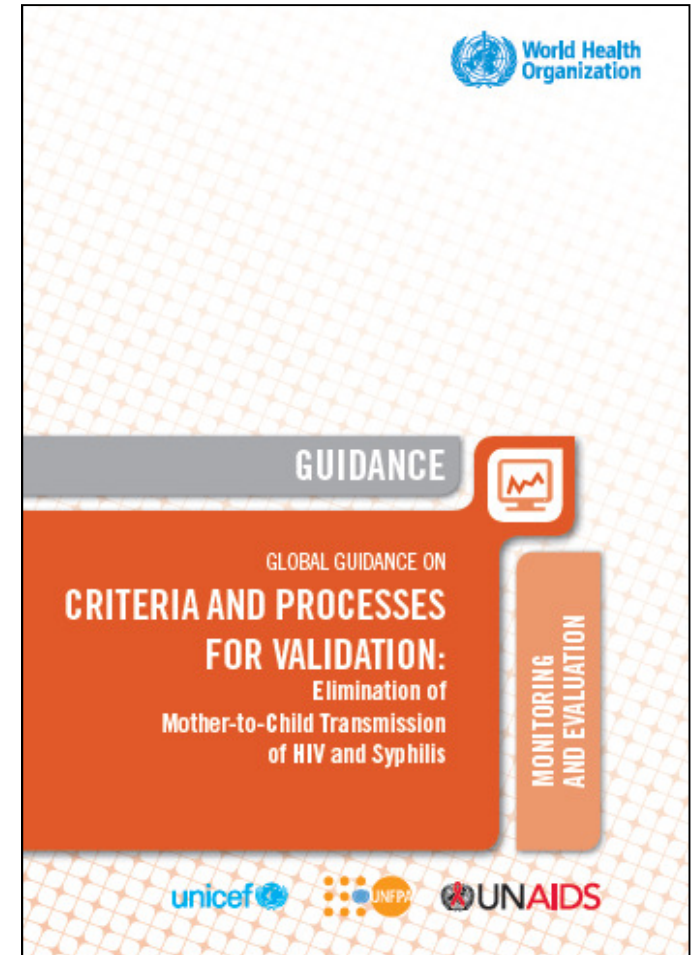


Validation of EMTCT:

Summary of Global Criteria and Activities

WHO HIV and RHR Department

Chika Hayashi





Background



MTCT of HIV and Syphilis without Treatment

- **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 months

~1/2 die by <24 months

Syphilis: 52% perinatal deaths, 31% congenital disease,
12 % preterm or low birthweight (at risk for infant death)



Preventable Burden

- Burden

HIV: estimated 240,000 MTCT infections in 2013

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

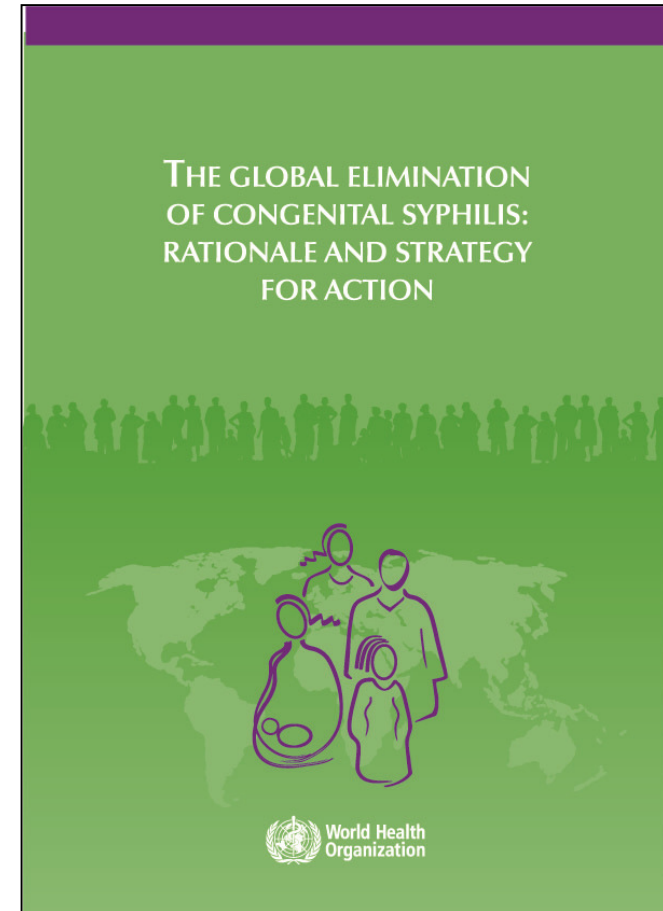
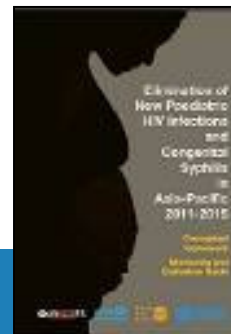
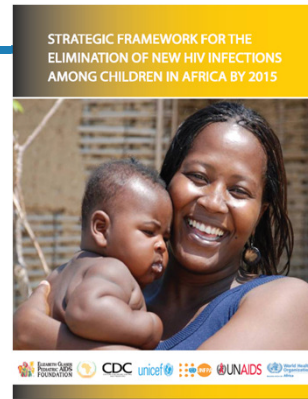
- Interventions exist

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

Global initiatives for EMTCT of HIV/AIDS and syphilis

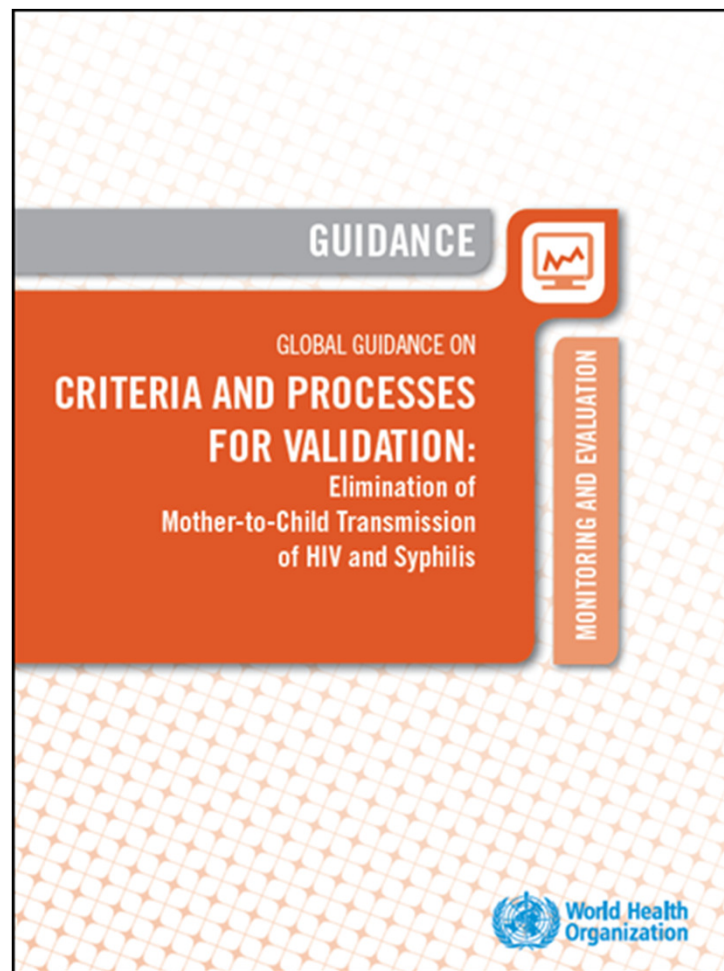




CRITERIA & PROCESS for EMTCT Validation

2012 Consultation on Global Guidance for EMTCT Validation

- **Standardized Criteria**
 - **Process**
 - **Secretariat**
- WHO, UNAIDS, UNICEF, UNFPA
 - Based on country pilots
 - Common systematic approach for dual elimination





Terminology and Definition

Eradication

Certification

- **Permanent** reduction to **zero** of the **worldwide** incidence of infection

Elimination

- **Reduction to zero** of the incidence of disease or infection in a **defined** **Certification/Verification** geographical area

Control

- Reduction in the incidence, prevalence, morbidity or mortality of an infectious disease to a **locally acceptable level**

Dowdle WR.1998. The principles of disease elimination and eradication. Bull World Health Organ 1998;76 Suppl 2:23-5.

Elimination of MTCT Mode of Transmission

Validation

- EMTCT: ***eliminating as a public health problem, to a very low level (below threshold, achieve global targets)***

Required indicators for global validation of EMTCT of HIV and/or syphilis

HIV

Impact indicators

Mother-to-child transmission (MTCT) HIV case rate of ≤ 50 new paediatric HIV infections per 100 000 live births

AND

MTCT of HIV of $< 5\%$ in breastfeeding populations

OR

MTCT of HIV of $< 2\%$ in non-breastfeeding populations

Process indicators

Antenatal care (ANC) coverage (at least one visit) of $\geq 95\%$

Coverage of pregnant women who know their HIV status of $\geq 95\%$

Antiretroviral (ARV) coverage of HIV-positive pregnant women of $\geq 90\%$

Congenital syphilis

Impact indicator

Incidence of congenital syphilis ≤ 50 cases per 100 000 live births

Process indicators

ANC coverage (at least one visit) of $\geq 95\%$

Coverage of syphilis testing of pregnant women of $\geq 95\%$

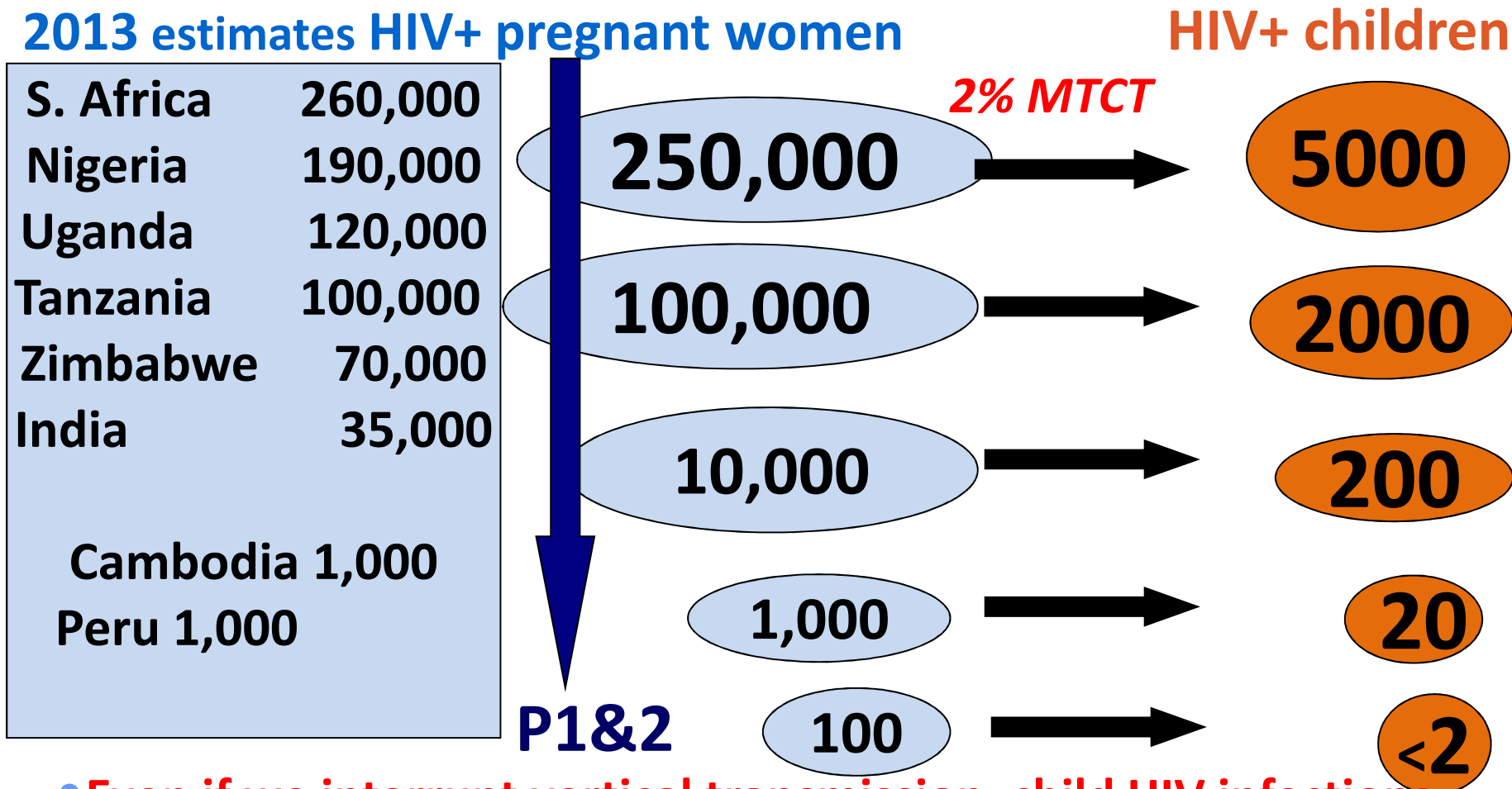
Treatment of syphilis-seropositive pregnant women $\geq 95\%$

GP

GP



HIV: Vertical Transmission not enough for EMTCT Validation



• Even if we interrupt vertical transmission, child HIV infections due to MTCT is not getting close to zero unless we reduce prevalence/number of HIV+ pregnant women

Case Rate - HIV

HIV/AIDS Department

HIV MONITORING AND EVALUATION



HIV Prevalence	Live Births	HIV-exposed Births	New Child HIV		Case Rate per 100,000 livebirths if:	
			2%	5%	2%	5%
0.50%	27000000	135000	2700	6750	10	25
0.50%	10000	50	1	2.5	10	25
1%	27000000	270000	5400	13500	20	50
1%	10000	100	2	5	20	50
2%	27000000	540000	10800	27000	40	100
2%	10000	200	4	10	40	100
5%	27000000	1350000	27000	67500	100	250
5%	10000	500	10	25	100	250
10%	27000000	2700000	54000	135000	200	500
10%	10000	1000	20	50	200	500
15%	27000000	4050000	81000	202500	300	750
15%	10000	1500	30	75	300	750

PAHO
<30

Global
<50



Case Rate - Syphilis

syphilis Prevalence	Births	syphilis- exposed Births	Case rate per 100,000** Detection and Treatment			
			95%	75%	50%	20%
0.3%	100000	300	7	34	68	108
1%	100000	1000	23	113	225	360
2%	100000	2000	45	225	450	720
5%	100000	5000	113	563	1125	1800
6%	100000	6000	135	675	1350	2160
8%	100000	8000	108	900	1800	2880

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

Gomez et.al. 2013



Qualifying Requirements for EMTCT Validation

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



Operational Tools for EMTCT Validation

- **Data Quality Checklist:** to review data quality and impact assessments in a systematic way
- **Lab Quality Checklist:** to verify reliability of test results
- **Human Rights Checklist:** to support discussion and review of key human rights considerations

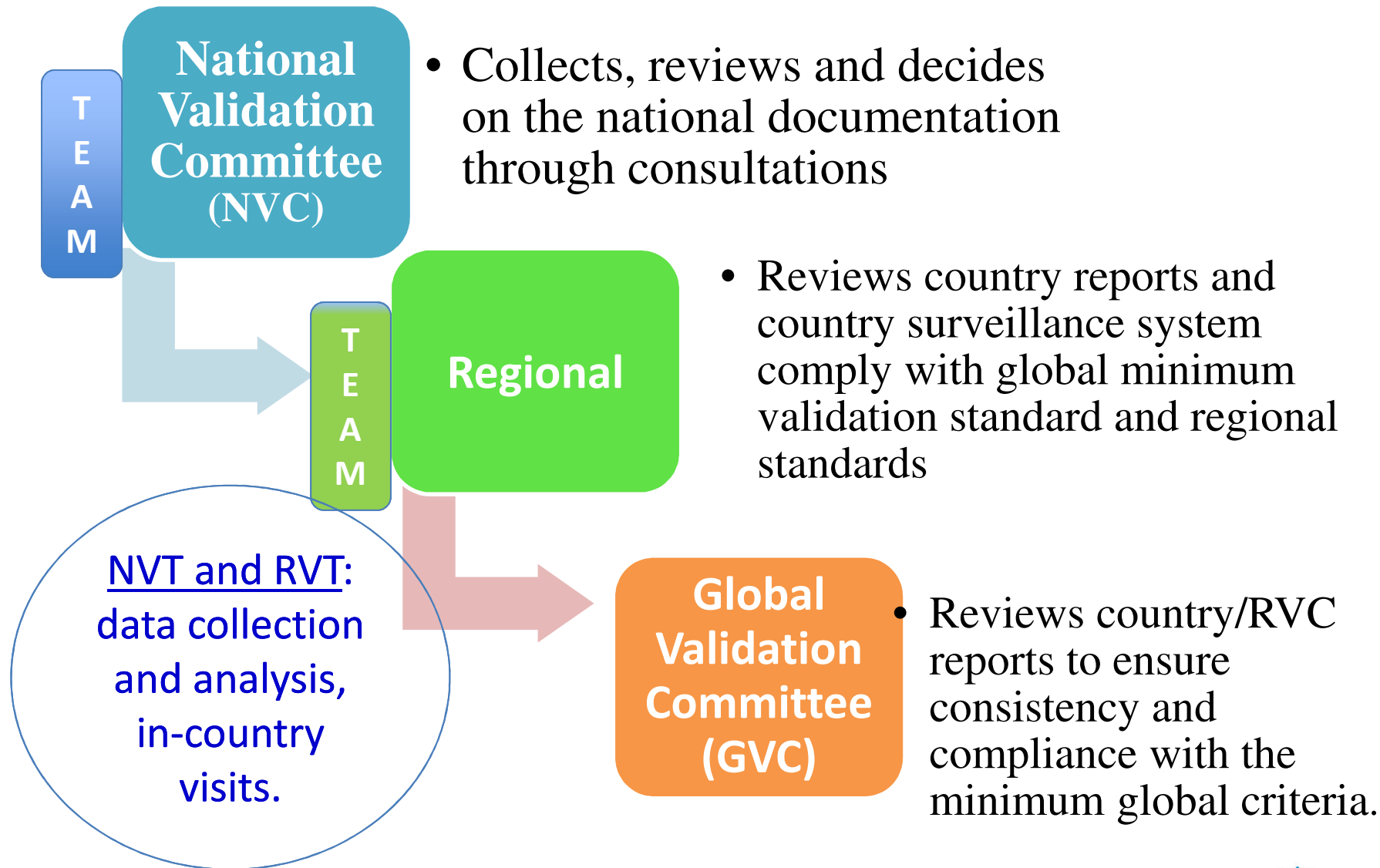
In addition, not covered in consultation:

- **Costing Tool:** to facilitate costing of validation
 - **Programme Assessment Tool:** to gather information on programme and service delivery
-



PROCESS *for EMTCT Validation*

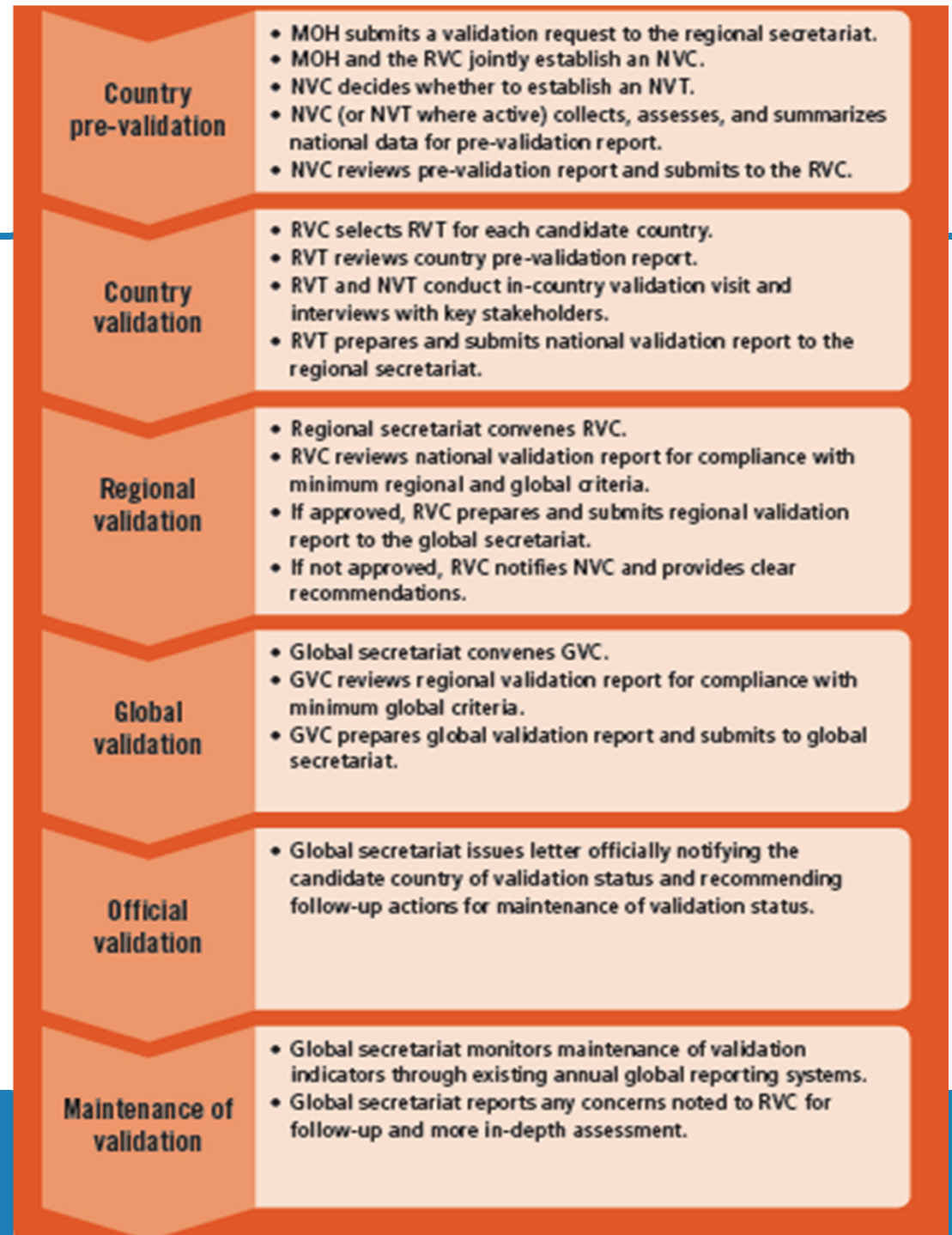
3 Levels



Summary of processes for validation of EMTCT of HIV and/or syphilis

p.17

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



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 tested who are positive for syphilis				Indicator 3: Percentage of antenatal care attendees who tested positive for syphilis and who received treatment			
	2008		2013		2008		2013		2010		2013	
	Number of reporting countries	Median value reported	Number of reporting countries	Median value reported	Number of reporting countries	Median value reported	Number of reporting countries	Median value reported	Number of reporting countries	Median value reported	Number of reporting countries	Median value reported
African Region	18	59%	23	58%	30	2.3%	30	2.2%	15	100%	16	96%
Region of the Americas	14	73%	25	83%	14	0.9%	26	0.6%	16	85%	18	82%
Eastern Mediterranean Region	3	–	4	–	4	–	7	0.0%	0	–	2	–
European Region	9	100%	13	99%	9	0.3%	14	0.1%	3	–	9	100%
South-East Asia Region	3	–	8	75%	6	1.3%	5	0.3%	3	–	4	–
Western Pacific Region	4	–	11	96%	8	0.3%	12	0.2%	7	98%	4	–
Global	51	78%	84	84%	71	1.4%	94	0.6%	44	99%	52	94%

The regional median is not shown if fewer than five countries reported.





Global EMTCT Validation Committee

- Composed of technical experts + regional representation
- Agreed on **TOR**
- Reviewed **Cuba** report, assessed whether criteria were met, and **recommended EMTCT validation to WHO**
- Decided on establishment of **pre-validation benchmarks and activities**, especially **for high burden countries** making good progress in controlling MTCT of HIV and syphilis
- WHO Secretariat works with key partners (UN and CDC) and supports operation of GVC. **Annual workplan** discussed, including further development and update of **guidance, tools, templates** and regional/country support.



Acknowledgements

WHO: Lori Newman,
Maura Laverty,
regional focal points

CDC: Mary Kamb

UNAIDS: Karusa Kiragu

UNICEF: Priscilla Idele

UNFPA: Lynn Collins

CDC: Thu-Ha Dinh

Various other contributors!

For more information:

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

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

hayashic@who.int and broutetn@who.int