Overview of Hepatitis B integration into EMTCT

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Australian Aid
WHO Collaborating Centre for Viral Hepatitis VIDRL
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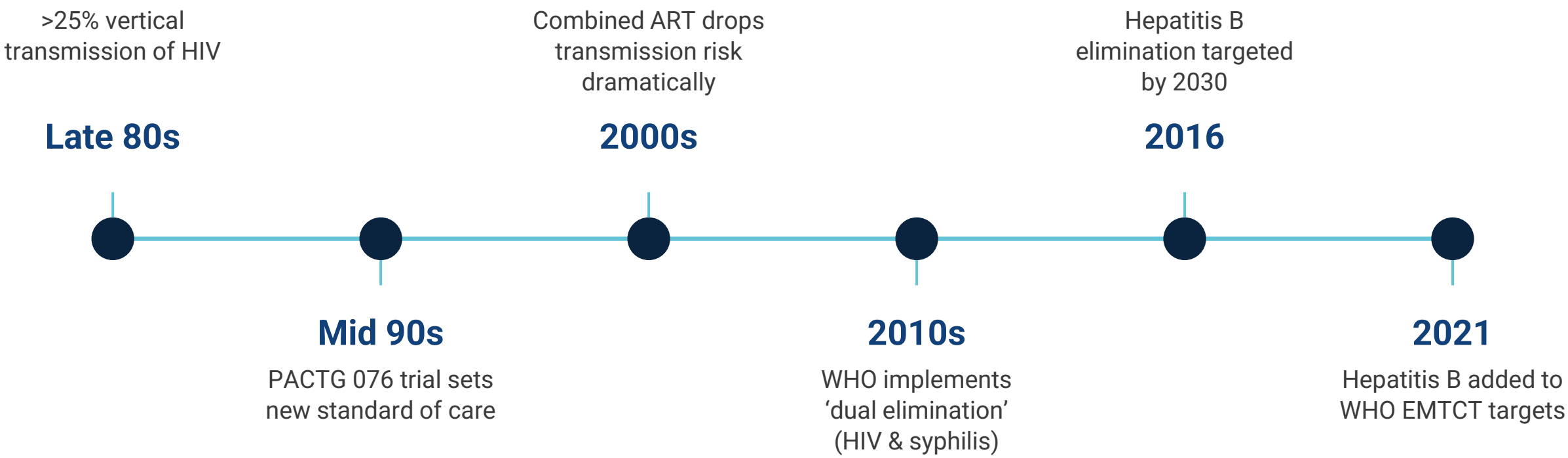
The evolution of EMTCT



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WHO triple elimination framework

Achieving triple elimination of mother-to-child transmission (EMTCT) of HIV, syphilis and hepatitis B virus (HBV) requires that national programmes implement four pillars and address cross-cutting implementation considerations.

The four pillars are:

Primary prevention of infection and vertical transmission: testing, case finding, treatment and primary prevention for HIV, syphilis and HBV infection in non-pregnant, pregnant and breastfeeding women and girls of childbearing age.

Sexual and reproductive health (SRH) linkages and integration: appropriate counselling, care, support, and linkages for SRH services for women and girls living with HIV and / or HBV and / or sero-positive for syphilis to (i) assess fertility intentions and support pregnancy planning and prevention and (ii) prevent, diagnose and treat other sexually transmitted infections (STIs).

Essential maternal EMTCT services: appropriate maternal testing, prophylaxis and treatment for women and girls living with HIV and / or HBV and / or sero-positive for syphilis for prevention of transmission to infants.

Infant, child, and partner services: timely testing, prevention, treatment, care and support for exposed infants, infected children, household contacts and partners of women and girls living with HIV and / or HBV and / or sero-positive for syphilis.

The cross-cutting considerations are:

1) Health system strengthening to better provide effective person-centred care
2) Strategic information gathering and analysis
3) Leadership, community engagement, partnerships and cross-programmatic coordination
4) Identifying and addressing barriers to triple EMTCT of HIV, syphilis and HBV

Introducing a framework for implementing triple elimination of mother-to-child transmission of HIV, syphilis and hepatitis B virus

World Health Organization

Triple elimination targets

Elimination targets	HIV EMTCT	Syphilis EMTCT	HBV EMTCT
2030 WHO GHSS and UNGA political declaration (13) aspirational targets	Zero new infections among infants and young children and achievement of the 95-95-95 targets	≤50 cases of CS per 100,000 live births in 80% of countries	95% reduction in incidence of chronic HBV infections
EMTCT Impact targets	A population case rate of new paediatric HIV infections due to MTCT of ≤50 cases per 100,000 live births MTCT rate of HIV of <2% in non-breastfeeding populations OR <5% in breastfeeding populations	A case rate of CS of ≤50 per 100,000 live births	≤0.1% prevalence HBsAG in children ≤5 years old [a,b] Additional target ≤2% MTCT rate (for countries using targeted timely HepB-BD)
EMTCT process/ programmatic targets	**ANC coverage** (at least one visit (ANC-1)) of ≥ 95% **Coverage of HIV testing** of pregnant women of ≥95% **ART coverage** of pregnant women living with HIV of ≥95%	**ANC coverage** (at least one visit (ANC-1)) of ≥95% **Coverage of syphilis testing** of pregnant women of ≥95% among those who attended at least one ANC visit **Adequate syphilis treatment** of syphilis-sero-positive pregnant women of ≥95%	**Countries with universal timely HepB-BD** ≥90%HepB3 vaccine coverage ≥90%Hep-BD coverage[c] **Countries with targeted timely HepB-BD or without universal timely HepB-BD** ≥90% HepB3 vaccine coverage ≥90% HepB-BD coverage ≥90% coverage of maternal HBsAG testing ≥90% coverage with antivirals for eligible HBsAg-positive pregnant women[d]

Country guidance for planning triple elimination of mother-to-child transmission of HIV, syphilis and hepatitis B virus programmes

World Health Organization unicef

Eliminating vertical transmission of Hepatitis B

COMPONENTS

Antenatal screening & assessment

Intervention during pregnancy

Newborn immunoprophylaxis

Paediatric vaccination & post-vaccination serological testing (PVST)

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1. Antenatal screening & assessment

- **HBsAg**
- **HBV DNA (Viral Load)**
- **HBeAg**

BARRIERS

Availability
Knowledge
Stigma

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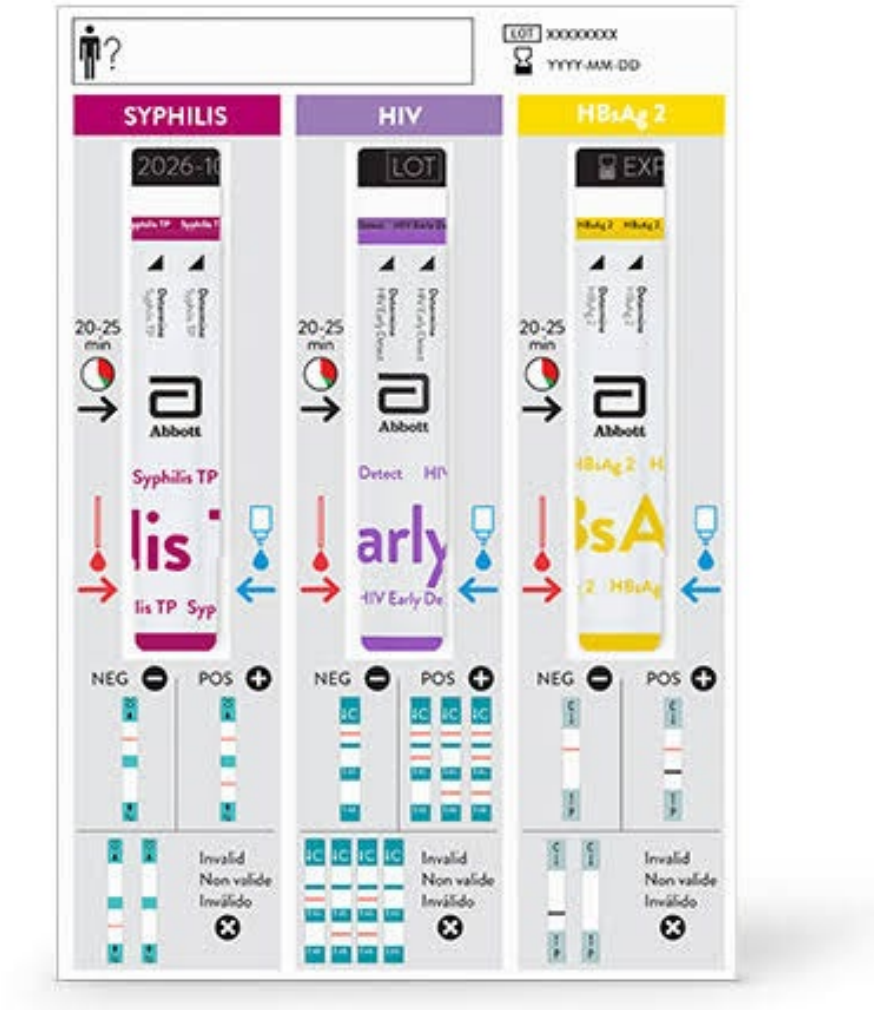
1. Antenatal screening & assessment



DETERMINE™ TEST PERFORMANCE

Determine HIV Early Detect

p24 Antigen

88% SENSITIVITY[1,2]

99.7% SPECIFICITY

HIV 1/2 Antibody

100% SENSITIVITY

99.9% SPECIFICITY

Determine Syphilis TP

99.6% SENSITIVITY

99.7% SPECIFICITY

Determine HBsAg 2

98.4% SENSITIVITY

99.5% SPECIFICITY

2. Intervention during pregnancy

Treatment as prophylaxis for pregnant women

Lifelong monitoring for women +/- treatment as required

BARRIERS

Fragmentation of care
Siloing from ANC
Coinfection (e.g. HIV, TB)

3. Newborn immunoprophylaxis

- **Birth dose hepatitis B vaccination**
- **HBIG**
- **Continuing antiviral therapy until first vaccination if birth dose unavailable**

BARRIERS

Home births

Geography

Fragmented data systems not identifying mother's HBV status

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4. Paediatric vaccination & Post vaccination serological testing (PVST)

- **Three dose vaccination regimen**
- **Post vaccination serological testing**

BARRIERS

Routine access to PVST

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Integrated Screening in Antenatal Care

March 2026

Focal Geographies

This analysis consists of data from: **Cambodia, Cameroon, Ethiopia, Ghana, India, Indonesia, Kenya, Malawi, Nigeria, Rwanda, Senegal, South Africa, Tanzania, Uganda, Zambia, Zimbabwe**

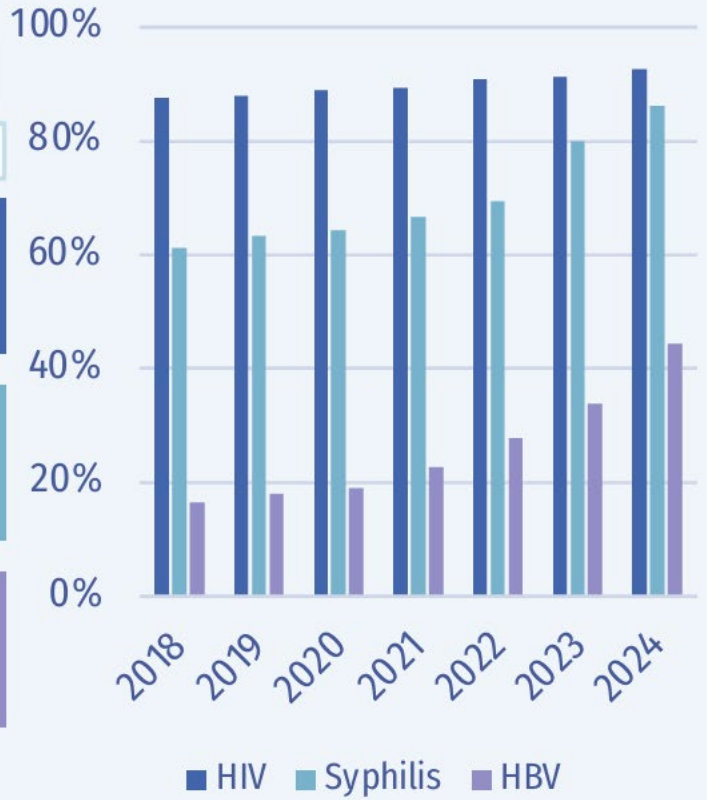
Policies and priorities impacting HIV, syphilis, and hepatitis B screening

16/16 countries

- Have policies to eliminate vertical transmission of HIV, syphilis, and HBV
- Require pregnant women to be screened at least once for all three diseases

Screening coverage rates at ANC

Average Coverage	2018	2024	Change
HIV	88%	93%	+5%
Syph	61%	86%	+25%
HBV	16%	44%	+28%



HIV & syphilis coverage data was available from 15 countries; only 8 countries provided HBV coverage

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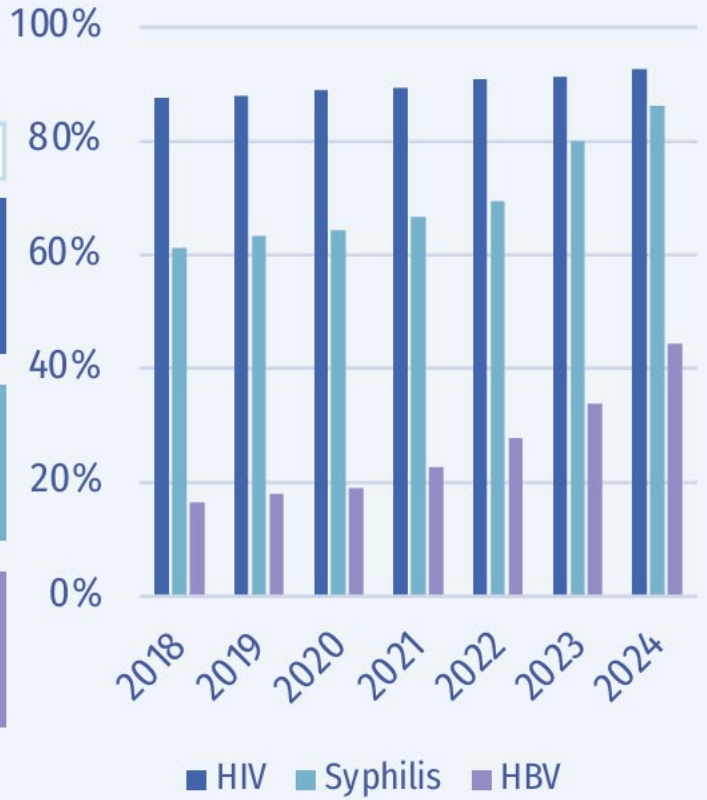

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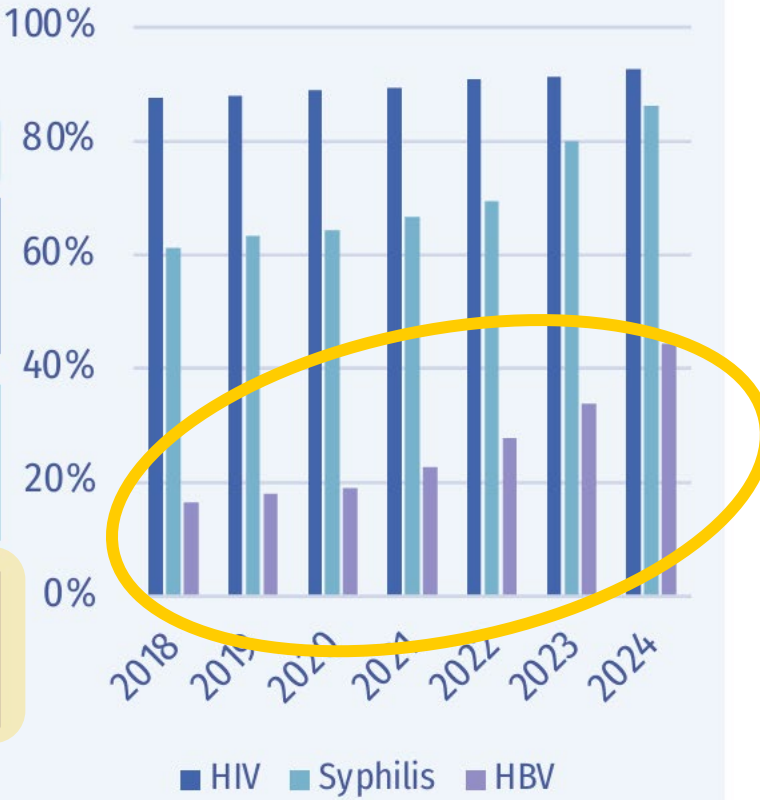

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What is needed to meet these targets?

HBV testing alongside HIV & syphilis

Access to antivirals

Workforce training

Referral pathways & integration of care

Data collection & surveillance systems

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What are the barriers?

Political will

Funding

Siloing of care

Stigma

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With thanks

Find out more: doherty.edu.au/our-work/cross-cutting-disciplines/global-health/strategic-partnership

https://www.doherty.edu.au/viralhepatitis

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The University of Melbourne

The Royal Melbourne Hospital

A joint venture between The University of Melbourne and The Royal Melbourne Hospital