

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



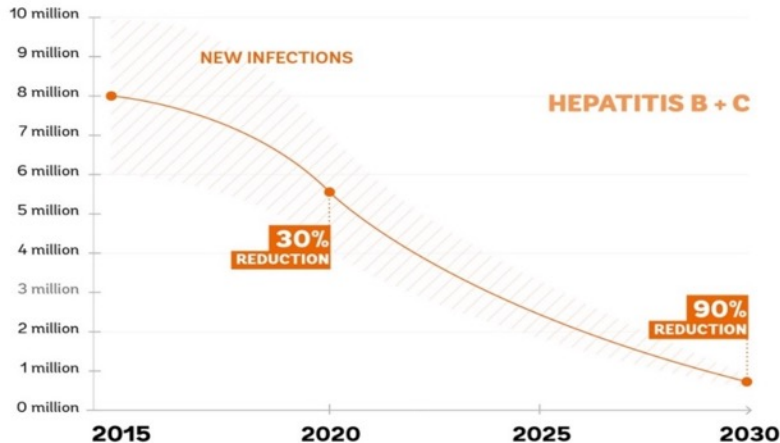
Outline

- 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

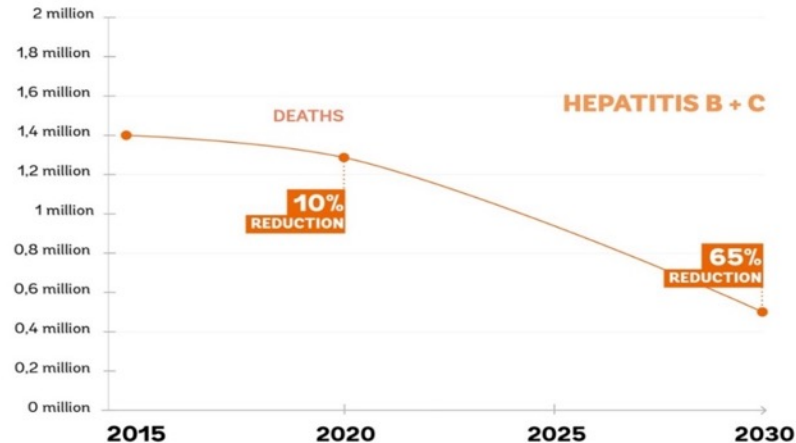
WHO Global Health Sector Strategy: Eliminate viral hepatitis as a major public health threat by 2030

Impact targets

Reduction in new infections by 90%



Reduction in deaths by 65%



Programmatic targets

90%
of people infected are
diagnosed

80%
of people diagnosed
are treated

90%
coverage of vaccination
BD and B3 doses
(PAHO: 95%)

100%
of blood products are
safe

90%
of injections in health
facilities are safe

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

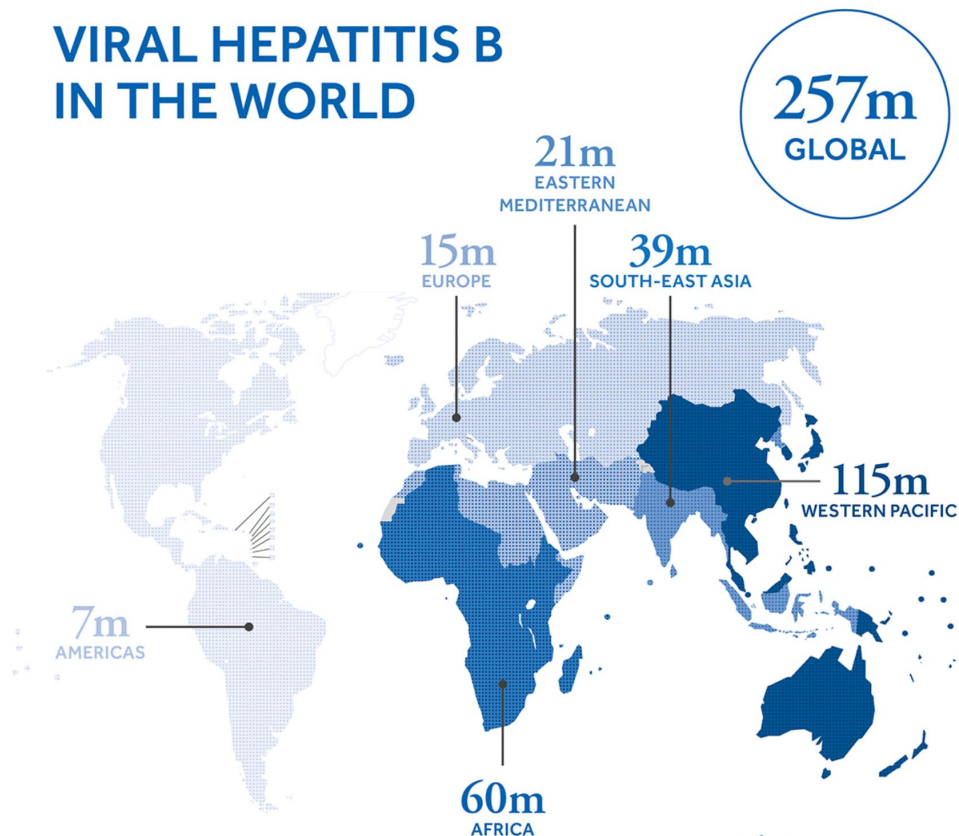
Incidence:

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

VIRAL HEPATITIS B IN THE WORLD



Baseline status of Hepatitis C, 2015

Prevalence:

71 million viraemic infections, all regions

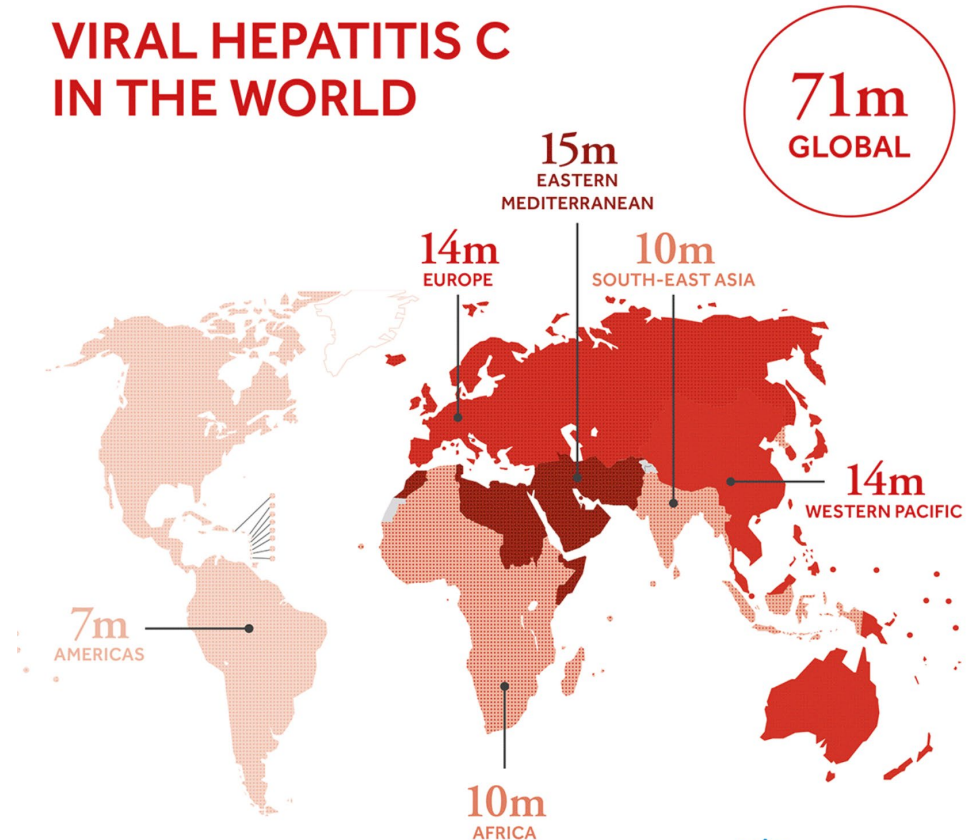
Incidence:

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

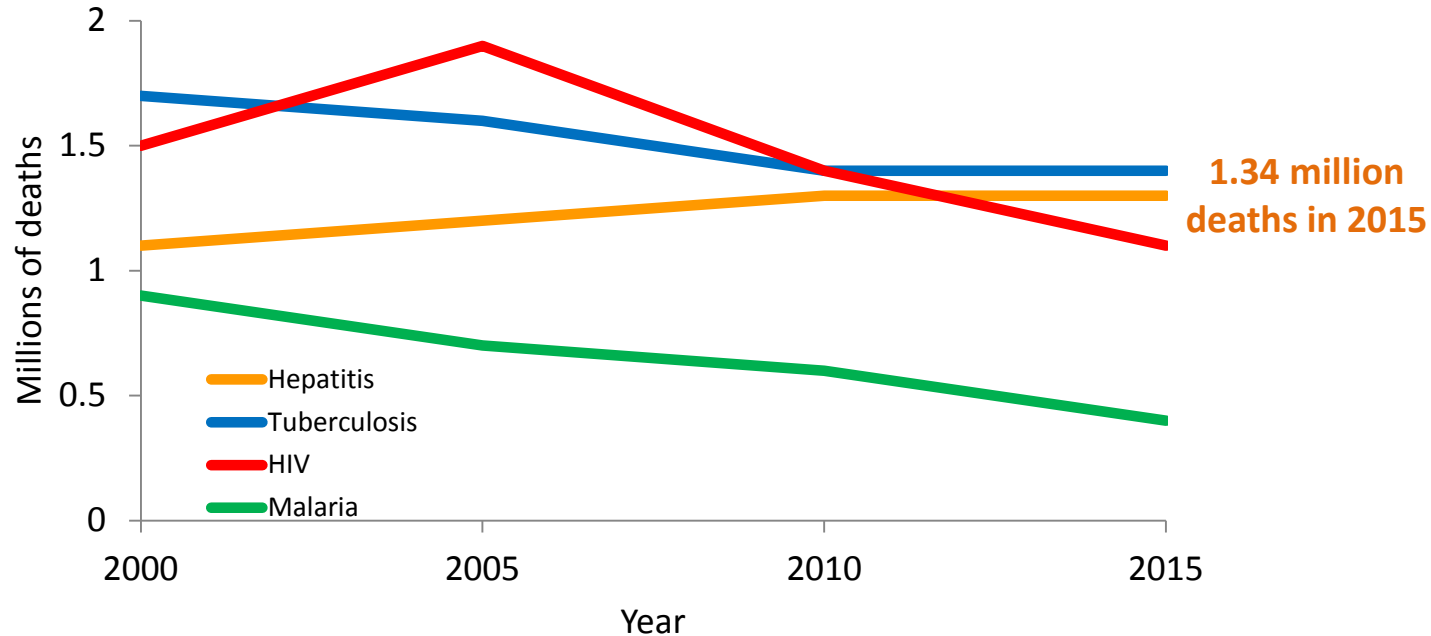
Mortality:

~400,000 deaths each year

VIRAL HEPATITIS C IN THE WORLD

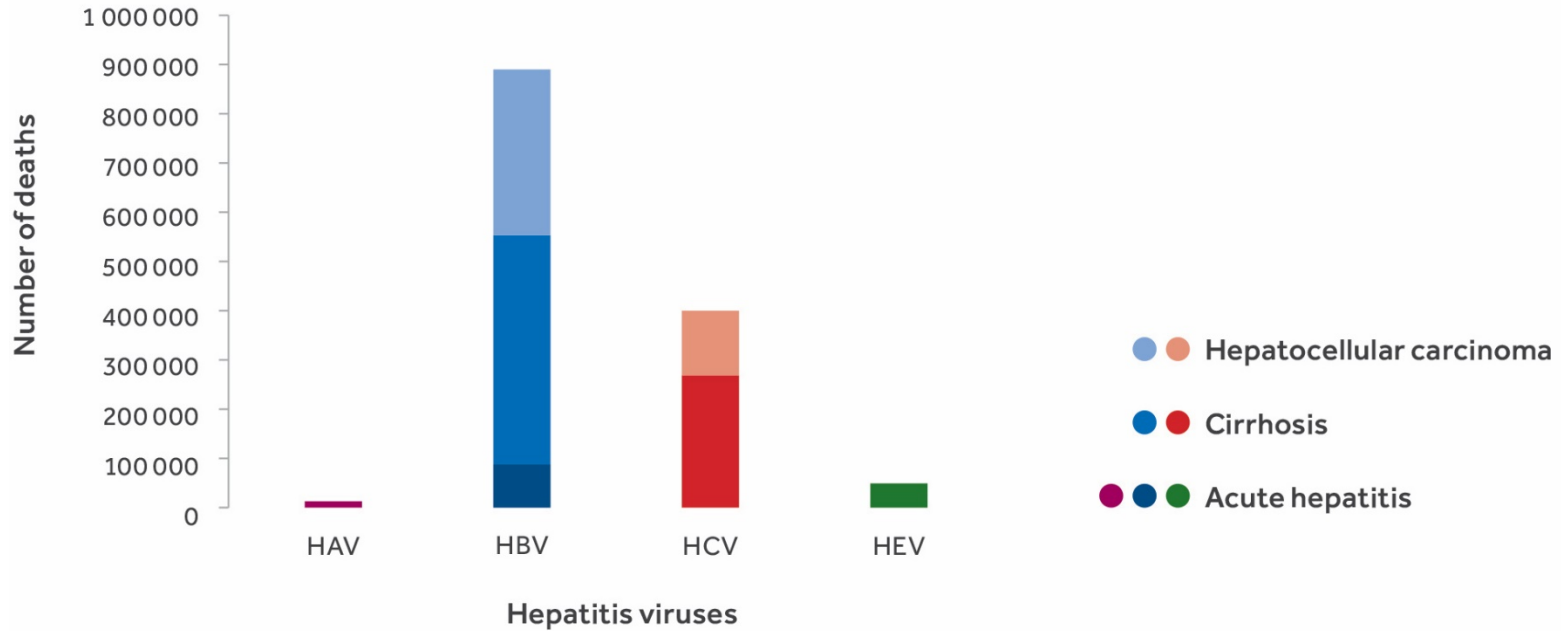


Hepatitis mortality is increasing



96% hepatitis deaths from HBV and HCV (cirrhosis and hepatocellular carcinoma)

Viral hepatitis deaths, by virus, 2015



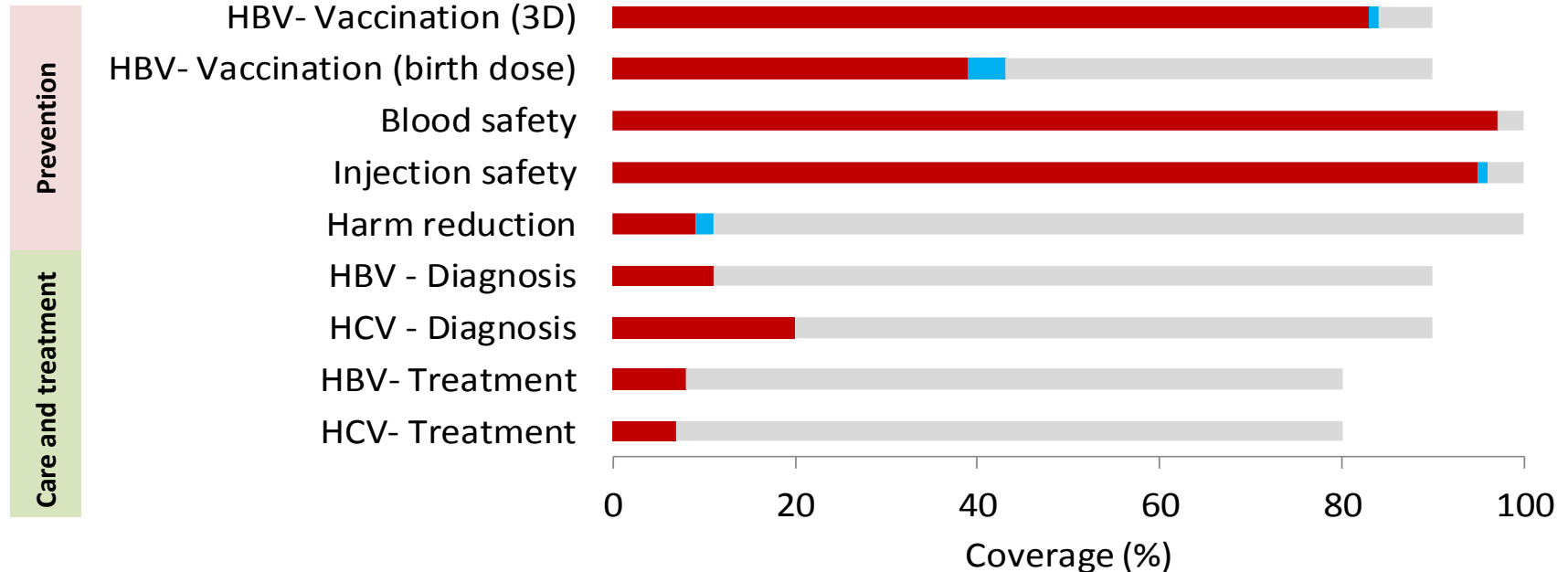
Global Elimination Strategy:

Core interventions with sufficient coverage would lead to elimination

2015 BASELINE ■

2017 PROGRESS ■

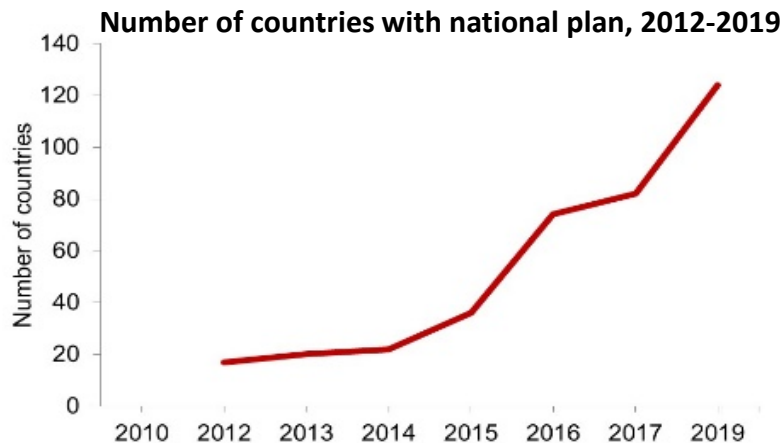
2030 TARGETS ■



Major gaps in HBV birth dose, harm reduction, testing and treatment

Progress of National viral hepatitis responses

As of February 2019, **124 countries** had national hepatitis plans (published + draft)

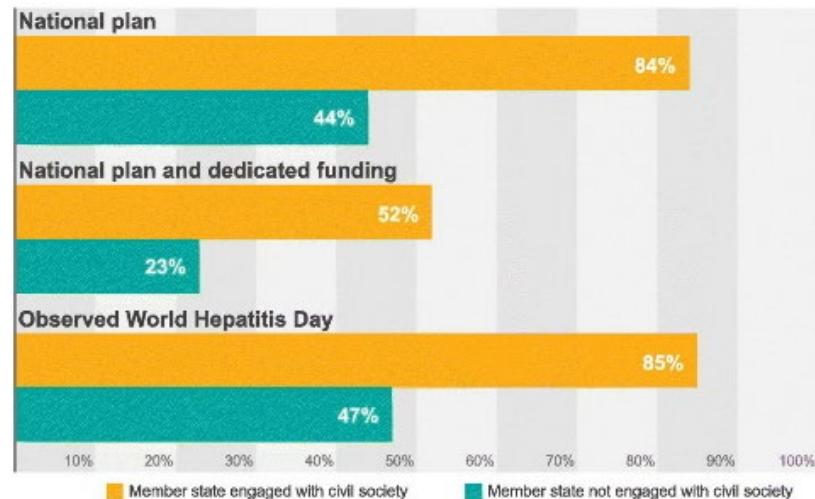


Source: Global Reporting System on Hepatitis

National Response, 2017

- 135 responding countries
- 84 reporting viral hepatitis national plan
- 62 reporting civil society engagement

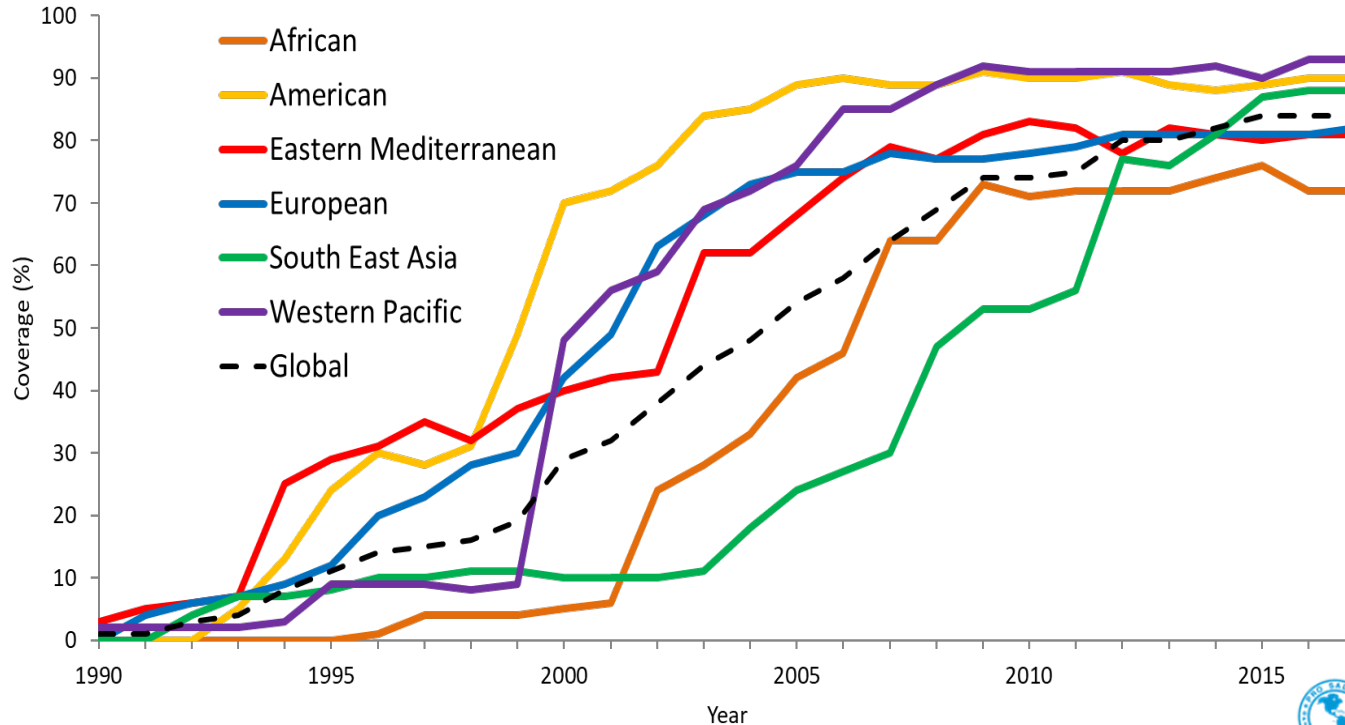
Civil Society Engagement and National Response, 2017



Smith *et al.*, JHEP Reports. August 2019

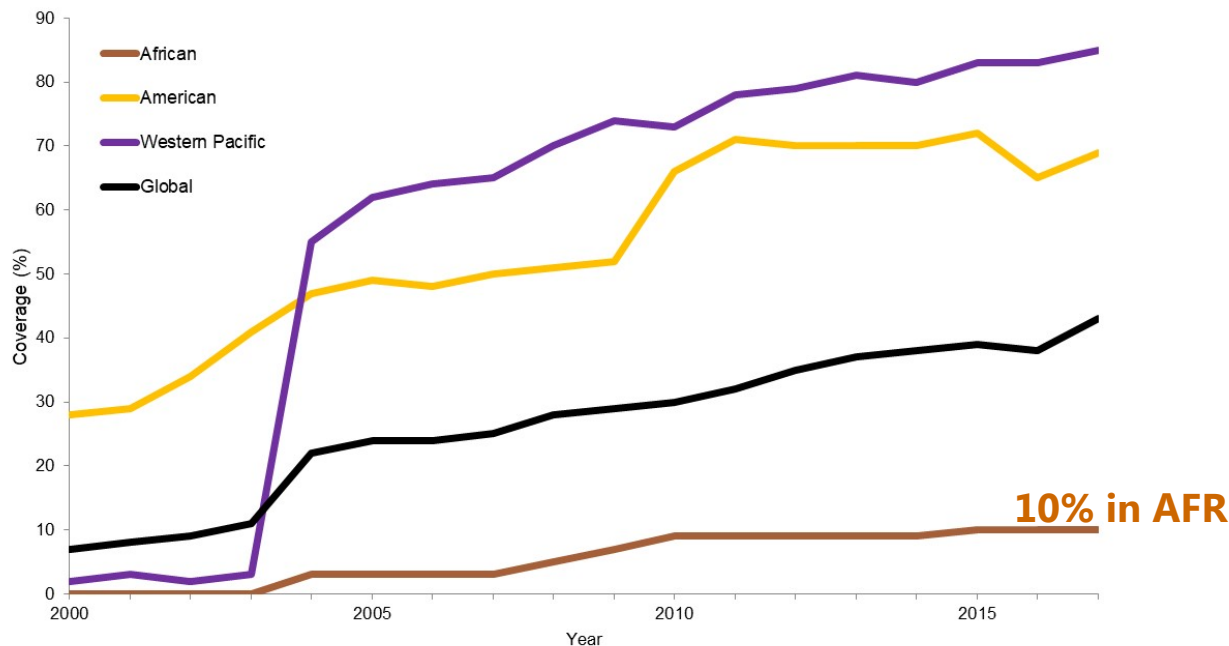
Coverage of third dose of hepatitis B vaccine, 2017

84% global coverage



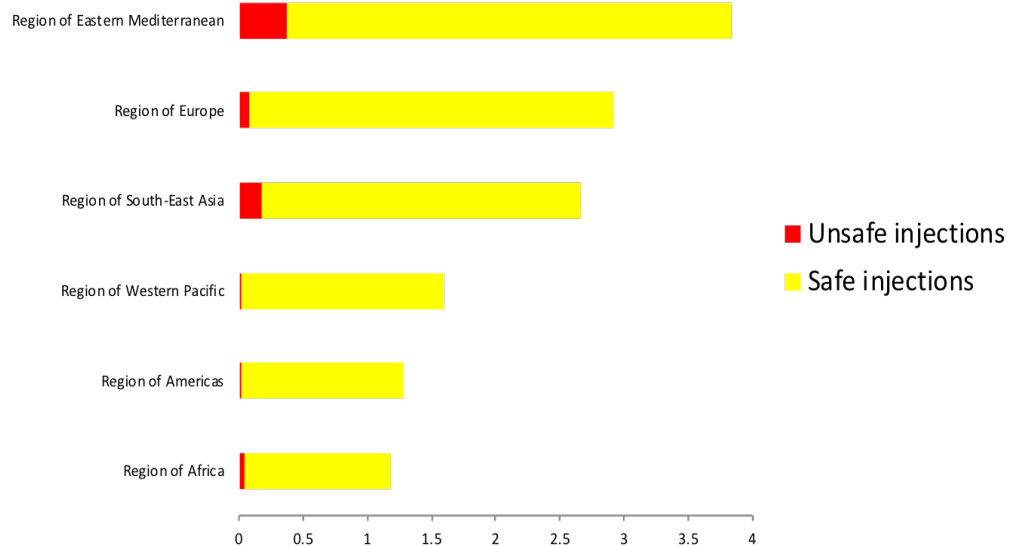
Coverage of hepatitis B vaccine birth dose, 2017

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



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

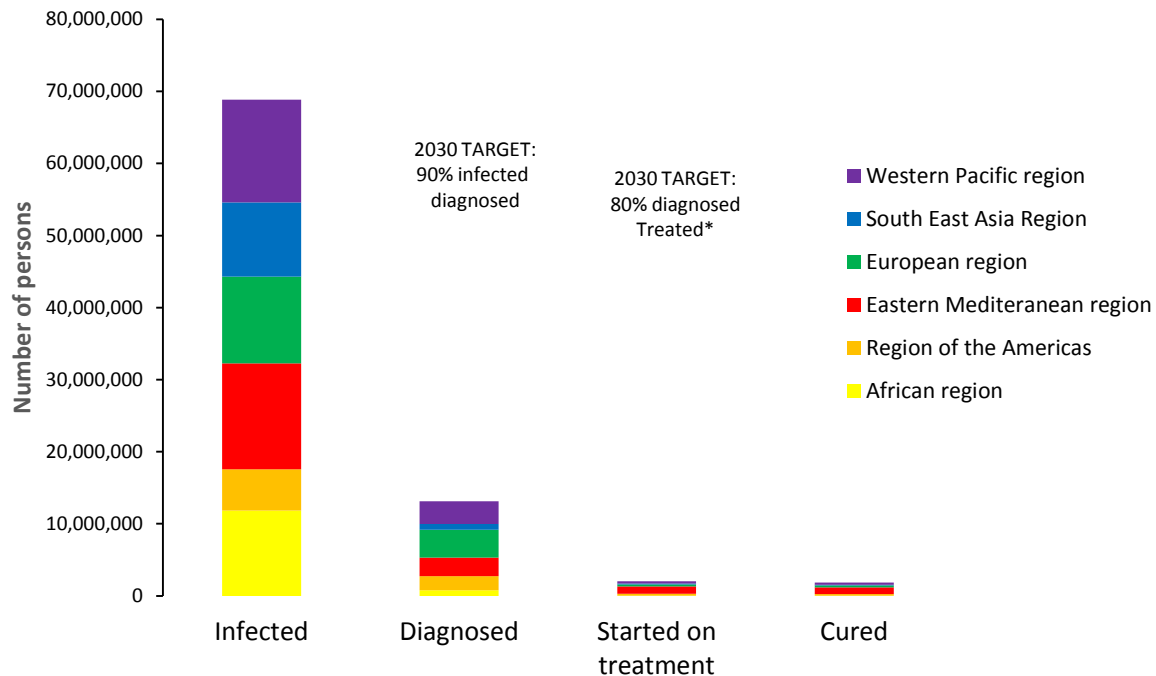
syringes/needle sets provided per PWIDs
per year in 2017

GHSS Target:
300

syringes/needle sets provided per PWIDs
per year in 2030

Cascade of Care for HCV infection and DAA expansion, 2017

Cascade of Care for HCV infection by WHO region, 2017



Number of people treated with DAA, globally:

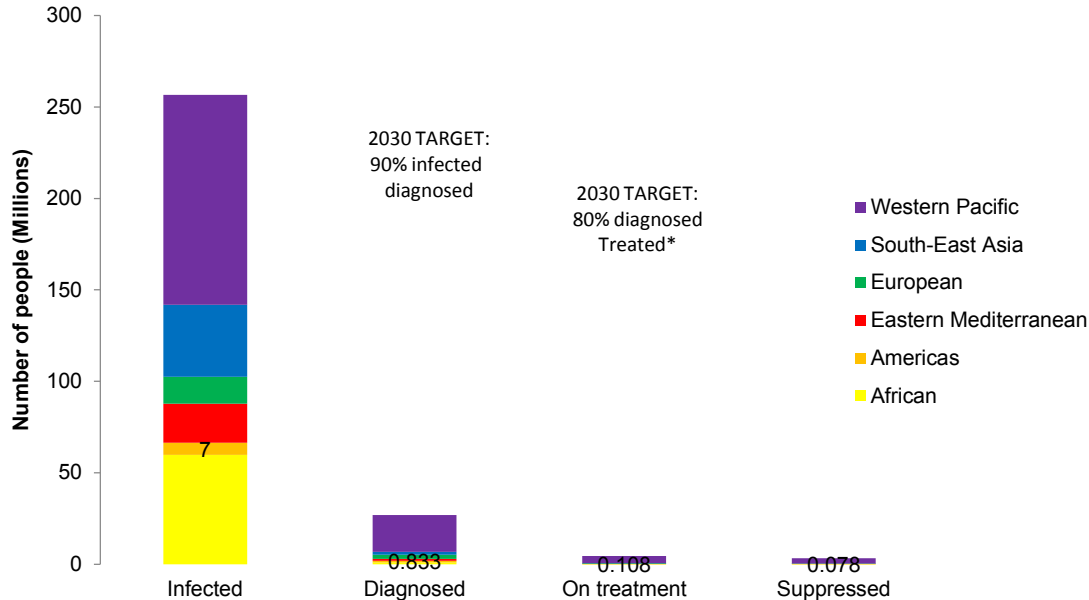
- 2014: < 200 000
- 2015: 1.1 million
- 2016: 1.7 million
- 2017: 2.1 million
- Total: ~5 million**

Most treatment given in about 10 champions countries

• Source: Center for Disease Analysis/Polaris

Cascade of care for HBV infection, 2016

Cascade of Care for HBV infection by WHO region, 2016



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

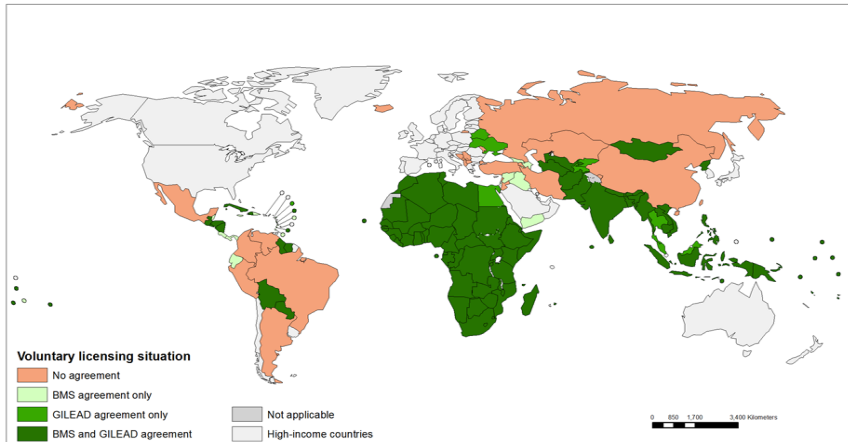
Source: WHO based on Center for Disease Analysis/Polaris

* 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)

Voluntary licensing territories for key direct-acting antivirals in low- and middle-income countries, 2017

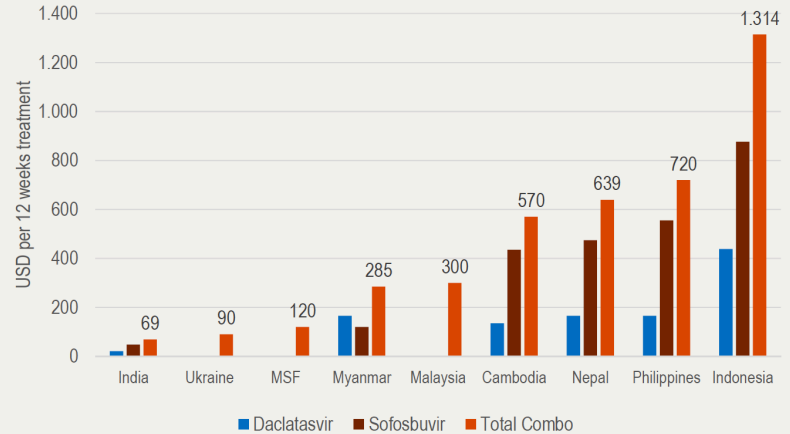


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Data Source: World Health Organization
Map Production: Information Evidence and Research (IER)
World Health Organization



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



Source amfAR August 2018, MSF and MoH Malaysia

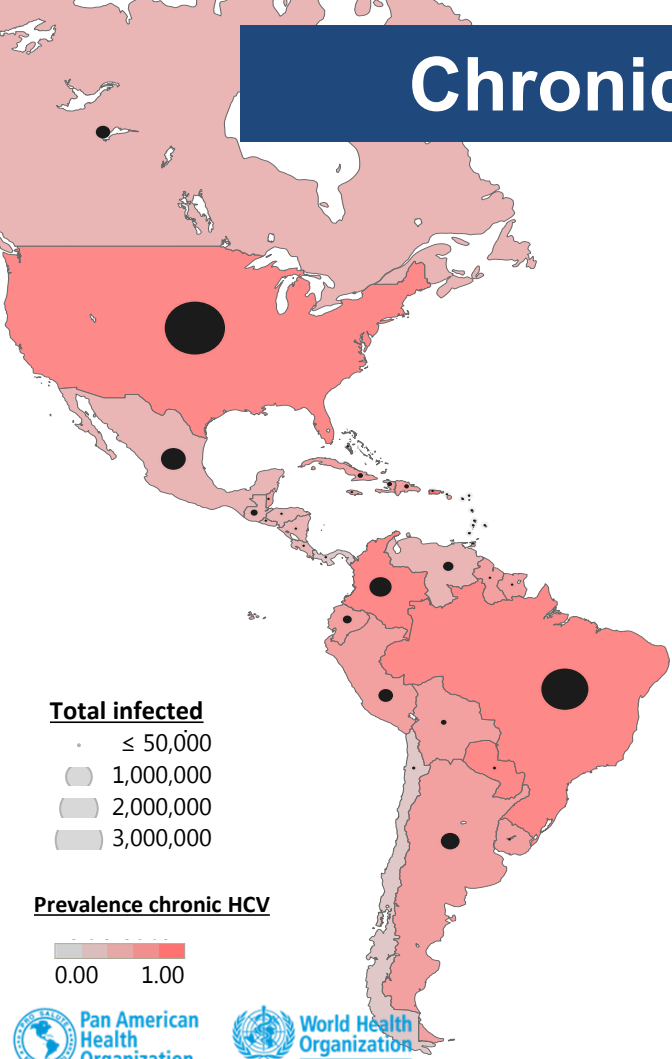
PAHO Strategic Fund:

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

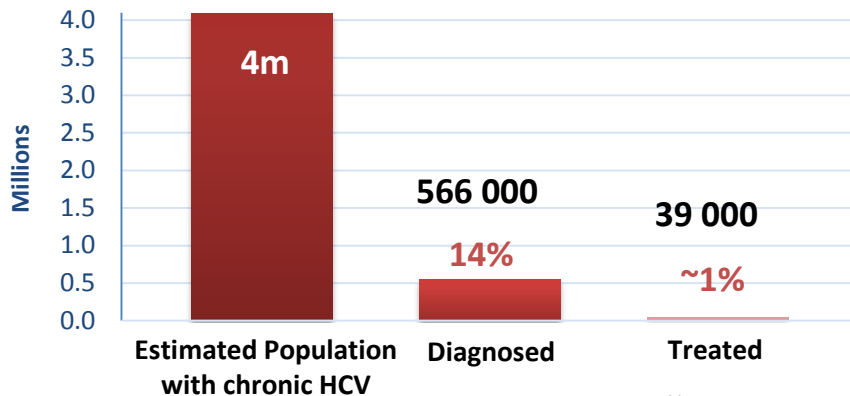
88,000 deaths yearly are estimated to be due to HCV in the Americas (2015)

In **Latin America and the Caribbean:**

4 million people living with HCV

65,000 new chronic HCV infections each year

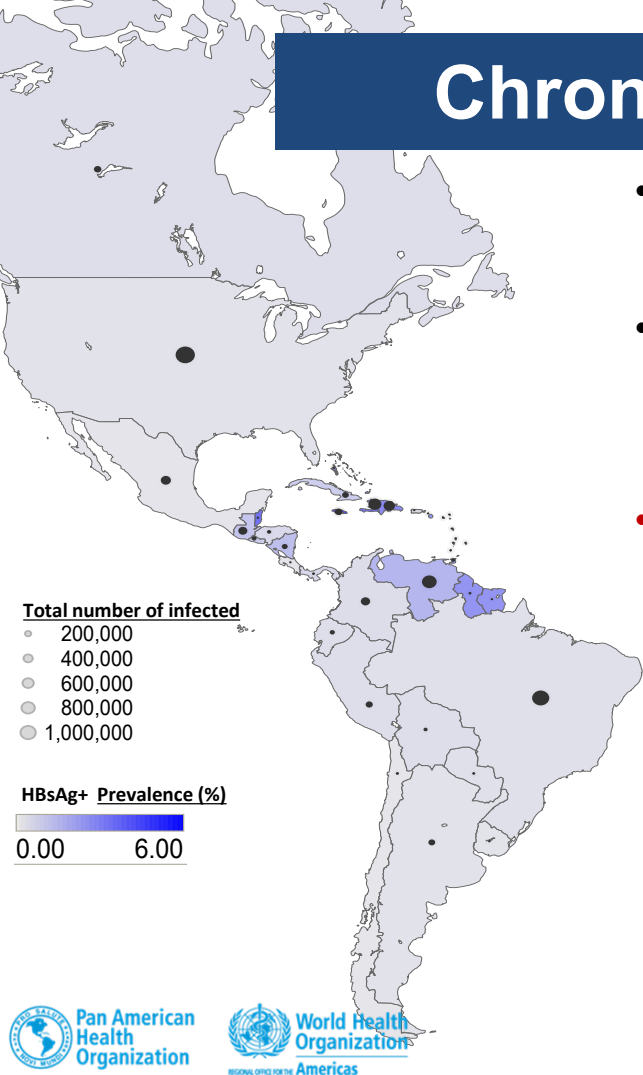
HCV cascade of care: Latin American & the Caribbean, 2016



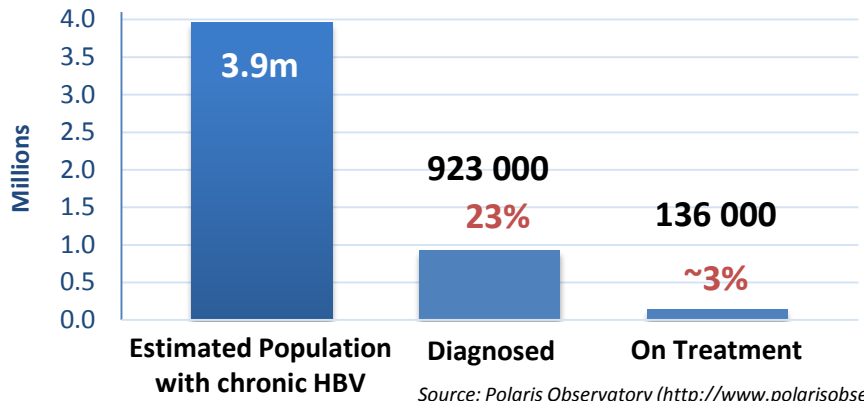
Source: Polaris Observatory (<http://www.polarisobservatory.com/>)

Chronic hepatitis B in the Americas, 2016

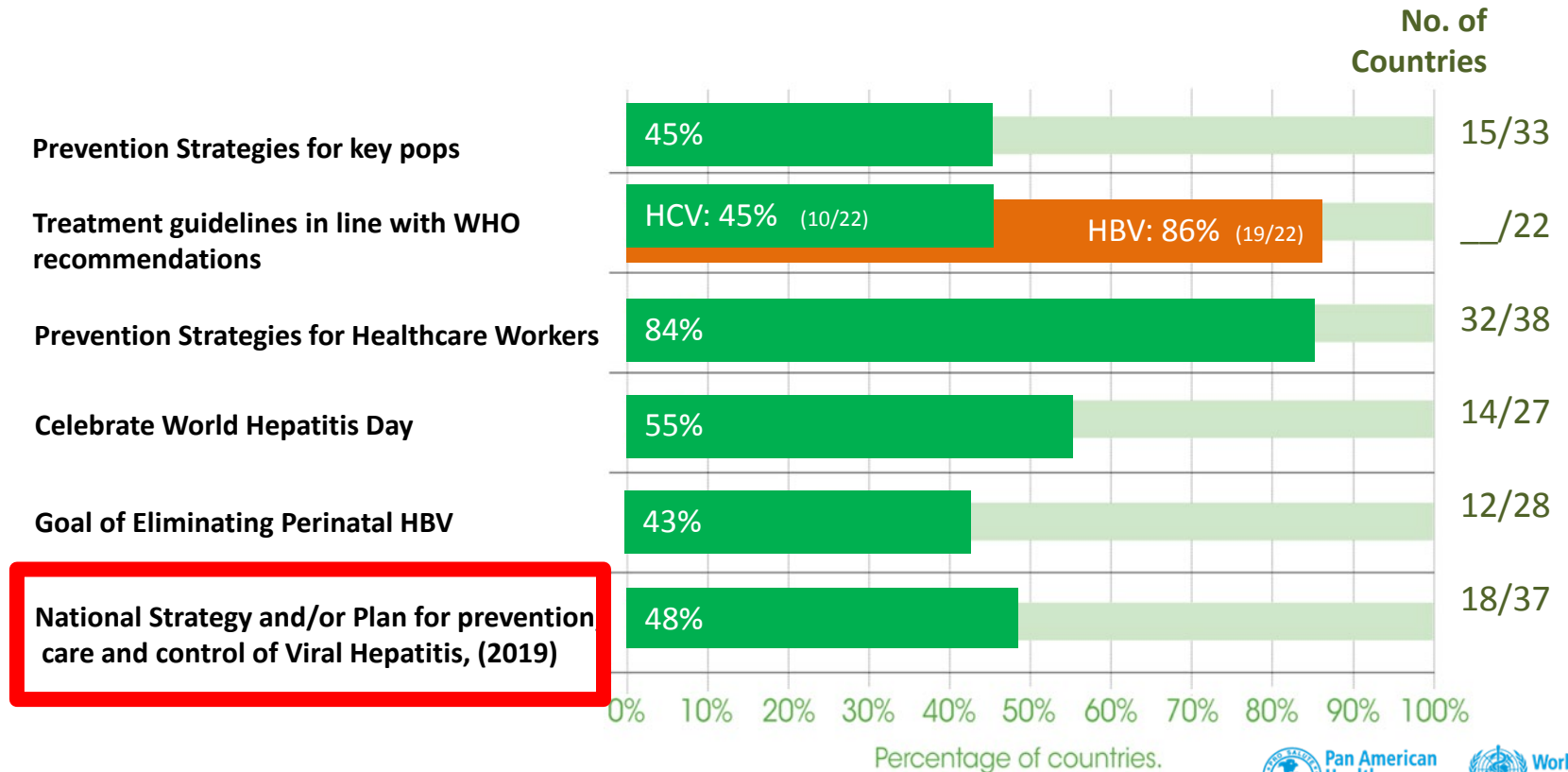
- **3.9 (2.7-6.4)** million people chronically infected
 - **0.4%** prevalence (0.3-0.6%) among general population
- **10,000** new chronic infections in 2016
 - **56% perinatal transmission**
 - Prevalence among **5 years old: 0.04%-0.1%**
- **31,000 deaths** yearly are estimated to be due to HBV in the Americas (2015)



HBV cascade of care: The Americas, 2016



National Policies and Strategies for prevention and control of viral hepatitis 2017



Public health and economic impact of hepatitis elimination

The investment case for hepatitis C in Brazil and the Elimination Plan, 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)

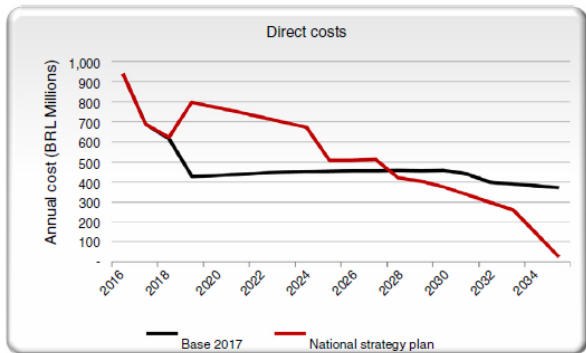


Fig. 3 – Direct costs in the NSP scenario and the base case scenarios.

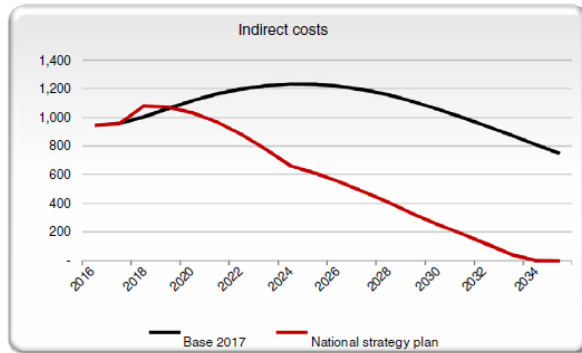


Fig. 4 – Indirect costs in the NSP scenario and the base case scenarios.

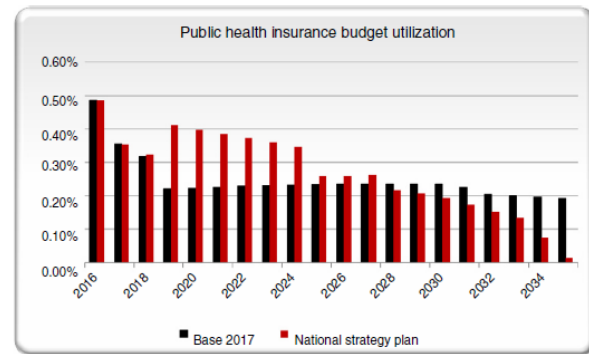
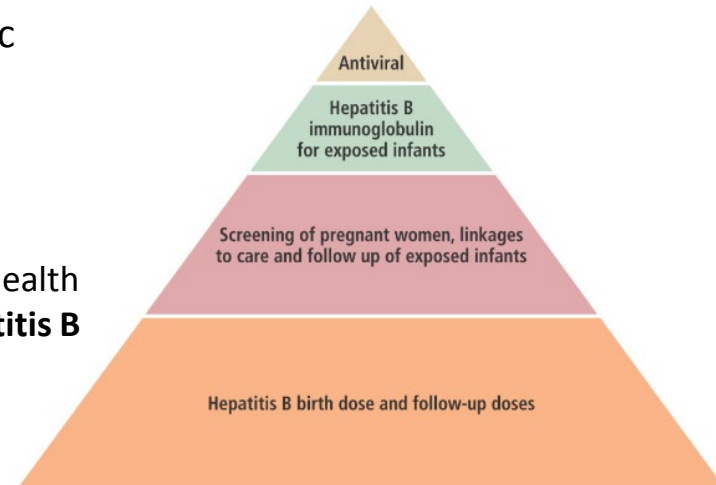
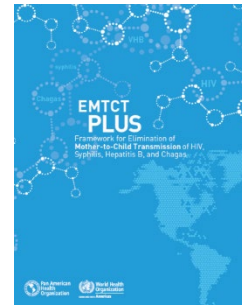


Fig. 6 – Comparing public health budget utilization in the NSP scenario with the base case scenario.

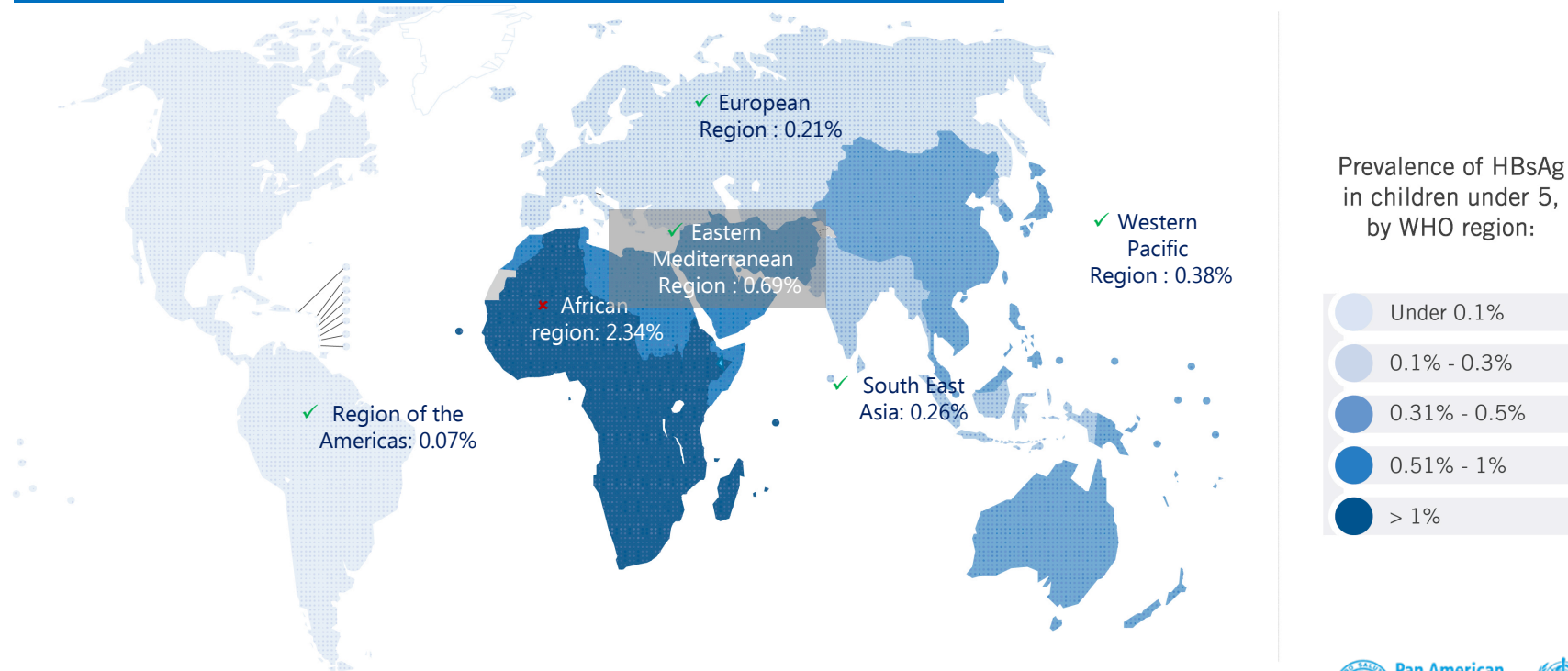
Hepatitis B elimination through maternal and child health platform

- 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



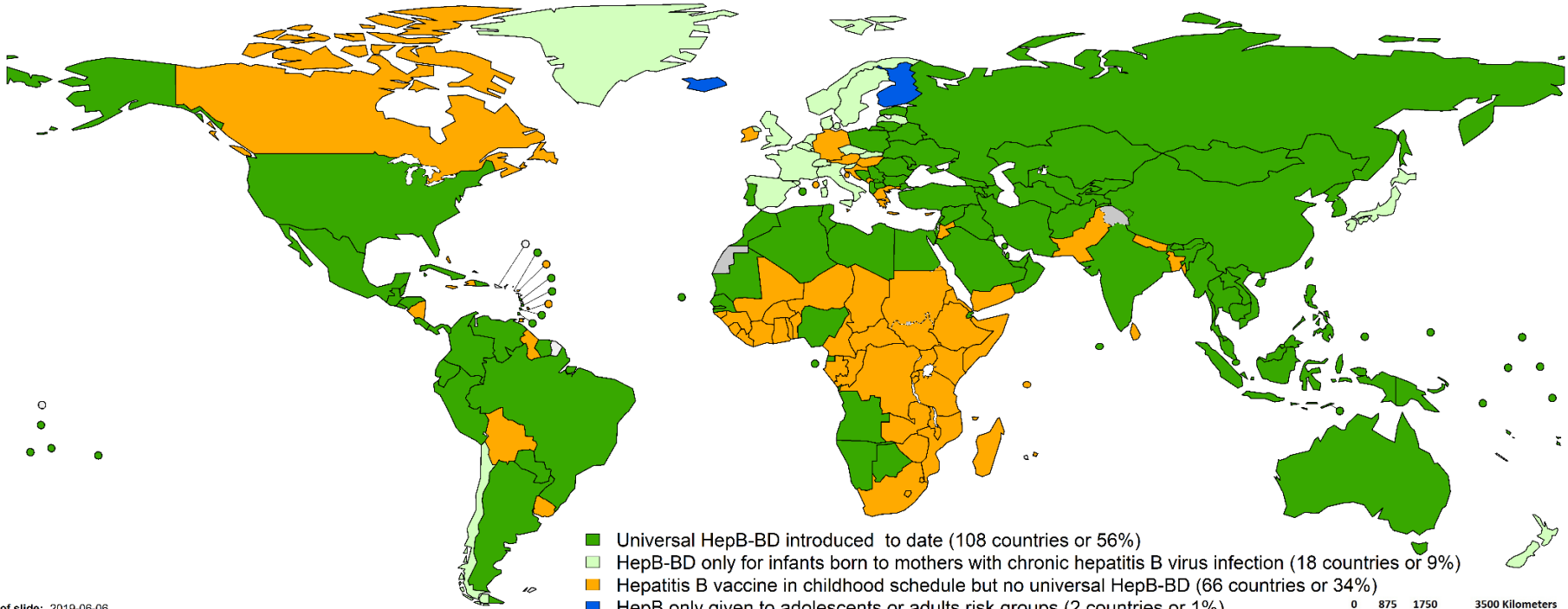
0.8% of children under 5 in 2017 worldwide had chronic HBV infection

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

0 875 1750 3500 Kilometers

Date of slide: 2019-06-06
 Map production: Immunization, Vaccines and Biologicals (IVB), World Health Organization(WHO)
 Data source: IVB database as at 6th June 2019

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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

ELIMINATE
~~HEPATITIS~~



ELIMINAR
~~LA HEPATITIS~~



325 MILLION PEOPLE WORLDWIDE
ARE LIVING WITH HEPATITIS

But 80% have no access to testing and treatment



INVEST IN ELIMINATING HEPATITIS

#Hepatitis