Global Health Sector Strategies on HIV, Viral Hepatitis and Sexually Transmitted Infections 2022-2030

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Annexes

Chapter 1: Ending epidemics in a new global health era

The 2022–2030 global health sector strategies on HIV, viral hepatitis and sexually transmitted infections guide the health sector in implementing strategically focused responses to achieve the goals of ending HIV, viral hepatitis and sexually transmitted infections as public health threats by 2030. Building on the achievements of the 2016-2021 global health sector strategies,[1,2,3] the 2022-2030 strategies consider the epidemiological, technological and contextual shifts of recent years, foster learnings across the disease areas, and provide strategic direction for the next eight years to address remaining gaps. They underline the critical role of the health sector in ending these epidemics, calling for innovations and a more precise focus to reach populations most affected and at risk for each disease. They promote synergies under a universal health coverage and primary health care framework, and contribute to achieving the goals of the 2030 Agenda for Sustainable Development.[4]

1.1 Major epidemics with uneven progress

More than 1 million people are newly infected with HIV, viral hepatitis and sexually transmitted infections every day. These diseases collectively cause 2.3 million deaths and 1.2 million cases of cancer each year, and continue to impose a major public health burden worldwide. Although progress has been made in all three disease areas, the global response is off-track and most global health targets for 2020 were missed (Box 1.1). The full benefits of available tools and technologies are not being realized, many populations are left behind, and structural barriers persist.

Box 1.1: Achievements and gaps during 2016-2021

The HIV, viral hepatitis and sexually transmitted infection epidemics and responses are at different stages of progress.[5]

The global **HIV** epidemic has transformed with the large-scale expansion of antiretroviral therapy, reducing global HIV-related deaths to their lowest since 1994. Yet more than 1.5 million new HIV infections continue to occur each year and global targets for reducing HIV incidence are off-track. Access to services for children and adolescents lags behind progress achieved for adults. Key populations (including men who have sex with men, people who inject drugs, sex workers, transgender persons and prisoners) and their partners account for 62% of the people newly infected worldwide, yet these populations face many barriers to service access.

The **viral hepatitis** response gained significant momentum during the 2016-2021 implementation period, however funding commitments remain inadequate to meet global

[1] Global health sector strategy on HIV: 2016-2021. World Health Organization, 2016
[2] Global health sector strategy on viral hepatitis: 2016-2021. World Health Organization, 2016
[3] Global health sector strategy on sexually transmitted infections: 2016-2021. World Health Organization, 2016
[4] United Nations General Assembly resolution 70/1 – Transforming our world: The 2030 Agenda for Sustainable Development. United Nations, 2015 (https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E)
[5] Global progress report on HIV, viral hepatitis and sexually transmitted infections, 2021. World Health Organization, 2021

goals. The global 2020 target of reducing the incidence of hepatitis B virus was met, supported by childhood immunization and prevention. The number of people receiving treatment for chronic hepatitis C infection increased almost 10-fold since 2015, with an impact on mortality. Yet nearly 80% of people with hepatitis B or C virus remain undiagnosed and affordable treatments are not being accessed. Hepatitis B and C together continue to cause 1.1 million deaths per year as a result of chronic liver disease and cancer. Access to a timely birth dose of hepatitis B vaccines remains low in many low- and middle-income countries where antenatal care coverage is low.

The multiple epidemics of **sexually transmitted infections** continue to cause a significant disease burden and the global response has lagged severely, resulting from a lack of visibility, funding and implementation support. **The four curable sexually transmitted infections** – *Chlamydia trachomatis, Neisseria gonorrhoeae, Treponema pallidum* (syphilis) and *Trichomonas vaginalis* – cause more than 1 million infections each day. In addition, human papillomavirus affects more than 1 in 7 women, and more than 500 million people have genital herpes simplex virus infection. Other than slow declines in congenital syphilis, the incidence of most other sexually transmitted infections is plateauing, and no global 2020 targets were met.

1.2 Strategic shifts towards elimination: joint action with disease focus

The achievements to date have demonstrated that strong leadership coupled with innovative technologies and practices, financial investment and community engagement can reduce disease transmission, improve treatment outcomes and save lives. Any loss of focus over the next eight years would jeopardize gains achieved so far with a risk of resurgence. Strategic and innovative shifts are needed protect the progress to date, and bring the world closer towards eliminating HIV, viral hepatitis and sexually transmitted infections.

Acknowledging the commonalities and differences among these disease areas, the 2022-2030 global health sector strategies provide a framework to strategically combine shared and disease-specific approaches in ways that place people at the heart of the response.

1.2.1 Putting people at the centre

HIV, viral hepatitis and sexually transmitted infections share modes of transmission and common interventions, are shaped in similar ways by social determinants of health. Putting people at the centre of health system responses - by organizing services around their needs rather than around diseases - is the key to ending these epidemics (Box 1.2). The 2022–2030 strategies emphasize that different populations — women, children, adolescents, young people, key populations and other affected and at-risk populations — have unique requirements and preferences, and promote tailored responses that leave no one behind.

Box 1.2: Integrated people-centred health services

Health systems organized around the needs of people and communities perform more effectively, cost less, improve health literacy, increase patient engagement, and are better prepared to respond to health crises. People-centred health services are an important feature

of primary health care and contribute to expanding universal health coverage.[6] Making health services more people-centred requires integrating service delivery elements in new ways, such that people receive a continuum of health services in a coordinated manner across the different levels and sites of care, within and beyond the health sector, and according to their needs throughout the life course. This includes the development of referral systems and networks, and empowering patients and communities to participate in their own care.

1.2.2 Addressing unique priorities for each disease area

While epidemics of HIV, viral hepatitis and sexually transmitted infections are interrelated, they present distinctly different sets of challenges. Further, their responses have historically evolved in different ways and are at different stages of progress. Unique priorities in each disease area must be addressed in order to accelerate towards elimination by 2030 (Box 1.3).

Box 1.3: Disease-specific roadmaps to elimination

Ending the epidemics of HIV, viral hepatitis and sexually transmitted infections will require dedicated action to address the specificities and gaps for each disease area.

The global response to **HIV** has benefitted from more than 40 years of dedicated global action to raise resources, expand services and address inequities; supported by strong community engagement. Yet progress has been uneven. Many high-burden countries have reached high levels of service coverage, but much more needs to be done for key populations in concentrated epidemic settings. A renewed focus is also needed to eliminate vertical transmission of HIV and address paediatric care needs, and to better engage men in the response. The last mile efforts to elimination over the next eight years require reducing annual new HIV infections by more than 1 million, avoiding more than 500,000 annual deaths, and providing 10 million more people with antiretroviral therapy. Recent scientific advances in HIV treatment and technologies, and innovative service delivery methods, provide an unprecedented opportunity to make this happen. Success will require sustained commitment and flexible approaches to address a changing epidemic, with reinvigorated primary prevention efforts, differentiated service delivery to meet the diverse needs of specific populations and settings, and being prepared for outbreaks. It will also require continued investments in innovative technologies, including new treatment regimens and possibilities of a vaccine and cure.

The global response to **viral hepatitis** has witnessed increasing momentum and political commitment during the 2016-2021 strategy implementation period, supported by tremendous advances in a public health approach. While all key interventions for viral hepatitis elimination have been shown to be highly cost-effective, there is need for a marked increase in investment to achieve disease elimination goals. The existence of safe and effective vaccines for hepatitis B, and antiviral medicines that provide an effective cure for hepatitis C, provide great potential for elimination by 2030. Some high-burden countries have pioneered action to address these diseases; however huge gaps remain in most countries to diagnose and treat hepatitis infection. To achieve elimination over the next eight years, new

[6] Framework on integrated, people-centred health services. 69th World Health Assembly, 2016.

infections from viral hepatitis must be reduced from 3 million to less than 500,000; and hepatitis-related deaths reduced from 1.1 million to less than 500,000. This requires massive expansion in availability of diagnosis and treatment in low- and middle-income countries, and universal access to the hepatitis B birth dose vaccine to end infections in children. Integrating viral hepatitis services into universal health coverage packages, simplifying and decentralizing service delivery, improving coordination with other health areas such as those addressing cancer and antenatal care, promoting targeted micro-elimination approaches in most affected populations and settings, supported by adequate funding, will be necessary to make this happen.

The global response to **sexually transmitted infections** needs to be revived after years of neglect and a lack of political commitment and funding. These infections continue to carry stigma and remain hidden; and most of the 374 million people who acquire these infections each year lack access to screening, diagnosis and treatment. There have been some successes, notably with the elimination of vertical transmission of syphilis by 15 countries by 2020. The human papillomavirus vaccine is also being rolled out as part of national immunization schedules, but coverage remains low. Opportunities to link sexually transmitted infection responses with responses to HIV and other communicable diseases have not been adequately capitalized upon, and data availability is poor. Eliminating major sexually transmitted infections as public health threats by 2030 will require a massive reduction in new infections, supported by efforts to increase awareness of the public health impact of sexually transmitted infections, securing adequate funding, and vastly scaling up primary prevention interventions, diagnostics, and treatment. Leveraging synergies with HIV and sexually reproductive health services through a primary health care approach, strengthening surveillance for sexually transmitted infections and antimicrobial resistance, supporting research in new vaccines, and expanding partnerships, including with the private sector, will be needed to achieve these ambitious goals.

1.2.3 Taking a shared approach towards strengthening health and community systems

Disease-specific responses have many opportunities to increase their impact if addressed together under a universal health coverage framework. The strategies emphasize the need for coordinated action to strengthen health and community systems and expand collaboration within and across systems and sectors. Health systems must seize opportunities to jointly address the needs of individuals, families and communities across multiple disease areas, and leverage synergies in relation to service delivery and other health system domains such as governance, financing and health information. Communities must be empowered and resourced to enhance their indispensable role in delivering people-centred services and promoting accountability. While there is no one-size-fits-all approach to balancing disease-specific considerations with health systems strengthening, these strategies provide guidance to frame national responses within this vision.

1.2.4 Responding to a swiftly changing health and development context

The responses to HIV, viral hepatitis and sexually transmitted infections are evolving in an increasingly complex environment. The COVID-19 pandemic has altered the landscape of global health by shifting resources, drawing attention to the gaps in health systems, and

exposing the inequalities that make some people more vulnerable to disease. It has also demonstrated the vital role of communities to meet people's needs during the crisis, and catalyzed innovations in health and community systems, such as the rapid development and deployment of new vaccines and technologies, and the expanded use of integrated diagnostics platforms, health information systems and digital health solutions. The rapid advance in COVID-19 vaccines has re-energized the global health community and provided renewed hope for other innovations. Beyond COVID-19, challenges such as demographic shifts, the growing burden of noncommunicable diseases, climate change, population displacement and economic insecurity are also shaping the health and development context worldwide. This is an unprecedented time to learn lessons from the COVID-19 response to build resilient and adaptable health and community systems to promote health security, protect people from future pandemics and other challenges, and advance human health and well-being.

1.2.5 Eliminating stigma, discrimination and other structural barriers

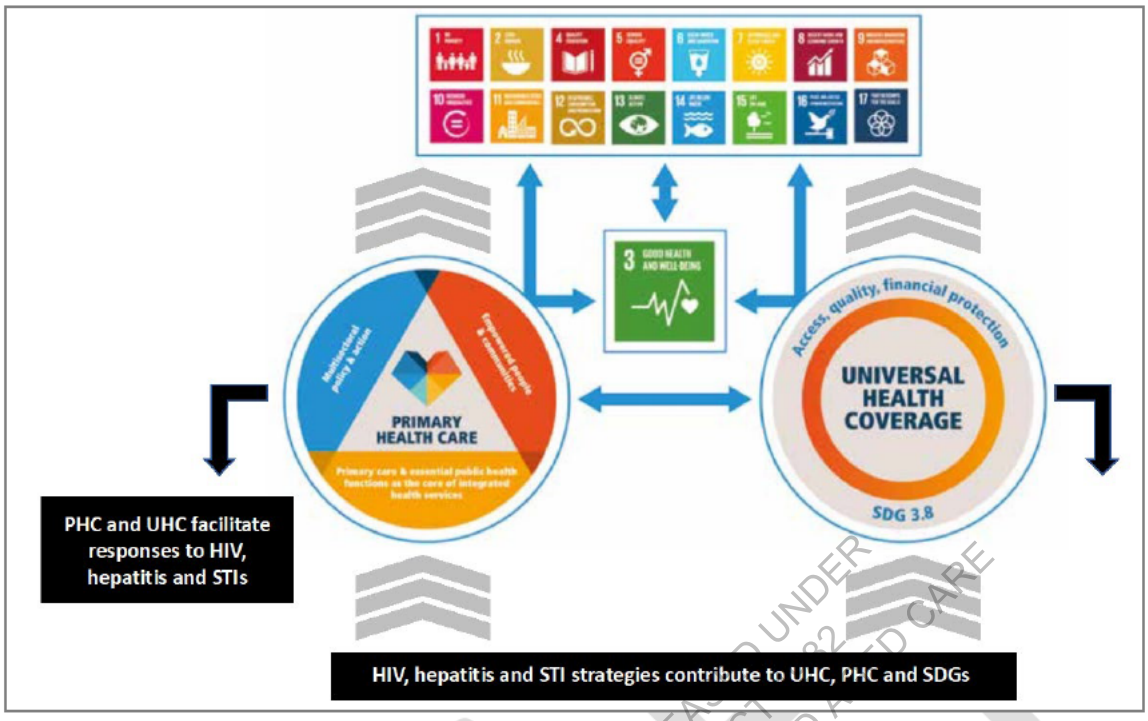
The large expansion in services that is required to achieve 2030 targets will not be achieved unless it is accompanied by efforts to address the stigma, discrimination, criminalization and inequalities that exacerbate the risk of infection and prevent many people from accessing essential services. The health sector has a critical role to play in addressing stigma, discrimination and policy barriers within the health care setting; and an important convening role for multisectoral partnerships to address the broader determinants of health. The health sector must also raise awareness on the importance of addressing these epidemics and overcoming taboos, especially for sexually transmitted infections.

1.3 Framing the strategies

The 2022-2030 global health sector strategies on HIV, viral hepatitis and sexually transmitted infections position the health sector response to these epidemics as being critical to the achieving the goals of the 2016–2030 Agenda for Sustainable Development (or the Sustainable Development Goals), in particular the goals of ending AIDS, tuberculosis and malaria; and achieving universal health coverage and healthy lives and well-being for all at all ages by 2030. The strategies are grounded in human rights principles including the right of all people to the highest attainable standard of health.[7] They contribute to realizing the vision of the United Nations Political Declaration of the High-level Meeting on Universal Health Coverage[8] and the renewed commitment to primary health care in the 2018 Declaration of Astana[9] (Figure 1.1).

Figure 1.1: Aligning the GHSS 2022-2030 strategies to broader global health priorities

[7] Source: International Covenant on Economic, Social and Cultural Rights, https://www.ohchr.org/en/professionalinterest/pages/cescr.aspx
[8] Political Declaration of the High-level Meeting on Universal Health Coverage, United Nations, 2019.
[9] Declaration of Astana (2018). https://www.who.int/docs/default-source/primary-health/declaration/gcphc-declaration.pdf



Reference: Based on *A vision for primary health care in the 21st century. Towards universal health coverage and Sustainable Development Goals. WHO and UNICEF, 2018.*

Within WHO, the strategies contribute directly to achieving the goals of WHO's Thirteenth General Programme of Work, which is guided by the "Triple Billion" targets related to universal health coverage, protection from health emergencies, and promotion of better health and well-being for all[10]. They are also aligned with related commitments expressed in other global health strategies and plans, including the United Nations General Assembly's 2021 Political Declaration on HIV and AIDS[11], the Pan-American Health Organization Disease Elimination Framework[12], and work underway to develop a Global Framework for Multi-disease Elimination. They build on the inequalities lens of the UNAIDS Global AIDS Strategy 2021–2026[13] for an effective health sector response. They are also aligned with the priorities of the Global Fund to Fight AIDS, Tuberculosis and Malaria[14], UNITAID[15] and key bilateral partners.

[10] Thirteenth General Programme of Work 2019-2023. WHO, 2019.
[11] Political Declaration on HIV and AIDS: Ending Inequalities and Getting on Track to End AIDS by 2030. United Nations, 2021.
[12] An integrated, Sustainable Framework to Elimination of Communicable Diseases in the Americas. PAHO/WHO, 2019.
[13] End Inequalities. End AIDS. Global AIDS Strategy 2021-2016. UNAIDS, 2021.
[14] The Global Fund 2023-2028 Strategy Framework. The Global Fund, 2021.
[15] UNITAID Strategy 2017-2021.

Reflecting the complex interplay of health issues associated with HIV, viral hepatitis and sexually transmitted infections, these strategies are also aligned with other global health strategies and plans that address a wide range of related diseases and health concerns.[16]

1.4. The strategy development process

The Global Health Sector Strategies on HIV, viral hepatitis and sexually transmitted infections 2022-2030 were developed through a highly consultative, and largely virtual, process led by WHO throughout 2021. Building on an analysis of progress and gaps at the end of the previous implementation period of 2016-2021, the strategies sought inputs from Member States, communities and other stakeholders to define the key priorities and strategic shifts required to achieve the goals of ending these diseases as public health threats by 2030. A series of virtual consultations were held from May to July 2021 in all WHO regions. In parallel with these consultations, an online survey was conducted from May to August 2021, alongside a series of stakeholder briefings. Member States were briefed in advance of the 148th Executive Board and the 47th World Health Assembly and comments raised during the briefings and during discussion of relevant agenda items were taken into full consideration.

WHO also convened a meeting of the Strategic and Technical Advisory Group on HIV, viral hepatitis and sexually transmitted infections (STAC-HHS) in September 2021 for a review of the first full draft of the strategies document with a further stage of feedback solicited from Member States during the last quarter of 2021. WHO Regional Committees variously considered frameworks to cover the disease areas in question during the 2021 cycle of committees or made plans to reflect on the global strategies in 2022. For example, the Regional Committee for the WHO African Region adopted a Framework for an integrated multisectoral response to tuberculosis, HIV, sexually transmitted infections and hepatitis for 2021-2030 in August 2021. The regional framework is fully aligned with the proposed global health sector strategies.

1.5. How to navigate this document

The 2022-2030 Global Health Sector Strategies on HIV, viral hepatitis and sexually transmitted infections are presented in a single document that includes both shared and disease-specific content (Figure 1.2). Following this chapter, the document is organized as follows:

Chapter 2 presents the vision, goals, strategic direction and targets for all three strategies.

Chapter 3 defines shared actions across HIV, viral hepatitis and sexually transmitted infections to deliver results under a universal health coverage and primary health care framework.

Chapters 4, 5 and 6 define additional disease-specific actions relating to HIV, viral hepatitis and sexually transmitted infections, respectively. Each of the disease-specific chapters should

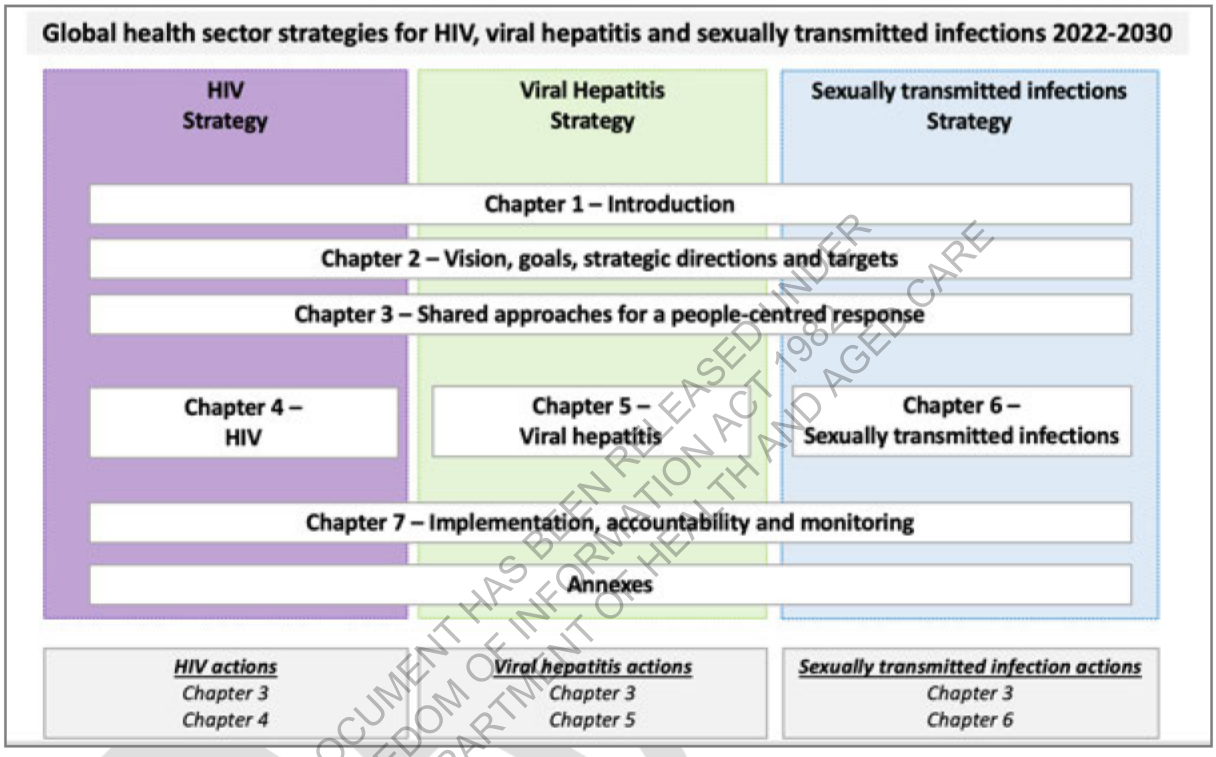
[16] These include the End TB Strategy; the Global Strategy for Women's, Children's and Adolescents' Health; the Global Action Plan for Healthy Lives and Well-being for All; the Global Action Plan for the Prevention and Control of Noncommunicable Diseases; the Global Action Plan on Antimicrobial Resistance; the Global Disability Action Plan; the Global Strategy on Health, Environment and Climate Change; the Global Strategy to Accelerate the Elimination of Cervical Cancer as a Public Health Problem; and the Road Map for Access to Medicines, Vaccines and Other Health Products; among others.

be read in conjunction with Chapter 3, and actions in Chapter 3 should be considered essential elements of the disease strategies.

Chapter 7 discusses implementation, accountability and monitoring for all three disease areas.

The Annexes provide a consolidated list of all actions and the measurement framework.

Figure 1.2: Organization of the document



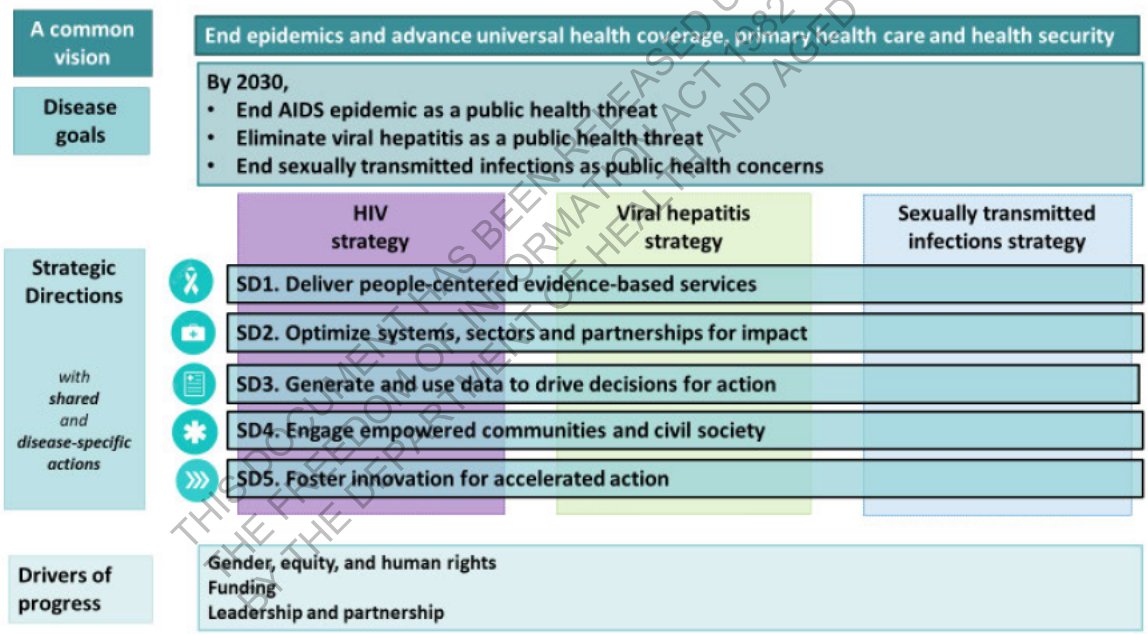
Chapter 2. Vision, goals, strategic directions and targets

This Chapter presents the global vision, goals and strategic directions of the strategies. It also presents the main impact targets of the strategies towards the goal of ending the epidemics by 2030.

2.1 Vision, goals and strategic directions

The 2022–2030 global health sector strategies on HIV, viral hepatitis and sexually transmitted infections share a common vision and have three disease-specific goals. Five strategic directions guide actions across all three strategies, reflecting synergies in the responses to HIV, viral hepatitis and sexually transmitted infections (Figure 2.1).

Figure 2.1. Vision, goals and strategic directions



Vision: The strategies aspire to a common vision to end epidemics and advance universal health coverage, primary health care and health security in a world where all people have access to high-quality people-centred health services and can lead healthy and productive lives.

Goals: Three interrelated goals aim to end AIDS, viral hepatitis and sexually transmitted infections as major public health concerns by 2030, through joint action in areas of convergence while maintaining disease specificities. The goals are aligned with the goals of the 2030 Agenda for Sustainable Development and WHO's General Programme of Work.

Strategic directions: Five strategic directions provide the overall guiding framework for country and WHO actions to implement the strategies:

- ***Strategic direction 1: Deliver people-centred evidence-based services.*** Use evidence-informed guidelines and service delivery innovations to accelerate access to, and the uptake of, a continuum of high-quality essential services for HIV, viral hepatitis and sexually transmitted infections and other related health services, tailored to meet the needs of diverse populations and settings, ensuring that no one is left behind.

- ***Strategic direction 2: Optimize systems, sectors and partnerships for impact.*** Take a systems-oriented approach that promotes synergies with primary health care, health governance, financing, workforce, commodities and service delivery while also fostering multisectoral responses to social and structural determinants of health. Align and collaborate with partners including funders, academic and research institutions, professional bodies and private sector entities for maximum impact.

- ***Strategic direction 3: Generate and use data to drive decisions and action.*** Gather, analyze and use evidence and data to guide action, decision-making, innovation, research and development, as well as to promote accountability.

- ***Strategic direction 4: Engage empowered communities and civil society.*** Engage communities and civil society, including affected populations, and support their self-empowerment and pivotal role in advocacy, service delivery, policy-making and initiatives that address stigma and discrimination and tackle social and structural barriers.

- ***Strategic direction 5: Foster innovations for accelerated action.*** In collaboration with partners, contribute to defining and implementing national, regional and global research and innovation agendas that prioritize the development of new technologies, service delivery models and health system practices that will overcome the greatest barriers to achieving progress against HIV, viral hepatitis and sexually transmitted infections.

Drivers of progress: The successful implementation of the strategies rests on common drivers of progress:

- ***Gender, equity, and human rights.*** The vision and goals of the strategies will not be achieved without addressing the inequalities that drive epidemics and prevent people from accessing health services and being active in improving their own health. The right to the highest attainable standard of health is applicable to everyone and to all communities, regardless of age, sex, sexual orientation and gender identity, legal status, or practices such as sex work or drug use. Promoting equity and gender equality, and protecting the human rights and dignity of all, are critical enabling factors for success at country level and central principles in all of WHO's work.

- ***Funding.*** For a sustainable response, the global health sector strategies must be fully funded as part of broader efforts to increase overall investments in health. Responses to HIV, viral hepatitis and sexually transmitted infections face different funding challenges, which must be addressed by national financing systems. WHO supports countries to achieve continued and predictable funding, reduction of catastrophic expenditures on health, and affordable access to health commodities.
- ***Leadership and partnerships.*** Effective implementation requires strong political and community leadership and partnerships, including multisectoral action through a "whole-of-government" and "whole-of-society" approach. WHO plays an important role in fostering partnerships, including with funding partners and the private sector, and engaging in policy dialogue for cross-sectoral action. Investing in the next generation of leaders is critical to long-term success.

2.2 Targets and impact

The 2022–2030 global health sector strategies on HIV, viral hepatitis and sexually transmitted infections seek to achieve shared and disease-specific global targets for impact by 2030 (Table 2.1).

The strategies also include additional coverage indicators and policy milestones, for shared and disease-specific interventions, with 2025 and 2030 targets. These are presented in the shared and disease-specific chapters of this document (Chapters 3–6). The complete Measurement Framework is presented in Annex 2.

The strategies maintain the highest level of ambition to end these epidemics by 2030, although the pace at which different regions and countries may achieve this will differ. The global targets provide a guide for national targets and should be adapted to each country context. Equitable progress toward the targets is required across all populations, with attention given to ensuring that most affected and at-risk populations are not left behind.

Table 2.1: Impact targets for HIV, viral hepatitis and sexually transmitted infections, 2025 and 2030

Disease area	Impact indicator	2025 target	2030 target
Shared	**SDG 3.3** Public Health Elimination and Control **Reduced Incidence** - 4.5 million HIV and Hepatitis cases per year - 1 million STIs per day	 <1.5 million < 800,000	 < 500,000 < 100,000-500,000
	Healthy Lives - Reduced Mortality - 2.3 million deaths per year - 1 million cancers per year	 <1.7 million <800,000	 < 1 million < 500,000

Disease area	Impact indicator	2025 target	2030 target
HIV	HIV new infections	370 000	335 000
	HIV new infections per 1000 uninfected population (SDG 3.3.1)	0.5	0.45
	HIV related deaths	250 000	240 000
	HIV infections among children	0	0
	Reduce TB, hepatitis B and C related deaths among people living with HIV	50%	75%
Viral hepatitis	HBsAg prevalence under 5	0.5%	0.1%
	Hepatitis B incidence	850,000 11/100K	170,000 2.2/100K
	Hepatitis C incidence	875,000 11.3/100K	175,000 2.3/100K
	Hepatitis C incidence among PWID	3/100	2/100
	Hepatitis B mortality	530,000 6.9/100K -40%	310,000 4.0/100K -65%
	Hepatitis C mortality	240,000 3.1/100K -40%	140,000 1.8/100K -65%
Sexually transmitted infections	Global Incidence - Incidence of 4* curable STIs in men & women 15 to 49 years of age	282 million -20%	187 million -(50%-90%)
	Triple Elimination – Congenital syphilis cases (per 100,000 live births)	< 200	< 50
	Antenatal care – Syphilis prevalence in women attending ANC care	< 0.5%	< 0.4%
	Adults – Prevalence of gonorrhoea/chlamydia in women 15-24 (and where feasible their partners)	-25%	-(50-90%)
	Adults – Reported cases of urethral discharge or gonorrhoea among men	-25% adjusted for reporting completeness	-(50-90%) adjusted for reporting completeness
	Priority Populations – Syphilis, gonorrhea and chlamydia prevalence (MSM and FSW)	< 4.5% < 6% -25%	gonorrhoea < 3 % chlamydia < 4% -(50-90%)

2.3 Theory of change

The vision, goals, strategic directions and actions of the strategies come together in a theory of change that demonstrates the pathway by which their implementation will lead to the desired results (Figure 2.2). By implementing the five strategic directions through tailored country actions across the disease areas (Box 2.3), and by placing people at the center of all efforts, the global community can jointly contribute to ending the epidemics and advancing universal health coverage and health security.

Box 2.1: Prioritizing actions for each regional and country context

The global health sector strategies for HIV, viral hepatitis and sexually transmitted infections provide a comprehensive global framework of shared and disease-specific actions to guide countries and partners in their efforts to achieve disease elimination goals. One size does not fit all, and individual regions and countries are encouraged to select, prioritize and adapt these actions in relation to local epidemiological and health system contexts. The optimal selection of actions and delivery models should be aligned with broader national strategies within a universal health coverage framework, and responsive to the needs of local communities.

The detailed relationship between strategic directions, actions and targets is presented in Annex 3.

Figure 2.2: Theory of change

Theory of change

VISION: End epidemics and advance universal health coverage, primary health care and health security

Global Health Sector Strategies on HIV, viral hepatitis and sexually transmitted infections 2022-2030

- **SD1.** Deliver people-centred evidence-based services
- **SD2.** Optimize systems, sectors and partnerships
- **SD3.** Generate and use data to drive decisions and action
- **SD4.** Engage empowered communities and civil society
- **SD5.** Foster innovations for impact

Shared actions | *Disease-specific actions*

Putting people at the center as part of a universal health coverage approach

Country actions | *WHO actions*

Partner actions

Outputs and outcomes

- **Global public health goods** for HIV, viral hepatitis and STIs are available
- **National policies and plans** are evidence-based, up-to-date and funded
- **Evidence-based HIV, viral hepatitis and STI services** are delivered with quality along the continuum of prevention, testing, treatment and care
- **Delivery of services is people-centred** and tailored to diverse populations and settings, reducing inequalities
- **Health systems are jointly strengthened** in relation to primary health care, data, governance, financing, workforce, commodities and service delivery
- **Communities are engaged and empowered** to bring services closer to people and promote accountability

Impact

By 2030,

AIDS epidemic is ended as a public health threat

Viral hepatitis is eliminated as a major public health threat

Sexually transmitted infection epidemics are ended as major public health concerns

Universal health coverage and health security are advanced

The 2022-2030 Global Health Sector Strategies build on the progress achieved during the previous Global health Sector Strategies period from 2016-2021, supported by Member States and partners commitment, community and civil society engagement, and WHO's normative leadership and country support.

Chapter 3. Shared approaches for a people-centred response

HIV, viral hepatitis and sexually transmitted infections share common modes of transmission and determinants, and many of the populations affected by these diseases may overlap (Box 3.1). People-centred approaches that are organized around the needs of affected populations can enhance health care delivery, advance universal health coverage, increase service quality and sustainability, and maximize the impact of available health resources.

This chapter presents common interventions and service delivery models across HIV, viral hepatitis and sexually transmitted infections under a universal health coverage and primary health care framework. It also presents actions addressing shared concerns in relation to other health system functions such as governance, health information, health financing, commodities, health workforce needs, and efforts to promote health security. All actions in this chapter should be considered in conjunction with disease-specific country actions presented in Chapter 4 (HIV), Chapter 5 (viral hepatitis) and Chapter 6 (sexually transmitted infections). Implemented jointly, these actions are critical to ensure the success of these strategies.

Health systems encompass the public health sector as well as key non-State actors such as civil society and community-based organizations and private-sector health care providers that design and deliver health services. Access to effective interventions also depends on the social, cultural, political and legal context within which people live and access these services. Health sector decisions regarding integration of services across multiple disease areas should be considered in context and be informed by the status of national epidemics, health system priorities, and consultation with service providers and communities. Stakeholders must ensure that integration efforts do not have unintended negative consequences and that progress achieved by disease-specific responses is sustained, in particular for the most affected and at-risk populations.

Box 3.1 – Priority populations across HIV, viral hepatitis and sexually transmitted infections

Many of the populations that are most affected by and at-risk for HIV, viral hepatitis and sexually transmitted infections overlap across these disease areas. Further, many of these populations face multiple forms of vulnerability related to biological, behavioural and structural factors. Shared priority populations across national HIV, viral hepatitis and sexually transmitted infection responses may include:

- people exposed through sexual transmission including young people and adolescents, men who have sex with men, sex workers, transgender people, prisoners, people with multiple sex partners and people whose sexual risk-taking is mediated by drug or alcohol use;
- people exposed through unsafe blood supplies and unsafe medical injections and procedures;
- people who inject and use drugs;
- children exposed through vertical transmission or early childhood infection;
- pregnant women;
- women and girls who may be vulnerable and at-risk, including as a result of gender inequalities;
- young people, including young key populations;

- men of all ages who are less likely to be reached by health services;
- mobile populations, and people affected by conflict and civil unrest;
- indigenous peoples;
- people with disabilities.

Each country should define the specific populations that are most affected and at-risk by these epidemics within the local context, and address their needs through an intersectional lens that takes their overlapping forms of vulnerability into account. The disease-specific chapters (Chapters 4-6) provide further information on most affected and at-risk populations for each disease area.

3.1. Shared targets across HIV, viral hepatitis and sexually transmitted infections

Table 3.1 below presents shared impact and coverage targets, and policy milestones, related to priority shared interventions across HIV, viral hepatitis and sexually transmitted infections.

Table 3.1: Shared targets for HIV, viral hepatitis and sexually transmitted infections, 2025 and 2030 *(for additional disease-specific targets, see Chapter 4 (HIV), Chapter 5 (viral hepatitis) and Chapter 6 (sexually transmitted infections))*

	Indicator	Baseline – 2020*	Targets – 2025	Targets – 2030
Impact	**SDG 3.3** Public Health Elimination and Control - Reduced Incidence (4.5 million HIV and Hep per year, 1 million STIs per day)	• 4.5 million HH infections • 1 million STIS	<1.5 million < 800,000	< 500,000 <100,000-500,000
	Healthy Lives - Reduced Mortality - 2.3 million deaths per year - 1 million cancers per year	• 2.3 million deaths • 1 million cancers	<1.7 million <800,000	< 1 million < 500,000
Coverage	**Universal Access** – Prevention, Test, Treat (or cure), (cascades)	Varied by disease	95, 95, 95 90, 60, 60	95, 95, 95
	Universal Access – Prevention, Test, Treat, Priority Populations with defined service package (cascades)	Varied by disease	95, 95, 95 90, 60, 60	95, 95, 95
	Condom/lubricant use at last sex with a client or nonregular partner		90%	90%

	Indicator	Baseline – 2020*	Targets – 2025	Targets – 2030
	Harm reduction - Sets/person who injects drugs/year	200	200	300
	Triple elimination of HIV, syphilis and HBV – countries validated for triple elimination	To complete	50	100
	Blood screening	95%	100%	100%
	Safe injection	50%	90%	100%
	Human papillomavirus vaccination – Percentage of girls fully vaccinated with HPV vaccine by the age of 15	15%	60%	90%
	Cervical cancer - Women screened using a high-performance test by the age of 35, and again by the age of 45			>70%
	Cervical cancer - Women with pre-cancer treated and women with invasive cancer managed			>90%
Milestones	**Stigma and discrimination** - Percentage of people living with HIV, viral hepatitis and STIs and priority populations who experience stigma and discrimination	Varied by disease	Less than 10%	Less than 10%
	Integration - Percentage of people living with HIV, viral hepatitis and STIs linked to other integrated Health Services	Varied by disease	95%	95%
	Gender - Percentage of people living with HIV, women and girls and key populations experience gender-based inequalities and gender based violence		Less than 10%	Less than 10%
	Laws and policies - Percentage of countries have punitive laws and policies		Less than 10%	Less than 10%
	Innovation – Number of additional diseases (HIV, viral hepatitis and STIs) covered by vaccine or cure (and for STIs POC tests)	HCV, HBV, HPV and other STIs	1	2

*last available data as of end 2020

3.2. Strategic Direction 1: Deliver people-centred evidence-based services

This section describes shared interventions across HIV, viral hepatitis and sexually transmitted infections, and other related health areas, that can be integrated or are replicable across multiple disease areas for a more effective people-centred response. Actions in this section should be implemented in conjunction with disease-specific actions described under Strategic Direction 1 in Chapter 4 (HIV), Chapter 5 (Viral hepatitis) and Chapter 6 (Sexually transmitted infections).

3.2.1. Shared interventions across HIV, viral hepatitis and sexually transmitted infections

ACTION 1: Primary prevention. Renew investments in primary prevention interventions and scale up their delivery, including comprehensive sexuality education and correct and consistent condom use, employing evidence-based and differentiated prevention strategies with a focus on key and affected populations, in the context of broadly promoting sexual and reproductive health and well-being. Increasing access to evidence-based, gender-responsive and age-appropriate comprehensive sexuality education; and promoting correct and consistent use of male and female condoms and lubricants with innovative programming, and promoting access to vaccines such as for human papillomavirus and hepatitis B, are critical interventions to reduce new infections in line with global targets. HIV is a major sexually transmitted infection, and shares behavioural, social and structural determinants with other sexually transmitted infections. Although sexual transmission of viral hepatitis B and C plays a relatively minor role in most hepatitis epidemics, specific attention should be given to certain populations, such as men who have sex with men. Targeted public awareness campaigns are urgently needed to make these populations aware of disease transmission risks. In order to be effective, prevention approaches must be tailored to the needs of affected populations in different contexts.

ACTION 2: Harm reduction. Implement a comprehensive package of harm reduction services, where appropriate, based on the WHO package of evidence-based harm reduction interventions for people who inject drugs, taking into account the domestic context, legislation and jurisdictional responsibilities. The essential package of harm reduction services for people who inject drugs includes the provision of sterile injecting equipment through needle and syringe programmes, opioid substitution therapy for people dependent on opioids, and the community distribution of naloxone for the management of opioid overdose, along with targeted information and communication, and testing, diagnosis and management of HIV, hepatitis B and C virus, sexually transmitted diseases and related infections. Interventions tailored to the needs of people who use or inject other drugs such as amphetamine-type stimulants, to promote safer snorting, and to address other forms of sexualized drug use among some key populations, are also important. A combination of harm reduction interventions with high coverage levels is needed for maximum impact.

ACTION 3: Vertical transmission of HIV, syphilis and hepatitis B virus. Advance "triple elimination" of vertical transmission of HIV, syphilis and hepatitis B virus by delivering comprehensive prevention, testing, treatment and follow-up services for women, children

and their families through an integrated approach with maternal and child health services, and promoting gender equality and human rights. The commonalities across interventions required to prevent vertical transmission of HIV, syphilis and hepatitis B virus make it highly feasible to virtually eliminate new infections in children through an integrated approach. Essential services include family planning; testing for HIV, syphilis and hepatitis B virus in antenatal care; prompt and efficacious interventions to treat women who test positive and to prevent transmission of the infection(s) to their children; counselling for women and their partners; safe delivery; follow-up of exposed infants, including the hepatitis B vaccine birth dose; optimal infant feeding; and follow-up treatment and care for mothers, children and families. The elimination of vertical transmission can be validated by WHO with standardized processes.

ACTION 4: Prevention, treatment and care for children and adolescents. Prevent all new infections among children from HIV, viral hepatitis and sexually transmitted infections, and address the longer-term monitoring, treatment and care needs of affected children and adolescents as part of a family-centred approach. Special attention needs to be paid to address paediatric prevention, care and treatment needs related to HIV, viral hepatitis and sexually transmitted infections. About half of all children living with HIV are not being diagnosed and started on antiretroviral therapy. For hepatitis B virus, although the global target to reduce hepatitis B surface antigen prevalence to less than 1% among children younger than five years by 2020 has been met, supported by expanding coverage of the hepatitis B virus vaccine to infants within 24 hours of birth, older unvaccinated children continue to be at risk of acquiring chronic infection and require additional prevention and care. Children may also be at risk of acquiring hepatitis A and B virus horizontally within households and families. The needs of children must be addressed through family-centred approaches that are aligned with broader maternal and child health programmes. It is equally critical to support children for a healthy transition into adolescence and provide longer-term care, including through regular monitoring and follow-up through adolescent-friendly health services, and address policy barriers related to age of consent to facilitate their access to services.

ACTION 5: Infection prevention and control. Prevent disease transmission in formal and informal health care settings and other service settings. Health systems must be able to guarantee safe medical injections and blood supplies, and must universally follow standard precautions, particularly relating to hand hygiene, blood screening, personal protective equipment, and waste management. Unnecessary injections should be eliminated, with particular attention to settings where many unnecessary injections are administered, including by informal health workers. Safety-engineered syringes should be used for all injections. Medical devices must be decontaminated in strict accordance with established protocols, and health facilities must provide the infrastructure and equipment required by these protocols. Sources of potentially unsafe blood products must be eliminated. Outside of health facilities, interventions are needed to prevent unsafe injections and to prevent transmission through contact with bodily fluids in the informal health sector and in services such as tattooing, piercing and beauty care. Airborne infection control measures should be considered for the prevention of diseases such as tuberculosis and COVID-19.

ACTION 6: Integrated testing. Integrate testing for HIV, hepatitis B virus, hepatitis C virus, sexually transmitted infections, tuberculosis and other diseases. Integrated testing for multiple diseases is a key element of people-centred health services. Providing multiple tests in the same session can increase testing uptake and enable health systems to achieve cost savings in relation to outreach, infrastructure and human resources. Integrated testing protocols must meet the needs of service recipients while being feasible for service providers to implement. Some integrated testing models may utilize multiplex diagnostic tools to streamline the collection and screening of biological specimens. For example, testing for syphilis and HIV may be performed using the same blood sample. Rapid point-of-care multiplex tests for HIV/hepatitis C virus and for HIV/hepatitis B virus/hepatitis C virus make it possible to provide community-based and self-administered integrated testing services for these diseases and facilitate immediate treatment initiation. Other integrated testing models may require multiple specimens but organize service delivery in ways that facilitate the uptake of multiple tests in the same clinic visit.

ACTION 7: Voluntary partner notification and other partner services. Develop and implement human rights-based and gender-sensitive strategies for voluntary partner notification and other services for sexual partners of people diagnosed with HIV, hepatitis B virus, hepatitis C virus and sexually transmitted infections. Approaches to informing sexual partners and offering them counselling and treatment vary according to circumstances. Options include patient referral whereby patients are encouraged to contact their sex partners themselves, provider referral where the health care provider notifies the partner and arranges treatment, and contractual patient–provider referral which involves a two-step approach that links patient and provider referral methods. A "couples approach" for increasing counselling and partner treatment and care for HIV, hepatitis B and C virus, and sexually transmitted infections should be encouraged, particularly in the context of antenatal care.

ACTION 8: Stigma and discrimination in health care settings. Eliminate stigma and discrimination in health care settings and strengthen accountability for discrimination-free health care. The health sector has a responsibility to ensure that everyone can access services for HIV, viral hepatitis and sexually transmitted infections in a non-discriminatory and supportive environment. Key health sector interventions include regular trainings for all health care staff to increase knowledge of these diseases, address misconceptions and underlying fears, and raise awareness about the harmful consequences of stigma and discrimination; and the development and monitoring of standards for health care workers to ensure that all patients are treated with respect, dignity and compassion. Health workers should be educated about patient rights and about how to sensitively provide care to all patients, particularly the key and most affected populations.

3.2.2. Shared interventions to enhance integration and linkages with other health areas

ACTION 9: Communicable and noncommunicable diseases. Strengthen integration and linkages across communicable and noncommunicable disease services. Communicable and noncommunicable diseases that occur among people with HIV, viral hepatitis and sexually transmitted infections should be addressed in a coordinated people-centred manner.

Depending on the health system context and the needs of affected populations, services may be integrated or linkages may be established to facilitate comprehensive care. Integrated management of HIV, viral hepatitis infection and sexually transmitted infection should include early diagnosis and treatment of in accordance with coinfection guidelines. People living with HIV should be screened and treated for sexually transmitted infections. People seeking sexually transmitted infection services should be tested for HIV, and those who might benefit from pre-exposure prophylaxis for HIV and from voluntary medical male circumcision should be educated about these services and given referrals. Depending on epidemiological dynamics, other infectious diseases of concern in the context of HIV, viral hepatitis and sexually transmitted infection services may include COVID-19 and malaria. There is a need to strengthen linkages with the relevant infectious disease services, and with noncommunicable disease services, for example viral hepatitis causes a large burden of liver cancer and chronic liver disease and further coordination and integration between viral hepatitis and cancer programmes as well as strengthened surveillance are encouraged. The increasing burden of cervical cancer among women living with HIV, associated with human papillomavirus infection, requires specific attention, particularly given the availability of effective human papillomavirus vaccines and screening and treatment strategies to prevent cervical cancer. People living with HIV and viral hepatitis also need care for other noncommunicable diseases including cardiovascular disease, diabetes, chronic lung disease, hypertension and other conditions that may develop over the life course. Reliable data and evidence are needed to guide decision-making about how communicable and noncommunicable diseases should be addressed by HIV, viral hepatitis and sexually transmitted infection services. Strong linkages with primary health care services are important for addressing diverse health needs in a comprehensive person-centred manner.

ACTION 10: Tuberculosis. Reduce tuberculosis-related morbidity and mortality through timely diagnosis and treatment of tuberculosis in people living with HIV and viral hepatitis. Tuberculosis is the leading cause of death among people living with HIV. Additionally, HIV and tuberculosis often occur in communities where hepatitis B is endemic, and co-infections with HIV and tuberculosis occur among people at increased risk of hepatitis C virus, particularly people who inject drugs. Joint planning and delivery of integrated HIV and tuberculosis services remains a priority, particularly in countries with a high burden of both diseases.

ACTION 11: Sexual and reproductive health. Strengthen programmatic linkages and integrated services to enable people using HIV, viral hepatitis and sexually transmitted infection services to easily access human rights-based sexual and reproductive health services. Priority actions to deliver HIV, viral hepatitis and sexually transmitted infection interventions as part of comprehensive sexual and reproductive health services include establishing programmatic linkages; providing integrated services in settings where integrated models would be beneficial; utilizing technological advances in digital health and self-care interventions to aid underserved populations in realizing their right to health; strengthening multisectoral partnerships to further contribute to advancing universal health care; and generating interdisciplinary implementation research that supports the national scale-up of evidence-based service delivery models for HIV, viral hepatitis, sexually transmitted infections, and other sexual and reproductive health services.

ACTION 12: Mental health. Ensure that the mental health needs of people affected by HIV, viral hepatitis and sexually transmitted infections are addressed through adequate linkages with safe and non-discriminatory mental health services. Many populations that are heavily affected by HIV, viral hepatitis and sexually transmitted infections also have a high burden of mental health disorders including depression, anxiety, post-traumatic stress disorder, and alcohol and drug dependence. Screening and integrated care for mental health disorders should be linked with prevention and care services for HIV, viral hepatitis and sexually transmitted infections, with the primary health care system functioning as a linking mechanism when appropriate.

ACTION 13: Disability. Promote disability-inclusive programming and ensure that HIV, viral hepatitis and sexually transmitted infection services are accessible to people with disabilities. Complications and sequelae of HIV, hepatitis and sexually transmitted infections can be associated with high levels of disability; and people with existing disabilities may be at elevated risk of developing HIV, hepatitis or sexually transmitted infections as a result of physical and information barriers, or related to societal norms and attitudes. The involvement and engagement of persons with disabilities in planning and decision-making is critical.

ACTION 14: Gender-based and sexual violence. Prevent gender-based and sexual violence, provide support for people experiencing violence, and create an enabling environment to promote physical, sexual and emotional well-being and safety. Physical, sexual and psychological violence, fueled by gender inequalities, harmful social norms, and criminalization and other repressive laws and policies, are risk factors for disease transmission, in particular among adolescent girls and young women, and key populations. The health sector plays an important role in providing post-violence care, including post-exposure prophylaxis for HIV and sexually transmitted infections, and broader clinical and psychosocial care and support. Efforts to prevent violence must also involve other sectors, such as to promote law and policy reforms and establish mechanisms to monitor violence and foster the accountability of law enforcement officials.

3.3. Strategic Direction 2: Optimize systems, sectors and partnerships

This section describes shared approaches to strengthen health service delivery and optimize other health system functions in collaboration with partners under a universal health coverage and primary health care framework. The actions in this section should be implemented in conjunction with disease-specific actions described under Strategic Direction 2 in Chapter 4 (HIV), Chapter 5 (Viral hepatitis) and Chapter 6 (Sexually transmitted infections).

3.3.1 Universal health coverage and primary health care

ACTION 15: Universal health coverage. Adopt a health systems-oriented approach to deliver essential HIV, viral hepatitis and sexually transmitted infection services as part of universal health coverage, including through alignment of disease-specific and health system efforts at the policy, programme and service levels. Universal health coverage means that all people have access to the health services they need, when and where they need them, without

financial hardship. To end the epidemics, essential services for HIV, viral hepatitis and sexually transmitted infections need to be incorporated into national priority health benefits packages, supported by adequate financing. Coordinated actions to advance towards universal health coverage can include alignment at the policy and planning levels; coordinated input functions including for health financing, data, commodities and workforce; delivery of shared interventions through integrated approaches, empowering communities, and addressing common social determinants of health.

ACTION 16: Primary health care. Promote the integration of HIV, viral hepatitis and sexually transmitted infection services into primary health care platforms where feasible and appropriate, including through decentralized and community-based service delivery, and contribute to jointly strengthening these platforms for sustainable progress towards universal health coverage. Primary health care covers the range of disease prevention, health promotion, treatment, rehabilitation and palliation care that are needed throughout a person's lifespan, delivered as close as feasible to people's everyday environment. It is the foundation of universal health coverage and essential to advance health equity. Primary health care can provide the platform to address multimorbidity where feasible and appropriate, systematically address the broader determinants of health through evidence-informed multisectoral policies and actions; and empower individuals, families, and communities to optimize their health.

3.3.2 Shared service delivery models

ACTION 17: Differentiated service delivery. Identify and optimize opportunities to use differentiated service delivery models for HIV, viral hepatitis and sexually transmitted infection services, guided by strategic information to understand the diverse needs and preferences of beneficiary populations in different settings, as a means to expand access to comprehensive people-centred services. By adapting service provision to the diverse needs and preferences of affected communities, differentiated approaches can improve service uptake, enhance service quality, and optimize the use of health system resources. Differentiated service delivery has been used most frequently to deliver antiretroviral therapy for HIV, through approaches such as task sharing, modifying service delivery hours, and adapting the frequency of clinical visits and medicine refills. During the COVID-19 pandemic, many countries further accelerated the application of differentiated models to ensure continued provision of essential services in contexts of stay-at-home measures, physical distancing requirements and supply disruptions. Expanded use of such approaches can offer long-term opportunities to bring HIV, viral hepatitis and sexually transmitted infection services closer to people in an integrated manner.

ACTION 18: Decentralization. Identify and optimize opportunities to decentralize the delivery of HIV, viral hepatitis and sexually transmitted infection services where appropriate, by diversifying their provision to include lower administrative levels and non-specialized personnel and simplifying protocols where appropriate, as a means to expand access to comprehensive people-centred services. Together with differentiated service delivery, decentralization provides opportunities to expand services beyond specialized or tertiary facilities through task-sharing with non-specialized personnel, community-based services, telemedicine, and other approaches to expand geographic outreach. Decentralization may also involve engaging more actively with the private health care sector.

Decisions to decentralize service delivery must be adapted to local contexts, supported by policy and legislation, and accompanied by investments to strengthen the capacity of health care personnel and infrastructure at the primary care levels to maintain service quality and service user confidence.

ACTION 19: Special settings. Provide equitable access to services in special settings, including prisons and other closed settings, and settings of humanitarian concern. Access to basic health services can be severely compromised in specific settings, including prisons and other closed settings as well as settings of humanitarian concern. Mobile and displaced populations are often dislocated from their communities and may have inadequate access to local services because of lack of necessary documentation, language barriers or high costs. Vulnerability may increase during emergencies, such as when outbreaks of hepatitis A and hepatitis E virus occur in places with poor sanitary and hygienic conditions. Services provided in special settings should be equivalent to those available to the broader community, and the continuity of these services should be ensured when people move within and between these settings and the broader community.

ACTION 20: Digital innovations. Harness the growing power of digital technologies to enhance the coverage and quality of health interventions. Digital health technologies can enhance targeted client communication, such as towards young people or individuals who may avoid in-person gatherings because of concerns about stigma and discrimination. Social listening approaches such as virtual mapping and online surveys can help to better understand the needs and preferences of target populations. Digital health technologies can improve patient autonomy and agency through the use of wearable devices and mobile apps for personal health monitoring. Digitized health worker support tools can improve the quality of patient management and follow-up, and electronic health information systems can enhance the quality of data. Digital health interventions must be designed and implemented within the broader digital health architecture of a national health system. Their deployment must take into consideration the risks and barriers related to their use, such as risks related to confidentiality and privacy, and should not create inequalities for people who may not have access to digital technologies.

3.3.3 Governance

ACTION 21: Effective and inclusive governance. Strengthen national governance structures and costed strategic plans to guide national responses to HIV, viral hepatitis and sexually transmitted infections, with meaningful engagement of communities and promoting synergies with broader health governance structures and plans. National governance structures for health must comprehensively address disease-specific issues and meaningfully engage communities living with and affected by HIV, viral hepatitis and sexually transmitted infections. Similarly, disease-specific governance structures, where they exist, must be appropriately aligned with and linked to broader national health and development structures and plans. Effective governance is inclusive and participatory, and promotes collaboration across sectors and stakeholders, including governments, civil society organizations, the private sector and communities, in a whole-of-government and whole-of-society approach.

3.3.4 Financing

ACTION 22: Financing. Address the financing of HIV, viral hepatitis and sexually transmitted infection responses through national health financing systems, avoiding fragmented funding; maximize the efficient use of resources; and minimize catastrophic health expenditures for individuals and families. Continuing to drive progress in the three disease areas requires strategic shifts in health financing systems to achieve three key goals: raising sufficient funds through public and private domestic funding and external sources; establishing equitable mechanisms to pool funds for financial risk protection; and optimizing the use of resources by integrating services, reducing costs and fragmented funding streams, improving efficiencies; and pursuing price reduction strategies. It is important to ensure that HIV, viral hepatitis and sexually transmitted infection services are part of essential health benefit packages, and to document and address the severe gaps in financing for viral hepatitis and sexually transmitted infection responses. Resource allocations should be reflective of health needs, including the needs of key and at-risk populations nationally and in specific settings. The private sector must be engaged both as a provider of health services, and a funding partner.

3.3.5 Commodities

ACTION 23: Essential health commodities. Ensure equitable and reliable access to high-quality and affordable medicines, diagnostics and other health products for HIV, viral hepatitis and sexually transmitted infections, by accelerating their development and in-country registration, reducing prices, strengthening local development, manufacturing and distribution capacity, and aligning efforts with broader health commodity plans and budgets. The long-term secure supply of commodities that are accessible, affordable, and acceptable, is a critical element of the public health approach to ending these epidemics. Research and development in commodities and technologies must be supported and oriented to public health needs. National regulatory capacity must be strengthened to ensure timely registration of new products, and ensure the safety, quality and efficacy of all health products in the market. Price reduction strategies such as fostering generic competition; promoting technology sharing and addressing intellectual property-related barriers by leveraging the use of Trade-Related Aspects of Intellectual Property Rights flexibilities and optimizing the use of public health-oriented voluntary licensing; promoting differential pricing; and engaging in direct price negotiations with manufacturers should be pursued to improve affordability and access. Logistics management information systems must be strengthened to ensure timely and accurate data regarding commodity needs and consumption for decision-making and accountability.

3.3.6 Health workforce

ACTION 24: Health workforce strengthening. Address immediate and future health workforce needs in relation to HIV, viral hepatitis and sexually transmitted infections in ways that are synergistic with efforts to strengthen the overall health workforce. Efforts to end the epidemics of HIV, viral hepatitis and sexually transmitted infections by 2030 will place further demands on health workforces that are already overburdened in many settings. Health workers are increasingly expected to work across health issues and with different client groups. Disease-specific needs should be quantified and considered in broader

decision-making about the health workforce and facility staffing. Comprehensive national health workforce plans should include provisions for the delivery of high-quality HIV, viral hepatitis and sexually transmitted infection services across the continua of services, with different cadres of health workers performing different roles. Health workers should be compensated in accordance with education level, tasks performed and broader labor market conditions. Financial incentives that create inequalities among health workers or negatively affect other service delivery areas should be avoided. Competencies required for disease-specific roles should be mainstreamed and integrated into pre-service education.

It is essential for health systems to invest in capacity-building, ongoing training and supportive supervision. Given the risk of disease transmission in health care settings, health workers should have access to all necessary protective equipment, and should be informed about and have the means to implement universal precautions. Strategies are needed to increase the numbers of nurses and midwives in many settings. Young people should be encouraged to embark on careers in health care and in the HIV, viral hepatitis and sexually transmitted infection fields. The health workforce must be engaged in comprehensive efforts to eliminate stigma and discrimination associated with HIV, viral hepatitis and sexually transmitted infections in health care settings, as described in Action 7 earlier in this chapter.

3.3.7 Social and structural determinants of health

ACTION 25: Legal, regulatory and policy reform. Reform policies, laws and regulations to enable equitable access to health services, especially for most affected and at-risk populations, and create institutional and community environments, including in health care settings, that make it safe for people to access services. The health sector has an obligation to promote a safe and non-discriminatory environment within the health care setting, as well as to promote an enabling environment in other sectors in order to reduce people's vulnerability and promote access to health services for all. Countries should be supported to review harmful laws and policies, such as the criminalization of drug use, sex work and same sex relations, that affect the health, safety and access to services of the most vulnerable. It is equally important to develop supportive legislation that upholds the implementation of evidence-based interventions, promotes and protects human rights, and reduces stigma and discrimination.

ACTION 26: Multisectoral partnerships to address stigma, discrimination and other social and structural barriers. Establish, catalyze and coordinate multisectoral and community partnerships to address social and structural barriers hindering effective responses to HIV, viral hepatitis and sexually transmitted infections. Persistent stigma and discrimination are a major barrier to a successful response to HIV, viral hepatitis and sexually transmitted infections. People living with HIV, and key populations who are most affected by HIV, continue to face stigma, discrimination and criminalization that exacerbate their risks and infringe on their rights to accessing the services they need. In many settings, people living with viral hepatitis face social exclusion, barriers to healthcare, or workplace-related discrimination. Sexually transmitted infections continue to carry shame and remain hidden. Many of these barriers are influenced by policies and activities across multiple sectors such as education, nutrition, justice, labor, social protection, housing and the environment. A comprehensive response to HIV, viral hepatitis and sexually transmitted infections must include collaboration across sectors to ensure positive action on the critical enablers that aim to improve the

accessibility, acceptability, uptake and quality of interventions for all. The effective engagement and empowerment of communities plays a key role in reducing these barriers.

3.3.8 Health security

ACTION 27: Protecting people during pandemics and other health emergencies. Protect the gains achieved in the responses to HIV, viral hepatitis and sexually transmitted infections, and ensure continuity of essential health services in the context of pandemics and other emerging health threats by building health and community system resilience. The COVID-19 pandemic disrupted access to HIV, viral hepatitis and sexually transmitted infection services worldwide, threatening to halt or reverse the gains achieved in the response to these diseases. At the same time, the pandemic also demonstrated the ability of health and community systems to adapt and evolve to continue to reach people in need. In particular, community-led action spurred innovations to maintain essential health services for populations in need in challenging contexts of stay-at-home measures, and service and supply disruptions. These innovations must be sustained to ensure the continuous delivery of essential services during pandemics and emerging health threats, with joint efforts to build the resilience of health and community systems, strengthen linkages to primary health care, and provide social protection for the most vulnerable.

ACTION 28: Managing future disease outbreaks. Leverage the learnings from the COVID-19 response to prevent and manage future disease outbreaks. Innovative approaches applied during the COVID-19 pandemic to differentiate, decentralize and simplify the delivery of essential health services in times of crisis provided a historical opportunity to strengthen responses to infectious diseases more broadly. As countries move towards the last mile of disease elimination for HIV, viral hepatitis and sexually transmitted infections, the learnings from the COVID-19 response must be leveraged to increase the preparedness and agility of health and community systems to manage future outbreaks of HIV, viral hepatitis and sexually transmitted infections, as well as other emerging health threats, as they arise.

3.4. Strategic Direction 3: Generate and use data to drive decisions and action

This section describes shared approaches to strengthen health information systems for better data availability, use and accountability. The actions in this section should be implemented in conjunction with disease-specific actions described under Strategic Direction 3 in Chapter 4 (HIV), Chapter 5 (Viral hepatitis) and Chapter 6 (Sexually transmitted infections).

ACTION 29: Data availability, analysis and use. Generate high-quality data and use data analyses to drive action, including at decentralized levels. Accurate, timely and granular data are essential for national strategic planning, resource allocation, health service delivery, advocacy, and accountability. Joint efforts to strengthen strategic information systems can improve data availability and quality, including with relevant disaggregation, with standardized indicators and methodologies. Data must also be regularly analyzed and used for decision-making and programme improvement, including at subnational levels, supported by adequate data analysis capacity at national, district and facility levels. Regular reporting on programme implementation, financing, performance and impact are important for accountability.

ACTION 30: Person-centred data monitoring. Expand person-centred monitoring including through community-led monitoring to support person-centred services, by placing the individual at the centre of health information systems and by increasing the granularity of data appropriately disaggregated by age, sex, population and location. Person-centred monitoring supports individuals as they move through the service continuum, and helps to deliver differentiated services that meet people's needs, support long-term retention in health care, and improve programme outcomes. Community-led monitoring – whereby communities contribute directly to the collection, analysis and use of information to monitor and improve service quality, address bottlenecks and hold service providers and decision-makers accountable, and empower individuals, families, and communities to optimize their health – is an important component of a health information system. The rigorous application of standards in gathering and using person-centred data is important to ensure data security and protect the confidentiality of individuals and communities, strengthen interoperability of data systems, and to ensure that data collection efforts cause no harm.

ACTION 31: Health information systems. Align information systems related to specific diseases or infections with broader health information systems to strengthen universal health coverage, and support the transition to digital information systems with appropriate attention to data governance, security and interoperability. Harmonized approaches to strengthening information systems related to specific diseases or infections, such as joint investment in monitoring and evaluation and in data management platforms, integrated disease surveillance, shared approaches to surveillance of antimicrobial resistance, and combined surveys where relevant, provide an opportunity to improve alignment and efficiency and enhance the quality of data for all diseases. As more countries transition to electronic health information systems, it is important to ensure data security across systems, develop joint data standards, and promote interoperability among data platforms used by different programme areas and related functions such as those for logistics management and laboratory systems. Strengthening public-private partnerships is also critical, to expand access to services through the private sector, ensure harmonized service quality standards, and promote data sharing.

3.5. Strategic Direction 4: Engage empowered communities and civil society

This section describes shared approaches to engage communities, civil society organizations and affected populations in advocacy, service delivery, policy-making and initiatives to enhance service delivery and tackle social and structural barriers. The actions in this section should be implemented in conjunction with disease-specific actions described under Strategic Direction 4 in Chapter 4 (HIV), Chapter 5 (Viral hepatitis) and Chapter 6 (Sexually transmitted infections).

ACTION 32: Community and civil society leadership. Engage and support communities and civil society to enhance their pivotal contributions to advocacy, service delivery, policymaking, monitoring and evaluation, and initiatives to address social and structural barriers. Communities and civil society organizations deliver an essential complement to facility-based services and are an integral part of effective primary health care, especially among populations that may face barriers to accessing services, or in situations where health

facilities may be inaccessible. The meaningful participation of communities and civil society in national health planning processes and service delivery brings services closer to people in need; improves service acceptability, uptake and retention; empowers individuals with greater autonomy and self-care possibilities, and promotes equity. Communities and civil society organizations bolster advocacy efforts, strengthen programme design and delivery, and promote accountability, including through community-led monitoring. To be effective, community-based and civil society organizations require predictable funding and must be recognized by other stakeholders as key partners efforts to end HIV, viral hepatitis and sexually transmitted infections.

ACTION 33: Community health workers. Provide adequate regulation, training, supervision and support for community-based members of the health workforce. Addressing major gaps in the HIV, viral hepatitis and sexually transmitted infection responses requires expanding community capacity to provide services and commodities to populations that are not reached effectively through traditional clinic-based approaches. The needs of the community-based health workforce must be addressed on par with the needs of the formal health workforce in terms of regulation, training and supervision. Linkages need to be strengthened between community-based health services and formal health services. Community-based health workers must be compensated appropriately for their work. Like all health workers, they should have access to protective equipment and be safeguarded by infection control protocols.

3.6. Strategic Direction 5: Foster innovations for impact

This section describes shared approaches to foster and disseminate innovations for accelerated impact. The actions in this section should be implemented in conjunction with disease-specific actions described under Strategic Direction 5 in Chapter 4 (HIV), Chapter 5 (Viral hepatitis) and Chapter 6 (Sexually transmitted infections).

ACTION 34: Partnerships for innovation. Optimize the potential for innovation through market analyses and strengthening research- and development-based partnerships, including strengthened engagement with the private sector. To achieve global targets, countries need to not only leverage new knowledge, technologies and service delivery approaches, but also use existing tools more efficiently and adapt them for different populations, settings and purposes. WHO and countries work with many innovation partners to drive and catalyze innovations in HIV, viral hepatitis and sexually transmitted infection responses and broader health, to ensure that innovative products, tools and methods emerging in high-income countries can reach low- and middle-income countries at affordable prices and with reduced burden on health systems. This includes the use of digital technologies for health that bring new opportunities for service quality improvements, self-care options for patients, and analyses and use of data.

Chapter 4. HIV

This chapter presents the global health sector strategy on HIV. It presents the key strategic and operational shifts required to end AIDS as a public health threat by 2030 (Box 4.1), with priority targets, interventions and innovations. The strategy for HIV fully aligns with the Global AIDS Strategy 2021–2026, the End TB Strategy (Box 4.2) and other related global strategies. Actions for countries in this chapter should be implemented in conjunction with the shared actions for countries defined in Chapter 3.

Box 4.1: Key shifts required to end AIDS as a public health threat by 2030:

- Renewed focus on primary prevention
- Closing gaps in service access for children and adolescents
- Addressing the barriers faced by key populations and in concentrated epidemics
- Differentiated approaches to service delivery to meet the specific needs of populations and settings
- Innovations, including new treatment regimens, vaccines and effective cure

Box 4.2: Responding jointly to tuberculosis and HIV

Tuberculosis (TB) is the leading cause of death among people living with HIV. Although the number of deaths has declined between 2010 and 2019, less than half of the estimated people co-infected with HIV and TB were reported to be receiving both HIV and TB treatment in 2019.[17] The global End TB Strategy[18] prioritizes collaborative activities to jointly address TB and HIV through integrated people-centred care that includes systematic screening for TB symptoms among people living with HIV, TB preventive treatment, HIV testing of all people with diagnosed or presumed TB, timely initiation of antiretroviral therapy for TB patients, co-trimoxazole prophylaxis, and treatment of TB and drug-resistant TB. Opportunities for programme collaboration, such as joint planning, surveillance and financing, and common approaches to address the inequalities that drive both HIV and TB, are also important to prevent and manage HIV-associated TB.

4.1. HIV targets

Table 4.1 below presents HIV impact and coverage targets, and policy milestones.

Table 4.1: HIV targets, 2025 and 2030 *(for additional shared targets, see Chapter 3)*

[17] Global tuberculosis report 2020. WHO, Geneva, 2020.
[18] The end TB strategy. WHO, 2015.

	Indicator	Baseline – 2020*	Targets – 2025	Targets – 2030
Impact	HIV new infections	1 500 000	370 000	335 000
	HIV new infections per 1000 uninfected population (SDG 3.3.1)	0.19	0.5	0.45
	HIV related deaths	680 000	250 000	240 000
	HIV infections among children	150 000		
	Reduce TB, hepatitis B and C related deaths among people living with HIV		50%	75%
Coverage	Percentage of people living with HIV who know their status	84%	95%	95%
	Percentage of people diagnosed with HIV receive antiretroviral therapy	87%	95%	95%
	Percentage of people living with HIV, and who are on treatment, achieve viral load suppression	90%	95%	95%
	Percentage of people at risk of HIV use combination prevention with defined service package	8%	95%	95%
	Percentage of people living with HIV receive preventive therapy for TB	50%	95%	95%
	Percentage of people living with HIV and other people at risk are linked to other integrated health services, including STIs and viral hepatitis		95%	95%
Milestones	**HIV stigma** - Percentage of people living with HIV and key populations experience stigma and discrimination		Less than 10%	Less than 10%
	Late-stage disease – Percentage people starting ARV with CD4 count of less 200 (or stage III/IV)	30%	20%	10%
	Differentiated service delivery - Percentage countries which have implemented 6 month refill of drugs	19 countries	50%	80%

* last available data as of end 2020

4.2. Strategic Direction 1: Deliver people-centred evidence-based services

This section describes HIV-specific priority actions for countries along the continuum of HIV prevention, diagnosis, treatment and care services. The actions in this section should be implemented in conjunction with relevant shared actions described under Strategic Direction 1 in Chapter 3, and their delivery must be tailored to the needs of affected populations within each epidemiological context (Box 4.3).

Box 4.3 – Priority populations for HIV

Certain populations are disproportionately affected by epidemics as a result of biological, behavioural and structural factors that increase their risk and vulnerability. Global evidence indicates that for HIV, five key populations – men who have sex with men, people who inject drugs, sex workers, transgender people, and people in prisons and other closed settings – are disproportionately affected as compared to the general population in almost all settings. These populations are important to the dynamics of HIV transmission and essential partners in an effective response.

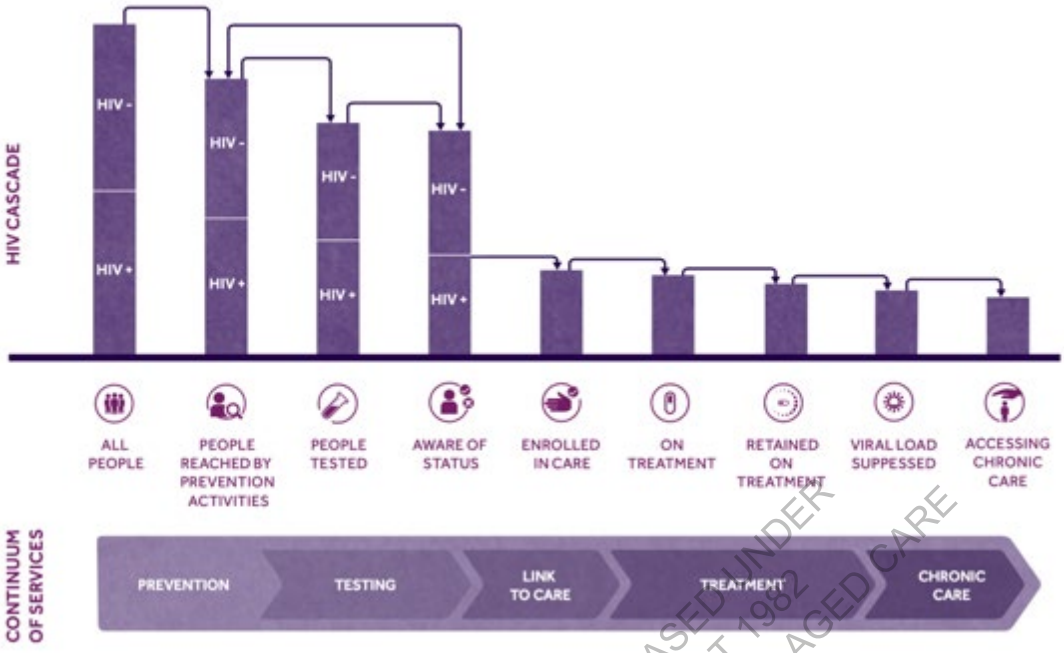
Pregnant and breastfeeding women, children, and adolescents and young people, including young key populations, are also vulnerable to HIV infection in specific contexts. Men and boys are less engaged in health services and have poorer health outcomes in some settings. Other priority populations may include persons with disabilities, indigenous peoples, migrants and mobile populations, and people in settings of humanitarian concern in some settings. People living with HIV continue to be central to the response to HIV and must be considered as a priority population in all countries.

In addition to populations, it is equally important to focus efforts on geographic locations where the burden of HIV may be high or where service gaps may be the largest. Targeted approaches are also required for key and marginalized populations who may be hard-to-reach, hidden, unrecognized (by others or by themselves) or not willing to disclose their status. Meaningful engagement with most affected and at-risk populations has never been more critical as countries respond to challenges to service access triggered by health emergencies including COVID-19, climate-related crises and insecurity.

4.2.1. HIV service delivery interventions

ACTION 35: Continuum of HIV services. Organize health service delivery to address people's needs across the full continuum of HIV services by providing comprehensive prevention services, ensuring early engagement in care, maximizing retention and adherence, and monitoring the service cascade for programme improvement. The continuum of HIV services (Figure 4.1) provides an organizing framework for implementation of essential interventions that comprehensively address people's needs relating to HIV prevention, testing, treatment and chronic care. As people move along the continuum, there may be loss to follow-up at each step. Health services must be organized such that individuals can be retained in care to optimize outcomes at patient and population levels, accompanied by data collection and analyses at each step for programme improvement.

Figure 4.1: The continuum of HIV services and retention cascade



<u>ACTION 36: HIV intervention packages.</u> Define a core package of evidence-based interventions relevant to each country context and tailored to the needs of diverse populations and settings. Each country needs to define a package of essential HIV interventions along the service continuum, informed by data, scientific evidence, good practice, and community input, and take into account burden, equity, effectiveness, cost, acceptability, feasibility and ethics. The intervention package should be aligned with universal health coverage benefits packages and linked with primary health care where feasible and relevant.

<u>ACTION 37: HIV prevention.</u> Determine and implement the optimal mix of HIV prevention interventions for specific populations and locations. People may require different HIV prevention options based on their age, sex/gender and circumstances, and individual risks and needs may change across a person's lifetime. Data should be used to determine the optimal mix of prevention interventions for different populations and locations, with person-centred monitoring to adapt services to population needs.

<u>ACTION 38: Antiretroviral drugs for HIV prevention</u>. Maximize the prevention benefits of antiretroviral drugs by providing antiretroviral therapy for all people living with HIV and implementing a strategic combination of pre-exposure prophylaxis (PrEP) and post-exposure prophylaxis (PEP) with other prevention interventions. Pre-exposure prophylaxis (PrEP), or the use of antiretroviral drugs by people who are not infected with HIV, should be offered as an additional prevention choice for individuals who are at substantial risk of HIV acquisition. Post-exposure prophylaxis (PEP) should be made available to people who have had a significant exposure to HIV. The dapivirine vaginal ring provides an additional prevention choice for women at substantial risk of HIV infection.

<u>ACTION 39: Voluntary medical male circumcision.</u> Maximize the HIV prevention impact of voluntary medical male circumcision as part of comprehensive services for the health and

well-being of adolescent boys and men. Safe voluntary medical male circumcision should be offered as an additional HIV prevention option, in particular to adolescents aged 15 years and older and adult men, to reduce the risk of heterosexually acquired HIV infection in settings with generalized epidemics.

ACTION 40: People-centred HIV testing. Expand people-centred HIV testing through decentralized and differentiated service delivery with timely linkage to treatment and care. The optimal combination of HIV testing approaches, including through clinical settings, community-based approaches or self-testing, depends on epidemic dynamics, population needs, and the local health system. Expanding testing coverage requires specific attention to ensuring the quality of the diagnostics and services to minimize the risk of misdiagnosis of HIV status.

ACTION 41: HIV treatment. Provide rapid initiation of HIV treatment to all people living with HIV through differentiated service delivery models that provide people-centred care, monitoring, and support for adherence and re-engagement in care. Rapid initiation of antiretroviral therapy, defined as within seven days of HIV diagnosis, should be offered to all people living with HIV regardless of WHO clinical stage and at any CD4 cell count. Working closely with communities and monitoring people on antiretroviral therapy, including with point-of-care viral load testing, is important to ensure successful treatment outcomes, and to realize the preventive effect of HIV treatment. Tailored adherence support must be offered to all in order to improve retention in care, along with interventions to trace people who have disengaged from care and support their re-engagement.

ACTION 42: HIV drug resistance. Prevent, monitor and respond to HIV drug resistance through coordinated action that includes transition to HIV therapies that have a higher barrier to resistance, ensuring uninterrupted drug supplies, and strengthening monitoring and surveillance. All antiretroviral drugs, including newer classes, are at risk of becoming partly or fully inactive because of the emergence of drug-resistant virus strains. Strategies to prevent and respond to HIV drug resistance include supporting transition to dolutegravir-based antiretroviral regimens that have a higher barrier to resistance, monitoring HIV care service delivery, and ensuring uninterrupted drug supplies. It also requires quality data on HIV drug resistance and HIV service delivery, expanded laboratory capacity to monitor HIV drug resistance, and ongoing research and innovation for approaches that will have the greatest public health impact in minimizing HIV drug resistance.

ACTION 43: Antiretroviral drug toxicity. Monitor antiretroviral drug toxicity and promote patient safety. HIV services must include a combination of approaches to monitor antiretroviral drug toxicity and promote patient safety, including surveillance of safety of ARV drugs used in pregnancy and active and routine toxicity monitoring in all populations, including adults, adolescents and children.

ACTION 44: Advanced HIV disease. Provide care for adults and children with advanced HIV disease. Many people living with HIV present to care with advanced HIV disease, which is associated with an increased risk of death, opportunistic infections and other AIDS-related and non-AIDS related comorbidities. In addition to TB, the advanced HIV disease care package should include screening, treatment and/or prophylaxis to address other major causes of morbidity and mortality among people living with HIV, such as severe bacterial infections and

fungal infections including cryptococcal disease, histoplasmosis, toxoplasmosis and *Pneumocystis jirovecii* pneumonia. Children and adolescents must be assessed for advanced HIV disease and their needs addressed with appropriate interventions.

ACTION 45: Chronic care for people with HIV. Address chronic care needs of adults and children living with HIV. People living with HIV experience a broad range of other health issues over the long-term, including those related to the pathophysiology of the disease, the side-effects of treatment, non-HIV related co-infections and comorbidities, and ageing – all of which require comprehensive care and management. It is important to monitor the quality of life of adults and children living with HIV and address their health needs over the lifetime. Palliative care, to address conditions such as pain and other physical symptoms related to HIV infection or its treatment, and other health-related suffering, is an essential component of comprehensive clinical management for people living with HIV.

ACTION 46: HIV prevention, treatment and care for children and adolescents *(complements shared ACTION 3 and ACTION 4).* Close the gaps in access to HIV testing and treatment services for infants and young children, and support them stay healthy into adolescence and adulthood. In 2019, about half of all children living with HIV were still not receiving antiretroviral therapy. In addition to essential interventions to prevent vertical transmission of HIV that are outlined in Action 3 (Chapter 3), it is critical to ensure that all children living with HIV receive timely HIV testing, treatment and adherence support, as well as adequate longer-term care as they transition to adolescence and adulthood. Children and adolescents should also be screened for chronic comorbidities and disabilities, including developmental delays and neurocognitive impairment, mental health disorders and organ system morbidities, and receive nurturing care that supports their development as they age. The distinct needs of adolescents living with HIV must also be addressed, through providing peer-driven and adolescent-friendly health services, engaging them in their own care, and linking with psychosocial interventions.

4.2.2. HIV interventions to enhance integration and linkages with other health areas

ACTION 47: Communicable and non-communicable diseases among people living with HIV *(complements shared ACTION 9).* Strengthen linkages and integration of HIV services with services for related communicable and non/communicable diseases. Integrated management of HIV and viral hepatitis infection should include early diagnosis and treatment of both HIV infection and viral hepatitis infection. People living with HIV should be screened and treated for sexually transmitted infections. People living with HIV are also at increased risk of developing a range of noncommunicable diseases including cardiovascular disease, diabetes, hypertension, chronic lung disease, osteoporosis and various cancers. The increasing burden of cervical cancer among women living with HIV, associated with human papillomavirus co-infection, requires specific attention, particularly given the availability of an effective vaccine, screening and treatment.

ACTION 48: HIV and tuberculosis *(complements shared ACTION 10).* Reduce tuberculosis-related morbidity and mortality through timely diagnosis and treatment of co-infected people, supported by strong collaboration between HIV and tuberculosis responses. Tuberculosis is the leading cause of death among people living with HIV. Collaborative interventions to jointly address tuberculosis and HIV through integrated people-centred care

include systematic screening for tuberculosis symptoms among people living with HIV, tuberculosis preventive treatment, HIV testing of all people with diagnosed or presumed tuberculosis, timely initiation of antiretroviral therapy for tuberculosis patients, co-trimoxazole prophylaxis, and treatment of tuberculosis and drug-resistant tuberculosis. The successful delivery of collaborative interventions requires harmonized approaches to planning, surveillance and monitoring, financing and other health system areas, and common approaches to address the inequalities that drive both HIV and tuberculosis.

ACTION 49: Rehabilitation to address HIV-related disability *(complements shared ACTION 13)*. Provide rehabilitation services as part of comprehensive HIV services to address the impairments that may affect people living with HIV. People living with HIV may experience a range of impairments that impact their everyday functioning, including difficulties in mobility, cognition, vision, hearing, communication, nutrition and more. As people age with HIV, they may experience premature cardiovascular disease, cognitive disorders, and bone and joint disorder. Rehabilitation services and assistive products to help with self-care must be available as part of comprehensive HIV services to address these changing health needs of people living with HIV. Rehabilitation should be integrated into clinical guidance and protocols for HIV person-centred care for early identification of rehabilitation needs, referrals, and delivery of appropriate interventions using multidisciplinary teams.

4.3. Strategic Direction 2: Optimize systems, sectors and partnerships

This section describes HIV-specific priority actions to strengthen health service delivery and other health system functions including multisectoral collaboration. The actions in this section should be implemented in conjunction with relevant shared actions described under Strategic Direction 2 in Chapter 3.

ACTION 50: Differentiated service delivery for HIV *(complements shared ACTION 17)*. Identify and optimize opportunities to use differentiated service delivery models for HIV. All populations established on antiretroviral therapy should benefit from differentiated service delivery models. For example, they may be offered longer-duration refills of medication and less frequent clinical visits, or treatment may be initiated outside of the health facility, including by lay providers. Group models and community venues can be leveraged for refills. Children, key populations, and pregnant women are still accessing treatment through conventional delivery models in many settings, and efforts should focus on ensuring that these groups also benefit from differentiated service delivery. Such models can also be used to expand the uptake and outcomes of other HIV interventions.

ACTION 51: Essential HIV health commodities *(complements shared ACTION 23)*. Ensure equitable and reliable access to high-quality and affordable medicines, diagnostics and other health products for HIV. Rapid expansion in coverage of HIV testing, prevention and treatment is dependent on the availability and secure supply of affordable and quality HIV prevention products (such as male and female condoms, lubricants, commodities for voluntary medical male circumcision, needles and syringes for harm reduction, etc), HIV tests, HIV medicines and other commodities. New products such as HIV rapid point-of-care tests and HIV self-tests, and new antiretroviral drugs, must be made widely available to all. Challenges remain to ensure access to health products for specific populations such as people

with advanced HIV disease and people with comorbidities. More work is also needed to develop and roll out optimized paediatric regimens and point-of-care early infant diagnostic platforms.

4.4. Strategic Direction 3: Generate and use data to drive decisions and action

This section describes HIV-specific actions to strengthen health information systems for better data availability, use and accountability. The actions in this section should be implemented in conjunction with relevant shared actions described under Strategic Direction 3 in Chapter 3.

ACTION 52: Person-centred data monitoring for HIV *(complements shared ACTION 29 and ACTION 30).* Expand person-centred monitoring and case surveillance for HIV to support person-centred HIV services. HIV information systems should seek to enable person-centred monitoring and case surveillance, using unique identifiers to track and report individual access and outcomes along the cascade of HIV services. They should generate granular data by location (such as by sub-national administrative level), population characteristics (such as age, sex and presence of comorbidities and coinfections), and priority population group (such as key populations), for tailored action and efficient resource allocation.

ACTION 53: Health information systems for HIV *(complements shared ACTION 31).* Integrate health information systems for HIV with broader health information systems. HIV information systems should be aligned with other health information systems such that they use a common and unique identifier across diseases, thereby enabling integration with other services such as TB, non-communicable diseases and primary health care more broadly. Strong data governance is required for effective interoperability among systems, and to ensure security and confidentiality of data.

4.5. Strategic Direction 4: Engage empowered communities and civil society

This section describes HIV-specific actions to engage communities, civil society organizations and affected populations in advocacy, service delivery, policy-making and initiatives to enhance service delivery and tackle social and structural barriers. The actions in this section should be implemented in conjunction with relevant shared actions described under Strategic Direction 4 in Chapter 3.

ACTION 54: Community and civil society leadership for HIV *(complements shared ACTION 32 and ACTION 33).* Engage and support the self-empowerment of HIV key populations, people living with HIV and civil society to enhance their role in advocacy, service delivery, policymaking, monitoring and evaluation, and initiatives to address social and structural barriers, to improve the reach, quality and effectiveness of health services. The meaningful involvement of the community, in particular the five key populations for HIV and people living with HIV, is essential for the delivery of effective HIV services. Truly empowered communities not only play a key role in reaching their peers, but are also able to mobilize and engage in collective action to address the social and structural barriers that affect the risks,

vulnerabilities and access to health of communities. Community-based workers, including peers and lay providers, play an important role in the HIV response by providing outreach, prevention, testing, dispensing of medications, and broader support for adherence and navigating the health system. Community organizations also generate strategic information that might not be available through national HIV information systems, and promote and protect human rights.

4.6. Strategic Direction 5: Foster innovations for impact

This section describes HIV-specific actions to foster and disseminate innovations for accelerated impact. The actions in this section should be implemented in conjunction with relevant shared actions described under Strategic Direction 5 in Chapter 3.

ACTION 55: New HIV diagnostics technologies and testing approaches. Continue to improve diagnostics technologies and testing approaches for earlier and more accurate HIV diagnosis and strengthened patient monitoring. HIV self-testing is an acceptable and empowering way for many to test for HIV infection and improve equity in access to HIV testing. In order to fully benefit from HIV self-testing, linkages to confirmatory testing and broader HIV services are key. Further expansion of simple, affordable and reliable point-of care technologies can enable HIV testing and patient monitoring to be taken to communities and remote areas. Polyvalent or integrated diagnostic platforms for the combined diagnosis of HIV and comorbidities, such as tuberculosis, viral hepatitis and syphilis, will increase service efficiencies and improve patient care. With numerous initiatives underway to support innovation in this field greater collaboration, supported by WHO and partners, can accelerate timeframes to ensure innovations are available in countries as early as possible.

ACTION 56: New options for antiretroviral-based prevention. Expand effective antiretroviral-based HIV prevention options appropriately to all most affected and at-risk groups through strengthened collaboration with research- and development-based partnerships, communities and the private sector. While the prevention benefits of treatment have been understood for many years, women-controlled options using this technology have been limited. The development of the dapivirine vaginal ring (DPV-VR), recommended by WHO in 2021, can be implemented as an additional choice as part of a comprehensive service package for adolescent girls and women at substantial HIV risk. Research is also ongoing on long-acting products including injectable cabotegravir and long-acting oral preparations and subcutaneous implants. Long-acting pre-exposure prophylaxis products can offer choices for people who do not want to take or find it difficult to adhere to a daily oral pre-exposure prophylaxis regimens.

ACTION 57: Optimized use of antiretrovirals. Support research on optimal doses of antiretroviral drugs that minimize toxicity and drug-drug interactions and reduce costs. Whereas much progress has been made in the development of simple and effective first-line antiretroviral regimens and formulations, innovation is required to develop simple and robust fixed-dose second-line and third-line regimens. Research on optimal doses of emerging antiretroviral and non-antiretroviral drugs should aim to inform effective regimens while minimizing toxicity and drug-drug interactions and reducing costs. There is also need to

develop more effective drugs and regimens for the prevention and management of major coinfections and other comorbidities.

ACTION 58: HIV vaccines. Promote the HIV vaccine agenda by encouraging investments and visibility in efforts to secure a viable HIV vaccine, including through strengthened collaboration with R&D based partnerships, the private sector and communities. HIV preventive and therapeutic vaccine research and efforts to functional cure in people living with HIV will continue to be a key component of the HIV research agenda, including potential lessons learned from the mRNA technology successfully used for COVID-19 vaccines.

ACTION 59: HIV cure. Encourage investments and visibility in efforts to secure a viable HIV cure through strengthened collaboration with research- and development-based partnerships, communities and the private sector. Prior to COVID-19 scientists broadly agreed that a meaningful cure for HIV was still many decades away – and certainly beyond the 2030 horizon of this strategy. The rapid acceleration of commodities during the COVID-19 pandemic (development of BNAbs) has re-opened questions about what might be possible in a shorter time frame, in particular for a functional cure or long-term remission. Whether a cure is within the world's grasp in 5, 10 or even 20 years' time, it is critical to strengthen investment and visibility for the HIV cure agenda now.

4.7. The cost of implementation

This section will present WHO estimates relating to the global cost of implementing the 2022–2030 global health sector strategy on HIV. It will also call on national health authorities to perform cost estimates to guide national planning.

Chapter 5. Viral hepatitis

This chapter presents the global health sector strategy on viral hepatitis. It presents the key strategic and operational shifts required to eliminate viral hepatitis as a public health threat by 2030 (Box 5.1), with priority targets, interventions and innovations. Actions for countries in this chapter should be implemented in conjunction with the shared actions for countries defined in Chapter 3.

Box 5.1. Key shifts required to eliminate viral hepatitis as a public health threat by 2030:

- Greater public awareness of the importance of viral hepatitis B and C prevention, testing and treatment
- Increased financial resources allocated to viral hepatitis B and C, including catalytic funding and through essential health benefit packages and primary health care platforms
- Scale-up of universal access to hepatitis B birth dose vaccine and improved services for prevention of vertical transmission
- Continuous investment in primary prevention, including improved safety of medical procedures, harm reduction and vaccination
- Greatly increased access to hepatitis B virus and hepatitis C virus testing and treatment, with a focus on strategic approaches to testing based on epidemiology and prioritization of treatment for people with advanced disease
- Simplified and decentralized service as well as integrated service delivery models for hepatitis B and C virus
- Strengthened community and civil society engagement and innovative partnerships
- Development of curative drug regimens for hepatitis B virus

5.1. Viral hepatitis targets

Table 5.1 below presents impact and coverage targets, and policy milestones, for viral hepatitis.

Table 5.1: Viral hepatitis targets, 2025 and 2030 *(for additional shared targets, see Chapter 3)*

	Indicator	Baseline – 2020*	Targets - 2025	Targets - 2030
Impact	HBsAg prevalence under 5	0.94%	0.5%	0.1%
	Hepatitis B incidence	1,500,000 19.9/100K	850,000 11/100K	170,000 2.2/100K
	Hepatitis C incidence	1,575,000 20.4/100K	875,000 11.3/100K	175,000 2.3/100K

	Indicator	Baseline – 2020*	Targets - 2025	Targets - 2030
	Hepatitis C incidence among PWID	4/100	3/100	2/100
	Hepatitis B mortality	798,000 10.3/100K -10%	530,000 6.9/100K -40%	310,000 4.0/100K -65%
	Hepatitis C mortality	360,000 4.7/100K -10%	240,000 3.1/100K -40%	140,000 1.8/100K -65%
Coverage	Hepatitis B cascade (Testing/Treatment)	30%/30%	60%/50%	90%/80%
	Hepatitis C cascade (Testing/Treatment)	30%/30%	60%/50%	90%/80%
	Hepatitis B vaccine birth dose (PMTCT)	50%	70%	90%
Milestones	**Planning** - Percentage of countries with costed Hepatitis Elimination Plans	TBD	30	50
	Surveillance - Percentage of countries reporting burden and cascade annually	130	150	170
	HCV drug access - Percentage reduction in prices (to equivalent generic prices by 2025)	20%	50%	60%
	HBV drug access - Percentage reduction in prices (alignment with HIV drug prices by 2025)	20%	50%	60%
	Elimination - Number of countries validated for elimination of HCV	0	5	20

* last available data as of end 2020

5.2. Strategic Direction 1: Deliver people-centred evidence-based services

This section describes viral hepatitis-specific priority actions for countries along the continuum of viral hepatitis prevention, diagnosis, treatment and care services. The actions in this section should be implemented in conjunction with relevant shared actions described under Strategic Direction 1 in Chapter 3, and their delivery must be tailored to the needs of affected populations within each epidemiological context (Box 5.2).

Box 5.2 – Priority populations for viral hepatitis

Populations affected by viral hepatitis vary greatly worldwide. The five main strains of the hepatitis virus, referred to as types A, B, C, D and E, differ in important ways including modes of transmission, severity of the illness, geographical distribution and prevention methods. The two main strains, hepatitis B and C, are responsible for 95% of all mortality related to viral hepatitis and also differ in their epidemiology and response priorities.

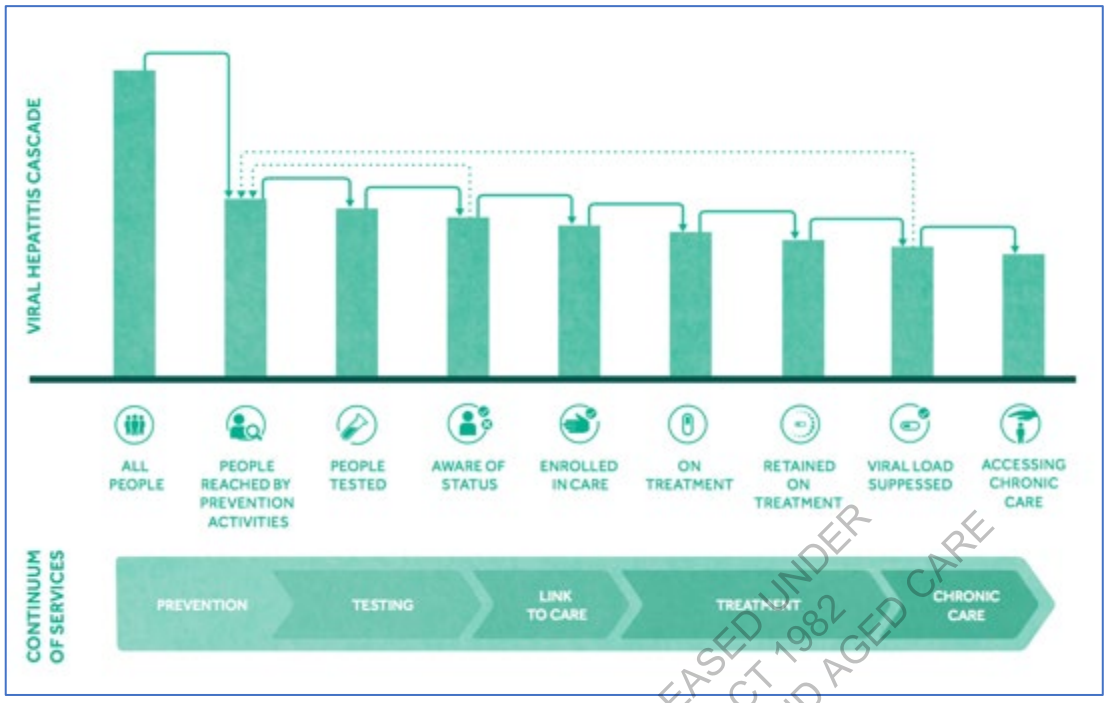
In some regions, viral hepatitis epidemics affect the general population, with people from economically disadvantaged regions, migrants and displaced populations, and rural populations being more severely affected. Populations that also require focused attention in many countries include those at risk of exposure through unsafe blood supplies, unsafe medical injections and other health procedures. In settings with high hepatitis B prevalence, vertical transmission of hepatitis B is likely to be a major mode of transmission, along with early childhood infection among those who have not been vaccinated. People who inject drugs are at high risk of both hepatitis B virus and hepatitis C virus. In some settings, populations at high risk of sexually acquiring hepatitis B virus or hepatitis C virus may include young people and adolescents, gay men and other men who have sex with men, sex workers, transgender people, and people in prisons and other closed settings.

People displaced by conflict and humanitarian emergencies may be at particular risk of all forms of viral hepatitis infection, including hepatitis A and E, because of their living conditions, inability to access clean water and safe food, and use of medical services that are lacking in infection prevention and control measures. Specific attention must also be given to people with late-stage liver disease and people with various comorbidities such as tuberculosis, HIV, alcohol dependence and noncommunicable diseases.

5.2.1. Viral hepatitis service delivery interventions

ACTION 60: Continuum of viral hepatitis services. Organize health service delivery to address people's needs across the full continuum of viral hepatitis services by providing comprehensive prevention services, ensuring early engagement in care, maximizing retention and adherence, and monitoring the service cascade for programme improvement. The continuum of viral hepatitis services (Figure 5.1) provides an organizing framework for implementation of essential interventions that comprehensively address people's needs relating to viral hepatitis prevention, testing, treatment and chronic care. As people move along the continuum, there may be loss to follow-up at each step. Health services must be organized such that individuals can be retained in care to optimize outcomes at patient and population levels, accompanied by data collection and analyses at each step for programme improvement.

Figure 5.1. The continuum of viral hepatitis services and the retention cascade



ACTION 61: Viral hepatitis intervention packages. Define a core package of evidence-based interventions relevant to each country context and tailored to the needs of diverse populations and settings. Each country needs to define a package of essential viral hepatitis interventions along the service continuum, with particular attention to the distinct health service needs associated with hepatitis B virus and hepatitis C virus. The selection of interventions should be informed by data, scientific evidence, good practice, and community input, and take into account burden, equity, effectiveness, cost, acceptability, feasibility and ethics. The intervention package should be aligned with universal health coverage benefits packages and linked with primary health care where feasible and relevant.

ACTION 62: Vertical transmission of hepatitis B and C virus *(complements shared ACTION 3).* Prevent vertical transmission of hepatitis B virus and hepatitis C virus, including through timely administration of hepatitis B virus birth-dose vaccine to infants born in and outside of health facilities. Elimination of vertical transmission of hepatitis B virus will require a comprehensive approach that includes prevention of hepatitis B virus infection in young women, hepatitis B virus testing, care of pregnant women with chronic hepatitis B virus infection, delivery of hepatitis B virus 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. Simplified and innovative approaches, such as the use of controlled temperature chain and compact pre-filled auto-disable devices are also needed to expand coverage of the hepatitis B birth dose and achieve elimination targets in low- and middle-income countries. Pregnant women who are at risk for hepatitis C virus or live in settings where this disease is highly endemic should undergo hepatitis C testing so that appropriate care and follow-up services can be provided for the mother and the infant.

ACTION 63: Viral hepatitis vaccines *(complements shared ACTION 3).* Implement a comprehensive hepatitis B virus immunization programme and consider the role of viral hepatitis A and E vaccination in the national immunization programme. Effective vaccines exist for preventing viral hepatitis A, B and E infections. Wider provision of the hepatitis B virus vaccine, including through universal childhood vaccination and by delivery of birth-dose, will drastically reduce new hepatitis B infections, reducing rates of chronic illness and death.

ACTION 64: Viral hepatitis testing. Increase awareness of the need for viral hepatitis B and C testing, expand access to testing through effective people-centred approaches, and link people who undergo testing to treatment and care. Underdiagnosis of viral hepatitis remains a critical barrier to eliminating viral hepatitis as a public health threat. National viral hepatitis policies and guidelines should define priority populations for testing in line with the epidemiology of viral hepatitis in the country, and services should be appropriately tailored to the needs of priority populations in different settings. Public awareness campaigns educating at-risk populations about the importance of testing should be greatly intensified. People-centred and family-oriented approaches should be used to expand access to and uptake of testing and to facilitate linkage to treatment and care. For people diagnosed with hepatitis B virus, testing and where required vaccinating their household contacts can prevent new infections and enhance timely diagnosis of unrecognized infections. There is also need to increase awareness of hepatitis D virus, which only replicates in the presence of hepatitis B virus, and to improve hepatitis D testing in settings where this is relevant. In settings where people from key populations, particularly men who have sex with men and people who inject drugs, have high rates of hepatitis C infection, targeted approaches including self-testing options may be needed. In many countries, laboratory capacity must be increased and measures must be taken to ensure the reliable supply of quality-assured (WHO-prequalified) diagnostics, as well as to ensure the timely reporting of testing results.

ACTION 65: Viral hepatitis treatment. Provide treatment for viral hepatitis B, C and D to everyone who is eligible for treatment, ensuring that the most effective treatment regimens are accessible and affordable to all populations. Effective antiviral agents against viral hepatitis B and C have the potential to dramatically reduce morbidity and mortality, including among people co-infected with HIV. Not all people with chronic hepatitis infection require, or are eligible for, treatment. Individuals need to be assessed for liver disease to determine whether treatment is indicated, and if not eligible for treatment, regularly monitored to determine when treatment should be initiated. Direct-acting antivirals for the treatment of chronic hepatitis C virus have cure rates exceeding 95%, and pan-genotypic regimens are available. Effective treatment is available for chronic hepatitis B virus infection, although lifelong treatment is usually required. WHO guidelines for treatment of chronic viral hepatitis B and C infection promote a public health approach with a move towards simpler and safer oral treatment regimens.

ACTION 66: Chronic care for people with viral hepatitis. Address chronic care associated with viral hepatitis through person-centred approaches and using clinical care models that address comorbidities in an integrated manner. People with chronic viral hepatitis infection may require care for a range of health and psychosocial problems. In addition to liver cirrhosis and hepatocellular carcinoma, people with chronic hepatitis infection may experience extrahepatic manifestations of their infection, including insulin resistance and diabetes.

Alcohol use, smoking, hypertension and obesity may complicate chronic infection. An assessment of alcohol intake is recommended for all people with chronic viral hepatitis infection followed by the offer of a behavioural alcohol reduction intervention for those people with moderate-to-high alcohol intake.

Persons living with viral hepatitis B or C may also have coinfections such as HIV or other hepatitis viruses (hepatitis B, C and D). Treatment regimens that do not account for coinfection expose those patients to a progression of their chronic liver disease. The effective management of HIV/hepatitis B and HIV/hepatitis C coinfection is important to secure the health gains acquired through HIV treatment. This requires testing services that can ensure a linkage with adapted care. Dual infection with hepatitis B and hepatitis D can lead to severe chronic hepatitis and accelerate liver disease progression. In countries where the prevalence of hepatitis D coinfection makes it a public health problem, appropriate interventions are needed.

In addition to antiviral treatment, chronic care is required for many, including the management of decompensated liver disease and hepatocellular carcinoma. Treatment of advanced liver cirrhosis and hepatocellular carcinoma, including liver transplantation and chemotherapy, is very limited in most low- and middle-income settings, highlighting the need to provide access to good quality palliative and end-of-life care.

ACTION 67: Viral hepatitis prevention, treatment and care for children and adolescents *(complements shared ACTION 3 and ACTION 4).* Prevent all new viral hepatitis infections among children, and address the longer-term monitoring, treatment and care needs of affected children and adolescents. The recent expansion in hepatitis B vaccination at birth or in early childhood has been effective in reducing the incidence and prevalence of hepatitis B in many endemic regions, and timely vaccination will play a major role in reducing the rates of advanced liver disease among these children in the future. However, many unvaccinated children continue to be at risk of developing chronic hepatitis B-associated liver disease and cancer as they grow older. Children may also be at risk of acquiring hepatitis A and B virus horizontally within households and families. Early identification and monitoring of children at risk for progression of advanced liver disease, and provision of adequate follow-up and care, are critically important. It is equally important to support children for a healthy transition into adolescence and adulthood, including providing adolescent-friendly psychosocial support and management of stigma in chronic hepatitis B infection as well as through linkages with adolescent-friendly harm reduction services to prevent hepatitis C virus infection.

5.2.2. Viral hepatitis interventions to enhance integration and linkages with other health areas

ACTION 68: Viral hepatitis and cancer *(complements shared ACTION 9).* Strengthen integration and linkages between viral hepatitis and cancer prevention and management efforts. In absence of effective treatment, an estimated 20-30% of people with chronic hepatitis B virus or chronic hepatitis C virus infection will develop cirrhosis and are at risk of developing liver cancer. These patients will require advanced cancer treatment, which remains inaccessible in many low- and middle-income countries. Improving the surveillance and monitoring for liver disease and hepatocellular carcinoma among people with chronic viral hepatitis infection, providing early screening of liver cancer in the health system, and

promoting linkages between viral hepatitis services and cancer prevention, control and treatment efforts, are essential to provide person-centred care and improve health outcomes.

ACTION 69: Viral hepatitis and tuberculosis *(complements shared ACTION 10).* Address viral hepatitis and tuberculosis prevention and treatment in an integrated manner in services for populations at increased risk of both diseases. Populations at increased risk of infection with hepatitis B virus are also at risk of infection with tuberculosis, largely because they live in regions of the world that are endemic for both diseases. This can pose a particular challenge for clinical management and warrants extra clinical vigilance. Prisoners and people who inject drugs have a high risk of acquiring hepatitis B virus and hepatitis C virus, and are also at increased risk of coinfection with tuberculosis, including multi-drug resistant tuberculosis. Co-management of hepatitis C and B infection and tuberculosis needs to take into consideration the side-effects and interactions of the drugs used to treat the different diseases.

5.3. Strategic Direction 2: Optimize systems, sectors and partnerships

This section describes viral hepatitis-specific priority actions to strengthen health service delivery and other health system functions including multisectoral collaboration. The actions in this section should be implemented in conjunction with relevant shared actions described under Strategic Direction 2 in Chapter 3.

ACTION 70: Differentiated service delivery for viral hepatitis *(complements shared ACTION 17).* Identify and optimize opportunities to use differentiated service delivery models for viral hepatitis. Differentiated care is important for hepatitis B and C virus such that services can be tailored to specific needs. For example, non-symptomatic patients or those who are clinically stable can be addressed through simplified service delivery, while those with advanced liver disease may require more intensive clinical support and additional psychosocial and mental health support.

ACTION 71: Decentralized viral hepatitis services *(complements shared ACTION 18).* Integrate viral hepatitis testing and treatment services into primary health care services using simplified service delivery protocols. Hepatitis interventions have traditionally been delivered through tertiary and specialized services. Achieving hepatitis elimination will require simplification of service delivery models using a public health approach.

ACTION 72: Financing for viral hepatitis *(complements shared ACTION 22).* Implement strategies to increase investment in viral hepatitis, including through universal health coverage and primary health care platforms. While cost-effective interventions to address viral hepatitis exist and have been widely demonstrated, the public health response to viral hepatitis has been severely underfunded. Unlike other major communicable diseases, such as HIV, tuberculosis and malaria, there has been very little external development assistance funding for comprehensive viral hepatitis responses. Similarly, most countries do not have dedicated hepatitis budgets or programmes. Therefore, new catalytic sources of funding will be required for countries to launch public health responses to viral hepatitis, and these resources will need to be substantial and sustained if the ambitious global targets are to be realized. Countries must take opportunities to develop evidence-based investment cases for the inclusion of viral hepatitis interventions in essential health benefit packages, and

strategies to increase investment in hepatitis need to be part of broader efforts to increase overall investments in health, so that all priority health services can be scaled up towards universal health coverage.

ACTION 73: Essential viral hepatitis commodities *(complements shared ACTION 23).* Ensure equitable and reliable access to high-quality and affordable medicines, diagnostics and other health products for viral hepatitis. In many settings, lack of availability of low-cost diagnostics for hepatitis B testing and clinical management, along with a lack of laboratory capacity, contribute to low testing levels and poor clinical outcomes. Prices for these diagnostics have fallen slowly over time compared to prices for hepatitis B medication. Although hepatitis C virus can be diagnosed accurately through low-cost screening and confirmatory tests, many low- and middle-income countries are not accessing tests at low prices, posing a major barrier to scaling up diagnosis and treatment of hepatitis C virus. Generic tenofovir for the treatment of hepatitis B virus is widely available and affordable in many countries, although obstacles to registration have prevented its use in some countries. Treatment for hepatitis C virus infection with direct-acting antiviral drugs is well tolerated and curative. The sources of quality-assured generic hepatitis C treatments are steadily increasing and prices continue to fall. Major obstacles to increasing access to treatment include limited domestic financing and high costs due to supply chain mark-ups, fragmented demand and low-volume orders. There is a need to pursue comprehensive strategies to improve affordability and availability of viral hepatitis diagnostics and treatment, including through addressing patent-related barriers, generic competition, greater market transparency, facilitating timely product registration, and leveraging strategic procurement options.

ACTION 74: Health workforce for viral hepatitis *(complements shared ACTION 24).* Increase general health workforce competencies relating to viral hepatitis testing and treatment. Many essential viral hepatitis prevention interventions are integrated within broader health services, including programmes for child vaccination, blood and injection safety, food safety, water and sanitation, and harm reduction for drug users. Testing and treatment are being increasingly incorporated into clinical management of infectious diseases and chronic care for non-communicable diseases. In all settings, including primary health care, health workers should be knowledgeable about viral hepatitis risk and infection, and about the package of essential hepatitis interventions. They should be competent to work with adults and children living with chronic hepatitis infection and with at-risk populations, and should be trained in non-stigmatizing and non-discriminatory behavior. Given the risk of viral hepatitis transmission in formal and informal health care settings, all health workers should be protected by comprehensive occupational health and safety programmes. In countries with a high burden of hepatitis B virus, interventions addressing the hepatitis B prevention and treatment needs of health workers may be warranted.

5.4. Strategic Direction 3: Generate and use data to drive decisions and action

This section describes viral hepatitis-specific actions to strengthen health information systems for better data availability, use and accountability. The actions in this section should be implemented in conjunction with relevant shared actions described under Strategic Direction 3 in Chapter 3.

ACTION 75: Person-centred data monitoring for viral hepatitis *(complements shared ACTION 29 and ACTION 30).* Expand person-centred monitoring for viral hepatitis to support person-centred viral hepatitis services. Existing person-centred monitoring systems, including those for HIV, can be leveraged to monitor hepatitis services along the cascade. Where individual-level monitoring is not feasible, for example during early stages of expansion of the viral hepatitis response, aggregate data can be used to assess cascades of care. Disaggregated data analyses, such as by geographical location or socio-economic status, are important to improve quality and equity.

ACTION 76: Health information systems for viral hepatitis *(complements shared ACTION 31).* Invest in strengthening viral hepatitis health information systems and integrating them more fully into broader health information systems. Viral hepatitis information systems are complex as they need to capture new or acute infections, chronic infections, and sequalae that lead to morbidity and mortality. As the gap between infection and mortality can be 20-30 years, and data are captured by different parts of the health system, it is important that viral hepatitis information systems are integrated and enable data triangulation for analyses. It is particularly important to strengthen surveillance and monitoring for liver disease and hepatocellular carcinoma to promote early diagnosis and treatment, and reduce mortality. Integrated health information systems are also required in relation to efforts to progress toward "triple elimination" of vertical transmission of HIV, syphilis and hepatitis B virus, and toward elimination of hepatitis B and C virus as a public health problem.

5.5. Strategic Direction 4: Engage empowered communities and civil society

This section describes viral hepatitis-specific actions to engage communities, civil society organizations and affected populations in advocacy, service delivery, policy-making and initiatives to enhance service delivery and tackle social and structural barriers. The actions in this section should be implemented in conjunction with relevant shared actions described under Strategic Direction 4 in Chapter 3.

ACTION 77 Community and civil society leadership for viral hepatitis *(complements shared ACTION 32).* Engage and support community and civil society organizations, modify health service delivery models, and pursue legal reforms to prevent stigma, discrimination and other social barriers from limiting people's access to viral hepatitis services and infringing on their human rights. Community and civil society engagement plays a key role in addressing the stigmatization, discrimination, social marginalization and gender-based violence faced by people with viral hepatitis and those at risk, further impeding their access to health services. Some of these barriers can be overcome by adapting existing service delivery models to meet the needs of affected populations. Others may require the reform or removal of certain laws, regulations and policies. Populations that commonly encounter legal and policy barriers to accessing viral hepatitis services include adolescents and young people, migrants from high-burden countries, prisoners, people who use drugs, sex workers, transgender people, and men who have sex with men. Stigma and discrimination take different forms in relation to hepatitis B virus and hepatitis C virus, and must be addressed as distinct issues. Legal reform is urgently needed in some countries to prevent discrimination against people based on their

hepatitis diagnosis, with attention to the risk of job loss for people who are diagnosed in workplace screening programmes.

5.6. Strategic Direction 5: Foster innovations for impact

This section describes viral hepatitis-specific actions to foster and disseminate innovations for accelerated impact. The actions in this section should be implemented in conjunction with relevant shared actions described under Strategic Direction 5 in Chapter 3.

ACTION 78: New viral hepatitis diagnostics technologies and testing approaches. Continue to improve diagnostics technologies and testing approaches for simplified, timely and accurate hepatitis B and hepatitis C virus diagnosis and strengthened patient monitoring. Underdiagnosis of viral hepatitis infection remains a major barrier to achieving elimination goals. Further development and expansion of simple, affordable and reliable point-of care technologies are needed, especially for hepatitis B virus. Additionally, a core antigen rapid diagnostic test for hepatitis C virus has been developed as a prototype, and provides the opportunity to have a widely available, affordable and accurate solution that would greatly simplify the hepatitis C diagnosis and treatment cascade and enable service decentralization. Numerous research initiatives are also underway to develop polyvalent or integrated diagnostic platforms (as well as point-of-care solutions) for the combined diagnosis of HIV, viral hepatitis and sexually transmitted infections, as well as tuberculosis. Greater collaboration, supported by WHO and partners, can accelerate timeframes to ensure that such innovations are available in countries as early as possible. Self-testing for hepatitis C virus is recommended by WHO since 2021 and is an acceptable and empowering means for many affected populations to access testing. The widespread use of these tests requires good quality, affordable and accessible oral and blood-based products, and further documentation of its effectiveness and adapted service delivery approaches. Initial research and product development would be needed to develop similar self-test options for hepatitis B virus. Finally, it is also important to develop affordable and reliable methods for assessing liver damage through point-of-care solutions.

ACTION 79: Optimized antivirals for hepatitis B and C virus. Support research on optimal doses and formulations of antivirals for hepatitis B and C virus. Shorter regimens for direct-acting antivirals for hepatitis C virus infection and long-lasting technologies for hepatitis C virus cure will further simplify and shorten the hepatitis C virus service cascade, increase adherence and retention, and improve cure rates. There is also a need for improved and accessible paediatric treatment formulations, and for research into affordable and acceptable treatment solutions for hepatitis D virus.

ACTION 80: New viral hepatitis vaccines. Promote the hepatitis C and hepatitis E virus vaccine agenda by promoting investments and visibility in efforts to secure a viable hepatitis C vaccine, including through strengthened collaboration with research and development-based partnerships, the private sector and communities. Efforts to develop an effective vaccine against hepatitis C virus continue to be a key component of the viral hepatitis research agenda. Research is also ongoing in vaccines against hepatitis E virus with promising results from some clinical trials. Additional data and ongoing research efforts are needed to determine their wider public health use as part of national immunization

programmes. Innovation is also required in the use of controlled temperature chain and compact pre-filled auto-disable devices for the hepatitis B birth dose vaccine in order to expand coverage and achieve elimination targets in low- and middle-income countries .

ACTION 81: Hepatitis B virus cure. Promote investments and visibility in efforts to secure a viable hepatitis B virus cure through strengthened collaboration with research- and development-based partnerships, the private sector and communities. Although a sterilizing cure for hepatitis B virus, which would entail a complete disappearance of the virus from the body, is not immediately foreseen, research efforts continue to explore the development of a functional cure which would highly simplify hepatitis B virus care and markedly increase treatment access.

5.7. The cost of implementation

This section will present WHO estimates relating to the global cost of implementing the 2022–2030 global health sector strategy on viral hepatitis. It will also call on national health authorities to perform cost estimates to guide national planning.

Chapter 6. Sexually transmitted infections

This chapter presents the global health sector strategy on sexually transmitted infections. It presents the key strategic and operational shifts required to end sexually transmitted infections as public health threats by 2030 (Box 6.1), with priority targets, interventions and innovations. Actions for countries in this chapter should be implemented in conjunction with the shared actions for countries defined in Chapter 3.

More than 30 pathogens can be transmitted sexually, and individuals may be infected with more than one sexually transmitted infection at the same time. Sexually transmitted infections often do not cause symptoms and thus can be unknowingly transmitted to other people. People with untreated sexually transmitted infections can develop severe complications and long-term sequelae, including cervical cancer, pelvic inflammatory disease, and infertility. Infection with a sexually transmitted infection may also increase risk of HIV acquisition and transmission. A number of sexually transmitted infections can be transmitted from a pregnant woman to her unborn child, resulting in neonatal death, premature delivery, blindness, and severe disability in infants.

The global health sector strategy on sexually transmitted infections is not limited in scope to specific pathogens, and instead recognizes that sexually transmitted infections can be prevented and diagnosed through the use of common interventions. This approach contributes to people-centred health services by focusing on the overall needs of those at risk for sexually transmitted infections.

Some sexually transmitted infections warrant specific attention because of factors such as high incidence and prevalence, serious adverse outcomes, the existence of infection-specific tools, and the potential for treatment resistance to develop. Three infections of major global significance are *Treponema pallidum* (syphilis), *Neisseria gonorrhoeae* and human papillomavirus infection, all of which are being targeted by specific global initiatives. Other important infections include *Chlamydia trachomatis*, *Trichomonas vaginalis*, herpes simplex virus and human T-lymphotropic virus type 1 (Box 6.2).

Data on the burden of sexually transmitted infections are limited, and thus the global targets presented in the next section of this strategy are based on current data availability. WHO continues working with national governments and other stakeholders to improve data collection for sexually transmitted infections.

Box 6.1. Key shifts required to end sexually transmitted infections as a public health threat by 2030:

- Create an environment that encourages individuals to discuss sexually transmitted infections, adopt safer sexual practices, and seek treatment
- Vastly scale up primary prevention
- Increase integration of sexually transmitted infection services with primary health care, sexual and reproductive health, and HIV services to ensure wider access to care

- Increase accessibility of people-centred services that provide quality sexually transmitted infection care and treatment through both the public and private sectors
- Close gaps in international and national funding mechanisms for sexually transmitted infection services and commodities
- Facilitate the adoption of point-of-care diagnostics and other new cost-effective technologies that improve quality of care.
- Invest in and facilitate research to improve sexually transmitted infection prevention and care and to ensure the affordability of new products.

Box 6.2. Human T-lymphotropic virus type 1 (HTLV-1)

The human T-lymphotropic virus type 1, also known by the acronym HTLV-1, is transmitted primarily through infected bodily fluids including blood, breast milk and semen. Risk factors for transmission include unprotected sex, injecting drug use and transplantation of tissue, blood and blood products. It can cause a range of clinical syndromes, including Adult T-cell Leukemia and HTLV-1 associated Myelopathy or Total Spastic Paraparesis. HTLV-1 incidence and morbidity can be reduced considerably by incorporating HTLV-1 control measures into existing disease control interventions and public health strategies such as condom promotion, antenatal care testing, and blood safety screening.

6.1. Sexually transmitted infection targets

Table 6.1 below presents impact and coverage targets, and policy milestones, for sexually transmitted infections.

Table 6.1: Sexually transmitted infection targets, 2025 and 2030 *(for additional shared targets, see Chapter 3)*

	Indicator	Baseline – 2020*	Targets - 2025	Targets - 2030
Impact	**Global Incidence** - Incidence of 4* curable STIs in men & women 15 to 49 years of age	374 million	282 million (20%)	187 million (50%-90%)
	Triple Elimination – Congenital syphilis cases (per 100,000 live births)	400 (to be calculated)	< 200	< 50
	Antenatal care – Syphilis prevalence in women attending antenatal care	Active: 0.69%	< 0.5%	< 0.4%
	Adults – Prevalence of gonorrhoea/chlamydia in women 15-24 (and where feasible their partners)	-1%	-25%	-50-90%

	Indicator	Baseline – 2020*	Targets - 2025	Targets - 2030
	Adults – Reported cases of urethral discharge or gonorrhoea among men	tbd	-25% adjusted for reporting completeness	-50-90% adjusted for reporting completeness
	Priority populations – gonorrhoea, chlamydia and/or syphilis prevalence (MSM and FSW)	6% gonorrh 8% chlamydia	< 4.5% < 6% -(25%)	< 3 % < 4% -(50-90%)
Coverage	**Antenatal care** - Percentage of pregnant women attending ANC who are screened for syphilis	66% (2016)	> 85%	> 95%
	Antenatal care - Percentage of pregnant women who are screened positive for syphilis in ANC care and treated appropriately	78% (2016)	> 90%	> 95%
	Adults - Percentage of adults at risk of HIV who are screened for HIV AND screened and treated for STIs		> 80%	> 90%
	Adults - Percentage of people at risk of HIV infection (and as a result STIs) who use appropriate, prioritized, person-centred and effective combination prevention option		> 80%	>95%
	Priority populations – Percentage who are screened and treated for STIs		> 80%	> 90%
Milestones	**Surveillance** - Percentage countries have surveillance systems in place to monitor STI targets (STI survey every three years, annual review STI symptomatic data, KP survey)		70%	90%
	HIV-STI prevention - STI prevention integrated in HIV prevention in high and very high impact countries		70%	90%
	Integration - Percentage of countries provide STI services or links to such services in all primary, HIV, reproductive health, family planning and ante- and post-natal care services.		70%	90%
	HPV vaccination – Percentage national coverage with HPV vaccine in their national programs		90%	95%
	Antimicrobial resistance – countries report on antimicrobial resistance in N. gonorrhoeae		70%	90%
	Price of diagnostics – price reduction in cost of NAAT (or equivalent test)	Baseline cost	50%	70% (abs price)

* last available data as of end 2020

6.2. Strategic Direction 1: Deliver people-centred evidence-based services

This section describes priority actions for countries in regard to to sexually transmitted infection services. The actions in this section should be implemented in conjunction with relevant shared actions described under Strategic Direction 1 in Chapter 3, and their delivery must be tailored to the needs of affected populations within each epidemiological context (Box 6.3).

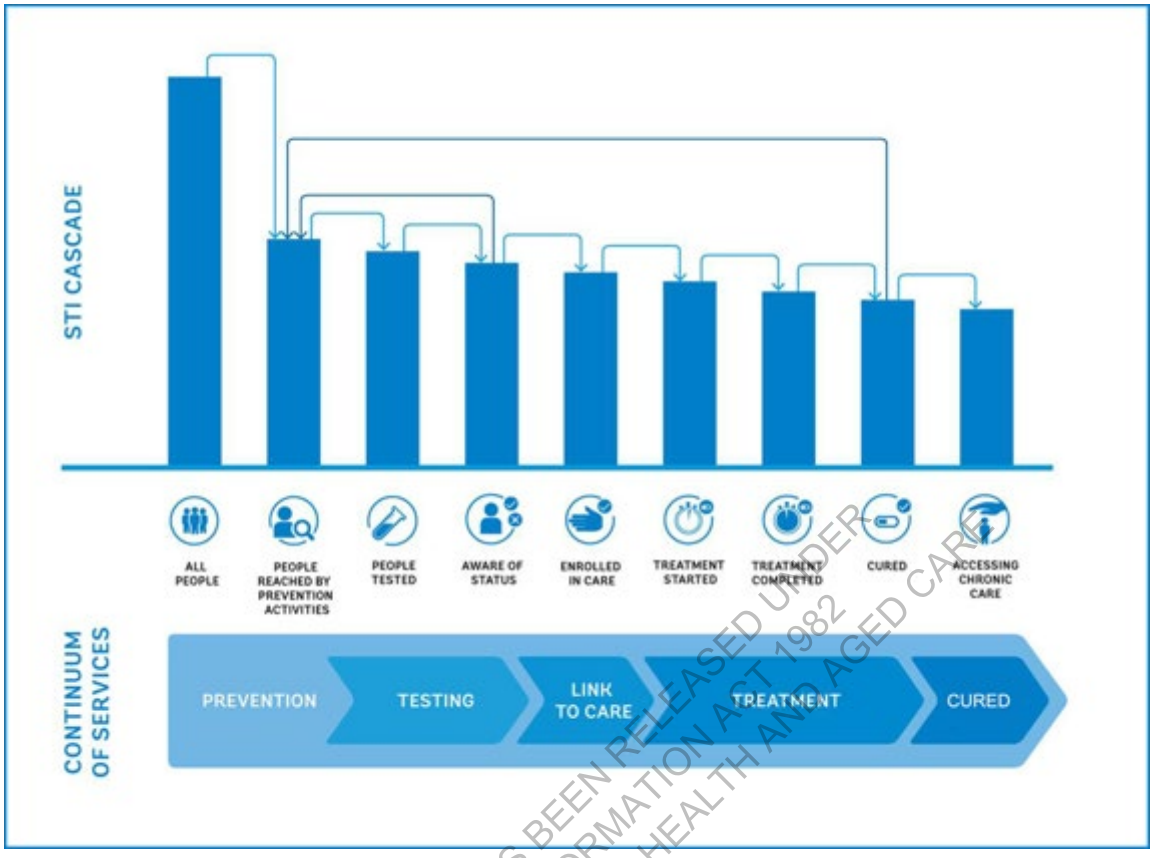
Box 6.3 – Priority populations for sexually transmitted infections

Health systems need to focus on reaching specific populations in order to achieve equitable progress against sexually transmitted infections, taking into account variations in high-prevalence and high-risk populations and in national and local contexts. Priority populations in many settings include sex workers and their clients, men who have sex with men, transgender people, adolescent girls and boys, young women, people living with HIV and other sexually transmitted infections, and pregnant women and their exposed infants. Other groups that are particularly vulnerable to sexually transmitted infections in many settings include people with disabilities, survivors of sexual violence, mobile populations, indigenous peoples, children and young people living on the street, and people affected by conflict and civil unrest.

6.2.1 Sexually transmitted infections service delivery interventions

ACTION 82: Continuum of sexually transmitted infection services. Provide a comprehensive continuum of sexually transmitted infection services within the context of promoting sexual health and well-being. The continuum of sexually transmitted infection services (Figure 6.1) provides an organizing framework for the implementation of essential interventions that comprehensively address people's needs relating to sexually transmitted infection prevention, testing, treatment and care. Immediate testing and treatment within the same day of care-seeking is important for reducing loss to follow-up. Test-and-treat strategies and rapid access to conveniently located referral services can help to optimize outcomes at the individual and population levels.

Figure 6.1. The continuum of sexually transmitted infection services and retention cascade



ACTION 83: Sexually transmitted infection intervention packages. Define a core package of evidence-based interventions that are tailored to the needs of different populations and can be modified over time. Each country needs to define a package of essential sexually transmitted infection interventions along the service continuum, informed by data, scientific evidence, good practice, and community input. Decision-making should also take into account burden, equity, effectiveness, cost, acceptability, feasibility and ethics. The intervention package should be aligned with universal health coverage benefits packages and linked with primary health care where feasible and relevant. At a minimum, the following intervention areas should be covered, with attention to the quality of services across the continuum: prevention of sexually transmitted infection transmission and acquisition; screening and linkage to treatment; management of symptomatic patients; and engagement of sexual partners. For maximum impact, the intervention package should also include interventions to eliminate vertical transmission of HIV, viral hepatitis and syphilis; fully utilize the human papillomavirus vaccine; and control the spread and impact of gonococcal antimicrobial resistance.

ACTION 84: Prevention of sexually transmitted infections *(complements shared ACTION 1).* Accelerate access to and increase coverage of strategic combinations of high-impact behavioral and biomedical interventions to reduce the transmission of sexually transmitted infections that are tailored to local epidemics. Effective primary prevention interventions for sexually transmitted infections must be drastically scaled up. Positive approaches to sexual health prevention and care, taking into consideration individual choices and cultures, will be critical. Key interventions include sexual health education addressing delayed sexual debut,

fewer sex partners, avoidance of high-risk partners and practices (e.g. drug and alcohol consumption) and avoidance of risky sexual networks; use of male and female condoms; safer sex practices; and provision of accessible, acceptable sexually transmitted infection services for detection (diagnostics), treatment and partner notification. Biomedical interventions including human papillomavirus vaccines, post- exposure prophylaxis in special circumstances, promotion of voluntary male circumcision where appropriate, and suppressive therapy for people with herpes simplex virus, also can make important contributions to prevention of sexually transmitted infections.

ACTION 85: Human papillomavirus vaccines. Expand access to and increase uptake of highly effective human papillomavirus vaccines within the context of implementing comprehensive strategies for cervical cancer prevention and control. The protective value of human papillomavirus vaccines should be stressed in adolescent health programmes, and strategies to promote vaccination should be targeted to adolescent girls, recognizing that adolescent boys may also be a priority population in settings with sufficient resources. The introduction of human papillomavirus vaccination programmes should be accompanied by strong communication strategies for advocacy and social mobilization to affirm the efficacy, safety and benefits of the vaccine, as described in the Global Strategy to Accelerate the Elimination of Cervical Cancer as a Public Health Problem.[19]

ACTION 86: Vertical transmission of sexually transmitted infections *(complements shared ACTION 3).* Expand efforts to reduce vertical transmission of sexually transmitted infections. A number of sexually transmitted infections can be transmitted from an infected woman to her child in utero, during delivery, or whilst breastfeeding. The elimination of the vertical transmission of syphilis, one component of the triple elimination of vertical transmission of HIV, syphilis, and hepatitis, depends upon scaling up syphilis screening among pregnant women during their first antenatal visit and treating all women identified as positive. Adoption of rapid dual-HIV syphilis should help scale-up screening coverage and allow for women to be treated at the same visit.

ACTION 87: Sexually transmitted infection awareness and treatment-seeking behavior. Increase awareness of sexually transmitted infections and their symptoms and encourage individuals to seek early treatment. Health education activities in health care settings, community settings and other settings must normalize the dialogue about sexually transmitted infections and encourage people to address these diseases as they would address other health issues. Information and education campaigns should take positive approaches to promoting sexual health and teaching individuals to recognize symptoms of sexually transmitted infections. Mass media campaigns are needed, along with education in schools and targeted education for priority populations. Individuals should be made aware of the importance of seeking care for symptoms of sexually transmitted infections and preventing reinfection. Reduction of stigma and discrimination in health care settings will contribute to empowering individual to seek care.

ACTION 88: Case management for symptomatic sexually transmitted infections. Provide effective comprehensive management for people with symptomatic sexually transmitted infections and prevent onward transmission. Evidence-based national guidelines on

[19] Global strategy to accelerate the elimination of cervical cancer as a public health problem. WHO, 2020.

managing symptomatic sexually transmitted infections, i.e., syndromic management, should be developed based on etiologies of syndrome studies. Individuals should be educated about the importance of seeking care for symptoms of sexually transmitted infections and preventing reinfection. Investment is needed in the provision of quality sexually transmitted infection services that are non-stigmatizing and are accessible in settings where individuals are more likely to seek care such as primary health care and community health services including pharmacies. All health care providers and community health workers at the primary health care level should be trained on sexually transmitted infection case management. Health care providers should be trained to take the sexual history of patients where appropriate. Access to sexually transmitted infection treatment and condoms is essential. Laboratory capacity needs to be expanded where feasible to improve diagnosis of symptomatic sexually transmitted infections, particularly when treating vaginal discharge.

ACTION 89: Partner services for sexually transmitted infections *(complements shared ACTION 7).* Implement strategies for encouraging voluntary partner notification and ensure that services are accessible. Strategies for voluntary partner notification and provision of other follow-up services for partners must be prioritized, with linkage to counselling and treatment for partners ensured. HIV voluntary partner notification and social network testing platforms may provide opportunities for integration of partner management services for sexually transmitted infections. Innovations in contact tracing for COVID-19, including through the use of digital platforms, should be adapted to support voluntary partner testing and related services. All partner notification and management services must ensure patient confidentiality.

ACTION 90: Screening priority populations for sexually transmitted infections. Expand access to sexually transmitted infection screening for priority populations. National sexually transmitted infection policies and guidelines should define screening strategies based on available epidemiological data. Which populations should be prioritized will vary, but at a minimum, all individuals tested for HIV should also be tested for syphilis. Screening for Chlamydia trachomatis and Neisseria gonorrhoeae is currently limited owing to the costs of diagnostic tests. However, the next generation of point-of-care diagnostic tests currently under development will lower the cost of testing and expand screening opportunities. Given the high proportion of individuals with chlamydia and gonorrhoea who are asymptomatic, increased screening of priority populations has a key role to play in reducing prevalence in the community. Efforts are needed to make laboratory testing for sexually transmitted infections more affordable and accessible. Laboratory capacity should be developed and quality assurance systems should be established. The use of common laboratory platforms should be explored. Self-sampling technologies for sexually transmitted infection testing have an important role in increasing testing uptake.

ACTION 91: Treatment for complications and sequelae of sexually transmitted infections. Provide appropriate prevention and management of sexually transmitted infection complications and their sequelae. Early diagnosis and treatment of sexually transmitted infections will prevent complications and sequalae. Referral mechanisms are needed to manage complications and sequelae based on individual needs. In addition, immediate management of lower abdominal pain syndrome in sexually active women (pelvic inflammatory disease) will reduce future adverse pregnancy outcomes and infertility. Infants

born to untreated syphilis-positive mothers should be followed up and treatment should be esnured for congenital syphilis. Access to screening and treatment for cervical cancer must be increased, including through expanded referral mechanisms. Ophthalmia neonatal conjunctivitis prophylaxis should be prevented through the use of neonatal conjunction due to gonococcal and chlamydial infection. Suppressive herpes simplex virus therapy should be considered for women with suspected primary genital herpes during the last trimester of pregnancy to prevent neonatal herpes.

ACTION 92: Antimicrobial resistance in *Neisseria gonorrhoeae*. Monitor patterns of antimicrobial resistance in *N.gonorrhoeae* to inform treatment recommendations and policies. In response to the challenge of widespread resistance to most medicines used to treat gonorrhoea, WHO has strengthened the Gonococcal Antimicrobial Surveillance Programme by establishing a network of laboratories to coordinate gonococcal antimicrobial resistance monitoring and provide data to inform treatment guidelines. Gonococcal antimicrobial resistance will only be effectively mitigated when the global gonorrhea burden is reduced. It is therefore imperative to improve gonorrhea prevention, management and control. In order to response to the potential threat of antimicrobial resistance to sexually transmitted infections, countries need to strengthen their surveillance and systematic monitoring of gonorrhoea treatment failures and support the building of regional networks of laboratories to perform gonococcal culture and antimicrobial susceptibility testing using strong quality control mechanisms. Other sexually transmitted infection pathogens with potential antimicrobial resistance include Mycoplasma genitalium and Trichomonas vaginalis. Data obtained through antimicrobial surveillance need to be used to update national treatment guidelines and policies in a timely fashion. In addition, countries should strengthen their drug regulations and prescription policies, and increase awareness of the correct use of antimicrobials among health-care providers and consumers, particularly in priority populations such as sex workers and men who have sex with men. Efforts to address antimicrobial resistance in relation to sexually transmitted infections should be guided by the overall global antimicrobial resistance action plan.[20]

6.2.2. Sexually transmitted infection interventions to enhance integration and linkages with other health areas

ACTION 93: Linking sexually transmitted infection services with other health services *(complements shared ACTION 9 and ACTION 11).* Strengthen linkages, collaboration and integration between sexually transmitted services and other health services. Delivering sexually transmitted services alongside other health services has the potential to reduce costs, improve efficiency, and increase access to and uptake of services. In light of high sexually transmission morbidity across a range of populations, it is essential to integrate sexually transmitted infection services into primary health care. Sexually transmitted infection prevention and case management for priority populations should be linked closely with HIV prevention services, including community-based and outreach services for HIV key populations. Linkages to adolescent health services and school health education services are important to reach adolescent boys and girls. It may also be beneficial to integrate sexually transmitted infection services into occupational health services. Other areas in which sexually

[20] Add reference to antimicrobial resistance action plan

transmitted services and other services might be combined include family planning, maternal and neonatal care, immunization, noncommunicable diseases, mental health, and health promotion, including sexual health promotion. Appropriate models for integration and linkage should be developed by countries based on their context and health system characteristics.

ACTION 94: Vulnerable populations and sexually transmitted infections *(complements shared ACTION 13).* Ensure that sexually transmitted infection services are accessible to vunlerable populations. Vulnerable populations often find it difficult to access health services and may be at high risk for sexual abuse, which also puts them at risk for sexually transmitted infections. Health systems must identify and remove physical and information barriers that hinder vulnerable populations from accessing sexually transmitted infection information and services, and health workers must be educated about the needs of these populations. Data should be gathered and analyzed to determine whether sexually transmitted information services are meeting the needs of people with disabilities and other vulnerable populations on an equal basis in comparison to the general population.

6.3. Strategic Direction 2: Optimize systems, sectors and partnerships

This section describes priority actions specific to sexually transmitted infections to strengthen health service delivery and other health system functions including multisectoral collaboration. The actions in this section should be implemented in conjunction with relevant shared actions described under Strategic Direction 2 in Chapter 3.

ACTION 95: People-centred sexually transmitted infection services *(complements shared ACTION 17 and shared ACTION 18).* Expand access to and uptake of people-centred sexually transmitted infection services. Sexually transmitted infection targets will not be reached unless services become more accessible to the populations most at risk. The use of simplified service delivery models that must be expanded and more widely integrated with other health services, including primary health care, HIV, and sexual and reproductive health including antenatal care. Normalize the provision of services and scale-up of sexually transmitted infection programs guided by implementation science. Decentralize service delivery through task shifting and sharing to primary health care and community-based and community-led services. Increasing capacity of primary health providers to prevent and manage sexually transmitted infections along with HIV and vital hepatitis. Focused efforts are needed to engage men and boys in sexually transmitted infection services through interventions that speak to their specific needs. Service delivery models must be developed to make high-quality non-stigmatizing sexually transmitted infection services accessible and acceptable to priority populations, including through community-led service delivery; and empower individuals to become active participants in promoting their own health.

ACTION 96: Financing for sexually transmitted infections *(complements shared ACTION 22).* Mobilize additional funding to support the expansion of sexually transmitted infection prevention and treatment services. A dearth of dedicated funding to address sexually transmitted infections has greatly hampered progress in this field. Advocacy through providing convincing evidence and well-crafted communication to increase political commitment will be required. Financing for a sustainable response to sexually transmitted

infections requires an approach that is embedded within a wider overall national health financing strategy. Sexually transmitted infection programs need to be costed and included in the national essential health care package. Lobbying is needed to make existing financial risk protection schemes inclusive of comprehensive sexually transmitted infection services. Increasing resources for the response to sexually transmitted infections also requires comprehensive strategies to reduce the prices of sexually transmitted infection commodities by safeguarding and expanding the availability of generic products, as well as reducing barriers in product markets through the expansion of license agreements and expedition of registration at national level. Finally, efficiencies must be achieved through through improved planning and more efficient procurement and distribution systems; simplifying or adapting models of service delivery based on the country context and epidemic, including, where appropriate, the introduction of task-sharing; and strengthening linkages with HIV and sexual and reproductive health interventions.

ACTION 97: Essential sexually transmitted infection commodities *(complements shared ACTION 23).* Ensure equitable and reliable access to high-quality and affordable medicines, diagnostics, vaccines, condoms and other health products for sexually transmitted infections. Making a wide range of quality-assured sexually transmitted infection commodities more affordable and available is key to ending sexually transmitted infection epidemics. Robust procurement and supply management systems are required to ensure that the right products are selected, purchased at a reasonable price, and efficiently delivered to public and private service delivery points, including through the use of the WHO prequalification systems. Including sexually transmitted infection commodities in national procurement and supply management plans, supply and demand forecasting, and monitoring mechanisms are essential to ensure a continuous supply of essential commodities and avoid stock outs.

ACTION 98: Private-sector and nongovernmental sexually transmitted infection services. Work with the private sector and nongovernmental organizations to increase access to high-quality sexually transmitted infection services. A vast range of providers, including private sector providers, deliver sexually transmitted infection services in low- and middle-income countries. Patient choice depends on the availability of services, patient needs and perceptions of the patients about disease seriousness, cost, confidentiality, user-friendliness and efficacy, as well as overall market forces. Mechanisms for incorporating private providers into efforts to achieve sexually transmitted infection goals include health franchising, public-private partnerships, and post-graduate training on sexually transmitted infections for private-sector health care workers. Data collection and quality monitoring systems for private-sector service provision need to be linked to national health information systems.

Box 6.4: Benzathine penicillin G shortages threaten global progress against syphilis

Syphilis is curable with Benzathine Penicillin G, which is the only recommended treatment to prevent vertical transmission of this disease. Global shortages of Benzathine Penicillin G have threatened efforts to eliminate vertical transmission of syphilis. The medication is sold at a very low price, but its production requires specialized manufacturing infrastructure, limiting the interest of commercial manufacturers to enter or even continue in the Benzathine Penicillin G market.

Minimum purchase order quantities required by some manufacturers present a barrier to procurement, particularly for smaller countries. The WHO pre-qualification process, and bulk procurement through United Nations procurement mechanisms, can support the availability of quality-assured supplies of Benzathine penicillin G. Ensuring adequate availability also requires efforts to improve forecasting and to raise awareness about how stock-outs can be avoided.

6.4. Strategic Direction 3: Generate and use data to drive decisions and action

This section describes actions specific to sexually transmitted infections to strengthen health information systems for better data availability, use and accountability. The actions in this section should be implemented in conjunction with relevant shared actions described under Strategic Direction 3 in Chapter 3.

ACTION 99: Health information systems for sexually transmitted infections *(complements shared ACTIONS 29-31).* Strengthen sexually transmitted infection surveillance and monitoring in the public sector and align surveillance of sexually transmitted infections into the national health information system. To better understand the epidemiology of sexually transmitted infections, innovative surveillance systems are needed not only for monitoring infections among symptomatic persons with access to diagnosis and treatment, but also among those who do not seek health care and those who are asymptomatic.There are four core components of sexually transmitted infection surveillance: case reporting, prevalence assessments, assessment of the aetiology of sexually transmitted infection syndromes, and monitoring of antimicrobial resistance. In many low- and middle-income countries, sexually transmitted infection surveillance systems continue to be weak. Most national systems are based mainly on universal syndromic case reporting rather than etiological reporting, and further, case definitions may vary among countries. Strengthening surveillance will help ensure countries have the relevant data for informing decision making. This not only requires investments in data capacities, but also strengthening in-country laboratory capacity and facilitating the introduction of point of care diagnostics as they become available.. It is equally important to align or integrate sexually transmitted infection surveillance into the national health information system by using standardized indicators and methodologies, ensuring that data collection methods yield high-quality information, and meeting ethical standards that do not pose risks for communities and health care workers involved.

ACTION 100: Sexually transmitted infections data from the private sector and nongovernmental service providers. Establish monitoring systems for collating data on sexually transmitted infection services provided and commodities distributed by the private sector and nongovernmental service providers. In countries where private sector laboratories, pharmacies and clinicians are a large provider of sexually transmitted infection diagnosis and treatment services, it is important to promote regular reporting from these providers into the national health information system. This should be supported by the

development of a registry of these providers, standardized reporting definitions and tools, and adequate mechanisms for ensuring data quality, confidentiality, and coordination.

6.5. Strategic Direction 4: Engage empowered communities and civil society

This section describes actions to engage communities, affected populations and civil society stakeholders in advocacy, service delivery, policy-making and initiatives to tackle social and structural barriers in relation to sexually transmitted infections. The actions in this section should be implemented in conjunction with relevant shared actions described under Strategic Direction 4 in Chapter 3.

ACTION 101: Community and civil society leadership for sexually transmitted infections *(complements shared ACTION 32 and ACTION 33).* **Foster greater community and civil society engagement in the response to sexually transmitted infections.** Affected communities including young people and LGBTI[21] communities should be involved in the design, promotion, implementation and monitoring of sexually transmitted infection services and also in advocacy for greater support for these services. Community-led service delivery approaches empower individuals with a wider choice of interventions, including greater possibilities for self-care such as by supporting the use of self-collection of samples for common sexually transmitted infections. Drawing on community engagement and empowerment strategies in the HIV field, health systems should elevate the role of communities and community-based service providers as partners in promoting sexual health. Community-based organizations should be supported financially and through capacity-building activities. Sexually transmitted infection services should be linked to peer-led interventions to increase service accessibility and acceptability and to contribute to person-centred care. Mechanisms should be established to continuously monitor service utilization and acceptability, in particular among the most affected and at-risk populations, and to gather information on the preferences and needs of patients, communities and community health workers.

6.6. Strategic direction 5: Foster innovations for impact

Renewing the global response to sexually transmitted infections requires service delivery innovations to boost the uptake and use of existing effective tools such as condoms, as well as new technologies such as point-of-care diagnostics and new vaccines. The global community also needs innovative approaches to provide greater visibility to sexually transmitted infections and secure additional political and financial commitments. This section describes actions specific to sexually transmitted infections to foster and disseminate innovations for accelerated impact. The actions in this section should be implemented in conjunction with relevant shared actions described under Strategic Direction 5 in Chapter 3.

[21] Lesbian/gay/bisexual/transgender/intersex communities.

Action 102: Innovations in sexually transmitted infection prevention. Support the development and evaluation of prevention products for sexually transmitted infections. The main technologies for preventing sexually transmitted infections have not changed in recent times. Male and female condoms have been proven to be effective against unintended pregnancies and sexually transmitted infections. Innovation is required to boost condom use. Multipurpose technologies and approaches for preventing STIs and unintended pregnancies especially female-controlled technologies should be explored. More effective behavioural and communication approaches for adolescents, and use social media and digital innovation. Urgently needed is an increased range of vaccines for preventing the acquisition of sexually transmitted infections, especially herpes simplex virus, *C. trachomatis* and *N. gonorrhoeae* infections. In the pipeline is a Meningococcal B vaccine with cross- protection with *N. gonorrhoeae*.

ACTION 103: Innovations in sexually transmitted infection diagnostics. Support the development and evaluation of new diagnostics for sexually transmitted infections. Simple and affordable point-of-care *Chlamydia trachomatis* and *Neisseria gonorrhoea* tests that can be utilized at the primary health care level are essential to improve patient management and reduce sexually transmitted infection transmission and the emergence of drug resistance. Progress has been made in the development of rapid point-of-care test for syphilis. However, more innovations are needed to develop tests to determine active syphilis and congenital syphilis. Self-sampling (e.g. urine, and high vaginal swabs) has been shown to increase point-of-care testing uptake and is thus an important consideration in the development of future point-of-care technologies. The development and implementation of point-of-care tests will require innovative financing approaches and implementation strategies, as well as the strengthening of laboratory capacity. There is a need for affordable multiplex platforms, which would enable simultaneous diagnosis of several STIs at the same time, in particular *C. trachomatis*, *N. gonorrhoeae*, and antimicrobial resistance. There is also a need to improve tools for diagnosing pelvic inflammatory disease. Additional innovation is needed in relation to ancillary laboratory supplies such as collection and transport kits to support the implementation of point-of-care testing.

ACTION 104: Innovations in sexually transmitted infection treatment. Support the development and clinical testing of new treatments for sexually transmitted infections and their complications and sequelae. Due to shortages in Benzathine Penicillin and adverse reactions, there is a need for alternative treatment for maternal syphilis. In addition, there is a need for innovation to overcomes constraints in the administration of multiple doses of Benzathine Penicillin. In response to the possibility that, due to gonococcal antimicrobial resistance, gonorrhoea may not have viable treatment options in the future, several novel antimicrobials are in advanced stages of clinical trial evaluation including gepotidacin and zoliflodacin. New treatment options and strategies for delaying drug resistance are urgently needed. New treatments for *Trichomonas vaginalis* and *Mycoplasma genitalium* are also needed due to emerging antimicrobial resistance.

ACTION 105. Public-private partnerships for sexually transmitted infection innovations. Develop and support public-private partnerships to catalyze the development of new sexually transmitted infection technologies. There is especially high potential for public-

private partnerships to drive progress in relation to point-of-care testing, multiplex platforms, the development of effective microbicides, and new treatment options.

6.7 The cost of implementation

This section will present WHO estimates relating to the global cost of implementing the 2022–2030 global health sector strategy on sexually transmitted infections. It will also call on national health authorities to perform cost estimates to guide national planning.

Chapter 7. Implementation, accountability and monitoring

Effective implementation of the global health sector strategies on HIV, viral hepatitis and sexually transmitted infections depends on strong leadership, partnerships, solidarity and accountability. This chapter presents the key operational considerations for implementation of the strategies. It also presents actions for WHO in support of country and partner efforts, and describes the accountability framework for the strategies.

7.1 Operationalizing the strategies

The global health sector strategies present a comprehensive set of actions to guide countries and partners to design and implement evidence-based responses to end the epidemics of HIV, viral hepatitis and sexually transmitted infections. Recognizing the commonalities and differences across these disease areas, the strategies promote a combination of shared and disease-specific actions to maximize impact, delivered through aligned and integrated approaches as feasible and relevant within a people-centred universal health coverage framework.

Each unique regional and country context will determine how programming and service delivery will be operationalized such that shared goals can be advanced while sustaining disease-specific progress. Countries are encouraged to base decision-making on their national and subnational contexts, population health needs, and health system strengths and weaknesses. The overall aim should be to equitably implement the highest-impact and most cost-effective interventions through differentiated service delivery models that respond to the needs of different populations and settings. Countries also need to determine how far to extend alignment and integration across HIV, viral hepatitis, sexually transmitted infections and other related health areas; and across primary, secondary and tertiary levels of care. Service integration must be suited to local conditions such that all people can receive a continuum of health services in a coordinated manner across different service delivery points, including those outside of formal health settings, and according to their needs throughout the life course. These decisions may also evolve over time in response to changing health needs and contexts.

It is important to ensure that policy frameworks at country level are updated to enable the implementation of effective models of delivery, such as regulatory changes that may be required to recognize community health workers as an integral part of the health system, or targeted training programmes designed for multidisciplinary health care teams. Countries are encouraged to strategically leverage innovations to optimize service delivery, such as with the expanding use of digital technologies for health. WHO will provide guidance and support to countries to operationalize the strategies as part of national health sector planning processes. WHO will also support capacity-bulding for the implementation research that will be required for countries to optimally tailor service delivery models to meet their needs, including implementation research on service delivery integration.

7.2 The importance of partnerships

A wide range of health and development partners work alongside ministries of health to address the epidemics of HIV, viral hepatitis and sexually transmitted infections. Global

targets will not be achieved unless all partners are engaged around a common country-led agenda supported by WHO and partners, with strengthened collaboration across systems and sectors.

Country leadership: The global strategies provide the overarching vision and guidance for countries to develop their national strategies towards ending HIV, viral hepatitis and sexually transmitted infections and advancing universal health coverage by 2030. Successful implementation at country level requires national ownership and leadership to set priorities, secure sustainable resources, and ensure aligned action by policy makers, health service providers, communities and other stakeholders within an enabling legal and social environment.

Multilateral and bilateral donor and development agencies, funds and foundations: Successful implementation also requires a coordinated approach to partnerships at global, regional and country levels. Alongside United Nations agencies, key global partners that contribute to health sector responses to HIV, viral hepatitis and sexually transmitted infections include the Global Fund to fight AIDS, Tuberculosis and Malaria, the United States President's Emergency Plan for AIDS Relief, UNITAID, The Gavi Alliance and the Bill & Melinda Gates Foundation. The global responses to viral hepatitis and sexually transmitted infections have historically benefitted from fewer partnerships and funding mechanisms as compared to HIV. Mobilizing and sustaining new partnerships in these disease areas will be particularly important to accelerate progress towards 2030 goals. Ending the epidemics will also require multisectoral approaches and alignment with broader efforts of partners to address major interrelated health and development challenges.

Civil society and communities: Civil society and community-based organizations have played a lead role in HIV-related advocacy, service delivery and accountability since the early stages of the HIV response. More recently, they have also successfully advocated for stronger responses to viral hepatitis and sexually transmitted infections. The COVID-19 pandemic spurred community-based organizations worldwide to step up their innovative efforts to bring services closer to people in need within an environment of trust. Contributions from civil society and communities must be nurtured and more effectively leveraged as countries strive to achieve disease elimination goals.

Other partners: Academic and research institutions, professional bodies, and private sector entities also play important roles in innovation, service delivery and advocacy within an evolving global health landscape. Coordinating mechanisms are needed at the country and global levels to promote alignment between their priorities and those of other stakeholders.

7.3 The role of WHO

WHO, with its core functions of providing global health stewardship, promulgating evidence-based norms and standards, and supplying technical assistance to countries, is uniquely positioned to catalyze progress to end the epidemics of HIV, viral hepatitis and sexually transmitted infections by 2030. WHO also advocates at the highest levels for political support and sustainable funding for health, and firmly stands for equity, gender equality, and rights-based approaches in all responses. These commitments are enshrined in the WHO Constitution and in the mission of the Thirteenth General Programme of Work 2019-2023 to

"promote health, keep the world safe, and serve the vulnerable", and underpin all of WHO's work.

Actions for WHO:

ACTION A: Strategic leadership and partnerships. Provide global strategic direction for the health sector effort to end epidemics of HIV, viral hepatitis and sexually transmitted infections, including through leadership, multisectoral partnerships and health diplomacy at the highest political levels. WHO will work closely with Member States and partners to raise and sustain commitment to end the epidemics of HIV, viral hepatitis and sexually transmitted infections as part of universal health coverage goals. WHO will advocate for full funding of the global health sector responses to HIV, viral hepatitis and sexually transmitted infections as part of universal health coverage essential benefit packages, and will pursue comprehensive strategies for sustainability. To respond to the lack of progress towards ending paediatric HIV, WHO will work with partners to follow up on "Start Free, Stay Free, AIDS Free", the 2015-2020 global fast-track initiative for ending AIDS in children, adolescents and young women. To address increasing new HIV infections among key populations, WHO will develop an initiative to deliver comprehensive and differentiated services to key populations, including by addressing stigma and discrimination in the health sector. To address financial gaps in scaling up the health sector response to viral hepatitis, WHO will convene a global consortium of partners with the goal of raising catalytic funding to spur hepatitis elimination. To renew global commitments to address sexually transmitted infections, WHO will lead a multisectoral coalition of partners, advocates and affected communities to raise awareness and leverage funding. In all its work, WHO will facilitate the meaningful engagement of civil society and community actors — including key population-led organizations and networks — in decision-making at country level, and will also ensure their representation within WHO's own technical advisory groups.

ACTION B: Public health advocacy and communication. Raise and sustain global awareness and commitment regarding the need for urgent action to end these epidemics, including measures to close gaps in the response to HIV, accelerate momentum to address viral hepatitis, and revitalize the response to sexually transmitted infections. WHO will support global and national advocacy and communication efforts relating to HIV, viral hepatitis and sexually transmitted infection responses by developing evidence-based public health messaging to raise awareness on the burden and impact of these diseases; combat the stigma, discrimination and shame associated with them, including within the health sector; and help to reframe discourse around sexual health and well-being rather than around diseases. WHO will leverage partnerships with civil society, academia, the research community, the media and other stakeholders for dissemination. WHO will provide support to global, regional and country advocacy and health communication campaigns, including through the development of core materials and tools, and expanding outreach with the use of digital and social media.

ACTION C: Norms and standards. Develop evidence-based norms, standards and other global public health goods across the range of thematic areas related to HIV, viral hepatitis and sexually transmitted infections, and promote the use of up-to-date guidelines, tools and service delivery approaches by all countries. WHO will be at the forefront of ongoing

scientific and technical efforts to develop and update global norms, standards and tools across the range of thematic areas related to HIV, viral hepatitis and sexually transmitted infections. WHO will also provide operational guidance for integrated approaches to HIV, viral hepatitis, sexually transmitted infections and other health concerns, promoting approaches that are people-centred and can be tailored to the needs of specific locations and populations. WHO will use evolving digital platforms to make these outputs optimally accessible to stakeholders.

ACTION D: Innovation. Provide leadership to shape the global research agendas for HIV, viral hepatitis and sexually transmitted infections, and support the availability and scale-up of effective health innovations in all countries. WHO will support countries to capitalize on the massive scientific advances of recent years in vaccines, point-of-care diagnostics, cure strategies and digital and decentralized service delivery approaches to accelerate progress towards disease elimination. WHO will support ongoing innovation and research by convening governments, communities, and research and development partners around research priority-setting, establishing norms and standards for good research practice, and facilitating the translation of innovations into affordable health technologies and evidence-informed policies. WHO will also work with partners and manufacturers to ensure that essential new technologies will be available and affordable to all countries as soon as possible. WHO will catalyze the availability and use of evidence-based innovations within health systems through engagement with governments, research partners and funding partners, and will promote south-south cooperation in research and innovation.

ACTION E: Technical support. Provide technical support to Member States to review, adapt and implement their national responses to HIV, viral hepatitis and sexually transmitted infections and strengthen primary health care and health systems. WHO will strengthen its work at country level as a technical support partner for policy development, strategic planning and implementation of national HIV, viral hepatitis and sexually transmitted infection responses with effective involvement of communities in decision-making and service delivery. WHO will also support countries to strengthen public health institutions and build health system capacity. WHO's support will be tailored to individual country contexts and capacities, and will be focused on driving impact and promoting equity and sustainability in national responses.

ACTION F: Global monitoring and reporting. Monitor and report on progress towards global targets for HIV, viral hepatitis and sexually transmitted infections in order to promote evidence-based decision-making and ensure accountability. WHO will set global standards for collection, analysis and use of health data related to HIV, viral hepatitis and sexually transmitted infections, and support countries to build capacities of national health data platforms. WHO will advocate for the collection and reporting of disaggregated data by sex, age, key populations, geographic location and other variables as relevant, in order to assess gaps and promote equity. WHO will promote data transparency and the use of data for decision-making, and will report regularly on global progress.

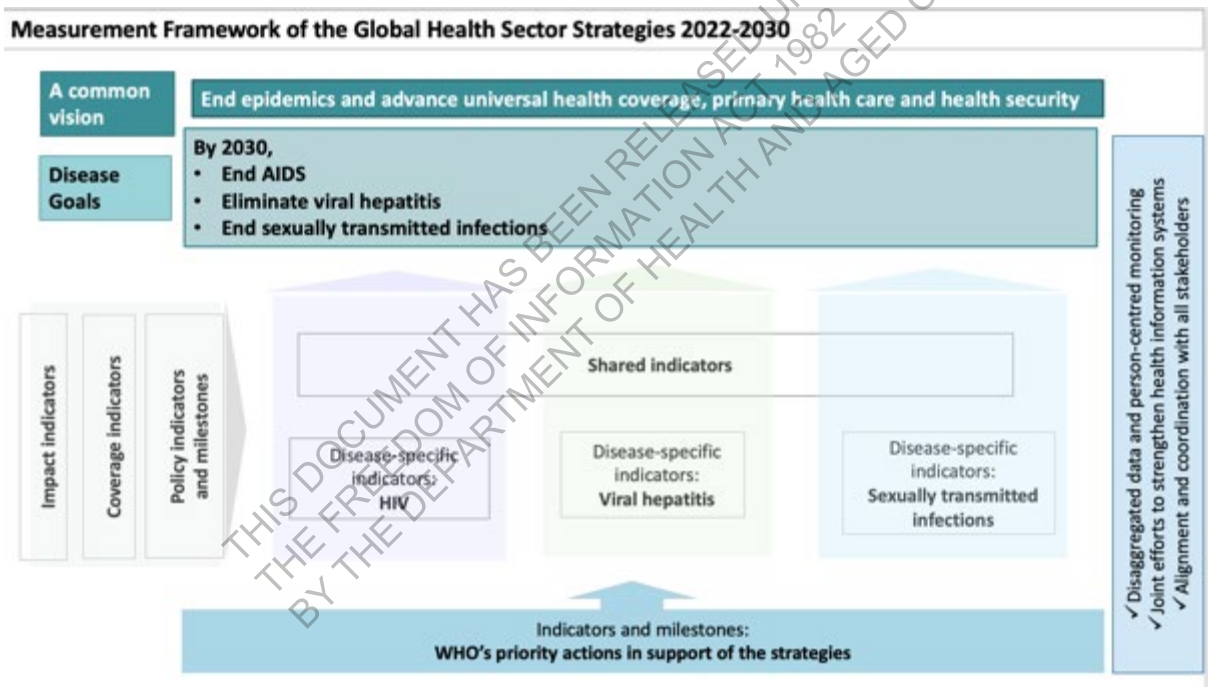
7.4 Accountability, monitoring and reporting

Ending the epidemics of HIV, viral hepatitis and sexually transmitted infections requires collective accountability and transparent accountability mechanisms at all levels, including

among disease-specific and broader health system actors. The theory of change for these strategies, presented in Chapter 1, outlines the pathways by which cohesive and complementary implementation of country and WHO actions, supported by partners, will bring the world closer to ending the epidemics and advancing universal health coverage and health security. Accountability for these country and WHO actions will be ensured through regular global monitoring and reporting against priority indicators and milestones that represent the focal areas of these actions.

Global accountability: At global level, the accountability framework of the global health sector strategies is based on selected indicators and targets, shared and disease-specific, that will be used to monitor the impact, coverage, equity and quality of the global response. The accountability framework also includes shared and disease-specific milestones to track progress in priority policy and systems-related areas. The global accountability framework is summarized in Figure 7.1 below. The complete Measurement Framework with indicators and targets is provided in Annex 2.

Figure 7.1. Measurement Framework of the Global Health Sector Strategies 2022-2030



The measurement framework sets global targets for 2025 and 2030 for all priority impact and coverage indicators, as well as policy milestones. Global monitoring will be based on data collected from Member States and partners through established mechanisms, with attention to harmonizing data collection processes across the disease areas. In addition to official health statistics, WHO will also promote the inclusion of information gathered from community-based organizations and networks. Data collection and analysis efforts will be coordinated with similar efforts of other partners, including the Global AIDS Monitoring process led by UNAIDS. In all monitoring and reporting activities, WHO will ensure that data are sufficiently disaggregated to identify gaps and prioritize efforts to reach the populations that are being most left behind.

2026 mid-term review: These global health sector strategies span nine years – an evolution from the shorter frameworks of previous strategies. The 2025 targets will provide the basis for a robust mid-term review supported by realignment of these strategies, as needed, in 2026, and the identification of catch-up actions as needed. The strategies will be implemented in in a highly dynamic and unpredictable environment not least in relation to the ongoing impact of COVID-19. A mid-term review will also ensure ongoing alignment with the post-2026 multisectoral Global AIDS Strategy and next-phase strategies of key partners including the Global Fund to Fight AIDS, Tuberculosis and Malaria.

Country-level accountability: National strategies for HIV, viral hepatitis and sexually transmitted infections should be accompanied by national accountability frameworks, including indicators and targets that are aligned with standardized global guidance. Well-functioning accountability mechanisms, with strong civil society participation and transparent assessment and reporting, are vital at country level for effective implementation and ownership. Countries are encouraged to undertake regular multi-stakeholder reviews of implementation of their strategies at national level, bringing together disease-specific and broader health sector actors.

WHO accountability: WHO will monitor its own performance and contributions to the global health sector strategies through selected priority indicators and milestones related to its core functional areas including leadership; advocacy and communication; norms and standards; technical support; and reporting. WHO's monitoring will be aligned with the results framework of the General Programme of Work 2019-2023 and beyond. WHO's HIV activities are reflected in UNAIDS' Unified Budget, Results and Accountability Framework, and progress will also be assessed as part of this process. As the custodian for monitoring and reporting on the health-related Sustainable Development Goals, WHO will also ensure that progress towards HIV, viral hepatitis and sexually transmitted infection goals and targets is assessed through a harmonized approach with broader health and development monitoring.

ANNEX 1: Consolidated Actions for HIV, viral hepatitis, sexually transmitted infections and shared approaches

To note: The numbering of actions in this Annex follows their numbering by chapter in the narrative text.

<table>
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<tr><td colspan="3"><u>Shared Actions (Chapter 3):</u>

ACTION 1: Primary prevention
ACTION 2: Harm reduction
ACTION 3: Vertical transmission of HIV, syphilis and hepatitis B virus
ACTION 4: Prevention, treatment and care for children and adolescents
ACTION 5: Infection prevention and control
ACTION 6: Integrated testing
ACTION 7: Voluntary partner notification and other partner services
ACTION 8: Stigma and discrimination in health care settings
ACTION 9: Communicable and noncommunicable diseases
ACTION 10: Tuberculosis
ACTION 11: Sexual and reproductive health
ACTION 12: Mental health
ACTION 13: Disability
ACTION 14: Gender-based and sexual violence</td></tr>
<tr><td><u>HIV Actions (Chapter 4):</u>

ACTION 35: Continuum of HIV services
ACTION 36: HIV intervention packages</td><td><u>Viral hepatitis Actions (Chapter 5):</u>

ACTION 60: Continuum of viral hepatitis services</td><td><u>Sexually transmitted infection Actions (Chapter 6):</u></td></tr>
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ACTION 37: HIV prevention ACTION 38: Antiretroviral drugs for HIV prevention ACTION 39: Voluntary medical male circumcision ACTION 40: People-centred HIV testing ACTION 41: HIV treatment ACTION 42: HIV drug resistance ACTION 43: Antiretroviral drug toxicity ACTION 44: Advanced HIV disease ACTION 45: Chronic care for people with HIV ACTION 46: HIV prevention, treatment and care for children and adolescents *(complements shared ACTION 3 and ACTION 4)* ACTION 47: Communicable and non-communicable diseases among people living with HIV *(complements shared ACTION 9)* ACTION 48: HIV and tuberculosis *(complements shared ACTION 10)* ACTION 49: Rehabilitation to address HIV-related disability *(complements shared ACTION 13)*	ACTION 61: Viral hepatitis intervention packages ACTION 62: Vertical transmission of hepatitis B and C virus *(complements shared ACTION 3)* ACTION 63: Viral hepatitis vaccines *(complements shared ACTION 3)* ACTION 64: Viral hepatitis testing ACTION 65: Viral hepatitis treatment ACTION 66: Chronic care for people with viral hepatitis ACTION 67: Viral hepatitis prevention, treatment and care for children and adolescents *(complements shared ACTION 3 and ACTION 4)* ACTION 68: Viral hepatitis and cancer *(complements shared ACTION 9)* ACTION 69: Viral hepatitis and tuberculosis *(complements shared ACTION 10)*	ACTION 82: Continuum of sexually transmitted infection services ACTION 83: Sexually transmitted infection intervention packages ACTION 84: Prevention of sexually transmitted infections *(complements shared ACTION 1)* ACTION 85: Human papillomavirus vaccines ACTION 86: Vertical transmission of sexually transmitted infections *(complements shared ACTION 3)* ACTION 87: Sexually transmitted infection awareness and treatment-seeking behaviour ACTION 88: Case management for symptomatic sexually transmitted infections ACTION 89: Partner services for sexually transmitted infections *(complements shared ACTION 7)* ACTION 90: Screening priority populations for sexually transmitted infections ACTION 91: Treatment for complications and sequelae of sexually transmitted infections ACTION 92: Antimicrobial resistance in *Neisseria gonorrhoeae* ACTION 93: Linking sexually transmitted infection services with other health

		services *(complements shared ACTION 9 and ACTION 11)* ACTION 94: Vulnerable populations and sexually transmitted infections *(complements shared ACTION 13)*

Strategic Direction 2 – Optimize systems, sectors and partnerships

Shared Actions (Chapter 3):

ACTION 15: Universal health coverage
ACTION 16: Primary health care
ACTION 17: Differentiated service delivery
ACTION 18: Decentralization
ACTION 19: Special settings
ACTION 20: Digital innovations
ACTION 21: Effective and inclusive governance
ACTION 22: Financing
ACTION 23: Essential health commodities
ACTION 24: Health workforce strengthening
ACTION 25: Legal, regulatory and policy reform
ACTION 26: Multisectoral partnerships to address stigma, discrimination and other structural barriers
ACTION 27: Protecting people during pandemics and other health emergencies
ACTION 28: Managing future disease outbreaks

HIV Actions (Chapter 4):	Viral hepatitis Actions (Chapter 5):	Sexually transmitted infection Actions (Chapter 6):
ACTION 50: Differentiated service delivery for HIV *(complements shared ACTION 17)* ACTION 51: Essential HIV health commodities *(complements shared ACTION 23)*	ACTION 70: Differentiated service delivery for viral hepatitis *(complements shared ACTION 17)* ACTION 71: Decentralized viral hepatitis services *(complements shared ACTION 18)* ACTION 72: Financing for viral hepatitis *(complements shared ACTION 22)* ACTION 73: Essential viral hepatitis commodities *(complements shared ACTION 23)* ACTION 74: Health workforce for viral hepatitis *(complements shared ACTION 24)*	ACTION 95: People-centred sexually transmitted infection services *(complements shared ACTION 17 and shared ACTION 18)* ACTION 96: Financing for sexually transmitted infections *(complements shared ACTION 22)* ACTION 97: Essential sexually transmitted infection commodities *(complements shared ACTION 23)* ACTION 98: Private sector and nongovernmental sexually transmitted infection services

Strategic Direction 3 – Generate and use data to drive decisions for action		
Shared Actions (Chapter 3): ACTION 29: Data availability, analysis and use ACTION 30: Person-centred data monitoring ACTION 31: Health information systems		
HIV Actions (Chapter 4):	**Viral hepatitis Actions (Chapter 5):**	**Sexually transmitted infection Actions (Chapter 6):**

ACTION 52: Person-centred data monitoring for HIV *(complements shared ACTION 29 and ACTION 30)* ACTION 53: Health information systems for HIV *(complements shared ACTION 31)*	ACTION 75: Person-centred data monitoring for viral hepatitis *(complements shared ACTION 29 and ACTION 30)* ACTION 76: Health information systems for viral hepatitis *(complements shared ACTION 31)*	ACTION 99: Health information systems for sexually transmitted infections *(complements shared ACTIONS 29-31)* ACTION 100: Sexually transmitted infections data from the private sector and nongovernmental service providers *(complements shared ACTIONS 29-31)*

Strategic Direction 4 – Engage empowered communities and civil society

Shared Actions (Chapter 3):

ACTION 32: Community and civil society leadership

ACTION 33: Community health workers

HIV Actions (Chapter 4):	Viral hepatitis Actions (Chapter 5):	Sexually transmitted infection Actions (Chapter 6):
ACTION 54: Community and civil society leadership for HIV *(complements shared ACTION 32 and ACTION 33)*	ACTION 77: Community and civil society leadership for viral hepatitis *(complements shared ACTION 32 and ACTION 33)*	ACTION 101: Community and civil society leadership for sexually transmitted infections *(complements shared ACTION 32 and ACTION 33)*

Strategic Direction 5 – Foster innovations for impact

Shared Actions (Chapter 3):		
ACTION 34: Partnerships for innovation		
HIV Actions (Chapter 4):	**Viral hepatitis Actions (Chapter 5):**	**Sexually transmitted infection Actions (Chapter 6):**
ACTION 55: New HIV diagnostics technologies and testing approaches ACTION 56: New options for antiretroviral-based prevention ACTION 57: Optimized use of antiretrovirals ACTION 58: HIV vaccines ACTION 59: HIV cure	ACTION 78: New viral hepatitis diagnostics technologies and testing approaches ACTION 79: Optimized antivirals for hepatitis B and C virus ACTION 80: New viral hepatitis vaccines ACTION 81: Hepatitis B virus cure	ACTION 102: Innovations in sexually transmitted infection prevention ACTION 103: Innovations in sexually transmitted infection diagnostics ACTION 104: Innovations in sexually transmitted infection treatment ACTION 105: Public-private partnerships for sexually transmitted infection innovations

WHO Actions
ACTION A: Strategic leadership and partnerships
ACTION B: Public health advocacy and communication
ACTION C: Norms and standards
ACTION D: Innovation
ACTION E: Technical support
ACTION F: Reporting

Annex 2: Measurement Framework: Detailed indicators, targets and data sources

a) Shared

	Indicator #	Indicator	Baseline – 2020*	Targets – 2025	Targets – 2030	Disaggregation (by age/sex/key population/geographic region etc.)	Data source
Shared targets							
Impact	1	**SDG 3.3** Public Health Elimination and Control - Reduced Incidence (4.5 million HIV and Hep per year, 1 million STIs per day)	• 4.5 million HH infections • 1 million STIS	<1.5 million < 800,000	< 500,000 < 100,000-500,000	Disease, WHO Region, Sex STI, WHO region	WHO Global Reporting and Global Burden of Disease. STI range control to elimination
	2	**Healthy Lives - Reduced Mortality** - 2.3 million deaths per year - 1 million cancers per year	• 2.3 million deaths • 1 million cancers	<1.7 million <800,000	< 1 million < 500,000	Disease, WHO Region, Sex	WHO Global Reporting and Global Burden of Disease
Coverage	3	**Universal Access** – Prevention, Test, Treat (or cure), (cascades)	Varied by disease	95, 95, 95 90, 60, 60	95, 95, 95	General Pop, HIV-STI, HBV, HCV, HPV	WHO Global Reporting
	4	**Universal Access** – Prevention, Test, Treat, Priority Populations with defined service package (cascades)	Varied by disease	95, 95, 95 90, 60, 60	95, 95, 95	SW, MSM, Harm Reduction and other	WHO Global Reporting
	5	**Condom/lubricant use** at last sex with a client or nonregular partner		90%	90%	WHO region, sex, age	WHO Global Reporting

	Indicator #	Indicator	Baseline – 2020*	Targets – 2025	Targets – 2030	Disaggregation (by age/sex/key population/geographic region etc.)	Data source
	6	**Harm reduction** - Sets/person who injects drugs/year	200	200	300	WHO region By priority population	UNAIDS/Bristol University
	7	**Triple elimination** of HIV, syphilis and HBV – countries validated for triple elimination	To complete	50	100	WHO region, income, burden	WHO Global Reporting, ANC data
	8	**Blood screening**	95%	100%	100%	WHO region	Global database on blood safety-WHO
	9	**Safe injection**	50%	90%	100%	WHO region By priority population	National MOH/WHO
	10	**Human papillomavirus vaccination** – Percentage of girls fully vaccinated with HPV vaccine by the age of 15	15%	60%	90%	AGYW	WHO Immunisation
	11	**Cervical cancer** - Women screened using a high-performance test by the age of 35, and again by the age of 45			>70%	WHO region, income	Cervical cancer elimination initiative
	12	**Cervical cancer** - Women with pre-cancer treated and women with invasive cancer managed			>90%	WHO region, income	Cervical cancer elimination initiative
Milestones	13	**Stigma and discrimination** - Percentage of people living with HIV, viral Hepatitis and STIs and priority populations who experience stigma and discrimination	Varied by disease	Less than 10%	Less than 10%	WHO region, Priority Population	UNAIDS/WHO

	Indicator #	Indicator	Baseline – 2020*	Targets – 2025	Targets – 2030	Disaggregation (by age/sex/key population/geographic region etc.)	Data source
	14	**Integration** - Percentage of people living with HIV, viral hepatitis and STIs linked to other integrated Health Services	Varied by disease	95%	95%	WHO region, sex, Priority Population	WHO HHS, TB
	15	**Gender** - Percentage of people living with HIV, women and girls and key populations experience gender-based inequalities and gender-based violence		Less than 10%	Less than 10%	WHO region, KP	UNAIDS/WHO
	16	**Laws and policies** - Percentage of countries have punitive laws and policies		Less than 10%	Less than 10%	Transgender people 32/134 (24%) Sex workers 129/149 (87%) Drug use/possession 111/134 (83%) HIV transmission 92/151 (61%) Same sex sexual relations 69/194 (36%)	UNAIDS/WHO. Baseline 2020 World AIDS Day Report - prevailing against pandemic, page 60
	17	**Innovation** – Number of additional diseases (HIV, viral hepatitis and STIs) covered by vaccine or cure (and for STIs point-of-care tests)	HCV, HBV, HPV and other STIs	1	2	By HIV, HBV, HCV, STIs	WO HHS

*last available data as of end 2020

b) HIV

	Indicator #	Indicator	Baseline – 2020*	Targets – 2025	Targets – 2030	Disaggregation (by age/sex/key population/geographic region etc. as relevant)	Data source
HIV targets							
Impact	18	HIV new infections	1 500 000	370 000	335 000	Sex, WHO region, KP	UNAIDS/WHO
	19	HIV new infections per 1000 uninfected population (SDG 3.3.1)	0.19	0.5	0.45	Sex, WHO region, age	UNAIDS/WHO
	20	HIV related deaths	680 000	250 000	240 000	Sex, age, WHO region	UNAIDS/WHO
	21	HIV infections among children	150 000	0	0	WHO region, age, sex	UNAIDS/WHO
	22	Reduce TB, hepatitis B and C related deaths among people living with HIV		50%	75%	WHO region	UNAIDS/WHO
Coverage	23	Percentage of people living with HIV who know their status	84%	95%	95%	WHO region, sex, KP	UNAIDS/WHO
	24	Percentage of people diagnosed with HIV receive antiretroviral therapy	87%	95%	95%	WHO region, sex, KP	UNAIDS/WHO
	25	Percentage of people living with HIV, and who are on treatment, achieve viral load suppression	90%	95%	95%	WHO region, sex, KP	UNAIDS/WHO
	26	Percentage of people at risk of HIV use combination prevention with defined service package	8%	95%	95%	WHO region, sex, KP	2021 UNAIDS Global AIDS Update — Confronting inequalities, page 65
	27	Percentage of people living with HIV receive preventive therapy for TB	50%	95%	95%	WHO region, sex, KP	WHO, Global TB Report 2020, page 118

	Indicator #	Indicator	Baseline – 2020*	Targets – 2025	Targets – 2030	Disaggregation (by age/sex/key population/geographic region etc. as relevant)	Data source
	28	Percentage of people living with HIV and other people at risk are linked to other integrated Health Services, including STIs and viral Hepatitis		95%	95%	WHO region, sex, KP	WHO HHS, TB
Milestones	29	**HIV stigma** - Percentage of people living with HIV and key populations experience stigma and discrimination		Less than 10%	Less than 10%	WHO region, KP	UNAIDS/WHO
	30	**Late-stage disease** – Percentage people starting ARV with CD4 count of less 200 (or stage III/IV)	30%	20%	10%	WHO region, sex. People initiating and reengaging treatment included and analysed	UNAIDS/WHO
	31	**Differentiated service delivery** – Percentage of countries which have implemented 6 month refill of drugs	19 countries	50%	80%	WHO region	UNAIDS/WHO

*last available data as of end 2020

c) Viral hepatitis

	Indicator #	Indicator	Baseline – 2020*	Targets – 2025	Targets – 2030	Disaggregation (by age/sex/key population/geographic region etc. as relevant)	Data source
Viral hepatitis targets							
Impact	32	HBsAg prevalence under 5	0.94%	0.5%	0.1%	WHO region	National-wide representative survey/Modelling/Research
	33	Hepatitis B incidence	1,500,000 19.9/100K	850,000 11/100K	170,000 2.2/100K	WHO region	National-wide representative survey/Modelling/Research
	34	Hepatitis C incidence	1,575,000 20.4/100K	875,000 11.3/100K	175,000 2.3/100K	WHO region By sex By age By priority population	Global Reporting System on Hepatitis/Partner data (CDAF, IARC, IHM)/Research/others
	35	Hepatitis C incidence among people who inject drugs	4/100	3/100	2/100	WHO region By sex By age By priority population	Global Reporting System on Hepatitis/UNAIDS/Partner data(Bristol,CDAF,IARC, IHM)/Research/others
	36	Hepatitis B mortality	798,000 10.3/100K -10%	530,000 6.9/100K -40%	310,000 4.0/100K -65%	WHO region By sex By age By priority population	Global Reporting System on Hepatitis/Partner data (CDAF, IARC, IHM)/Research/others

	Indicator #	Indicator	Baseline – 2020*	Targets – 2025	Targets – 2030	Disaggregation (by age/sex/key population/geographic region etc. as relevant)	Data source
	37	Hepatitis C mortality	360,000 4.7/100K -10%	240,000 3.1/100K -40%	140,000 1.8/100K -65%	WHO region By sex By age? By priority population	Global Reporting System on Hepatitis/Partner data (CDAF, IARC, IHM)/Research/others
Coverage	38	Hepatitis B cascade (Testing/Treatment)	30%/30%	60%/50%	90%/80%	WHO region By sex By age? By priority population?	Global Reporting System on Hepatitis/Partner data (CDAF, IARC, IHM)/Research/others. Eligibility extends over time.
	39	Hepatitis C cascade (Testing/Treatment)	30%/30%	60%/50%	90%/80%	WHO region By sex By age By priority population?	Global Reporting System on Hepatitis/Partner data (CDAF, IARC, IHM)/Research/others. Eligibility extends over time.
	40	Hepatitis B vaccine birth dose (PMTCT)	50%	70%	90%	WHO region	National MOH/WHO Joint Reporting Form
Milestones	41	**Planning** - Percentage of countries with costed Hepatitis Elimination Plans	TBD	30	50	WHO region, income	Global Reporting System on Hepatitis/Partner data
	42	**Surveillance** - Percentage of countries reporting burden and cascade annually	130	150	170	WHO region, income	Global Reporting System on Hepatitis/Partner data

	Indicator #	Indicator	Baseline – 2020*	Targets – 2025	Targets – 2030	Disaggregation (by age/sex/key population/geographic region etc. as relevant)	Data source
	43	**HCV drug access** - Percentage reduction in prices (to equivalent generic prices by 2025)	20%	50%	60%	WHO region, income	Global Reporting System on Hepatitis/Partner data, AMDS
	44	**HBV drug access** - Percentage reduction in prices (alignment with HIV drug prices by 2025)	20%	50%	60%	WHO region, income	Global Reporting System on Hepatitis/Partner data, AMDS
	45	**Elimination** - Number of countries validated for elimination of HCV	0	5	20	WHO region, % burden	Global Reporting System on Hepatitis/Partner data

*last available data as of end 2020

d) Sexually transmitted infections

	Indicator #	Indicator	Baseline – 2020*	Targets – 2025	Targets – 2030	Disaggregation (by age/sex/key population/geographic region etc. as relevant)	Data source
Impact	46	Global Incidence - Incidence of 4* curable STIs in men & women 15 to 49 years of age	374 million	282 million (20%)	187 million (50%-90%)	Analysis 3 STIs and Trich separately. STI range control to elimination. Measured through prevalence.	WHO Global Reporting
	47	**Triple elimination** – Congenital syphilis cases (per 100,000 live births)	400 (to be calculated)	< 200	< 50	WHO region	WHO Global Reporting
	48	**Antenatal care** – Syphilis prevalence in women attending antenatal care	Active: 0.69%	< 0.5%	< 0.4%	WHO region, Age, Male partners	WHO Global Reporting
			1%	-25%	-50-90%	Measured in high and very high risk countries	WHO Global Reporting
	50	**Adults** – Reported cases of urethral discharge or gonorrhoea among men	tbd	-25% adjusted for reporting completeness	-50-90% adjusted for reporting completeness	To be analyzed as part of surveillance report, alongside other data	WHO Global Reporting, GAM
	51	**Priority populations** – gonorrhoea, chlamydia and/or syphilis prevalence (MSM and FSW)	6% gonorrh 8% chlamydia	< 4.5% < 6%	< 3 % < 4%	WHO region, Priority Population. Syphilis	WHO Global Reporting

	Indicator #	Indicator	Baseline – 2020*	Targets – 2025	Targets – 2030	Disaggregation (by age/sex/key population/geographic region etc. as relevant)	Data source
				Reduced by (25%)	Reduced by (50-90%)	similar declines but lower prevalence	
Coverage	52	**Antenatal care** - Percentage of pregnant women attending ANC who are screened for syphilis	66% (2016)	> 85%	> 95%	WHO region, age	WHO Global Reporting
	53	**Antenatal care** - Percentage of pregnant women who are screened positive for syphilis in antenatal care and treated appropriately	78% (2016)	> 90%	> 95%	WHO region, age	WHO Global Reporting
	54	**Adults** - Percentage of adults at risk of HIV who are screened for HIV AND screened and treated for STIs	tbd	> 80%	> 90%	WHO region, sex, age, high, v.high HIV risk. Disaggregate screen and treatment	WHO Global Reporting
	55	**Adults** - Percentage of people at risk of HIV infection (and as a result STIs) who use appropriate, prioritized, person-centred and effective combination prevention option		> 80%	>95%	Region, sex, age, high and v.high HIV risk	WHO Global Reporting
	56	**Priority populations** – Percentage who are screened and treated for STIs		> 80%	> 90%	WHO region, Priority Population	WHO Global Reporting
Milestones	57	**Surveillance** - Percentage countries have surveillance systems in place to monitor STI targets (STI survey every three years, annual review STI symptomatic data, KP survey)		70%	90%	WHO region, income	WHO Global Reporting
	58	**HIV-STI prevention** - STI prevention integrated in HIV prevention in high and very high impact countries		70%	90%	WHO region, income	WHO Global Reporting

	Indicator #	Indicator	Baseline – 2020*	Targets – 2025	Targets – 2030	Disaggregation (by age/sex/key population/geographic region etc. as relevant)	Data source
	59	**Integration** - Percentage of countries provide STI services or links to such services in all primary, HIV, reproductive health, family planning and ante- and post-natal care services.		70%	90%	WHO region, income	WHO Global Reporting
	60	**HPV vaccination** – Percentage national coverage with HPV vaccine in their national programs		90%	95%	WHO region, income. Assess district within country	WHO Global Reporting
	61	**Antimicrobial resistance** – Percentage of countries reporting on antimicrobial resistance in N. gonorrhoeae		70%	90%	WHO region, income	WHO Global Reporting
	62	**Price of diagnostics** – Price reduction in cost of NAAT (or equivalent test)	Baseline cost	50%	70% (abs price)	WHO region, income	WHO Global Reporting, AMDS

*last available data as of end 2020

e) WHO ACTIONS

WHO ACTION	Indicator	Data Source	Comment
ACTION A: Strategic leadership and partnerships	a. **Health Funding**- support increase in global and domestic funding for three diseases to fill at least 80% of the funding required b. **Elimination Partnership** – implement and validate criteria for mother to child and adult elimination of the three diseases (x countries for 2025 and 2030)	WHO and UNAIDS HA WHO	Health Account-NASA
ACTION B: Public health advocacy and communication	c. **Country policy change and diplomacy** – monitor and close gaps in service delivery in the majority of countries, including for priority populations d. **Advocate for common approaches across HHS** – accelerate number of countries implementing joint diagnostics and common HIV prevention which integrates STIs	WHO CI WHO CI add policy question	KP data requires investment
ACTION C: Norms and standards	e. **Updated Guidelines** – update major HHS treatment, prevention and strategic information guidelines at least every 3 years f. **Ensure rapid policy change and implementation of guidelines** – ensure 80% of countries have adopted key recommendations of WHO guidelines within two years	WHO HHS Global Goods WHO CI policy tracking	Identify key component per guideline
ACTION D: Innovation	g. **Improve Cure and Vaccines** - Support the development of additional vaccines and cures for HIV, viral Hepatitis and STIs h. **Innovative and Access Diagnostics** - support improved POC tests and reduction in access and prices of diagnostics and drugs	WHO WHO AMDS extend	Diagnostics Price Info
ACTION E: Technical support	i. **Country Planning** - Ensure 80% of countries have recent HIV, viral hepatitis and STI plans in place with necessary integration and joint approaches where applicable j. **Three level technical support** - through the WHO regions and countries, ensure that technical support is provided to countries covering 80% of the disease burden in each biennium	WHO CI WHO CI of technical support requests	WHO 3 level support tracking
ACTION F: Reporting	k. **Global Reporting** - Ensure 80% of countries report key burden and service cascade data for HIV, viral Hepatitis and STIs which are validated by WHO l. **Gap analysis for planning** - provide regular analysis of gaps in policies, services and impact to regions and countries to prioritize and guide technical support through global and regional health observatories	WHO WHO CI focus on gaps	Align with Global Observatory

ANNEX 3: Results chain: Linking vision, goals, strategic directions, actions and monitoring

Vision and Goals:	**Indicators** *(for indicator numbering, refer to Annex 2 above)*
Vision: End epidemics and advance universal health coverage, primary health care and health security	#1, 2
Goals: By 2030,	
End the AIDS epidemic as a public health threat	#18, 19, 20, 21, 22
Eliminate viral hepatitis as a major public health threat	#32, 33, 34, 35, 36, 37, 45
End sexually transmitted infection epidemics as major public health concerns	#46, 47, 48, 49, 50

Strategic Directions (SDs) and Actions:	**Indicators** *(for indicator numbering, refer to Annex 2 above)*
Strategic Direction 1: Deliver people-centred services	
SD1 - Shared Actions (Chapter 3):	
ACTION 1: Primary prevention	Indicator #5, 10
ACTION 2: Harm reduction	Indicator #6
ACTION 3: Vertical transmission of HIV, syphilis and hepatitis B virus	Indicator #7
ACTION 4: Prevention, treatment and care for children and adolescents	Indicator #3, 4, 7

ACTION 5: Infection prevention and control	Indicator #8, 9
ACTION 6: Integrated testing	Indicator #14
ACTION 7: Voluntary partner notification and other partner services	
ACTION 8: Stigma and discrimination in health care settings	Indicator #13, 29
ACTION 9: Communicable and non-communicable diseases	Indicator #11
ACTION 10: Tuberculosis	Indicator #27
ACTION 11: Sexual and reproductive health	Indicator #10, 11, 14, 57, 58
ACTION 12: Mental health	
ACTION 13: Disability	
ACTION 14: Gender-based and sexual violence	Indicator #15
SD 1 - HIV Actions (Chapter 4):	
ACTION 35: Continuum of HIV services	Indicator #23, 24, 25
ACTION 36: HIV intervention packages	
ACTION 37: HIV prevention	Indicator #26
ACTION 38: Antiretroviral drugs for HIV prevention	
ACTION 39: Voluntary medical male circumcision	
ACTION 40: People-centered HIV testing	Indicator #23
ACTION 41: HIV treatment	Indicator #24, 25, 30
ACTION 42: HIV drug resistance	
ACTION 43: Antiretroviral drug toxicity	

ACTION 44: Advanced HIV disease	Indicator #30
ACTION 45: Chronic care for people with HIV	
ACTION 46: HIV prevention and care for children and adolescents (*complements shared ACTION 3 and ACTION 4)*	Indicator # 21, 23, 24, 25
ACTION 47: Communicable and non-communicable diseases among people living with HIV *(complements shared ACTION 9)*	Indicator #28
ACTION 48: HIV and tuberculosis *(complements shared ACTION 10)*	Indicator #27
ACTION 49: Rehabilitation to address HIV-related disability *(complements shared ACTION 13)*	
SD 1 - Viral hepatitis Actions (Chapter 5):	
ACTION 60: Continuum of viral hepatitis services	Indicator #38, 39
ACTION 61: Viral hepatitis intervention packages	
ACTION 62: Vertical transmission of hepatitis B and C virus *(complements shared ACTION 3)*	
ACTION 63: Viral hepatitis vaccines *(complements shared ACTION 3)*	
ACTION 64: Viral hepatitis testing	Indicator #38, 39
ACTION 65: Viral hepatitis treatment	Indicator #38, 39
ACTION 66: Chronic care for people with viral hepatitis	
ACTION 67: Viral hepatitis prevention, treatment and care for children and adolescents *(complements shared ACTION 3 and ACTION 4)*	Indicator #7, 32, 38, 39, 40
ACTION 68: Viral hepatitis and cancer *(complements shared ACTION 9)*	
ACTION 69: Viral hepatitis and tuberculosis *(complements shared ACTION 10)*	
SD 1 - Sexually transmitted infection Actions (Chapter 6):	
ACTION 82: Continuum of sexually transmitted infection services	Indicator #52, 53, 54, 55
ACTION 83: Sexually transmitted infection intervention packages	Indicator #52, 53, 54, 55

ACTION 84: Prevention of sexually transmitted infections *(complements shared ACTION 1)*	Indicator #55
ACTION 85: Human papillomavirus vaccines	Indicator #10, 60
ACTION 86: Vertical transmission of sexually transmitted infections *(complements shared ACTION 3)*	Indicator #7, 47
ACTION 87: Sexually transmitted infection awareness and treatment-seeking behaviour	Indicator #52, 53, 54
ACTION 88: Case management for symptomatic sexually transmitted infections	Indicator #53, 54
ACTION 89: Partner services for sexually transmitted infections *(complements shared ACTION 7)*	
ACTION 90: Screening priority populations for sexually transmitted infections	Indicator #56
ACTION 91: Treatment for complications and sequelae of sexually transmitted infections	
ACTION 92: Antimicrobial resistance in *Neisseria gonorrhoeae*	Indicator #61
ACTION 93: Linking sexually transmitted infection services with other health services (complements shared ACTION 9 and ACTION 11)	Indicator #58, 59
ACTION 94: Vulnerable populations and sexually transmitted infections *(complements shared ACTION 13)*	

Strategic Direction 2: Optimize systems, sectors and partnerships	
SD 2 - Shared Actions (Chapter 3):	
ACTION 15: Universal health coverage	Indicator #3, 4, 14
ACTION 16: Primary health care	Indicator #3, 4, 14
ACTION 17: Differentiated service delivery	
ACTION 18: Decentralization	
ACTION 19: Special settings	

ACTION 20: Digital innovations	
ACTION 21: Effective and inclusive governance	
ACTION 22: Financing	
ACTION 23: Essential health commodities	Indicator #43, 44, 62
ACTION 24: Health workforce strengthening	
ACTION 25: Legal, regulatory and policy reform	
ACTION 26: Multisectoral partnerships to address stigma, discrimination and other structural barriers	
ACTION 27: Protecting people during pandemics and other health emergencies	
ACTION 28: Managing future disease outbreaks	
SD 2 - HIV Actions (Chapter 4):	
ACTION 50: Differentiated service delivery for HIV *(complements shared ACTION 17)*	Indicator #31
ACTION 51: Essential HIV health commodities *(complements shared ACTION 23)*	
SD 2 – Viral hepatitis Actions (Chapter 5)	
ACTION 70: Differentiated service delivery for viral hepatitis *(complements shared ACTION 17)*	
ACTION 71: Decentralized viral hepatitis services *(complements shared ACTION 18)*	
ACTION 72: Financing for viral hepatitis *(complements shared ACTION 21)*	Indicator #41
ACTION 73: Essential viral hepatitis commodities *(complements shared ACTION 23)*	Indicator #43, 44
ACTION 74: Health workforce for viral hepatitis *(complements shared ACTION 24)*	
SD 2 – Sexually transmitted infection Actions (Chapter 6)	
ACTION 95: People-centred sexually transmitted infection services *(complements shared ACTION 17 and shared ACTION 18)*	Indicator #55, 58

ACTION 96: Financing for sexually transmitted infections *(complements shared ACTION 22)*	
ACTION 97: Essential sexually transmitted infection commodities *(complements shared ACTION 23)*	Indicator #62
ACTION 98: Private sector and nongovernmental sexually transmitted infection services	

Strategic Direction 3: Generate and use data to drive decisions and action	
SD 3 - Shared Actions (Chapter 3):	
ACTION 29: Data availability, analysis and use	
ACTION 30: Person-centered data monitoring	
ACTION 31: Health information systems	
SD 3 – HIV Actions (Chapter 4)	
ACTION 52: Person-centred data monitoring for HIV *(complements shared ACTION 29 and ACTION 30)*	
ACTION 53: Health information systems for HIV *(complements shared ACTION 31)*	
SD 3 – Viral hepatitis Actions (Chapter 5)	
ACTION 75: Person-centred data monitoring for viral hepatitis *(complements shared ACTION 29 and ACTION 30)*	
ACTION 76: Health information systems for viral hepatitis *(complements shared ACTION 31)*	Indicator #42
SD 3 – Sexually transmitted infection Actions (Chapter 6)	
ACTION 99: Health information systems for sexually transmitted infections *(complements shared ACTIONS 29-31)*	Indicator #57
ACTION 100: Sexually transmitted infections data from the private sector and nongovernmental service providers *(complements shared ACTIONS 29-31)*	Indicator #57

Strategic Direction 4: Engage empowered communities and civil society	
SD 4 - Shared Actions (Chapter 3):	
ACTION 32: Community and civil society leadership	
ACTION 33: Community health workers	
SD 4 – HIV Actions (Chapter 4)	
ACTION 54: Community and civil society leadership for HIV *(complements shared ACTION 32 and ACTION 33)*	
SD 4 – Viral hepatitis Actions (Chapter 5)	
ACTION 77: Community and civil society leadership for viral hepatitis *(complements shared ACTION 32 and ACTION 33)*	
SD 4 – Sexually transmitted infection Actions (Chapter 6)	
ACTION 101: Community and civil society leadership for sexually transmitted infections *(complements shared ACTION 32 and ACTION 33)*	

Strategic Direction 5: Foster innovations for impact	
SD 5 - Shared Actions (Chapter 3):	
ACTION 34: Partnerships for innovation	
SD 5 – HIV Actions (Chapter 4)	
ACTION 55: New HIV diagnostics technologies and testing approaches	Indicator #17
ACTION 56: New options for antiretroviral-based prevention	Indicator #17
ACTION 57: Optimized use of antiretrovirals	Indicator #17
ACTION 58: HIV vaccines	Indicator #17

ACTION 59: HIV cure	Indicator #17
SD 5 – Viral hepatitis Actions (Chapter 5)	
ACTION 78: New viral hepatitis diagnostics technologies and testing approaches	Indicator #17
ACTION 79: Optimized antivirals for hepatitis B and C virus	Indicator #17
ACTION 80: New viral hepatitis vaccines	Indicator #17
ACTION 81: Hepatitis B virus cure	Indicator #17
SD 5 – Sexually transmitted infection Actions (Chapter 6)	
ACTION 102: Innovations in sexually transmitted infection prevention	Indicator #17
ACTION 103: Innovations in sexually transmitted infection diagnostics	Indicator #17
ACTION 104: Innovations in sexually transmitted infection treatment	Indicator #17
ACTION 105: Public-private partnerships for sexually transmitted infection innovations	Indicator #17

WHO ACTIONS	
ACTION A: Strategic leadership and partnerships	Indicator a, b
ACTION B: Public health advocacy and communication	Indicator c, d
ACTION C: Norms and standards	Indicator e, f
ACTION D: Innovation	Indicator g, h
ACTION E: Technical support	Indicator i, j
ACTION F: Reporting and M&E capacity	Indicator k, l