Implementing the global health sector strategies on HIV, viral hepatitis and sexually transmitted infections, 2022–2030

**Report on progress and gaps** 



Implementing the global health sector strategies on HIV, viral hepatitis and sexually transmitted infections, 2022–2030

# **Report on progress and gaps**

2024



Implementing the global health sector strategies on HIV, viral hepatitis and sexually transmitted infections, 2022–2030: report on progress and gaps 2024

ISBN 978-92-4-009492-5 (electronic version) ISBN 978-92-4-009493-2 (print version)

#### © World Health Organization 2024

Some rights reserved. This work is available under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 IGO licence (CC BY-NC-SA 3.0 IGO; <u>https://creativecommons.org/licenses/by-nc-sa/3.0/igo</u>).

Under the terms of this licence, you may copy, redistribute and adapt the work for non-commercial purposes, provided the work is appropriately cited, as indicated below. In any use of this work, there should be no suggestion that WHO endorses any specific organization, products or services. The use of the WHO logo is not permitted. If you adapt the work, then you must license your work under the same or equivalent Creative Commons licence. If you create a translation of this work, you should add the following disclaimer along with the suggested citation: "This translation was not created by the World Health Organization (WHO). WHO is not responsible for the content or accuracy of this translation. The original English edition shall be the binding and authentic edition".

Any mediation relating to disputes arising under the licence shall be conducted in accordance with the mediation rules of the World Intellectual Property Organization (<u>http://www.wipo.int/amc/en/mediation/rules/</u>).

**Suggested citation**. Implementing the global health sector strategies on HIV, viral hepatitis and sexually transmitted infections, 2022–2030: report on progress and gaps 2024. Geneva: World Health Organization; 2024. Licence: <u>CC BY-NC-SA 3.0 IGO</u>.

Cataloguing-in-Publication (CIP) data. CIP data are available at https://iris.who.int/.

**Sales, rights and licensing.** To purchase WHO publications, see <u>https://www.who.int/publications/book-orders</u>. To submit requests for commercial use and queries on rights and licensing, see <u>https://www.who.int/copyright</u>.

**Third-party materials.** If you wish to reuse material from this work that is attributed to a third party, such as tables, figures or images, it is your responsibility to determine whether permission is needed for that reuse and to obtain permission from the copyright holder. The risk of claims resulting from infringement of any third-party-owned component in the work rests solely with the user.

**General disclaimers.** The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by WHO in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by WHO to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall WHO be liable for damages arising from its use.

Design and layout by 400 Communications Limited.

# Contents

Acknowledgements	V
Abbreviations	vi
Executive summary	vii
Chapter 1 Introduction	1
Chapter 2 The global health sector strategies 2022–2030	3
Chapter 3 Shared approaches for a people-centred response: progress and gaps	8
Chapter 4 HIV: progress and gaps	19
Chapter 5 Viral hepatitis: progress and gaps	28
Chapter 6 Sexually transmitted infections: progress and gaps	36
Chapter 7 WHO's accountability in supporting strategy implementation	44
Chapter 8 Looking forward	52
References	54
Annex	58

iii



**Dr Tedros Adhanom Ghebreyesus** Director-General World Health Organization

# "

HIV, viral hepatitis and sexually transmitted infections continue to pose a major global health challenge. This report celebrates significant progress in several areas but also describes gaps in our responses and problematic trends, including new estimates showing a rising incidence of syphilis, raising major concerns. Despite our best efforts, we will not meet the global targets for 2025 and 2030 agreed at the Seventy-fifth World Health Assembly, unless we have a significant acceleration of focus and effort. We have the tools required to end these epidemics as public health threats by 2030 - we now need to ensure that in the context of increasingly complex global challenges, countries do all they can to achieve the ambitious targets to which they aspire.



**Dr Meg Doherty** Director Department of Global HIV, Hepatitis and Sexually Transmitted Infections Programmes World Health Organization

# "

While there has been impressive uptake of WHO policies and expansion of service access, particularly notable for HIV testing and antiretroviral therapy coverage, as well as expansion of hepatitis C treatment in a small number of countries, many challenges persist. While working to further expand services, especially for viral hepatitis and sexually transmitted infections, countries also must prioritize person-centered approaches and sustainability planning across all disease areas, focusing on political commitment, programmatic integration, and financing, while combatting stigma and discrimination in healthcare settings. WHO stands ready to support countries and communities in taking the actions required for long-term and sustained success while advancing primary health care and universal health coverage. **9 9** 

# Acknowledgements

This publication was developed by the Department of Global HIV, Hepatitis and Sexually Transmitted Infections Programmes (HHS) of the World Health Organization (WHO), under the guidance of Daniel Low-Beer, Andy Seale and Michel Beusenberg. The following WHO/HHS staff participated on the editorial team that supported the development of the publication: Carlos Cisneros, Shona Dalal, Jane Rowley and Dominik Stelzle. Consultant Kelly Safreed-Harmon led the writing of the report and consultant Parijat Baijal provided additional writing and editorial support.

The following staff at WHO headquarters made contributions to the publication: Annabel Baddely, Rachel Baggaley, Maeve Brito De Mello, Meg Doherty, Boniface Dongmo Nguimfack, Philippa Easterbrook, Nathan Ford, Cheryl Case Johnson, Olufunmilayo Lesi, Niklas Luhmann, Ismail Maatouk, Antons Mozalevskis, Busisiwe Msimanga, Morkor Newman Owiredu, Remco Peters, Clarice Pinto, Mateo Prochazka Nunez, Ajay Rangaraj, Nirina Razakasoa, Francoise Renaud, Michelle Rodolph, Shamsuzzoha Syed, Hazim Timimi, Annette Verster, Marco Vitoria, Elena Vovc, Teodora Wi and Kerri Viney. The following staff at WHO regional offices made contributions to the publication: Monica Alonso Gonzalez (WHO Regional Office for the Americas), Stela Bivol (WHO Regional Office for Europe), Po-lin Chan (WHO Regional Office for South-East Asia), Joumana George Hermez (WHO Regional Office for the Eastern Mediterranean), Akudo Ikpeazu (WHO Regional Office for Africa), Muhammad Shahid Jamil (WHO Regional Office for the Eastern Mediterranean), Kiyohiko Izumi (WHO Regional Office for the Western Pacific) and Georges Perrin (WHO Regional Office for Africa).

Input was also obtained from colleagues who participated in the WHO/HHS staff retreat on 22 March 2024.

WHO gratefully acknowledges the contributions of the following UNAIDS staff: Juliana Daher, Eline Korenromp, Mary Mahy and Keith Sabin.

# Abbreviations

AHD	advanced HIV disease
DAC	daclatasvir
HPV	human papillomavirus
HSV	herpes simplex virus
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
PrEP	pre-exposure prophylaxis
SOF	sofosbuvir
STI	sexually transmitted infection
ТВ	tuberculosis
TDF	tenofovir disoproxil fumarate
UNAIDS	The Joint United Nations Programme on HIV/AIDS
UNODC	United Nations Commission of Narcotic Drugs
WHO	World Health Organization

# **Executive summary**

#### Key messages

1. **This report is the first of a series of biannual progress reports** on the implementation of the *Global health sector strategies on, respectively, HIV, viral hepatitis and sexually transmitted infections for the period 2022–2030.* 

#### 2. The latest data show that new infections and deaths are not declining fast enough.

- HIV, viral hepatitis and sexually transmitted infections result in 2.5 million deaths each year, and new data suggest that more people died from hepatitis-related causes, 1.3 million in 2022 compared to 1.1 million in 2019.
- More than 1 million new infections occur each day, the majority of which are sexually transmitted infections.
- Case notifications of sexually transmitted infections are increasing rather than decreasing in many WHO regions, and new HIV and viral hepatitis infections are not declining as fast as they should to achieve the goals of the 2030 Agenda for Sustainable Development.
- 3. Gains have been made in expanding service access across all three disease areas.
- More than 75% of people living with HIV are receiving antiretroviral therapy, and 93% of those on treatment (or three quarters of all people living with HIV) have suppressed viral loads.
- The initial decline in global hepatitis C mortality from 290 000 in 2019 to 240 000 in 2022 suggests that the expansion in access to hepatitis C treatment is starting to show impact. In 2023, Egypt became the first country to achieve gold tier status on the path to elimination for hepatitis C, showing that such achievements can be within reach of other low- and middle-income countries.
- Nineteen countries and areas have been officially validated for the elimination of mother-to-child transmission of HIV and/or syphilis, and dual HIV/syphilis rapid diagnostic tests are being rolled out for pregnant women in antenatal care and for key populations.<sup>a</sup>

#### 4. Yet many indicators remain off-track to achieve the 2025 and 2030 global targets.

- HIV incidence and HIV-related deaths are slowly declining; however, the rates of decline are insufficient to achieve the 2025 targets. Despite the widespread availability of antiretroviral therapy, there were 630 000 HIV-related deaths in 2022, many of them due to late engagement in care and structural barriers to service access.
- Only 13% of people living with chronic hepatitis B infection had been diagnosed and close to 3% had received antiviral therapy at the end of 2022. Only 36% of people living with hepatitis C had been diagnosed between 2015 and 2022, and 20% had received curative treatment. These figures highlight the opportunity for improved diagnosis and better linkages between diagnosis and provision of care.
- Numerous countries reported increases in cases of adult and congenital syphilis after the COVID-19 pandemic. New estimates reveal that the number of new cases of syphilis in adults and the congenital syphilis case rate per 100 000 live births increased between 2016 and 2022.
- The number of girls fully vaccinated against human papillomavirus by age 15 increased from 14% in 2020 to 17% in 2022 still far below the 2025 target of 50%.

#### 5. Countries need to clearly focus on sustainability planning across the three disease areas.

While many countries are already implementing synergies between disease-specific efforts and with primary
health care, more can be done to secure political will and commitment and to strengthen programmatic linkages
and sustainability. The following are essential for an effective and sustainable response: strengthened planning,
implementation and financing dialogues for HIV, viral hepatitis and sexually transmitted infections as part of
universal health coverage; better use of available data for decision-making; and intensified efforts to address
ongoing stigma and discrimination in health care settings.

<sup>a</sup> Key populations, in the context of HIV, include men who have sex with men, people who inject drugs, sex workers, transgender people and people in prisons and other closed settings.

vii

In 2022 the World Health Assembly noted with appreciation the *Global health sector strategies on*, *respectively, HIV, viral hepatitis and sexually transmitted infections for the period 2022–2030* and requested that WHO report on their progress in 2024, 2026, 2028 and 2031. This report expands on the report to the 77<sup>th</sup> World Health Assembly (A77/33) and is the first of the series of biannual progress reports. It presents the **highlights of strategy implementation in 2022–2023** and draws attention to areas of progress and gaps in preparation for the mid-term review of the strategies in 2026.

Despite disruptions caused by COVID-19, especially at the start of the strategy implementation period, countries have leveraged synergies to advance their health sector responses to HIV, viral hepatitis and sexually transmitted infections (STIs) through shared efforts. For example, 19 countries and areas have been officially validated for the elimination of mother-to-child transmission of HIV and/or syphilis. Dual HIV/syphilis rapid diagnostic tests are being rolled out for pregnant women in antenatal care and for key populations.<sup>1</sup> WHO has published and disseminated consolidated guidance on HIV, viral hepatitis and STI prevention, diagnosis, treatment and care for key populations; on advancing HIV responses through a primary health care approach; and on triple elimination of mother-to-child transmission of HIV, syphilis and hepatitis B.

**Yet the global response is currently off-track** to meet the 2025 targets for reducing new infections related to HIV, viral hepatitis and STIs, and for decreasing the substantial disease mortality, which underlines the need for intensified efforts across all disease areas.

**HIV** treatment is reaching more people than ever before. By the end of 2022, more than 75% of people living with HIV globally were receiving antiretroviral therapy, and 93% of those on treatment (or three quarters of all people living with HIV) had suppressed viral loads. Yet progress has been uneven geographically and by population group; and despite the widespread availability of HIV treatment, HIV-related deaths continue to be unacceptably high. New infections decreased from 1.5 million in 2020 to 1.3 million in 2022, but key populations continue to face increasing risk of infection as compared to the general population and reaching the 2025 target will require further acceleration in HIV prevention. While knowledge of status among people with HIV is increasing, overall testing volumes and HIV positivity are low and disproportionately lower among men compared to women.

WHO has brought greater visibility to the magnitude of the global **viral hepatitis** epidemics, with improved data from 187 countries. The estimated number of deaths from viral hepatitis increased from 1.1 million in 2019 to 1.3 million in 2022, suggesting that the number of hepatitisrelated cancers and deaths are increasing, despite the availability of effective tools for prevention, diagnosis and treatment. Some champion countries are leading the way: in 2023, Egypt became the first country to achieve gold tier status on the path to elimination for hepatitis C. Most new hepatitis B infections occurred in the African Region, where hepatitis B birth dose vaccination coverage is only 18% compared to 45% globally.

Four curable **STIs** – syphilis (*Treponema pallidum*), gonorrhoea (Neisseria gonorrhoeae), chlamydia (Chlamydia trachomatis) and trichomoniasis (Trichomonas *vaginalis*) – cause more than 1 million infections each day. Numerous countries reported increases in cases of adult and congenital syphilis after the COVID-19 pandemic. New estimates suggest that the number of new cases of syphilis in adults and the congenital syphilis case rate per 100 000 live births both increased between 2016 and 2022. Concerns about emerging antibiotic resistance to gonorrhoea are real - new data have shown multiresistant gonorrhoea in parts of the world, and new treatments are needed. Global coverage of the final dose of human papillomavirus vaccine among girls by age 15 reached 17% in 2022 but is still far short of the global target of 50% by 2025.

While the responses to HIV, viral hepatitis and STIs face different financing and resource challenges, all require **a** clear focus on country ownership and sustainability. Accelerating progress will require increased political will to address these infections, engagement in financing dialogues for universal health coverage, and further efforts to leverage synergies offered by a primary health care approach. Meeting 2025 and 2030 targets will also require strengthened approaches to reach priority populations with the highest incidence and poorest access to prevention, testing and treatment services, with tailored implementation across diverse settings. This will not be possible without also investing in the critical enablers, including addressing stigma and discrimination within health settings.

Although the world is experiencing multiple crises that are having unpredictable effects on disease dynamics and country responses to the challenges of HIV, viral hepatitis and STIs, these challenges can be successfully met through collaborative efforts based on the meaningful engagement of affected communities and people-centred health systems. Strengthened collaboration, including with funding partners, academia, civil society and affected communities, will be required to ensure success in the coming years.

# **Chapter 1** Introduction

1



# 1. Introduction

HIV, viral hepatitis and sexually transmitted infections (STIs) continue to impose a major public health burden worldwide, collectively causing an estimated 2.5 million deaths and 1.2 million cases of cancer annually (1, 2) (**Table 3.1** and **Table 3.2**). Four curable STIs together account for more than 1 million new infections each day.<sup>2</sup> An estimated 3.5 million cases of HIV, hepatitis B and hepatitis C transmission occur each year (1, 2) (**Table 3.1** and **Fig. 3.1a**).

Despite ongoing progress, the current global response is not sufficient to meet the ambitious targets of the *Global health sector strategies on, respectively, HIV, viral hepatitis and sexually transmitted infections for the period 2022-2030* (hereafter referred to as the global health sector strategies 2022–2030)(3). Viral hepatitis is one of the communicable diseases for which mortality is increasing, and in countries with strong surveillance systems, case notification rates for STIs also show increases.

This report accompanies the Progress Report by the WHO Director-General to the Seventy-Seventh World Health Assembly on the global health sector strategies 2022– 2030(4). Using the most recently available data from multiple sources, it provides additional insight into the achievements and continuing gaps in the first two years of implementation of the strategies and highlights urgent areas of action to move closer towards 2025 and 2030 targets, in preparation for the mid-term review of the strategies in 2026. The report also provides accountability for WHO's actions to support the implementation of the strategies (**Box 1.1**).

In the time since the introduction of the global health sector strategies 2022–2030, the continued impact of the COVID-19 pandemic and the emergence or intensification of other crises have presented novel challenges to the health sector in many countries. Outbreaks and resurgences of communicable diseases such as cholera, dengue, ebola and mpox have continued to place demands on stressed health and financing systems. Climate change and environmental degradation are posing increasing risks to human health. Conflict, humanitarian emergencies and other crises are causing immense suffering and harm to human health. These crises disproportionately affect the most vulnerable and further exacerbate inequities. Economic uncertainty, inflation and shrinking fiscal space in many countries are making it difficult to expand, or even to sustain, efforts.

Achieving the 2025 and 2030 targets presented in the global health sector strategies 2022–2030 will require a renewed commitment to ending AIDS and the epidemics of viral hepatitis and STIs in the context of a rapidly changing world. Stronger efforts are needed to reach the populations with the highest risk of new infections and the poorest access to prevention and treatment across all three disease areas. This includes key populations such as men who have sex with men, sex workers, people who use drugs, transgender people and people in prisons and other closed settings.

#### Box 1.1 Structure of the report

The global health sector strategies 2022–2030 together comprise a single document that includes both shared and disease-specific content. The organization of this report reflects the organization of the strategies, with the following sections:

Section 1. Introduction

Section 2. The global health sector strategies 2022–2030

Section 3. Shared approaches for a people-centred response: progress and gaps

Section 4. HIV: progress and gaps

Section 5. Viral hepatitis: progress and gaps

Section 6. Sexually transmitted infections: progress and gaps

Section 7. WHO's accountability in supporting strategy implementation

Section 8. Looking forward

#### Annex

This report is accompanied by an online accountability dashboard that is updated regularly as new data become available, to continue tracking progress toward 2025 and 2030 targets in the global health sector strategies 2022–2030. Data on HIV, viral hepatitis and STIs are also made available through the WHO Global Health Observatory (5).

The report assesses the latest results against 2022 targets and progress towards 2025 targets for HIV, viral hepatitis, STIs and shared approaches, consolidating data across diseases for mortality, incidence and shared approaches. New data on syphilis is provided for 2022, together with recently published WHO hepatitis data from 187 countries, and HIV data for 2022. For each section progress and gaps are highlighted in a transparent and balanced manner to identify actions for acceleration.

# **Chapter 2** The global health sector strategies 2022–2030

3



# 2. The global health sector strategies 2022–2030

In 2022, the Seventy-fifth World Health Assembly noted with appreciation the *Global health sector strategies, on, respectively, HIV, viral hepatitis and sexually transmitted infections for the period 2022–2030 (6).* The strategies intend to guide the health sector in implementing strategically focused responses to achieve the goals of ending AIDS, viral hepatitis B and C and STIs by 2030, as part of efforts towards achieving the 2030 Agenda for Sustainable Development. The strategies promote synergies across the disease areas under a universal health coverage framework and promote implementation under a primary health care approach.

The actions of the strategies are aligned with the goals of the WHO Thirteenth General Programme of Work 2019–2023 (7). The lessons learned from implementing the strategies are also informing the development of the draft WHO Fourteenth General Programme of Work 2025–2028. 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, evidence-based, people-centred health services and can lead healthy and productive lives. They promote disease-specific goals to end AIDS and the epidemics of viral hepatitis and STIs, with five strategic directions to guide implementation towards these goals (**Fig. 2.1**).

The vision, goals and strategic directions of the strategies come together in a theory of change that demonstrates the pathway by which their implementation will lead to the desired outputs, outcomes and impact (**Fig. 2.2**).

#### Fig. 2.1 Vision, goals and strategic directions of the global health sector strategies 2022–2030



Source: Global health sector strategies 2022–2030 (3).

5

(<u>1</u>)

2

(4)

 $\begin{pmatrix} 5 \\ 5 \end{pmatrix} \begin{pmatrix} 6 \\ 6 \end{pmatrix} \begin{pmatrix} 7 \\ 7 \end{pmatrix}$ 

(8)

#### Fig. 2.2 Theory of change of the global health sector strategies 2022–2030



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.

Source: Global health sector strategies 2022–2030 (3).

Five strategic directions provide the guiding framework for the actions of countries and implementing partners to achieve the goals of the strategies. To achieve these directions, the strategies outline both shared and diseasespecific actions for countries as well as actions for WHO in support of countries and implementing partners. The WHO actions are aligned to its Thirteenth General Programme of Work 2019–2023 (ℤ) and cover the core functions of WHO: strategic leadership and partnerships, public health advocacy and communication, norms and standards, innovation, technical support, and global monitoring and reporting.

The strategies' measurement framework defines priority impact and coverage indicators and policy milestones that will be monitored regularly to track global progress and ensure accountability for strategy implementation. The framework includes both shared and disease-specific indicators, with proposed targets for 2025 and 2030. Global monitoring towards these targets is based on data collected from Member States through established mechanisms for HIV, viral hepatitis and STIs, with increasing efforts to harmonize data collection processes across the disease areas at global and country levels, such as data related to triple elimination of mother-to-child transmission of HIV, syphilis and hepatitis B.

Chapters 3–7 report on the results achieved in 2022–2023 as per the measurement framework of the strategies. Data related to the indicators and milestones is also made available regularly through an online accountability dashboard (8), and through the WHO Global Health Observatory (5).

The Regional Committees of the six WHO regions have also endorsed, adapted and promoted the strategies through their own regional strategic frameworks and action plans (**Box 2.1**).

# Box 2.1 Regional strategic frameworks to support strategy implementation

#### WHO African Region

Framework for an integrated multisectoral response to TB, HIV, STIs and hepatitis in the WHO African Region 2021–2030: report of the Secretariat (42)

#### WHO Region of the Americas

Elimination Initiative 30+. Accelerating the Elimination of Communicable Diseases in the Americas (<u>43</u>)

#### WHO South-East Asia Region

Integrated regional action plan for viral hepatitis, HIV and sexually transmitted infections in South-East Asia; 2022–2026 (<u>44</u>)

#### WHO European Region

Regional action plan for ending AIDS and the epidemics of viral hepatitis and sexually transmitted infections 2022–2030 (<u>45</u>)

#### WHO Eastern Mediterranean Region

Regional action plan for the implementation of the global health sector strategies on, respectively, HIV viral hepatitis and sexually transmitted infections, 2022–2030 (<u>46</u>)

#### WHO Western Pacific Region

Regional Framework for reaching the unreached in the Western Pacific, 2022–2030 (<u>47</u>) Regional framework for the triple elimination of mother-to-child transmission of HIV, hepatitis B and syphilis in Asia and the Pacific, 2018-2030 (<u>48</u>)

# Chapter 3 Shared approaches for a people-centred response: progress and gaps

8



# 3. Shared approaches for a people-centred response: progress and gaps

#### Introduction

HIV, viral hepatitis, and STIs share common modes of transmission and determinants, and many of the populations most affected by these diseases overlap.

Countries are taking increasingly coordinated approaches to manage key aspects of the responses to these infections, including through shared strategies, plans and implementation through a primary health care approach.

-----

The global health sector strategies 2022–2030 outline 35 shared country actions across HIV, viral hepatitis, STIs and other related health areas that can be integrated across multiple disease areas for a more effective people-centred response. **Table 3.1** presents the shared indicators and targets across HIV, viral hepatitis and STIs.

Disaggregated data show that progress is uneven for different sub-populations. **Fig. 3.1a** provides disaggregated information on new HIV and viral hepatitis infections by sex. **Fig. 3.1b** provides disaggregated information on new STIs by sex. **Table 3.2** disaggregates the 2.5 million deaths associated with these diseases by cause of death.

#### Table 3.1. Progress towards shared global targets across HIV, viral hepatitis and STIs

Indicator	2020 baselineª	Latest data available	2025 target	2030 target
New HIV and viral hepatitis cases per year	4.5 million	3.5 million (2022)	<1.5 million	<500 000
Number of new cases of syphilis, gonorrhoea, chlamydia and trichomoniasis <sup>b</sup> among people aged 15–49 years per year	374 million	374 million (2020) <sup>c</sup>	<300 million	<150 million <sup>d</sup>
Number of countries and areas validated for the elimination of vertical (mother-to-child) transmission of either HIV, hepatitis B or syphilis	15	19 (2024)	50	100
Number of people dying from HIV, viral hepatitis and STIs <sup>e</sup> per year	2.3 million	2.5 million (2022)	<1.7 million	<1 million
Number of new cases of cancer from HIV, viral hepatitis and STIs per year	1.2 million	1.2 million (2020)	<900 000	<700 000
Number of people living with HIV dying from causes related to tuberculosis, hepatitis B and hepatitis C <sup>f</sup>	210 000	167 000⁵ (2022)	110 000	55 000
Percentage of people at risk of HIV who use combination prevention with a defined service package	8%	8% (2020)	95%	95%

#### Table 3.1 (continued). Progress towards shared global targets across HIV, viral hepatitis and STIs

.....

Indicator	2020 baselineª	Latest data available	2025 target	2030 target
Condom and lubricant use at last sex with a client or non-regular partner	Data not available	Data not available	90%	90%
Number of needles and syringes distributed per person who injects drugs (as part of a comprehensive harm reduction strategy)	33	35 (2022)	200	300
Percentage of people living with HIV, viral hepatitis and STIs and priority populations who experience stigma and discrimination	Data not available	23.6% <sup>h</sup>	Less than 10%	Less than 10%
Percentage of countries that have punitive laws and policies	Varied by population <sup>i</sup>	Varied by population <sup>i</sup>	Less than 10%	Less than 10%
Prevalence of recent (last 12 months) intimate partner violence among women and girls aged 15–49 years <sup>j</sup>	13%	Data not available	5%	2%
Percentage of people living with HIV, viral hepatitis and STIs linked to other integrated health services	Data not available	Data not available	95%	95%
Number of additional diseases (HIV, viral hepatitis and STIs) covered by vaccine or cure	0	0	1	2

Source: Annex 2 of the Global health sector strategies 2022–2030 (3).

<sup>a</sup> All data will be disaggregated by age, sex and, when relevant, key and focus populations specific to the disease.

<sup>b</sup> Curable STIs.

<sup>c</sup> There are new syphilis estimates for 2022 (see Chapter 6) but not for the other three infections.

<sup>d</sup> Includes target of 90% reduction in new cases of syphilis and gonorrhoea as well as 50% reduction in new cases of chlamydia and trichomoniasis by 2030.

<sup>e</sup> Mortality data will be further disaggregated to assess the urgent need to tackle the drivers and causes of deaths. For HIV, these include cryptococcal meningitis, TB and severe bacterial infections; for viral hepatitis, they include other types of cancer and harmful use of alcohol.

<sup>f</sup> The data will be disaggregated and reported by cause, including the cascade of TB service interventions needed to reduce mortality, systematic screening of TB symptoms, rapid TB diagnosis and preventive treatment, and treatment of drug-resistant TB.

<sup>g</sup> Improved measurement is required of HBV and HCV co-infection and mortality.

<sup>h</sup> Data relate to HIV only. The percentage reported is on experiences of HIV stigma and discrimination in community settings that occurred in the last 12 months (from studies conducted between 2020 and 2023) (49).

<sup>1</sup>Data relate to HIV only. In 2020, the percentage of countries with punitive laws were: on HIV non-disclosure, exposure or transmission including vertical transmission (61%), on criminalization of transgender people (24%), on criminalization of sex work (87%), on drug use or possession for personal use as an offence (83%), on criminalization of same-sex sexual acts in private (36%). In 2022, the percentage of countries with punitive laws were: on HIV non-disclosure, exposure or transmission including vertical transmission (48%), on criminalization of transgender people (12%), on criminalization of sex work (87%), on drug use or possession for personal use as an offence (78%), on criminalization of transgender people (12%), on criminalization of sex work (87%), on drug use or possession for personal use as an offence (78%), on criminalization of same-sex sexual acts in private (34%). *Source:* Global AIDS Monitoring (UNAIDS, WHO, UNICEF), 2024.

<sup>1</sup> Sustainable Development Goals (SDG) indicator 5.2.1: Proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate partner in the previous 12 months, by form of violence and by age. Baseline data are from 2018 (50).



#### Fig. 3.1a Distribution of new cases of HIV, hepatitis B and hepatitis C by sex, global, 2022

.....

Fig. 3.1b Distribution of new cases of four curable STIs among adults (aged 15–49 years), by sex, global, 2020 and 2022



Sources: Global progress report on HIV, viral hepatitis and sexually transmitted infections, 2021 (32). Global HIV, Hepatitis and STIs Programmes (HHS), WHO, 2024.

(1) (2) 3

(4)

(5)(6)(7)

Cause of death	Estimate	Source
HIV	630 000 (480 000–880 000)	UNAIDS/WHO, 2023
Hepatitis B	1 100 000 (880 000–1.74 million)	Global Hepatitis Report, WHO, 2024
Hepatitis C	240 000 (200 000–290 000)	Global Hepatitis Report, WHO, 2024
Human Papillomavirus (HPV)-related cervical cancer	350 000	IARC, 2024
Syphilis	220 000	WHO, 2024
Total	2.5 million	

# Table 3.2. Distribution of the number of deaths caused by HIV, viral hepatitis and STIs by cause of death, global, 2022

#### **Critical issues**

The following issues are central to achieving 2025 and 2030 HIV targets.

## Sustainability through advancing primary health care, universal health coverage and shared approaches

The global health sector strategies 2022–2030 promote synergies under a universal health coverage and primary health care framework to contribute to achieving the goals of the 2030 Agenda for Sustainable Development.

While the responses to HIV, viral hepatitis and STIs face different policy, programming, financing and resource challenges, all require a clear and enhanced focus on country ownership and sustainability. This requires a clear focus on leveraging political, programmatic and financial solutions and approaches towards the challenges posed by the three disease areas. It also requires country-driven and tailored planning and implementation that are adapted to diverse settings and specific contexts across HIV, viral hepatitis and STIs and related health areas. Globally, universal health coverage has not improved significantly since 2015, and total coverage varies widely by WHO region. As of 2021, the WHO Region of the Americas, the European Region and the Western Pacific Region had already achieved around 80% service coverage levels, whereas the African Region, the South-East Asia Region and the Eastern Mediterranean Region had lower coverage (9).

Antiretroviral therapy coverage among people living with HIV is one of the tracer indicators used to measure progress towards universal health coverage. Specifically, antiretroviral therapy coverage is one of four tracer indicators in the infectious disease service coverage sub-index, which is one of four sub-indices that are aggregated to measure global progress towards universal health coverage. The progress in expanding antiretroviral therapy has contributed to improvements in service coverage for infectious diseases, while service coverage has remained static for non-communicable diseases and for reproductive, maternal, neonatal and child health services (**Fig. 3.2**).


#### Fig. 3.2 Progress towards universal health coverage and selected sub-indices, 2010–2021

Source: Global Health Observatory [online database], WHO, 2024 (5).

Many countries have prioritized approaches to address common comorbidities. For example, in 2022, in 97 countries, at least 90% of people diagnosed with tuberculosis (TB) knew their HIV status. This includes 32 of the 47 countries in the WHO African Region, where the burden of HIV-associated TB is highest. The number of people living with HIV who were enrolled on TB preventive treatment fell slightly, from 2.2 million in 2021 to 1.9 million in 2022 (*10*).

Data on service integration collected through the Global Hepatitis Reporting System show that of the 27 WHO focus countries that reported this information, 78% reported that hepatitis B testing and treatment services are integrated with existing services in HIV and antiretroviral therapy clinics and/or pre-exposure prophylaxis (PrEP) sites, and about 63% reported that these are integrated into primary health care (2). For hepatitis C, 70% of countries reported that services are integrated with existing services in HIV and antiretroviral therapy clinics and/or PrEP sites, and 67% reported that these are integrated into primary health care (**Fig. 3.3**). Further, 60% of reporting countries indicated that they share viral hepatitis nucleic acid testing platforms with laboratory services for other disease areas including HIV, TB and COVID-19, and 80% share other related services, such as human resources, specimen transport and quality assurance. (<u>5</u>)



Fig. 3.3 Integration of viral hepatitis testing and treatment services with other health services, WHO focus countries for the viral hepatitis response, 2023

Source: Global hepatitis report, WHO, 2024 (2).

WHO is working with development, multilateral and civil society partners to leverage the tools and learning from broader health sector approaches for impact towards achieving disease-specific goals and targets. Over the last two years the Primary Health Care Operational Framework has been used to identify convergent actions and opportunities to jointly strengthen primary health care and advance the goals of the global health sector strategies (11, 12). WHO has also provided support to countries to strengthen the integration of HIV and sexual and reproductive health services to improve service delivery. In 2022, WHO published Consolidated guidelines on HIV, viral hepatitis and STI prevention, diagnosis and treatment for key populations (13). These Guidelines consolidate the WHO recommendations across the three disease areas across the cascade of prevention, testing and treatment while highlighting the need to address structural barriers with a set of enabling interventions. The Guidelines are an important tool for advocacy for a human-rights and evidence-based public health approach that works towards the decriminalization of people and their behaviour.

#### Intensifying common prevention efforts

HIV, viral hepatitis and STIs share common modes of transmission, and many prevention interventions protect against transmission for all three disease areas. However, the global response remains far off-track to meet the 2025 targets for reducing the incidence of HIV, hepatitis and STIs, underlining the need for intensified prevention efforts, including to reach key populations who share many common risk factors and structural barriers to service access.

Encouraging consistent condom use remains a core primary prevention intervention (<u>14</u>). Despite disruptions caused by COVID-19, advances have been made in expanding access to other prevention interventions, including vaccination against human papillomavirus (HPV) and hepatitis B virus, and the delivery of HIV PrEP, including in the context of regular screening for STIs.

 $\begin{pmatrix} 1 \\ 1 \end{pmatrix} \begin{pmatrix} 2 \\ 2 \end{pmatrix} = 3 \begin{pmatrix} 4 \\ 4 \end{pmatrix} \begin{pmatrix} 5 \\ 5 \end{pmatrix} \begin{pmatrix} 6 \\ 6 \end{pmatrix} \begin{pmatrix} 7 \\ 7 \end{pmatrix}$ 

(8)

By 2022, hepatitis B immunization coverage reached 84% globally, yet with differences across WHO regions. Coverage in the African Region reached only 72%, while three other Regions achieved 90%. By comparison, global coverage of the hepatitis B birth dose vaccination is only 45%, with coverage much lower at 18% in the African Region, indicating the need for greater routine integration within antenatal care and vaccination services (2,36). Coverage of the HPV vaccination surpassed pre-COVID-19 levels for the first time in 2022 (**Fig. 3.4**). Reaching the 90% vaccination target for girls by 15 years of age is a crucial step in achieving cervical cancer elimination, yet many countries have not reached this target and substantial disparities exist across WHO regions. WHO's new recommendation for single-dose HPV vaccination will aid in improving coverage (15). HPV vaccination also protects against other HPV-related cancers including cancers of the vulva, vagina, mouth/ throat, penis and anus.



#### Fig. 3.4 Global coverage of the human papillomavirus vaccine, by sex, 2010–2022

Note: HPV1: One dose of HPV vaccine received; HPVC: Complete dose series of HPV vaccine received.

Source: Immunization Data Portal [online database] (36), (accessed 2 May 2024).



Fig. 3.5 National plans for eliminating the vertical transmission of HIV and syphilis, July 2023

Sources: Global AIDS Monitoring (UNAIDS/WHO/UNICEF) and Global HIV, Hepatitis and STIs Programmes (HHS), WHO, 2023.

#### Achieving triple elimination of mother-to-child transmission

The global health sector strategies commit to the "triple elimination" of vertical (mother-to-child) transmission of HIV, syphilis and hepatitis B virus as a public health priority. Globally in 2023, 74% of reporting countries had national plans for eliminating the vertical transmission of both HIV and syphilis (91 of 123), most of which are integrated, and a further 17% have a plan for eliminating the vertical transmission of either HIV (12 countries) or syphilis (nine countries) (**Fig. 3.5**).

As of May 2024, 19 countries and areas had been validated by WHO for achieving elimination of mother-to-child transmission of HIV and/or congenital syphilis, and two countries from the African Region had been certified as being on the path to elimination: Botswana (HIV) and Namibia (HIV and hepatitis B). Several countries do not yet have policies on hepatitis B screening during pregnancy or for providing a birth dose hepatitis B vaccine to newborns (**Fig. 3.6**). In 2022, only 45% of newborns benefitted from a timely birth dose of the hepatitis B vaccine. The WHO African Region had only achieved 18% coverage of birth dose, as compared to 80% in the Western Pacific Region (2,36). Data on hepatitis B infections among pregnant women have been limited but efforts are underway to strengthen strategic information for viral hepatitis.

\_\_\_\_\_



#### Fig. 3.6 Uptake of national policies on hepatitis B virus testing during pregnancy, July 2023

Sources: Global AIDS Monitoring (UNAIDS/WHO/UNICEF) and Global HIV, Hepatitis and STIs Programmes (HHS), WHO, 2023.

In 2022, WHO published updated global guidance on the criteria and processes for the validation of triple elimination (16). Informed by the successes in eliminating vertical transmission of these diseases, WHO is also exploring a multi-disease elimination approach to ensure efficiency, effectiveness and equity, towards the elimination of priority diseases and conditions. A multidisease approach seeks to enhance the efficiency of programmes by avoiding duplication in their inputs and outputs. In 2024, WHO also published new guidelines on hepatitis B. These provide an option of using antiviral prophylaxis for all hepatitis B surface antigen (HBsAg)positive pregnant women if there is no access to hepatitis B DNA assays. This is in addition to three-dose hepatitis B vaccination for all infants, including a timely birth dose, and will support countries to further accelerate progress towards triple elimination (17).

#### **Continuing to strengthen harm reduction**

Global coverage of harm reduction services remains too low in most countries that report injecting drug use. In a systematic review, of the 90 countries that reported implementing opioid agonist treatment, and 94 countries that reported implementing needle and syringe programmes, only five countries (representing 2% of the global population of people who inject drugs) are providing high coverage of both services (18). The review concluded that a major scale-up of services is required to respond to the clinical and social harms that many people who inject drugs face. Civil society organizations played an important role during the COVID-19 pandemic to ensure continued access to needle and syringe programmes, and opioid agonist treatment, through peer delivery. It is important to continue to build on community-led approaches to strengthen and expand harm reduction.

WHO has also developed *Consolidated guidelines on HIV*, *viral hepatitis and STI prevention, diagnosis and treatment for key populations (13)*, accompanied by a policy brief focused on people who inject drugs (19). WHO continues to advocate for the provision of sterile injecting equipment through needle and syringe programmes, opioid agonist maintenance therapy for the treatment of opioid dependence and community distribution of naloxone to manage opioid overdose.

WHO works to ensure that harm reduction services are recognized as essential health services in emergency and humanitarian crises alongside the broader service packages required for HIV, viral hepatitis and STIs. WHO and the United Nations Commission of Narcotic Drugs (UNODC) have jointly developed an implementation tool on opioid agonist maintenance therapy and on gender-based violence and delivered training webinars for policy-makers on harm reduction service delivery. In 2024, UNODC passed a historic resolution recognizing harm reduction for the first time as an important part of an effective public health response (20).

#### **Promoting integrated data systems**

Countries have made substantial progress in transitioning to person-centred and digital data systems that simplify the use, collection, linkage and analysis of data to improve the accuracy, reliability, completeness and timeliness of data for decision-making. For example, an additional 16 countries have reported development of HIV case surveillance systems since 2023, making a total of 92 countries with systems in place. WHO SMART (Standardsbased, Machine-readable, Adaptive, Requirementsbased and Testable) Guidelines support efforts to expand digitization and simplify the incorporation of WHO clinical and data recommendations into the digital systems being adopted by countries. WHO has released the Digital Adaptation Kit for HIV (2<sup>nd</sup> Ed.) and two new tools for tracking individual-level data on HIV prevention and HIV case surveillance, for improving person-centred monitoring (21). The updated data tracking packages include data and indicators for HIV, viral hepatitis, STIs, TB/HIV and cervical cancer.

## Providing equitable access to essential health commodities

Through the global health sector strategies 2022–2030, countries committed to accelerating access to qualityassured and affordable medicines, diagnostics and other health products by accelerating quality assurance and incountry registration; reducing prices; strengthening local development, manufacturing and distribution capacity; and aligning efforts with broader health commodity plans and budgets.

Yet access to essential health commodities at primary health care levels remains inadequate in many low- and middle-income countries. For example, in 2023, the majority of WHO focus countries for the viral hepatitis response had included tenofovir disoproxil fumarate (TDF) to treat hepatitis B in their national viral hepatitis treatment guidelines and in national essential medicines lists; yet only 45% of reporting countries have TDF available for use in primary health care. Similarly, most reporting WHO focus countries had included sofosbuvir (SOF) and daclatasvir (DAC) for treating hepatitis C in their national treatment guidelines and essential medicines lists, yet only 30% reported the availability of these medicines at primary health care level. Further, although these medicines are available at low prices through global pricing agreements, many countries continue to overpay as a result of various patent- and market-related barriers (also see Chapter 5 for further details on access to health products for viral hepatitis) (2).

Countries also experience challenges in accessing in vitro diagnostics. For example, of 19 WHO focus countries that provided information on access to quality-assured viral hepatitis C in vitro diagnostics in 2023, 10 experienced access challenges such as stock-outs, low testing volumes, commodity expiry, high error rates and broken-down platforms or equipment. A 2023 WHO report on the integrated HIV rapid diagnostic test market highlighted how market factors can affect availability and access to essential diagnostic services (22). This analysis has helped support accelerated access to new products like dual HIV/ syphilis rapid diagnostic tests (dual tests) and HIV selftests, which have been widely scaled up.

#### **Urgent priorities**

The following measures should be prioritized by countries and partners to effectively strengthen shared approaches to achieving the 2025 and 2030 HIV, viral hepatitis and STI targets (*also see disease-specific priorities identified in* **Chapters 4-6**).

- Planning policy and financing dialogues to develop cross-cutting investment cases and national level sustainability plans.
- Further consolidation and alignment of disease specific guidance, plans and implementation support within a primary health care approach.
- Accelerating efforts to address ongoing criminalization, and stigma and discrimination within health settings, against populations most affected by HIV, viral hepatitis and STIS.
- Expanding multi-disease elimination approaches and packages, building from learnings from the triple elimination of mother-to-child transmission.
- Strengthening the focus on primary prevention across the diseases.

# **Chapter 4** HIV: progress and gaps



19

 $\left( \right)$ 

 $\begin{pmatrix} 1 \\ 1 \end{pmatrix}$ 

(3)

4



# 4. HIV: progress and gaps

#### Introduction

Key achievements demonstrate the feasibility of ending AIDS as a public health concern by 2030, in accordance with Target 3.3 of the Sustainable Development Agenda, but many challenges remain. Five low- and middleincome countries have reached the 95–95–95 HIV treatment targets, while 18 others are close to doing so, and 76% of people living with HIV globally were receiving antiretroviral therapy at the end of 2022 (**Fig. 4.1** and **Annex 1**). However, in 27 low- and middle-income countries, less than 50% of people living with HIV were receiving antiretroviral therapy in 2022.

While HIV incidence and HIV-related deaths are slowly declining, rates are insufficient to achieve the 2025 targets (**Table 4.1, Fig. 4.2** and **Box 4.1**). Although children under the age of 15 years comprise less than 4% of people living with HIV globally, 13% of deaths from HIV-related causes occurred in this age group in 2022 (UNAIDS/WHO 2023). This disproportionate burden of mortality reflects policy and programmatic failings that are causing children to lag far behind adults on the first and third targets of the 95–95–95 treatment cascade (**Fig. 4.3**).

Across nearly all regions, men living with HIV are less likely than women living with HIV to know their HIV status, to receive antiretroviral therapy and to be virally suppressed. Men living with HIV are more likely than women to present with advanced HIV disease (AHD) (Fig. 4.3) (23). Access to testing and treatment is lower among children as compared to adults, and health outcomes for children are poorer. Among adolescents and young people aged 15–24 years, a disproportionate number of new cases of HIV infection are occurring in girls and young women in sub-Saharan Africa. 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 - continue to have much higher HIV incidence than members of the general population. An estimated 55% of new HIV infections occur among these populations and their partners (24). These populations face social and legal barriers to safely accessing HIV services. Yet the HIV response among them is stalling and in some contexts, even reversing (25), exacerbated by the introduction of laws that further criminalize and marginalize these populations.

These epidemiological, social and structural dynamics underscore the importance of prioritizing people-centred and human rights-based approaches across all aspects of the HIV response. Health system assets must be leveraged in innovative and cross-cutting ways to make HIV services more accessible to the people who most need these services within the context of promoting integrated care and health system sustainability.

# Box 4.1 The global HIV epidemic: key facts

- Thirty-nine million people were living with HIV at the end of 2022, including 1.5 million children under the age of 15 years.
- New HIV infections in 2022 totalled 1.3 million. An estimated 55% of new infections occur among key populations and their partners.
- There were 630 000 deaths from HIV-related causes in 2022, with 13% of these deaths occurring in children under the age of 15 years.
- Treatment coverage continued to expand in 2022, with antiretroviral therapy provided to 76% of people living with HIV globally.
- 86% of people living with HIV are aware of their HIV status.

#### Table 4.1. Progress towards global HIV targets

Indicator	2020 baseline <sup>a</sup>	2022 progress	2025 target	2030 target
Number of people newly infected with HIV per year	1.5 million (1.1 million–1.9 million)	1.3 million (1.0 million–1.7 million)	370 000	335 000
Number of children younger than 15 years newly infected with HIV per year	150 000 (100 000–240 000)	130 000 (90 000-210 000)	20 000	15 000
Number of people newly infected with HIV per 1 000 uninfected population per year (Sustainable Development Goal 3.3.1)	0.19 (0.14-0.26)	0.17 (0.13–0.23)	0.05	0.025
Number of people dying from HIV- related causes per year <sup>b</sup> (including disaggregation by HIV cryptococcal meningitis, tuberculosis and severe bacterial infections)	690 000 (520 000– 960 000)	630 000 (480 000– 880 000)	250 000	<240 000
Percentage of people living with HIV who know their status (first 95) <sup>c</sup>	82% (70%–96%)	86% (73%->98%)	95%	95%
Percentage of people who know their HIV status are receiving antiretroviral therapy (second 95) <sup>c</sup>	85% (72%->98%)	89% (75%->98%)	95%	95%
Percentage of people living with HIV receiving antiretroviral therapy who have suppressed viral loads (third 95) <sup>c</sup>	90% (77%->98%)	93% (79%->98%)	95%	95%
Percentage of people living with HIV who are receiving antiretroviral therapy <sup>c</sup>	69% (59%-81%)	76% (65%–89%)	90%	90%
Percentage of people living with HIV who have suppressed viral loads <sup>c</sup>	63% (53%–73%)	71% (60%-83%)	86%	86%
Percentage of people living with HIV who receive preventive therapy for tuberculosis	50%	55%	95%	95%
Percentage of people starting antiretroviral therapy with a CD4 count of less than 200 cells/mm3 (or stage III/IV) <sup>d</sup>	30%	Data not available	20%	10%
Percentage of countries which have implemented six-month refill of drugs	12 % (11 out of 76 reporting countries)	14% (2023) (21 out of 131 reporting countries)	50%	80%
Percentage of countries which have implemented three-month refill of drugs	62 % (47 out of 76 reporting countries)	63% (2023) (83 out of 131 reporting countries)	50%	80%

\_\_\_\_\_

*Source:* Annex 2 of the Global health sector strategies 2022–2030 (<u>3</u>).

<sup>a</sup> Latest data for end 2020. All data will be disaggregated by age, including adolescents, sex and, when relevant, focus populations specific to the disease.

<sup>b</sup> Mortality data will be further disaggregated to assess the urgent need to tackle the drivers and causes of deaths, including for HIV cryptococcal meningitis to reduce deaths by 50% in 2025 and 90% by 2030 for tuberculosis (TB) and severe bacterial infections.

 $^{\rm c}$  Achieved in all ages, sexes and focus populations.

 $^{\rm d}$  All people living with HIV should receive a CD4 test result and at least 90% by 2025 and 95% by 2030.

21

 $\begin{array}{c} (1) \\ (2) \\ (3) \\ (5) \\ (6) \\ (7) \\ (8) \end{array}$ 





Percentage of people who know their status among people living with HIV

Percentage of people on ART among people living with HIV

Percentage of people with suppressed viral loads among people living with HIV Gap to reach the first 95–90–86 cascade target

Gap to reach the second 95–90–86 cascade target

Gap to reach the third 95–90–86 cascade target

Source: UNAIDS/WHO estimates, 2023.

• • •



# Fig. 4.2 HIV incidence and mortality from implementing the strategy compared to current trends, global, 2010–2030

*Note:* The United Nations global targets for 2025 are twofold: reducing the number of people acquiring HIV to less than 370 000 and reducing the number of HIV-related deaths to less than 250 000. To end AIDS as a public health threat by 2030, the targets are a 90% reduction of the number of people acquiring HIV and dying from HIV using 2010 as the baseline.

Sources: Avenir Health using 2025 targets and UNAIDS/WHO epidemiological estimates, 2023.

23

 $\begin{array}{c} (1) \\ (2) \\ (3) \\ (1) \\ (2) \\ (1)$ 

#### Fig. 4.3 HIV testing, treatment and care cascades by sex and age group, global, 2022

#### 20 Gap to the first 95: 990 000 18 Gap to the second 90: 90% 1.63 million Gap to the third 86: 16 1.93 million 76->98% 82% 14 69–95%) 76% 65-89% 12 10 8 6 4 2 0 Know On Virally their status treatment suppressed

Number of females (15+) living with HIV (million)

Number of children (0-14) living with HIV (million)



#### Critical issues

The following issues are central to achieving the 2025 and 2030 HIV targets.

#### **Revitalizing HIV prevention**

Bringing new HIV infections down to the 2025 target of 370 000 is central to the sustainability of the HIV response. However, the 2020 baseline of 1.5 million new HIV infections decreased only slightly to 1.3 million in 2022 (**Table 4.1**); reaching the 2025 target would require progress to be greatly accelerated (**Fig. 4.1**). Drivers of continuing high HIV incidence include shortcomings in the funding and delivery of primary prevention interventions, late initiation of antiretroviral treatment, reduced funding for community-based and led HIV responses, insufficient antiretroviral adherence and ongoing social and structural barriers to accessing prevention, testing and treatment services, including HIV-related stigma and discrimination.

#### Number of males (15+) living with HIV (million)







25

There are opportunities for health systems and communities to achieve greater reductions in HIV incidence across different settings and populations by facilitating more widespread uptake of condoms, preexposure prophylaxis and post-exposure prophylaxis. Since 2023, WHO has promoted the global scale-up of simplified PrEP and post-exposure prophylaxis delivery, with a focus on reducing the need for frequent facility visits, including through streamlining HIV testing requirements. HIV testing returned to pre-pandemic levels globally for the first time in 2022. However, test positivity rates remained unchanged, suggesting that missed opportunities remain. HIV self-testing to support pre-exposure prophylaxis initiation and continuation is now also recommended as an additional tool to increase access to services (26).

Of 165 reporting countries, 150 (91%) have adopted WHO recommendations on PrEP in their national guidelines (**Fig. 4.4**).

#### Fig. 4.4 Adoption of WHO recommendations on oral PrEP in national guidelines, July 2023

.....



Sources: Global AIDS Monitoring (UNAIDS/WHO/UNICEF) and Global HIV, Hepatitis and STIS Programmes (HHS), WHO, 2023.

It is equally critical to revitalize HIV prevention efforts for key populations (**Fig. 4.5**). The global median HIV prevalence among sex workers is about 2.5%, but prevalence is close to 30% in countries in eastern and southern Africa. Data from some countries show that gay men and other men who have sex with men face an increasing risk of new infections. For example, in Asia and the Pacific, HIV prevalence among young gay men and other men who have sex with men more than doubled in Indonesia and almost tripled in Malaysia and Viet Nam in repeated surveys conducted between 2011 and 2022 (25). Yet service coverage remains low. Condom use among gay men and other men who have sex with men, and among transgender people, varies widely and remains below 50% in many countries. The coverage of PrEP among people from key populations remains typically under 5%, including among sex workers and gay men and other men who have sex with men (UNAIDS/ WHO 2023) (also see **Chapter 3** for additional information on intensifying common prevention efforts for HIV, viral hepatitis and STIs, on triple elimination of mother-tochild transmission, and on continuing to strengthen harm reduction). Fig. 4.5 Distribution of new HIV infections among key populations and their partners, global, 2022

.....

#### 8%

Sex workers 8% People who inject drugs 45% Remaining population 18% Client of sex workers and sex partners of all key populations (non-clients)

*Source:* Korenromp E et al., 2024 (<u>24</u>).

#### **Reducing HIV-related mortality**

Mortality from HIV-related causes is unacceptably high and is declining at an insufficient rate to meet the relevant 2025 target (**Fig. 4.1**). Despite the widespread availability of antiretroviral therapy and other biomedical tools to prevent deaths from HIV-related causes, there were 630 000 such deaths in 2022. A key factor contributing to this outcome is late engagement in care. In 2022, the burden of AHD also partly reflects weaknesses in the ability of some health systems to retain individuals in care after starting antiretroviral therapy.

Achieving major reductions in HIV-related mortality requires closing gaps in the provision of HIV testing and timely initiation of HIV treatment by overcoming service access barriers, including through people-centred service delivery approaches, differentiated adherence and retention support interventions and a specific focus on the needs of key populations. Further, health services must strengthen links with affected communities and address causes of disengagement from care while implementing strategies to facilitate re-engagement. The clinical management of AHD must be improved, including through the provision of CD4 testing to diagnose AHD. People with AHD have significantly higher rates of life-threatening AIDS-related complications including TB, cryptococcal meningitis, histoplasmosis and severe bacterial infections. The WHO-recommended package of care for AHD includes screening, diagnosis, prophylaxis and enhanced adherence counselling for all individuals with AHD (also see Chapter 3 for additional information on promoting sustainability through advancing primary health care, universal health coverage and shared approaches for HIV, viral hepatitis and STIs).

### Expanding HIV treatment and meeting long-term care needs

Progress toward the 95–95–95 HIV cascade targets has continued (Table 4.1), and 76% of all people living with HIV were receiving antiretroviral therapy in 2022 (Fig. 4.1). Progress, however, is highly unequal by country, sex and population. Treatment coverage is high in parts of sub-Saharan Africa, reflecting an effective sustained country and global effort. Overall, however, less than 50% of people living with HIV were receiving antiretroviral therapy in 2022 in 26 low- and middle-income countries (Annex 1). Evidence from various settings raises concerns that key populations, men, children and other specific populations are achieving poorer outcomes along the HIV treatment cascade. Gaps in data collection and reporting in many countries make it difficult to hold policy-makers accountable for improving testing and treatment services for some of these populations.

More granular treatment coverage data must be generated while protecting confidentiality and data security, and data must be used more strategically to guide national and subnational decision-making about which populations should be prioritized and how to meet their HIV treatment needs, including through primary care services.

Health systems must expand the use of people-centred service delivery models, including differentiated service delivery for antiretroviral therapy and must effectively communicate the HIV prevention benefits of viral load suppression including the messages promoted under the campaign umbrella of "Undetectable = Untransmittable". New technological and service delivery innovations must be identified to reach populations that continue to face treatment access barriers. Affected communities must be engaged in implementing community-based models of care, with community service delivery providers adequately compensated for this work. This will also help extend the primary health care approach to key and vulnerable populations.

Wherever the 95–95–95 targets are achieved, subsequent efforts are required to maintain the gains and retain people in care. Disengagement from care can rapidly lead to viral resurgence, greater HIV transmission, the development of AHD and increased mortality. Furthermore, the long-term health needs of people living with HIV, including those who have achieved viral suppression, need to be addressed in an integrated manner linking HIV and other dimensions of health. There are now more than 8 million people aged 50 years and older who are living with HIV (27). This group experiences higher levels of multimorbidity than their counterparts without HIV, including higher incidence of multiple noncommunicable diseases (28). Health systems must support healthy ageing with HIV through peoplecentred models of care, including primary care-based multidisciplinary approaches that address both physical and psychosocial well-being (also see Chapter 3 for additional information on promoting sustainability through advancing primary health care, universal health coverage and shared approaches and providing equitable access to health commodities, for HIV, viral hepatitis and STIs).

# Planning for political, programmatic and financial sustainability

Since the early 2000s, the solidarity and support provided by global partners has been a key driver of progress against HIV in lower and middle-income countries. With major reductions in HIV incidence and mortality, countries now face the complex challenge of evolving their responses to domestically funded arrangements to sustain these gains. WHO has joined the United Nations Programme on HIV/AIDS (UNAIDS), the United States President's Emergency Plan for AIDS Relief (PEPFAR) and the Global Fund to work with countries to strengthen planning for more sustainable national HIV responses. This work supports countries to determine priorities for sustainability in the domains of political leadership, quality access to services, system capacities, enabling policies, and domestic and international financing (also see Chapter 3 for additional information on promoting sustainability through advancing primary health care, universal health coverage and shared approaches for HIV, viral hepatitis and STIs).

#### **Urgent priorities**

The following measures should be prioritized by countries and partners to drive progress towards 2025 and 2030 HIV targets (also see cross-cutting priorities identified in **Section 3** of this report).

- Develop strengthened national strategic health sector plans to secure sustainability for HIV responses and ensure the continuity of HIV services during any transition arrangements.
- Ensure access to the most suitable interventions, commodities and integrated delivery platforms to key populations and other populations that most urgently need these interventions, using people-centred and community-based approaches to facilitate service uptake and strengthen primary care; and expand differentiated service delivery and people-centred care to maximize impact.
- Ensure widespread uptake of the WHO-recommended AHD package of care to reduce HIV-related mortality.
- Develop targeted approaches to improving outcomes along the life-course, such as for people aged 50 years and older and for children living with HIV, including through widely implementing better tolerated paediatric antiretroviral formulations to reduce mortality among children.
- Promote integrated approaches to addressing HIV alongside other communicable diseases (such as viral hepatitis, STIs and TB) and noncommunicable diseases and other health issues through mechanisms that will contribute to strengthening health systems and improving overall population health and quality of life.
- Accelerate efforts to develop long-acting antiretrovirals, a functional cure and an HIV vaccine to support public health elimination.
**Chapter 5** Viral hepatitis: progress and gaps



# Viral hepatitis: progress and gaps

#### Introduction

Viral hepatitis is one of the leading infectious causes of death worldwide (<u>10</u>), despite the existence of interventions that make it feasible to eliminate hepatitis B virus and hepatitis C virus by 2030.

Effective hepatitis B vaccines have been available for more than four decades, and there are effective treatments to manage chronic hepatitis B. Most cases of chronic hepatitis C can be cured with highly tolerable treatment regimens. More product options for diagnosis and treatment are available, and their prices continue to fall.

Yet access to prevention, testing and treatment remains low, resulting in increasing mortality and large numbers of new infections. In 2024, WHO published global data on viral hepatitis B and C, based on information collected from 187 countries. Hepatitis B and C together caused 1.3 million deaths in 2022, which is comparable to the number of deaths caused by TB. The only single infectious disease with higher mortality in 2022 was COVID-19. An estimated 304 million people were living with hepatitis B and C in 2022, and the majority of those with chronic infection remain undiagnosed and insufficiently linked to care (2).

The global response to viral hepatitis is not on track to achieve global targets for 2025 and 2030 (**Table 5.1** and **Box 5.1**). Regaining the trajectory will require strengthening political will and mobilizing greater investment in viral hepatitis B and C elimination efforts. Results from several country investment case studies suggest that there is an estimated return on investment of US\$ 2–3 for every dollar invested in the viral hepatitis response to reverse the increasing mortality and prevent large costs of cancer treatment and care and rising mortality (2).

### Box 5.1 Hepatitis B virus and hepatitis C virus: key facts

- Viral hepatitis is one of the few communicable diseases for which mortality is increasing. About 1.3 million people died of viral hepatitis-related causes in 2022, which is comparable to the number of TB-related deaths in that year.
- Of the 1.3 million deaths caused by viral hepatitis in 2022, 83% were caused by hepatitis B and 17% by hepatitis C.
- There were 1.2 million new hepatitis B infections and almost 1 million new hepatitis C infections in 2022.
- An estimated 254 million people were living with hepatitis B in 2022 and 50 million people with hepatitis C.
- At the end of 2022, only 13% of people living with chronic hepatitis B and 36% of people living with chronic hepatitis C had been diagnosed; most await treatment. Forty-five percent of infants received a timely dose of hepatitis B birth dose vaccine in 2022.
- The sharing of equipment among people who inject drugs accounts for the largest number of new hepatitis C infections in the world, while unsafe medical and non-medical injections also remain major risks and require attention.

 $\begin{array}{c} \begin{pmatrix} 1 \\ 1 \end{pmatrix} \begin{pmatrix} 2 \\ 2 \end{pmatrix} \begin{pmatrix} 3 \\ 3 \end{pmatrix} \begin{pmatrix} 4 \\ 4 \end{pmatrix} \qquad 5 \qquad \begin{pmatrix} 6 \\ 6 \end{pmatrix} \begin{pmatrix} 7 \\ 7 \end{pmatrix} \begin{pmatrix}$ 

------

Indicator	2020 baseline	2022 progress	2025 target	2030 target
Impact				
Number of new hepatitis B infections per year	1.5 million (1.11 million– 2.09 million)	1.23 million (0.81 million– 1.53 million)	0.85 million (0.62 million– 1.19 million)	170 000 (120 000–240 000)
	20 per 100 000 population	16 per 100 000 population	11 per 100 000 population	2 per 100 000 population
Number of new hepatitis C infections per year	1.575 million (0.76 million– 1.9 million)	1.0 millionª (0.76 million– 1.34 million)	1.0 million (0.49 million– 1.26 million)	350 000 (170 000-420 000)
	20 per 100 000 population	13 per 100 000 population	13 per 100 000 population	5 per 100 000 population
Percentage of people who inject drugs with new hepatitis C infections per year	8%	9%	3%	2%
Number of people dying from hepatitis B per year	0.82 million (0.56 million– 1.23 million)	1.10 million (0.88 million– 1.74 million)	530 000 (360 000-800 000)	310 000 (210 000-470 000)
	10 per 100 000 population	14 per 100 000 population	7 per 100 000 population	4 per 100 000 population
Number of people dying from hepatitis C per year	290 000 (200 000-350 000)	240 000 (197 000–288 000)	240 000 (110 000–210 000)	140 000 (60 000–120 000)
	5 per 100 000 population	3 per 100 000 population	3 per 100 000 population	2 per 100 000 population
Coverage				
Hepatitis B: percentage of people living with chronic hepatitis B diagnosed	10% against a target of 30%	13.4%	60%	90%
Percentage of people living with chronic hepatitis B treated	2% against target of 10%	2.6%	50%	80%
Hepatitis C: percentage of people living with hepatitis C diagnosed <sup>a</sup>	21% against a target of 30%	36.4%	60%	90%
Percentage of people living with hepatitis C treated <sup>a</sup>	13% against a target of 30%	20%	50%	80%

#### Table 5.1. Progress towards global viral hepatitis targets

 $\begin{array}{c}
 1 \\
 1 \\
 2 \\
 1 \\
 2 \\
 1 \\
 2 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1 \\
 1$ 

5 (6) (7)

#### Table 5.1 (continued). Progress towards global viral hepatitis targets

Indicator2020 baseline2022 progress2025 target2030 targetPercentage of newborns who have benefited from a timely birth dose of hepatitis vaccine and from other interventions to prevent the vertical (mother-to-child) transmission of hepatitis B virus43% against a target of 50%45%70%90%Hepatitis B vaccine coverage among children (third dose)85% against a target of 90%84%90%90%Number of needles and syringes distributed per person who injects drugs33 against a target of 20035200300Blood safety: proportion of baselty: proportion of hepatities97% against a target of 20097% against a target of 200100%100%					
who have benefited from a timely birth dose of hepatitis vaccine and from other interventions to prevent the vertical (mother-to-child) transmission of hepatitis B virusa target of 50%set is is in the set is in the set is in the set is in the set is in the set is in the set is in the set is is in the set is is in the set is in t	Indicator	2020 baseline	2022 progress	2025 target	2030 target
among children (third dose)a target of 90%Number of needles and syringes distributed per person who injects drugs33 against a target of 20035200300Blood safety: proportion other here in the second	who have benefited from a timely birth dose of hepatitis vaccine and from other interventions to prevent the vertical (mother-to-child) transmission of hepatitis B	-	45%	70%	90%
syringes distributed per person who injects drugsa target of 200Image: Comparison of the second s		-	84%	90%	90%
	syringes distributed per	•	35	200	300
of blood units screened for a target of 95% bloodborne diseases	of blood units screened for	•	97%	100%	100%
Safe injections: proportion of safe health-care injections96% against a target of 95%96%100%100%		•	96%	100%	100%

Source: Annex 2 of the Global health sector strategies 2022–2030 (3).

<sup>a</sup> HCV incidence is based on significantly new data from key countries. These data will also affect and reduce the baseline and mean that the decline is less significant than shown. The trendline will need to be recalculated as part of the 2026 review of the global health sector strategies 2022-2030 (3).

#### Critical issues

The following issues are central to achieving 2025 and 2030 viral hepatitis targets.

.....

#### Scaling up testing and treatment to reduce mortality

Too few people with viral hepatitis are being diagnosed and treated, due to a lack of awareness and political commitment, centralized service provision and inadequate transition to a public health approach, insufficient financial investments and COVID-19 related treatment disruptions, especially at the start of the strategy implementation period in many low- and middleincome countries.

At the end of 2022, only 13% of people living with chronic hepatitis B infection had been diagnosed, and 3% were receiving treatment (**Table 5.2**). Similarly, testing and treatment coverage for people living with chronic hepatitis C infection were 36% and 20% respectively. Although countries have developed national plans and adopted WHO guidelines, testing uptake and diagnostics availability at decentralized levels are limited. Further, access to treatment is low even among those who are diagnosed.

Clear case-finding strategies with simplified algorithms and decentralized testing, better linkages to care and more equitable access to affordable treatments (including through generic medicines) are necessary to reach more people and reduce mortality. A special focus is necessary in the African Region, where 63% of new global hepatitis B infections occur and hepatitis B diagnosis and treatment coverage remain below 5%, and in the South-East Asia Region (also see **Chapter 3** for additional information on sustainability through advancing primary health care, universal health coverage and shared approaches, and on providing equitable access to essential health commodities).

#### Accelerating reductions in disease incidence

Recent estimates indicate a decrease in new infections between 2020 and 2022 based on strong prevention, particularly in hepatitis B vaccination, but the trend needs to be accelerated in the coming years (**Fig. 5.1** and **5.2**). The reductions in estimated incidence are based on improved data from prevalence surveys and suggest that prevention efforts, including hepatitis B vaccination and safe injections and the expansion of hepatitis C treatment and cure, are starting to demonstrate impact. Prevention needs to be strengthened to sustain and accelerate these achievements, including prevention of vertical (motherto-child) transmission of hepatitis B; and addressing health risks related to injecting drug use, unsafe injections and other unsafe medical and non-medical invasive practices in the community.

Key viral hepatitis prevention services need to be integrated into existing health systems and services, including blood transfusion services, immunization programmes, HIV and STI services and harm reduction services for people who use drugs (also see **Chapter 3** for additional information on intensifying common prevention efforts for HIV, viral hepatitis and STIs, on triple elimination of mother-to-child transmission, and on continuing to strengthen harm reduction).

#### Table 5.2. Coverage of hepatitis B testing and treatment by WHO region, 2022

WHO region	Total number of hepatitis B infections (all ages) in 2022	Number of people with hepatitis B infection diagnosed, end 2022	Number of people receiving hepatitis B treatment, end 2022	Diagnosis coverage, end 2022 (%)	Treatment coverage among all people with hepatitis B, end 2022 (%)	Treatment coverage among all people diagnosed, end 2022 (%)
African Region	64 700 000	2 700 000	150 000	4.2%	0.2%	5.5%
Region of the Americas	5 000 000	1 100 000	2 230 000	21.2%	4.4%	20.9%
South-East Asia Region	61 400 000	1 800 000	60 000	2.8%	0.1%	3.5%
European Region	10 600 000	1 700 000	200 000	15.7%	1.9%	12.2%
Eastern Mediterranean Region	15 200 000	2 300 000	300 000	14.7%	2.0%	13.6%
Western Pacific Region	96 800 000	24 700 000	5 720 000	25.5%	5.9%	23.2%
Global	254 000 000	34 100 000	6 650 000	13.4%	2.6%	19.5%

Source: Global Hepatitis Reporting System, WHO.

#### Fig. 5.1 Trends in incidence and mortality of hepatitis B, 2015–2030



\_\_\_\_\_

Fig. 5.2 Trends in incidence and mortality of hepatitis C, 2015–2030



*Note*: HCV incidence is based on significantly new data from key countries. These data will also affect and reduce the baseline and mean that the decline is less significant than shown. The trendline will need to be recalculated as part of the 2026 review of the global health sector strategies 2022-2030 (3). The graph shows the considerable uncertainty around the trend.

Source: Global hepatitis report, WHO, 2024 (2).

 $\begin{pmatrix} 1 \\ 2 \\ 3 \end{pmatrix} \begin{pmatrix} 3 \\ 4 \\ 4 \end{pmatrix}$ 

(<u>6</u>)

.....

### Overcoming barriers to hepatitis B birth dose vaccination

WHO recommends that all children receive a monovalent dose of hepatitis B vaccine within the first 24 hours after birth followed by an additional 2–3 doses in infancy (51). This vaccination schedule enables reduction in maternal-to-newborn (vertical) transmission of hepatitis B virus and in horizontal transmission that could occur in early childhood. Despite a rise in hepatitis B birth dose vaccine coverage since 2010, the current global coverage of 45% falls significantly short of the 2025 target of 70% coverage (**Table 5.1** and **Fig. 5.3**).

Expanding the coverage of the hepatitis B birth dose vaccination will require addressing policy barriers; leveraging synergies with other initiatives, such as for the "triple elimination" of mother-to-child transmission of HIV, syphilis and hepatitis B; and adopting service delivery models to facilitate access to newborn infants within the first 24 hours of life through better integration with maternal and child health and postnatal care. This is especially urgent in the African Region, where 63% of new hepatitis B infections occurred in 2022 but the coverage of the birth dose remains 18% (2).

In 2018, Gavi, as part of the Vaccine Investment Strategy, planned to support the introduction of the hepatitis B birth dose in eligible countries. The programme was put on hold because of the COVID-19 pandemic. Gavi intends to open this funding window in early 2024. This funding has the potential to improve access in countries that have not yet introduced the birth dose (also see **Chapter 3** for additional information on triple elimination of mother-tochild transmission).





Source: Immunization data portal [online database] (36), (accessed 2 May 2024).

### Increasing access to affordable commodities and reducing out-of-pocket expenses

Although the prices of viral hepatitis medicines are decreasing, many countries continue to pay above global benchmarks, even for off-patent medicines or those included in voluntary licensing agreements. For example, TDF for hepatitis B is off-patent and available at a global benchmark price of US\$ 2.40 per month. A 12-week course of SOF/DAC for hepatitis C is available at a global benchmark price of US\$ 60. Yet in 2023, less than one third of reporting countries paid prices at or below these benchmarks, because of various patent- and marketrelated barriers (2). Further, although WHO-recommended medicines are included in national treatment guidelines, their availability at primary health care level is limited; access to paediatric medicines lags even further behind. Several suppliers also offer global access pricing for viral hepatitis in vitro diagnostic products; however, prices vary widely across countries depending on procurement modalities. In addition, many affected populations need to pay out of pocket for viral hepatitis testing and treatment, which exacerbates inequities and poses a financial barrier to access. Countries need to increase access to quality-assured health products by optimizing product registration, leveraging available tools to address intellectual property barriers and improving market transparency. Local manufacturing can also play an important role in achieving a sustainable supply of affordable quality-assured health products. For example, TDF is manufactured locally in at least one country in each of the 6 WHO regions; and SOF and/or DAC is manufactured locally in at least one country in five WHO regions (with the exception of the African Region) (also see **Chapter 3** for additional information on providing equitable access to essential health commodities for HIV, viral hepatitis and STIs).

### Strengthening surveillance for viral hepatitis and sequelae

As countries invest in their health surveillance systems, it is important that viral hepatitis be included and, where possible, data be used and collected from the public and private sectors under the governance of ministries of health. Person-centred data are essential for programme planning and a targeted and timely response. This includes routine programme data to manage and monitor viral hepatitis testing and treatment. The 2024 WHO consolidated guidelines on person-centred viral hepatitis strategic information provide improved guidance on priority indicators for viral hepatitis and step by step country actions to strengthen surveillance and monitoring (29) (also see **Chapter 3** for additional information on promoting integrated data systems for HIV, viral hepatitis and ST/s).

#### Urgent priorities

Some countries, for example Egypt, are leading the way for a public health approach to eliminating viral hepatitis (**Box 5.2**). Such achievements could be within the reach of other countries if accompanied by political commitment, financial investments, increased service access through primary health care, community mobilization and better data use for decision-making.

# Box 5.2 Egypt's success on the path to viral hepatitis elimination

In 2023, Egypt became the first country to achieve "gold tier status" on the path to eliminating hepatitis C in accordance with WHO criteria (30). Egypt has implemented one of the world's largest nationwide public health screening and treatment programmes for hepatitis C, supported by strong national political commitment and domestic allocation of resources.

In 2023, WHO published updated guidance for countries and other stakeholders seeking to validate the elimination of viral hepatitis as a public health problem (31). The WHO guidance provides a threetier system (gold, silver and bronze) that recognizes a clear progression on the path to achieving the impact targets of elimination. The global community has also committed to the "triple elimination" of vertical (mother-to-child) transmission, of HIV, syphilis and HBV as a public health priority (also see **Chapter 3** for further information on triple elimination).

The *Global hepatitis report 2024 (2)* identified 10 priority actions to get back on track towards global goals to eliminate viral hepatitis by 2030. These actions should be prioritized by countries and partners to drive progress toward the 2025 and 2030 viral hepatitis targets (also see cross-cutting priorities identified in **Chapter 3** of this report). They are:

- expanding access to high-quality, affordable testing and diagnostics services;
- shifting from policies to implementation for equitable access to treatment and care;
- strengthening investment in primary prevention to bridge the coverage gap in pregnancy, especially in the African Region;
- simplifying and decentralizing the delivery of viral hepatitis services through a public health approach;
- optimizing product registration, procurement and supply, improving market transparency and supporting local production;
- developing investment cases in priority countries to rapidly shift to a public health approach;
- mobilizing innovative financing from all sources;
- using improved country data and strengthening country data systems and accountability;
- engaging affected populations and civil society in the viral hepatitis response for advocacy and service delivery; and
- advancing the research agenda for viral hepatitis to improve diagnostics and work towards a hepatitis B cure.

# **Chapter 6** Sexually transmitted infections: progress and gaps



# 6. Sexually transmitted infections: progress and gaps

#### Introduction

Each day more than 1 million adults aged 15–49 years are estimated to acquire one of four curable STIs: *Treponemal pallidum* (syphilis), *Neisseria gonorrhoeae* (gonorrhoea), *Chlamydia trachomatis* (chlamydia) and *Trichomonas vaginalis* (trichomoniasis) (32). Other important infections that can be transmitted sexually include HIV, HPV, herpes simplex virus (HSV), hepatitis B and C viruses, human T-lymphotropic virus type 1 (HTLV-1) and mpox virus.

The global health sector strategies 2022–2030 provide a set of ambitious targets to support the goal of ending STIs as public health concerns by 2030 (**Table 6.1** and **Box 6.1**). Achieving these targets will require overcoming political, structural, technological, operational and sociocultural barriers to delivering human-rights based people-centred services and countering the stigma and discrimination associated with STIs.

### Box 6.1 Global epidemics of STIs: key facts

- In 2020, there were an estimated 374 million new cases of the four curable STIs – syphilis, gonorrhoea, chlamydia and trichomoniasis – in adults aged 15–49 years (<u>32</u>).
- The number of new cases of syphilis in adults aged 15–49 years increased from 7.1 million in 2020 to 8.0 million in 2022 (<u>39</u>).
- In 2022, there were an estimated 662 000 new cases of cervical cancer and 349 000 cervical cancer deaths globally (IARC, 2024).<sup>a</sup>
- Almost one in three men worldwide are infected with at least one genital HPV type and around one in five men are infected with one or more HR-HPV types.
- An estimated 520 million people aged 15–49 years were living with genital herpes simplex virus type 2 (HSV-2) infection in 2020, and slightly more than one third of these people had symptoms of genital herpes at least once in that year.

<sup>a</sup> HPV is further addressed in the World Health Organization's Global strategy to accelerate the elimination of cervical cancer as a public health problem (<u>37</u>).

.....

#### Table 6.1 Progress towards global STIs targets

Indicator	2020	2022	2025	2030
	baseline	progress	target	target
New cases of syphilis, gonorrhoea, chlamydia and trichomoniasis	374	No data	<300	<150
among people aged 15–49 years per year	million		million	million
New cases of syphilis among people aged 15–49 years per year	7.1	8.0	5.7	0.71
	million	million	million	million
New cases of gonorrhoea among people aged 15–49 years per year	82.3 million	No data	65.8 million	8.23 million
Congenital syphilis cases per 100 000 live births per year	425ª	523	<200	<50
Girls fully vaccinated with human papillomavirus vaccine by 15 years of age (%)	14%	17%	50%	90%
Pregnant women attending antenatal care who were screened for syphilis (%) /treated if positive (%)	66% /	62%/	>85% /	>95% /
	78%ª	80%	>90%	>95%
Priority populations <sup>b</sup> screened for syphilis (%) / treated if positive (%)	No data/	No data/	>80% /	>90% /
	No data	No data	>90%	>95%
Priority populations <sup>b</sup> screened for gonorrhoea (%) / treated if positive	No data/	No data/	>20% /	>90% /
(%)	No data	No data	>90%	>95%
Women screened for cervical cancer using a high-performance test, by age 35 and again by age 45 (%) /screened and identified as having pre-	No data/	No data/	>40% /	>70% /
cancer treated or invasive cancer managed (%)	No data	No data	>40%	>90%
Percentage of countries <sup>c</sup> reporting antimicrobial resistance in <i>Neisseria</i> <i>gonorrhoeae</i> to the WHO Gonococcal Antimicrobial Surveillance Programme	36% <sup>d</sup>	38% <sup>d</sup>	>60%	>70%
Percentage of countries <sup>c</sup> with national STI plans updated within the past five years	44% <sup>e</sup>	81% <sup>e</sup>	>70%	>90%
Percentage of countries <sup>c</sup> with national STI case management guidelines updated within the past three years	62% <sup>f</sup>	67% <sup>f</sup>	>70%	>90%
Percentage of countries <sup>c</sup> with strong STI surveillance systems	No data	No data	>50%	>90%

Source: Indicators and targets in this table are taken from Annex 2 of the Global health sector strategies 2022-2030 (3).

<sup>a</sup> The revised estimate for congenital syphilis per 100 000 live births in 2020 generated as part of the 2022 estimation process was 527, and the percentage of pregnant women attending antenatal care who were screened for syphilis and the percentage treated if positive were 57% and 81% respectively.

<sup>b</sup> Priority populations are defined by a country and depend on country context.

<sup>c</sup> Countries are defined as Member States of the World Health Organization. The reporting is on percentage of countries as set in the target.

<sup>d</sup> The 2020 baseline was based on the number of countries reporting data to the WHO Gonococcal Antimicrobial Surveillance Programme (WHO-GASP) in 2017 or 2018. The 2022 estimate is based on the number of countries reporting data to WHO-GASP in 2021.

<sup>e</sup> The 2020 baseline figure is based on a survey conducted by WHO in 2019–2020 and is based on the number of countries that reported having a national plan updated in the last five years (72 of 112 countries reported having a national plan and 49 reported that it had been updated in 2015 or later) (52). The 2022 figure is based on the number of countries that reported having a plan and that it was updated within the last five years, through the Global AIDS Monitoring system (GAM) in their report for 2023 (85 out of 104 countries). This figure may be an overestimate as many high-income countries that do not traditionally report data to GAM do not have national plans.

<sup>1</sup> The 2020 baseline figure is based on a survey conducted by WHO in 2019–2020 and is based on the number of countries that reported having updated their treatment guidelines in the last five years (96 of 112 countries reported having treatment guidelines and 67 that they had been updated in 2015 or later) (53). The 2022 figure is based on the number of countries that reported data on when they last updated their treatment guidelines in their GAM 2023 report (94 of 99 countries reported having treatment guidelines and 63 in the last five years). For consistency with the 2020 estimates, the last five years have been used.

#### Critical issues

The following issues are central to achieving the 2025 and 2030 STIs targets.

### Raising the alarm about the increasing incidence of STIs

In 2020, there were cumulatively 374 million new cases of the four curable STIs: syphilis, gonorrhoea, chlamydia, and trichomoniasis in adults aged 15–49 years (<u>32</u>). A reduction of 20% must be achieved in the incidence of the four infections to achieve the 2025 impact targets. A reduction of 60% is required to achieve the 2030 targets (**Table 6.1**).

The available data suggest that the world is off track to meet targets, with increasing rather than declining trends in new infections. In high-income countries with strong surveillance systems, case notification rates for STIs such as gonorrhoea have been increasing (**Fig. 6.1**). Trends in the overall rates of syphilis by WHO region are shown in **Fig. 6.2**. The global increase is driven by an increase in the number of estimated new cases of syphilis in the WHO African Region and the WHO Region of the Americas. These two regions have the most antenatal care data and regularly report these data as part of the Global AIDS Monitoring process. While the overall trend for other regions is less clear, the regional data and estimates that exist, combined with data from individual countries and trends in congenital syphilis, suggests unprecedented high levels of new infections, requiring an urgent acceleration of efforts to strengthen syphilis prevention and access to testing and treatment. Between 2016 and 2022, the global congenital syphilis case rate increased: it was 523 per 100 000 live births in 2022, more than 2.5 times the 2025 target of 200 per 100 000 live births as shown in **Fig. 6.3** (39).

Almost one in three men worldwide are infected with at least one genital HPV type and around one in five men are infected with one or more HR-HPV types (38). And an estimated 520 million people aged 15–49 years were living with genital HSV-2 infection in 2020, and slightly more than one third of these people had symptoms of genital herpes at least once in that year (40).

Getting on track to achieve all global impact targets will require countries to expand access to people-centred STI prevention, testing and treatment services and to ensure that these services are accessible to populations at higher risk of infection (also see **Section 3** for additional information on intensifying common prevention efforts for HIV, viral hepatitis and STIs).

# Fig. 6.1 Gonorrhoea case notification rates per 100 000 population in selected high-income countries, 2010–2022

.....



*Note:* For illustrative purposes, only high-income countries with more than 10 million inhabitants are included in this figure. Several other high-income countries with smaller populations also reported increases in gonorrhoea case notification rates between 2010 and 2022.

Sources: Australia: King J, McManus, H., Kwon, J., Gray, R., & McGregor, S. HIV, viral hepatitis and sexually transmissible infections in Australia: annual surveillance report 2023. Sydney: Kirby Institute, University New South Wales; 2023 (54). Europe: Surveillance atlas of infectious diseases [online database]. Solna: European Centre for Disease Prevention and Control; 2024 (Surveillance Atlas of Infectious Diseases (europa.eu)). Canada: Large data extract: notifiable diseases on-line [online database]. Ottawa: Public Health Agency of Canada; 2024 (Large Data Extract - Notifiable diseases on-line (canada.ca)). United Kingdom: Data for England only. Table 1: new STI diagnosis numbers and rates in England by gender, 2013 to 2022. London: UK Health Security Agency; 2022. United States: Sexually transmitted infections: reported cases and rates of reported cases, United States, 1941–2022. Atlanta: Centers for Disease Control and Prevention; 2022.

.....

. . . . . . . . .



#### Fig. 6.2 Estimates of the total number of new cases of syphilis among people aged 15-49 years by WHO region, 2016-2022

#### Fig. 6.3 Estimates of congenital syphilis case rates per 100 000 live births, global and by WHO region, 2016-2022



Source: Global HIV, Hepatitis and STIs Programmes (HHS), WHO, 2024.

••••

....

### Expanding access to quality prevention, testing, case management and partner services

While the number of girls fully vaccinated against HPV by age 15 years increased from 14% in 2020 to 17% in 2022, this was well below the 2025 target of 50% (*36*). There has been some progress in increasing testing and treatment coverage for syphilis among pregnant women, reflecting investments in antenatal care and in the deployment of dual HIV/syphilis tests; however, 2025 targets are not likely to be reached without major course corrections. Global data on the coverage of other services are not available, and national and global data collection systems need to be strengthened and expanded to more effectively monitor progress.

Ensuring access to high-quality human rights-based and gender-sensitive services for STIs is essential. A greater focus is needed on implementing effective and efficient interventions, such as condom programming, comprehensive sexuality education and strengthened awareness around sexual health matters, targeted vaccination for HPV, hepatitis B virus and mpox, timely management of signs and symptoms of STIs, partner services, and population-focused and geographically focused screening and treatment, particularly for syphilis, gonorrhoea and chlamydia. Access can be expanded by more effectively integrating STI services into HIV prevention and treatment services, including services for HIV key populations, particularly men who have sex with men, sex workers and transgender people, as well as primary health care, sexual and reproductive health, family planning and adolescent health services. The scale-up of dual HIV/syphilis testing, and self-testing for syphilis, also provide opportunities for expanding testing. Innovative service delivery models that promote peoplecentred approaches - such as peer and outreach services, mobile clinics and digital and telehealth services - provide additional opportunities for scaling up and increasing access to prevention, testing and case management (also see Section 3 for additional information on sustainability through advancing primary health care, universal health coverage and shared approaches for HIV, viral hepatitis and STIs, and on triple elimination of mother-to-child transmission).

### Ensuring equitable access to new interventions to prevent, diagnose and treat STIs

WHO has been working with partners to facilitate the development of new tools for STIs. Several new products for preventing, diagnosing and treating STIs have recently completed or are in the final stages of clinical trials. These include outer membrane vesiclebased meningococcal B vaccines against gonorrhoea; low-cost point-of-care diagnostics for timely treatment of chlamydia, gonorrhoea and trichomoniasis; new treatments for multidrug resistant gonorrhoea and syphilis; and new self-testing products. Additionally, WHO is currently reviewing evidence on the effects of using doxycycline as post-exposure prophylaxis for STIs. As new prevention, diagnostic and treatment products advance from development to implementation, WHO is preparing for implementation and will support stakeholders and countries for timely registration and purchase of quality products, as well as developing and disseminating the appropriate normative and technical guidance accompanied by capacity building for health workers. Effectively scaling up the use of new products will require implementation research on the feasibility and acceptability of providing these products in different settings and populations.

Ensuring that low- and middle-income countries are not left behind in accessing new products is crucial, and support is needed for the development of in-country manufacturing capacity. Although funding for the development of STI products and technologies applicable to low- and middle-income countries has increased substantially in the last five years (33), it is still very low and not necessarily aligned with the greatest public health needs (**Fig. 6.4**) (also see **Section 3** for additional information on providing equitable access to essential health commodities for HIV, viral hepatitis and STIs). .....



# Fig. 6.4 Annual investment in STI research needs of people in low- and middle-income countries, 2018–2022

Note: The definition of sexual & reproductive health aims to capture R&D that is relevant to the sexual and reproductive health needs of people in low- and middle-income countries according to the following overarching criteria: the area is a significant health issue affecting people in low- and middle-income countries; and there is a need for new products (i.e. there is no existing product, or improved or additional products are needed to meet the needs of people in low- and middle-income countries). Not all basic research and product types are included and some are included only with restrictions.

Source: G-FINDER project [online database] (33), (accessed 2 May 2024).

### Strengthening surveillance for STIs and antimicrobial resistance

As countries invest in their health surveillance systems, it is important that STIs be included and that data be collected, where possible, from the private sector under the governance of ministries of health. Case-based surveillance is essential for programme planning and targeted and timely response.

Antimicrobial resistance is a global public health concern. National surveillance of gonococcal antimicrobial resistance has expanded, with 74 countries reporting data in 2021 to the WHO Gonococcal Antimicrobial Surveillance Programme on the proportion of gonococcal isolates with decreased susceptibility or resistance to different drugs (**Fig. 6.5**).

WHO has enhanced gonorrhoea antimicrobial resistance surveillance in 14 sentinel countries across all six WHO regions, along with an additional 73 countries capable of tracking the emergence and spread of resistance to the last-line treatment for gonorrhoea. Nine countries reported decreased susceptibility to ceftriaxone, the last-line treatment for gonorrhoea, at levels of 5% and above (<u>41</u>).

The monitoring of patterns of resistance in gonorrhoea – through regular collection and analysis of data on the susceptibility of gonorrhoea to various antibiotics over time, identifying shifts in resistance patterns and sequencing the genomes of gonorrhoea – supports the change in global and national guidelines.

This can mitigate further antimicrobial resistance development and spread. It will also inform the strategic positioning of new gonorrhoea treatment and pointof-care tests for STI antibiotic stewardship. (*also see* **Section 3** for additional information on promoting integrated data systems for HIV, viral hepatitis and STIs).





Note: Data for 2019 and 2020 were combined owing to the impact of COVID-19 on laboratory testing services.

Source: Global Health Observatory [online database] (5), (accessed 2 May 2024).

#### **Urgent priorities**

The following measures should be prioritized by countries and partners to drive progress toward the 2025 and 2030 STIs targets (also see cross-cutting priorities identified in **Section 3** of this report).

- Generating global visibility for the public health challenges posed by STIs and fostering greater political will to strengthen the response at the global and national levels by promoting the financial and social benefits of investing in solutions.
- Strengthening collaboration with affected communities, including in overcoming stigma and discrimination and the taboo of discussing STIs and promoting sexual health and well-being.
- Scaling up the provision of quality prevention, testing and treatment services by the public and private sectors.
- Expanding community-led service delivery approaches and empowering people to address their needs in the most suitable ways, by providing a broader range of options for STI care settings, prevention, diagnostic and treatment tools, and service delivery models.

- Expanding the integration of STI services into HIV prevention and treatment, primary health care, sexual and reproductive health, family planning and adolescent health services, including as part of triple elimination efforts, network-based testing and partner services.
- Strengthening clinical case management and ensuring the provision of comprehensive, holistic, quality care to optimize individual treatment outcomes.
- Strengthening data collection systems to more effectively inform and guide programming and to monitor national, regional and global progress towards STI targets.
- Rapidly translating technological innovations into onthe-ground improvements in the prevention, diagnosis and case management of STIs.

43

**(**4**)** 

(<u>5</u>)

# **Chapter 7** WHO's accountability in supporting strategy implementation



# 7. WHO's accountability in supporting strategy implementation

This section presents WHO actions in support of countries and partners for the implementation of the global health strategies 2022–2030. WHO's technical and country support work on HIV, viral hepatitis and STIs is guided by the Thirteenth Programme of Work (2019–2023) and the forthcoming Fourteenth Programme of Work (2025–2028). WHO aligns its actions with strategic priorities at global and country levels to Promote, Provide and Protect the health of people worldwide and achieve measurable impact for all, especially the underserved. One of the core functions of WHO is to develop and disseminate norms and standards and support countries to adapt and implement them within their national contexts. For example, WHO recommends that people who are established on antiretroviral therapy should be offered antiretroviral medicine refills lasting three to six months, preferably six months where feasible, and has supported countries to apply this guidance in HIV programmes (*34*). As of July 2023, 73% (106 of 146) of reporting countries had introduced policies based on WHO guidance (**Fig. 7.1**). A three-monthly interval was most frequent (57%, 83 of 146), followed by a six-monthly interval (14%, 21 of 146) which should be increased.

Fig. 7.1 Uptake of national policies on frequency of antiretroviral therapy pick-up for people who are established on antiretroviral therapy, July 2023



Sources: Global AIDS Monitoring (UNAIDS/WHO/UNICEF) and Global HIV, Hepatitis and STIS Programmes (HHS), WHO, 2023.

Similarly, WHO recommends that dual HIV/syphilis rapid diagnostic tests can be considered as the first test in HIV testing strategies and algorithms in antenatal care settings (35). As of July 2023, 76 countries had adopted dual HIV/syphilis rapid diagnostic tests in national policies. More than half of the countries (62%, 47 of 76) had adopted them for use among pregnant women and key populations (**Fig. 7.2**).

The global health sector strategies 2022–2030 identify six areas of WHO action to support strategy implementation:

strategic leadership and partnerships; advocacy and communication; norms and standards; innovation; technical support; and global monitoring and reporting. Table 7.1 summarizes the highlights of WHO's results in 2022–2023 in each of these action areas. Table 7.2 presents additional information on region-specific actions by WHO Regional Offices. By reporting on these results, WHO aims to improve the transparency and accountability of its actions as well as its organizational performance towards global health goals.

# Fig. 7.2 Uptake of national policies on dual HIV and syphilis rapid diagnostic tests, July 2023



Sources: Global AIDS Monitoring (UNAIDS/WHO/UNICEF) and Global HIV, Hepatitis and STIS Programmes (HHS), WHO, 2023.

#### Table 7.1. Highlights of WHO actions, by WHO action area, 2022–2023

#### A: STRATEGIC LEADERSHIP AND PARTNERSHIPS

#### a. Health funding:

#### Cross-cutting:

• Support to over 185 countries to collect data and use it for programme improvement and the development of future prioritization and funding scenarios to achieve maximum impact by 2030.

.....

- Inclusion of essential HIV, viral hepatitis and STI services in the WHO Universal Health Coverage Compendium and tools.
- Partnerships for local manufacturing of medicines and diagnostics, e.g. through Medicines Patent Pool, sub-licenses to produce long-acting injectable cabotegravir for HIV prevention (both 2023) and rapid diagnostic tests for viral hepatitis (2024).
- Publication(s):

Medicines for HIV, viral hepatitis, and sexually transmitted infections in low- and middle-income countries: forecasts of global demand for 2022–2026 (2022), and increasing support for access and local production, including completing 38 country profiles for all priority countries to support hepatitis access and action (<u>55</u>).

#### b. Partnerships for elimination:

#### Cross-cutting:

• Validation of the elimination of mother-to-child transmission of HIV and/or syphilis in 19 countries or areas by May 2024.

#### HIV:

• **Validation** of Botswana as the first high-burden country to be certified on the path to eliminating mother-to-child transmission of HIV, 2021.

#### Viral hepatitis:

• Validation of Egypt as the first country to achieve "gold tier" status on the path to elimination of hepatitis C, 2023.

STIs:

• **Validation** of Oman as the first country in the Eastern Mediterranean Region to eliminate mother-to-child transmission of HIV and syphilis, 2022.

#### **B: PUBLIC HEALTH ADVOCACY AND COMMUNICATION**

#### c. Country policy change and diplomacy:

#### Cross-cutting:

Increased outreach through **social media** platforms and global events, supported by transparent access to data, reports and dissemination of guidelines, reaching 63 million users per year, 2023.

#### HIV:

Partnerships with the Global Alliance to end AIDS in Children by 2030 launched with UNAIDS, UNICEF and other funding and community partners; and the Advanced HIV Disease Alliance.

Campaigns developed and delivered for World AIDS Day.

#### Viral hepatitis:

New visibility on viral hepatitis data with the launch of the first consolidated WHO report on viral hepatitis epidemiology, service coverage and product access at the World Health Summit 2024, with data from 187 countries compared to 42 in 2018 (2).

Campaigns developed and delivered for World Hepatitis Day.

#### STIs:

High-level engagement in the STI Partners Forum 2023 and other events to raise awareness of STIs and advocate for action.

#### d. Advocacy for common approaches across HIV, viral hepatitis and STIs:

#### Cross-cutting:

- Strategic vision for common approaches through regular meetings of the WHO Strategic and Technical Advisory Group on HIV, viral hepatitis and STIs.
- Hosting regular webinars and events on common approaches, for diverse audiences.
- Publication(s):

Introducing a framework for implementing triple elimination of mother-to-child transmission of HIV, syphilis and hepatitis B virus: policy brief, 2024 (56)

.....

#### Table 7.1 (continued). Highlights of WHO actions, by WHO action area, 2022–2023

#### **C: NORMS AND STANDARDS**

#### e. Updated guidelines:

#### Cross-cutting:

Publication(s):

- Guidance on prevention, diagnosis, treatment and care for key populations, 2022 (13)
- Guidance on convergent actions for primary health care and HIV, 2023 (12)
- Guidance on mpox, 2022 and 2023 (57)
- Global action plan for HIV, hepatitis and STI drug resistance, in development
- Guidelines on person-centred strategic information, for HIV, HIV/STIs and Hepatitis (29)

#### HIV:

Publication(s):

- Guidance for HIV testing, 2023
- Providing care to people with advanced HIV disease who are seriously ill, 2023 (58)
- Policy brief on differentiated antiretroviral therapy service delivery, 2023 (67)
- Integration of mental health and HIV interventions: key considerations, 2022 (59)

#### Viral hepatitis:

Publication(s):

- Guidelines for the prevention, diagnosis, care and treatment for people with chronic hepatitis B infection, 2024 (60)
- Guidance for country validation of viral hepatitis elimination and path to elimination, 2023 (31)

#### STIs:

Publication(s):

- Laboratory and point-of-care test diagnostics testing for STIs including HIV, 2023 (61)
- The diagnostics landscape for sexually transmitted infections, 2023 (62)
- Point-of-care tests for sexually transmitted infection: target product profiles, 2023 (63)
- Updated treatment guidelines for Neisseria gonorrhoeae, Chlamydia trachomatis and Treponema pallidum, in development
- Treatment guidelines for Trichomonas vaginalis, Mycoplasma genitalium, Candida albicans, bacterial vaginois, human papillomavirus (anorectal warts), in development
- Guidelines on syphilis self-testing, dual treponemal and non-treponamal test and partner services, in development
- Implementation tool for pre-exposure prophylaxis of HIV infection Integrating STI services, 2022 (64)
- Consolidated guidelines on STI prevention and care, in development

#### <u>f. Support for policy change and implementation of guidelines (percentage of countries with the policy, among all</u> *Cross-cutting:*

• National plans for eliminating vertical transmission of both HIV and syphilis (74%)

#### HIV:

• Treat all (95%); rapid antiretroviral therapy initiation (81%); dolutegravir as part of preferred first-line antiretroviral therapy (91%); pre-exposure prophylaxis (91%); HIV self-testing (62%); routine viral load (74%)

#### **Viral hepatitis:**

• Hepatitis B testing among women in pregnancy (78%); hepatitis C screening and management in HIV clinics (65%); provision of DAAs for hepatitis C in HIV antiretroviral therapy clinics (66%)

#### STIs:

• National strategy or action plan on STIs (81%); national STI treatment guidelines updated in 2020 or later (43%); use of dual HIV and syphilis rapid diagnostic tests (62%); HPV vaccine in national immunization schedule (68%).

#### Table 7.1 (continued). Highlights of WHO actions, by WHO action area, 2022–2023

#### **D: INNOVATION**

#### g. Support for innovations in cure and vaccines:

#### h. Support for innovations in diagnostics:

#### Cross-cutting:

• Ongoing WHO support for the pipeline of products and commodities that facilitate service integration – for example dual HIV/syphilis tests that can be used as the first test for pregnant women as part of antenatal care.

#### HIV:

• Ongoing WHO support for the pipeline of products, including HIV vaccines; new options for antiretroviral therapybased prevention and treatment, such as broadly neutralizing antibodies; and optimized use of antiretroviral drugs, including long-acting formulations.

#### Viral hepatitis:

• Ongoing WHO support for the pipeline of products, including improved in vitro diagnostic medical devices and testing approaches; optimal doses and formulations of antiviral agents, including long-acting DAAs and buprenorphine; hepatitis C vaccine research; and hepatitis B cure research.

#### STIs:

• Ongoing WHO support for the pipeline of products including new prevention models and products, new vaccines, diagnostics and treatments for STIs.

#### E: TECHNICAL SUPPORT

#### i. Country planning:

#### Cross-cutting:

Publication(s):

• Guidance on national strategic plans and national programme reviews, 2023 (65,66)

#### j. <u>Three level technical support:</u>

The WHO HIV, Hepatitis and STI programmes provided 334 support actions to countries from February 2022 to January 2024 in support of the global health sector strategies 2022–2030.

#### Cross-cutting:

• 106 (or almost one third) of all technical support activities were conducted for cross-cutting programme areas across HIV/STIs, HIV/TB, HIV/viral hepatitis and HIV/viral hepatitis/STIs; e.g. for joint strategic planning, triple elimination, integrated service delivery and data systems

#### HIV:

• 188 technical support activities conducted for HIV programme areas, e.g. strategic planning, review of national guidelines, planning for differentiated service delivery, people-centred data systems, drug resistance surveillance and key population size estimations

#### Viral hepatitis:

• 16 technical support activities conducted for viral hepatitis programme areas, e.g. strategic planning, review of national guidelines, planning for hepatitis C self-testing, micro-elimination efforts and strengthening strategic information and country disease burden estimates

#### STIs:

• 24 technical support activities conducted for STI programme areas, e.g. strategic planning, review of national guidelines, integration of STI services with HIV and primary health care, introduction of dual HIV/syphilis rapid tests, antimicrobial resistance surveillance and strengthening STI data.

The nature of support included provision of funds (11%) and deployment of long-term and short-term consultants (5%); the support balanced both virtual (72%) and in-country support (including on-site, staff and national policy and leadership actions) to implement the strategies.

.....

#### Table 7.1 (continued). Highlights of WHO actions, by WHO action area, 2022–2023

#### F: GLOBAL MONITORING AND REPORTING

#### k. Global reporting:

#### Cross-cutting:

- Online accountability dashboard to report on progress towards the general health sector strategies 2022–2030 indicators, providing country intelligence on gaps and priorities
- Planning initiated for the mid-term review of the general health sector strategies 2022–2030, to be published in 2026, with new data on hepatitis, syphilis and HIV.

#### HIV:

• Annual reporting on HIV in collaboration with UNAIDS – including through updates to various UN bodies and the contributions of WHO as part of the UNAIDS Unified Budget Reporting and Accountability Framework

Integration of data on STIs, viral hepatitis, TB and cervical cancer in HIV surveillance and in the person-centred strategic information guidelines

• Publication(s):

Guidance on person-centred HIV strategic information, 2022; and updated digital tools for use by countries

#### Viral hepatitis:

- Improved estimates of viral hepatitis epidemiology and service coverage, with data from 187 countries for the first time, 2024
- Establishment of the Global Viral Hepatitis Data Collaborative, 2023
- Publication(s):
- Guidance on person-centred viral hepatitis strategic information, 2024 (29)

#### STIs:

- Strengthening surveillance systems for STIs, including for antimicrobial resistance; for example, 74 countries reported data on the WHO Gonococcal Antimicrobial Surveillance Programme in 2021
- Enhanced gonorrhoeae antimicrobial resistance surveillance programme in 14 sentinel countries
- Protocol of enhanced gonorrhoea surveillance: extragenital sampling, treatment failure and whole genome sequencing

#### l: Gap analysis and planning:

#### Cross-cutting:

• Guidance and tools to strengthen analysis of routine health facility data from national health information systems; and data quality assessments

51

------

WHO region	Highlights of WHO actions
African Region	<ul> <li>Regional Framework for an Integrated Multisectoral Response to TB, HIV, STIs and Hepatitis, 2021–2030.</li> <li>Regional Hubs in West and Central Africa and in Eastern and Southern Africa to implement the work of the Global Alliance to end AIDS in Children by 2030, in collaboration with UNAIDS, UNICEF, Global Fund and PEPFAR.</li> <li>Regional Framework for an Integrated Laboratory System for TB, HIV, STIs and viral hepatitis, to build country capacity for laboratory services.</li> <li>Designation of Botswana National HIV Reference Lab as a WHO Collaborating Centre for HIV drug resistance, 2023</li> <li>Ongoing technical support for country strategic planning and update of national guidelines.</li> </ul>
Region of the Americas	<ul> <li>Elimination initiative: accelerating the elimination of communicable diseases in the Americas, 2022–2030</li> <li>Strategy for building resilient health systems and post-COVID-19 pandemic recovery to sustain and protect public health gains, 2021</li> <li>Validation of the elimination of mother-to-child transmission of HIV, hepatitis B and syphilis</li> <li>HIV programme reviews conducted in nine countries between 2021 and 2023, providing the basis for updating national strategic plans and funding proposals.</li> <li>Ongoing technical support to countries to estimate needs and costs for pre-exposure prophylaxis, HIV testing and antiretroviral procurement, and support for health product procurement through the Strategic Fund and Revolving Fund.</li> </ul>
South-East Asia Region	<ul> <li>Integrated regional action plan for viral hepatitis, HIV and sexually transmitted infections in South-East Asia, 2022–2026</li> <li>National programme managers' meeting on strengthening implementation of integrated service delivery to end AIDS, Viral Hepatitis and STIs in the South-East Asia Region</li> <li>Regional Validation Committee on Elimination of Mother to Child Transmission of HIV, Syphilis and Hepatitis B in South-East Asia convened</li> </ul>
European Region	<ul> <li>Regional Action Plan for ending AIDS and the epidemics of viral hepatitis and sexually transmitted infections 2022-2030.</li> <li>Designation of Robert Koch Institute, Germany, as the WHO Collaborating Centre for Viral Hepatitis and HIV and the National Centre for Disease Control and Public Health, Georgia, as the WHO Collaborating Centre on Hepatitis C Elimination.</li> <li>Technical support to countries to strengthen analytical capacity and improve the quality of integrated bio-behavioural sentinel surveillance and key population data cascades.</li> <li>Support to the regional response to the humanitarian crisis resulting from the war in Ukraine, including to maintain continuity of essential services for people living with HIV.</li> </ul>
Eastern Mediterranean Region	<ul> <li>Regional Action Plan for the implementation of the the general health sector strategies 2022-2030.</li> <li>Support for disease elimination efforts, including for the validation of Egypt's "gold tier" status on the path to elimination of hepatitis C, and assessments for the elimination of mother-to-child transmission in collaboration with UNICEF.</li> <li>Strategic focus on the scale-up of testing and technical support for service innovation and optimization.</li> <li>Ongoing technical support for the development of integrated HIV, viral hepatitis and STI programmes and plans.</li> </ul>
Western Pacific Region	<ul> <li>Regional Framework for Reaching the Unreached in the Western Pacific, 2022–2030.</li> <li>Regional Framework on the Future of Primary Health Care, 2022</li> <li>Regional Framework for Triple Elimination of Mother-to-Child Transmission of HIV, Hepatitis B and Syphilis in Asia and the Pacific, 2018–2030 and establishment of a Regional validation committee.</li> <li>Landscape review on STIs in the Western Pacific Region, 2024.</li> <li>Ongoing technical support to countries to develop national strategic plans and conduct programme reviews.</li> </ul>

# **Chapter 8** Looking forward



# 8. Looking forward

This report has identified urgent priorities for maintaining gains and taking measures to close gaps in the global responses to HIV, viral hepatitis and STIs. It is essential to act quickly to address the main gaps in the response to reach the 2025 targets of the global health sector strategies 2022–2030, and to lay the groundwork for meeting 2030 goals. Reaching these targets is key to ending AIDS and the epidemics of viral hepatitis and STIs and enabling health systems to sustain these achievements.

HIV, viral hepatitis and STIs continue to represent a major disease burden. Collectively, these infections result in 2.5 million deaths and 1.2 million cases of cancer per year. Further, one million new infections occur each day, the majority of which are STIs.<sup>1</sup> Effective interventions exist for addressing these communicable diseases, including prevention interventions, vaccines, treatments and cure; however, access to these interventions remains inequitable. Ensuring access to these interventions for all, specially the most vulnerable, offers a major opportunity to contribute significantly to the goals of the 2030 Agenda for Sustainable Development. There is an important window of opportunity for action by 2026, when WHO will publish a comprehensive midterm review of progress under the global health sector strategies 2022–2030. The mid-term review will provide new data to assess whether 2025 targets were met and identify areas in which course corrections are needed. The mid-term review will also inform any necessary realignments in the strategies, including in relation to WHO's Fourteenth General Programme of Work, the post-2026 multisectoral Global AIDS Strategy and next-phase strategies of key partners, including the Global Fund to Fight AIDS, Tuberculosis and Malaria.

# References

- HIV statistics, globally and by WHO region, 2023. Geneva: World Health Organization; 2023 (<u>https://iris.who.int/bitstream/handle/10665/376793/WHO-UCN-HHS-SIA-2023.01-eng.pdf</u>, accessed 2 May 2024).
- Global hepatitis report 2024: action for access in low- and middle-income countries. Geneva: World Health Organization; 2024 (<u>https://iris.who.int/</u> <u>bitstream/handle/10665/376461/9789240091672-eng.</u> <u>pdf?sequence=1</u>, accessed 2 May 2024).
- Global health sector strategies on, respectively, HIV, viral hepatitis and sexually transmitted infections for the period 2022–2030. Geneva: World Health Organization; 2022 (<u>https://iris.who.int/</u><u>handle/10665/338901</u>, accessed 2 May 2024).
- Seventy-seventh World Health Assembly, Provisional agenda item 26, 2 January 2024: Report by the Director-General. Geneva: World Health Organization; 2024 (A7/33 2).
- Global Health Observatory [online database]. Geneva: World Health Organization; (<u>https://www.who.int/</u><u>data/gho</u> and <u>https://www.who.int/data/gho/data/</u><u>themes/topics/service-coverage</u>, accesed 2 May 2024).
- Seventy-fifth World Health Assembly, 22 28 May 2022: resolution WHA75/20. Geneva: World Health Organization; 2022 (<u>https://apps.who.int/gb/ebwha/ pdf\_files/WHA75-REC1/A75\_REC1\_Interactive\_ en.pdf#page=1</u>, accessed 2 May 2024).
- Thirteenth General Programme of Work. Promote health, keep the world safe, serve the vulnerable. Geneva: World Health Organization; 2019 (<u>https://iris.</u> who.int/bitstream/handle/10665/324775/WHO-PRP-18.1-eng.pdf?sequence=1, accessed 2 May 2024).
- Global HIV, hepatitis and STI programmes: data and statistics. Geneva: World Health Organization; 2024 (https://www.who.int/teams/global-hiv-hepatitisand-stis-programmes/overview, accessed 2 May 2024).
- Tracking universal health coverage: 2023 Global monitoring report. Geneva: World Health Organization; 2023 (<u>https://iris.who.int/bitstream/handle/10665/374059/9789240080379-eng.pdf?sequence=1</u>, accessed 2 May 2024).

- Global tuberculosis report 2023. Geneva: World Health Organization; 2023 (<u>https://iris.who.int/</u><u>bitstream/handle/10665/373828/9789240083851-eng.</u><u>pdf?sequence=1</u>, accessed 2 May 2024).
- Operational framework for primary health care: transforming vision into action. Geneva: World Health Organization and United Nations Children's Fund; 2020 (<u>https://iris.who.int/bitstream/</u> <u>handle/10665/337641/9789240017832-eng.</u> <u>pdf?sequence=1</u>, accessed 2 May 2024).
- Primary health care and HIV: convergent actions: policy considerations for decision-makers. Geneva: World Health Organization; 2023 (<u>https://iris.who.int/</u><u>bitstream/handle/10665/371494/9789240077065-eng.</u><u>pdf?sequence=1</u>, accessed 2 May 2024).
- Consolidated guidelines on HIV, viral hepatitis and STI prevention, diagnosis, treatment and care for key populations. Geneva: World Health Organization; 2022 (<u>https://iris.who.int/bitstream/ handle/10665/360601/9789240052390-eng.</u> <u>pdf?sequence=1</u>, accessed 2 May 2024).
- 14. HIV prevention: from crisis to opportunity: key findings from the 2023 Global HIV Prevention Coalition scorecards. Geneva: Joint United Nations Programme on HIV/AIDS; 2024 (<u>https://www.unaids.org/sites/default/files/media\_asset/2023-global-hiv-prevention-coalition-scorecards-key-findings\_en.pdf</u>, accessed 2 May 2024).
- Human papillomavirus vaccines: WHO position paper, December 2022. Weekly Epidemiological Record. 2022;No 50(97):645–72 (<u>https://iris.who.int/</u><u>bitstream/handle/10665/365350/WER9750-eng-fre.</u><u>pdf?sequence=1</u>, accessed 2 May 2024).
- Global guidance on criteria and processes for validation: elimination of mother-to-child transmission of HIV, syphilis and hepatitis B virus. Geneva: World Health Organization; 2022 (https://iris.who.int/bitstream/han dle/10665/349550/9789240039360-eng. pdf?sequence=1, accessed 2 May 2024).
- Guidelines on prevention, diagnosis, care and treatment for people with chronic hepatitis B infection. Geneva: World Health Organization; 2024 (https://iris.who.int/bitstream/han dle/10665/376353/9789240090903-eng. pdf?sequence=1, accessed 2 May 2024).

- Colledge-Frisby S, Ottaviano S, Webb P, Grebely J, Wheeler A, Cunningham EB et al. Global coverage of interventions to prevent and manage drug-related harms among people who inject drugs: a systematic review. The Lancet Global Health. 2023;11(5):e673-e83 (https://doi.org/10.1016/s2214-109x(23)00058-x).
- Recommended package of interventions for HIV, viral hepatitis and STI prevention, diagnosis, treatment and care for people who inject drugs. Geneva: World Health Organization; 2023 (<u>https://iris.who.int/</u> <u>bitstream/handle/10665/366820/9789240071858-eng.</u> <u>pdf?sequence=1</u>, accessed 2 May 2024).
- 20. Preventing and responding to drug overdose through prevention, treatment, care, and recovery measures as well as other public health interventions to address the harms associated with illicit drug use as part of a balanced, comprehensive, scientific evidencebased approach. Vienna: United Nations Commission on Narcotic Drugs; 2024 (<u>https://www.unodc.org/ documents/commissions/CND/CND\_Sessions/ CND\_67/Documents/ECN72024L5Rev2\_unedited\_ revised.pdf</u>, accessed 2 May 2024).
- 21. Digital adaptation kit for HIV: operational requirements for implementing WHO recommendations and standards within digital systems. Geneva: World Health Organization; 2022 (https://iris.who.int/ bitstream/handle/10665/360991/9789240054424-eng. pdf?sequence=1, accessed 2 May 2024).
- 22. Recent HIV RDT market landscape report aims for healthier, more sustainable markets [news release]. Geneva: World Health Organization; 2023 (<u>https:// www.who.int/news/item/13-07-2023-hiv-rdt-marketreport-aims-for-healthier-more-sustainable-markets</u>, accessed 2 May 2024).
- Osler M, Hilderbrand K, Goemaere E, Ford N, Smith M, Meintjes G et al. The continuing burden of advanced HIV disease over 10 years of increasing antiretroviral therapy coverage in South Africa. Clinical infectious diseases : an official publication of the Infectious Diseases Society of America. 2018;66(suppl\_2):S118-S25 (<u>https://doi.org/10.1093/ cid/cix1140</u>).
- Korenromp EL, Sabin K, Stover J, Brown T, Johnson LF, Martin-Hughes R et al. New HIV infections among key populations and their partners in 2010 and 2022, by world region:aA multisources estimation. Journal of acquired immune deficiency syndromes (1999). 2024;95(1S):e34-e45 (https://doi.org/10.1097/ QAI.00000000003340).
- 25. The path that ends AIDS: UNAIDS global AIDS update 2023. Geneva: Joint United Nations Programme on HIV/AIDS; 2023 (<u>https://www.unaids.org/sites/default/</u><u>files/media\_asset/2023-unaids-global-aids-update\_</u><u>en.pdf</u>, accessed 2 May 2024).

- 26. WHO recommends optimizing HIV testing services [news release]. Geneva: World Health Organization; 2023 (<u>https://www.who.int/news/item/22-07-2023-who-recommends-optimizing-hiv-testing-services</u>, accessed 2 May 2024).
- 27. The Lancet Healthy L. Ageing with HIV. The Lancet Healthy Longevity. 2022;3(3):e119 (<u>https://doi.org/10.1016/s2666-7568(22)00041-1</u>).
- Kiplagat J, Tran DN, Barber T, Njuguna B, Vedanthan R, Triant VA et al. How health systems can adapt to a population ageing with HIV and comorbid disease. The Lancet HIV. 2022;9(4):e281-e92 (<u>https://doi.org/10.1016/s2352-3018(22)00009-1</u>).
- 29. Consolidated guidelines on person-centred viral hepatitis strategic information: data to support the country scale-up of hepatitis prevention, diagnosis and treatment services. 2<sup>nd</sup> ed. Geneva: World Health Organization; 2024 (<u>https://iris.who.int/</u> <u>bitstream/handle/10665/376410/9789240091313-eng.</u> <u>pdf?sequence=1</u>, accessed 2 May 2024).
- World Health Organization. WHO commends Egypt for its progress on the path to eliminate hepatitis C [news release]. Geneva: World Health Organization; 2023 (https://www.who.int/news/ item/09-10-2023-whocommends-egypt-for-its- progress-on-the-path-toeliminate-hepatitis-c, accessed 2 May 2024).
- 31. Guidance for country validation of viral hepatitis elimination and path to elimination. Geneva: World Health Organization; 2023 (<u>https://iris.who.int/</u> <u>bitstream/handle/10665/373186/9789240078635-eng.</u> <u>pdf?sequence=1</u>, accessed 2 May 2024).
- 32. Global progress report on HIV, viral hepatitis and sexually transmitted infections. Geneva: World Health Organization; 2021 (<u>https://iris.who.int/</u><u>bitstream/handle/10665/341412/9789240027077-eng.</u><u>pdf?sequence=1</u>, accessed 2 May 2024).
- G-FINDER project [online database]. (<u>https://gfinderdata.policycuresresearch.org</u>/, accessed 2 May 2024).
- 34. Consolidated guidelines on HIV prevention, testing, treatment, service delivery and monitoring: recommendations for a public health approach. Geneva: World Health Organization; 2021 (<u>https://iris.who.int/bitstream/handle/10665/342899/9789240031593-eng.pdf?sequence=1</u>, accessed 2 May 2024).
- 35. Dual HIV/syphilis rapid diagnostic tests can be used as the first test in antenatal care: policy brief. Geneva: World Health Organization; 2019 (<u>https://iris.who.</u> <u>int/bitstream/handle/10665/329965/WHO-CDS-HIV-</u> <u>19.38-eng.pdf?sequence=1</u>, accessed 2 May 2024).
- Immunization dashboard [online database]. Geneva: World Health Organization; (<u>https://</u> <u>immunizationdata.who.int/</u>, accessed 2 May 2024).

- Global strategy to accelerate the elimination of cervical cancer as a public health problem. Geneva: World Health Organization; 2020 (<u>https://iris.who.int/</u><u>bitstream/handle/10665/336583/9789240014107-eng.</u><u>pdf?sequence=1</u>, accessed 2 May 2024).
- Bruni L, Albero G, Rowley J, Alemany L, Arbyn M, Giuliano AR, Markowitz LE, Broutet N, Taylor M. Global and regional estimates of genital human papillomavirus prevalence among men: a systematic review and meta-analysis. Lancet Glob Health. 2023 Sep;11(9):e1345-e1362. doi: 10.1016/S2214-109X(23)00305-4. <u>https://www.thelancet.com/</u> journals/langlo/article/PIIS2214-109X(23)00305-4/ <u>fulltext</u> PMID: 37591583; PMCID: PMC10447222.
- WHO syphilis estimates. Global HIV, Hepatitis and STIs Programmes (HHS), WHO, 2024. (<u>https:// www.who.int/teams/global-hiv-hepatitis-and-stisprogrammes/stis/strategic-information</u> accessed on 15 May 2024).
- 40. Estimated global and regional incidence and prevalence of herpes simplex virus infections and genital ulcer disease in 2020. Harfouche M, AlMukdad S, Alareeki A, Osman AMM, Gottlieb SL, Rowley J et al (submitted).
- 41. Global Health Observatory: WHO Gonococcal AMR Surveillance Programme (WHO-GASP) 2021. (<u>https://www.who.int/data/gho/data/themes/topics/topic-details/GHO/who-gonococcal-amr-surveillance-programme-(who-gasp)</u>, accessed 2 May 2024)
- Regional Committee for Africa, 71. Framework for an integrated multisectoral response to TB, HIV, STIs and hepatitis in the WHO African Region 2021–2030: report of the Secretariat. Brazzaville, Republic of Congo: World Health Organization Regional Office for Africa; 2021 (https://iris.who.int/handle/10665/345321, accessed 15 May 2024).
- Elimination Initiative 30+. Accelerating the elimination of communicable diseases in the Americas. Washington DC: Pan American Health Organization/World Health Organization Regional Office for the Americas; 2023 (https://iris.paho.org/ handle/10665.2/58143, accessed 15 May 2024).
- Integrated regional action plan for viral hepatitis, HIV and sexually transmitted infections in South-East Asia, 2022–2026. New Delhi, India: World Health Organization Regional Office for South-East Asia; 2022 (<u>https://iris.who.int/handle/10665/361834</u>, accessed 15 May 2024).
- 45. Regional action plans for ending AIDS and the epidemics of viral hepatitis and sexually transmitted infections 2022–2030. Copenhagen: World Health Organization Regional Office for Europe; 2023 (https://www.who.int/europe/publications/i/ item/9789289058957, accessed 15 May 2024).

- 46. The regional action plan for the implementation of the global health sector strategies on HIV, hepatitis and sexually transmitted infections 2022–2030. Cairo: World Health Organization Regional Office for the Eastern Mediterranean; 2022 (<u>https://iris.who.int/</u><u>handle/10665/365853</u>, accessed 15 May 2024).
- Regional framework for reaching the unreached in the Western Pacific (2022–2030). Manila: World Health Organization Regional Office for the Western Pacific; 2023 (<u>https://iris.who.int/handle/10665/372270</u>, accessed 15 May 2024).
- Regional framework for the triple elimination of mother-to-child transmission of HIV, hepatitis B and syphilis in Asia and the Pacific, 2018–2030. Manila: World Health Organization Regional Office for the Western Pacific; 2023 (<u>https://www.who.int/</u> <u>publications/i/item/9789290618553</u>, accessed 15 May 2024).
- People Living with HIV Stigma Index 2.0: Global Report 2023. Hear Us Out: Community Measuring HIV-Related Stigma and Discrimination. Amsterdam: Global Network of People Living with HIV (GNP+); 2023 (https://www.stigmaindex.org/wp-content/ uploads/2023/11/PLHIV-Stigma-Index-Global-Report-2023-2.pdf, accessed 2 May 2024).
- United Nations SDG Global Database [online database]. United Nations; 2023 (<u>https://unstats.</u> <u>un.org/sdgs/dataportal</u>, accessed 2 May 2024).
- Prevention of mother-to-child transmission of hepatitis B virus: Guidelines on antiviral prophylaxis in pregnancy. Geneva, World Health Organization; 2020 (<u>https://www.who.int/publications/i/item/978-92-4-000270-8</u>, accessed 15 May 2024).
- 52. Assessment of country implementation of the WHO global health sector strategy for sexually transmitted infections (2016 –2021): results of a national survey. Geneva: World Health Organization; 2022 (<u>https://iris.who.int/bitstream/ handle/10665/345086/9789240025585-eng.</u> <u>pdf?sequence=1</u>, accessed 2 May 2024).
- 53. Assessment of country implementation of the WHO global health sector strategy for sexually transmitted infections (2016 –2021): results of a national survey. Geneva: World Health Organization; 2022 (<u>https://iris.who.int/bitstream/ handle/10665/345086/9789240025585-eng.</u> <u>pdf?sequence=1</u>, accessed 2 May 2024).
- HIV, viral hepatitis and sexually transmissible infections in Australia: annual surveillance report 2023. Sydney: Kirby Institute, University New South Wales; 2023 (<u>https://doi.org/https://doi.org/10.26190/</u> <u>f5ph-f972</u>).

- 55. Medicines for HIV, viral hepatitis, and sexually transmitted infections in low- and middle-income countries: forecasts of global demand for 2022 – 2026. Geneva, World Health Organization; 2024 (<u>https://www.who.int/publications/i/item/9789240080195</u>, accessed 15 May 2024).
- 56. Introducing a framework for implementing triple elimination of mother-to-child transmission of HIV, syphilis and hepatitis B virus: policy brief. Geneva, World Health Organization; 2024 (<u>https://www.who. int/publications/i/item/9789240086784</u>, accessed 15 May 2024).
- 57. Mpox (monkeypox) outbreak. Guidance. Geneva: World Health Organization; 2023 (<u>https://www.who.int/emergencies/situations/monkeypox-oubreak-2022</u>, accessed 15 May 2024).
- 58. Providing care to people with advanced HIV disease who are seriously ill. Geneva, World Health Organization; 2023 (<u>https://www.who.int/publications/i/item/9789240068650</u>, accessed 15 May 2024).
- Integration of mental health and HIV interventions: key considerations. Geneva: UNAIDS and World Health Organization; 2022 (<u>https://www.who.int/ publications/i/item/9789240043176</u>, accessed 15 May 2024).
- Guidelines for the prevention, diagnosis, care and treatment for people with chronic hepatitis B infection. Geneva, World Health Organization; 2024 (<u>https://www.who.int/publications/i/</u> <u>item/9789240090903</u>, accessed 15 May 2024).
- Laboratory and point-of-care diagnostic testing for sexually transmitted infections, including HIV. Geneva, World Health Organization; 2023 (<u>https:// www.who.int/publications/i/item/9789240077089</u>, accessed 15 May 2024).
- The diagnostics landscape for sexually transmitted infections. Geneva, World Health Organization;
   2023 (<u>https://www.who.int/publications/i/</u> item/9789240077126, accessed 15 May 2024).

- 63. Point-of-care tests for sexually transmitted infections: target product profiles. Geneva, World Health Organization; 2023 (<u>https://www.who.int/ publications/i/item/9789240077102</u>, accessed 15 May 2024).
- Implementation tool for pre-exposure prophylaxis of HIV infection – Integrating STI services. Geneva, World Health Organization; 2022 (<u>https://www.who.</u> <u>int/publications/i/item/9789240057425</u>, accessed 15 May 2024).
- 65. Guidance for national strategic planning: health sector response to HIV, viral hepatitis and sexually transmitted infections. Geneva, World Health Organization; 2023 (<u>https://www.who.int/</u> <u>publications/i/item/9789240076389</u>, accessed 15 May 2024).
- 66. Guide to conducting programme reviews for HIV, viral hepatitis and sexually transmitted infections. Geneva, World Health Organization; 2023 (<u>https://www.who.</u> <u>int/publications/i/item/9789240079472</u>, accessed 15 May 2024).
- 67. Policy brief on integrating and strengthening monitoring of differentiated ART service delivery. Geneva: World Health Organization; 2023 (<u>https://www.who.int/publications/i/item/9789240067493</u>, accessed 16 May 2024).

Annex – Progress towards global HIV testing, treatment and viral suppression targets, low- and middle-income countries, 2022

	ACHIEVED	ON TRACK BY 2025	ON TRACK BY 2025	PROGRESS BUT NOT ON TRACK	PROGRESS BUT NOT ON TRACK	OFF TRACK
Status	Reached 95%- 90%-86%	Reached 90%- 81%-73%	Reached second 81%	ART coverage between 75% and 81%	ART coverage between 50% and 75%	ART coverage less than 50%
Number of low- and middle-income countries (n=103)	n	G	12	71	42	26
	Botswana (97–93–93) Eswatini (97–95–93) Rwanda (95–92–90) United Republic of Tanzania (95–94– 92) Zimbabwe (95–94–89)	Kenya (94–94–89) Lesotho (94–86– 85) Malawi (94–93–87) Namibia (95–91– 86) Thailand (90–81–79) Zambia (93–90– 87)	Benin (85–81–66) Burundi (87–85– 9) Cabo Verde (87–87–62) Cambodia (86–86–84) Cameroon (93–88–79) Comoros (–85–73) Democratic Republic of the Congo (83–82–) Ethiopia (84–83–81) Peru (86–82–61) Sao Tome and Principe (89–89–76) Togo (84–82–74) Uganda (90–84–79)	Belarus (79-79-73) Burkina Faso (86–81–69) Chad (80–77–) Ecuador (95–80–64) Guatemala (97–77–71) Haiti (81–77–64) Lebanon (86–80–76) Mozambique (86–81–71) Nepal (92–78–75) Senegal (85–80–) Sierra Leone (76–76–) South Africa (94–75–69)	Albania (88–57) Algeria (79–63) Armenia (62–53–37) Azerbaijan (81–61–58) Bhutan (59–57–53) Bolivia (Plurinational State of) (–52–43) Bulgaria (86–60–58) Côte d'Ivoire (82–72–62) Cuba (75–67–57) Dominican Republic (–63–52) El Salvador (88–66–62) El Salvador (88–66–62) El Salvador (88–66–62) Gabon (76–59–) Georgia (84–72–66) Ghana (72–63) Kyrgyzstan (75–67–62) India (79–68–63) Kyrgyzstan (78–54–49) Lao People's Democratic Republic (76–58–57)	Afghanistan (27–9–6) Angola (58–46) Bangladesh (56–38) Belize (81–44 – 32) Central African Republic (51–49) Egypt (74–47 – 39) Egypt (74–47 – 39) Equatorial Guinea (54– 42) Fiji (51–28–) Fiji (51–28–) Indonesia (–33–) Indonesia (–33–) Indonesia (–33–) Indonesia (–33–) Indonesia (–33–) Madagascar (–18–) Manaica (92–50–47) Jordan (65–50–47) Mauritania (49–45–) Mongolia (–13–) Philippines (63–41–) Republic of Moldova (67–49–43)

# Annex

South Sudan (...-32-...)

Liberia (74– 72 – ...)

Annex (continued) – Progress towards global HIV testing, treatment and viral suppression targets, low- and middle-income countries, 2022

OFF TRACK	Sudan (48–28) Suriname (5–44) Tunisia (26-24) Yemen (52–39)
PROGRESS BUT NOT ON TRACK	Libya ( 64) Malaysia (81–55–48) Maldives ( 67–) Mali (58–50–) Mexico ( 62–58) Montenegro (74–57–54) Morocco (79–74–69) Myanmar ( 74–) Niger (78–75–) Niger (78–75–) Papua New Guinea (70–61–) Paraguay ( 56–51) Serbia (85–63–) Sri Lanka (86–68–57) Syrian Arab Republic (78–51–) Tajikistan (72–63–55) Timor-Leste (80–69–) Venezuela (Bolivarian Republic of) (76–67–) Viet Nam (89–73–72)
PROGRESS BUT NOT ON TRACK	
ON TRACK BY 2025	
ON TRACK BY 2025	
ACHIEVED	

Source: UNAIDS/WHO estimates, 2023.

Notes:

The 95–95–95 targets are presented in two ways:

- 95 percent of people living with HIV know their status;

95 percent of people living with HIV who know their status are receiving treatment ; and

95 percent of people on treatment have suppressed viral loads.

Translate to the following testing, treatment and care cascades targets with a single denominator of people living with HIV which highlight the gaps:

- 95 percent of people living with HIV know their status (same as first 95);
- 90 percent of people living with HIV are receiving treatment; and
- 86 percent of people living with HIV have suppressed viral loads.

The testing, treatment and care cascade targets are displayed in this annex. The data are available for 103 out of 135 low- and middle-income countries, according to the World Bank Classification 2024. The data will be updated as new data become available in the online accountability framework (https://www.who.int/teams/global-hiv-hepatitis-and-stis-programmes/data-use).

#### Department of Global HIV, Hepatitis and Sexually Transmitted Infections Programmes

World Health Organization 20 Avenue Appia 1211 Geneva 27 Switzerland

who.int

