

Hepatitis B and C in the Spotlight: A public health response in the Americas

Key Messages

- Regarding the national structures developed to support the response to the viral hepatitis epidemics, eight-four percent of reporting Member States (21/25) have created a specific department or coordination within the Ministry of Health to lead the response to the viral hepatitis. Of them, fifteen developed a national strategy or plan for the prevention and control of the viral hepatitis. Additionally, eleven countries established a technical advisory body to support the government.
- The Region has made great strides in vaccination efforts since hepatitis B vaccines were first introduced. Every country and territory has included hepatitis B vaccine in its immunization schedule for children, and twenty-two (out of 52 countries and territories) have included the universal birth dose in the first 24 hours.
- Although serological tests for screening are widely available in the Region, the access to more advanced laboratory tests to support treatment decision and monitoring are still limited with nineteen countries reporting the capacity to perform nucleic acid tests for both HCV and HBV, and only fifteen has HCV genotyping available (out of 29 reporting countries and territories).
- Regarding the recommendations for viral hepatitis treatment, nineteen countries recommend the use of tenofovir or entecavir as first line therapy for chronic hepatitis B, aligned with WHO's recommendation. Even more limited, the new direct-acting antivirals are used as first line therapy for hepatitis C in only 10 countries in the Region (out of 22 reporting countries and territories).

Background

Viral hepatitis was recognized in 2010, by the World Health Assembly (WHA) as an international public health challenge, which needs appropriate attention and a coherent public health response by Member States, supported by the World Health Organization (WHO). This commitment was reinforced in 2014, when the WHA urged countries to take action and develop strategies to ensure the access to effective interventions for prevention, care and treatment of viral hepatitis.

In the Americas, in September 2015, the Member States of the Pan American Health Organization (PAHO) approved a *Plan of Action for the Prevention and Control of Viral Hepatitis 2016-2019*, with the objective of catalyze public health efforts on preventing and controlling viral hepatitis, with emphasis on hepatitis B and C.

The regional plan is aligned with *the WHO Global Health Sector Strategy on Viral Hepatitis, 2016-2021*, approved by the 69th WHA in May 2016. This strategy presents the first set of global hepatitis targets, including a 30% reduction in new cases of hepatitis B and C by 2020, and a 10% reduction in mortality, with the ultimate goal of eliminating viral hepatitis as a major public health threat by 2030, halting transmission, and ensuring access to safe and affordable care and treatment for people living with hepatitis.

Data source and Methods

In 2016, PAHO published *Hepatitis B and C in the Spotlight: A public health response in the Americas*, the first regional report on viral

hepatitis. It provides an overview of the epidemiology of hepatitis B (HBV) and hepatitis C (HCV) in the Americas, and the national responses implemented by countries and territories in the Region.

The present report builds on the previous one, and updates key aspects of public health efforts to control the viral hepatitis epidemics in the Region. The data included in this report were submitted by countries and territories (herein referred to only as “countries”) in the region to PAHO/WHO through the *Country Response Profile on Hepatitis B and C (2016/2017)* survey. Supplementary information was also obtained from country data mining exercises on viral hepatitis developed in collaboration with PAHO.

Results

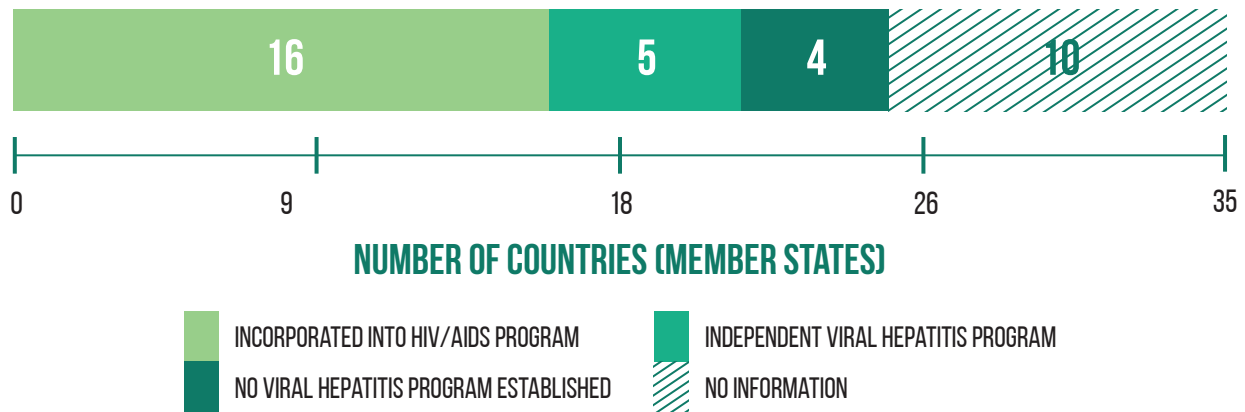
POLICIES AND PLANS

VIRAL HEPATITIS STRUCTURE WITHIN THE MINISTRY OF HEALTH

- The majority of countries have established an organic structure within the ministry of health to coordinate the response to viral hepatitis (21 out of 25 reporting countries). Sixteen countries report to have the viral hepatitis program incorporated with the AIDS program, while five report to have independent viral hepatitis programs **(Figure 1)**.
- Fewer than half of responding countries have a national strategy or plan for the prevention and control of viral hepatitis (15 out of 38) **(Figure 2)**.
- Eleven countries (out of 22 reporting countries) have established a strategic and

technical advisory group (STAG) to advise the government on their response to viral hepatitis. Seven of these countries have included a civil society representative in the STAG **(Figure 2)**.

FIGURE 1: STRUCTURE FOR PREVENTION AND CONTROL OF VIRAL HEPATITIS WITHIN THE MINISTRY OF HEALTH (2017)



Source: PAHO/WHO Country Response Profile on Hepatitis B and C (2017) survey and PAHO surveys on strategic information on viral hepatitis B and C 2015, 2016.

AWARENESS AND PREVENTION

- Following WHO’s recommendation to raise awareness for VH, events celebrating the World Hepatitis Day were held by 12 countries in 2016 (out of 22 reporting countries) **(Figure 2)**.

- Strategies for the prevention of viral hepatitis aimed at healthcare workers are in place in 84% of reporting countries (32 out of 38) **(Figure 2)**.

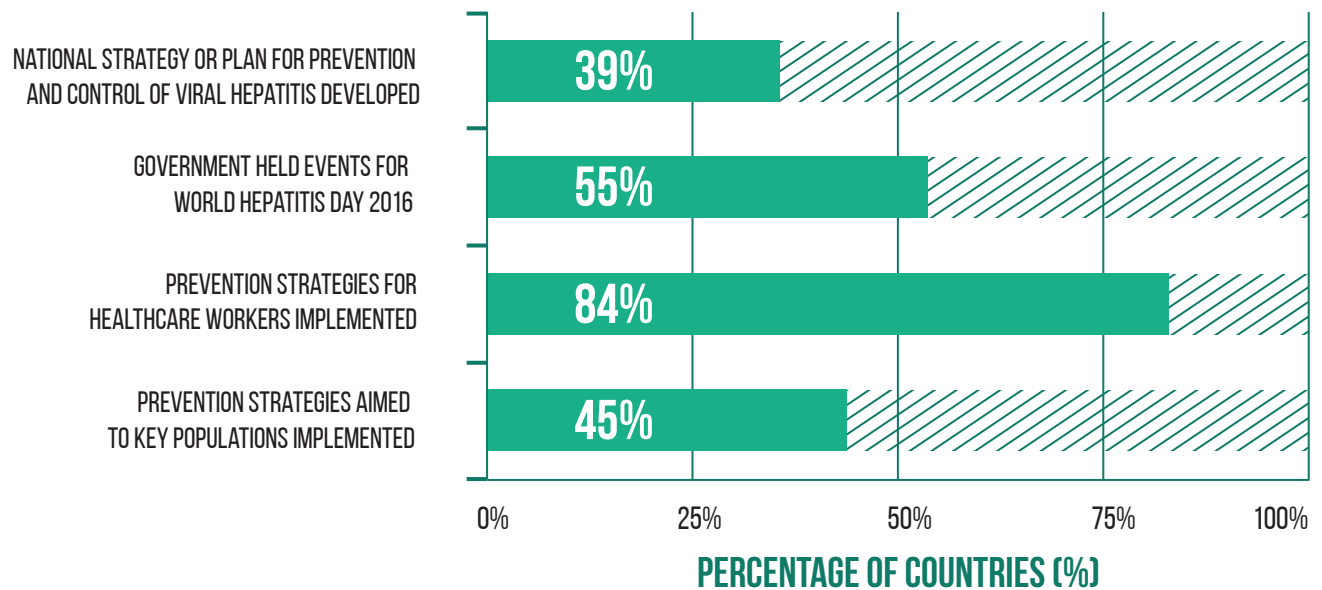
- Strategies for the prevention of viral hepatitis targeting key populations were implemented only in 15 out of 33 countries reporting data **(Figure 2)**.

SURVEILLANCE OF VIRAL HEPATITIS

- A surveillance system that includes case reporting of acute HBV and HCV are available, respectively in 32 and 25 countries (out of 37 responding countries).

- Surveillance of chronic hepatitis is available for HBV in 22 countries and for HCV in 18 countries (out of 36 responding countries).

FIGURE 2: POLICIES FOR PREVENTION AND CONTROL OF VIRAL HEPATITIS, 2017



Source: PAHO/WHO Country Response Profile on Hepatitis B and C (2017) survey; PAHO surveys on strategic information on viral hepatitis B and C 2015, 2016 and data mining country reports.

PREVENTION OF PERINATAL HBV INFECTION

POLICIES AND INTERVENTIONS

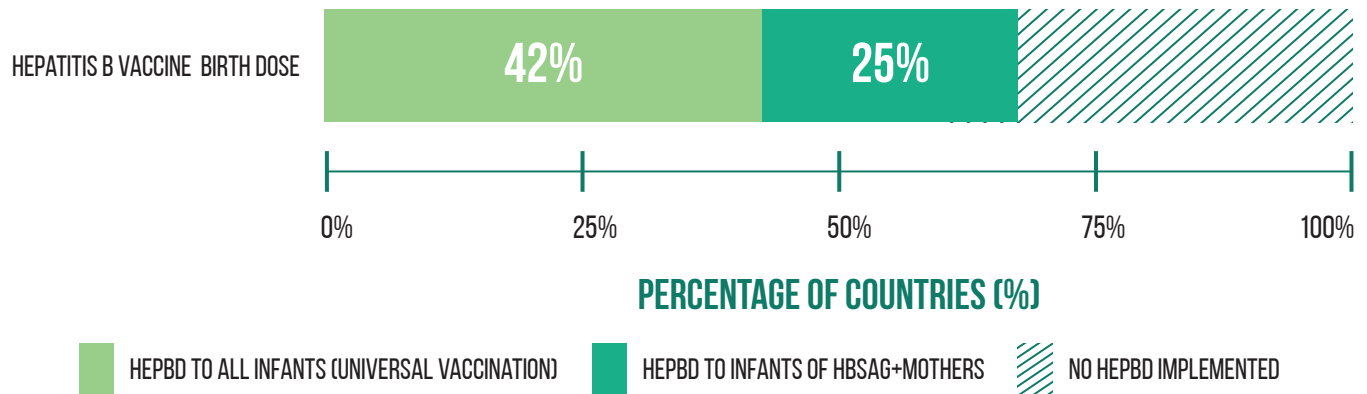
- Even though, only 12 countries (out of 28 reporting countries) have established the goal of eliminating the maternal-to-child transmission of HBV, the majority of countries are implementing the main strategies to prevent the perinatal transmission of hepatitis B **(Figures 3 and 4)**.

- Every country in the Region administers the hepatitis B vaccine as part of childhood immunization schedule.

- In 35 out of 52 countries, a birth dose of HBV vaccine is included in their immunization policies, in 22 of them as a universal vaccination policy and 13 as targeted policy to infants born to chronically infected mothers **(Figure 3)**.

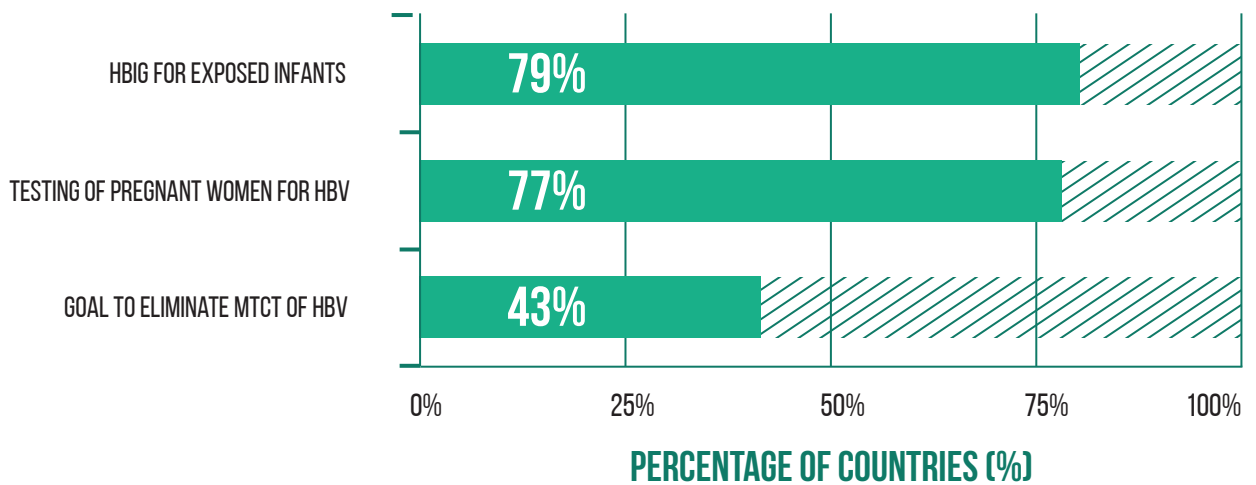
- In addition, policies for systematic screening of pregnant women for HBsAg are in place in 24 out of 31 responding countries, and the use of hepatitis B immunoglobulin for infants born to infected mothers is recommended in 22 out of 28 countries with available information **(Figure 4)**.

FIGURE 3: STRATEGIES FOR HBV BIRTH DOSE VACCINATION IN THE AMERICAS, 2016



Source: Country reports and PAHO/WHO-UNICEF Joint Reporting Forms (JRF).

FIGURE 4: POLICIES AND ADDITIONAL STRATEGIES FOR PREVENTION OF PERINATAL HBV (SEE FIGURE 3) IN THE AMERICAS, 2017



Source: PAHO/WHO Country Response Profile on Hepatitis B and C (2017) survey; PAHO surveys on strategic information on viral hepatitis B and C 2015, 2016 and data mining country reports.

SERVICE DELIVERY

LABORATORY CAPACITY

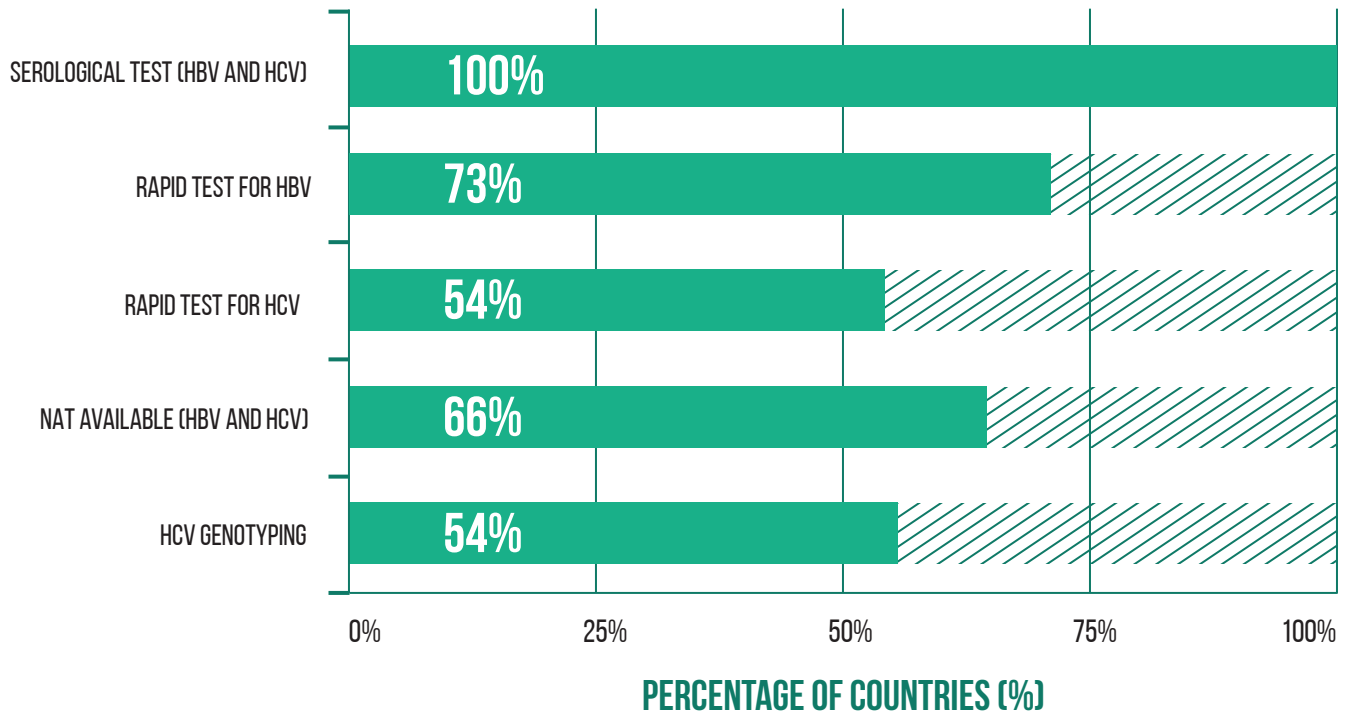
• Regarding the availability of diagnostic tests, all 24 reporting countries are able to provide serological tests for the screening of both HBV and HCV. However, some countries still haven't incorporated point-of-care rapid tests, especially for hepatitis C (**Figure 5**).

• Nucleic acid tests for diagnostic confirmation and monitoring of treatment response of chronic infections are available in the majority of countries for both HBV and HCV (19 out of 29 reporting countries). Only 15 countries report installed capacity to perform HCV genotyping (**Figure 5**).

• National guidelines with recommendations on how to test and diagnose for both viral hepatitis B and C were developed in 13 countries

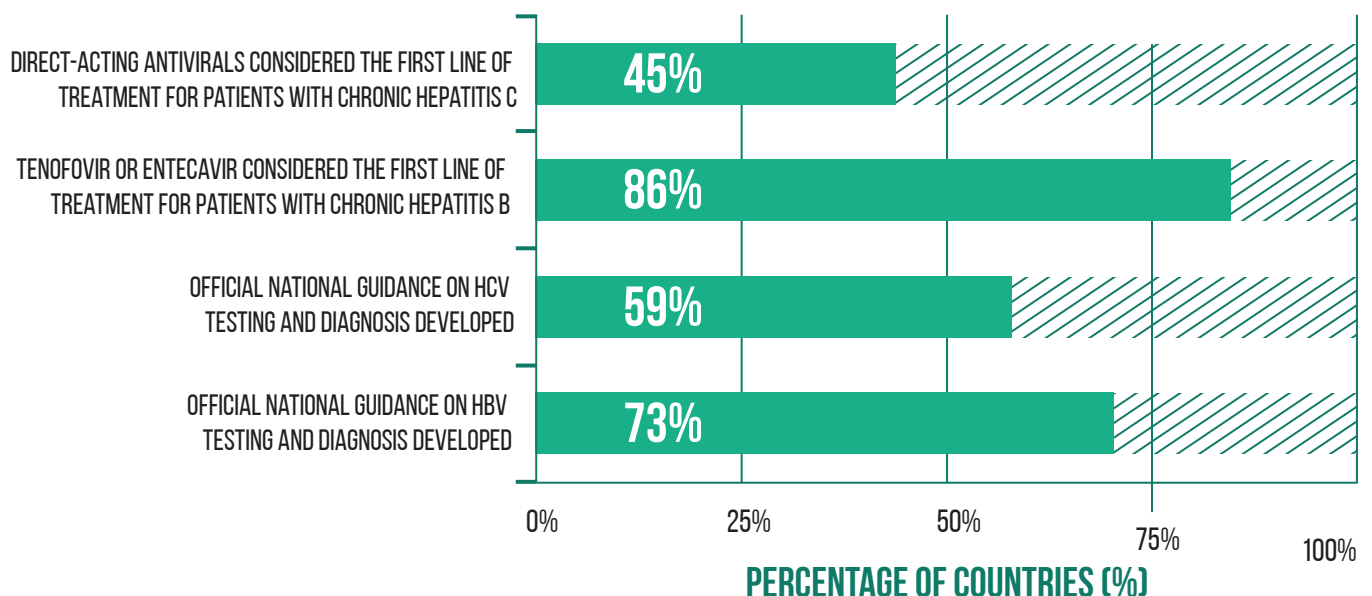
(out of 22). Additional 3 countries have national testing guidelines available only for hepatitis B (**Figure 6**).

FIGURE 5: LABORATORY CAPACITY FOR HBV AND HCV INFECTION IN THE AMERICAS, 2017



Source: PAHO/WHO Country Response Profile on Hepatitis B and C (2017) survey; PAHO surveys on strategic information on viral hepatitis B and C 2015, 2016 and data mining country reports.

FIGURE 6: POLICIES FOR DIAGNOSIS AND TREATMENT OF HBV AND HCV INFECTION IN THE AMERICAS, 2017



Source: PAHO/WHO Country Response Profile on Hepatitis B and C 2017 survey.

ACCESS TO TREATMENT

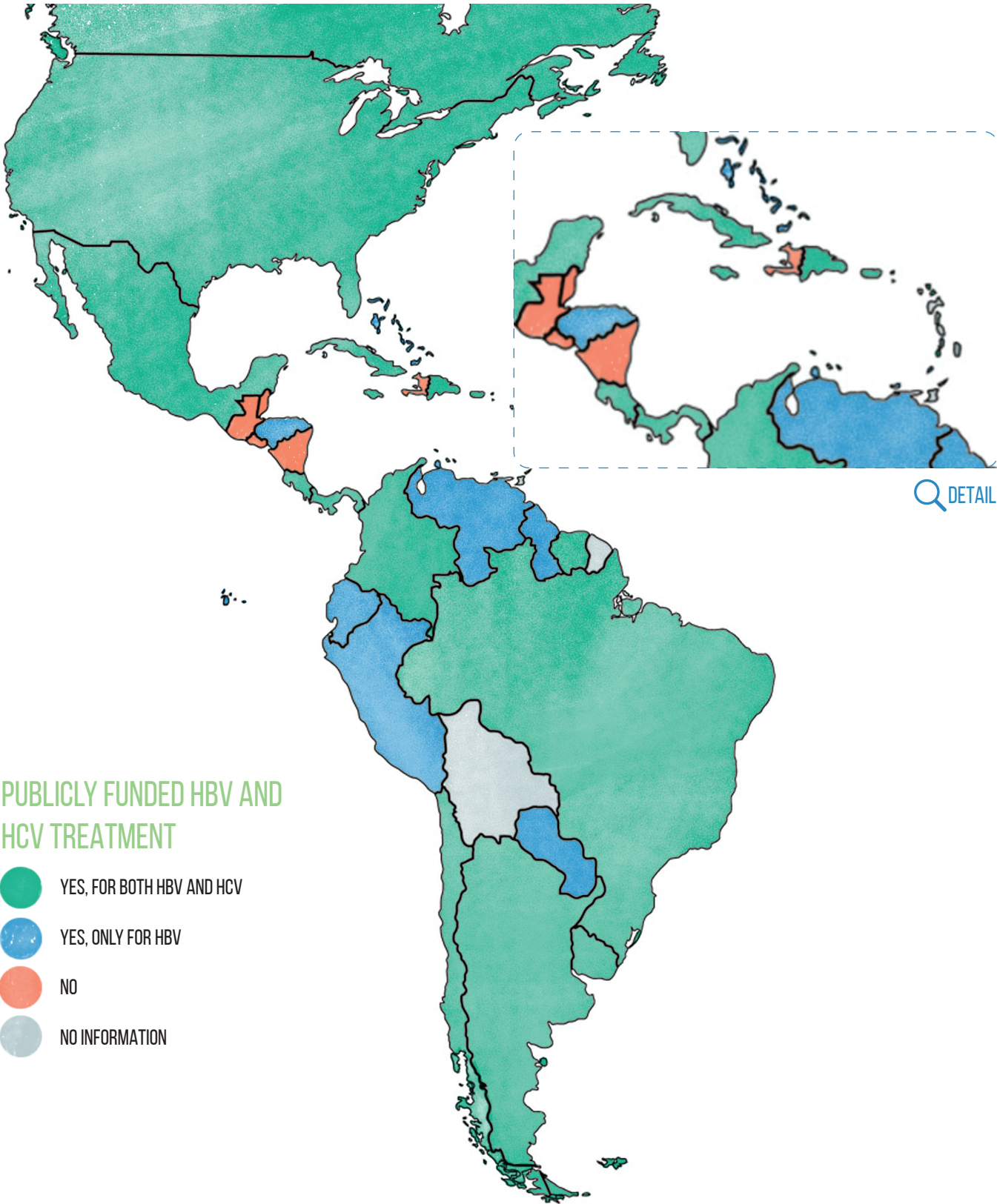
- The use of tenofovir or entecavir as first line treatment for chronic hepatitis B is recommended in 19 out of 22 reporting countries. This recommendation is aligned with *WHO's Guidelines for the prevention, care and treatment of persons with chronic hepatitis B infection, 2015* (**Figure 6**).

- The access to HCV treatment with direct-acting antivirals (DAA) is very limited in the Region. Only 10 out of 22 reporting countries have these medicines available and recommended as the first line therapy for

chronic hepatitis C, as recommended by WHO's *Guidelines for the screening, care and treatment of persons with chronic hepatitis C infection, 2016* (**Figure 6**).

- In 18 countries (out of 37 reporting countries), publicly funded treatment is available for both hepatitis C and B. Another 8 countries provide publicly funded treatment only for hepatitis B, and 11 countries reported to have no viral hepatitis treatment funded by the government (**Figure 7**).

FIGURE 7: PUBLICLY FUNDED HBV AND HCV TREATMENT IN THE AMERICAS, 2017



Source: PAHO/WHO Country Response Profile on Hepatitis B and C surveys and data mining country reports.

ANNEX TABLE I: POLICIES AND PRACTICES FOR CONTROL AND PREVENTION OF VIRAL HEPATITIS B AND C IN THE AMERICAS, 2017

Countries	Structure for prevention and control of Viral Hepatitis within the Ministry of Health	National strategy for the prevention and control of viral hepatitis available	Creation of a STAG to advise the Ministry of Health on the response to viral hepatitis	Prevention strategies for healthcare workers	Prevention strategies aimed to key populations	Goal to eliminate MTCT of HBV	Routine screening of pregnant women for HBV	HBIG for exposed infants	Hepatitis B Vaccine Birth Dose introduced in immunization schedule
Anguilla	No	No	No	Yes	No	No	Yes	Yes	No
Antigua and Barbuda	...	No	...	Yes	No	No	Yes	Yes	No
Argentina	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bahamas	No	No	No	Yes	Yes	No	Yes	Yes	No
Barbados	...	No	...	Yes	No	No	...	...	No
Belize	Yes	No	...	No	No	No	Yes	...	No
Bermuda	No	No	Yes	Yes	Yes	Yes	Yes	Yes	HbsAg+ Mothers
Bolivia	Yes	...	...	...	...	...	...	...	No
Brazil	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
British Virgin Islands	...	No	...	No	No	Yes	Yes	...	No
Canada	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cayman Islands	...	...	...	...	...	...	Yes	Yes	Yes
Chile	Yes*	Yes	Yes	No	No	No	Yes	Yes	HbsAg+ Mothers
Colombia	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Costa Rica	Yes*	No	...	Yes	No	...	Yes	Yes	Yes
Cuba	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dominica	No	No	No	Yes	...	...	Yes	Yes	HbsAg+ Mothers
Dominican Republic	Yes	No	...	Yes	...	...	...	...	Yes
Ecuador	Yes	No	Yes	Yes	No	No	Yes	Yes	Yes
El Salvador	Yes	No	Planned**	Yes	Yes	No	No	No	Yes
Grenada	Yes	No	No	Yes	No	Yes	Yes	Yes	HbsAg+ Mothers
Guatemala	No	No	Planned**	Yes	Yes	No	No	No	Yes

ANNEX TABLE I: CONTINUED

Countries	Structure for prevention and control of Viral Hepatitis within the Ministry of Health	National strategy for the prevention and control of viral hepatitis available	Creation of a STAG to advise the Ministry of Health on the response to viral hepatitis	Prevention strategies for healthcare workers	Prevention strategies aimed to key populations	Goal to eliminate MTCT of HBV	Routine screening of pregnant women for HBV	HBIG for exposed infants	Hepatitis B Vaccine Birth Dose introduced in immunization schedule
Guyana	...	No	...	Yes	No	...	Yes	No	HbsAg+ Mothers
Haiti	No	No	Planned**	No	No	No	No	No	No
Honduras	Yes	No	No	Yes	No	No	No	No	Yes
Jamaica	...	No	...	Yes	No	No	No	Yes	Yes
Mexico	Yes*	Yes	...	Yes	Yes	No	...	...	Yes
Nicaragua	Yes	No	...	Yes	No	...	...	...	No
Panama	...	No	...	Yes	No	No	...	...	No
Paraguay	Yes	Yes	Planned**	Yes	Yes	Yes	No	...	Yes
Peru	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
St. Kitts and Nevis	...	No	...	Yes	...	...	...	...	Yes
St. Lucia	...	No	...	No	No	...	...	...	HbsAg+ Mothers
St. Vincent and the Grenadines	...	No	...	No	No	No	...	...	HbsAg+ Mothers
Suriname	...	Yes	...	Yes	...	...	Yes	Yes	Yes
Trinidad and Tobago	...	Yes	...	Yes	...	...	...	...	No
Turks and Caicos Islands	Yes	Yes	No	Yes	No	Yes	Yes	Yes	HbsAg+ Mothers
USA	Yes*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Uruguay	...	No	...	Yes	Yes	...	Yes	Yes	HbsAg+ Mothers
Venezuela	Yes	Yes	Planned*	Yes	No	No	No	Yes	Yes

Notes: *Marked countries have independent viral hepatitis programs; otherwise, the viral hepatitis response is incorporated into AIDS program; **Countries have no STAG established but have plans to establish by the end of 2017; HbsAg+ Mothers - the birth dose of HBV vaccine is given only to infants born to HBsAg-positive mother.

Source: PAHO/WHO - Country Response Profile on Hepatitis B and C 2016/17; PAHO - Survey on Strategic Information on Viral Hepatitis B and C 2015 and 16; PAHO - Hepatitis B and C in the Spotlight, A public health response in the Americas, 2016; PAHO-WHO/UNICEF Joint Reporting Forms (JRF), 2016.

ANNEX TABLE II: POLICIES AND PRACTICES REGARDING DIAGNOSTIC AND TREATMENT OF VIRAL HEPATITIS B AND C IN THE AMERICAS, 2017

Countries	Serological test (HBV and HCV) available	Rapid test for HBV available	Rapid test for HCV available	Nucleic acid tests for HBV and HCV available	Official national guidance on HBV and HBV testing and diagnosis developed	Tenofovir or Entecavir recommended as first line therapy for chronic hepatitis B	DAA recommended as first line therapy for chronic hepatitis C	Publicly Funded treatment for HBV and HCV
Anguilla	Yes	No	No	Yes	Yes	No	No	No
Antigua and Barbuda	...	...	...	No	...	...	...	Yes, HBV and HCV
Argentina	Yes	No	No	Yes	Yes	Yes	Yes	Yes
Bahamas	Yes	No	No	Yes	No	Yes	Yes	Yes, only for HBV
Barbados	...	...	...	...	...	...	...	No
Belize	...	...	...	No	...	...	...	No
Bermuda	Yes	Yes	Yes	Yes	No	Yes	Yes	No
Bolivia	...	...	...	...	...	...	...	...
Brazil	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes, HBV and HCV
British Virgin Islands	...	...	...	Yes	...	...	...	Yes, HBV and HCV
Canada	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes, HBV and HCV
Cayman Islands	Yes	...	Yes	No	...	...	...	...
Chile	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes, HBV and HCV
Colombia	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes, HBV and HCV
Costa Rica	...	...	No	Yes	...	...	...	Yes, HBV and HCV
Cuba	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes, HBV and HCV
Dominica	Yes	Yes	No	No	Yes, only for HBV	No	No	No
Dominican Republic	...	...	...	...	...	...	...	Yes, HBV and HCV
Ecuador	Yes	No	No	Yes	Yes	Yes	Yes	Yes, only for HBV
El Salvador	Yes	No	No	Yes	Yes	Yes	No	No
Grenada	Yes	Yes	No	No	Yes	Yes	No	Yes, only for HBV
Guatemala	Yes	Yes	Yes	Yes	No	Yes	No	No

ANNEX TABLE II: CONTINUED

Countries	Serological test (HBV and HCV) available	Rapid test for HBV available	Rapid test for HCV available	Nucleic acid tests for HBV and HCV available	Official national guidance on HBV and HBV testing and diagnosis developed	Tenofovir or Entecavir recommended as first line therapy for chronic hepatitis B	DAA recommended as first line therapy for chronic hepatitis C	Publicly Funded treatment for HBV and HCV
Guyana	...	...	...	...	...	...	Yes	No
Haiti	Yes	Yes	Yes	No	No	No	No	No
Honduras	Yes	Yes	Yes	No	Yes, only for HBV	Yes	No	Yes, only for HBV
Jamaica	...	...	...	...	...	...	...	Yes, HBV and HCV
Mexico	Yes	...	...	Yes	...	...	...	Yes, HBV and HCV
Nicaragua	...	...	...	...	...	...	...	No
Panama	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes, HBV and HCV
Paraguay	Yes	Yes	No	Yes	Yes	Yes	No	Yes, only for HBV
Peru	Yes	Yes	No	Yes	Yes, only for HBV	Yes	No	Yes, only for HBV
St. Kitts and Nevis	...	...	...	...	...	...	...	No
St. Lucia	...	...	...	...	...	...	...	No
St. Vincent and the Grenadines	...	...	...	No	...	...	...	Yes, HBV and HCV
Suriname	...	...	...	...	...	...	...	Yes, HBV and HCV
Trinidad and Tobago	...	...	...	...	...	...	...	...
Turks and Caicos Islands	Yes	Yes	Yes	No	No	Yes	No	Yes, only for HBV
USA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes, HBV and HCV
Uruguay	...	...	...	...	...	...	...	Yes, HBV and HCV
Venezuela	Yes	No	No	No	No	No	No	Yes, only for HBV

Source: PAHO/WHO - Country Response Profile on Hepatitis B and C 2016/17; PAHO - Survey on Strategic Information on Viral Hepatitis B and C 2015 and 16; PAHO - Hepatitis B and C in the Spotlight, A public health response in the Americas, 2016.

Acronyms

DAA	direct-acting antiviral
HCV	hepatitis C virus
HBV	hepatitis B virus
HBIG	hepatitis B immunoglobulin
HbsAg	hepatitis B surface antigen
HepBD	hepatitis B vaccine birth dose
MTCT	mother to child transmission
NAT	nucleic acid test
PAHO	Pan American Health Organizaion
STAG	Strategic and Technical Advisory Group
WHA	World Health Assembly
WHO	World Health Organization

