



Regional action plan for the implementation of the global health sector strategy on viral hepatitis 2017–2021



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Executive summary

Viral hepatitis is the seventh leading cause of mortality globally, responsible for 1.34 million deaths in 2015. The consequences of chronic hepatitis B and C infection – cirrhosis and liver cancer – cause 96% of deaths associated with hepatitis virus infection. Despite the significant burden it places on communities worldwide, hepatitis has been largely ignored as a health priority until recently. With the adoption of the 2030 Agenda for Sustainable Development, viral hepatitis has received global recognition as a significant public health problem. Under health-related Sustainable Development Goal (SDG) 3, the agenda calls for specific action to combat viral hepatitis. Accordingly, the first global health sector strategy on viral hepatitis was endorsed by the World Health Assembly in 2016, with the elimination of viral hepatitis as a public health threat by 2030 as its central goal.

In the World Health Organization's Eastern Mediterranean Region, an estimated 21 million people are chronically infected with hepatitis B and 15 million are infected with hepatitis C in 2016. According to the 2010 global burden of disease database, viral hepatitis B and C cause more deaths (over 90 000) in the Region every year than HIV, malaria or tuberculosis individually. New viral hepatitis infections result primarily from unsafe injections and medical procedures. In recent years, the Region has had significant success in fighting hepatitis B through childhood vaccination. By the end of 2015, the median coverage of the complete course of childhood vaccination was 97%. However, even with reductions in childhood prevalence, millions of people across the Region continue to live with chronic hepatitis infection

The action plan prioritizes four effective evidence-based interventions:

- hepatitis B vaccination (including birth-dose)
 - blood and injection safety
 - harm reduction for injecting drug users
 - hepatitis B and C diagnosis and treatment.
-

and the risk of cirrhosis and liver cancer. At the same time, ensuring access to diagnostics and effective medicines for hepatitis B and C is a major challenge for all countries.

In view of those challenges, and to mobilize a coherent regional response, the regional action plan for viral hepatitis 2017–2021 has been developed in consultation with representatives from ministries of health, regional hepatitis experts, civil society organizations, private sector representatives and international partner agencies. The action plan is intended to guide Member States and the WHO Secretariat on a roadmap towards the achievement of national, regional and global targets. Since hepatitis epidemiology, the capacities of health systems and the availability of resources vary widely across countries in the Eastern Mediterranean Region, the action plan encourages Member States to develop country-specific national hepatitis responses based on the needs and priorities of affected people and communities, as well as the capacity of the national health sector to address these needs. It calls for involving stakeholders from the public and private sectors and civil society in the hepatitis response, strengthening governance and public policy, generating data to better understand hepatitis epidemics, enhancing prevention strategies, and improving access to affordable screening, diagnosis and treatment of hepatitis B and C. It prioritizes known effective interventions, promotes equitable access to hepatitis services and sets programmatic milestones for 2018 and 2021 on the pathway towards achieving the global targets.

The plan is structured around five strategic directions: 1) leadership, good governance and advocacy for a coordinated and integrated response; 2) information for focused action; 3) interventions for impact; 4) systems strengthening for equitable access; and 5) financing for sustainability. Under each of the strategic directions, specific actions need to be taken by countries and WHO. These actions will be implemented in a phased manner with different starting points for different countries, depending on the status of their response to viral hepatitis in 2016.

1. Introduction

Global hepatitis burden

The viral hepatitis pandemic takes a heavy toll on lives, communities and health systems. In 2013, the Global Burden of Disease study identified viral hepatitis as the seventh leading cause of mortality worldwide, superseding each of HIV, tuberculosis and malaria (1,2). It is responsible for an estimated 1.34 million deaths per year from acute infection and hepatitis-related liver cancer and cirrhosis (3). Nearly half of this mortality is attributed to hepatitis C virus (HCV) and half to hepatitis B virus (HBV), while approximately 5% is due to hepatitis A virus and hepatitis E virus (2). Infection with HBV or HCV causes acute hepatitis, fibrosis, cirrhosis and liver cancer, among other forms of disease. Worldwide, approximately 257 million people have chronic HVB infection and 71 million have chronic HCV infection (3).

The first global strategy for viral hepatitis

Building on the 2012 Prevention and control of viral hepatitis infection: Framework for global action and World Health Assembly resolutions WHA63.18 (2010) (4) and WHA67.6 (2014) (5) on viral hepatitis, WHO has led the development of the first global health sector strategy on viral hepatitis, 2016–2021, with elimination of viral hepatitis as a public health threat by 2030 as its central goal. The strategy is closely aligned to the 2030 Agenda for Sustainable Development and the health targets of the Sustainable Development Goals, specifically SDG 3 which calls for specific action to combat viral hepatitis and achieve

universal health coverage, and to related global health strategies and plans, including those for HIV, sexually transmitted infections, blood safety and noncommunicable diseases.

The global strategy draws on three organizing frameworks: universal health coverage; the continuum of hepatitis services; and the public health approach.

Ensuring financial security and health equity are key concerns in the 2030 Agenda for Sustainable Development, and universal health coverage provides a framework for addressing them. Universal health coverage (see Fig. 1) is achieved when all people receive the health services they need, which are of sufficient quality to make a difference, without those people incurring financial hardship. Noting the varying economic and infrastructure contexts of Member States, as resources, efficiencies and capacity increase, the range of services provided can be expanded, with improved quality, and cover more populations with fewer direct costs to those who need the services – a progressive realization towards universal health coverage.

While the concept of universal health coverage frames the strategy overall, the continuum of hepatitis services provides an organizing framework for the specific actions to be taken. That continuum spans the entire range of interventions needed to achieve the strategy's targets – from reducing vulnerability, preventing and diagnosing infection, linking people to health services, through to providing treatment and chronic care.

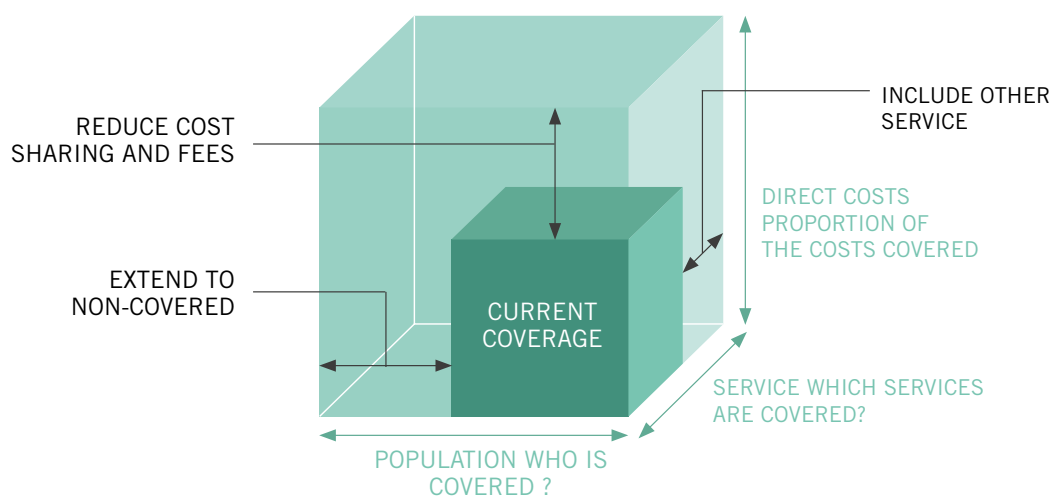


Fig. 1. The three dimensions of universal health coverage

The concept of a public health approach is concerned with preventing infection and disease, promoting health and prolonging life among the population as a whole. It aims to ensure the widest possible access to high-quality services at the population level, based on simplified and standardized interventions and services that can readily be taken to scale and decentralized, including in resource-limited settings. A public health approach aims to achieve health equity and promote gender equality, and to engage communities and leverage public and private sectors in the response.

The global strategy on viral hepatitis provides:

- a vision of a world where viral hepatitis transmission is halted and everyone living with viral hepatitis has access to safe, affordable and effective care and treatment;
- the goal of eliminating viral hepatitis as a major public health threat by 2030;
- a set of targets that seek to reduce the number of newly occurring chronic hepatitis infections from the current 6–10 million to 0.9 million per year by 2030, and reduce annual deaths from chronic hepatitis from 1.4 million to less than 0.5 million by 2030, with milestones for 2020.

Regional hepatitis burden

Hepatitis C

In the WHO Eastern Mediterranean Region, it is estimated that a total of 19.9 million living individuals have been infected with HCV, among whom around 15 million are chronically infected (3). About 80% of these individuals live in Egypt and Pakistan, which contribute about 5.1 million and 6.6 million chronic HCV infections, respectively. In addition, close to half a million chronically infected individuals are found in each of Islamic Republic of Iran, Saudi Arabia and Yemen. Consequently, HCV infection is a major cause of liver disease burden in the Region (6).

With the exceptions of Egypt and Pakistan, HCV prevalence in countries of the Region is low: in the range of 1% among the general population, which is comparable to most countries globally (Table 1). National HCV Antibody prevalence is about 10% in Egypt and 5% in Pakistan (7,8).

The high HCV prevalence levels found among populations with high-risk exposures to HCV in health care settings indicate that exposure through poor infection control in health care settings is a dominant mode of HCV transmission in the Region. Mother-to-child transmission also appears to be a significant mode of HCV transmission in Egypt and Pakistan. However, it is not likely to be a major route of HCV infection transmission in most countries of the Region where the prevalence of HCV infection among women of reproductive age is not high. Meanwhile, modes of transmission remain poorly characterized in most countries (9).

There are over half a million people who inject drugs in the Region, about half of whom are HCV-infected. The mean HCV prevalence among this population was estimated at 45% across countries in the Region, which is comparable to global levels. However, substantial HCV prevalence rates, exceeding 70% in some cases, have been reported among people who inject drugs in several countries including Afghanistan, Bahrain, Egypt, Islamic Republic of Iran, Lebanon, Libya, Morocco, Pakistan Palestine, Saudi Arabia and Tunisia. Considerable levels of HCV prevalence are also found among prisoners across the Region (9).

Hepatitis B

In the Region, the overall hepatitis B surface antigen (HBsAg) prevalence is 3.3%, accounting for an estimated 21 million people with chronic HBV infection (HBsAg-positive individuals) (3). Table 2 provides an overview of hepatitis antigen (HBsAg) seroprevalence levels in countries of the Region. An estimated 80% of all cases in the Region live in eight countries: Afghanistan, Egypt, Islamic Republic of Iran, Morocco, Pakistan, Sudan, Syrian Arab Republic and Yemen.

Most countries in the Region lack strategic information on the local epidemiology of viral hepatitis due to the lack of adequate surveillance systems. These data gaps present challenges to developing regional epidemiological estimates, including: a lack of studies in the general population across the Region, a lack of studies in the general population within certain countries, and a lack of studies reporting data from more recent years. Accordingly, countries need to take the necessary measures to improve their hepatitis surveillance system at national level in order to give a more reliable and accurate view of the real situation.

Table 1. Hepatitis C prevalence in the Region

Hepatitis C (HVC antibody) prevalence	Countries
First tier (prevalence >2%)	Egypt, Pakistan
Second tier (prevalence 0.6–2%)	Afghanistan, Libya, Morocco, Saudi Arabia, Somalia, Sudan, Tunisia, Yemen, Bahrain, Qatar, United Arab Emirates
Third tier (prevalence ≤0.5%)	Djibouti, Islamic Republic of Iran, Iraq, Jordan, Kuwait, Lebanon, Palestine, Syrian Arab Republic, Oman

Table 2. Hepatitis B prevalence in the Region

Hepatitis B (HBSAG) seroprevalence in the general population (>5 years)	Countries
High endemicity (prevalence more than 8%)	Somalia, Sudan
Intermediate endemicity (prevalence 2–8%)	Djibouti, Egypt, Jordan, Libya, Oman, Pakistan, Saudi Arabia, Yemen
Low endemicity (prevalence less than 2%)	Bahrain, Iran, Iraq, Kuwait, Lebanon, Morocco, Qatar, Syrian Arab Republic, United Arab Emirates

National hepatitis responses

While HIV programmes in the Region have progressed considerably in recent years, programmes targeting HCV infection are still lacking in most countries. In 2016, the WHO Regional Office for the Eastern Mediterranean conducted a questionnaire survey to review the status of the hepatitis response in the 22 countries of the Region. Sixteen countries responded and all except one country had prevention and care interventions for viral hepatitis in place, although implementation of the interventions is limited in scale. Also, approaches to prevention and treatment were found to be very diverse across the countries.

Thirteen countries reported having a strategy or plan for the prevention and control of viral hepatitis. Baseline data on the burden of HCV infection, the most important transmission routes and coverage of

prevention and treatment services are not available in most countries and, accordingly, concrete targets for reducing the burden of infection and for service coverage and indicators to track progress have been lacking in those plans.

Although hepatitis B vaccination programmes are being implemented, coverage seems to be inadequate, particularly when it comes to high-risk populations, such as sex workers and men who have sex with men. Health care providers have been identified as a key population to be targeted for prevention, however, vaccination coverage of this group is variable and inadequate in most countries.

Many chronically infected persons are unaware of their infection and its consequences, and they risk transmitting the disease to their families and partners. These people do not have timely access to

testing, care and effective treatment services to delay disease progression and prevent morbidity, mortality or disability. Ensuring the continued engagement of hepatitis patients with health services along the continuum of care is another challenge.

Even in countries with hepatitis programmes in place, coverage of screening, diagnostic testing and treatment is still very low. For example, only six countries reported screening key populations at higher risk of hepatitis B, such as sex workers or men having sex with men. Enhancing case detection will require prioritization of populations at higher risk for hepatitis, standardization of the screening procedures and a substantial increase in coverage.

Since late 2014, remarkable efforts have been made – particularly in Egypt and Pakistan – to increase access to new direct-acting antivirals for the treatment of hepatitis C. By July 2016, 580 000 people in Egypt and 60 000 in Pakistan had received treatment with direct-acting antivirals. Continued massive scale-up efforts of antiviral treatment will be required to reduce the burden of liver cirrhosis and cancer in view of the high number of untreated chronically HCV-infected people.

One of the reasons for poor access and limited treatment coverage is the cost of the treatment options for hepatitis C. The cost per regimen has been reported to range from as low as US\$ 150 to as high as US\$ 62 000. Thus, although direct-acting antivirals have been adopted in HCV treatment protocols across countries of the Region, the costs are prohibitive and unsustainable, regardless of whether the cost is covered by governments, health insurance or out-of-pocket payments by patients.

Many countries lack strategic information on local epidemiology of viral hepatitis and on the expected impact and cost-effectiveness of different prevention and care interventions. This is a contributing factor to low national commitment and domestic investment in hepatitis responses.

In addition, the Region is facing unprecedented degrees of security and displacement challenges due to armed conflict and natural disasters. This has drawn the attention in health to emergency relief efforts. The affected countries have had to slow down scale-up efforts of health sector programmes, including hepatitis, and large new groups of displaced people have limited access to hepatitis prevention, diagnosis and treatment services.

2. Regional action plan for viral hepatitis, 2017–2021: Overview

Vision, goal and targets

The vision, goal and targets of the regional action plan are aligned with those of the global strategy. Accordingly, the vision is: “An Eastern Mediterranean Region free of new hepatitis infections and where people living with chronic hepatitis have access to care and affordable and effective prevention, care and treatment”. The goal is to eliminate viral hepatitis as a major public health threat by 2030. Targets seek a 10-fold reduction of new infections and a 3-fold reduction of deaths from chronic hepatitis by 2030. These targets will require a radical change in the hepatitis response, and will mean that hepatitis is elevated to a higher priority in public health.

Purpose and focus

The purpose of the regional action plan for viral hepatitis is to build and keep momentum among WHO Member States for accelerating access to hepatitis prevention and treatment, and to guide Member States and the WHO Secretariat on a roadmap and priority actions towards the achievements of national, regional and global targets. The target audience includes ministries of health, policy-makers, programme officers, health planners and implementing agencies, clinicians, civil society organizations, community groups, WHO partner agencies, the private sector and donors.

The focus of the action plan is chronic hepatitis B and C, as the vast majority of morbidity and mortality from

viral hepatitis is associated with chronic hepatitis B and C infections. However, it is important that disease control measures to prevent hepatitis A and E are put in place, including surveillance and early warning systems for epidemics of hepatitis A and E, safe water supplies, promotion of hygiene and vaccination.

Development of the plan

The regional action plan has been developed in consultation with hepatitis focal points from ministries of health, regional hepatitis experts, civil society representatives and experts from WHO partner agencies. Recommendations for priority actions are based on the burden of disease, its variations between countries in the Region and between populations within countries, and gaps in existing programmes and resources. The draft action plan for viral hepatitis has been presented and discussed in the regional strategic and technical consultation meeting held in Morocco from 25 to 27 April 2016. Feedback and comments provided by participants of the meeting have been fully considered in the finalization of the document.

A mid-term review of the implementation of the regional action plan is proposed at the end of 2018, and an end-term review is proposed for 2021.

Programmatic milestones

Milestones for the national response	Target year
1.1 A viral hepatitis health sector coordinating body is actively fulfilling its responsibilities.	
1.2 A viral hepatitis focal unit (or focal person) has been appointed and is following up on planning, implementation and monitoring of the viral hepatitis response.	
1.3 National coverage targets for viral hepatitis prevention and treatment interventions have been set, with measurable indicators, including targets for: <ul style="list-style-type: none"> • hepatitis B vaccination of health workers; • safe injections in health care settings; • hepatitis B and C screening of selected populations; • hepatitis B and C treatment; • in countries with a significant population of people who inject drugs: coverage of needles-syringe programmes, opioid substitution therapy and hepatitis B vaccination. 	
1.4 A plan of action to achieve the national targets has been formulated.	
1.5 National policies and guidelines for priority interventions are available and in line with global standards, including: <ul style="list-style-type: none"> • a policy for hepatitis B vaccination of health workers; • a policy to integrate hepatitis B vaccination in HIV services, haemodialysis units and services targeting people who inject drugs, men who have sex with men and sex workers; • policies for screening of selected population groups at increased risk; • a policy for mandatory screening of all blood donations for hepatitis B and C; • a policy for referral of all blood donors with positive screening results for hepatitis B and C confirmatory testing and case management; • a policy for use of safe injections (or safety-engineered devices) in health care settings to prevent transmission of bloodborne infections; • guidelines for diagnostic testing; • guidelines for hepatitis B and C case management. 	2018
1.6 Advocates from public and private sector, civil society, professional associations, etc. have agreed on a joint awareness raising and advocacy strategy, and are collaborating on its implementation.	2021

¹ The development of effective strategies and policies requires evidence of the effectiveness of interventions, information on local epidemiology, disease burden, health system capacity, cost of interventions etc.; refer to strategic direction 2.

3. Strategic directions, key actions and programmatic milestones

To achieve the global targets in the WHO Eastern Mediterranean Region, action is required in five areas, referred to as “strategic directions”.

1. Leadership, good governance and advocacy for a coordinated and integrated response.
2. Information for focused action.
3. Interventions for impact.
4. Systems strengthening for equitable access.
5. Financing for sustainability.

Under each of the strategic directions, specific actions need to be taken by countries, WHO and partners. These actions will be implemented in a phased manner, with different starting points for different countries depending on the status of their response to viral hepatitis in 2016. The speed of scale up of the response towards achieving global targets will depend on many factors, including disease burden, political commitment, economic and health system capacity and, ultimately, the impact of protracted emergencies in the Region on health sector priorities. The regional action plan proposes programmatic milestones for 2018 and 2021. If adopted by each country, the achievement of those milestones will result in tangible progress towards the global goal of eliminating viral hepatitis B and C by 2030.

Strategic direction 1: Leadership, good governance and advocacy for a coordinated and integrated response

Eliminating viral hepatitis will require commitment of top leadership, coordination of actors within the health sector and beyond, evidence-based policies¹, consensus between stakeholders on national targets, determination to achieve those targets and funded national action plans.

Recommended actions for Member States

1.1 Establish a coordination mechanism for an integrated hepatitis response

The coordination mechanism should envisage participation of key stakeholders from government,

civil society, academia and the private sector. It should provide a platform for planning, target setting, resource mobilization and monitoring progress of implementation.

The coordination mechanism should include:

- a national multisectoral body that guides and oversees the multisectoral hepatitis response (e.g. national inter-ministerial health committee) under the leadership of the ministry of health;
- a ministry of health internal coordination mechanism that is integrated in the existing governance structure of the health sector;
- a focal unit or person for viral hepatitis to ensure follow up on implementation of national policies by the various actors.

The size of the unit for follow up and programme implementation support will vary between countries depending on the capacity needed for this purpose.

1.2 Develop evidence-informed policies for programme and service delivery

Policies and standards should be developed or updated in line with global reference guidelines and standards. It is recommended to involve providers and beneficiaries of the interventions in the development of policies to ensure optimal acceptance. There should be national policies and standards for viral hepatitis prevention (immunization for hepatitis A and B, blood safety, injection safety, injecting drug use harm reduction), hepatitis B and C testing and case detection, and national guidelines for case management of all viral hepatitis (A, B and D, C, E) and chronic care for cirrhosis and liver cancer. Hepatitis policies should be integrated in relevant existing policies such as blood safety, infection control, antenatal care and others.

1.3 Set national targets for the prevention and control of viral hepatitis and define measurable indicators for monitoring progress towards their achievement

National targets should be consensus-based, reflect commitment and ambition and take the reality of

health system challenges and financing limitations into account. Interim targets, or “milestones”, can mark particular steps on the way towards achieving the national targets. Indicators for monitoring progress towards the achievement of milestones and targets must be defined.

1.4 Develop national plans of action to achieve the national targets

National action plans provide direction for all actors towards the achievement of national targets. The national hepatitis coordinating body should oversee the development of national action plans. Action plans should be developed periodically (e.g. every 2 years) with the involvement of all stakeholders relevant to their successful implementation. National action plans are inclusive of a framework for monitoring and evaluation and a cost estimate.

1.5 Raise awareness of policy-makers, communities and health care providers; build an investment case

In order to achieve success in responding to viral hepatitis, stakeholders must be aware of the extent of hepatitis epidemics, the health consequences and the costs and benefits of a national response. A hepatitis communication strategy tailored to the country context will help to use available resources most effectively. Part of the communication strategy is an investment case. The investment case is built on an economic analysis (see action 2.3) and will highlight the cost of inaction. Investment cases are used to advocate for priority interventions to prevent new cases and chronic disease.

1.6 Address stigma and discrimination

In order to alleviate structural barriers to access to hepatitis services, stakeholders must ensure appropriate measures to protect people affected by viral hepatitis from stigma and discrimination.

Actions for the WHO Secretariat

1.7 Technical cooperation

The Regional Office will facilitate the establishment of a regional platform of technical expertise to support the implementation of a public health response to

viral hepatitis (a regional viral hepatitis expert group).

The Regional Office will provide necessary tools and materials for advocacy and awareness raising, and undertake relevant regional activities that can enhance national efforts.

1.8 Policy advice and dialogue

The Regional Office will facilitate the dialogue on WHO recommended policies between stakeholders at national and regional level including government institutions, clinical experts, professional associations, academia, private sector, civil society and development partners.

1.9 Norms and standards

The Regional Office and country offices will keep national counterparts up to date on WHO global guidance through dissemination and orientation meetings at regional and national levels.

Strategic direction 2: Information for focused action

Reliable strategic information is essential for generating data for advocacy, target setting, planning for efficient use of resources, and monitoring achievements and impact. With limited resources, investments need to be strategically targeted to the local epidemic.

In 2016, WHO published guidance on epidemiological surveillance (10) and programme monitoring (11) for viral hepatitis. Ten global key indicators for hepatitis burden and response monitoring were proposed. Their adoption will enable countries to participate in annual reporting of standardized global indicators. The measurement of these indicators should be integrated in the existing health information systems and tools.

Data sources will include various components of the national health information system, including: the viral hepatitis data reporting system, immunization and liver disease reporting (cirrhosis cases and cancer registry) systems, inventory management systems, hospital information systems, antiviral prescribing or ordering data systems, and surveys among special population groups at higher risk.

Programmatic milestones

Milestones for the national response	Target year
2.1 An inventory of existing data and sources of data on viral hepatitis has been made.	
2.2 National key hepatitis indicators have been determined in line with WHO global guidance.	
2.3 A plan for step-wise integration of key hepatitis indicators in national health information system has been developed.	
2.4 An initial estimate of the prevalence of chronic HBV and HCV infections in the general and/or special populations is available.	2018
2.5 An economic analysis of different intervention scenarios has been carried out and an investment case has been developed (a priority in high-burden countries).	
.....	
2.6 The national health information system measures key disease burden and service coverage indicators.	
2.7 Performance across the viral hepatitis service continuum has been reviewed and barriers to access and retention have been identified (at least once every 2 years).	2021

Recommended actions for Member States

2.1 Strengthen epidemiological data collection on viral hepatitis to enable reliable estimations of the national disease burden and treatment burden

Key interventions include:

- assessing existing data, data sources and capacity for viral hepatitis epidemiological surveillance;
- defining a manageable list of national indicators to monitor epidemiological trends – depending on the capacity of the national surveillance system. To ensure standard case definitions are used, WHO global surveillance guidance should be considered and adapted to the national context;
- gradually building capacity of the national health information system to enable estimation of the viral hepatitis disease burden including existing (prevalent) and new (incident) hepatitis cases,

chronic liver disease cases and cancer cases;

- estimating the treatment need;
- assessing epidemiological profiles of groups at increased risk to identify country-specific priority groups for testing and treatment.

2.2 Monitor coverage and quality of a continuum of viral hepatitis services

The hepatitis services continuum (Fig. 2) provides a useful framework for establishing a national hepatitis monitoring and evaluation system. Indicators measure coverage and performance along each step of the cascade. Lost opportunities to engage people with viral hepatitis in the service continuum are identified and resources can be directed towards closing these gaps.

Key interventions include:

- defining a list of national key indicators to monitor coverage along the hepatitis service continuum;
- gradually building capacity of the health information system to address data gaps;
- making use of WHO monitoring and evaluation guidance to ensure that national indicators are in line with standard global indicators;
- reviewing performance across the viral hepatitis prevention and care continuum, and identifying access barriers and factors associated with leakage along the continuum.

2.3 Carry out economic analysis of viral hepatitis prevention and control in order to build an investment case

Countries with a high burden of viral hepatitis should carry out an economic analysis to estimate the net cost of different scenarios of viral hepatitis prevention and control, i.e. the difference between: 1) the cost of interventions; and 2) the savings gained as a result of interventions (such as the cost per case or death

prevented; the cost per DALY). An investment case can be built on this analysis and will highlight the cost of inaction (see action 1.5).

Actions for the WHO Secretariat

2.4 Technical cooperation

The Regional Office and country offices will provide technical support to Member States to:

- assess existing data sources for viral hepatitis surveillance and programme monitoring;
- identify important gaps and develop a plan for gradual strengthening of the health information system to accommodate viral hepatitis programme data needs;
- carry out economic analysis and develop an investment case for viral hepatitis;
- establish baseline values for national indicators;
- support hepatitis response reviews along the hepatitis prevention and care continuum;
- build capacity in hepatitis surveillance and programme monitoring.

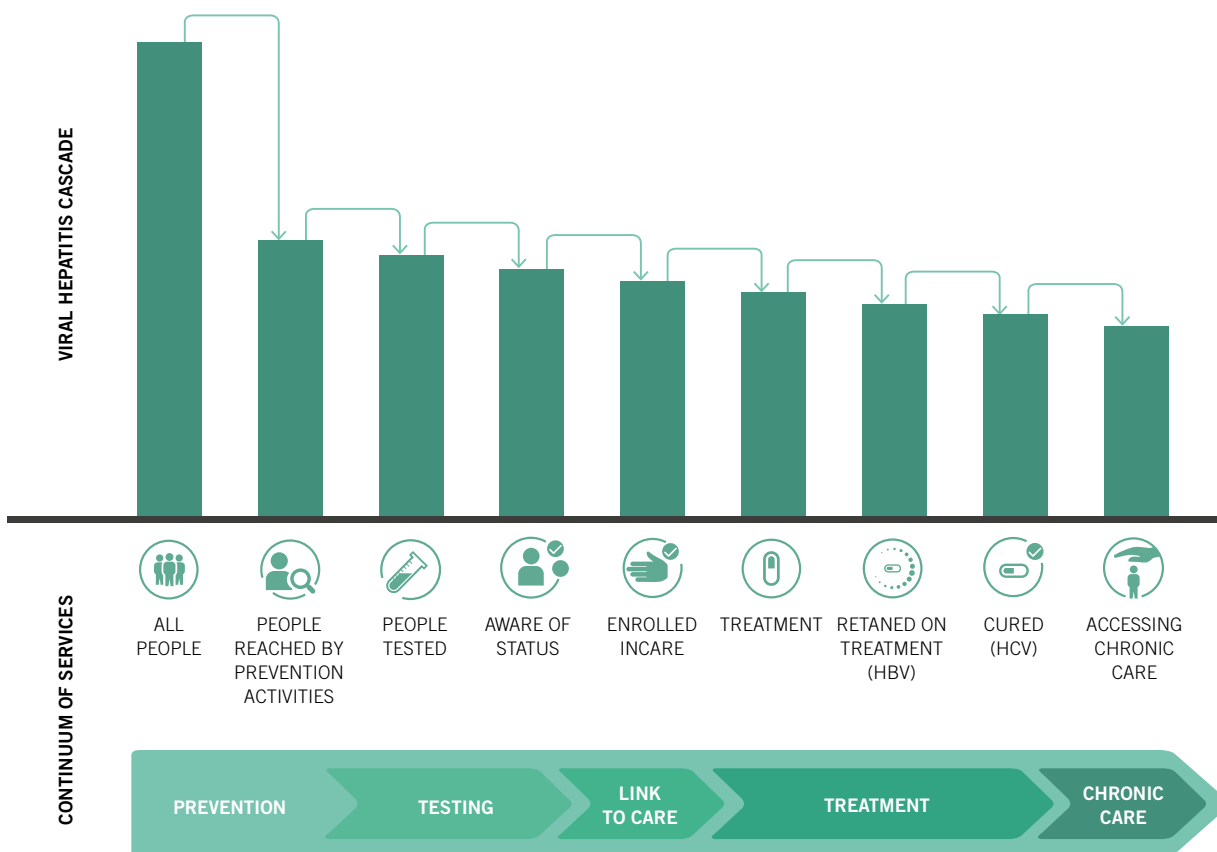


Fig. 2. The continuum of hepatitis services and the retention cascade

2.5 Policy advice and dialogue

The Regional Office and country offices will orient national health information system experts on WHO guidance for hepatitis surveillance and programme monitoring and evaluation.

2.6 Leading and convening

Country offices will convene stakeholders for consensus building on national disease burden estimates.

2.7 Dissemination of evidence and best practices

The Regional Office will support global monitoring of the hepatitis response, monitor progress toward targets in the Region and provide feedback to Member States.

Strategic direction 3: Interventions for impact

Each country needs to define a set of essential viral hepatitis interventions, services, medicines and commodities. Essential viral hepatitis B and C interventions and services should include the following core elements: hepatitis B vaccination; blood safety, injection safety and universal precautions; harm reduction services for people who inject drugs; and, diagnosis and treatment of chronic hepatitis B and hepatitis C virus infections. Interventions for the prevention of sexual transmission of hepatitis B and hepatitis C viruses are important for specific populations.

Elimination of mother-to-child transmission of HBV will require a comprehensive approach that includes:

prevention of HBV infection in young women; HBV testing; care of pregnant women with chronic HBV infection; delivery of hepatitis B vaccine to the infant within 24 hours of birth; safe delivery practices; strengthened maternal and child health services; and, the development of new interventions to prevent transmission based on antiviral treatment.

People living with chronic viral hepatitis can only be cured or have their risk of disease progression reduced through screening, diagnosis, care and effective antiviral treatment. Effective care and treatment of chronic viral hepatitis is illustrated by the continuum of care diagram (Fig. 2, the cascade). Each step is contingent upon the achievement and maintenance of the prior step. Early diagnosis is important in order to identify new cases and link them to care and treatment. Adherence and retention are key to achieving optimum outcomes and maximizing the cost-effectiveness of antiviral therapy.

To have the greatest impact, effective interventions should be combined and tailored to the specific population, location and setting. For example, for hepatitis B epidemics, in certain high-prevalence countries the most significant public health benefits would be seen if the following two approaches were adopted (and if high coverage rates could be achieved): focus was on the prevention of early-life infection through birth-dose and childhood vaccination; and deaths were prevented by treatment.

A phased approach towards introduction and scaling up of hepatitis screening, diagnosis and treatment will help to identify the most suitable service delivery models specific to each country's health system.

Programmatic milestones and service coverage targets

Milestones for the national response	Target year
Stopping transmission	
3.1 Policies for key prevention interventions have been developed and endorsed by decision-makers (refer to milestone 1.5).	
3.2 Baseline information on the coverage of preventive interventions is available, including: <ul style="list-style-type: none"> • coverage of hepatitis vaccination of health workers; • percentage of blood donors screened for hepatitis B and C; • percentage of health facilities that implement the policy of 100% single-use (or safety-engineered) injection devices is available; • in countries with a significant population of people who inject drugs: coverage of needles-syringe programmes, opioid substitution therapy and HBV vaccination. 	2018
Expanding access to a continuum of services for early diagnosis, care and treatment	
3.3 Baseline information on the coverage of hepatitis diagnosis and treatment interventions is available, including: <ul style="list-style-type: none"> • screening coverage (by population to be screened as per national policy); • number and percentage of people with chronic hepatitis B receiving treatment; • number and percentage of people with chronic hepatitis C who received a full course of treatment; • percentage of people treated for hepatitis C who are cured. 	2018
3.4 Baseline information on deaths from hepatocellular carcinoma, cirrhosis and chronic liver disease attributable to hepatitis B and C is available.	
Service coverage targets	
Stopping transmission	
Hepatitis B birth-dose vaccination coverage of at least 50% is achieved.	
3-dose hepatitis B vaccination coverage of at least 90% is achieved.	
Hepatitis B vaccination is integrated in at least 50% of HIV services and services targeting people who inject drugs, men who have sex with men and sex workers.	2021
National target for injection safety in health care settings has been achieved.	
In countries with a public health problem of injecting drug use: national target for needle-syringe distribution has been achieved.	
Expanding access to a continuum of services for early diagnosis, care and treatment	
National hepatitis screening targets for 2021 have been achieved.	
At least 30% of people with chronic hepatitis B and C have been diagnosed.	2021
National hepatitis B and C treatment targets for 2021 have been achieved.	

Recommended actions for Member States

3.1 Improve hepatitis B vaccination coverage

Countries should focus on achieving at least 90% hepatitis B childhood immunization coverage and on expanding hepatitis B birth-dose vaccination coverage to provide protection against mother-to-child transmission.

Key interventions include:

- expanding routine immunization and birth-dose vaccination (see Box 1);
- targeting population groups at increased risk of hepatitis B with vaccination, such as health workers without prior hepatitis B vaccination, people who inject drugs, men who have sex with men, sex workers, prisoners and prison personnel. Existing

services, such as HIV prevention services, for key populations at higher risk provide an opportunity to offer vaccination.

3.2 Prevent mother-to-child transmission of hepatitis B

Perinatal transmission of hepatitis B virus, from an HBsAg-positive mother to her newborn baby, is of particular concern as 70–90% of newborns infected perinatally become chronic carriers, and therefore are at high risk of morbidity and mortality from cirrhosis and liver cancer during later phases of life.

Maintenance of hepatitis B control in the general population requires effective control of perinatal transmission, along with achieving high levels of immunity in children and adolescents through universal immunization.

Box 1. Key interventions for achieving the hepatitis B control target through vaccination

1. Ensure routine infant hepatitis B immunization with high coverage within the first 6 months of life as part of the routine EPI service delivery plan:
 - administer the birth dose of hepatitis B vaccine within the first 24 hours of life;
 - ensure completion of the hepatitis B vaccination schedule within 6 months of birth;
 - achieve and maintain at least 90% coverage with 3 doses of hepatitis B vaccine as part of the overall global and regional goal to achieve at least 90% coverage with all antigens offered in the national immunization programme.
2. Safeguard vaccine effectiveness by ensuring hepatitis B vaccine is not frozen during storage and transport and ensuring correct vaccine administration by intramuscular injection in the thigh or deltoid muscle.
3. Plan and implement advocacy and social mobilization to ensure high uptake of vaccine:
 - advocate for introduction and expansion of the birth dose of hepatitis B vaccine nationwide to decision-makers;
 - advocate for the health sector to increase communication on hepatitis B vaccine effectiveness and benefit of birth dose for prevention of chronic hepatitis B infection;
 - mobilize the community to increase demand for hepatitis B vaccine.
4. Monitor the quality of procured vaccine, cold chain and overall vaccine management at all levels.
5. Monitor the vaccination coverage of birth dose and the third dose of hepatitis B vaccine at all administrative levels and take corrective action in underperforming areas.
6. Monitor progress towards the regional target of chronic HBV infection prevalence of less than 1% among children aged under-5 years through conducting serosurveys.

There are two basic strategies utilized in the Region to prevent perinatal transmission. The first is to immunize all children with a birth dose of monovalent hepatitis B vaccine (which has been addressed above, under action 3.1). The second is to screen all pregnant women for HBsAg during a prenatal visit, and then provide post-exposure prophylaxis to infants of carrier mothers with hepatitis B immunoglobulin (HBIG) plus three or four doses of hepatitis B vaccine. Twelve countries implement both strategies, i.e. universal immunization of all children at birth with hepatitis B vaccine plus neonatal screening of mothers and addition of HBIG to infants of carrier mothers.

Key interventions include:

- ensuring that all infants born in health facilities receive hepatitis B vaccine within 24 hours of birth. The immunization programme must work with maternal and child health and obstetric staff to integrate hepatitis B vaccine birth dose into essential neonatal care. Infants should not be discharged from hospital without a birth dose of hepatitis B vaccine;
- developing strategies to administer a timely birth dose of hepatitis B vaccine to newborns born at home; (in countries with a significant proportion of home deliveries);
- for countries that decide to continue with maternal screening/prophylaxis without universal birth dose: introduce routine screening of pregnant women for HBsAg to ensure high coverage, including migrants and socially deprived women.

3.3 Strengthen hepatitis prevention and control measures as an integral part of the national infection control and prevention programme in health care settings

Consistent implementation of infection control practices, including safe injection measures in health care settings, will reduce transmission of viral hepatitis and other infections to users of health care services as well as health care workers.

Key interventions include:

- developing and disseminating evidence-based guidelines for the prevention and management of viral hepatitis;
- developing the content of training programmes on infection prevention and control (IPC) to prevent the transmission of viral hepatitis in all health care settings;

- adopting preventive measures that reduce the risk of transmission of viral hepatitis to health care workers of all categories;
- establishing/strengthening a national IPC regulating authority with the ability to:
 - investigate infection outbreaks in health care settings;
 - oversee the implementation of safe therapeutic injection practices;
 - ensure compliance with correct sterilization procedures and medical waste management in the public and private sectors and the informal health care sector;
 - promote the exclusive use of safety-engineered injection devices and reuse prevention devices (see Box 2);
 - ensure adequate funding for single-use disposable injection equipment in all public health facilities and adherence to measures to prevent the reuse of such equipment;
 - promote assessment of IPC/injection safety practices to support a culture of learning.
- ensuring adoption of standard precautions in all health facilities, including training and monitoring of health care workers' adherence to standard precautions.

3.4 Ensuring safe blood supply

The World Health Assembly has endorsed three resolutions regarding the safety, quality and availability of blood and blood products, in 1975 (WHA28.72), 2005 (WHA58.13) and 2010 (WHA63.12). These call for Member States "... to promote the development of national blood services based on voluntary non-remunerated donation of blood, to take all the necessary steps to update their national regulations on ... testing, to establish quality systems ... including the use of diagnostic [screening] devices to prevent transfusion-transmissible diseases with highest sensitivity and specificity". Ensuring the availability of safe blood and blood products is a vital public health duty for every national government. This responsibility encompasses the establishment of an effective national blood transfusion service that is integrated into the national health system.

Box 2. Use of safety-engineered injection devices

The global hepatitis strategy sets a target for increasing the percentage of medical injections administered with safety-engineered injection devices from a baseline of 5% in 2015 to 50% in 2020 and 90% in 2030. It is recommended that countries in the Region adopt the WHO injection safety policy, with the aim of reducing unnecessary injections and transitioning, where appropriate, to the exclusive use of safety-engineered injection devices.

Box 3. Use of disposable syringes

While WHO recommends the use of safety-engineered injection devices in health care settings, it acknowledges the necessity to maintain a supply of various types and sizes of disposable syringes and making them available for people who inject drugs.

Key interventions include:

- developing and strengthening nationally coordinated blood transfusion services integrated into the national health system;
- promoting voluntary non-remunerated donation of blood and blood donor care, including referral of blood donors with reactive HBV and HCV screening results for confirmatory testing, evaluation, treatment and care;
- preventing HBV and HCV transmission through quality-assured screening of all blood supply collected from voluntary unpaid donors.
- ensuring people who inject drugs have access to hepatitis A and B vaccines;
- ensuring people who use drugs have access to condoms;
- treatment of hepatitis B and C among people who inject drugs.

3.5 Minimizing hepatitis transmission among people who inject drugs through the provision of harm reduction services

A package of harm reduction services for people who inject drugs can be highly effective in preventing the transmission of viral hepatitis A, B and C, as well as HIV and other bloodborne infections.

The package should include:

- effective opioid substitution therapy for opioid-dependent individuals, including in closed settings;
- high intensity community- and facility-based needle and syringe programmes, including awareness raising on and promotion of low dead-space syringes and other paraphernalia (see Box 3);
- setting up infrastructure and service delivery models to reach persons who inject drugs to support easier access to hepatitis screening, care and treatment;

3.6 Screening of groups at higher risk for hepatitis B and/or C

To increase early diagnosis of viral hepatitis, it is recommended that countries establish screening of groups at higher risk. Viral hepatitis screening should be integrated into health settings, and where possible be incorporated in existing HIV or related screening strategies. It is especially important to actively engage groups that are difficult to reach in screening programmes (e.g. HIV-infected individuals, people who inject drugs, men who have sex with men, prisoners).

Key interventions include:

- identifying populations at higher risk and building consensus on which populations to prioritize for screening (see Box 4), depending on cost-effectiveness analysis and financial and health system capacity;
- establishing capacity for screening in health settings and outside the health care setting;
- establishing linkages between testing and other prevention and treatment services, and ensuring referral to treatment and chronic care.

Box 4. Populations at higher risk

Groups at higher risk for whom HBV/HCV testing is recommended include:

- people who ever injected drugs;
- people who were ever on long-term haemodialysis;
- people living with HIV;
- people who received blood products/organ transplants before introduction of donor screening;
- medical and social workers after needle sticks, sharps or mucosal exposures to HBV/HCV-positive blood;
- children born to HBV/HCV-positive women.

3.7 Increasing access to treatment for hepatitis B and C and care for chronic liver disease

In each country there will be barriers to accessing treatment for people diagnosed with hepatitis B and/or C infection. The barriers will be mostly related to financial or geographical inaccessibility, to cumbersome (non user-friendly) procedures and to fear of stigma. Simplification of case management and decentralization has great potential to overcome such barriers. Partnerships and advocacy to reduce the cost of the drugs will be needed. A phased approach towards introducing screening, diagnosis and treatment of hepatitis is recommended to give time to determine optimal service delivery models and financing strategies in each country's context.

Key interventions include:

- planning for phased implementation of screening, diagnosis and treatment for viral hepatitis;
- ensuring access to antiviral therapy for hepatitis B and C in the public sector;
- identifying optimal service delivery models through adapting viral hepatitis care models that have shown success in other countries and developing demonstration projects;
- providing training on case management guidelines for health care workers and promoting adherence to the guidelines.

Actions for the WHO Secretariat

3.8 Technical cooperation

Regional Office and country offices will provide technical support to Member States to:

- strengthen national blood transfusion services;
- determine the most appropriate screening policies for the respective country context.

3.9 Dissemination of evidence and best practices

- Promote implementation of safe therapeutic injection practices and of WHO universal precautions and infection control guidelines.
- Disseminate and promote evidence-based guidance on WHO-recommended harm reduction interventions, including opioid substitution treatment and needle and syringe programmes.
- Disseminate WHO guidelines for screening, diagnostic testing and treatment of viral hepatitis.
- Disseminate WHO guidelines on blood donor selection, blood donor counselling, blood screening and appropriate clinical use of blood and blood products.

3.10 Policy advice and dialogue

- Provide policy advice on effective harm reduction interventions and integrated health service provision to people who inject drugs, and initiate dialogue with stakeholders on how to address barriers to the implementation of harm reduction.

Programmatic milestones

Milestones for the national response	Target year
4.1 A strategy with targets for achieving the best price for medicines and diagnostics has been formulated and is being pursued.	
4.2 A system for integrated and interlinked hepatitis prevention, testing, care and treatment services at community, primary, secondary and tertiary care levels has been defined (including service package components to be delivered at each level).	
4.3 Core hepatitis competencies of different cadres of health worker at different levels of the health system, considering task-shifting options, have been defined.	2018
4.4 Training and supervisory needs of health workers have been defined.	
4.5 Legal, regulatory and policy barriers have been identified that hinder equitable access to hepatitis services, especially for most affected populations and other vulnerable groups.	
<hr/>	
4.6 Cost of quality hepatitis diagnostics and medicines has been reduced to (at least) the targeted price.	
4.7 Pre-service and in-service training for health workers has been updated to include training on core hepatitis competences.	
4.8 Standardized testing algorithms for viral hepatitis surveillance, blood safety and diagnosis are applied (at least) by all public sector laboratories.	2021

Strategic direction 4: Systems strengthening for equitable access

Recommended actions for Member States

4.1 Ensuring long-term viability of hepatitis programming through integration

Viral hepatitis prevention and control should be integrated within ministry of health structures and programmes to ensure the long-term viability of hepatitis interventions. Integration of policies and service delivery is required at different levels of the health system, with the relative contributions and roles of primary health care, referral care and hospital care being defined.

Key interventions include:

- defining appropriate models for integration of hepatitis prevention, testing, care and treatment services at different levels of the health system (including hepatitis service package components to be delivered by general health services at each

level and by other relevant specialized services);

- establishing linkages with programmes in other sectors such as correctional services, police and justice, social welfare, water and sanitation;
- mainstreaming hepatitis policies in relevant existing policies such as blood safety, infection control, antenatal care and others (see Strategic direction 1).

4.2 Strengthening community systems: engaging people at risk of and/or living with hepatitis in the response

Key interventions include:

- recognizing and inviting groups at risk, people living with viral hepatitis and relevant civil society organizations to actively participate in viral hepatitis policy development processes, implementation, and monitoring and evaluation of the response;
- supporting the formation and mobilization of national patient groups.

4.3 Ensuring access to good quality and affordable hepatitis vaccines, medicines, diagnostics and safe injection devices

Effective hepatitis programmes are dependent on the uninterrupted supply of quality-assured vaccines, medicines, diagnostics and other commodities. Procurement and supply management systems are required to ensure that the right products are selected, purchased at an affordable price and efficiently delivered to the point of care.

Key interventions include:

- including direct-acting antivirals in the essential medicines list, as per WHO model list;
- ensuring that intellectual property issues do not delay access to medicines and diagnostics by monitoring the intellectual property situation closely and taking all necessary action to ensure access, including the application of flexibilities of the TRIPS agreement;
- pursuing different mechanisms to achieve the best price for medicines and diagnostics, including coordinating procurement between treatment providers to maximize procurement volume and reduced prices;
- promoting local production, particularly of quality generic direct-acting antivirals and of safe injection devices;
- building capacity for pharmaco-vigilance especially for generic products.

4.4 Building capacity of the health workforce

Many essential viral hepatitis interventions can be integrated within broader health services and programmes, such as programmes for child vaccination, blood and injection safety, food safety, water and sanitation, harm reduction for people who use drugs, clinical management of infectious diseases and chronic care for noncommunicable diseases. In all such settings, including primary health care, health workers should be knowledgeable about viral hepatitis risk and infection, and the package of essential hepatitis interventions. Community-based and peer-support workers play an important role in reaching marginalized groups, linking people with chronic hepatitis to care, supporting treatment adherence and providing chronic care. Health and community workers should be competent to work with people

living with chronic hepatitis infection and with key populations at higher risk.

Key interventions include:

- defining the roles and responsibilities of different levels of the health system in delivering hepatitis services, from community-based and primary health services through to tertiary referral centres;
- ensuring that the national health workforce strategy and/or plan accommodates the needs of hepatitis services;
- defining the core hepatitis competencies of different cadres of health workers at different levels of the health system, considering task-shifting options;
- defining training and supervisory needs, and including viral hepatitis in pre-service and in-service training for health workers accordingly;
- providing training and appropriate compensation to community-based and peer-support workers.

4.5 Strengthening laboratory capacity

National laboratories should have the ability to adequately support clinical and public health activities aimed at reducing the burden of disease due to viral hepatitis. This includes quality diagnosis of acute and chronic hepatitis with timely reporting of results. Blood services should have the capacity to ensure the safety of blood, blood components and blood products by screening for HBV and HCV.

Key interventions include:

- developing domestic laboratory network for viral hepatitis with one designated national reference laboratory (quality management system, domestic external quality assurance system). National reference laboratory should establish and maintain a quality management system and participate in a regional or international external quality assessment scheme;
- establishing a quality monitoring system and a domestic external quality assurance system assessment scheme through the national reference laboratory (quality monitoring should include community-based facilities using rapid tests);
- adopting standardized testing algorithms for viral hepatitis surveillance, blood safety and diagnosis;

- promoting access to new laboratory tests and technologies for more accurate diagnosis of viral hepatitis.

4.6 Promoting an enabling environment (policies, laws and regulations)

The health sector has an obligation to promote an enabling policy environment that reduces people's vulnerability and risk for hepatitis infection, facilitates access to health services and enhances their reach, quality and effectiveness – especially for the most affected populations. The health sector must ensure that people with viral hepatitis and those at risk are not exposed to stigmatization and discrimination in health care settings.

Key interventions include:

- identifying and removing legal, regulatory and policy barriers that hinder equitable access to hepatitis services, especially for most affected populations and other vulnerable groups;
- putting policies in place that prevent stigmatizing and discriminating attitudes and practices against people living with hepatitis in health care settings.

Actions for the WHO Secretariat

4.7 Leading and convening

- Support affected populations to actively participate in national and regional stakeholder consultations.

4.8 Technical cooperation

Regional Office and country offices will provide technical support to Member States to:

- develop country-specific access strategies for hepatitis medicines;
- develop the most appropriate service delivery models to facilitate scale-up of hepatitis testing, treatment and chronic care.

Strategic direction 5: Financing for sustainability

Adequate investment in the full continuum of hepatitis services is necessary to achieve the targets for 2020 and 2030, and to promote universal health coverage. A sustainable response will require funding the essential hepatitis package through the national health financing system by: mobilizing sufficient and predictable funding; minimizing the financial burden for individuals and households through prepayment and pooling; and avoiding wastage by using available funds to enhance efficiency and ensure sustainability.

Programmatic milestones

Milestones for the national response	Target year
5.1 An investment case for an enhanced viral hepatitis response has been developed (in high-burden countries) based on economic assessment of the burden of viral hepatitis and the cost of inaction (e.g. hepatocellular carcinoma, cirrhosis).	
5.2 A specific portion of national health budget has been allocated to viral hepatitis prevention, care and treatment.	
5.3 Cost-effectiveness analyses of screening and treatment interventions to optimize allocation of resources for viral hepatitis prevention, care and treatment has been carried out.	2018
5.4 A set of essential viral hepatitis interventions, services, medicines and commodities has been defined to be included in the national health benefit package.	
5.5 A set of essential viral hepatitis interventions, services, medicines and commodities has been included in the national health benefit package covered by a prepayment arrangement (e.g. government budget or social health insurance).	2021

Recommended actions for Member States

5.1 Mobilizing resources for action on viral hepatitis

Key interventions include:

- carrying out economic analysis on the burden of viral hepatitis (e.g. hepatocellular carcinoma, cirrhosis) and associated interventions (see also strategic directions 1 and 2, on economic analysis and building an investment case);
- allocating a specific portion of the national health budget to viral hepatitis prevention, care and treatment in proportion to the country and communities' disease burden;
- identifying additional revenue-raising mechanisms to mobilize needed resources for viral hepatitis prevention, care and treatment in proportion to the country and communities' disease burden;
- identifying and implementing innovative financing mechanisms;
- including microfinancing institutions as partners in financing viral hepatitis treatment.

5.2 Inclusion of preventive, diagnostic and curative services in a national health benefit package

Each country needs to define a set of essential viral hepatitis interventions, services, medicines and commodities, relevant to the country context, to be included in the national health benefit package – to be financed from the general budget or through a social health insurance arrangement. The benefit package should be covered in a manner to minimize out-of-pocket payments to: ensure access to services for all who need them; cover the entire continuum of hepatitis services, including prevention, diagnosis, treatment and care; and enhance financial protection. Selection of essential interventions and services should be through a transparent process, taking into account the following criteria: efficacy, effectiveness, feasibility, cost, cost-effectiveness, acceptability, relevance, demand and ethics. The selection process would benefit from broad stakeholder engagement, including service providers and affected communities, and should be informed by scientific evidence and good practice. The package should be regularly reviewed to ensure that the selected interventions reflect changes in the country's epidemic and context, advances in technologies and service delivery approaches, and evidence of impact or harm.

Combinations of interventions should be specifically considered, recognizing that some interventions will only be effective, or achieve maximum impact, if they are delivered in combination with other interventions.

5.3 Ensuring value for money in allocating and using the budget for viral hepatitis

Key interventions include:

- ensuring integration of health spending on viral hepatitis prevention, care and treatment in the system of health accounts (in high-burden countries);
- identifying areas of inefficiency in health workforce mix and health technologies related to viral hepatitis prevention, care and treatment, and employ effective measures to address them;
- conducting cost–effectiveness analysis of screening and treatment interventions to optimize allocation of resources for viral hepatitis prevention, care and treatment;
- integrating, where appropriate, hepatitis with HIV programmes to address coinfection and optimize use of resources.

Actions for the WHO Secretariat

5.4 Technical cooperation

Regional Office and country offices will provide technical support to Member States to:

- build capacities in conducting economic analysis for developing the investment case for viral hepatitis prevention, care and treatment; as well as in cost–effectiveness analysis of prevention and treatment interventions;
- ensure integration of viral hepatitis prevention, care and treatment interventions, services, medicines and commodities in the national health benefit package based on country epidemiological profile and socioeconomic imperatives.

5.5 Information generation and exchange

Regional Office and country offices will work to facilitate information sharing on effective, efficient and equitable viral hepatitis prevention, care and treatment interventions through:

- arranging country exchange of experience through study tours and information sharing;
- convening policy-makers and experts to share and discuss up-to-date developments in the economics of prevention and control of viral hepatitis.

4. Monitoring and evaluation framework

Indicators

The regional action plan adopts the global framework for monitoring and evaluation of the viral hepatitis response (11). The framework defines a minimum set of 10 core indicators to monitor and evaluate the health sector response to viral hepatitis B and C along a public health programme results chain (Fig. 3).

The global framework emphasizes 10 core indicators

to monitor progress towards the achievement of the targets set out in the global hepatitis strategy (Table 3) (11). WHO has also selected 27 additional indicators; of these, 10 indicators are specific to viral hepatitis and 17 have been used in the past by other programmes, including HIV/sexually transmitted infections, immunization, blood safety, injection safety and infection control, harm reduction and noncommunicable diseases, cancer.

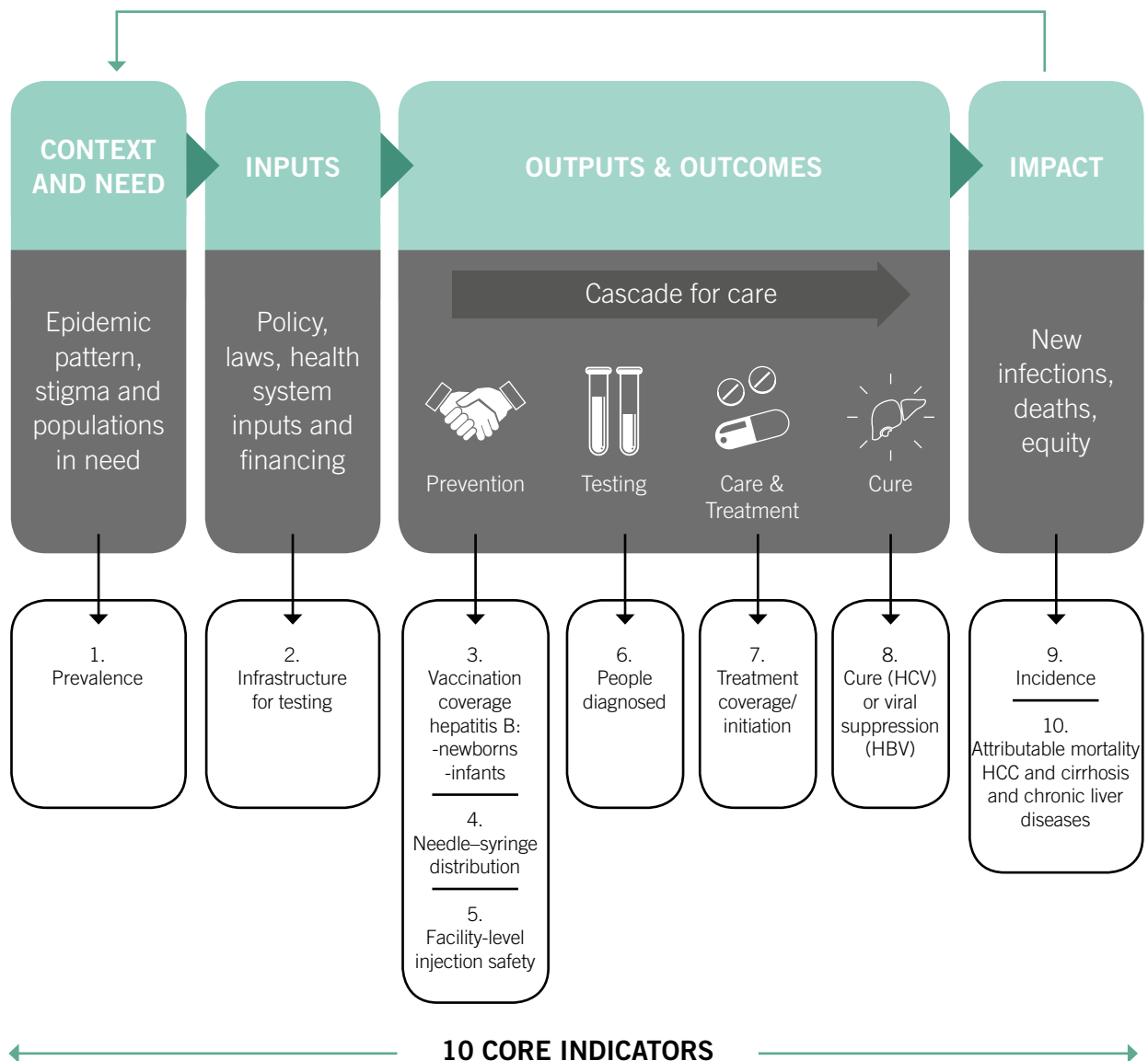


Fig. 3. Global monitoring and evaluation framework for the health sector response to viral hepatitis B and C

Table 3. List of recommended 10 core indicators to monitor and report progress at global and national levels

Indicator number	Indicator name	Programmatic area
C.1	Prevalence of chronic HBV infection	Viral hepatitis
	Prevalence of chronic HCV infection	
C.2	Infrastructure for HBV and HCV testing	Laboratory
C.3	Coverage of timely hepatitis B vaccine birth dose (within 24 hours) and other inter-ventions to prevent mother-to-child transmission of HBV	Immunization
	Coverage of third-dose hepatitis B vaccine among infants	
C.4	Facility-level injection safety	Injection safety
C.5	Needle-syringe distribution	HIV, harm reduction
C.6	People living with HCV and/or HBV diagnosed	
C.7	Treatment coverage for hepatitis B patients	
	Treatment initiation for hepatitis c patients	
C.8	Viral suppression for chronic hepatitis B patients	Viral hepatitis
	Cure for chronic hepatitis C patients treated	
C.9	Cumulated incidence of HBV infection in children 5 years of age	
	Incidence of HCV infection	
C.10	Deaths from hepatocellular carcinoma, cirrhosis and liver diseases attributable to HBV and HCV infection	Noncommunicable diseases, cancer Noncommunicable diseases, cancer

Data sources for these indicators will include biomarker surveys (specific or combined), cancer registries, vital registration statistics, health care facility surveys, surveillance and estimates through mathematical modelling.

Countries will need to review their current monitoring system to allow more complete and reliable data collection and data analysis, and report progress in the indicators with more focus on the 10 core global indicators.

Progress towards achievement of the programmatic milestones set out for countries in the regional action plan should be monitored by each country and will be monitored by the Regional Office through two regional reviews at the end of 2018 and 2021.

Targets of the WHO global health sector strategy on viral hepatitis, 2016–2021

The global strategy includes both impact (incidence and mortality) and service coverage targets (see Fig. 4 and Table 4).

By 2020, 5 million people will be receiving treatment for chronic HBV infection, 3 million people will have been treated for chronic hepatitis C virus infection and the number of new cases of chronic hepatitis infection will have been reduced by 30% compared with the number of new cases in 2015. By 2030, the incidence of chronic hepatitis infection will have been reduced by 90% and there will be universal access to key prevention and treatment services.

Global impact targets are supported by coverage targets for interventions that are necessary on the way to elimination of viral hepatitis as a public health threat.

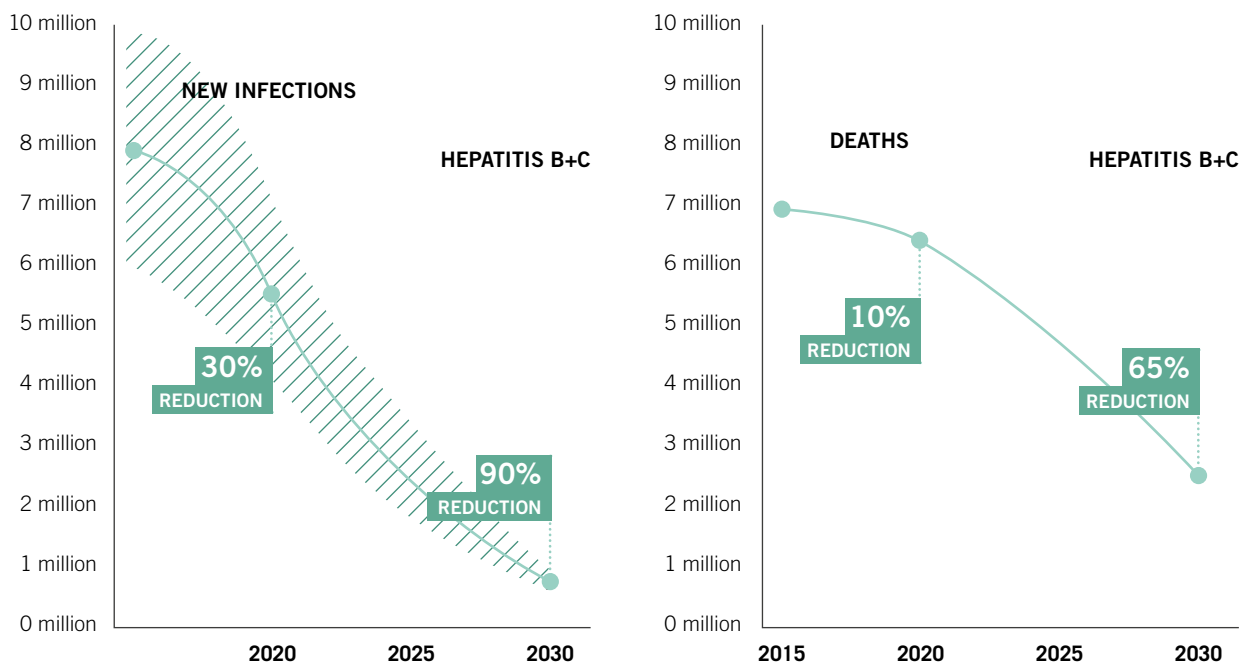


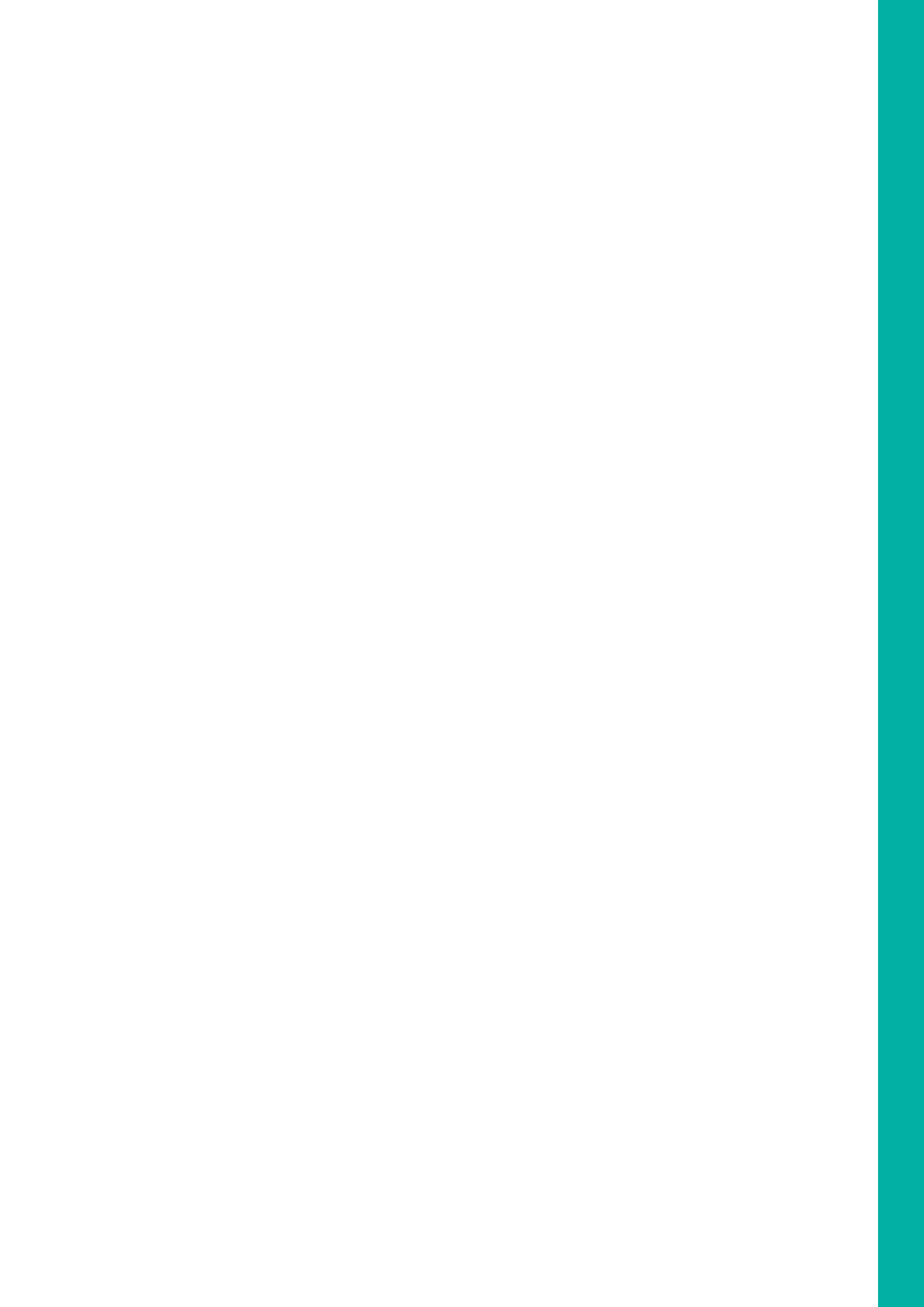
Fig. 4. Global impact targets and milestones for reducing new cases of and deaths from chronic viral hepatitis B and C infection

Table 4. Global intervention coverage targets for 2030 and milestones for 2020

Target area	Indicator	2030 targets	2020 milestones	Baseline
HBV vaccination	Childhood vaccine coverage	90%	90%	81%
HBV mother-to-child transmission	Birth-dose vaccine coverage (or other approach to prevent mother-to-child transmission)	90%	50%	38%
Safe injections	Percentage of safe injections administered (both in and out of health facilities)	90%	50%	5%
Harm reduction	Number of sterile needles provided per person who injects drugs per year (as part of effective harm reduction package)	300 (75% coverage)	200 (50% coverage)	20%
Testing	Percentage of persons with chronic HBV and HCV diagnosed	90%	30%	5%
HBV treatment	Treatment-eligible persons with chronic HBV treated	80%	Estimated 5 million treated	<1%
HCV treatment	Treatment-eligible persons with chronic HCV treated	80%	Estimated 3 million treated	<1%

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The *Regional action plan for viral hepatitis 2017–2021* aims to encourage Member States to develop country-specific national hepatitis response plans based on the needs and priorities of affected people and communities, as well as on the capacity of the national health sector to address these needs. It prioritizes known effective interventions, promotes equitable access to hepatitis services and sets programmatic milestones for 2018 and 2021 on the pathway towards achieving the global target of elimination of viral hepatitis as a major public health threat by 2030.

HIV/AIDS and Sexually Transmitted Diseases

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