

**2012 PROGRESS REPORT:**  
**ELIMINATION**  
**OF MOTHER-TO-CHILD**  
**TRANSMISSION OF HIV**  
**AND CONGENITAL SYPHILIS**  
**IN THE AMERICAS**





**2012 Progress Report:**  
Elimination  
of Mother-to-Child  
Transmission of HIV  
and Congenital Syphilis  
in the Americas



## PAHO HQ Library Cataloguing-in-Publication Data

\*\*\*\*\*

Pan American Health Organization.

2012 Progress Report : Elimination of Mother-to-Child Transmission of HIV and Congenital Syphilis in the Americas. Washington, D.C. : PAHO, 2013.

I. Syphilis, Congenital - transmission. 2. Prenatal Care. 3. HIV Infection. 4. Health Surveillance. 5. Information Systems. 6. Antiretroviral Therapy, Highly Active. 7. Americas 8. Report. I. Title. II. UNICEF. III. UNAIDS

ISBN 978-92-75-11739-2

(NLM Classification:WQ 256 DA1 )

The Pan American Health Organization welcomes requests for permission to reproduce or translate its publications, in part or in full. Applications and inquiries should be addressed to Editorial Services, Entity of Knowledge Management and Communications (KMC), Pan American Health Organization, Washington, D.C., U.S.A. ([pubrights@paho.org](mailto:pubrights@paho.org)). The PAHO HIV project will be glad to provide the latest information on any changes made to the text, plans for new editions, and reprints and translations already available.

© Pan American Health Organization, 2013. All rights reserved.

Publications of the Pan American Health Organization enjoy copyright protection in accordance with the provisions of Protocol 2 of the Universal Copyright Convention. All rights are reserved.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the Pan American Health Organization concerning the status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the Pan American Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by the Pan American Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the Pan American Health Organization be liable for damages arising from its use.

# Contents

ACKNOWLEDGMENTS.....	IV
ACRONYMS .....	V
EXECUTIVE SUMMARY.....	2
BACKGROUND.....	4
DATA SOURCES AND METHODS.....	5
PROGRESS IN PRIMARY PREVENTION.....	6
1. Sex before Age 15.....	6
Table 1. Percentages of young women and young men aged 15–24 who had sexual intercourse before 15 years of age, reported for 2010 and 2011 .....	7
2. Knowledge about HIV Prevention among Young People .....	8
Table 2. Knowledge of HIV among young people, reported in 2010 and 2011 .....	9
3. Prevalence of Gestational Syphilis and HIV among Pregnant Women.....	11
Table 3. Prevalence of gestational syphilis and HIV among pregnant women, 2010 and 2011 .....	11
TESTING, TREATMENT, AND CARE .....	14
1. Testing for HIV and Syphilis.....	14
Figure 1. Estimated HIV testing coverage among pregnant women in Latin America and the Caribbean, 2005 and 2008–2011 .....	14
Table 4. HIV testing among pregnant women, 2010 and 2011 .....	15
Figure 2. Percentages of pregnant women tested for HIV, by country and subregion, 2010 and 2011 .....	17
Figure 3. Percentages of pregnant women attending antenatal care who were tested for syphilis at their first ANC visit, by country and subregion, 2010–2011 .....	18
Table 5. Percentages of pregnant women attended by trained personnel at antenatal care and tested for syphilis among those receiving antenatal care, 2010 and 2011 .....	18
Figure 4. Percentages of pregnant women tested for syphilis among those receiving antenatal care, by country and subregion, 2011 .....	20
2. ARV Prophylaxis for HIV, Treatment for Syphilis and Virological Testing among HIV-exposed infants .....	21
Table 6. Pregnant women living with HIV who received effective regimens for preventing mother-to-child transmission, 2010 and 2011 .....	21
Figure 5. Estimated antiretroviral coverage, among pregnant women with HIV, for the prevention of mother-to-child transmission of HIV in Latin America and the Caribbean, 2005 and 2008–2011 .....	21
Table 7. Percentages of pregnant women diagnosed with gestational syphilis who were reported as appropriately treated, Latin America and the Caribbean, 2010 and 2011 .....	22
Table 8. Infants of HIV-positive women who underwent virological testing within 2 months of birth, 2010 and 2011 .....	23
Table 9. Infants of HIV-positive women who received prophylaxis for prevention of mother-to-child transmission, 2010 and 2011 .....	25
IMPACT OF MOTHER-TO-CHILD TRANSMISSION OF HIV AND CONGENITAL SYPHILIS .....	27
Figure 6. Estimated numbers of children newly infected with HIV in Latin America and the Caribbean, 2000–2011 .....	27
Box 1. Classification of countries with regard to reported HIV vertical transmission rates, 2010.....	29
Table 10. Infants exposed to HIV, HIV-positive infants, and infants lost to follow up, 2009 and 2010, and HIV testing coverage among pregnant women, 2010 and 2011 .....	29
Box 2. Achievement of congenital syphilis targets, 2009–2010.....	32
Table 11. Cases and rates of congenital syphilis, 2009 and 2010, and syphilis testing coverage in ANC, 2010 and 2011 .....	32
PROGRESS IN POLICY AND PROGRAMS .....	35
Figure 7. Country-reported policy and programmatic elements to support the Elimination Initiative in Latin America and the Caribbean, 2011 .....	35
REFERENCES.....	36

# Acknowledgments

PAHO, UNICEF, and UNAIDS wish to acknowledge all of the countries in the Americas that report data to the three agencies. Without their contributions and efforts, this report would not have been possible.

The following countries reviewed the document and provided additional comments or updates: Cuba, Ecuador, El Salvador, Grenada, Guyana, Nicaragua, Peru, Trinidad and Tobago, Saint Lucia, Saint Vincent and the Grenadines, and Suriname.

## **Writing, editing, technical review, and coordination:**

Irene Agurto (PAHO Consultant)  
Mónica Alonso González (PAHO)  
Sonja Caffè (PAHO)  
Mark Connolly (UNICEF)  
Suzanne Serruya (PAHO/CLAP)  
Claudia Velásquez (UNAIDS)

## **Contributors:**

Reynaldo Aguilar (PAHO)	Priscilla Idelle (UNICEF)
Sergio Aguilar (PAHO)	Noreen Jack (PAHO/PHCO)
Pamela Bermúdez (PAHO)	Sandra Jones (PAHO/PHCO)
Michel Beusenbergh (WHO)	Mary Kamb (CDC)
Evelyne Degraff (PAHO)	Fernando Llanos (PAHO)
Roberto del Águila	Víctor Mejía (PAHO)
Paul Edwards (PAHO/PHCO)	Roberto Montoya (PAHO)
Rachel Eersel (PAHO)	Kam Suan Mung (PAHO)
Gerarda Eijkemans (PAHO)	Lori Newman (WHO)
Txema García Calleja (WHO)	Freddy Pérez (PAHO)
Ingrid García (PAHO)	Mirna Elizabeth Pérez (PAHO)
Yitades Gebre (PAHO)	Soledad Pérez Évora (PAHO)
Enrique Gil (PAHO)	Tyler A. Porth (UNICEF)
Bertha Gómez (PAHO)	Giovanni Ravasi (PAHO)
Mario González (PAHO)	Elizabeth Rodríguez (PAHO)
Guillermo González (PAHO)	Erick Rousselin (PAHO)
Jorge Hadad (PAHO)	Roxana Salamanca (PAHO)
Chika Hayashi (WHO)	Ivy Talavera (PAHO)
Franklin Hernández (PAHO)	Marcelo Vila (PAHO)
Rosalinda Hernández (PAHO)	Margarita Villafañe (PAHO)

# Acronyms

ANC	Antenatal care
ART	Antiretroviral treatment
ARV	Antiretroviral drugs
COMISCA	Council of Ministers of Health of Central America and the Dominican Republic
CS	Congenital syphilis
EI	Elimination Initiative
GARP	Global AIDS Response Progress Reporting
M&E	Monitoring and evaluation
OCT	Overseas Caribbean Territories
PMTCT	Prevention of mother-to-child transmission
REMSA	Ministers of Health of the Andean Region
SdNVP	Single-dose nevirapine
SIP	Perinatal Information System
STI	Sexually transmitted infection
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS
USA	United States of America

**Note:** HIV vertical transmission and mother-to-child transmission refer to the same concept (i.e., HIV transmission that occurs in the prenatal period, during labor, or through an HIV-infected mother breastfeeding her infant). These terms are used interchangeably throughout the text.

# Executive Summary

Regional reporting on country progress towards the goals of the Regional Initiative for the Elimination of Mother-to-Child Transmission of HIV and Congenital Syphilis was established as part of the commitment to monitor progress towards elimination.

The current report summarizes progress based on information provided by countries as part of the 2012 universal access reporting process; the objective is to analyze, review, and synthesize the programmatic response and results in countries to achieve the goals of the Elimination Initiative. This report is a summary follow up to the 2011 report entitled *2010 Situation Analysis: Elimination of mother to child transmission of HIV and Congenital Syphilis in the Americas*.

In the area of primary prevention for HIV and syphilis, tracking progress is challenging due to gaps or limited comparability of data. More countries showed decreases in early sexual debut but changes in knowledge of HIV among young people can not be ascertained due to limited data. However, HIV and syphilis prevalence decreases in a greater number of countries than those where it increases but this may respond to expanding testing to lower risk women or changing survey methodologies. In summary, while some regional progress is seen, data limitations and gaps impede definitive conclusions on trends.

Regional trends in HIV testing coverage among pregnant women have shown increases over recent years; for example, there was a considerable increase between 2005 and 2008, from 29% to 53%. Increases have been gradual but steady in subsequent years, with coverage peaking at approximately 66% in 2011.

Provision of antiretroviral drugs (ARVs) to pregnant women living with HIV for the prevention of mother-to-child transmission (PMTCT) in the Region has also increased over the years; in 2011, 70% of HIV-positive pregnant women in Latin America and the Caribbean received ARVs. There has been a substantial increase in coverage in the Caribbean, mainly due to significant efforts and results in Haiti, where ARV coverage for the PMTCT now stands at 77% [64%→95%].

There is an expansion of syphilis testing among pregnant women and 6 countries have increased figures from 2010 to 2011. In addition, at least 10 countries out of 29 report achieving the 95% target of pregnant women that attend ANC tested for syphilis. Nevertheless, while the majority of countries with data report high syphilis testing there are a few, such as the Dominican Republic, Guatemala and Nicaragua, where 35% or less of the pregnant women at ANC get tested for syphilis.

Many countries in the Region do not provide data on treatment of pregnant women for syphilis, and there are important disparities in coverage among countries. Treatment coverage ranged from 24% in El Salvador to over 91% in half of the reporting countries in 2011. Countries with data available for both 2010 and 2011, all reported increases in coverage.

At impact level, estimated regional trends indicate that the numbers of children acquiring HIV infection have declined significantly in the Caribbean as well as in Latin America (declines of 32% and 24%



from 2009 to 2011, respectively). For instance, according to UNAIDS, Haiti had an estimated decrease in the range of 20% to 29% between 2009 and 2011. The HIV mother-to-child transmission rate in Latin America and the Caribbean for 2011 is estimated at 14.2% (5.8%–18.5%), decreasing from 18.6% (10.5%–22.9%) in 2010. If the breastfeeding component of transmission were excluded, then the regional transmission rate would drop to 9.2%. This emphasizes the importance of knowing one's HIV status and, thus, the importance of HIV testing among pregnant women, even late in pregnancy or during labor.

The combined 2009–2010 analysis of congenital syphilis (CS) revealed that 14 countries (up from 10 countries in 2009) reported CS rates under 0.5 per 1,000 live births and at least 80% testing coverage among ANC attendees: Anguilla, Antigua and Barbuda, Barbados, Belize, Bermuda, Canada, Chile, Cuba, Jamaica, Guyana, Puerto Rico, Saint Vincent and the Grenadines, the United States of America, and the Virgin Islands (US).

In terms of the capacity of countries in the Region to reach the goals of the Elimination Initiative, achievements during 2011 included strengthening of national plans for the Elimination Initiative; strengthening of surveillance, monitoring, and evaluation; and expansion of HIV and syphilis testing coverage. These objectives were also highlighted by countries as priorities, along with updating or development of guidelines, protocols, and standards; primary prevention of HIV and syphilis; and capacity building of health workers.

Although acceleration of programmatic efforts is still needed to reach the Elimination Initiative targets, close monitoring shows slow but positive progress with respect to both HIV and syphilis. For example, in the case of HIV, many more women and infants are now receiving the services they need. Regional numbers show increases in coverage of HIV testing among pregnant women and provision of effective regimens for PMTCT as well as reductions in vertical transmission rates and the numbers of new pediatric HIV infections. Still, some countries are lagging behind in prevention of pediatric HIV, such as Guatemala, Mexico, and the Dominican Republic.

In regard to syphilis, progress has been noted despite limitations in the available information; a greater number of women are being tested, and more women are undergoing testing at their first ANC visit. All countries with available data for both years (2010 and 2011) reported increased coverage with respect to treatment of gestational syphilis. In addition, a greater number of countries reported achieving or being close to achieving the CS target.

Surveillance systems and program information systems are critical elements that need to be strengthened to adequately reflect progress in the Region. In addition, while a few countries need to scale-up their services more rapidly, others need to focus greater attention on the most vulnerable and underserved groups. Equity achievement in this sense is critical to prevent the small number of cases that can still occur and avoid missed opportunities for elimination. Political advocacy and community engagement continue to be needed if the Region is to achieve Elimination by 2015.

# Background

In November 2009, PAHO and UNICEF launched the Regional Initiative for the Elimination of Mother-to-Child Transmission of HIV and Syphilis in Latin America and the Caribbean. The Elimination Initiative (EI) was endorsed by key regional mechanisms including the Chief Medical Officers of the Caribbean and the CARICOM Caucus of Ministers. The Executive Secretariat of the Council of Ministers of Health of Central America and the Dominican Republic (COMISCA) included joint prevention of mother-to-child transmission (PMTCT) of HIV and syphilis as a priority in the Strategic Regional Health Plan of Central America for 2010–2015.

In 2010, the Ministers of Health of the Andean Region (REMSA) endorsed the prioritization and facilitation of the Regional Initiative. The EI is articulated with the Global Plan towards the elimination of new HIV infections among children by 2015 and keeping their mothers alive.

In September 2010, PAHO Member States approved the Strategy and Plan of Action for the Elimination of Mother-to-Child Transmission of HIV and Congenital Syphilis by Resolution 50/12 at the 50th Directing Council Meeting. The goals were to:

- reduce mother-to-child transmission of HIV to 2% or less,
- reduce the incidence of pediatric HIV cases to 0.3 or less per 1,000 live births, and
- reduce the incidence of congenital syphilis to 0.5 cases or less per 1,000 births by 2015.<sup>1</sup>

This report describes progress towards the Elimination Initiative's goals between the years 2010 (considered as the baseline) and 2011. Achievements, gaps, and challenges are highlighted, and a regional perspective is provided when available. The results outlined here can assist policymakers and health care workers in their efforts to achieve the goals of the initiative. This report is a summary follow up to the report entitled *2010 Situation Analysis: Elimination of mother to child transmission of HIV and Congenital Syphilis (I)*.

---

<sup>1</sup> Including stillbirths.

# Data Sources and Methods

The main sources of information for this report were data submitted by countries to the World Health Organization and UNAIDS to inform the monitoring of the Elimination Initiative, data from Global AIDS Response Progress Reporting 2012/Universal Access (GARP UA), and data on the health sector response with respect to the Elimination Initiative. Data for 2010 were compiled from the PAHO report 2010 Situation Analysis: Elimination of Mother-to-child Transmission of HIV and Congenital Syphilis (1). Denominators for HIV testing among pregnant women were obtained from the UN Population Division (2).<sup>2</sup> Denominators for ARVs to prevent vertical transmission in pregnant women and infants were derived from 2012 UNAIDS estimates.

The topics and indicators covered in this progress report are as follows:

- **Primary prevention**
  - Percentage of young people who had sex before age 15
  - Knowledge of HIV among young people
  - Prevalence of HIV and gestational syphilis among pregnant women
- **Testing, treatment, and care**
  - Testing for HIV and syphilis
  - Provision of antiretroviral drugs to pregnant women with HIV
  - Treatment for syphilis
  - Prevention and care among exposed infants.
  - Impact of mother-to-child transmission of HIV and congenital syphilis
  - Technical and implementation updates

Data from 50 countries and territories that are Member States, Participating States, or Associated Members of the Pan American Health Organization are considered in this progress report. In line with the resolution of the 28th Pan American Sanitary Conference (CSP28/28), Aruba, Curaçao, and Sint Maarten are considered separately, while the remaining Dutch territories (the islands of Bonaire, Sint Eustatius, and Saba) are referred to as the Netherlands Antilles.

---

<sup>2</sup> In countries with small populations, PAHO recommends using U.S. Bureau of the Census estimates. Use of the UN Population Division data for such countries (as in this report) may lead to lower coverage figures.

# Progress in Primary Prevention

To prevent the transmission of HIV from mother to baby, the World Health Organization (WHO) promotes a comprehensive approach, which includes the following four components: Primary prevention of HIV infection among women of childbearing age; preventing unintended pregnancies among women living with HIV; preventing HIV transmission from a woman living with HIV to her infant; and providing appropriate treatment, care and support to mothers living with HIV and their children and families. Primary prevention indicators include sexual debut before 15 years of age, knowledge about HIV prevention among young people, and prevalence of HIV and syphilis in pregnant women. Tracking progress in this area is challenging due to gaps or limited comparability of the data. While more countries showed decreases in early sexual debut, changes in knowledge of HIV among young people could not be ascertained due to limited data. HIV and syphilis prevalence decreases in a greater number of countries than those where it increases but this may respond to expanding testing to lower risk women or changing survey methodologies. In summary while some regional progress is seen, data limitations and gaps impede definitive conclusions on trends.

## I. Sex before Age 15

Thirty-two countries and territories had available information on this indicator for 2010; 33 reported data for 2011, 12 of which repeated the same values for 2011. It is worth noting that the data for this indicator are usually based on surveys that might not be conducted regularly, and thus the reporting date and the date the information was collected can vary considerably. Also, both across and among countries, studies might not have had the same methodology or study population. These elements limit comparability, and results must be interpreted with caution. Thirteen of the 50 countries or territories had missing data for both 2010 and 2011.

Four countries showed increases in the percentages of young people having sex before 15 years of age, while 12 countries exhibited decreases (Table 1). Mexico and Nicaragua showed substantial increases in early sexual debut among adolescents between surveys conducted in 2005 and 2007 (reported in 2010) and surveys conducted in 2010–2011 (reported in 2011). To a lesser extent, there were also increases in early sexual debut in Costa Rica (from 11.0% in 2010 to 13.0% in 2011).

The countries showing the greatest decreases in early sexual debut from 2010 to 2011 included Antigua and Barbuda (from 25% to 19%), the Bahamas (from 58% to 29%), Cuba (from 24% to 20%), Dominica (from 23% to 15%), Jamaica (from 36% to 31%), Panama (from 24% to 17%), and Saint Kitts and Nevis (from 22% to 14%). Data on actual survey years are shown in Table 1.

Percentages of young women and young men aged 15–24 who had sexual intercourse before 15 years of age, reported for 2010 and 2011.

Table I

	2010		2011	
	Year(s) of survey on which data are based	% of young people that had sex before age 15	Year(s) of survey on which data are based	% of young people that had sex before age 15
<b>North America</b>				
Canada	2003	10	2009	9 <sup>i</sup>
Mexico	2007	4	2011	7
United States of America	2006–2008	13	...	...
<b>Central America</b>				
Costa Rica	2007	11	2010	13
El Salvador	2008	21 <sup>ii</sup>	...	...
Guatemala	2008	11	2008	11
Honduras	2005	13	2005	13
Nicaragua	2007	14	2010	25
Panama	2007	24	2009	17
<b>Andean Region</b>				
Bolivia	2008	8	2008	8
Colombia	2007	37	2010	14 <sup>a</sup>
Ecuador	...	...	...	...
Peru	2009	8	2010	6 <sup>a,iii</sup>
Venezuela	...	...	...	...
<b>Southern Cone and Brazil</b>				
Argentina	2008–2009	19	2008–2009	19
Brazil	2009	35	2009	35
Chile	2009	11	2009	11
Paraguay	...	...	...	...
Uruguay	2008	37	2008	37
<b>Caribbean</b>				
Anguilla	...	...	2009	26 <sup>iv</sup>
Antigua and Barbuda	2005	25 <sup>v</sup>	2011	19
Aruba	...	...	...	...
Bahamas	2008	58	2009	29 <sup>b</sup>
Barbados	2009	20	2011	19
Belize	2009	8	2009	8
Bermuda	...	...	...	...
Cayman Islands	...	...	2012	42 <sup>vi</sup>
Cuba	2009	24	2010	20
Curaçao	...	...	...	...
Dominica	2005	23 <sup>v</sup>	2010	15
Dominican Republic	2007	19	2007	19
French Guiana	...	...	...	...
Grenada	2005	25	2010	22

Table I (Cont.)	2010		2011	
	Year(s) of survey on which data are based	% of young people that had sex before age 15	Year(s) of survey on which data are based	% of young people that had sex before age 15
Guadeloupe	...	...	...	...
Guyana	2009	14	2009	14
Haiti	2005	23	2005	23
Jamaica	2009	36	2012	31
Martinique	...	...	...	...
Montserrat	...	...	2011	45 <sup>vi</sup>
Netherlands Antilles	...	...	...	...
Puerto Rico	...	...	...	...
Saint Kitts and Nevis	2005	22 <sup>v</sup>	2010	14
Saint Lucia	2005	26 <sup>v</sup>	...	...
Saint Vincent and the Grenadines	2005	22 <sup>v</sup>	2005	22
Sint Maarten	...	...	2011	53 <sup>vi</sup>
Suriname	2006	9	2010	10
Trinidad and Tobago	2007	12	...	...
Turks and Caicos Islands	...	...	...	...
Virgin Islands (UK)	...	...	2012	42 <sup>vi</sup>
Virgin Islands (US)	...	...	...	...

**Notes:**<sup>a</sup> Colombia and Peru data are for females only. <sup>b</sup>Data for 15–17-year age group.

**Sources:** For 2010 reported figures: Pan American Health Organization. 2010 Situation Analysis: Elimination of Mother-to-child Transmission of HIV and Congenital Syphilis. Washington, D.C.: PAHO, 2011; UNAIDS. AIDS Info Database [Internet]. Geneva, 2011. For 2011 reported figures: 2012 GARP country reports.

<sup>i</sup> For Canada: Rotermann M. Sexual behaviour and condom use of 15- to 24-year-olds in 2003 and 2009/2010. Health Reports, 23(1), March 2012. Statistics Canada 2012. Available at: <http://www.statcan.gc.ca/pub/82-003-x/2012001/article/11632-eng.pdf>. Last accessed on 21 February 2013.

<sup>ii</sup> For El Salvador: Ministerio de Salud. Encuesta Nacional de Salud Familiar FESAL-2008. San Salvador, 2009.

<sup>iii</sup> For Peru: Instituto Nacional de Estadística e Informática. Encuesta Demográfica y de Salud Familiar (ENDES) 2010. Lima, Peru.

<sup>iv</sup> For Anguilla: Anguilla Ministry of Health and Social Development. Anguilla School Health Survey, 2009.

<sup>v</sup> Knowledge, Attitude, Practice and Behaviour Survey (KAPB) in Six Countries of the Organization of Eastern Caribbean States (OECS), 2011. Respondents from the 15–19-year age group.

<sup>vi</sup> Caribbean Epidemiology Centre (CAREC), Family Health International (FHI), Phillips Consulting Group, United States Agency for International Development (USAID). OECS Behavioral Surveillance Survey 2005–2006.

## 2. Knowledge about HIV Prevention among Young People

This indicator reflects accurate comprehensive knowledge of HIV transmission. Twenty-five countries (50%) in the Region reported data on knowledge about HIV prevention among young people in 2010 and 24 in 2011. Ten countries used data for the same survey year for both 2010 and 2011. Limitations due to survey methodology, sampling, and calculation of indicators may have affected the observed country values and may pose difficulties in terms of intercountry comparisons and comparisons over time.

Notably (and although the country did not provide data for 2010), Antigua and Barbuda showed a prevalence above 80% for 2011. In Grenada, Guyana and Peru (among women), knowledge about HIV among young people increased between the two years in which this indicator was measured (Table 2). In most countries, data were lacking to make comparisons on trends in knowledge of HIV among young people.

In Guyana and Cuba, there were reductions in the gap in knowledge between young men and women. In Jamaica, knowledge about HIV prevention decreased among young men (from 38% in 2010 to 33.9% in 2011) while remaining stable among young women (at 43%).

Knowledge of HIV among young people 2010- 2011

Table 2

	2010			2011		
	Year(s) of survey on which data are based	% of young men with knowledge about HIV prevention	% of young women with knowledge about HIV prevention	Year(s) of survey on which data are based	% of young men with knowledge about HIV prevention	% of young women with knowledge about HIV prevention
<b>North America</b>						
Canada	...	...	...	...	...	...
Mexico	2007	18	18	...	...	...
United States of America	...	...	...	...	...	...
<b>Central America</b>						
Costa Rica	2007	43	42	2010	21	21
El Salvador	2008		30	2008 (for women), 2011 (for men)	27	30
Guatemala	2008–2009	24	22	2008–2009	24	22
Honduras	2005	39	30	2005	...	30
Nicaragua	2010	72	72 <sup>a</sup>	...	...	...
Panama	2009	12	15	2009	12	15
<b>Andean Region</b>						
Bolivia	2008	28	22	2008	28	22
Colombia	...	...	...	2010	...	24
Ecuador	2007	31	27	...	...	...
Peru	2009	28	20	2010	...	34
Venezuela	...	...	...	...	...	...
<b>Southern Cone and Brazil</b>						
Argentina	2007	83	89	...	...	...
Brazil	2008–2009	53	50	2008–2009	53	50
Chile	2009	78	85	2009	78	85
Paraguay	...	...	...	...	...	...
Uruguay	2009	23	44	...	...	...

Table 2 (Cont.)		2010			2011		
		Year(s) of survey on which data are based	% of young men with knowledge about HIV prevention	% of young women with knowledge about HIV prevention	Year(s) of survey on which data are based	% of young men with knowledge about HIV prevention	% of young women with knowledge about HIV prevention
<b>Caribbean</b>							
Anguilla	...	...	...	...	...	...	
Antigua and Barbuda	...	...	...	2011	84	86	
Aruba	...	...	...	...	...	...	
Bahamas	...	...	...	2008	12	21	
Barbados	2009	52	49	2011	36	39	
Belize	2009	47	53	2009	47	53	
Bermuda	...	...	...	...	...	...	
Cayman Islands	...	...	...	...	...	...	
Cuba	2007	55	61	2010	58	61	
Curaçao	...	...	...	...	...	...	
Dominica	...	...	...	...	...	...	
Dominican Republic	2007–2009	34	41	2007–2009	34	41	
French Guiana	...	...	...	...	...	...	
Grenada	2007	43	40	2010	60	65	
Guadeloupe	...	...	...	...	...	...	
Guyana	2007	34	44	2009	47	54	
Haiti	2005–2006	40	32	2005–2006	40	32	
Jamaica	2008	38	43	2012	34	43	
Martinique	...	...	...	...	...	...	
Montserrat	...	...	...	...	...	...	
Netherlands Antilles	...	...	...	...	...	...	
Puerto Rico	...	...	...	...	...	...	
Saint Kitts and Nevis	...	...	...	2010	50	53	
Saint Lucia	2009	61	57	...	...	...	
Saint Vincent and the Grenadines	2005–2006	59	40	2005–2006	59	40	
Sint Maarten	...	...	...	...	...	...	
Suriname	2006	...	41	2010	...	42	
Trinidad and Tobago	...	...	...	2011	...	64	
Turks and Caicos Islands	...	...	...	...	...	...	
Virgin Islands (UK)	...	...	...	...	...	...	
Virgin Islands (US)	...	...	...	...	...	...	

**Note:** <sup>a</sup>This figure is not disaggregated by sex.

**Sources:** For 2010 reported figures: Pan American Health Organization. 2010 Situation Analysis: Elimination of Mother-to-child Transmission of HIV and Congenital Syphilis. Washington, D.C.: PAHO, 2011. For 2011 reported figures: 2012 GARP country reports (Indicator I.1).



### 3. Prevalence of Gestational Syphilis and HIV among Pregnant Women

#### 1.1. Gestational syphilis among pregnant women

Twenty-nine countries and territories reported data on the prevalence of gestational syphilis among pregnant women in 2010 and 2011. Fourteen countries and territories did not report data for either year.

The regional median percentages of gestational syphilis in pregnant women were 0.64% in 2010 and 0.39% in 2011. Regional comparisons remain limited, given that not the same countries report each year and there are significant differences in figures at the country level. Among the 23 countries with available data for both years, 13 reported a decrease in prevalence. Haiti and Paraguay continue to have the highest percentage for this indicator in the Region. In contrast, the prevalence in Paraguay decreased from 4.53% in 2010 to 3.37% in 2011. For 2011, Anguilla, the British Virgin islands, Cayman Islands, Cuba, Grenada, and Montserrat showed the lowest prevalence levels in the Region among countries with available data (Table 3).

#### 1.2. HIV among pregnant women

A total of 36 countries in the Region reported data on the prevalence of HIV among pregnant women in 2010, decreasing to 31 in 2011. HIV prevalence is measured through programmatic monitoring of pregnant women tested for PMTCT or, in a smaller number of cases, through sentinel surveillance studies.

Seven of the countries with data available for both years showed an increase in the prevalence of HIV among pregnant women, namely Antigua and Barbuda, Argentina, Chile, Costa Rica, Cuba, Ecuador, and the Turks and Caicos Islands. Thirteen countries reported a decrease: Barbados, Bolivia, the British Virgin Islands, Colombia, El Salvador, the Dominican Republic, Grenada, Guatemala, Jamaica, Nicaragua, Saint Lucia, Suriname, and Uruguay).

Prevalence of gestational syphilis and HIV among pregnant women, 2010 and 2011

Table 3

	Gestational syphilis (%)		HIV (%)	
	2010	2011	2010	2011
<b>North America</b>				
Canada	...	...	...	...
Mexico	...	0.11	0.03	...
United States of America	...	...	...	...

Table 3 (Cont.)		Gestational syphilis (%)		HIV (%)	
		2010	2011	2010	2011
<b>Central America</b>					
	Costa Rica	...	0.3	0.03	0.04
	El Salvador	0.14	0.24	0.24	0.09 <sup>a</sup>
	Guatemala	4.23	0.25 <sup>b</sup>	0.3	0.25
	Honduras	1.45	0.66 <sup>i</sup>	0.56	...
	Nicaragua	0.49	0.23	0.11 <sup>c</sup>	0.03
	Panama	...	...	...	0.3 <sup>ii</sup>
<b>Andean Region</b>					
	Bolivia	...	1.6	0.16 <sup>cd</sup>	0.12
	Colombia	0.64	1	0.22 <sup>c</sup>	0.13
	Ecuador	0.66	0.25 <sup>e</sup>	0.17	0.24 <sup>e</sup>
	Peru	0.33	0.33	0.23 <sup>iii</sup>	0.23 <sup>iii</sup>
	Venezuela	1.85	...	...	...
<b>Southern Cone and Brazil</b>					
	Argentina	0.99	1.09	0.39	0.44
	Brazil	1.6 <sup>f</sup>	1.6 <sup>f</sup>	0.41 <sup>f</sup>	0.41 <sup>f</sup>
	Chile	0.17	0.16	0.02 <sup>c</sup>	0.14
	Paraguay	4.53	3.37	0.34	...
	Uruguay	1.9 <sup>v</sup>	1.8 <sup>iv</sup>	0.8 <sup>g</sup>	0.03
<b>Caribbean</b>					
	Anguilla	1.24	0.00	0.00	0.00
	Antigua and Barbuda	0.51	0-0.2	0.6 <sup>d</sup>	1.5
	Aruba	0.00	...	0.00	...
	Bahamas	...	1.07	0.88 <sup>vd</sup>	0.88 <sup>ii,d</sup>
	Barbados	0.37	0.45	0.31 <sup>cg</sup>	0.22
	Belize	1.43	0.82	0.86	...
	Bermuda	...	...	...	...
	Cayman Islands	0.00	0.00	0.00	0.00
	Cuba	0.03	0.08	0.02 <sup>iv</sup>	0.03 <sup>ii</sup>
	Curaçao	...	...	...	...
	Dominica	...	2.33	...	0.3 <sup>ii</sup>
	Dominican Republic	0.55	...	1.5	0.83
	French Guiana	...	...	...	...

	Gestational syphilis (%)		HIV (%)		Table 3 (Cont.)
	2010	2011	2010	2011	
Grenada	1.21	0.02	0.1	0.06	
Guadeloupe	...	...	0.53 <sup>c</sup>	...	
Guyana	0.20	...	0.88	0.88	
Haiti	4.70	...	2.5 <sup>v</sup>	...	
Jamaica	1.65	1.25	1.2 <sup>c</sup>	0.93	
Martinique	...	...	...	...	
Montserrat	0.00	0.00	0.00	0.00	
Netherlands Antilles	...	...	...	...	
Puerto Rico	...	...	...	...	
Saint Kitts and Nevis	...	...	...	0.17	
Saint Lucia	1.04	0.72	0.47	0.24	
Saint Vincent and the Grenadines	...	0.65	0.7	0.7	
Sint Maarten	...	...	...	...	
Suriname	...	...	1 <sup>c</sup>	0.7 <sup>h</sup>	
Trinidad and Tobago	0.13	...	1.36 <sup>j</sup>	...	
Turks and Caicos Islands	...	...	1.0	1.5	
Virgin Islands (UK)	0.00	0.00	0.34 <sup>c</sup>	0.30	
Virgin Islands (US)	...	...	...	...	

**Notes:** The number of decimal points varies throughout the table because figures correspond to the exact numbers reported by each country.

<sup>a</sup> El Salvador data are for women under 24 years of age.

<sup>b</sup> Provisional figure under validation.

<sup>c</sup> Data for 2009.

<sup>d</sup> Pregnant women 15–24 years of age.

<sup>e</sup> Data for 2012 from a study conducted by the Ecuador Ministry of Health among pregnant women in 14 major maternity wards (“Estudio de prevalencia de VIH, sífilis y enfermedad de Chagas en mujeres atendidas por parto o aborto o puérperas en Ecuador”). The same study showed a 0.6% HIV prevalence.

<sup>f</sup> Brazil syphilis prevalence data for 2004. The HIV prevalence figure is from a 2006 study conducted among women in labor.

<sup>g</sup> Only public-sector data.

<sup>h</sup> Data for 2010

<sup>i</sup> Data for 2008.

**Sources:** For 2010 reported figures: Pan American Health Organization. 2010 Situation Analysis: Elimination of Mother-to-child Transmission of HIV and Congenital Syphilis. Washington, D.C.: PAHO, 2011. The source for OCT is a direct country communication to PAHO. For 2011 reported figures: 2012 GARP country reports and 2012 Elimination Initiative country reports to PAHO.

<sup>j</sup> For Honduras, the source is a special SIP database report consolidated from major hospitals.

<sup>ii</sup> For Panama, the Bahamas, Cuba, and Dominica, the source for 2011 HIV prevalence among pregnant women is the narrated GARP 2012 country report.

<sup>iii</sup> For Peru the source is “Estudio de vigilancia centinela 2008”.

<sup>iv</sup> The source for Uruguay is the 2012 SIP report “Indicadores de la red centinela sífilis congénita—Uruguay 2010.”

<sup>v</sup> The source for 2010 HIV prevalence for the Bahamas, Haiti and Cuba is the narrated 2010 country UNGASS report.

# Testing, Treatment, and Care

## I. Testing for HIV and Syphilis

### I.1. Testing for HIV

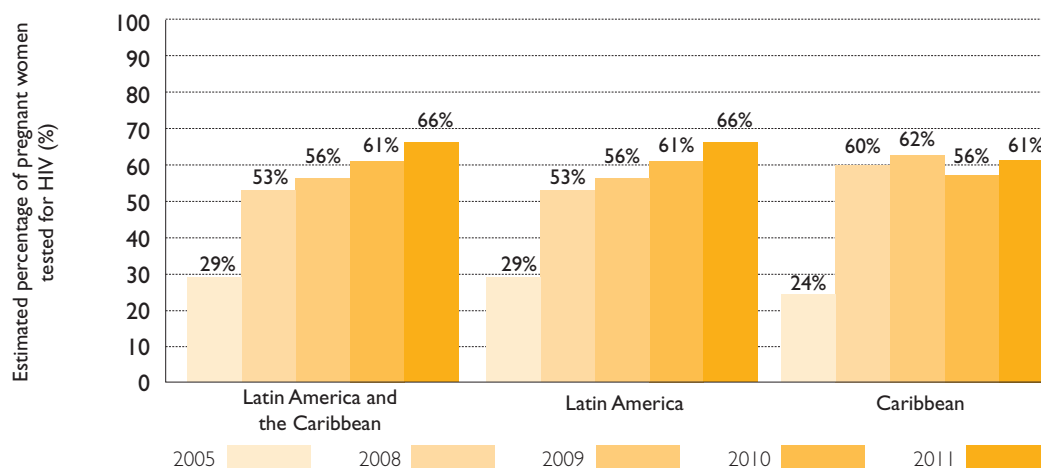
For this report, HIV testing coverage among pregnant women was calculated using the standard UN figures for live births in a given year as the denominator.

Similar to the indicators outlined above, the number of countries reporting on testing of pregnant women for HIV decreased slightly, from 34 in 2010 to 31 in 2011.

Regional trends in HIV testing coverage have shown increases over the years. For instance, considerable increases were observed between 2005 and 2008, with a steady rise in the subsequent years and a peak in coverage of 66% in 2011 (Figure 1).

**Figure 1**

Estimated HIV testing coverage among pregnant women in Latin America and the Caribbean, 2005 and 2008–2011.



Source: World Health Organization. Unpublished data, 2012. WHO, Geneva.

Analysis by countries showed an increase from 2010 to 2011 in 16 countries (Table 4 and Figure 2). There was a substantial increase in Nicaragua in the percentages of pregnant women who were tested for HIV and who received their results, with the country achieving testing coverage above 95% in this population. Belize, Bolivia, Colombia, the Dominican Republic, and El Salvador also showed increases in HIV testing among pregnant women.

Although the progress made is notable, a few countries continue to have very low coverage, including the Dominican Republic, Guatemala, Mexico, and Paraguay. These countries need to increase their efforts to scale up services. Inequalities persist in other countries, even those with a higher prevalence of coverage, and these countries need to focus on reaching all groups, including the most vulnerable and excluded populations.

HIV testing among pregnant women, 2010 and 2011.

Table 4

	Number of pregnant women who were tested for HIV and received their results		% of pregnant women who were tested for HIV and received their results	
	2010	2011	2010	2011
<b>North America</b>				
Canada	...	...	97–98 <sup>a</sup>	...
Mexico	...	819,784	... <sup>b</sup>	37
United States of America	...	...	97.6 <sup>a</sup>	...
<b>Central America</b>				
Costa Rica	56,940	61,850	78	84
El Salvador	70,617	84,752	56	67
Guatemala	98,233	143,392	21	30
Honduras	125,920	...	62	...
Nicaragua	89,712	142,087	65 <sup>c</sup>	>95 <sup>c</sup>
Panama	59,334	69,887	85	>95
<b>Andean Region</b>				
Bolivia	131,723	162,132	50	61
Colombia	452,098	553,528	49	61
Ecuador	274,573	279,064	92	94
Peru	462,081	462,081	78	78
Venezuela	...	...	...	...
<b>Southern Cone and Brazil</b>				
Argentina	670,802	718,367	>95	>95
Brazil	2,381,280 <sup>d</sup>	...	79	...
Chile	112,647 <sup>e</sup>	201,266	46 <sup>e</sup>	82
Paraguay	72,497	76,236	46	48
Uruguay	35,953 <sup>f</sup>	...	72	...
<b>Caribbean</b>				
Anguilla	242	218	>95	...
Antigua and Barbuda	999	873	71	55
Aruba	...	...	...	...
Bahamas	...	3,850 <sup>g</sup>	...	73
Barbados	1,808	1,849	61	63
Belize	6,178	6,695	81	87
Bermuda	...	...	...	...
Cayman Islands	...	...	...	...
Cuba	124,499	129,493	>95	>95

**Table 4  
(Cont.)**

	Number of pregnant women who were tested for HIV and received their results		% of pregnant women who were tested for HIV and received their results	
	2010	2011	2010	2011
Curaçao	...	...	...	...
Dominica	876	766	72	64
Dominican Republic	89,251	98,343	41	46
French Guiana	...	...	...	...
Grenada	2,056 <sup>h</sup>	2,100 <sup>h</sup>	>95 <sup>h</sup>	>95 <sup>h</sup>
Guadeloupe	...	...	...	...
Guyana	14,571	13,490	>95	>95
Haiti	137,044	...	51	... <sup>i</sup>
Jamaica	25,235 <sup>e</sup>	27,718	50 <sup>e</sup>	55
Martinique	...	...	...	...
Montserrat	68 <sup>l</sup>	68 <sup>l</sup>	68 <sup>l</sup>	68 <sup>l</sup>
Netherlands Antilles	...	...	...	...
Puerto Rico	...	...	...	...
Saint Kitts and Nevis	...	527	...	56
Saint Lucia	1,913 <sup>j</sup>	1,993 <sup>j</sup>	62 <sup>k</sup>	65 <sup>k</sup>
Saint Vincent and the Grenadines	2,635	2,168	>95	>95
Sint Maarten	...	...	...	...
Suriname	8,511	8,128	88	85
Trinidad and Tobago	15,094 <sup>e</sup>	13,010 <sup>e</sup>	76 <sup>e</sup>	70 <sup>e</sup>
Turks and Caicos Islands	...	479 <sup>l</sup>	...	60
Virgin Islands (UK)	298 <sup>l</sup>	336 <sup>l</sup>	75	84
Virgin Islands (US)	...	...	...	...

**Notes:** Denominators are based on standard United Nations estimates of numbers of pregnant women and live births (UN Population Division, World Population Prospects, 2010 revision, New York, 2011).

<sup>a</sup> Country-reported percentages.

<sup>b</sup> For 2010, Mexico reported HIV testing among 825,067 pregnant women and a testing coverage of 34.6% (CONASIDA, Comité de Monitoreo y Evaluación, Boletín del Grupo de Información Sectorial en VIH/sida (diciembre 2010), No. 8).

<sup>c</sup> Nicaragua for 2011 considers that 142,087 pregnant women were tested out of 163,376 estimated pregnant women, this would indicate 87% HIV testing coverage. In 2010, the country reported that 56% of pregnant women were tested for HIV. Nicaragua conducted a study in 2011 that revealed that 88% of pregnant women who were tested received their results.

<sup>d</sup> Figure from a survey conducted in 2006. Brazil reported HIV testing of 62.3%.

<sup>e</sup> Data for Chile, Jamaica, and Trinidad and Tobago correspond to women from the public sector only.

<sup>f</sup> Data for 2009.

<sup>g</sup> Data are limited to the public health sector in New Providence (Información Sectorial en VIH/SIDA, December 2010).

<sup>h</sup> Figure reflects number of tests rather than number of pregnant women tested.

<sup>i</sup> Haiti reported HIV testing coverage of 43% among pregnant women in 2010 and 78% in 2011.

<sup>j</sup> Reported via direct country communication to PAHO.

<sup>k</sup> Saint Lucia reported HIV testing coverage of 99% among pregnant women in 2010 and 96% in 2011.

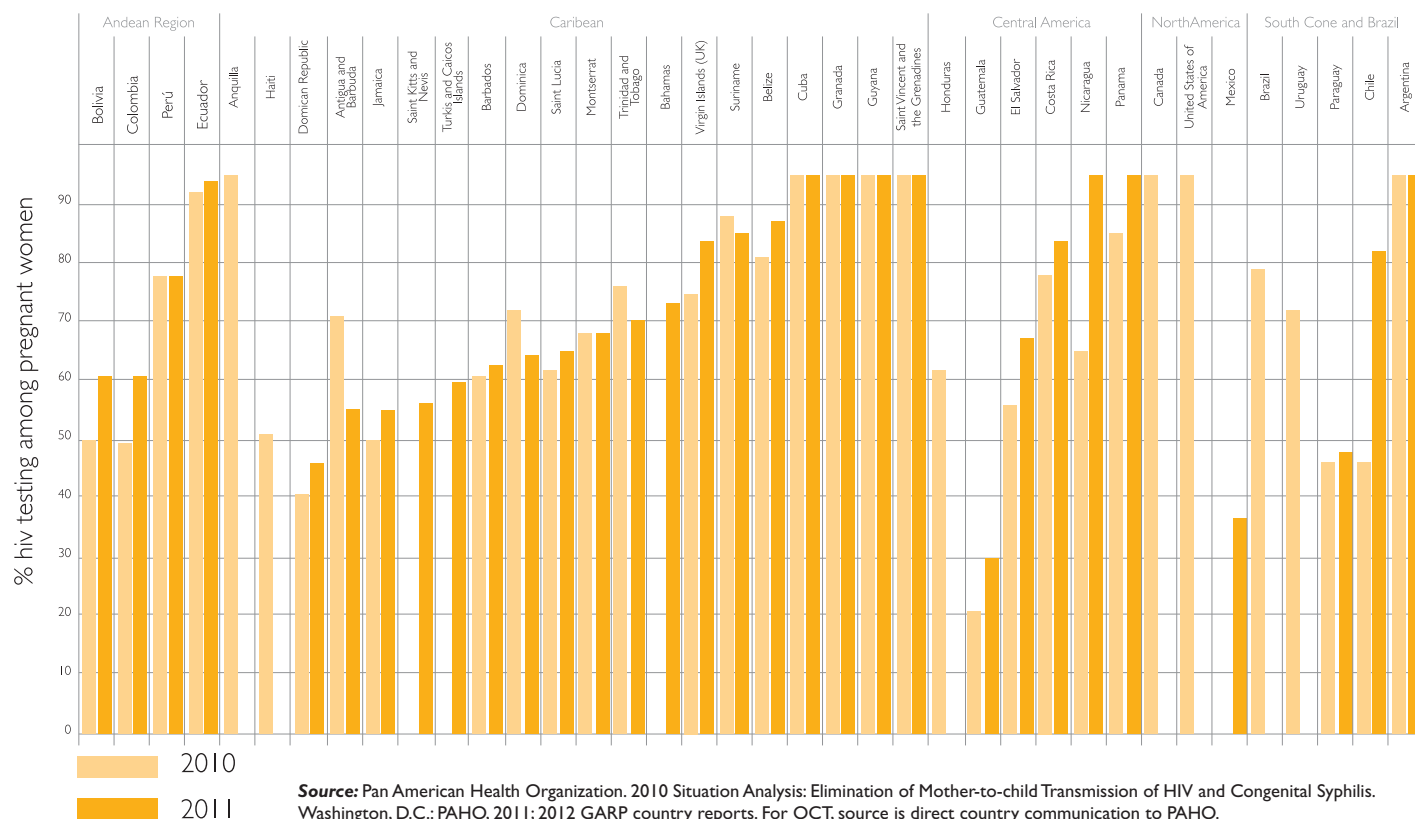
**Sources:** For 2010 reported figures: Pan American Health Organization, 2010 Situation Analysis: Elimination of Mother-to-child Transmission of HIV and Congenital Syphilis, Washington, D.C.: PAHO, 2011. For 2011 reported figures: 2012 GARP country reports. For OCT, the source is PAHO country informants.

## 1.2. Testing for Syphilis

Countries are expanding syphilis testing among pregnant women at ANC (6 countries have increased figures of syphilis testing from 2010 to 2011). In addition, at least 10 countries out of 29 report achieving the 95% target of pregnant women that attend ANC tested for syphilis. Nevertheless, while the majority of countries with data report high syphilis testing there are a few, such as the Dominican Republic, Guatemala and Nicaragua, where 35% or less of the pregnant women at ANC get tested for syphilis.

Percentages of pregnant women tested for HIV, by country and subregion, 2010 and 2011.

Figure 2



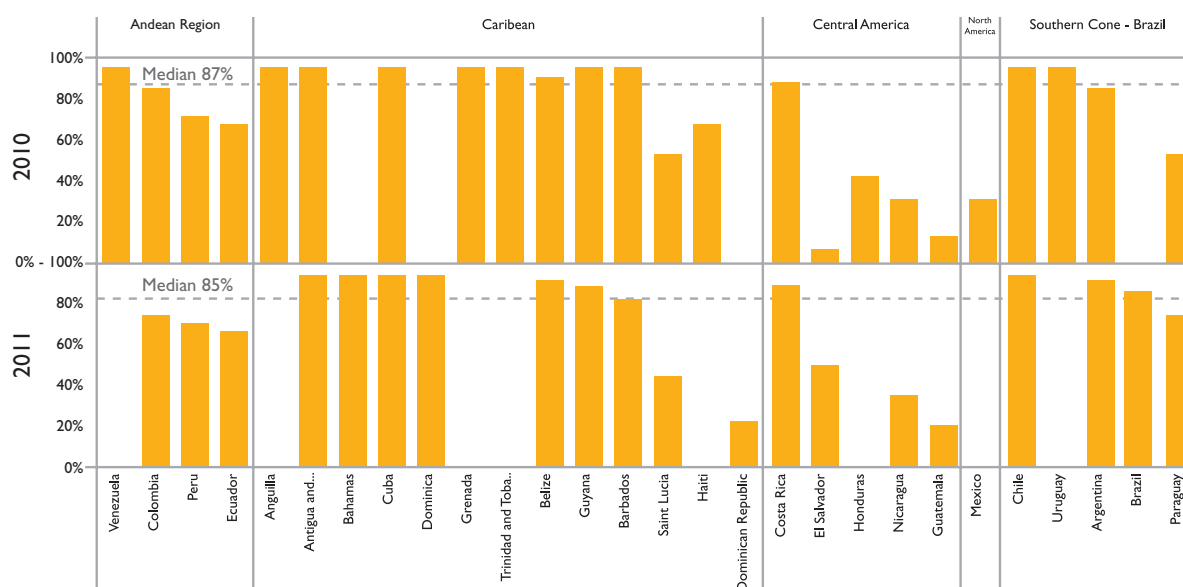
### a) Testing pregnant women for syphilis at their first antenatal care visit

Data on this indicator were reported by 23 countries in the Region in 2010 and by 22 countries in 2011. Median coverage levels were similar: 87% in 2010 and 85% in 2011 (Figure 3). Some countries, including Antigua and Barbuda, Chile, Cuba, and Grenada, achieved testing coverage above 95% at the first ANC visit in 2010 and maintained that achievement in 2011. Greater scale up and acceleration of syphilis screening among pregnant women continues to be an important priority especially among countries where reports show less than 50% of pregnant women receive a syphilis test at first ANC visit (Dominican Republic, Guatemala, Nicaragua, and Saint Lucia).

El Salvador has made important progress on this indicator, rising from 7% in 2010, the lowest figure for countries with information available, to 50% in 2011 (Table 5). This progress could be related to the country's review and modification of its service delivery model (reserving laboratory slots for same-day ANC testing and referring pregnant women for testing directly after their first ANC visit). Paraguay also showed an increase in syphilis testing at the first ANC visit, from 52.7% in 2010 to 75% in 2011. Guatemala made progress as well, albeit less pronounced (from 14% in 2010 to 21% in 2011).

**Figure 3**

Percentages of pregnant women attending antenatal care who were tested for syphilis at their first ANC visit, by country and subregion, 2010–2011.



**Note:** Coverage figures over 95% were truncated to 95%. For Argentina, Brazil, and Peru: data is for pregnant women tested at ANC not necessarily first ANC visit. For Dominican Republic figures are for 2012.

**Source:** Pan American Health Organization. 2010 Situation Analysis: Elimination of Mother-to-child Transmission of HIV and Congenital Syphilis Washington, D.C.: PAHO. 2011. For 2011 reported figures: 2012 GARP country reports.

**Table 5**

Percentages of pregnant women attended by trained personnel at antenatal care and tested for syphilis among those receiving antenatal care, 2010 and 2011.

	% Health care by trained personnel at antenatal care (>1 visit)	% Health care by trained personnel during delivery	% of women receiving ANC who were tested for syphilis at their first ANC visit		% of women accessing ANC who were tested for syphilis at any ANC visit
	2010	2010	2010	2011	2011
<b>North America</b>					
Canada	...	100.0 <sup>d</sup>	...	...	...
Mexico	91.1 <sup>d</sup>	97.4 <sup>d</sup>	...	...	82
United States of America	...	...	...	...	...
<b>Central America</b>					
Costa Rica	94.0	100.0	88	88	88
El Salvador	80.3	84.9 <sup>d</sup>	7	50	76
Guatemala	93.2	49.0 <sup>d</sup>	13	21	...
Honduras	...	...	42	...	62 <sup>a</sup>
Nicaragua	91.6	91.7	31	35	35
Panama	94.6	94.2	...	...	36 <sup>a</sup>
<b>Andean Region</b>					
Bolivia	...	...	...	...	...
Colombia	96.8	95.0	85	74	81
Ecuador	...	...	68	68 <sup>b</sup>	...
Peru	97.7	94.7	72 <sup>c</sup>	73 <sup>c</sup>	73
Venezuela	...	...	96	...	...



**Table 5  
(Cont.)**

	% Health care by trained personnel at antenatal care (>1 visit)	% Health care by trained personnel during delivery	% of women receiving ANC who were tested for syphilis at their first ANC visit		% of women accessing ANC who were tested for syphilis at any ANC visit
	2010	2010	2010	2011	2011
<b>Southern Cone and Brazil</b>					
Argentina	...	97.8 <sup>d</sup>	84	91 <sup>e</sup>	91
Brazil	97.1 <sup>d</sup>	98.9 <sup>d</sup>	...	86 <sup>e</sup>	86
Chile	...	99.8 <sup>d</sup>	>95	>95	>95
Paraguay	93.3	...	53	75	75
Uruguay	97.4	99.9	>95	...	>95
<b>Caribbean</b>					
Anguilla	100.0	100.0	>95	...	>95
Antigua and Barbuda	100.0	100.0	>95	>95	>95
Aruba	100 <sup>d</sup>	100.0 <sup>d</sup>	...	...	...
Bahamas	94.0 <sup>d</sup>	99.0 <sup>d</sup>	...	>95	...
Barbados	...	100.0 <sup>d</sup>	>95	83	84
Belize	91.6	94.0	90	92	92
Bermuda	99.5	99.2	...	...	...
Cayman Islands	97.8	100.0	...	...	...
Cuba	100.0	99.9	>95	>95	>95
Curaçao	...	...	...	...	...
Dominica	100.0	100.0	...	>95	>95
Dominican Republic	...	...	...	23 <sup>e</sup>	...
French Guiana	98.3 <sup>d</sup>	99.2 <sup>d</sup>	...	...	...
Grenada	100.0	100.0	>95	>95	>95
Guadeloupe	...	...	...	...	...
Guyana	95.7 <sup>d</sup>	95.8 <sup>d</sup>	>95	88	88
Haiti	...	...	68	...	...
Jamaica	...	90.1	...	83	...
Martinique	...	...	...	...	...
Montserrat	100.0 <sup>d</sup>	100.0	...	...	...
Netherlands Antilles	...	...	...	...	...
Puerto Rico	...	...	...	...	...
Saint Kitts and Nevis	...	100.0	...	...	78
Saint Lucia	99.0 <sup>d</sup>	...	53	45	75
Saint Vincent and the Grenadines	...	98.3	...	...	...
Sint Maarten	...	...	...	...	...
Suriname	99.4	90.0	...	...	...
Trinidad and Tobago	...	...	>95 <sup>f</sup>	...	...
Turks and Caicos Islands	96.8 <sup>d</sup>	100.0	...	...	...
Virgin Islands (UK)	100.0	100.0	...	...	...
Virgin Islands (US)	...	...	...	...	...

**Notes:**
<sup>a</sup>Data from SIP database (<http://new.paho.org/sscoop/?p=177&id=37>). For Honduras, data are from August 2011 to October 2012.

<sup>b</sup>Data were available for 2010 only.

<sup>c</sup>Includes women tested at any visit.

<sup>d</sup>Data for 2009

<sup>e</sup>Data for 2012.

<sup>f</sup>Based on available data from the Queen's Park Counseling Centre and Clinic.

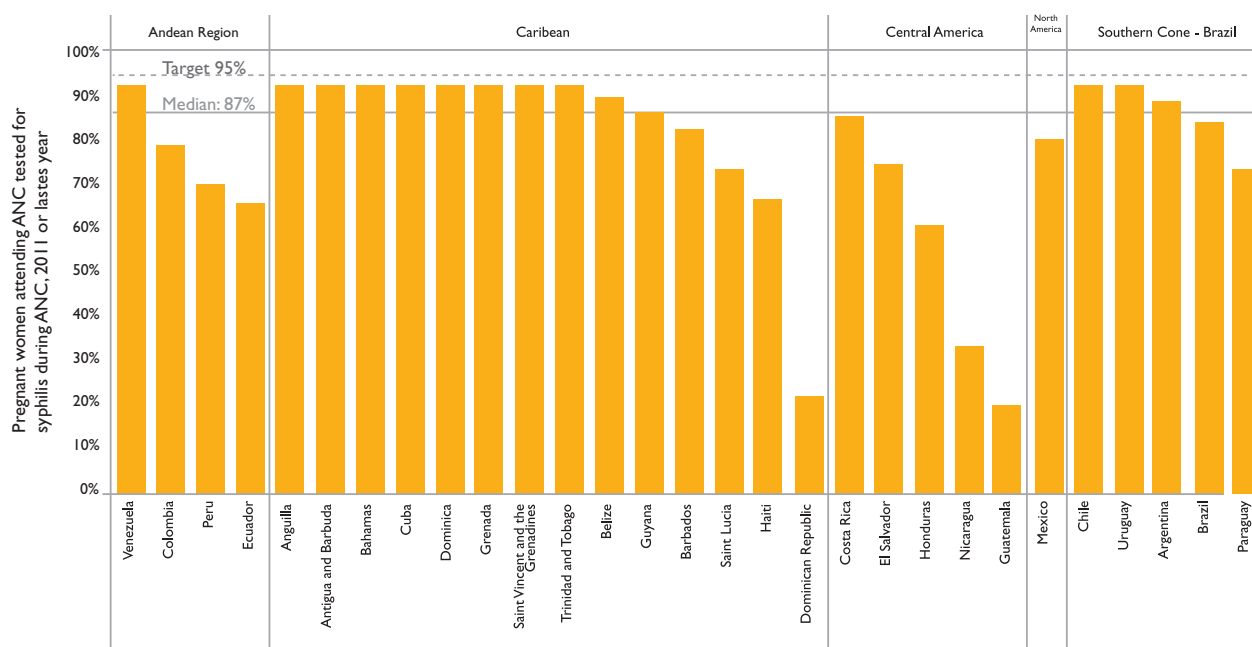
**Sources:** For 2010 reported figures: Pan American Health Organization. 2010 Situation Analysis: Elimination of Mother-to-child Transmission of HIV and Congenital Syphilis. Washington, D.C.: PAHO, 2011. For 2011 reported figures: 2012 GARP country reports. For pregnant women accessing ANC who were tested for syphilis in 2011 and women accessing ANC who were tested for syphilis before 20 weeks in 2011: 2012 Elimination Initiative country reports to PAHO. For health care by trained personnel: Pan American Health Organization, Health Information and Analysis Project. Regional Core Health Data Initiative. Washington DC, 2010.

## b) Testing pregnant women at any moment during pregnancy

In 2011, 22 countries reported having tested pregnant women attending ANC at any moment during their pregnancy. Similar to the pattern described when referring to syphilis testing during first ANC visit, this summary indicator shows high overall syphilis testing among pregnant women in the Region, with a median value of 88%. Nevertheless, given the high ANC attendance figures under 95% testing suggest poor quality of care. Seven countries report testing less than 75% of pregnant women (Peru, Ecuador, Haiti, Honduras, Nicaragua, Dominican Republic and Guatemala) and for the last three countries the value is lower than 50%. Related barriers to testing include poor human resource capacity, and unavailability of syphilis tests at local levels.

**Figure 4**

Percentages of pregnant women attending antenatal care who were tested for syphilis at their first ANC visit, by country and subregion, 2010–2011.



**Notes:** Coverage figures over 95% were truncated to 95%. For the Bahamas, the Dominican Republic, Ecuador, Guatemala, Haiti, Trinidad and Tobago, and Venezuela, syphilis testing coverage at the first ANC visit was used in lieu of the percentage of pregnant women ever tested for syphilis during ANC. Data for Haiti, Trinidad and Tobago, and Venezuela are for 2010.

**Source:** Country PAHO Elimination Initiative reports, 2012

## 2. ARV Prophylaxis for HIV, Treatment for Syphilis and Virological Testing among HIV-exposed Infants

### 2.1. Provision of antiretroviral drugs to pregnant women with HIV

In 2011, 70% of pregnant women in Latin America and the Caribbean living with HIV received antiretroviral drugs for the prevention of mother-to-child transmission, representing a 23% increase from 2010 and a 94% increase from 2005 (Table 6 and Figure 5).

Before 2010, coverage figures included women receiving regimens containing single-dose nevirapine (SdNVP). SdNVP is now recognized as a less efficacious regimen and is not recommended for PMTCT. When values from 2009 (which included all pregnant women receiving ARVs) are compared with those from 2010 (which includes only pregnant women receiving the most efficacious regimens) a decrease in coverage can be seen in the Caribbean, (where SdNVP was more broadly used in those past years) (Figure 5).

Pregnant women living with HIV who received effective regimens for preventing mother-to-child transmission, 2010 and 2011.

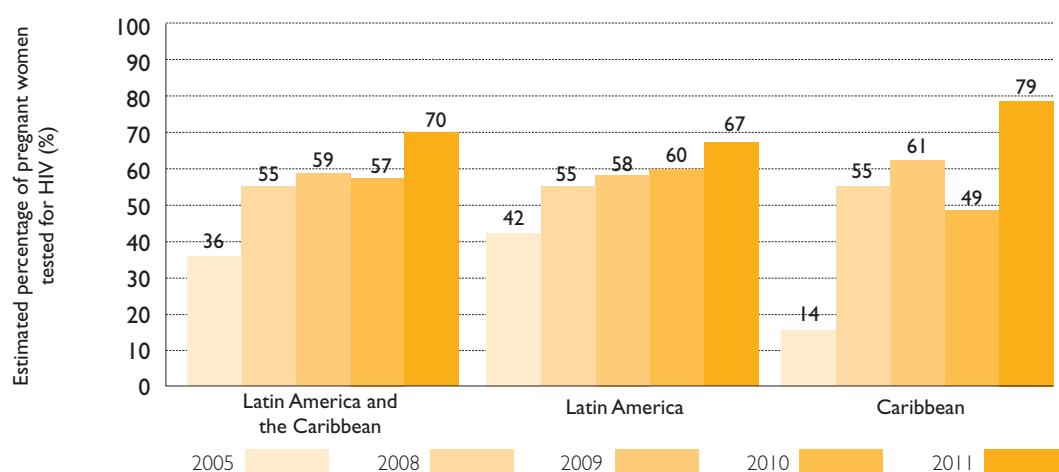
Table 6

	Number of HIV-positive pregnant women receiving effective regimens (i.e., excluding single-dose nevirapine)	
	2010	2011
Latin America and the Caribbean	15,300	18,300
Latin America	12,000	13,100
Caribbean	3,300	5,200

Source: 2012 UNAIDS Report on the Global AIDS Epidemic and Progress Report 2011: Global HIV/AIDS Response—Epidemic Update and Health Sector Progress Towards Universal Access (World Health Organization, 2011).

Estimated antiretroviral coverage, among pregnant women with HIV, for the prevention of mother-to-child transmission of HIV in Latin America and the Caribbean, 2005 and 2008–2011.

Figure 5



Notes: ARV regimens previous to 2010 included single-dose nevirapine. Some countries relied on estimated figures, although the recommended international monitoring requirements call for actual counts of women receiving ARVs for PMTCT.

Source: WHO/UNAIDS ARV coverage estimates, 2012.

An important contribution to the increasing percentage of women in the Caribbean receiving anti-retroviral drugs has been the significant rise in ANC coverage, HIV testing, and access to ARVs among pregnant women in Haiti in the past year.

## 2.2. Treatment for syphilis

The indicator for treatment of syphilis refers only to those pregnant women who have been tested and received positive results. It is not a population-based indicator and relies solely on data on syphilis testing among pregnant women that attend ANC services. In 2010 a total of 19 countries reported data on pregnant women who received treatment, while in 2011 15 countries reported on this indicator. Treatment coverage ranged from 24% in El Salvador to over 91% in half of the reporting countries in 2011.

All of the countries reporting for both years maintained (in the case of Chile, Cuba, and Peru) or increased levels of syphilis treatment coverage among pregnant women. In 2011, Barbados reported full coverage (>95%) for this indicator (Table 7).

The most significant increases between 2010 and 2011 were in Costa Rica (37.5% to 73.3%) and Paraguay (40% to 60.3%). Treatment for syphilis also increased in El Salvador, from 15% in 2010 (the lowest value of the reporting countries of the Region that year) to 24.2% in 2011.

Although the Bahamas did not have data available for 2010, the country showed full syphilis treatment coverage (>95%) among pregnant women in 2011, and Brazil also showed a high percentage for that year (80.5%). Guatemala exhibited very high coverage as well, but this positive result may reflect only the subset of women actually infected (given that the country has low testing coverage).

**Table 7**

**Percentages of pregnant women diagnosed with syphilis who were reported as appropriately treated, Latin America and the Caribbean, 2010 and 2011.**

	% of pregnant women diagnosed with syphilis receiving appropriate treatment for syphilis	
	2010	2011
<b>Central America</b>		
Costa Rica	38 <sup>a</sup>	73
El Salvador	15	24
Guatemala	...	>95
Honduras	>95	...
Nicaragua	90	>95
<b>Andean Region</b>		
Colombia	72	89
Peru	92	91
Venezuela	>95	...
<b>Southern Cone and Brazil</b>		
Argentina	66	74
Brazil	...	81
Chile	>95	>95
Paraguay	40	60
Uruguay	24	...

	% of pregnant women diagnosed with syphilis receiving appropriate treatment for syphilis		Table 7 (Cont.)
	2010	2011	
<b>Caribbean</b>			
Anguilla	... <sup>b</sup>	... <sup>b</sup>	
Bahamas	...	>95	
Barbados	80	>95	
Belize	50	67	
Cuba	>95	>95	
Grenada	>95	>95	
Guyana	>95	...	
Haiti	81	...	
Trinidad and Tobago	>95 <sup>c</sup>	...	

**Notes:**

<sup>a</sup>Data for 2009.

<sup>b</sup>Not applicable because the country did not have any positive cases during that year.

<sup>c</sup>Based on treatment data available from Queen's Park Counseling Centre and Clinic (QPCC&C) South for January–December 2010 and from QPCC&C North for June–December 2010.

**Sources:** For 2010 figures: Pan American Health Organization. 2010 Situation Analysis: Elimination of Mother-to-child Transmission of HIV and Congenital Syphilis. Washington, D.C.: PAHO, 2011. For 2011 figures: 2012 GARP country reports.

### 2.3. Prevention and care among HIV-exposed infants

Twenty-three countries reported that infants underwent virological testing within two months of birth in 2010, and 28 countries reported such testing in 2011. Of those countries with data available for both years, 12 reported increases in absolute numbers of virological tests. Among these, Brazil (from 2,306 infants in 2010 to 4,163 in 2011), the Dominican Republic (from 123 infants in 2010 to 522 in 2011), and Haiti (from 1,103 infants in 2010 to 3,149 in 2011) showed the highest increases in absolute numbers in Brazil, (Table 8).

A total of 29 countries reported ARV prophylaxis for exposed infants in 2010 and 25 in 2011. Of these countries, Argentina showed the highest increase in absolute figures (from 2,549 infants in 2010 to 2,623 in 2011), followed by Cuba and Suriname. Less pronounced increases were seen in Belize, Brazil, Guyana, Nicaragua, and Paraguay. By contrast, Colombia exhibited a significant decrease in absolute figures (from 338 to 192). The Dominican Republic, Guatemala, Jamaica, and Panama also reported decreases (Table 9).

**Infants of HIV-positive women  
who underwent virological testing within 2 months of birth, 2010 and 2011.**

**Table 8**

	Number of infants born to HIV positive women undergoing a virological testing for HIV within 2 months of birth	% of infants born to HIV positive women undergoing a virological testing for HIV within 2 months of birth	Number of infants born to HIV positive women undergoing a virological testing for HIV within 2 months of birth	% of infants born to HIV positive women undergoing a virological testing for HIV within 2 months of birth
	2010	2010	2011	2011
<b>North America</b>				
Canada	...	...	...	...
Mexico	...	...	...	...
United States of America	...	...	...	...

**Table 8  
(Cont.)**

	Number of infants born to HIV positive women undergoing a virological testing for HIV within 2 months of birth	% of infants born to HIV positive women undergoing a virological testing for HIV within 2 months of birth	Number of infants born to HIV positive women undergoing a virological testing for HIV within 2 months of birth	% of infants born to HIV positive women undergoing a virological testing for HIV within 2 months of birth
	2010	2010	2011	2011
<b>Central America</b>				
Costa Rica	35	...(17–34)	35	22 (18–30)
El Salvador	108	...(8–53)	...	...
Guatemala	...	...	228	14 (3–81)
Honduras	328	...(56–>95)	390	70 (49–>95)
Nicaragua	58	...(18–>95)	68	14 (5–37)
Panama	93	...(16–63)	123	69 (35–>95)
<b>Andean Region</b>				
Bolivia	151	...(79–>95)	...	...
Colombia	168	...(9–22)	287	20 (12–42)
Ecuador	5	...(1–6)	621	87 (33–>95)
Peru	521	... (...-...)	715	... (...-...)
Venezuela	...	...	186	17% (7–43)
<b>Southern Cone and Brazil</b>				
Argentina	...	...	190	14 (10–20)
Brazil	2,306	...(28–53)	4,163	50 (40–75)
Chile	...	...	183	>95 (>95–>95)
Paraguay	82	...(14–67)	107	31 (12–76)
Uruguay	72	...(23–>95)	76	75 (21–>95)
<b>Caribbean</b>				
Anguilla	...	...	...	...
Antigua and Barbuda	8	...	5	... (...-...)
Aruba	...	...	...	...
Bahamas	...	...	77	... (...-...)
Barbados	...	...	17	... (...-...)
Belize	54	...(36–64)	61	54 (43–78)
Bermuda	...	...	...	...
Cayman Islands	...	...	...	...
Cuba	66	...(93–>95)	93	>95 (>95–>95)
Curaçao	...	...	...	...
Dominica	1	...	3	... (...-...)
Dominican Republic	132	...(7–15)	522	41% (30–62)
French Guiana	...	...	...	...
Grenada	2	... (...-...)	1	... (...-...)
Guadeloupe	...	...	...	...
Guyana	52	...(31–>95)	90	82 (56–>95)
Haiti	1,103	21 (18–26)	3,149	67 (56–85)
Jamaica	...	...	283	58 (42–91)
Martinique	...	...	...	...
Montserrat	...	...	...	...
Netherlands Antilles	...	...	...	...

	Number of infants born to HIV positive women undergoing a virological testing for HIV within 2 months of birth	% of infants born to HIV positive women undergoing a virological testing for HIV within 2 months of birth	Number of infants born to HIV positive women undergoing a virological testing for HIV within 2 months of birth	% of infants born to HIV positive women undergoing a virological testing for HIV within 2 months of birth	<b>Table 8 (Cont.)</b>
	2010	2010	2011	2011	
Puerto Rico	...	...	...	...	
Saint Kitts and Nevis	...	...	...	...	
Saint Lucia	4	... (...-...)	3	... (...-...)	
Saint Vincent and the Grenadines	13	... (...-...)	15	... (...-...)	
Sint Maarten	...	...	...	...	
Suriname	9	... (2-15)	...	...	
Trinidad and Tobago	95	...	100	... (...-...)	
Turks and Caicos Islands	...	...	...	...	
Virgin Islands (UK)	...	...	...	...	
Virgin Islands (US)	...	...	...	...	

**Notes:** Ecuador, Uruguay, Dominica, Saint Vincent and the Grenadines, and Suriname, data for 2009; Brazil, data for 2008; Haiti, data for June–December 2010  
**Sources:** For 2010 reported figures: Pan American Health Organization, 2010 Situation Analysis: Elimination of Mother-to-child Transmission of HIV and Congenital Syphilis. Washington, D.C.: PAHO, 2011. For 2011 reported figures: 2012 GARP country reports.

**Infants of HIV-positive women who received prophylaxis for prevention of mother-to-child transmission, 2010 and 2011**

**Table 9**

	Number of infants born to HIV infected women receiving prophylaxis for prevention of mother to child transmission	% of infants born to HIV infected women receiving prophylaxis for prevention of mother to child transmission	Number of infants born to HIV infected women receiving prophylaxis for prevention of mother to child transmission	% of infants born to HIV infected women receiving prophylaxis for prevention of mother to child transmission
	2010	2010	2011	2011
<b>North America</b>				
Canada	...	...	...	...
Mexico	58	... (4-15)	...	...
United States of America	...	...	...	...
<b>Central America</b>				
Costa Rica	30	... (15-29)	30	19 (15-25)
El Salvador	102	... (8-50)	...	...
Guatemala	159	... (3-47)	97	6 (1-34)
Honduras	202	... (34-82)	...	...
Nicaragua	87	... (28->95)	95	20 (7-52)
Panama	151	... (25->95)	123	69 (35->95)
<b>Andean Region</b>				
Bolivia	151	... (79->95)	...	...
Colombia	338	... (18-45)	192	14 (8-28)
Ecuador	403	... (66->95)	403	56 (21->95)
Peru	502	... (...-...)	523	... (...-...)
Venezuela	274	... (6-12)	...	...

**Table 9  
(Cont.)**

	Number of infants born to HIV infected women receiving prophylaxis for prevention of mother to child transmission	% of infants born to HIV infected women receiving prophylaxis for prevention of mother to child transmission	Number of infants born to HIV infected women receiving prophylaxis for prevention of mother to child transmission	% of infants born to HIV infected women receiving prophylaxis for prevention of mother to child transmission
	2010	2010	2011	2011
<b>Southern Cone and Brazil</b>				
Argentina	2,549	...(>95->95)	2,623	>95 (>95->95)
Brazil	7,250	...(89->95)	7,264	87 (70->95)
Chile	...	...	...	...
Paraguay	165	...(28->95)	178	52 (19->95)
Uruguay	72	...(23->95)	...	...
<b>Caribbean</b>				
Anguilla	...	...	...	...
Antigua and Barbuda	...	...	5	... (...-...)
Aruba	...	...	...	...
Bahamas	...	...	77	... (...-...)
Barbados	...	...	20	... (...-...)
Belize	53	...(35-62)	61	54 (43-78)
Bermuda	...	...	...	...
Cayman Islands	...	...	...	...
Cuba	66	...(93->95) <sup>a</sup>	93	>95 (>95->95) <sup>a</sup>
Curaçao	...	...	...	...
Dominica	1	...	3	... (...-...)
Dominican Republic	935	...(49->95)	824	64 (48->95)
French Guiana	...	...	...	...
Grenada	2	... (...-...)	1	... (...-...)
Guadeloupe	...	...	...	...
Guyana	188	...(95->95)	196	>95 (>95->95)
Haiti	1,621	31 (26-38)	...	...
Jamaica	377	...(45->95)	336	69 (50->95)
Martinique	...	...	...	...
Montserrat	...	...	...	...
Netherlands Antilles	...	...	...	...
Puerto Rico	...	...	...	...
Saint Kitts and Nevis	9	... (...-...)	3	... (...-...)
Saint Lucia	9	... (...-...)	3	... (...-...)
Saint Vincent and the Grenadines	15	... (...-...)	17	... (...-...)
Sint Maarten	...	...	...	...
Suriname	73	(16->95)	95	>95 (74->95)
Trinidad and Tobago	181	... (...-...)	187	... (...-...)
Turks and Caicos Islands	...	...	...	...
Virgin Islands (UK)	...	...	...	...
Virgin Islands (US)	...	...	...	...

**Note:** <sup>a</sup>Cuba reports over 95% coverage.

**Sources:** For 2010 reported figures: Pan American Health Organization. 2010 Situation Analysis: Elimination of Mother-to-child Transmission of HIV and Congenital Syphilis. Washington, D.C.: PAHO, 2011. For 2011 reported figures: 2012 GARP country reports.



# Impact of Mother-to-Child Transmission of HIV and Congenital Syphilis

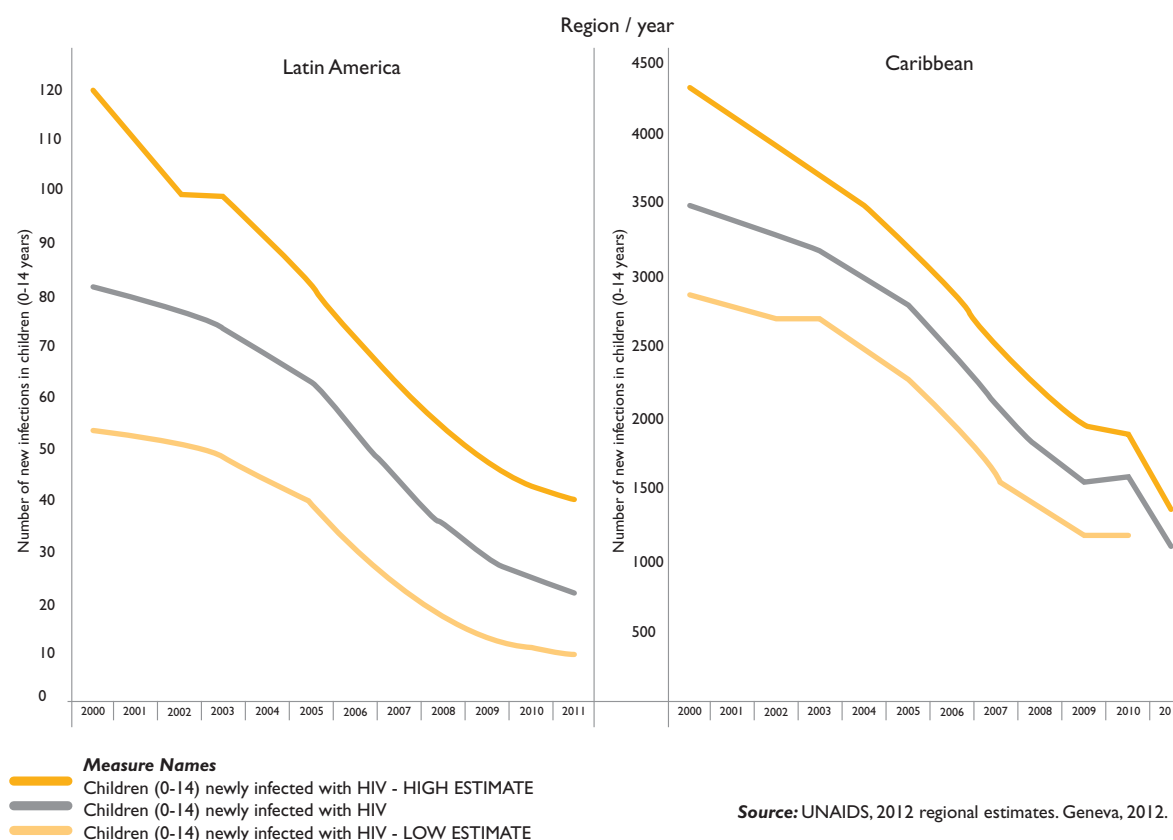
## I. Vertical Transmission of HIV

The number of children acquiring HIV infection declined significantly in the Caribbean and in Latin America: a 32% and 24% reduction in the number of children acquiring HIV between 2009 and 2011 in each subregion respectively (Figure 6) (3).

Countries with generalized epidemics, such as Haiti, also showed a decrease between 2009 and 2011 in the number of children (0–14 years old) acquiring HIV infection. Haiti was among the group of countries with decreases in the range of 20% to 29% between these years.

Estimated numbers of children newly infected with HIV in Latin America and the Caribbean, 2000–2011.

Figure 6



A modeling tool developed by UNAIDS was used to calculate rates of mother-to-child transmission of HIV. Based on this modeling tool, the mother-to-child transmission rate in Latin America and the Caribbean for 2011 was estimated at 14.2% (5.8%–18.5%), down from 18.6% (10.5%–22.9%) in 2010<sup>3</sup>. If the breastfeeding component of transmission among HIV-positive mothers were excluded, the estimated rate for 2011 would decrease to 9.2%. This highlights the importance of maintaining high HIV testing coverage among pregnant women, even late in pregnancy or during labor, so that the mother and child receive the necessary services to prevent mother-to-child transmission of HIV.<sup>4</sup>

In 2009 and 2010, 28 and 27 countries, respectively, reported data on exposure to HIV among infants. Among countries with data for both years, the number of infants exposed to HIV increased in 13 countries and decreased in six. Measures designed to increase HIV prevention and reduce unmet need for family planning should lead to decreases in the number of HIV-exposed infants, and such measures could have been responsible for the decreases in exposed infants reported in these six countries. In contrast, intermediate increases in the number of exposed infants can occur if countries scale up HIV testing among pregnant women and conduct enhanced follow-up of mother and child pairs. The countries with steep increases in exposure rates were Colombia, Ecuador, and the Dominican Republic. The Dominican Republic had the most pronounced increase (from 132 infants in 2009 to 522 in 2010) as well as, notably, a high number of infants lost to follow-up (367 in 2010).

Lack of information due to loss of infants before a definitive diagnosis is made (“lost to follow up”<sup>5</sup>) is common and poses challenges to correctly understanding mother-to-child transmission rates. Thus, vertical transmission rates in countries with large numbers of infants who are lost to follow-up need to be interpreted with caution or adjusted with uncertainty bounds to take into account such losses. Eighteen countries provided information on this indicator, and 6 reported that over 25% of exposed children had been lost to follow-up. Some clinical experts will follow up children until 18 months of age and conduct ELISA tests to definitively rule out HIV infection. With the availability of virological testing, two negative tests provide a definitive negative diagnosis, which can be made by 4 months of age. This will facilitate reporting and estimations of transmission rates.

Reporting and follow-up of exposed children pose important challenges to health services and information systems. In the recent regional consultation among Latin American and Caribbean countries on strategic information for HIV held in Panama City, country experts recommended greater integration between HIV programs and maternal and child health programs in order to improve monitoring of exposed infants.

Despite challenges posed by the quality of the data, an analysis and triangulation of available information indicates that the following countries may have achieved the target rate for HIV vertical transmission of 2% or below: Anguilla, Canada, Cuba, Panama, and the United States of America (Box 1). Countries that are close to the target are Argentina, the Bahamas, Barbados, Costa Rica, Dominica, Grenada, Guyana, Nicaragua, Paraguay, and Trinidad and Tobago.

---

<sup>3</sup> In 2012, the UNAIDS estimate of the number of HIV-positive pregnant women in 2010 was slightly different than the previously calculated figure. As a result, the figures in this report are different than those previously published with respect to 2010 estimated mother-to-child transmission rates.

<sup>4</sup> The assumptions that have been used in the model are as follows:

- HIV incidence among women aged 15 to 49: 0.6%.
- CD4 count: 58% with CD4 above 350 cells/mm<sup>3</sup> and 42% with CD4 under 350 cells/mm<sup>3</sup>.
- Percentage of pregnant women with HIV not receiving any type of antiretroviral prophylaxis or treatment: 30%.
- Percentage of pregnant women with HIV receiving antiretrovirals (70%) by regimen: single-dose nevirapine, 1.2%; dual-dose AZT, 4.7%; antiretroviral therapy (ART) initiated during pregnancy under option A or B, 61%; or ART initiated before pregnancy, 33%.
- Median duration of breastfeeding among puerperal women with HIV: 14 months.

<sup>5</sup> This includes children who died before being definitively diagnosed or who had missing information or inconclusive results to indicate their definitive diagnosis.

Given challenges in correctly monitoring exposed children and their outcomes, some countries have relied on modeling to estimate the HIV mother-to-child transmission rate (Table 10). This sometimes leads to difficulties in concentrated epidemic settings with small numbers of HIV-positive pregnant women and a high level of uncertainty associated with these estimates. Thus, as can be seen in Table 10, modeled transmission rates are often extremely high and may not be commensurate with the results obtained from other programmatic indicators (such as the case in the Bahamas). This is but one of the inconsistencies that may arise. PAHO recommends that, where possible, countries develop systems that permit surveillance of mother and child pairs (despite the fact that these systems may be affected by underreporting and may miss HIV-positive pregnant women who have not accessed sexual and reproductive health services).

### Classification of countries with regard to reported HIV vertical transmission rates, 2010.

**Box 1**

May have achieved target Reported HIV vertical transmission rate <2%	Approaching target Reported HIV vertical transmission rate >2%–<5%
Anguilla, Canada, Cuba, Panama, USA	Argentina, Bahamas, Barbados, Costa Rica, Dominica, Grenada, Guyana, Nicaragua, Paraguay, Trinidad and Tobago

**Note:** This information is based on reported country figures, taking into account the completeness of the data. Definitive statements about country target achievement will require further examination and consideration of data quality.

### Infants exposed to HIV, HIV-positive infants, and infants lost to follow up, 2009 and 2010, and HIV testing coverage among pregnant women, 2010 and 2011.

**Table 10**

	Reported number of infants perinatally exposed to HIV...						Vertical transmission rate (%), uncorrected /raw figure	Latest country reports (GARP, 2012)			% of pregnant women who were tested for HIV and received their results	
	Total perinatally exposed to HIV	...who were diagnosed with HIV:	...who were lost to follow-up:	Total perinatally exposed to HIV	...who were diagnosed with HIV	...who were lost to follow-up		Transmission rate (%)	Observation/source (where available)	Reference year(s) of data		
	2009	2009	2009	2010	2010	2010						
<b>North America</b>												
Canada	177	3	0	...	...	...	1.7	1.7	Reported cases/cohort analysis	2009	97–98 <sup>a</sup>	...
Mexico	...	101	...	...	78	...	...	12.9 (9.0–18.0)	Spectrum/EPP	2011	... <sup>b</sup>	37
United States of America	1811 <sup>c</sup>	30 <sup>b</sup>	663 <sup>c</sup>	...	...	...	1.7	1.7	Enhanced perinatal surveillance from 15 areas	2008	97 <sup>a</sup>	...
<b>Central America</b>												
Costa Rica	35	0	...	35	1	...	2.9	2.9	Reported cases/cohort analysis	2010	78	84
El Salvador	124 <sup>c</sup>	12 <sup>c</sup>	...	113	3	...	2.7	6.9	Cohort analysis and Spectrum/EPP (both with the same result)	2011	56	67
Guatemala	...	...	...	...	...	...	...	31.0 (5.0–>95.0)	Spectrum/EPP	2011	21	30

Table 10 (Cont.)	Reported number of infants perinatally exposed to HIV...						Vertical transmission rate (%), uncorrected /raw figure	Latest country reports (GARP, 2012)			% of pregnant women who were tested for HIV and received their results	
	Total perinatally exposed to HIV	... who were diagnosed with HIV:	... who were lost to follow-up:	Total perinatally exposed to HIV	... who were diagnosed with HIV	... who were lost to follow-up:		Transmission rate (%)	Observation/source (where available)	Reference year(s) of data		
	2009	2009	2009	2010	2010	2010		2010	2012			2010
Honduras	382	19	0 <sup>a</sup>	...	...	...	...	22.0 (18.0-41.0)	Spectrum/EPP	2011	62	...
Nicaragua	81	11	...	90	4	...	4.4	4.4	Reported cases/cohort analysis	2010	65 <sup>d</sup>	>95 <sup>d</sup>
Panama	151	...	...	123	1	25	0.8	0.5	Reported cases/cohort analysis	2011	85	>95
<b>Andean Region</b>												
Bolivia	151 <sup>e</sup>	1	5	...	...	...	...	21.7 (16.0-43.0)	Spectrum/EPP	2010, 2011	50	61
Colombia	369 <sup>e</sup>	20 <sup>f</sup>	5 <sup>f</sup>	566	28	146	4.9	17.4 (7.0-26.0)	Spectrum/EPP	2010	49	61
Ecuador	315	...	...	403	...	...	...	4.4 (2.0-12.0)	Spectrum/EPP	...	92	94
Peru	607	74	...	614 <sup>g</sup>	27 <sup>g</sup>	...	4.4	3.9	Reported cases/cohort analysis from major hospital	2009	78	78
Venezuela	...	...	...	...	...	...	...	25.5 (8.0-52.0)	Spectrum/EPP	2011	...	...
<b>Southern Cone and Brazil</b>												
Argentina	2,981	149	...	2,761	97	828	3.5	4.4	Laboratory data	2009	>95	>95
Brazil	...	381 <sup>c</sup>	...	...	...	...	...	6.8	ANC surveillance and vertical transmission studies	2011	79	...
Chile	156	10	7	196	5	13	2.6	5.1	Reference lab, preliminary 2011 data discussed with national AIDS program during validation exercise of elimination; adjusted value	2011	46 <sup>h,n</sup>	82
Paraguay	164	5	17	165	5	46	3.0	15.5 (5.0-30.0)	Spectrum/EPP	2011	46	88
Uruguay	72 <sup>i</sup>	3	6	77	6	7	7.8	2.6 (1.0-11.0)	Spectrum/EPP	2011	72	...
<b>Caribbean</b>												
Anguilla	2	0	0	2	0	0	0.0	...	...	...	>95	...
Antigua and Barbuda	5	0	0	5	0	0	0.0	20.0	Reported cases/cohort analysis	2011	71	55
Aruba	...	0	...	...	0	...	...	...	...	...	...	...
Bahamas	...	...	...	77	0	...	0.0	(5.0-7.0)	Spectrum/EPP	2010	...	73 <sup>h</sup>
Barbados	27	0	4	20	0	0	0.0	0.0	Reported cases/cohort analysis	2011	61	63
Belize	53	5	17	61	4	0	6.6	...	...	...	81	87
Bermuda	...	...	...	...	...	...	...	...	...	...	...	...
Cayman Islands	...	0	...	...	0	...	...	...	...	...	...	...
Cuba	54	1	0	58	1	0	1.7	1.1	Reported cases/cohort analysis	2011	>95	>95
Curaçao	...	...	...	...	...	...	...	...	...	...	...	...
Dominica	...	0	...	3	0	0	0.0	0.0	Reported cases/cohort analysis	...	72	64

Table 10 (Cont.)	Reported number of infants perinatally exposed to HIV...						Vertical transmission rate (%), uncorrected /raw figure	Latest country reports (GARP, 2012)			% of pregnant women who were tested for HIV and received their results	
	Total perinatally exposed to HIV	...who were diagnosed with HIV:	...who were lost to follow-up:	Total perinatally exposed to HIV	...who were diagnosed with HIV	...who were lost to follow-up		Transmission rate (%)	Observation/source (where available)	Reference year(s) of data		
	2009	2009	2009	2010	2010	2010		2010	2012			2010
Dominican Republic	132	13	...	522	30	367	5.7	(4.0-8.0)	Spectrum/EPP	...	41	46
French Guiana	...	...	...	...	...	...	...	...	...	...	...	...
Grenada	3	0	0	2	0	0	0.0	0.0	Reported cases/cohort analysis	2011	>95 <sup>i</sup>	>95 <sup>i</sup>
Guadeloupe	34	0	0	...	...	...	...	...	...	...	...	...
Guyana	186	11	...	201	5	0	2.5	4.6 (3.0-7.0)	Spectrum/EPP	2011	>95	>95
Haiti	...	...	...	419	20	...	4.8	11.1 (16-24)	Spectrum/EPP (narrative GARP report indicates 14%)	2011	51	... <sup>k</sup>
Jamaica	439	...	...	...	...	...	...	7.6 (6.0-12.0)	Spectrum/EPP	2011	50 <sup>h</sup>	55
Martinique	...	...	...	...	...	...	...	...	...	...	...	...
Montserrat	...	0	...	...	0	...	...	...	...	...	68 <sup>l</sup>	68 <sup>l</sup>
Netherlands Antilles	...	...	...	...	...	...	...	...	...	...	...	...
Puerto Rico	...	...	...	...	...	...	...	...	...	...	...	...
Saint Kitts and Nevis	...	...	...	0	0	0	0.0	...	...	...	...	56
Saint Lucia	6	0	0	9	0	3	0.0	0.0	Reported cases/cohort analysis	2011	62 <sup>lm</sup>	65 <sup>lm</sup>
Saint Vincent and the Grenadines	17	0	2	15	1	2	6.7	...	...	...	>95	>95
Sint Maarten	...	0	...	...	0	...	...	...	...	...	...	...
Suriname	95	4	67	79	4	25	5.1	5.5 (5.0-17.0)	Spectrum/EPP	2011	88	85
Trinidad and Tobago	127	2	1	181	0	3	0.0	...	...	...	76 <sup>h</sup>	70 <sup>h</sup>
Turks and Caicos Islands	...	0	...	...	0	...	...	...	...	...	...	60
Virgin Islands (UK)	...	0	...	...	0	...	...	...	...	...	75	84
Virgin Islands (US)	...	...	...	...	...	...	...	...	...	...	...	...

**Notes:** <sup>a</sup>Country reported values. <sup>b</sup>For 2010, Mexico reported HIV testing among 825,067 pregnant women and a testing coverage of 34.6% (CONASIDA. Comité de Monitoreo y Evaluación. Boletín del Grupo de Información Sectorial en VIH/sida (diciembre 2010). N° 8). <sup>c</sup>Data are for 2008. <sup>d</sup>Nicaragua for 2011 considers that 142,087 pregnant women were tested out of 163,376 estimated pregnant women, this would indicate 87% HIV testing coverage. In 2010, the country reported that 56% of pregnant women were tested for HIV. Nicaragua conducted a study in 2011 that revealed that 88% of pregnant women who were tested received their results. <sup>e</sup>Data are for 2010. <sup>f</sup>Data for Colombia presented at an Elimination Initiative subregional Andean meeting in 2012, show that 7% of children are lost without a definitive diagnosis and that the HIV mother-to-child transmission rate in 2009 was 4.8%. <sup>g</sup>Data for 2011. <sup>h</sup>Data for the Bahamas, Chile, Jamaica, and Trinidad and Tobago correspond to women from the public sector only. <sup>i</sup>Uruguay data are from one major public hospital. <sup>j</sup>Figure for Grenada reflects number of tests rather than number of pregnant women tested. <sup>k</sup>Haiti reported HIV testing coverage of 43% among pregnant women in 2010 and 78% in 2011. <sup>l</sup>Reported via direct country communication to PAHO. <sup>m</sup>Saint Lucia reported HIV testing coverage of 99% among pregnant women in 2010 and 96% in 2011. <sup>n</sup>2010 data for Chile must be interpreted with caution given that during that year Chile suffered from a major earthquake and data registers for that year could have been affected.

**Sources:** 2011 Elimination Initiative. Country Reports. PAHO, UNICEF. Regional Elimination Initiative: Data Reported by Countries. Washington, D.C.: Pan American Health Organization, 2011. The source for Canada is Public Health Agency of Canada. HIV and AIDS in Canada. Available at: [www.phac-aspc.gc.ca/aids-sida/publication/index-eng.php#surveillance](http://www.phac-aspc.gc.ca/aids-sida/publication/index-eng.php#surveillance). Last accessed on 21 February, 2013. For Spectrum/EPP uncertainty intervals: unpublished estimates of the 2012 UNAIDS Global Report.

## 2. Congenital Syphilis

Twenty-six countries provided information on congenital syphilis cases for 2010. Fourteen countries reported a congenital syphilis rate under 0.5 per 1,000 live births in 2009–2010 along with ANC coverage greater than 80% and at least 80% syphilis testing coverage among ANC attendees: Anguilla, Antigua and Barbuda, Barbados, Belize, Bermuda, Canada, Chile, Cuba, Guyana, Jamaica, Puerto Rico, Saint Vincent and the Grenadines, the United States of America, and the Virgin Islands (US). Countries that may be close to achieving the target are El Salvador, Peru, and Saint Kitts and Nevis (Box 2 and Table 11).

An appropriate surveillance system is needed to adequately monitor progress in achieving targets. These data rely on universal reporting coverage, accurate case definitions, and high programmatic coverage in order to adequately reflect congenital syphilis rates. Information systems differ among countries, which affects the validity of the reported data. In addition, annual data reporting is required to assess data consistency and validity.

Inequities within countries persist, and syphilis tends to congregate in pockets affecting more vulnerable groups with lower access to services. While some countries may be close to achieving or have already achieved national targets, subnational syphilis rates may still be unacceptably high. Full validation of congenital syphilis targets requires diminishing inequities and eliminating the excessive burden of congenital syphilis among vulnerable groups.

### Box 2

#### Achievement of congenital syphilis targets, 2009–2010.

Countries and territories that may have achieved CS targets	Countries and territories that are close to achieving CS targets
Anguilla, Antigua and Barbuda, Barbados, Belize, Bermuda, Canada, Chile, Cuba, Guyana, Jamaica, Puerto Rico, Saint Vincent and the Grenadines, USA, Virgin Islands (US)	El Salvador, Peru, Saint Kitts and Nevis

**Notes:** Classifications are based on reported national CS rates. Systems may be affected by underreporting and suboptimal coverage, thus reflecting an artificially low CS rate. Definitive statements about country target achievement will require further examination and consideration of data quality.

### Table 11

#### Cases and rates of congenital syphilis, 2009 and 2010, and syphilis testing coverage in ANC, 2010 and 2011.

	Number of reported congenital syphilis cases	Congenital syphilis rate per 1000 lb	Number of reported congenital syphilis cases	Congenital syphilis rate per 1000 lb	% of women accessing ANC who were tested for syphilis ...			
					...at first ANC visit		...before 20 weeks:	...at any point during ANC
					2010	2011	2011	2011
<b>North America</b>								
Canada	8	0.02	...	...	...	...	...	...
Mexico	144	0.06	143	0.06 <sup>a</sup>	...	...	...	82
United States of America	429	0.10	377	0.09	...	...	...	...

	Number of reported congenital syphilis cases	Congenital syphilis rate per 1000 lb	Number of reported congenital syphilis cases	Congenital syphilis rate per 1000 lb	% of women accessing ANC who were tested for syphilis ...			
					...at first ANC visit		...before 20 weeks:	...at any point during ANC
	2009	2009	2010	2010	2010	2011	2011	2011
<b>Central America</b>								
Costa Rica	72	0.98	69	0.94	88	88	90	88
El Salvador	21	0.20	12	0.10	7	50	50	76
Guatemala	59	0.13	...	...	14	21	...	...
Honduras	32	0.20	...	...	42	...	...	62
Nicaragua	10	0.07	4	0.03	31	36	...	35
Panama	32 <sup>b</sup>	0.46	...	...	...	...	...	36
<b>Andean Region</b>								
Bolivia	...	...	...	...	...	...	...	...
Colombia	2,008	2.20	2,111	2.30	85	74	42	81
Ecuador	111	0.37	115	0.36	66	68	...	...
Peru	376	0.63	287	0.48	72	72	...	72
Venezuela	170	0.28	...	...	96 <sup>c</sup>	...	...	...
<b>Southern Cone and Brazil</b>								
Argentina	644	0.93	656	0.95	84	91	...	91
Brazil	6,048	1.98	6,677	2.20	...	87	...	...
Chile	64	0.26	62	0.25	>95	>95	>95	>95
Paraguay	390	2.50	...	...	53	75	...	75
Uruguay	261	5.20	105	2.10	>95	...	>95	>95
<b>Caribbean</b>								
Anguilla	0	0.00	0	0.00	>95	...	...	>95
Antigua and Barbuda	0	0.00	0	0.00	>95	>95	...	>95
Aruba	0	0.00	0	0.00	...	...	...	...
Bahamas	...	...	...	...	...	...	...	...
Barbados	1	0.25	0	0.00	>95	...	82.5	84
Belize	0	0.00	6	0.80	90	93	...	92
Bermuda	0	0.00	0	0.00	...	...	...	...
Cayman Islands	0	0.00	0	0.00	...	...	...	...
Cuba	0	0.00	3	0.03	>95	>95	>95	>95
Curaçao	...	...	...	...	...	...	...	...
Dominica	2	1.80	3	2.70	...	>95	...	>95
Dominican Republic	...	...	...	...	...	23	...	...
French Guiana	...	...	...	...	...	...	...	...
Grenada	0	0.00	3	1.50	>95	...	92	>95
Guadeloupe	0	0.00	...	...	...	...	...	...
Guyana	0	0.00	0	0.00	>95	88	88	88
Haiti	...	...	...	...	68	...	...	...
Jamaica	4	0.08	6	0.12	...	83	...	...
Martinique	...	...	...	...	...	...	...	...
Montserrat	0	0.00	0	0.00	...	...	...	...

**Table 11  
(Cont.)**

Table 11 (Cont.)		Number of reported congenital syphilis cases	Congenital syphilis rate per 1000 lb	Number of reported congenital syphilis cases	Congenital syphilis rate per 1000 lb	% of women accessing ANC who were tested for syphilis ...			
						...at first ANC visit	...before 20 weeks:	...at any point during ANC	
		2009	2009	2010	2010	2010	2011	2011	2011
Netherlands Antilles	...	...	...	...	...	...	...	...	
Puerto Rico	5	0.10	2	0.04	...	...	...	...	
Saint Kitts and Nevis	0	0.00	0	0.00	...	...	67	78	
Saint Lucia	...	...	...	...	53	45	...	75	
Saint Vincent and the Grenadines	0	0.00	0	0.00	...	...	...	>95	
Sint Maarten	...	...	...	...	...	...	...	...	
Suriname	...	...	0	0.00	...	...	...	...	
Trinidad and Tobago	45 <sup>a</sup>	2.3	...	...	>95	...	...	...	
Turks and Caicos Islands	0	0.00	0	0.00	...	...	...	...	
Virgin Islands (UK)	0	0.00	0	0.00	...	...	...	...	
Virgin Islands (US)	0	0.00	0	0.00	...	...	...	...	

**Notes:** Additional countries and territories that may have achieved CS targets but had insufficient data to triangulate and validate figures are the Cayman Islands, Guadeloupe, Montserrat, Panama, Suriname, and the Turks and Caicos Islands. Ecuador reports CS rates of 0.79 and 0.81 for 2009 and 2010, respectively.

<sup>a</sup>Mexico is progressing towards target. Data under review based on triangulation of different data sources.

<sup>b</sup>Data for 2008.

<sup>c</sup>Figure under validation.

**Sources:**

For the numerator: PAHO Elimination Initiative country reports, 2010 and 2011. For the denominator: Pan American Health Organization. Health Information and Analysis Project. Regional Core Health Data Initiative. Washington, D.C., 2010. Alternative sources for the numerator: For Mexico: Secretaría de Salud de México. Vigilancia Epidemiológica Semana 52. Epidemiología. [Internet], 2010. Available at: <http://www.dgepi.salud.gob.mx/boletin/2009/2009/sem52.pdf>; Secretaría de Salud de México. Vigilancia Epidemiológica Semana 52. Epidemiología [Internet], 2011. Available at: <http://www.dgepi.salud.gob.mx/boletin/2010/2010/sem52.pdf>. Last accessed on 21 February, 2013. For USA: Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance 2010. Atlanta: U.S. Department of Health and Human Services [Internet]; 2011. Available at: <http://www.cdc.gov/std/stats10/tables/1.htm>. Last accessed on 21 February, 2013. For Costa Rica: Trejos S. Situación de la Sífilis Congénita en Costa Rica [Internet], 2012. Available at: [http://www.ministeriodesalud.go.cr/index.php/inicio-menu-principal-centro-de-informacion-ms/inicio-menu-principal-centro-informacion-material-educativo-ms/doc\\_details/1260-situacion-de-la-sifilis-congenita-en-costa-rica](http://www.ministeriodesalud.go.cr/index.php/inicio-menu-principal-centro-de-informacion-ms/inicio-menu-principal-centro-informacion-material-educativo-ms/doc_details/1260-situacion-de-la-sifilis-congenita-en-costa-rica). Last accessed on 21 February, 2013. For Peru: Dirección General de Epidemiología. Ministerio de Salud de Perú. Indicadores de morbilidad 2010 [Internet], 2011. Available at: <http://www.dge.gob.pe/Asis/indbas/2010/morbilidad.pdf>. Last accessed on 21 February, 2013. For Venezuela: Ministerio del poder popular para la Salud. Anuario de morbilidad 2009 [Internet], 2010. Available at: [http://www.mpps.gob.ve/index.php?option=com\\_phocadownload&view=category&id=15:anuarios-de-morbilidad](http://www.mpps.gob.ve/index.php?option=com_phocadownload&view=category&id=15:anuarios-de-morbilidad). Last accessed on 21 February, 2013. For Brazil: Ministério de Saude do Brasil. Boletim epidemiológico AIDS-DST 2011 [Internet], 2012. Available at: [http://www.aids.gov.br/publicacao/2011/boletim\\_epidemiologico\\_2011](http://www.aids.gov.br/publicacao/2011/boletim_epidemiologico_2011). Last accessed on 21 February, 2013. For Aruba, Bermuda, Cayman Islands, Dominica, Grenada, Jamaica, Montserrat, and Turks and Caicos Islands: Pan American Health Organization/Caribbean Epidemiology Center. Annual Report 2010 [Internet], 2011. Available at: <http://www.carec.org/>. Last accessed on 21 February, 2013.



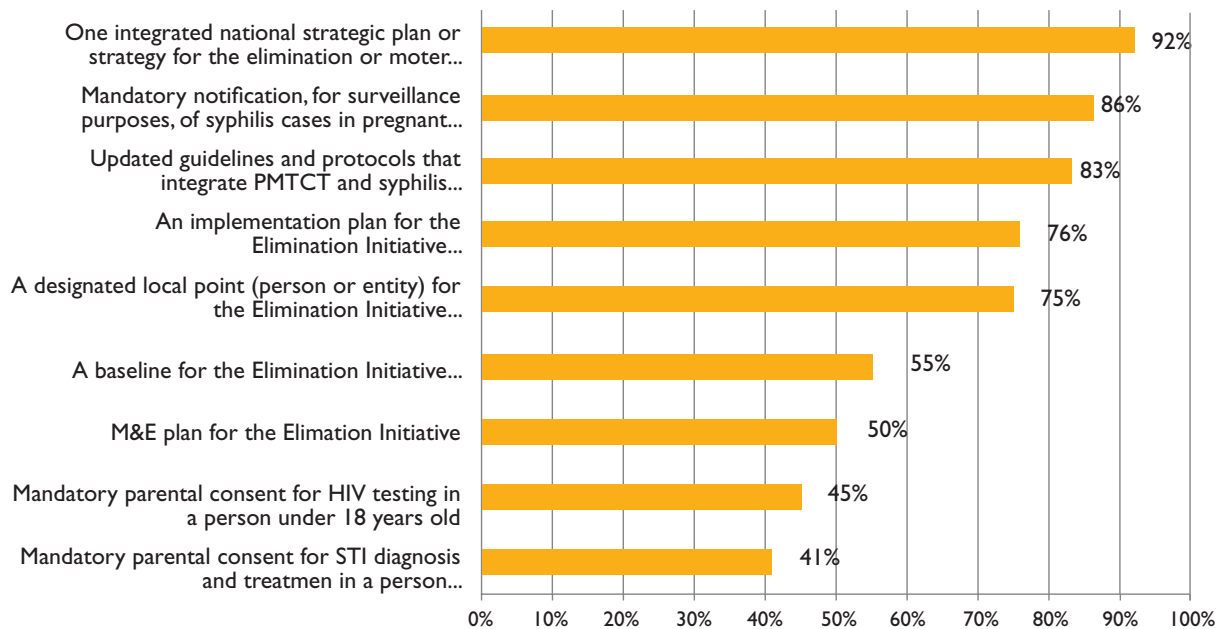
# Progress in Policy and Programs

In order to monitor progress towards the goals of the Elimination Initiative in the Region, PAHO requested that Member Countries respond to nine items intended to gather information on the availability of key programmatic elements including strategic plans, guidelines, and protocols; a designated focal point for the Elimination Initiative; a monitoring and evaluation (M&E) plan or framework; baseline reports; and notification and consent procedures (Figure 11).

In 2012-2013, thirty-three countries reported having operational and/or strategic plans and 30 reported having updated guidelines, representing a significant increase from 22 and 26 countries, respectively, in 2010. Twenty-one countries reported that they had a designated focal point (person or entity) for the Elimination Initiative, 16 had completed baseline reports, and 14 had developed M&E plans. A total of 24 countries reported having mandatory notification for surveillance purposes of syphilis in pregnant women.

Country-reported policy and programmatic elements to support the Elimination Initiative in Latin America and the Caribbean, 2011.

Figure 7



However, 10 countries still had mandatory parental consent for HIV testing in persons younger than 18 years and nine for STI diagnosis and treatment in underaged persons (Figure 11).

Countries mentioned a number of key achievements for 2011, including strengthening of national plans for the Elimination Initiative; strengthening of surveillance, monitoring, and evaluation; and expansion of HIV and syphilis testing coverage. Coincidentally, these topics were also frequently mentioned as priorities for 2012, along with updating or development of guidelines, protocols, and standards; primary prevention of HIV and syphilis; and capacity building of health workers.

It remains a challenge for most countries of the Region to conduct baseline studies and establish M&E plans for the Elimination Initiative in order to clearly examine progress toward and gaps in achieving the goals of the initiative. Incorporation of these programmatic elements should strengthen the capacity of Member Countries to sustain their achievements and reach the goals of the Elimination Initiative.

Moreover, elimination targets will only be achieved if policies take into account and focus on addressing the needs of vulnerable and underserved populations. In Latin America and the Caribbean, data show that indigenous populations, sex workers, men who have sex with men, drug users, and young women and men, among others, present higher burden of disease for HIV and/or syphilis, coupled with a reduced access to health services. Policies aiming at reducing disparities among these population groups are needed as part of the overall strategy to eliminate pediatric HIV and congenital syphilis.

## References

1. Panamerican Health Organization. 2010 Situation Analysis: Elimination of Mother-to-child Transmission of HIV and Congenital Syphilis. Washington, D.C.: Pan American Health Organization, 2011.
2. UN Population Division. World Population Prospects, 2010 revision. New York, 2011.
3. 2012 UNAIDS Report on the Global AIDS Epidemic. Geneva, 2012.





**2012 PROGRESS REPORT**  
**ELIMINATION**  
**OF MOTHER-TO-CHILD**  
**TRANSMISSION OF HIV**  
**AND CONGENITAL SYPHILIS**  
**IN THE AMERICAS**

