

Global elimination of mother-to-child transmission of HIV and syphilis

Teodora Elvira Wi

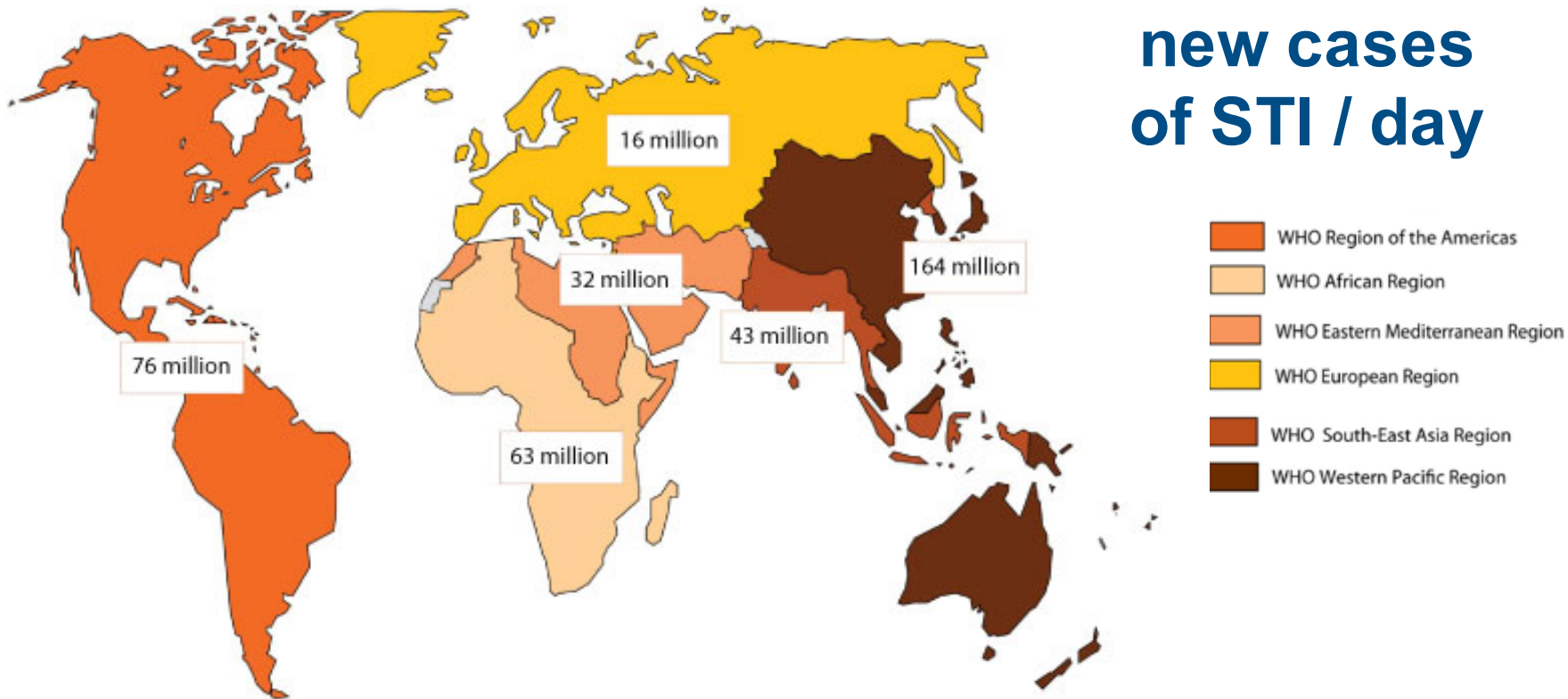
Medical Officer

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WHO estimates 394 million new cases of four curable STIs in 15-49 years olds in 2012

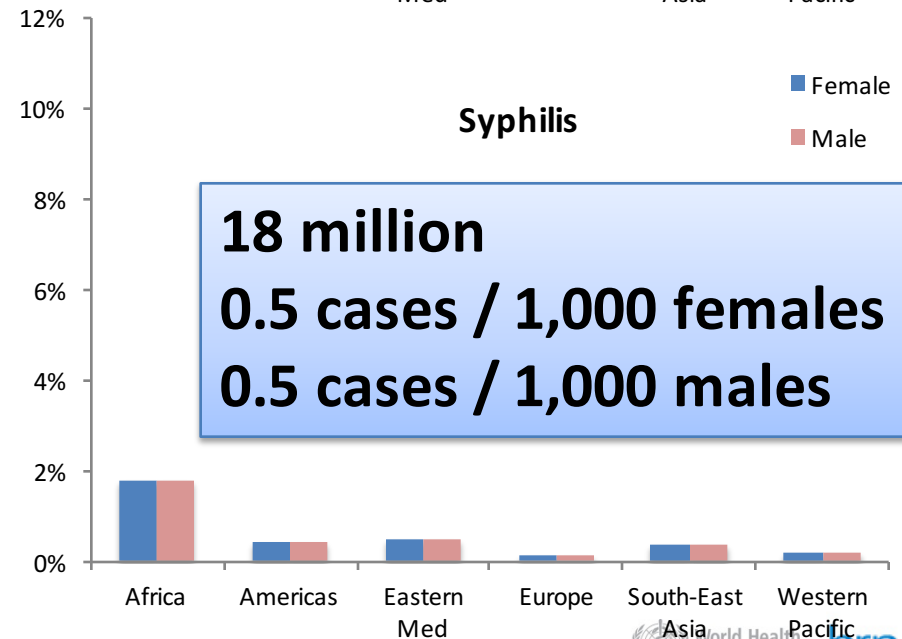
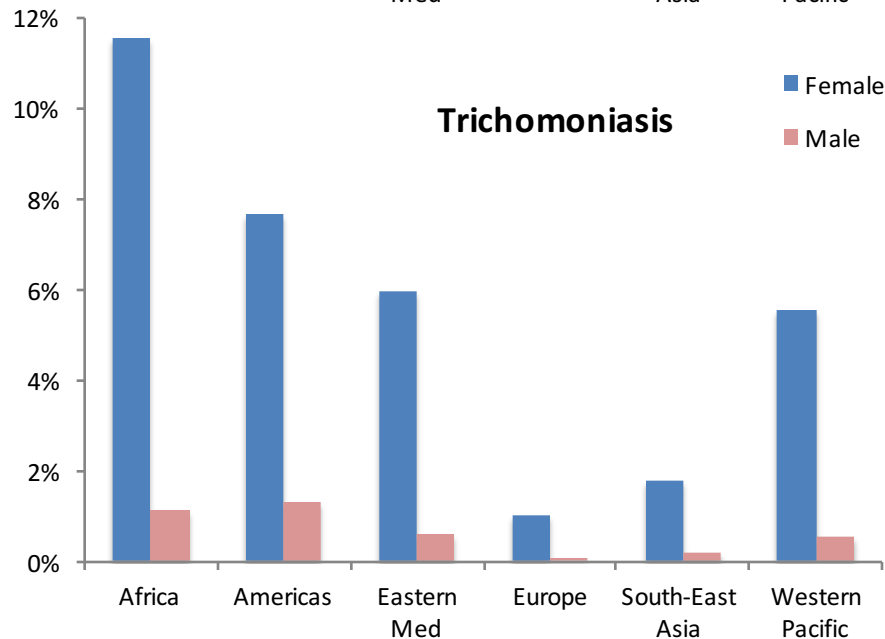
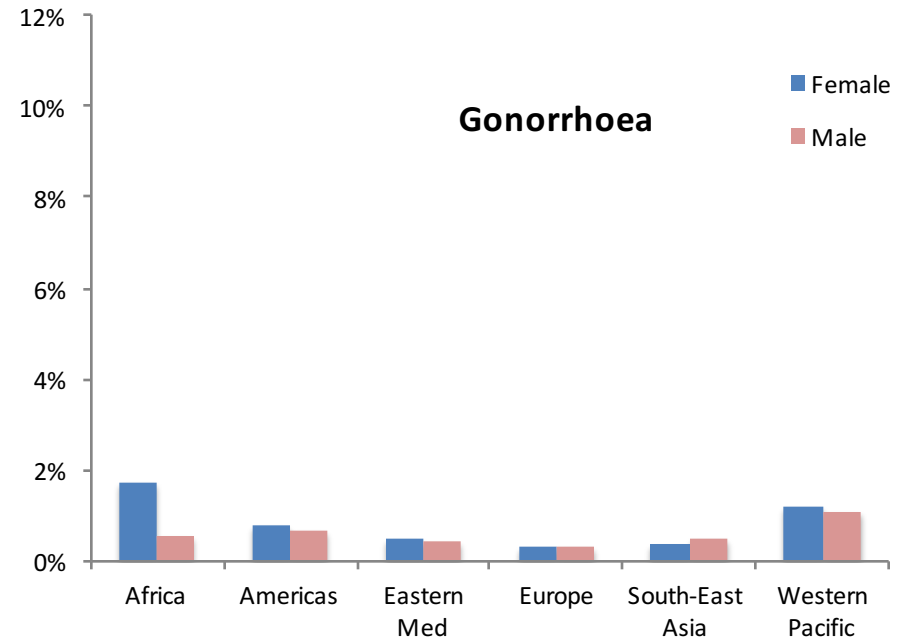
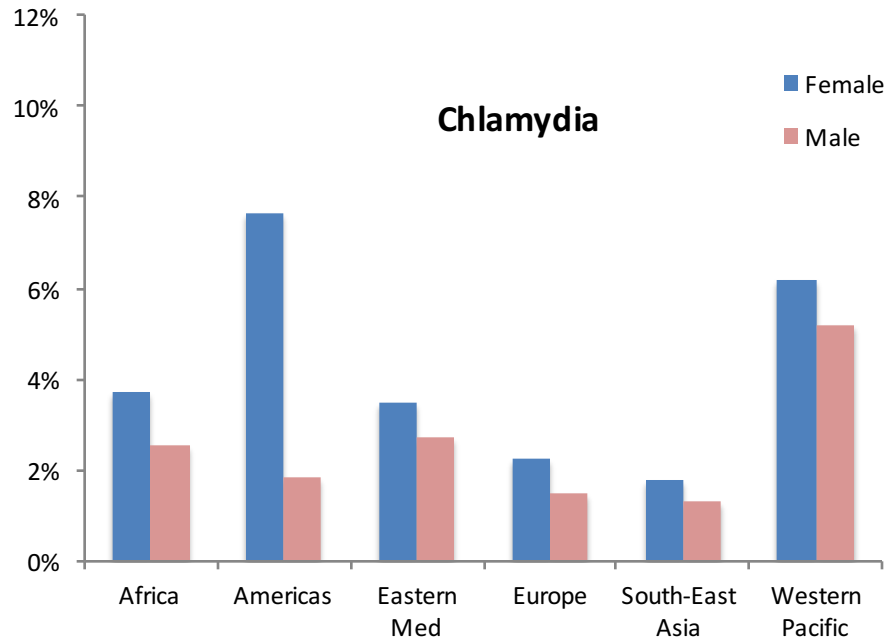
**> 1 million
new cases
of STI / day**



Curable STIs: chlamydia, gonorrhea, syphilis, trichomoniasis

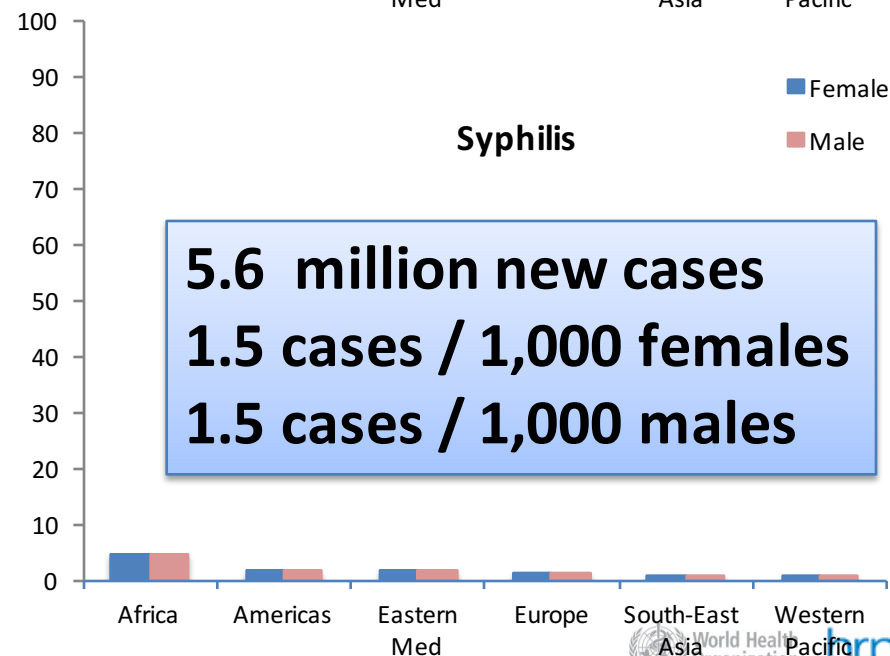
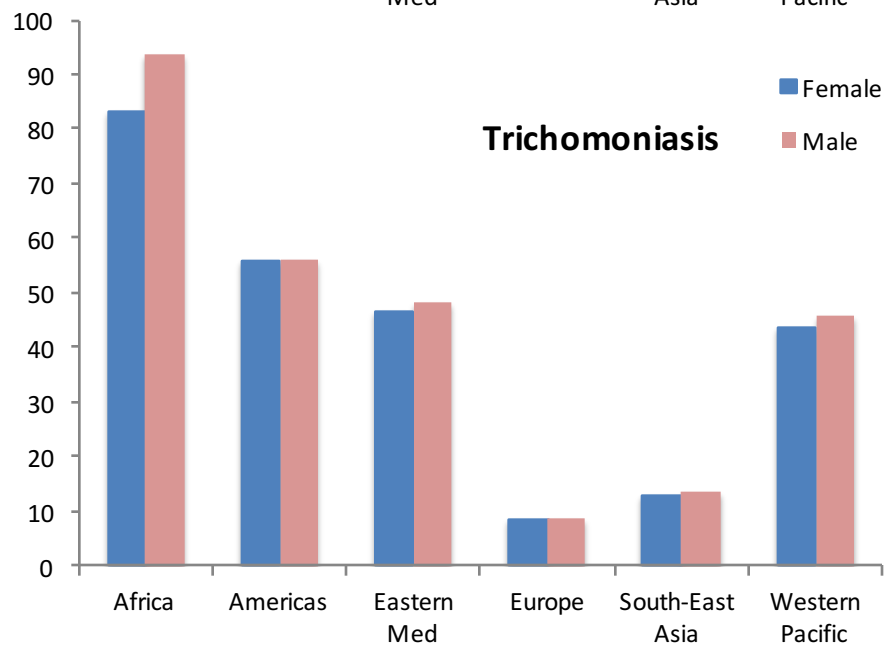
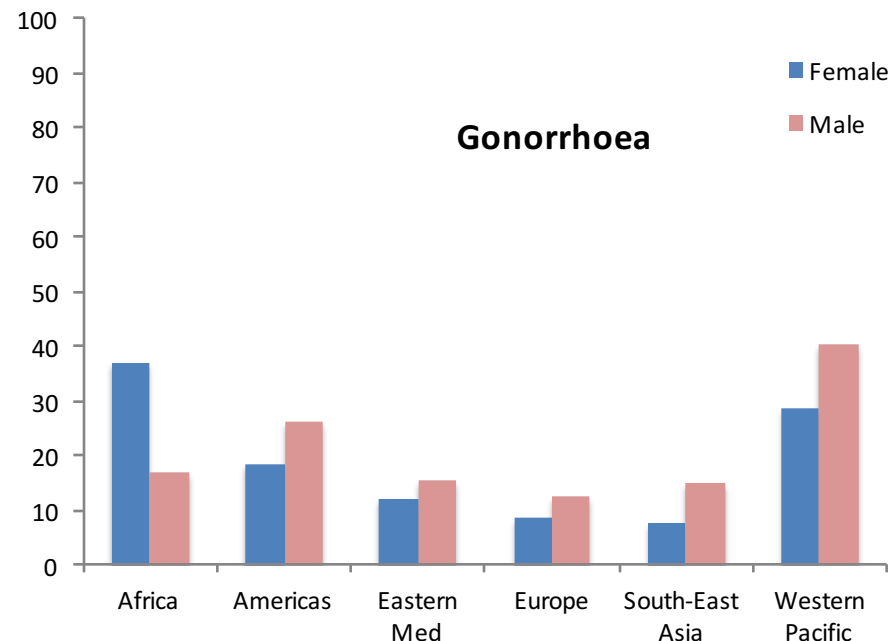
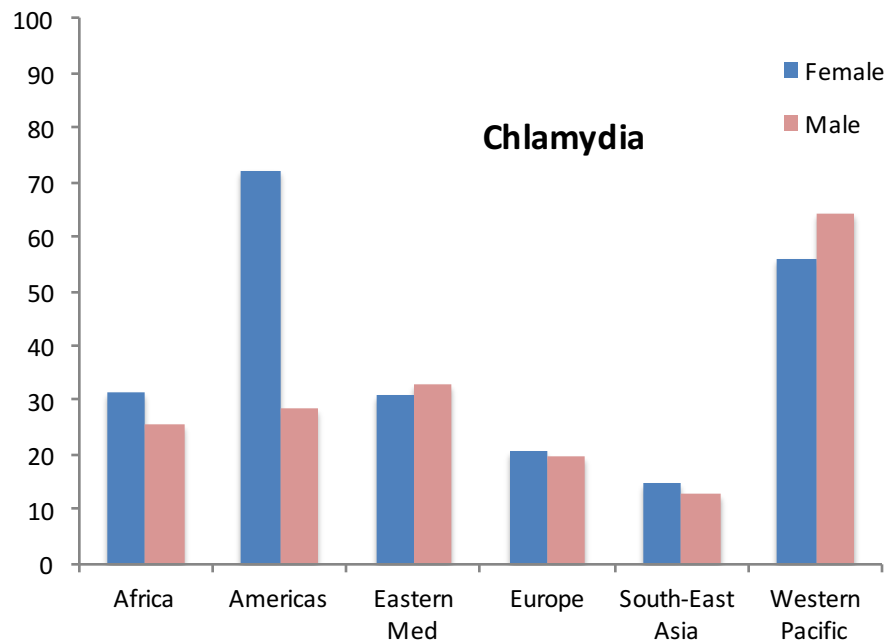
Source: WHO. Global incidence and prevalence of selected curable sexually transmitted infections - 2012.

Prevalence in Adults (%): Based on 2005-2012 data



18 million
0.5 cases / 1,000 females
0.5 cases / 1,000 males

Incident cases per 1000 in 2012: Adults 15 to 49



Mother-to-child transmission of HIV and syphilis

❑ MTCT transmission:

HIV: around 1/3 (15-45%)

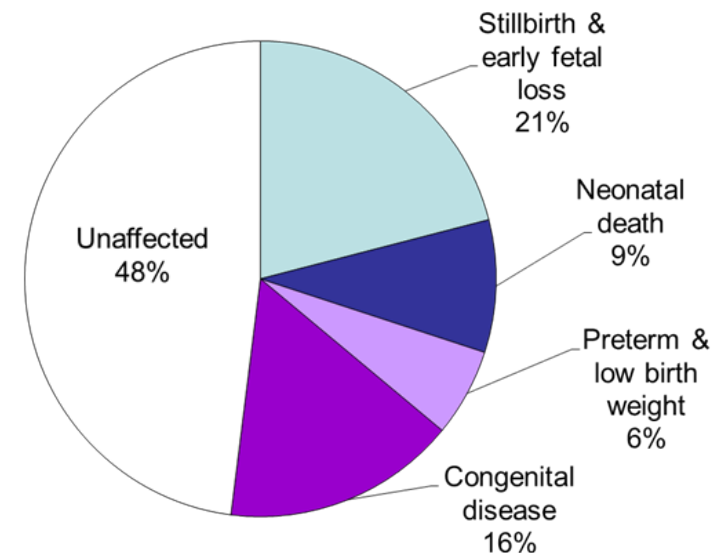
Syphilis: >1/2 (52-90%,
depending on maternal stage)

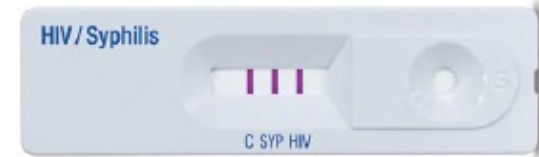
❑ Without treatment:

HIV: ~1/3 with HIV die <12 mos
~1/2 die by <24 mos

Syphilis: 52% adverse outcome
in pregnancy

Untreated active syphilis






Preventable Burden

❑ Burden

HIV: estimated 240,000 MTCT infections in 2013

Syphilis: estimated 350,000 adverse outcomes in 2012
(including 143,000 perinatal deaths)

❑ Interventions exist

HIV: early and continued ART can reduce transmission
from 15-45%  <2% or <5%

Syphilis: Screening and treatment of syphilis-infected
mothers \leq 30 days before delivery can prevent perinatal
morbidity and mortality

❑ Target pregnant women and similar control measures

For HIV as for Syphilis

Elimination of MTCT of HIV and syphilis



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

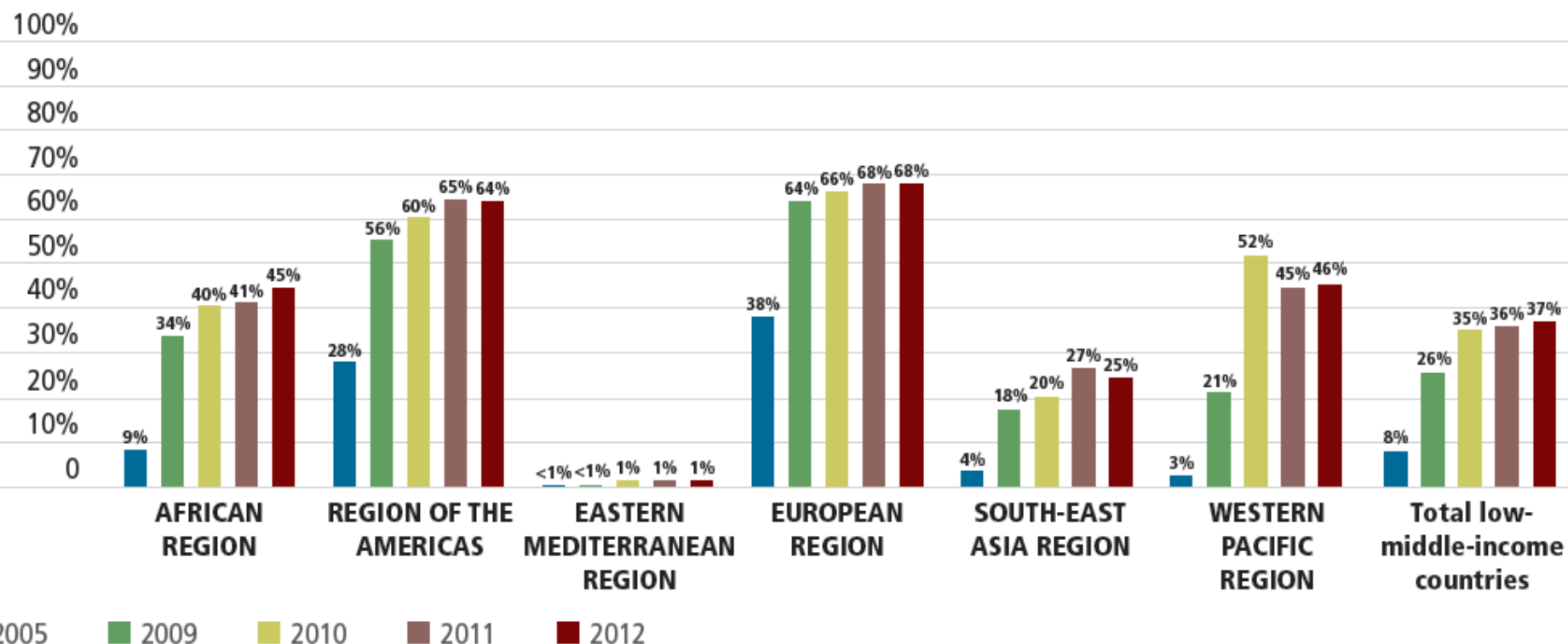


Control of HIV and syphilis in general population and in high risk group

Proportion of countries reporting a national EMTCT strategy in place, by region, 2014

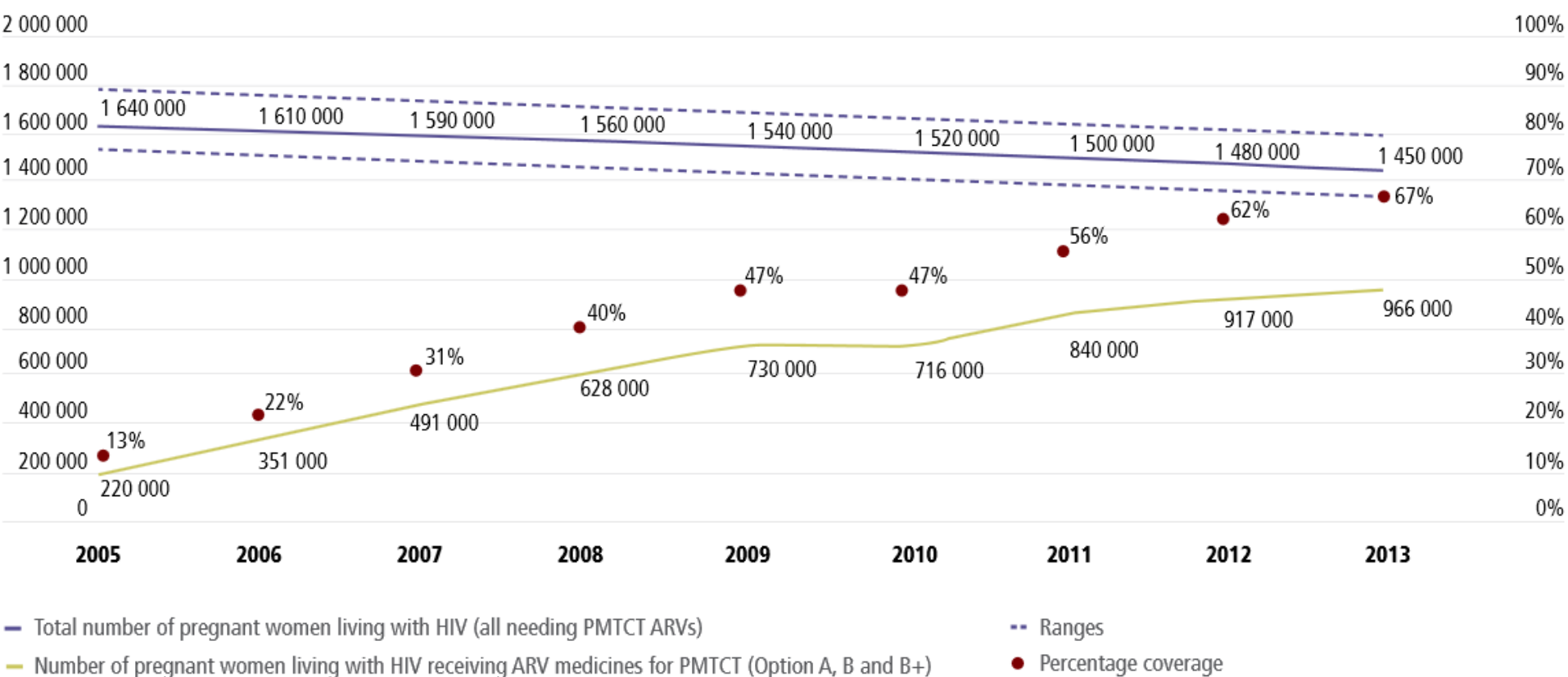
WHO Region	% (no.) of countries with strategy for EMTCT of syphilis	Number of countries reporting in 2014
African Region	45% (18)	40
Region of the Americas	89% (25)	28
Eastern Mediterranean Region	50% (6)	12
European Region	50% (13)	26
South-East Asia Region	70% (7)	10
Western Pacific Region	64% (7)	11
Overall	60% (76)	127

Estimated HIV testing and counselling coverage among pregnant women in LMIC by WHO region, 2005 and 2009-2012



Source: 2013 Global AIDS Response Progress Reporting (WHO/UNICEF/UNAIDS), United Nations Department of Economic and Social Affairs, Population Division (2013). *World Population Prospects: The 2012 Revision*.

Number of pregnant women living with HIV in LMIC and number and percentage of those women receiving ARV drugs for PMTCT of HIV, 2005-2013

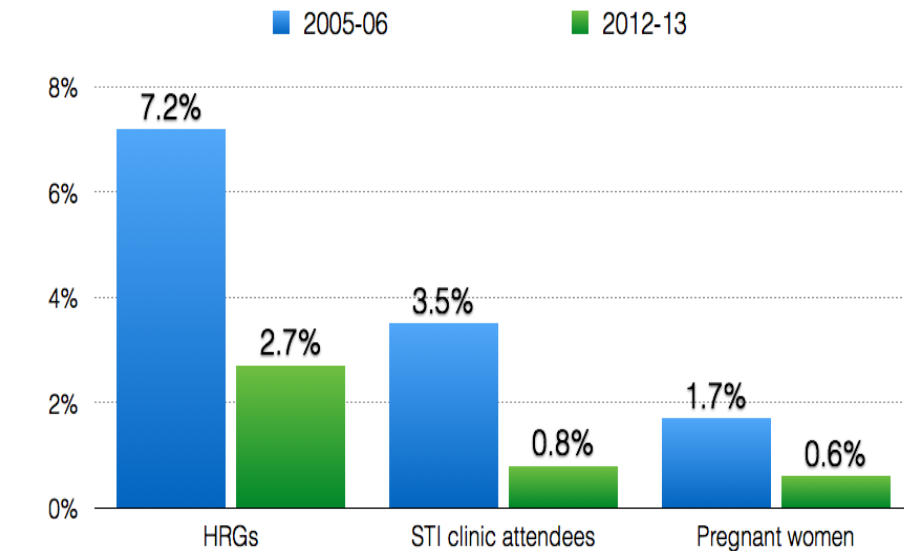
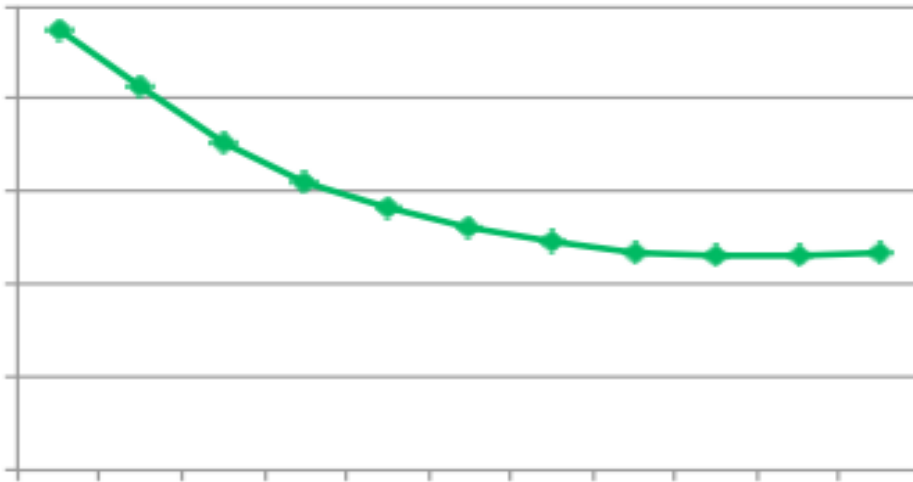


Single-dose nevirapine is included in the data for 2005 to 2009.

Sources: Global AIDS Response Progress Reporting (WHO/UNICEF/UNAIDS) and validation process for the number of pregnant women living with HIV receiving ARV drugs for PMTCT, and UNAIDS 2013 estimates for the number of pregnant women living with HIV.

Declining seroprevalence of syphilis in India

57% reduction in new HIV infections (2000-11) with scale-up of prevention strategies



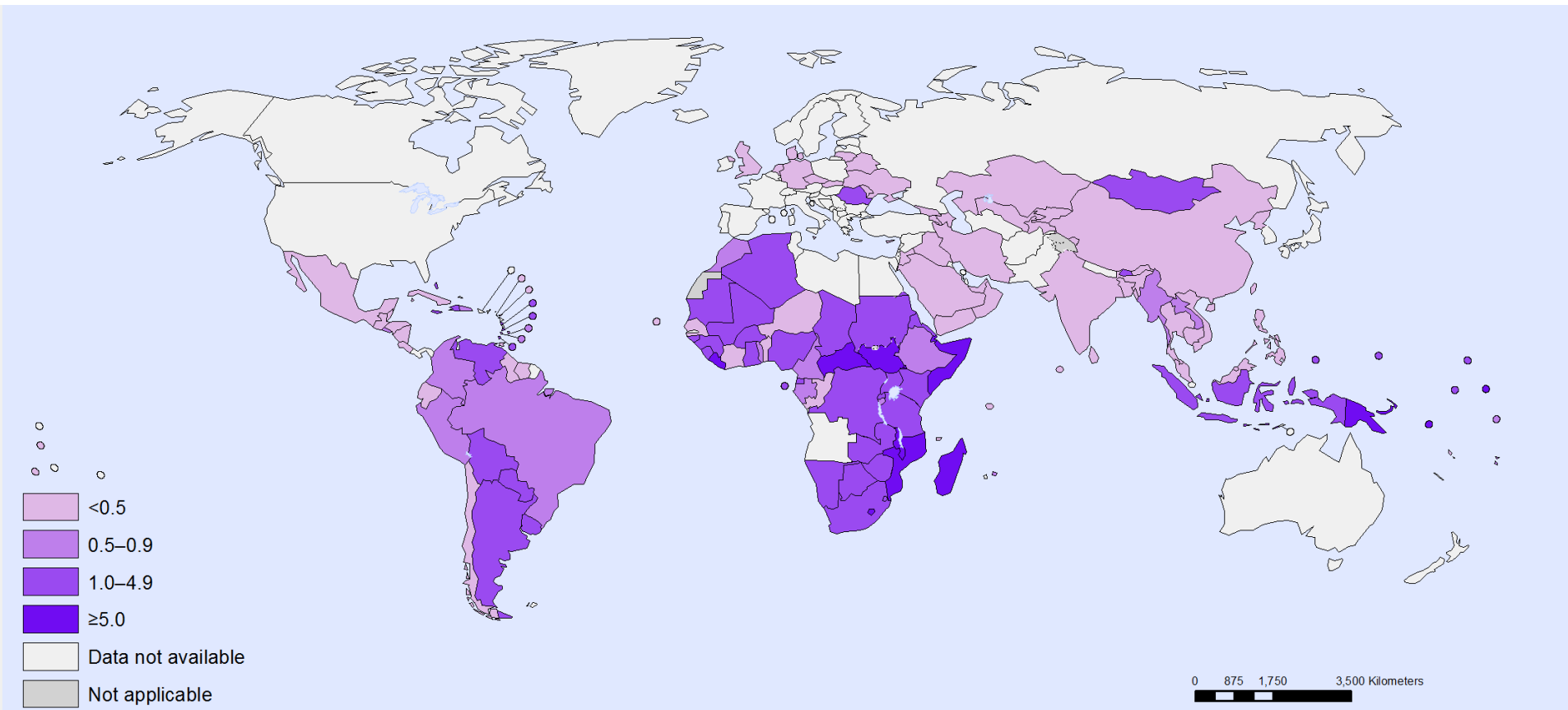
Source: routine programme reporting

Proportion of pregnant women in antenatal care (ANC) who were tested for syphilis, who tested positive by WHO region, 2008 (or 2010), 2012 and 2014

Global STI Surveillance Report 2015

	Percentage of ANC attendees tested for syphilis						Percentage of ANC attendees tested who were positive for syphilis					
WHO region	2008		2012		2014		2008		2012		2014	
	No. reporting countries	Median value(%)	No. reporting countries	Median value (%)	No. reporting countries	Median value (%)	No. reporting countries	Median value (%)	No. reporting countries	Median value (%)	No. reporting countries	Median value (%)
African Region	18	58.5	21	71.8	34	40.1	30	2.3	22	1.9	31	1.6
Region of the Americas	14	73.0	17	82.6	19	87.5	14	0.9	18	0.5	21	0.4
Eastern Mediterranean Region	3	–	0	–	5	42.6	4	–	2	–	4	0
European Region	9	100	6	93.1	9	93.4	9	0.3	7	0.1	9	0.1
South-East Asia Region	3	–	7	37.4	7	58.3	6	1.3	4		7	0.5
Western Pacific Region	4	–	10	98.3	15	100	8	0.3	11	2.0	13	1.8
Global	51	78	61	86.1	89	85.5	71	1.4	64	1.0	85	0.7

Percentage of ANC women positive for syphilis, 2015



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: World Health Organization
Map Production: Health Statistics and
Information Systems (HSI)
World Health Organization



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Proportion of pregnant women in antenatal care (ANC) who tested positive and who received treatment by WHO region, 2008 (or 2010), 2012 and 2014

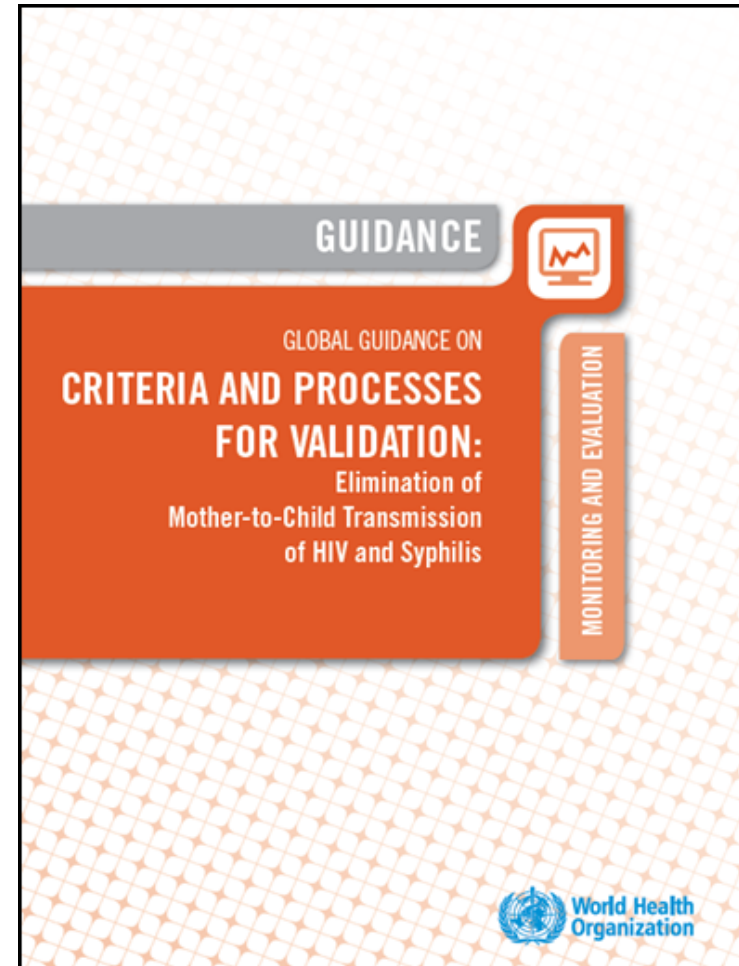
Global STI Surveillance Report 2015

	Percentage of ANC attendees tested who were positive for syphilis						Percentage of syphilis-positive ANC attendees who received treatment					
WHO region	2008		2012		2014		2010		2012		2014	
	No. reporting countries	Median value (%)	No. reporting countries	Median value (%)	No. reporting countries	Median value (%)	No. reporting countries	Median value (%)	No. reporting countries	Median value (%)	No. reporting countries	Median value (%)
African Region	30	2.3	22	1.9	31	1.6	15	100	13	100	21	98.0
Region of the Americas	14	0.9	18	0.5	21	0.4	16	85	13	80.5	19	92.9
Eastern Mediterranean Region	4	–	2	–	4	0	0	–	0	–	3	80.0
European Region	9	0.3	7	0.1	9	0.1	3	–	4	–	7	100
South-East Asia Region	6	1.3	4		7	0.5	3	–	4	–	6	89.9
Western Pacific Region	8	0.3	11	2.0	13	1.8	7	98	9	93.0	11	100
Global	71	1.4	64	1.0	85	0.7	44	99	43	94	67	96

Global Guidance for EMTCT Validation

- ❑ **Standardized Criteria**
- ❑ **Process**
- ❑ **Secretariat**

- WHO, UNAIDS, UNICEF, UNFPA
- Based on country pilots
- Common systematic approach for dual elimination



Criteria for elimination of mother-to-child transmission of HIV and syphilis

	ELIMINATION	
	HIV	Syphilis
IMPACT criteria	<ul style="list-style-type: none"> • MTCT < 2% OR < 5% in BF populations • Case rate ≤ 50 per 100 000 live births 	<ul style="list-style-type: none"> • Case rate ≤ 50 per 100 000 live births
PROCESS criteria	<ul style="list-style-type: none"> • ANC1 coverage ≥ 95% • Testing coverage ≥ 95% • ART coverage ≥ 90% 	<ul style="list-style-type: none"> • ANC1 coverage ≥ 95% • Testing coverage ≥ 95% • Treatment coverage >95%

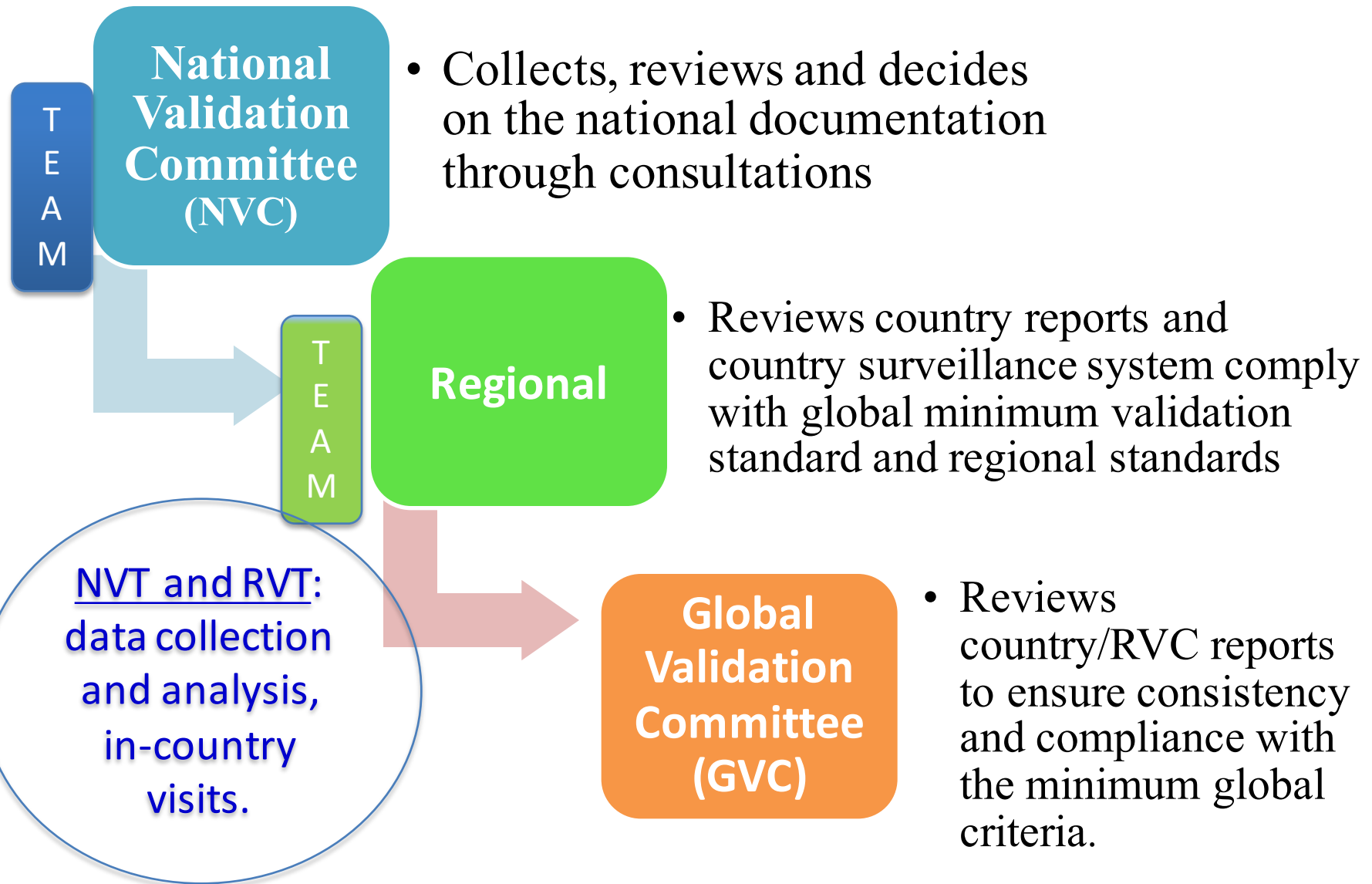
Global surveillance definition of congenital syphilis

- ❑ still birth, live birth or a fetal loss at greater than 20 weeks of gestation or more than 500 grams to a syphilis seropositive mother without adequate syphilis treatment; or
- ❑ stillbirth, live birth or child under 2 years of age with microbiological evidence of syphilis infection.
 - demonstration by dark-field microscopy or fluorescent antibody detection of *T. pallidum* in the umbilical cord, the placenta, nasal discharge or skin lesion materials;
 - detection of *T. pallidum*-specific IGM,
 - infant with a positive non-treponemal serology titre \geq fourfold higher than the mother's titre.

Qualifying Requirements for EMTCT Validation

- ❑ National EMTCT validation indicators
 - **Process** indicator targets achieved for 2 years **AND**
 - **Impact** indicator targets achieved for 1 or more years*.
- ❑ Review of equity considerations, e.g.
 - Low performance district or high burden area
 - Key populations and other vulnerable groups
- ❑ Robust national monitoring and surveillance system
- ❑ Basic Human Rights Considerations must be met

Process of EMTCT validation



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



NACER SIN VIH

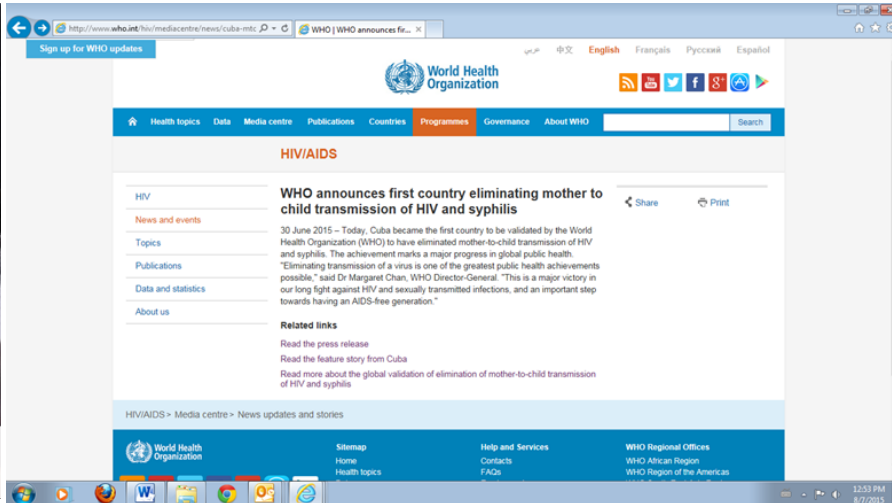
Cómo Cuba se convirtió en el primer país del mundo en validar la eliminación de la transmisión de madre a hijo del VIH y la sífilis

PANELISTAS: Ministro de Salud Pública de Cuba + expertos de OPS/OMS, UNICEF, ONUSIDA y Comité Regional de Validación

30 de junio 2015
11 am
Sala B
OPS/OMS

Síganos en vivo en: livestream.com/opsenvivo

Organización Panamericana de la Salud Organización Mundial de la Salud unicef ONUSIDA



WHO | WHO announces first country eliminating mother to child transmission of HIV and syphilis

30 June 2015 – Today, Cuba became the first country to be validated by the World Health Organization (WHO) to have eliminated mother-to-child transmission of HIV and syphilis. The achievement marks a major progress in global public health. "Eliminating transmission of a virus is one of the greatest public health achievements possible," said Dr Margaret Chan, WHO Director-General. "This is a major victory in our long fight against HIV and sexually transmitted infections, and an important step towards having an AIDS-free generation."

Related links

- Read the press release
- Read the feature story from Cuba
- Read more about the global validation of elimination of mother-to-child transmission of HIV and syphilis

HIVAIDS > Media centre > News updates and stories

World Health Organization Sitemap Home Health topics Help and Services Contacts FAQs WHO Regional Offices WHO African Region WHO Region of the Americas

Cuba is first country to eliminate mother to child HIV transmission



Cuba: defeating AIDS and advancing global health
Editorial 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

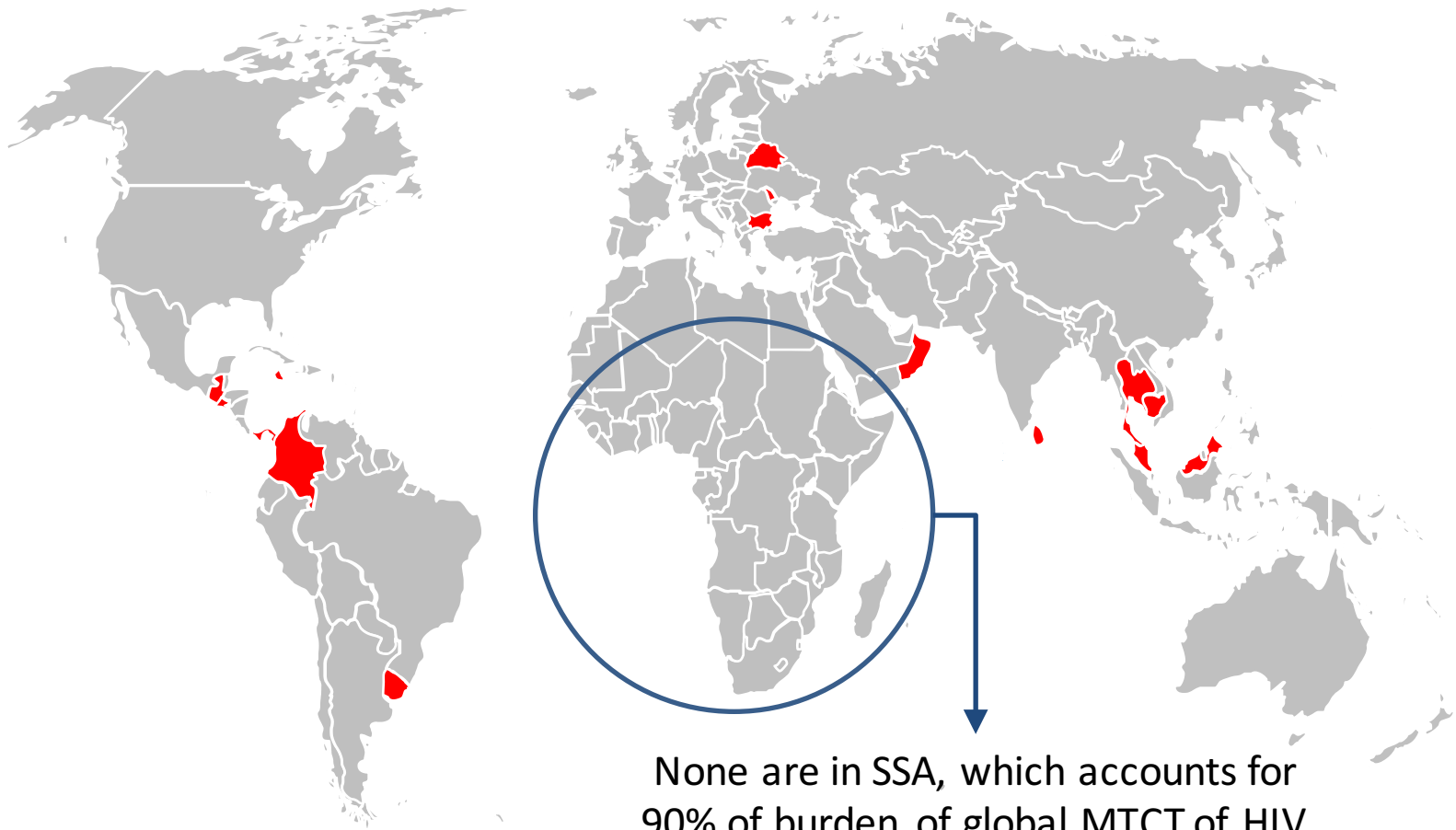
Cuba named first country to end mother-to-child HIV transmission

MUNDO

SALUD

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

Since Cuba, many countries in Asia, Europe and South America are close to being validated for EMTCT of HIV



Benzathine Penicillin (BPG) shortages

- ❑ Benzathine PCN 2.4 M units x 1
- ❑ Alternative Treatment
 - Procaine PCN 1.2 M unit IN x 10-14 days
 - Doxycycline 100 mg 2 x day for 14 days
 - Ceftriaxone 1 gram x 1 for 10-14 days
 - Azithromycin 2 grams
- ❑ No other viable treatment indicated for syphilis treatment in pregnant women
 - *Doxycycline is contraindicated during pregnancy*
 - *Azithromycin and Erythromycin may result to adverse birth outcomes*
 - *Ceftriaxone crosses the placenta but optimal dose/duration for pregnant women is unknown*

Stock outs in 2015	No reported shortage	Did not respond
Brazil Jamaica Panama Suriname Trinidad and Tobago	Anguilla	Antigua and Barbuda
	Argentina	Bahamas
	Belize	Barbados
	Bolivia	Bermuda
	Colombia	Cayman Islands
	Costa Rica	Chile
	Cuba	Dominica
	Dominican Republic	Ecuador
	El Salvador	French Guyana
	Grenada	Guadelupe
	Guatemala	Martinique
	Guyana	St. Kitts and Nevis
	Haiti	Turks and Caicos Islands
	Honduras	
	Mexico	
	Montserrat	
	Nicaragua	
	Paraguay	
	Peru	
	St. Lucia	
	St. Vincent and the Grenadines	
	Uruguay	
	Venezuela	

Estimating Benzathine Penicillin Need for the Treatment of Pregnant Women Diagnosed with Syphilis during Antenatal Care in High-Morbidity Countries

- ❑ Total number of women requiring treatment in 30 countries = 351,016.
- ❑ Syphilis screening coverage at or above 95% for 30 countries , number of women requiring treatment = 712,089.
- ❑ Live-born infants of mothers who test positive and are treated for syphilis in pregnancy = 351,016 doses of weight-based benzathine penicillin
- ❑ 95,938 adverse birth outcomes would be prevented including 37,822 stillbirths, 15,814 neonatal deaths, and 34,088 other congenital syphilis cases

Next steps

- ❑ Finalize guidelines
- ❑ Address Benzathine PCN shortage
- ❑ Support countries to obtain validation of EMTCT or for pre validation status
- ❑ Research on new treatment options for syphilis



Acknowledgements

Nathalie Broutet

Shaffiq Essajee

Chika Hayashi

Maura Laverty

Lori Newman

Stephen Nurse-Findley

Melanie Taylor

For more information:

www.who.int/reproductivehealth/topics/rtis/syphilis/en/index.html

<http://www.who.int/hiv/pub/emtct-validation-guidance/en/>