua and Barbuda, Barbados, Bermuda, Canada, Cayman Islands, Chile, Cuba, Dominica, Montserrat, Puerto Rico, Saba, Saint Kitts and Nevis, Turks and Caicos Islands, United States of America, Virgin Islands (United Kingdom), and Virgin Islands (United States)—have reported data for 2014 that are compatible with achieving the goal (189).

#### **Need for more specific indicators appropriate for different contexts**

Given the nature of the epidemic in different regions, it would have been better to have specific regional, subregional, and national indicators that would have given a clearer picture of the situation among the most vulnerable groups and various populations. For example, the original indicators related to young people were ultimately disregarded. Also, the age of consent for the diagnostic assessment of adolescents and young adults was apparently a limiting factor to accessing HIV testing and other related services. Thus, new indicators are needed that emphasize youth and, especially, populations at greatest risk for the infection.



## **Malaria**

### **Strategic planning and technical cooperation**

The Region has seen significant progress toward attainment of the MDG targets for malaria. As of 2014, a total of 14 countries had achieved a 75% reduction in their disease burden, thus meeting the proposed PAHO target. In addition, 17 of the 21 affected countries in the Region made an official commitment to step-up efforts to eliminate the disease. The establishment of a PAHO target, together with strategic planning at the regional level, country support, long-term technical cooperation, and strategic national planning, has contributed to the progress under way, which should be strengthened with new indicators under the SDGs.

### **Surveillance systems strengthened and functioning to prevent reestablishment of transmission**

There continue to be factors that permit local disease transmission in countries previously declared transmission-free. Thus, it is necessary to strengthen surveillance systems and ensure they are properly functioning, especially as the Region approaches elimination. For example, the Bahamas and Jamaica saw reintroduction after being transmission-free for decades, and have had to dedicate major effort and resources to regain their previous status. If surveillance and activities to reduce the disease burden are not kept up, achievements that had been reached could be lost. Another case in point is Venezuela, where cases recently increased by more than 150%.

### **Appropriate interventions based on strengthening health services**

The strengthening of health services has improved access to diagnosis, and as a consequence of better diagnosis, operations research has been able to contribute information for evidence-based decision-making, such as data on the use of effective treatments. As countries have strengthened their surveillance systems and research, they have seen a significant reduction in their disease burden.

### **PAHO as an intermediary in funding the fight against malaria**

After implementing the Global Malaria Control Strategy in 1992, additional support for efforts to combat malaria got under way with the launching of the Roll Back Malaria (RBM) initiative in 1998 (111). The purpose of RBM was to assist countries in reorienting their programs and mobilizing funds. PAHO served as the intermediary in obtaining external financial support for the countries of the Region. An example is the Amazon Malaria Initiative (RAVREDA-AMI) funded by the United States Agency for International Development (USAID) (110). In addition, countries eligible for assistance benefited financially from the Global Fund to Fight AIDS, Tuberculosis, and Malaria. As a result of funds from these sources, the total budget for measures to combat malaria in the Region has steadily increased, from less than US\$ 100 million in 2000 to its current level of more than US\$ 200 million.

### **Achievements as a reflection of commitments assumed by governments**

Achievements in malaria reduction have been made possible thanks to commitments assumed by the governments of the Region's affected countries, for which approximately 90% of the funding has come. However, it is also important to keep in mind that additional resources from external members can help optimize results, as long as the funds are strategically invested to address key gaps.

### **Recognizing the work of the countries in the Region**

Every year since 2009, there has been a search to identify Malaria Champions of the Americas. Through this initiative, 21 successful projects have been identified in the Region, spotlighting communities, localities, municipalities, and states that have moved forward at an unprecedented pace in the fight against malaria and other diseases. One of these projects, a 2015 winner, was Brazil's National Malaria Control Plan (*Plano Nacional de Controle da Malária*), which was recognized for stepping up efforts to improve access and diagnostic testing. This country has seen a significant decrease in the national and regional

burden of malaria since 2000, thanks to efforts aimed at those in the most vulnerable situations, including pregnant women, children, and those living in poverty. In 2014, the Dominican Republic's National Tropical Disease Control Center (*Centro Nacional Para el Control de las Enfermedades Tropicales*) was recognized for its work in integrated vector management, an intersectoral and transborder initiative that has led to a significant reduction in the country's disease burden. In 2012, honors went to Paraguay's National Malaria Control Program (*Programa Nacional de Control del Paludismo*), which succeeded in reducing malaria transmission by 99% with its strengthened T3 Strategy: Diagnosis, Treatment, and Surveillance (115).

## **Tuberculosis**

### **Achievements using the DOTS and Stop Tuberculosis strategies**

Successful tuberculosis control in the Region of the Americas made it possible to meet the proposed goals by 2015. This achievement was made possible thanks to two fundamental approaches. The first was use of the DOTS strategy, launched by WHO and implemented in the Region in 1996, which became the basis for national tuberculosis control programs in all the countries. The second, introduced in 2006, was the WHO Stop TB Strategy, which incorporated interventions for addressing tuberculosis/HIV coinfection and drug-resistant forms of tuberculosis based on the involvement of all health providers, empowerment of persons with tuberculosis and the community, and promotion of research (117, 123).

### **Introduction of differentiated prevention and control measures for those in vulnerable situations**

Tuberculosis prevention and control were strengthened at all levels of every country's health system, including private practice and traditional medicine. Interventions, ranging from basic control through tuberculosis eliminations plans, were designed from programming and epidemiological indicators and customized depending on the scenarios in each country. These scenarios made it possible to prioritize interventions and PAHO/WHO technical cooperation (119, 121, 125).

A number of interventions were applied to reduce tuberculosis; for example: 1) measures focused on highly-vulnerable populations, such as prison populations, indigenous groups, Afro-descendants, and the poor in rural and peri-urban areas; 2) incorporation of TB/HIV control in all the work plans of the national tuberculosis control programs, with stepped-up services and testing for HIV infection in persons affected by tuberculosis, provision of ART for those with TB/HIV coinfection, and preventive treatment with isoniazid for persons living with HIV; 3) incorporation of tuberculosis into social protection programs in a majority of countries in the Region; 4) interprogrammatic work with areas such as noncommunicable diseases, especially diabetes mellitus, mental health, and social determinants of health; and 5) implementation of the Framework for Tuberculosis Control in Large Cities of Latin America and the Caribbean—an initiative aimed at populations living in poverty on the urban fringe who have difficult access to health services—along with the active involvement of local political and health authorities (122).

### **Strengthening of laboratory networks and diagnostic improvements**

The establishment of the Laboratory Working Group on Tuberculosis in the Americas contributed to improved coverage by national laboratory networks, routine quality assurance programs for bacteriological testing, and the use of new WHO-endorsed diagnostic tools (127).

### **Epidemiological surveillance and technical advisory services by PAHO and other partners**

A number of important measures were introduced to assist in controlling the disease: routine monitoring for anti-tuberculosis drug resistance in individuals with positive bacteriology, and treatment of MDR-TB and extensively drug-resistant tuberculosis (XDR-TB) according to program guidelines, decentralized at the first levels of care. The PAHO/WHO Regional Tuberculosis Program Technical Advisory Group and other international organizations have called on countries to adopt these measures, and PAHO has been offering technical support for implementation.

## **Intersectoral approach and social determinants**

Tuberculosis vividly reflects the deep social and economic inequalities that remain in the Region. It is well known that tuberculosis morbidity and mortality declined for a period just prior to the discovery of antibiotics and that better social and economic conditions were responsible for much of the change. Furthermore, in addition to poverty and inequity, in many countries of the Region, social diseases such as stigmatization, exclusion, and discrimination compound the situation of the most vulnerable. Social determinants that have been identified include poverty, inequity, poor nutritional status, overcrowding, discrimination, social exclusion, unemployment, low levels of education or none at all, and lack of health services and social security. Therefore, activities should go beyond disease detection, treatment, and cure.

## **Financial support from partners to achieve the TB-related MDG 6 and SDG 3**

PAHO gave its support to mobilizing national financial resources through the Global Fund to Fight AIDS, Malaria, and Tuberculosis; other sources that emphasize tuberculosis prevention and control, especially among those in vulnerable situations and those affected by MDR-TB, XDR-TB, and TB/HIV coinfection; and regional programs funded by the Spanish Agency for International Development Cooperation (AECID) and USAID that focused on expanding PAHO/WHO technical assistance and the monitoring and evaluation of national tuberculosis control programs. To maintain the Region's MDG-related progress so far, the Regional Tuberculosis Program will lend technical assistance to countries adopting/adapting the new global Stop TB Strategy. The principles and targets of the Stop TB Strategy will enable the countries and the Region as a whole to achieve the targets of the SDGs.

## **MDG 7: Ensure environmental sustainability**

### **Governance, investment, and implementation of enabling environments**

It is essential that the countries of the Region achieve greater investment and strengthening of governance and, be able to develop the implementation of favorable environments; it has been observed that a many countries have problems with governance at the national and subnational level, while municipalities generally have only minimal intervention capacity. At the same time, governments need to build their capacity to implement policies that directly support the improvement of indicators related to safe water and basic sanitation, giving priority to interventions that reach those in the most vulnerable situations, including people living in rural areas or the urban fringe of large metropolises, indigenous groups, and the poor.

### **Political engagement in water security plans**

Although PAHO has been promoting water security plans, commitment on the part of the countries has been sporadic. There is a clear need to focus on incorporating water planning into national and local policies. Progress with water security plans requires heightened coordination because such projects require shared responsibility, and multilateral, bilateral, and/or private agencies may assume the primary role. Therefore, much closer collaboration is needed among PAHO, the countries, and the institutions that fund the construction of major infrastructure works for drinking water supply and basic sanitation.

### **Assumption of increased responsibility by public institutions for safe water and basic sanitation**

The health sector has been stepping back from its role in safe water and basic sanitation and allowing other agencies and/or institutions to focus on these areas. However, lack of intersectoral effort is undermining progress. Ministries of Health should not abandon their public and political commitment to monitor the quality of water and basic sanitation, two social determinants of health.

## **Creation of indicators for inequality in basic sanitation**

There are obvious gaps between the supply of safe water and basic sanitation to rural versus urban populations, within the same urban populations, and between urban and peri-urban areas. For example, data on large and capital cities conceal low local or national averages and sanitation inequalities between urban and peri-urban areas. At the same time, there is a lack of planning for rapid demographic and urban growth in cities. Indicators are being proposed under the post-2015 agenda to measure the inequalities in safe water supply, and the same needs to be done for inequalities in basic sanitation, being sure to include all of those in vulnerable situations (indigenous groups, and rural and peri-urban residents).

## **MDG 8: Develop a global partnership for development**

### ***Financing***

#### **Compulsory public health financing systems: effective, efficient, and equitable**

It is now generally recognized that relying predominantly on compulsory contributions is crucial to setting up an equitable system of health financing. These contributions play an important role in accelerating progress toward universal health coverage and provide the basis for funding public systems. Compulsory health financing systems should typically have three characteristics. They should be: 1) effective, based on adequate taxation and collection; 2) efficient, reducing administrative costs, and over time, as more people become formally employed, making it easier to collect income taxes and taxes on goods and nonessential services; and 3) equitable, given they are the only mechanism by which countries can accumulate resources that create a broad fund for redistributing resources and health services to the entire population.

#### **Social participation and accountability**

Social and community participation and health empowerment are important elements in the health investment process. Communities that are more involved and participate more actively have better health outcomes. At the same time, this process needs to include government accountability.

#### **Continued importance of external funding**

In several of the low-income countries, even stepped-up efforts to increase internal health financing would not yield sufficient resources to deliver the volume and quality of services needed by the population. Therefore, external financial assistance will be necessary in the foreseeable future until the domestic economies of these countries are capable of providing sufficient resources. Moreover, in order to contribute effectively to these countries' progress toward universal coverage and access to health care, any financial assistance will need to include criteria to ensuring that said universal coverage and access are effective, efficient, and equitable. External assistance can also be used to plan and apply adequate strategies for health financing, as well as strategies designed to strengthen health human resources and health information systems. This way, donors will be aware of the impact their contributions are having on the entire population, especially on the poor and others in vulnerable situations (190).

### ***Populations with sustainable access to medicine***

#### **Copayment: a dissuasive measure for those in vulnerable situations**

In terms of health care for the poor, a minimum charge can dissuade them from seeking needed health services. In vulnerable situations, the copayment becomes an unfair and unnecessary measure. Countries can replace point-of-service payments with various forms of sustainable financing that do not put those in vulnerable situations at risk. The elimination or drastic reduction of point-of-service payments is a common characteristic of all the systems that have successfully achieved universal health care coverage and access (191).

## **Identifying possible actions for improvement**

Several factors have been identified that interfere with the benefits that populations can gain from universal coverage and access to health services and medicine. They include: segmentation and fragmentation of the health systems; lack of political commitment; inadequate coordination among communities and local, national, and international entities; inadequate utilization of local information; and limited intersectoral cooperation. Other limiting factors that tend to lead to underinvestment in health services and systems are changes in the government's economic and political principles and unstable macroeconomic conditions.

## **Additional lessons**

### **Investment in health workers**

#### **Integrated technical and humanistic training and improvement of the working environment**

Investment in human resources is an essential area that needs to be addressed, since the quality of health services depends largely on the people who staff them. Health workers should receive integrated training that includes both the technical and humanistic perspective. Their performance depends not only on knowledge and skills, but also on the working environment and appropriate incentives at both the local and global level. Thus, it is important to reconsider community-oriented training and to reformulate curricula as a Region-wide policy with a view to providing needs-based training.

#### **Strategies to avoid talent flight and improve of human resources distribution**

Because of a lack of policies to promote health worker retention, many choose to migrate with the hope of improving their financial situation and/or to seek further professional growth. This migration is not only toward developed countries, but also between and within countries of the Region. Health worker migration leaves populations in less-developed situations, such as rural and peri-urban residents and indigenous groups, with fewer health personnel. Migration also produces an unequal distribution of human resources at the national and international levels.

### **Information systems, evidence generation, consensus-building, and decision-making**

#### **Underreporting of information: a continuing problem**

Work over the last decade has focused on strengthening the health information systems in the Americas, with special emphasis on the coverage of life events, such as births and deaths, one of the main sources of data for reporting on the health targets under the MDGs. For example, efforts were made to remedy several local problems of underreporting by certain sectors of the health services, and strategies were proposed for reducing problems related to defining events by training health personnel charged with completing reports. And finally, steps have been taken over the last 20 years, with support from Member States, to strengthen health information systems through the collection of data on basic indicators (77).

#### **Generating evidence**

For some of the MDGs, it was necessary to begin by establishing databases of basic information needed to support decisions and implement policies, strategies, and effective actions. For instance, the lack of evidence was hindering quantification of maternal mortality, which was finally estimated. The main obstacle had to do with how death certificates were being prepared. The issue led to training for civil records personnel in almost all the countries. In other cases, collecting the information involved an extensive and constant effort, especially when it came to identifying trends and long-term consequences. A good example of this type was the longitudinal study carried out by INCAP to determine the long-term effect of nutrition on the first years of life, a study now considered to be one of the richest sources of information on the subject (192). Similarly, establishment of the Latin American Center for Perinatology in 1970 and its subsequent merger with the Unit on Women's and Reproductive

Health made it possible for the Region to offer technical and political proposals to address priority problems in the areas of perinatal health, women's health, and sexual and reproductive health. Another similar case has had the ongoing support of the Regional Technical Team on Water and Sanitation.

### **Consensus-building**

Building consensus based on valid information and prior consultation with the stakeholders, has been behind the adoption of technical and political decisions. It has also lent legitimacy to the various commitments assumed, given that they reflect the interests of the countries. As seen throughout this document, all of the Organization's involvement has been based on resolutions adopted by its Governing Bodies, and has covered a wide range of activities implemented by the Secretariat (73). For example, in the area of reproductive health, the governments agreed in 2008 to carry out programs aimed at young people, and their consensus was embodied in the Declaration of Mexico and the Plan of Action on Adolescent and Youth Health (193). With this decision, the governments gave legitimacy to the implementation of actions to prevent sexually transmitted diseases, thus contributing to the attainment of MDG 6. On the other hand, we must recognize the difficulties of building consensus among different sectors and stakeholders.

Therefore, the need arises to develop innovative relationships with other public and private sectors to implement health in all policies, actions on the social determinants of health, and the SDGs.

### **Decision-making**

Without discounting the importance of collecting and processing information, it is the efficient and effective implementation of decisions that produces visible results for the countries and the Organization. Two notable examples are the Revolving Fund for the procurement of vaccines, established by the Directing Council in 1977, and the Regional Revolving Fund for Strategic Public Health Supplies, created by the Council in 2000. Both funds use economies of scale and joint negotiation, as well as impeccable logistics, to procure and distribute vaccines, drugs, and other health supplies. PAHO has carried out complementary activities in other areas as well. One example is drinking water supply and basic sanitation, where multilateral, bilateral, and/or private funding agencies have assumed primary responsibility for large-scale infrastructure projects. Still, in order to meet the target of providing sustainable access to safe water and basic sanitation, it was essential to maintain or improve the quality of the services, and with that purpose in mind, PAHO promoted the adoption of water security plans.

## **Success factors in cooperation**

### **Multisectoral interventions, South-South cooperation, and triangular cooperation**

Health is understood as a social construction process that requires a deliberate and conscious effort on the part of many sectors and components, such as education, transportation, labor, housing, the economy, social inclusion, local governments, and organized civil society, working together. This effort is further strengthened by coordination with the private sector, the clergy, nonprofit foundations, and other elements that are in a position to foster overall conditions that support health. PAHO/WHO, for its part, adds further value through its promotion of South-South and triangular cooperation.

South-South cooperation is a clear example of multilateral or bilateral support to expand development in the countries. Using triangulation, PAHO has sometimes played a role in some initiatives as part of agreements, for example, the More Doctors (*Mais Médicos*) program in Brazil. It is important, based on a knowledge of how the cooperation machinery works and with respect for the nature of its structure, to organize, coordinate, and articulate international cooperation activities and to help establish cooperation programs, rather than technical projects. This form of cooperation provides countries with the opportunity to come together, share, and build on innovative processes with proven effectiveness. It will, therefore, be important to incorporate experiences, successful processes, and good practices into a system that can provide catalytic input in situations where these processes can be applied in other countries through horizontal cooperation.

## Health and interinstitutional work in the Region

Over the last decade, PAHO support has played an important role in strengthening cooperation among science, technology, and health. In fact, approximately 70% of cooperation projects in the Region are health-related. It is important to continue to promote activities with international organizations, such as the Union of South American Nations (UNASUR), the South American Institute of Government in Health (ISAGS), CELAC, the Bolivarian Alliance for the Peoples of Our America (ALBA), the Caribbean Community (CARICOM), COMISCA, the Andean Community of Nations (CAN), MERCOSUR, and the Amazon Cooperation Treaty Organization (ACTO), among others. It is also essential to promote the role of PAHO as the facilitating agency and as the mutual link among the various agencies and institutions that are working in the Region and that directly or indirectly engage in health-related activity, such as the United Nations Development Program (UNDP), UNICEF, the World Bank, USAID, the United States Centers for Disease Control and Prevention (CDC), the United States National Institutes of Health (NIH), the Canadian International Development Agency (CIDA), the German Technical Cooperation Agency (GTZ), and the Spanish Agency for International Development Cooperation (AECID), among others.

## Education and gender

### Influential determinants that needs to be leveraged

Raising the level of education among women has been one of the most important factors in progress toward attainment of the MDGs. There is a strong correlation between educating women and reducing mortality in infants and children under-5, maternal mortality, teen or unplanned pregnancy, and hunger, as well as improving nutritional status. Education also promotes the independence and empowerment of women in family and community activities. However, despite progress, there continues to be a high percentage of women without basic education in several countries of the Region. Governments that take an active role in emphasizing and further promoting education for women will help to support the post-2015 agenda and facilitate improved outcomes within a process of equitable and sustainable development.

### Violence against women

Violence is a social problem with great repercussions in public health and a violation of human rights. In Latin America, approximately 1 in every 3 women are a victim of physical or sexual violence perpetrated by their domestic partner. There are few records on sexual violence, but according to a WHO report, 1 in every 10 women in Brazil and 2 in every 10 women in Peru reported that they had experienced sexual abuse before the age of 15. Teenage girls are likely to experience violence both at home and in school and be sexually abused by an adult they know. They also face various forms of exploitation and are often recruited by organized crime, including drug traffickers, to do forced labor, fight in armed conflicts, or serve as sex workers (187). As a result, governments have taken steps to create institutions and effective, compassionate, and confidential systems through which women can report these abuses and file petitions for assistance in cases of violence; apply intervention strategies aimed at different generations; promote civil and penal reforms; conduct media campaigns; raise awareness about legislation; and support the exercise of women's rights.

## Poverty

### Public investment, capacity-building, resource mobilization, and transparent collaboration processes

Strategies for poverty reduction under the SDGs should provide a basis for scaled-up public investment, capacity-building, mobilization of national resources, official development assistance, and accountability. They should also provide a framework for strengthening governance, promoting human rights, engaging civil society, and promoting the participation of the private sector, as well as developing and implementing poverty reduction strategies using broad transparent processes—all in direct collaboration with civil society organizations, the national private sector, and international partners. Civil society organizations should play an active role in the drafting of policies, delivery of services, and oversight of progress. Higher-income countries should open up markets for exports from developing countries while helping them increase their export competitiveness through investments in critical trade-related infrastructure, including electric power, roads, and ports.

## Importance of conditional cash transfer programs

To fight poverty, policies are needed that do more than simply offer economic assistance; they must address the multiplicity of factors that result in inequalities. Conditional cash transfer programs seek to reduce poverty and build the human capital of their beneficiaries. Brazil, for example, conducted a household census to identify those outside the social protection network who would benefit from government plans. The family grant program known as the *Bolsa Família* has provided resources enabling more than 1.3 million children and adolescents to further their schooling and gain access to health services. In Argentina, the Universal Child Social Protection Allowance (*Asignación Universal por Hijo para Protección Social*) program is aimed at improving quality of life and providing access to education for children and adolescents. In addition, the country's Universal Pregnancy Allowance (*Asignación Universal por Embarazo*) has been introduced in an effort to curtail infant mortality and improve the quality of the pregnancy experience. In Bolivia, the Juancito Pinto Benefit (*Bono Juancito Pinto*) was inspired by the goal to eliminate child labor and increase school enrollment. In Colombia, More Families in Action (*Más Familias en Acción*), part of the Unity Network (*Red Juntos*), offers nutrition and education grants for vulnerable and low-income populations. In Costa Rica, Let's Move Forward (*Avancemos*) is a program aimed at reducing the dropout rate in secondary schools, and in Ecuador, the Human Development Benefit (*Bono Desarrollo Humano*), introduced in 2003, is associated with microcredit programs, vocational training, and natural disaster preparedness. In El Salvador, the Caring Communities (*Comunidades Solidarias*) program ties in with actions to build human capital, improve basic services, generate income, and promote productive development, and more (26).

## Final considerations

The synergy between health and economic growth, along with other components such as education, culminates in a virtuous circle of elements fundamental to the development of societies. The very fact that the MDGs included health goals and targets recognizes the essential role that health plays in development. However, for health to aptly contribute to development, its social determinants will need to be transformed from obstacles to overcome into positive factors to be sought after.

The field of health must move beyond fighting certain priority diseases and be viewed integrally. The implementation of the MDGs has left many lessons in addition to outstanding and emerging issues. These lessons favor development and strengthening of strategies highlighting good practices and, at the same time, have transformed approaches to addressing health and well-being

It is possible to summarize some lessons that will be fundamental in implementing the new agenda:

1. thinking of the social determinants and not just the risk factors;
2. prioritizing social distribution and not just averages;
3. promoting the intersectoral activity and not just the sectoral verticality and programmatic;
4. promoting the social universality and not only focalization;
5. developing institutional capacity to measure, monitor and evaluate impact and not just "estimate and modeled" interagency;
6. recognizing political approach of bottom-up, not just top-down; and
7. increasing public investment and not just the dependency on financial assistance for development.



## CHAPTER IV.

# Beyond 2015

This document has summarized the efforts, results, and accumulated knowledge that the Secretariat of PAHO and its Member States have accumulated during 15 years on the road to reaching the MDGs. This description about the progress of the Region's countries towards the health-related MDGs is a first attempt at distilling the experience; additional lessons will be revealed over time.

As noted in the Introduction, this is both a retrospective and prospective document. It not only looks back, but also presents looks forward with some suggestions that may be useful for the upcoming Sustainable Development Goals (SDGs). Even though the Americas made remarkable progress toward many of the proposed targets, certain shortcomings persist, pointing to the path that future activities should take as well as to recommendations derived from experiences that may be pertinent to the SDGs.

### Remaining challenges

Maternal, neonatal, and infant death rates continue to be very high in some countries of the Region, especially among the poor and populations in the most vulnerable situations, such as rural residents, ethnic minorities, and the low-income strata. The prevalence of chronic malnutrition is also highest in these groups (9). Much remains to be done, especially in terms of expanding access to family planning services and contraceptives use. As a result, fertility rates remain high among young people, especially adolescents. Lack of knowledge about reproductive health also contributes to the gap in prevention of HIV/AIDS, especially in the group 15 to 24 years of age (194). In Latin America, unlike the Caribbean, the incidence of HIV/AIDS has not declined significantly, a situation that correlates closely with low levels of education on reproductive health, especially among young people; nor has there been improvement in coverage of or access to antiretrovirals.

Despite progress in access to potable water, access to basic health services continues to be a problem and poses major health risks. Also, population growth has made access to drinking water and basic sanitation an urban problem, while at the same time broad segments of the population living in poorer, especially rural, areas remain without access to these services.

These shortcomings lead to the conclusion that it is indispensable to take a serious, thorough, and intersectoral look at the situation regarding policies, programs, and projects that can address these issues at the local and municipal level. Honing implementation of these measures at the local level is imperative, lest regional or national figures hide actual deficiencies.

Evidence on poverty and inequality reductions reveals segments of the population that are still vulnerable due to geographic location, cultural identity, ethnicity, and/or gender. These gaps call for interventions that more equitably implement programs and projects.

Because of the virtuous circle that results from the synergy between health and growth, together with social development, it can be said that economic growth and employment are among the determinants of health (195). It is, therefore, vital to be vigilant during economic cycles: experience confirms that the poorest become more vulnerable during recessions because social expenditures and investments are cut back in lopsided austerity measures and adjustments intended to overcome the crisis. The fact that Latin American and Caribbean economies were in a better position to withstand the 2008-2009 recession meant that its effect was less damaging than in previous recessions, such as the "lost decade" of the 1980s. This most recent experience of the countries with recession underscores the importance of sustaining social spending during economic downturns, especially investments that strengthen health systems and social protection programs.

Beyond 2015, the impending demographic transition, and the environmental and social context, coupled with unhealthy eating habits and sedentary lifestyles, raise serious concerns for health systems in the Region. Post-2015 health programs in Latin America and the Caribbean will have to consider assigning higher priority to chronic diseases, which are more complex and costly to treat and have pernicious consequences.

## Looking back and looking ahead

In lieu of a conclusion, we present a set of potential recommendations derived from the experience gained during the MDGs era, which can be useful to support continued work and serve as an examples for implementation of the United Nations Sustainable Development Goals. One of the goals established for this new, post-2015 stage, is SDG 3: “Ensure healthy lives and promote well-being for all at all ages.” This goal recognizes that health is an intrinsic objective, that it is as important as the other 16 SDGs, and that its achievement will require compliance with nine targets. A comparative analysis of the new health-related SDGs and the PAHO Strategic Plan 2014-2019 revealed that both are complementary with regard to targets and instruments (196). This new stage would benefit from consideration of some of the following recommendations:

### *Health information systems (HIS) within the MDG framework and beyond*

One of the core functions of PAHO during the MDG period has been to strengthen health information systems by systematic generation of qualitative and quantitative information to support decision-making and health services process implementation. This pivotal role was encouraged by PAHO’s monitoring of the MDGs, which in turn enabled the Pan American Sanitary Conference to adopt the Strategy for Strengthening Vital and Health Statistics in the Countries of the Americas in 2007 (197). The Strategy stated that, “The availability of timely, valid, and reliable data is a prerequisite for the formulation and monitoring of policies to improve the health of the peoples of the Americas,” which was made even more relevant by monitoring progress toward the MDGs. This strategy provides technical cooperation to the Member States on activities that improve vital and health statistics, and the Plan of Action for Strengthening Vital and Health Statistics (*Plan de Acción para el Fortalecimiento de las Estadísticas Vitales y Sanitarias*) was implemented to support its execution (198).

As part of this Regional Plan of Action, an evaluation of the Region of the Americas was conducted by the PAHO Health Analysis Unit. Its results revealed differences among and within countries. This evidence made it possible to define priority areas for collecting health data and information. It successfully reduced under-registration from 16.1% to 5.6%, and consequently, the average proportion of ill-defined and unknown causes of death dropped from 8.4% to 3.5%. Nevertheless, more effort is still required.

To promote horizontal cooperation, in 2010, PAHO, with the support of USAID, launched a program to establish the Latin American and Caribbean Network for Strengthening Health Information Systems (*Red Latinoamericana y Caribeña para el Fortalecimiento de los Sistemas de Información Sanitaria*). The Network’s purpose is to develop a regional coordination mechanism for improving Member States’ health information systems, within the framework of South-South cooperation (199).

In 2014, a total of 19 countries in Latin America and the Caribbean improved the quality of their vital and health statistics through the support of five working groups, led by countries sharing their best practices within the Network. These best practices included: training on data generation to raise awareness among administrators; virtual courses to improve ICD-10 coding; establishment of a software-based electronic system for coding mortality data; and an online training course for physicians on how to accurately report causes of death.

PAHO has also designed and developed a virtual application that can be used by Member States to strengthen national public health surveillance activities. This application, called ViEpi, has been made available to any country interested in using it. Incorporation has been completed in three countries and is ongoing in four others (200).

The strengthening of health information systems is a dynamic, ongoing process, key to managing an information system that serves a country’s health needs. Such systems can also provide high-quality, efficient, and effective information to support monitoring the MDGs and the forthcoming SDGs. Consequently, United Nations agencies and interested sectors should continue to collaborate in different areas, as proposed by the Health Measurement and Accountability Post-2015, Five-Point Call to Action: increase the level and efficiency of investments; strengthen country institutional capacity; ensure that countries have well-functioning sources for generating population health data; maximize effective use of the data revolution; and promote country and global governance with citizens’ and communities’ participation. The monitoring and evaluation framework

uses specific indicators to measure progress and provides the regulatory committee with opportunities to implement the plan deemed necessary.

### ***Collaborating Centers***

From the perspective of international cooperation and considering the importance of working with internationally-renowned institutions, there is a need to foster mechanisms for establishing an international network of institutions that would collaborate on joint activities with PAHO/WHO. One of the current mechanisms is through the PAHO/WHO Collaborating Centers, of which there are 184 in the Region, and also the National Institutes of Reference. The Centers represent an invaluable resource and play an integral role in extending PAHO's ability to act on its mandate and work toward achieving its planned strategic objectives. These Centers will also boost PAHO's institutional capacity in the countries of the Region and in the post-2015 agenda. These Centers carry out many activities in concert with the Organization, such as collecting, comparing, and disseminating information; standardizing terminology and nomenclature pertaining to health technology and preventive, diagnostic, and therapeutic substances; creating tools for evidence-based technical guidance; collaborating with PAHO/WHO in research activities and promoting the results obtained; training health personnel for research; and strengthening capacities in the areas of surveillance, preparedness, and response to outbreaks and public health emergencies at the country level (201).

### ***Access and universal health coverage***

Ensuring population health in the Americas will require enabling all people and communities to have access, without discrimination, to such benefits as health promotion, prevention, treatment, rehabilitation, and palliative care; this entails access to and universal coverage by comprehensive, high-quality health services that are adequate, timely, and based on the needs of the population, as well as access to safe and effective medicines, without impeding users. To this end, the distinct unmet needs of peoples and communities must be taken into account, with special attention given to the specific needs of groups in the most vulnerable situations. This, in turn, will require modifying legal and regulatory frameworks to align with international health-related human rights instruments (202).

### ***Health in all policies***

In September 2014, PAHO adopted a Plan of Action for Health in All Policies in response to WHO's call to redouble efforts to improve the health of populations, especially that of groups in the most vulnerable situations. This Plan recognizes the importance of incorporating health into all public policies, especially those of sectors that frequently make decisions with health-related impacts, and taking into account the social determinants approach to population health.

Now, the health sector must take the lead, rendering technical assistance that encourages an intersectoral approach and becoming an active partner while driving the necessary changes. Furthermore, the health sector should benefit from the experience and expertise of the various agencies, sectors, and stakeholders involved. This will require awareness-raising, advocating for change, defining new responsibilities for health professionals, better coordination structures and accountability systems, and building capacity for conflict resolution (73, 203).

### ***Environment***

Taking into account the importance of the environment as an essential determinant of population health and in accordance with the WHO guidelines on air quality and indoor air pollution, the following actions may prove beneficial to population health and should be emphasized: address, ascertain, and mitigate the health effects of air pollution by promoting multisectoral cooperation; advance research on the effects of air pollution on health and on the effectiveness of countermeasures adopted; analyze the costs and benefits of such countermeasures; and promote and foster the adoption of measures to reduce air pollution levels, such as use of clean cooking fuels and efficient energy use (132).

## ***Equity in health***

Stemming from the belief that all people and communities have the right to an equal opportunity to develop their full health potential, and taking into account the profound transformations attributable to economic, demographic, social, and disease burden-related changes, the equity in health framework underscores the importance of reducing arbitrary, unnecessary, avoidable, and unfair health inequalities. This will demand recognition of social inequities in health through a social determinants approach and from the standpoint of health in all policies, the impact and success of which will depend on the reduction and, ultimately, elimination of inequity. Hence, equity in health, through the monitoring and explicit reduction of social inequalities in health, is an essential requirement to any sustainable development approach, and attaining the SDGs will require explicit targets for the reduction of inequities in health (204).

In these changing times, the first of many lessons learned on the road toward achieving—or, in some cases, not achieving—the Millennium Development Goals (MDGs) is that the principle of equity is an ethical imperative essential to guiding, informing, and defining political priorities for action on health and well-being.

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