Global Monitoring Framework for Elimination of New HIV Infections among Children by 2015 (EMTCT)

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Outline

- Global EMTCT monitoring framework and strategy
- EMTCT baselines, progress and targets
- Validation of EMTCT

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Global EMTCT Monitoring Framework and Strategy

- **10 targets and indicators (2 overall, 2 child, and 6 for the 4 PMTCT prongs)**
- Measurement methods
- Other PMTCT and MCH indicators linked to MDGs, UA, and SG's Commission on Information & Accountability (CoIA) for Women and Children's health
- Key M&E activities at country level
- Process monitoring of Global Plan milestones
- Progress reporting

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Monitoring Framework of the Global Plan towards the elimination of new HIV infections among children by 2015 and keeping their mothers alive

TARGETS AND INDICATORS

2 Overall Targets

1. REDUCE THE NUMBER OF NEW HIV INFECTIONS AMONG CHILDREN BY 90%.

2. REDUCE THE NUMBER OF HIV-ASSOCIATED DEATHS AMONG WOMEN DURING PREGNANCY, DELIVERY AND PUERPERIUM BY 50%.

2 Child Targets

Reduce under 5 deaths due to HIV by > 50%

Provide antiretroviral therapy for all HIV infected children.

6 prong targets

Prong 1 Target

Reduce HIV incidence in women 15-49 by 50%.

Prong 2 Target

Reduce unmet need for family planning among women to zero (MDG goal).

Prong 3 Target

Reduce mother-to-child transmission of HIV to 5%.

90% of mothers receive perinatal antiretroviral therapy or prophylaxis.

90% of breastfeeding infant-mother pairs receive antiretroviral therapy or prophylaxis.

Prong 4 Target

Provide 90% of pregnant women in need of antiretroviral therapy for their own health with life-long antiretroviral therapy.

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Other selected maternal and child health indicators

- Antenatal care coverage with at least four visits (MDG 5.5, CoIA)
- Syphilis testing coverage among first ANC visits (UA)
- Proportion of births attended by skilled birth attendant (MDG 5.2, CoIA)
- Percentage Institutional Delivery (Making Pregnancy Safer (MPS)
- Proportion of women attending postnatal care within two days of childbirth (CoIA)
- Maternal Mortality Ratio and Maternal Deaths (MDG, Countdown, CoIA)
- Under-five mortality rate (MDG 4.1); Neonatal mortality CoIA)
- Infant mortality rate (MDG 4.2)
- Universal access indicators
- Also, availability of HIV services in facilities providing ANC services can be assessed to monitor integration of HIV and MCH services.

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Some key points about global EMTCT targets

- Aligned with MDGs 4 & 5 and critical links with MCH and international commitments

- Move from coverage targets to measuring impact - new paediatric HIV infections and MTCT <5%

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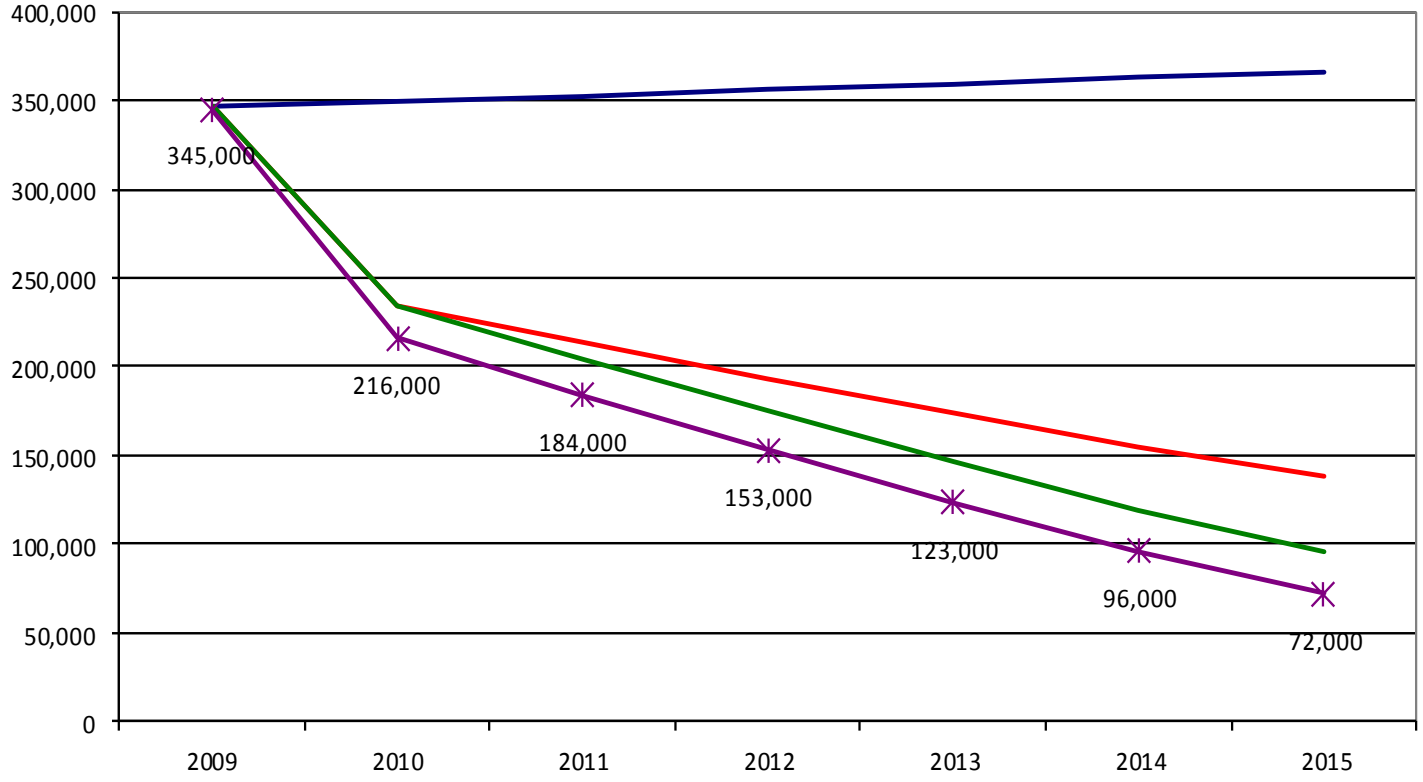
Number of new HIV child infections if:

- **PMTCT coverage/regimen remain at 2009 levels**
- **Prong 3 (provide ARV/ART to 90% of HIV+ pregnant women)**
- **Prongs 1, 2 and 3 (50% reduction incidence, unmet need for FP to Zero, and 90% ARV/ART HIV+ PW**
- **Prongs 1, 2, and 3 and limit BF to 12 months**

Estimated New HIV infections among children:
Different scenarios for 25 countries



Value in 2015 (% reduction)

367,000 (15 %)

138,000 (60%)

95,000 (73%)

72,000 (79%)

Source: Mahy M et al', *Sexually Transmitted Infections*, 2010

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Main Data Sources for 10 eMTCT Indicators

Target	Data Source
Overall: New paediatric HIV infections	Modelled estimates, case reporting
Overall: HIV-associated maternal deaths	Modelled estimates
Prong 1: HIV incidence in women ages 15–49	Modelled estimates
Prong 2: Unmet family planning need	Population-based surveys
Prong 3.1: Mother-to-child transmission	Modelled estimates, special studies
Prong 3.2: Maternal ARV (prophylaxis and ART) coverage	Facility-based records, modelled estimates
Prong 3.3: Breastfeeding ARV coverage	Facility-based records, modelled estimates
Prong 4 : ART coverage among HIV-positive pregnant women	Facility-based records, modelled estimates
Child Target: Under-5 deaths due to HIV	Modelled estimates
Child Target: ART coverage among children	Facility-based records, modelled estimates

Key M&E activities at country level

1. Set baselines and targets
2. Review routine M&E systems, validate and improve data quality
3. Measure PMTCT programme impact and validate elimination of MTCT
4. Conduct operational research
5. Review and evaluate programmes

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Process Monitoring

- Monitor the achievements of global plan milestones e.g. adoption of more effective ARV regimens (i.e. excluding single dose nevirapine), development of EMTCT plans, setting baselines and targets

- Monitoring of technical support – number and type of TA requests, number of requests addressed

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Progress Monitoring & Reporting

- All countries to conduct annual monitoring and programme reviews
- 2011: Report on EMTCT baseline and plan[1]
- 2012: Report on indicators and progress made towards elimination targets
- 2013: Annual progress report. Regional progress review meetings*
- 2014: Mid-term review of EMTCT. Global progress review
- 2015: Annual progress report. Regional progress review meetings*
- 2016: Final report on achieved target. Global meeting

**Some regions may have different schedules*

[1] WHO, UNAIDS, UNICEF. *Global HIV/AIDS response: epidemic update and health sector progress towards universal access.* Geneva, WHO, 2011

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EMTCT baselines, progress and targets

Areas to monitor	2009 Baseline	2010	2015 Target
Number of HIV+ women delivering[1]	1 490 000[2]	1 490 000	743 000[2]
Overall target: New paediatric HIV infections	430 000[2]	390 000	<43 000
Overall target: HIV-associated deaths of women during pregnancy, delivery and puerperium	42 000[3]	N/A	21 000
Child target: Under-5 deaths due to HIV	162 000[4]	N/A	<81 000
Child target: ART coverage among children	21%[2]	23%[2]	100%
Prong 1 target: New HIV infections in women age 15—49	1 070 000[2]	1 050 000	535 000
Prong 2 target: Unmet need for family planning	11%[5]	N/A	0
Prong 3 target 3.1: Mother-to-child transmission	29%[2]	26%[2]	<5%
Prong 3 target 3.2: Maternal ARV coverage (prophylaxis and ART)	48%[2,6] (including sdNVP)	48%[6] (excluding sdNVP)	90%
Prong 3 target 3.3: Breastfeeding ARV coverage	N/A[7]	N/A	90%
Prong 4 target: ART coverage among pregnant women	N/A	34%[2]	90%

1 A 50% reduction in the number of deliveries among pregnant women living with HIV along with a reduction from 27% to 5% in mother-to-child transmission will result in a 90% reduction in the number of children newly infected. This is not an official target.
2 Current estimates for 2009. Source: WHO, UNAIDS, UNICEF. *Global HIV/AIDS response: epidemic update and health sector progress towards universal access*. Geneva, WHO, 2011.
3 2008 value. Source: WHO, UNICEF, UNFPA, World Bank. *Trends in maternal mortality: 1990 to 2008: estimates developed by WHO, UNICEF, UNFPA and the World Bank*. Geneva, WHO, 2010.
4 Source: *World Health Statistics 2011*. Geneva, WHO, 2010.
5 2009 estimate for low- and middle-income countries. The baseline is 25% for sub-Saharan Africa. Sources: *World Contraceptive Use 2011*. New York, United Nations, Department of Economic and Social Affairs, Population Division, 2011;.World Contraceptive Use 2010. New York, United Nations, Department of Economic and Social Affairs, Population Division, 2010.
6 The 2009 coverage data include provision of single-dose nevirapine (sdNVP) by itself, which is no longer recommended. Source: WHO, UNAIDS, UNICEF. *Towards universal access: scaling up priority HIV/AIDS interventions in the health sector. Progress report 2010*. Geneva, WHO, 2010. The 2010 coverage data include only the most efficient regimens as recommended by WHO (excluding sdNVP).
7 Comprehensive data are not yet available because the provision of antiretroviral medicine during the breastfeeding period became an international recommendation in 2010.

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Validating EMTCT of HIV and Syphilis

What does it mean to eliminate mother-to-child transmission?

- <5% MTCT rate?
- Zero child HIV cases from MTCT?
- Meeting targets of all 4 prongs?
- Maintain high (>95%) intervention coverage for 3 years?
- Acceptable measurement method and quality?

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Validating EMTCT of HIV

- No internationally-standardized processes and criteria
- Several regions have begun to discuss processes and criteria for elimination
- Important to have consistency between regions so that "validation" is credible and uniform. This would allow validation to be carried out using a systematic approach
- Allows monitoring of progress towards elimination goals and facilitate recognition of countries that have successfully eliminated (and sustained elimination) MTCT of HIV or syphilis

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Expert Consultation

- June 6-8, 2012, with country participants representing all regions and EMTCT partners

Objectives

- To identify appropriate and feasible criteria for validation of elimination of MTCT of HIV and syphilis
- To identify sustainable processes for validation of elimination
- To identify next steps at the global and regional level to finalize and establish a validation process
- Main Outcome: Consensus on the proposed global criteria and process to validate EMTCT of HIV and congenital syphilis.

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Key questions for the consultation

1. What experiences from other elimination programmes are relevant to EMTCT of HIV and Congenital syphilis? (e.g. Polio, tetanus)
2. What do we mean by elimination of mother-to-child transmission of HIV and congenital syphilis?
3. What measurement strategies and data quality checks acceptable?
4. How might process measures of program implementation contribute to validation of elimination?
5. Where does validation need to take place? National or sub-national geographical levels? In key populations?
6. What are the processes required for validation? How should the process be initiated? Who will oversee it?
7. Are there issues specific to maintenance of validation in countries? How often should validation status be reviewed? Should there be a difference between the processes for initial validation vs maintenance?

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Terminology and Definition [2]

- Eradication: ***permanent*** *reduction to* ***zero*** *of the* ***worldwide*** *incidence of infection*
- Elimination: *reduction to* ***zero*** *of the incidence of disease or infection in a* ***defined geographical area***;
- Control: *reduction in the incidence, prevalence, morbidity or mortality of an infectious disease to a locally acceptable level*
- EMTCT goal: eliminating MTCT to a very low level that it is no longer a public health problem

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

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What needs to be measured?

Potential outcomes of interest:

- ✓ Case Rate: New child HIV infections per 1000 live births
- ✓ New Child HIV Infections
- ✓ MTCT rate

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Recommendation from Consultation

- Use the MTCT case rate—number of new paediatric HIV infections per 1000 live births—as the global standard to define EMTCT of HIV.

- Explore other measures to triangulate the case rate and to be able to explore some of the different elements contributing to the case rate.

- Include assessment of the MTCT rate as a criterion in validating EMTCT.

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Some Follow Up Action Points

- Define the acceptable threshold(s) for validation (set targets for case rate). (The Americas region (AMRO) has defined its target as <0.3 new infant HIV infections per 1000 live births. Other regions are considering <0.5.)

- Define the age group for new paediatric infections (i.e. the numerator in the case rate) - in non-breastfeeding population, should it be measured, by polymerase chain reaction (PCR) testing, at 6–8 weeks of age? Or by final HIV status at 18–24 months of age or older?

- In concentrated epidemic in Kazakhstan, some paediatric infections were diagnosed in children older than 24 months because their mothers had previously avoided the health care system.

- Agree on a standardized rate reporting (either per 1000 live births or per 100,000 live births).

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Next steps

- WHO will circulate a draft of the global EMTCT validation guidance document in December 2012 for wide review and feedback

- Consideration of various comments and finalize guidance on criteria and process to validate EMTCT of HIV and syphilis by Q1 of 2013

- Develop simple operational tools that would aid countries in the validation process (e.g. key process indicators to consider, minimum data quality checks, etc)

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THANKS

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