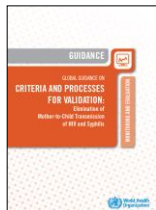


## Global Elimination of Mother-to-Child Transmission (EMTCT) of HIV and Syphilis Example of Cuba



Nathalie Broutet Department of Reproductive Health and Research

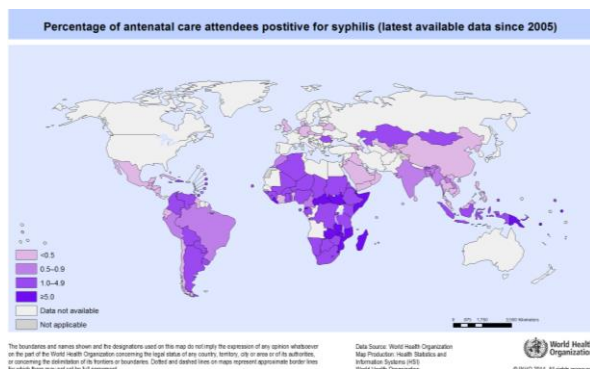
On behalf of Chika Hayashi

Lori Newman, Massimo Ghidinelli, Sonia Caffè, Freddy Perez, Maeve Brito de Mello

## Background

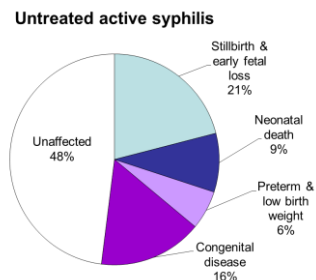
21

### In 1 in 3 countries syphilis infects 1% or more of ANC attendees



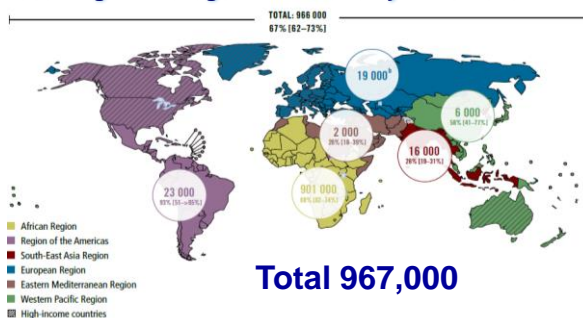
### Syphilis is devastating for the majority of fetuses

- 52% of pregnant women infected with syphilis will have an adverse outcome if untreated
- Globally approximately 520,000 adverse pregnancy outcomes due to syphilis in 2008



Source: Gomez G et al, 2013. Newman et al, 2013

### Number and % of pregnant women living with HIV receiving ARV drugs in LMIC and by WHO 2013



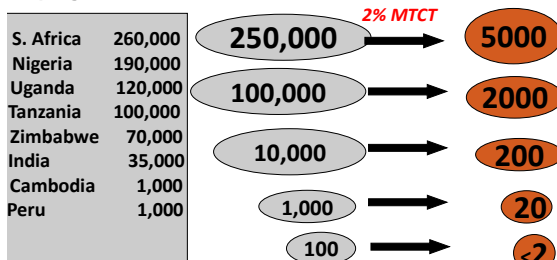
\*Country income classification by the World Bank at the time of the 2011 Political Declaration on HIV and AIDS.  
 \*\*Coverage estimates for the WHO European region are not available due to inconsistencies between programme coverage and estimated PMTCT need.

Sources: Global AIDS Response Progress Reporting (WHO/UNAIDS/UNAIDS) and 2013 UNAIDS/WHO estimates.

### Case rate of eMTCT of HIV

2013 estimates HIV+ in pregnant women

HIV+children



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## Case Rate of eMTCT of syphilis

syphilis Prevalence	Births	syphilis- exposed Births	Case rate per 100,000** Detection and Treatment			
			95%	75%	50%	20%
0.3%	100000	300	8	39	78	125
1%	100000	1000	26	130	260	416
2%	100000	2000	52	260	520	832
5%	100000	5000	130	650	1300	2080
6%	100000	6000	156	780	1560	2497
8%	100000	8000	208	1040	2080	3328

52% of births affected if no detection/treatment 30 days prior to delivery

Gomez et al. 2013

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World Health  
Organization

## For HIV as for Syphilis

Elimination of MTCT of HIV and syphilis

Decrease prevalence of HIV+ and syphilis + in  
pregnant women and their partners

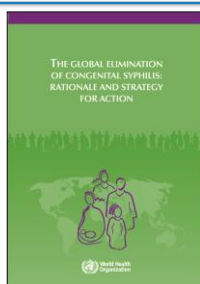
Control of HIV and syphilis in general population  
and in high risk group

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World Health  
Organization

## WHO Global initiatives for EMTCT of HIV/AIDS and syphilis



## Regional dual elimination initiatives have momentum

- **Africa** – framework for dual elimination finalized
- **Europe** – survey of national policies and programmes, Astana regional consultation
- **Asia** Pacific Task Force meeting in November 2014 in Bangkok
- **Americas** – established regional validation committee, countries requesting validation, Cuba requested validation

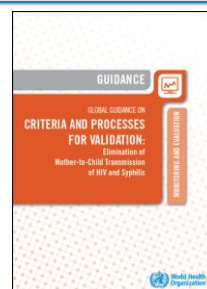


## Process for validation of EMTCT of HIV and syphilis

- **Why?**
  - Successful examples should be celebrated
  - Several regions establishing regional processes for validation
  - Several countries asked WHO to validate achievement of EMTCT of HIV and/or syphilis
- **How?**
  - Develop standardized process and criteria to assess and validate EMTCT of HIV and/or syphilis
  - Develop a credible, systematic approach to allow monitoring of progress towards elimination

## WHO, UNAIDS, UNFPA, and UNICEF Release global criteria and processes

June 2014



<b>Eradication</b>	<ul style="list-style-type: none"> <li>Permanent reduction to <b>zero</b> of the <b>worldwide</b> incidence of infection</li> </ul>
<b>Elimination</b>	<ul style="list-style-type: none"> <li>Reduction to <b>zero</b> of the incidence of disease or infection in a <b>defined geographical area</b> or as a <b>PH problem</b></li> </ul>
<b>Control</b>	<ul style="list-style-type: none"> <li>Reduction in the incidence, prevalence, morbidity or mortality of an infectious disease to a <b>locally acceptable level</b></li> </ul>



## Global Elimination Targets

IMPACT	COVERAGE
<b>Syphilis:</b> ≤ 50 cases of congenital syphilis per 100,000 live births  <b>HIV:</b> ≤ 50 new paediatric HIV infections (MTCT) per 100,000 live births  MTCT rate < 5 or 2%	At least 1 ANC visit: ≥95%  HIV and/or syphilis testing of pregnant women: ≥95%  ART to HIV+ve pregnant women ≥95%  Treatment of syphilis seropositive pregnant women ≥95%

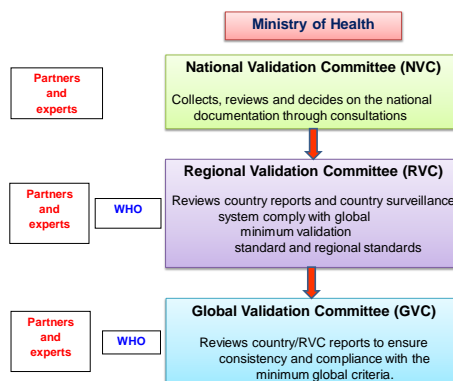
14 |



## Qualifying Requirements to Apply for Validation

- National-level evidence
  - Process indicator targets for two (2) years and
  - Impact indicator targets for one (1) year
- Evidence in **at least one of the lowest-performing sub-national administrative units**
- Existence of an **adequate national monitoring and surveillance system** for validation
- Validation criteria must have been met in a manner consistent with basic **human rights considerations**

## Structure for validation of EMTCT of HIV/syphilis



## Tracking maintenance of validation



## Global Reporting

WHO Region	Indicator 1: Percentage of antenatal care attendees tested for syphilis				Indicator 2: Percentage of antenatal care attendees who tested positive for syphilis				Indicator 3: Percentage of antenatal care attendees who tested positive for syphilis and who received treatment			
	2008	2011	2008	2011	2008	2011	2008	2011	2008	2011	2008	2011
African Region	18	55%	23	58%	30	2.5%	30	2.2%	15	100%	16	96%
Region of the Americas	14	72%	25	81%	14	0.9%	30	0.6%	16	80%	18	82%
Eastern Mediterranean Region	3	—	4	—	4	—	7	0.0%	0	—	2	—
Europe Region	9	100%	13	99%	9	0.1%	14	0.1%	3	—	9	100%
South-East Asia Region	3	—	8	75%	6	1.3%	5	0.2%	3	—	4	—
Western Pacific Region	4	—	11	96%	8	0.3%	12	0.2%	7	98%	4	—
Global	51	78%	88	84%	71	1.4%	94	0.6%	64	99%	52	94%

The regional median is not shown if there are less than five countries reported.



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## Progress to Date

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## Cuba: background information

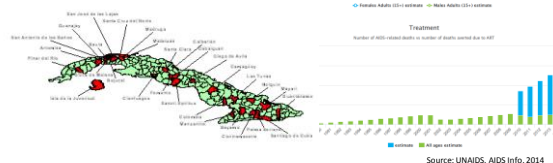
Selected basic indicators, Cuba, 2008–2010.	
Indicator	Value
Population 2010 (millions)	11.2
Literacy rate (%) (2009)	99.8
Schooling rate (%) (2009)	98.2
Life expectancy at birth (years) (2010)	78.8
General mortality rate (per 1,000 population) (2009)	7.7
Infant mortality rate (per 1,000 live births) (2010)	4.5
Maternal mortality rate (per 100,000 live births) (2009)	46.9
Physicians per 1,000 population (2008)	5.9
Hospital beds per 1,000 population (2010)	96.0
DPT13 immunization coverage (%) (2010)	99.9
Births attended by trained personnel (%) (2009)	
GDP per capita	\$5,539
GDP growth rate	2.7%
HDI	0.780
Percentage of annual budget in health	14%



Source: PAHO, Health in the Americas, 2012  
Source: UNDP, 2012  
(<http://www.cu.undp.org/content/cuba/es/home/countryinfo/>)

## HIV

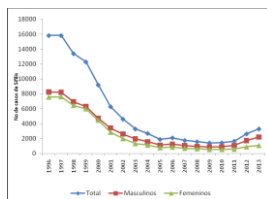
- 18,211 PLWH (2014)
- 0.2% HIV prevalence (15-49; 2013)
- 99.6% from sexual transmission
- 82% of new cases in 45 municipalities (2013)



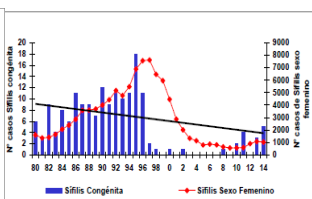
## Syphilis

- 118,742 pregnant women (2014)
- 0.2% Syphilis prevalence among pregnant women (2014)
- 248 PW diagnosed with Syphilis

Number of syphilis cases by sex, Cuba: 1996-2013



Syphilis in women and congenital syphilis cases, Cuba: 1980-2014



Source: Cuba country report (2014)

## Process and timeline Cuba Validation

Dates	Action
November 2013	Request to PAHO from Cuba Ministry of Health for validation
March 2014	Establishment of Cuba National Validation Committee by the Minister of Health
October 2014	Submission of Cuba country report to PAHO
Oct – Dec 2014	Review of the country report by the RVC
December 4-5, 2014	Pre-validation visit to Cuba by a joint delegation consisting of two members of the RVC and two PAHO technical officers
March 22-27, 2015	Cuba validation mission
June 30, 2015	WHO announces Cuba first country to eliminate MTCT of HIV and syphilis

## Country Preparation for Validation

- Implementation of EMTCT National Strategic Plan, 2014-2018
- Establishment of National Validation Team (NVT)
- Preparation of technical team from National HIV programme
  - Assignment of roles and responsibilities
  - Training of the NVT (with visits to provinces)
- Preparation and consolidation of documentation; demographic, programmatic, and epi data
- Identification of sites for visits (hospitals, clinics, labs, etc.)
- Mobilization of community
- Validation visit

Source: Adapted from Cuba's MoH presentation at EMTCT TWG, Jamaica, July 2015



## Data Verification and Impact Assessment

Coverage Indicators	2012	2013	2014
% pregnant women attended by skilled health personnel during the prenatal period	97%	97%	97%
% of pregnant women who were tested for HIV and received their results during pregnancy	Unable to calculate national coverage, but the coverage in validation sites was consistently above 95%		
% of pregnant women who were tested for syphilis during pregnancy	99.5%	99.9%	99.3%
% of HIV-positive pregnant women who received antiretrovirals to reduce the risk of MTCT	95.4%	98.2	98.9%
% of syphilis-seropositive pregnant women who were appropriately treated	100%	97.8%	97.6%
Impact Indicators			
Annual rate of reported cases of congenital syphilis per 1,000 live birth	0	0.02	0.05
Rate of mother-to-child transmission of HIV	1.83%	1.75%	1.60%
Annual rate of reported cases of mother-to-child transmission of HIV per 1,000 live births	0.016	0.016	0.008

## Validation Assessment

### 1. Verification of achievement of the elimination targets:

- Verify quality of the reported data
- Assess underlying data collection and reporting system

### 2. Verification of the existence of an adequate laboratory network that:

- Provides the services needed to achieve, maintain and measure the elimination targets
- Generates reliable results

### 3. Verification of the existence of an adequate network of services that:

- Provides all needed services, accessible to all in need
- Provides quality services

### 4. Human Rights, Gender and Community Participation

- Interviews with civil society, service providers, and other stakeholder groups



## Conclusion of the Validation Assessment Report

- Cuba has a functional system for monitoring of EMTCT progress
- Data generated by this system is reliable and concordant on the various levels
- Data consistent with the dual EMTCT targets
- Data indicates equitable achievement on the EMTCT targets on sub-national level
- Areas for improvement of the monitoring system:
  - including linking of mother-baby pairs,
  - collection of person-based HIV testing data,
  - ensuring a mechanism for routine checking and correction of syphilis data
  - moving to electronic data systems where feasible



## WHO announces Cuba as the first country to eliminate MTCT of HIV and syphilis (June 30, 2015)



Cuba is first country to eliminate mother to child HIV transmission



Cuba: defeating AIDS and advancing global health  
Editorial [www.thelancet.com](http://www.thelancet.com) Vol 386 July 11, 2015

EL MUNDO

Cuba, primer país del mundo en eliminar la transmisión del VIH de madre a hijo



¿Cómo se convirtió Cuba en el primer país en eliminar la transmisión del VIH de madre a hijo?

EL PAÍS

BBC MUNDO

Cuba named first country to end mother-to-child HIV transmission

Cuba es el primer país en eliminar la transmisión de madre a hijo del VIH



For more information:

[www.who.int/reproductivehealth/topics/rtis/syphilis/en/index.html](http://www.who.int/reproductivehealth/topics/rtis/syphilis/en/index.html)  
<http://www.who.int/hiv/pub/emtct-validation-guidance/en/>