Leveraging the Maternal and Child Health Platform to accelerate Elimination of Infectious Diseases: EMTCT Plus for HIV, syphilis, HBV and Chagas Disease

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HIV, TB, STI and viral hepatitis

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Outline

- MHC, ANC and EPI: an opportunity to eliminate Mother-to-child transmission of infectious diseases
- Epidemiological context and rationale to include HBV and Chagas
- Progress to date
- Way forward of the EMTCT Plus
Objective 3
Good Health and Well-Being
By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases.
MCH/ANC Platform in the Region of the Americas 2017

Pregnant women: 15.2
- Latin America and the Caribbean: 10.7
- North America: 4.5

Pregnant women with ≥4 prenatal care visit by skilled birth attendants: 13.4
- Latin America and the Caribbean: 9.2
- North America: 4.1

Hospital births: 14.3
- Latin America and the Caribbean: 9.9
- North America: 4.4

Source: PAHO Basic Indicators, 2017, Data provided by ministries of health or health agencies of countries. Washington, DC, 2016. As of 15 May 2017. UNICEF global databases, 2016, based on Multiple Indicator Cluster Surveys (MICS), Demographic and Health Surveys (DHS), and other nationally representative sources.
Hepatitis B vaccine coverage in the Region of the Americas, 2010-2017

Hepatitis B vaccination included in childhood immunization schedule in all LAC countries

- MTCT of Hepatitis B National Policies (2017)
- Hepatitis B vaccination included in childhood immunization schedule in all LAC countries

**MTCT of Hepatitis B National Policies (2017)**

**Hepatitis B vaccination included in childhood immunization schedule in all LAC countries**

- HBV Vaccine Birth Dose
  - HepBD to all infants (25/50 countries): 53% (32/47)
  - HepBD to infants of HBsAg+ mothers (07 countries): 15%

- HBig to exposed infants: 79% (22/28)

- HBV routine testing in ANC: 77% (24/31)

- EMTCT of HBV as a national goal: 43% (12/28)

**Source:** WHO/PAHO Country Response Profile Survey, 2017; Hepatitis B and C in the Spotlight report 2016
EMTCT Regional and Global Commitments

1995

Resolution CE116.R3: Elimination of Congenital Syphilis

Global Elimination of Congenital Syphilis: Rationale and Strategy for Action

2007

Resolution CD50.R12: Elimination of mother-to-child transmission of HIV and Congenital Syphilis

Global Plan towards the Elimination of New HIV Infections among Children by 2015 and Keeping their Mothers Alive

2010

2011

End of Phase I of EMTCT

2015

EMTCT Plus PHASE II: Regional Plan of Action for the Prevention and Control of HIV and STI – 2016-2021

2016

2021
EMTCT Phase 1: Lessons learned

- **Regional dual elimination**: HIV as a leverage to congenital syphilis
- **Strong political commitment** at the highest levels, robust inter-programmatic implementation
- **A public-health approach**: simplification, standardization, decentralization, integration, quality-assured services, equity, patient and community participation
- Guided by **human rights** and **gender equality** principles in service delivery
- **EMTCT strengthening MCH** and perceived as a quality marker
- However, last steps are the hardest to reach and maintain...
Using the EMTCT Platform for the Elimination of Hepatitis B in children and MTCT of Chagas Disease

- **EMTCT** as a “milestone” for the elimination of HBV as a public health problem by 2030, as endorsed by WHA in 2016
- **HBV**: Building on progress of the vaccination campaigns in the Americas, including birth dose and HBV screening in ANC, AV and IgG
- **Chagas**: Successful vector control and blood safety make MTCT proportionally more relevant
New HIV infections and AIDS deaths
Latin America and the Caribbean, 1990-2017

Source: UNAIDS. Spectrum estimates 2018
Mother-to-Child transmission of HIV

Estimated number of children 0-14 years of age newly infected with HIV in Latin America and the Caribbean, 2010-2017

Congenital Syphilis

Estimated number and incidence rate per 1,000 live birth of congenital syphilis cases in the Americas, 2009-2017

Chagas Disease

- 21 endemic countries (2016)

- 5.7 million people chronically infected (estimates 2010)

- Successful vector control and blood safety make MTCT proportionally more relevant

Source: Neglected Infectious Diseases in the Americas: Success Stories and Innovation to Reach the Neediest; 2016
Chagas Disease

• 1.1 million women of child-bearing age infected (estimates 2010)

• 9,000 cases of congenital infection annually (estimates 2010)

• Only 280 cases of congenital infection reported to PAHO in 2017

Estimated incidence rate of congenital Chagas disease per 1,000 live births in Latin America, 2010

Chronic hepatitis B in the Americas, 2016

• 3.9 (2.7–6.4) million people chronically infected (2016)
  – 0.4% prevalence (0.3–0.6%) among general population
  – Most areas: low endemicity
    – Caribe: intermediate endemicity
    – Subnational zones in the Amazon Basin: high endemicity

• 10,000 new chronic infections in 2016
  – 56% perinatal transmission
  – Prevalence among 5 years old: 0.04%–0.1%

Source: Polaris Observatory (http://www.polarisobservatory.com/)
Estimated ARV therapy coverage among pregnant women and MTCT rate in Latin America and the Caribbean 2010-2017

Source: UNAIDS. 2017 estimates using PPE-Spectrum. AIDSinfo database (http://aidsinfo.unaids.org)
Note: Estimates are rounded
90-90-90, and ART coverage
Latin America and the Caribbean

Source: UNAIDS. GAM country reports and Spectrum estimates 2018
Estimated number of children 0-14 years of age newly infected with HIV, and HIV infections averted due to the PMTCT in Latin America and the Caribbean, 2010-2017
Pregnant women tested for syphilis and treatment coverage of those seroreactive in Latin America and the Caribbean, 2011-2017

Source: UNAIDS and WHO 2017 Global AIDS Monitoring Online Reporting Tool; PAHO Country reports on the elimination of MTCT. Regional syphilis screening and treatment were based on data from 24 and 21 countries, respectively.
Validation of EMTCT of HIV and syphilis

Countries validated by 2017

Anguilla
Antigua and Barbuda
Bermuda
Cayman Islands
Cuba
Montserrat
St. Kitts and Nevis
**EMTCT Plus: HIV, syphilis, Chagas, HBV**

**Objective**
Achieve and sustain elimination of mother-to-child transmission of HIV, syphilis, Chagas and perinatal hepatitis B in the Americas by 2020

**Impact Targets**
- $\leq 2\%$ MTCT of HIV
- $\leq 0.5$ congenital syphilis cases per 1,000 lb
- $\leq 0.1\%$ HBsAg prevalence among 4-6 y/old
- $\geq 90\%$ of children cured of *Chagas* infection with post-treatment negative serology

### Programmatic Objectives

<table>
<thead>
<tr>
<th>Objective</th>
<th>Target</th>
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<td>For all</td>
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</table>
| - ≥95% coverage of ANC and hospital deliveries  
| - ≤10% of unmet family planning needs among women (15-49 years-old)  |
| HIV       |  
| - ≥95% coverage of HIV testing of pregnant women  
| - ≥95% ART coverage in pregnant women  |
| Syphilis  |  
| - ≥95% coverage of syphilis testing of pregnant women  
| - ≥95% coverage of adequate syphilis treatment in pregnant women  |
| Hepatitis B |  
| - ≥95% coverage of HBV Birth Dose (<24 hours)  
| - ≥95% coverage of HBV Third Dose in the first year  
| - ≥85% coverage of birth and third dose in all provinces [supporting target – country level]  
| - ≥80% coverage of HBsAg testing of pregnant women [supporting target – country level]  
| - ≥80% coverage of HBIG to exposed neonates [supporting target – country level]  |
| Chagas    |  
| - ≥90% testing of pregnant women  
| - ≥90% testing of neonates to seropositive mothers  
| - ≥90% treatment of seropositive mothers  |
ELIMINATION INITIATIVE

AN INTEGRATED SUSTAINABLE APPROACH TOWARDS ENDING COMMUNICABLE DISEASES AND RELATED CONDITIONS IN THE AMERICAS
### 37 Diseases and related conditions candidates for elimination by 2030

<table>
<thead>
<tr>
<th>Elimination as a public health problem</th>
<th>Elimination of transmission</th>
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<tr>
<td>2020</td>
<td>2020 Hepatitis B, mother-to-child and early childhood transmission</td>
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<tr>
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<td>2022 Chagas disease</td>
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<td>2022 Onchocerciasis (river blindness)</td>
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<td>2022 Rabies, dog-mediated</td>
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<td>2022</td>
<td>2030 Malaria (P. falciparum and P. vivax), and malaria epidemics</td>
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<td>2030 Congenital Rubella</td>
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<td>Maintain Measles</td>
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<td>Maintain Poliomyelitis</td>
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<td>Maintain Rubella</td>
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<td>Maintain Urban Yellow Fever reoccurrence</td>
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<td>2030</td>
<td>Maintain Diphtheria</td>
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<td>Eradication</td>
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<td>2020 Foot-and-mouth-disease in domestic bovids</td>
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<td>Maintain Yaws (Endemic treponematoses)</td>
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<td>2030 Open defecation</td>
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<td>2035</td>
<td>2030 Polluting biomass cooking fuels</td>
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#### Environmental determinants of health

- Open defecation
- Polluting biomass cooking fuels
Thank you