PAHO overview: Progress and barriers towards HBV and HCV elimination targets globally and in the Americas

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5th International HIV/Viral Hepatitis Co-Infection Meeting:
Viral hepatitis elimination in Latin America and globally: How close are we?
July 2019, Mexico City
Outline

• Global goals and target: 2015 WHO GHSS for Viral Hepatitis
• WHO plans, tools and guidelines
• Baseline situation and progress to date
• The response in Latin America and the Caribbean
• Investment cases role in the elimination agenda
• Hepatitis B elimination through maternal and child health platform
• Challenges and barriers
WHO Global Health Sector Strategy:
Eliminate viral hepatitis as a major public health threat by 2030

**Impact targets**

- Reduction in new infections by 90%
- Reduction in deaths by 65%

**Programmatic targets**

<table>
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<tr>
<th>Target</th>
<th>Percentage</th>
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<tr>
<td>90% of people infected are diagnosed</td>
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<td>80% of people diagnosed are treated</td>
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<td>90% coverage of vaccination BD and B3 doses (PAHO: 95%)</td>
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<td>100% of blood products are safe</td>
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<td>90% of injections in health facilities are safe</td>
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WHO guidelines and tools to support national responses

2015
✓ Elimination strategy and Regional Action Plans
✓ HBV Guidelines

2016
✓ Revised HCV Guidelines
✓ National plan manual

2017
✓ Baseline estimates: Global Hepatitis Report
✓ PAHO Region baseline estimates report
✓ HBV/HCV testing Guidelines
✓ Injection safety campaign

2018
✓ Global hepatitis reporting system
✓ HCV treatment Guidelines: Treat All
✓ Cost effectiveness calculators (HBV/HCV)
✓ PAHO: National investment cases (Colombia, Chile Brazil)

2019
✓ Consolidated strategic information guidelines (Feb 2019)
  ➢ HBV PMTCT recommendations on antiviral medicine use in pregnancy (2nd Sem)
Baseline status of Hepatitis B, 2015

Prevalence:
257 million people living with HBV
68% in Africa /Western Pacific

Incidence:
Chronic HBV infection in children under 5
reduced from 4.7% (pre-vaccination) to 1.3%
- 2030 target: 0.1%

Mortality:
~880,000 deaths each year
Baseline status of Hepatitis C, 2015

Prevalence:
71 million viraemic infections, all regions

Incidence:
1.75 million new infections / year
(Unsafe health care and injection drug use)

Mortality:
~400,000 deaths each year
Hepatitis mortality is increasing

96% hepatitis deaths from HBV and HCV (cirrhosis and hepatocellular carcinoma)
Viral hepatitis deaths, by virus, 2015

Number of deaths

Hepatitis viruses

HAV
HBV
HCV
HEV

Hepatocellular carcinoma
Cirrhosis
Acute hepatitis
Global Elimination Strategy:

Core interventions with sufficient coverage would lead to elimination

2015 BASELINE  2017 PROGRESS  2030 TARGETS

Prevention
- HBV- Vaccination (3D)
- HBV- Vaccination (birth dose)
- Blood safety
- Injection safety
- Harm reduction

Care and treatment
- HBV - Diagnosis
- HCV - Diagnosis
- HBV- Treatment
- HCV- Treatment

Major gaps in HBV birth dose, harm reduction, testing and treatment
As of February 2019, **124 countries** had national hepatitis plans (published + draft).

**National Response, 2017**
- 135 responding countries
- 84 reporting viral hepatitis national plan
- 62 reporting civil society engagement

**Civil Society Engagement and National Response, 2017**

Source: Global Reporting System on Hepatitis

Smith *et al.*, JHEP Reports. August 2019
Coverage of third dose of hepatitis B vaccine, 2017

84% global coverage
Coverage of hepatitis B vaccine birth dose, 2017

From 38% in 2015 to 43% coverage in 2017
Injection safety

New data from Demographic and Health Surveys:
3.9% Unsafe health care injections worldwide in 2010-2017

- Region of Eastern Mediterranean
- Region of Europe
- Region of South-East Asia
- Region of Western Pacific
- Region of Americas
- Region of Africa

- Unsafe injections
- Safe injections
Harm reduction, low baseline, little progress

Some policy uptake, but...

Of 179 countries with injection drug use:

- 93 (52%) with needle and syringe distribution
- 87 (49%) with opioid substitution therapy

low coverage of interventions

33 syringes/needle sets provided per PWIDs per year in 2017

GHSS Target:
300 syringes/needle sets provided per PWIDs per year in 2030
Cascade of Care for HCV infection and DAA expansion, 2017

Number of people treated with DAA, globally:

- 2014: < 200,000
- 2015: 1.1 million
- 2016: 1.7 million
- 2017: 2.1 million
- Total: ~5 million

Most treatment given in about 10 champions countries

Source: Center for Disease Analysis/Polaris
Number of people receiving antiviral treatment, globally:
- 2015: 1.7 million
- 2016: 4.5 million

Measurement of progress on the HBV treatment target is currently limited by the absence of data on the proportion of people who are eligible

On going study to better estimate proportion of eligible

Measurement of progress on the HBV treatment target is currently limited by the absence of data on the proportion of people who are eligible
Optimize the procurement of generic Direct Acting Antivirals (DAAs) to cure HCV infection

62% of people with HCV live in countries with access to generic DAAs for as low as US$90 (in green)

- In reality, the price of a 3-month course of generic DAA varies greatly by location

PAHO Strategic Fund:
Sof+Velp (originator – “Access”): USD 900
Sof+Dac (generic – no patents): USD 129
Chronic Hepatitis C in the Americas, 2016

7.2 million people living with HCV in the Americas

88,000 deaths yearly are estimated to be due to HCV in the Americas (2015)

In Latin America and the Caribbean:

4 million people living with HCV

65,000 new chronic HCV infections each year

HCV cascade of care: Latin American & the Caribbean, 2016
Chronic hepatitis B in the Americas, 2016

- **3.9 (2.7-6.4)** million people chronically infected
  - 0.4% prevalence (0.3-0.6%) among general population

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

- **31,000 deaths** yearly are estimated to be due to HBV in the Americas (2015)

Source: Polaris Observatory (http://www.polarisobservatory.com/)
National Policies and Strategies for prevention and control of viral hepatitis 2017

- **Prevention Strategies for key pops**: 45% (15/33)
- **Treatment guidelines in line with WHO recommendations**: HCV: 45% (10/22), HBV: 86% (19/22)
- **Prevention Strategies for Healthcare Workers**: 84% (32/38)
- **Celebrate World Hepatitis Day**: 55% (14/27)
- **Goal of Eliminating Perinatal HBV**: 43% (12/28)
- **National Strategy and/or Plan for prevention care and control of Viral Hepatitis, (2019)**: 48% (18/37)

Source: Hepatitis B and C in the Spotlight, PAHO 2016, 2017
Hepatitis C Burden (2016): Total estimated chronically infected: 632,000 in 2016

Two scenarios: Baseline x WHO Elimination Targets:

- Treatment and diagnosis scale up increase **direct costs**, reducing below the base scenario by **2028**
- **Indirect costs will reduce** as a result of earlier and expanded diagnosis and treatment.
- After **2028**, the **elimination scenario will cost less than the base scenario** and after 2030 will require less than 0.2% of the total public health budget (estimate in US$53 billion in 2017)
Hepatitis B elimination through maternal and child health platform

- Leveraging on the EMTCT of HIV and syphilis
  - Strong political commitment
  - Public health approach
  - EMTCT strengthening MCH

- Regional Frameworks: PAHO (2017) and WPRO (2018)

- EMTCT as a “milestone” for the elimination of HBV as a public health problem by 2030, as proposed to WHA in 2016

- Building on established hepatitis B vaccination programme

- Additional interventions: antenatal screening, addressing long term health of HBV-positive mother, potential use of maternal antiviral and hepatitis B immunoglobulin for exposed infants
0.8% of children under 5 in 2017 worldwide had chronic HBV infection

All regions except for Africa reached the 2020 1% target

Source: London School of Tropical Medicine & Hygiene for WHO [systematic review by Cochrane centre, with modelling inferences], schematic map of the WHO regions
Hepatitis B Birth dose (HepB-BD) vaccination strategies in the national immunization programme

- Universal HepB-BD introduced to date (108 countries or 56%)
- HepB-BD only for infants born to mothers with chronic hepatitis B virus infection (18 countries or 9%)
- Hepatitis B vaccine in childhood schedule but no universal HepB-BD (66 countries or 34%)
- HepB only given to adolescents or adults risk groups (2 countries or 1%)
- Not Available, Not Introduced/No Plans
- Not applicable

Date of slide: 2018-06-06
Map production: Immunization, Vaccines and Biologicals (IVB), World Health Organization (WHO)
Data source: IVB database as at 8th June 2019

Disclaimer:
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Challenges and barriers

- The need for additional **national civil society advocacy**
- Expand timely **birth doses** of the hepatitis B vaccine, and adoption of **additional interventions** for EMTCT
- **Harm-reduction** services and access to treatment for people who inject drugs are particularly lacking
- **Injection safety**: Recent HIV outbreaks as reminders of fragilities and vulnerabilities of many systems
- Need to massively expand **access to diagnosis, and treatment** – simplify algorithms
- Include hepatitis data in country **health information systems**: better understanding of the **national burden** and regular **monitoring/review** of **national targets and progress**
- **Drugs prices** have declined over the past few years, but there are still barriers, particularly among mid-income countries
- Chronic **lack of funding** for hepatitis programs, and the need for domestic investment
- **Innovation**: functional cure for hepatitis B; POC tests affordability and quality; HCV vaccine
Thank you