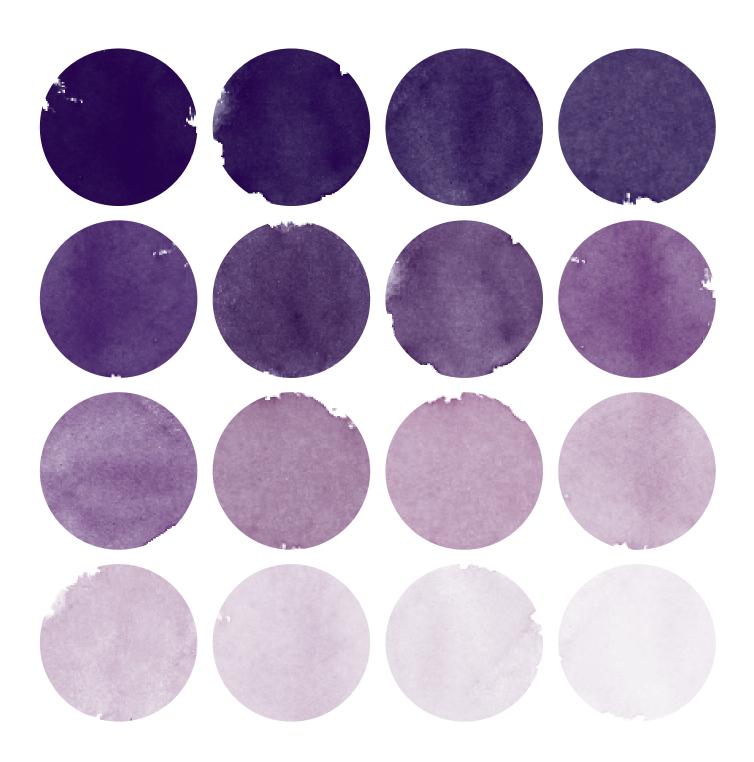
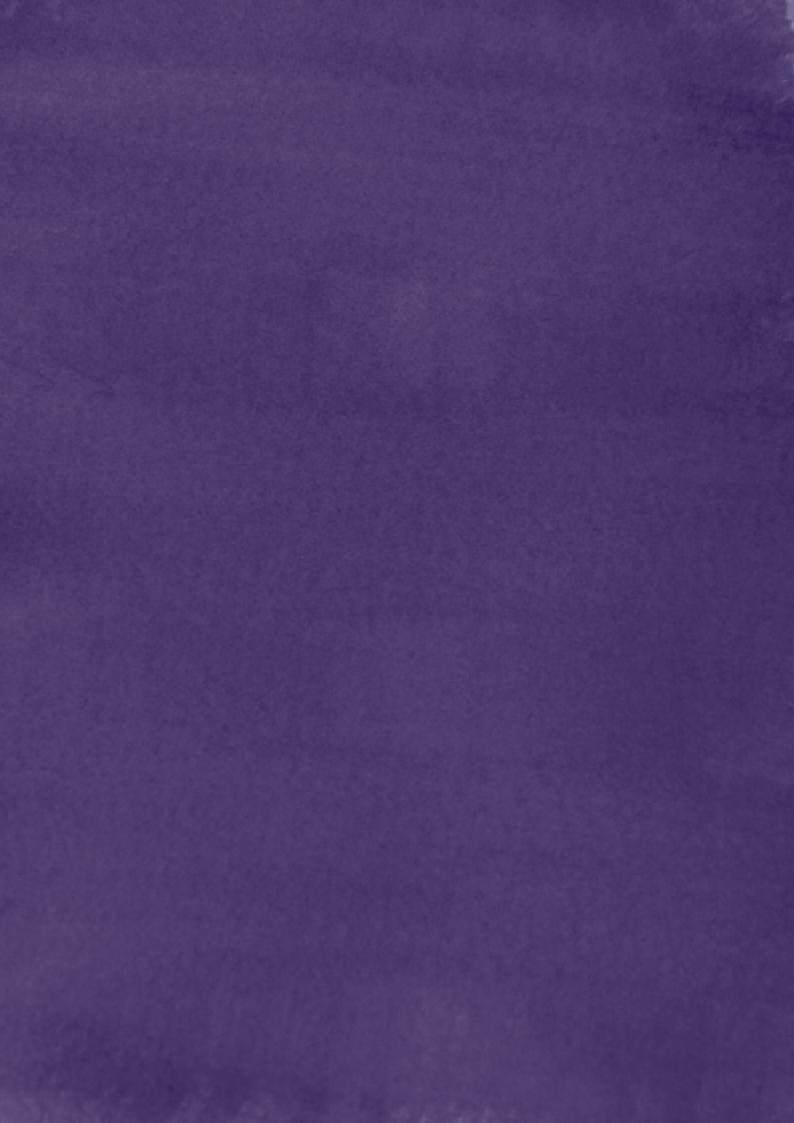


### **GLOBAL HEALTH SECTOR STRATEGY ON**

# HIV 2016-2021

### **TOWARDS ENDING AIDS**





### **GLOBAL HEALTH SECTOR STRATEGY ON**

# HIV 2016-2021

**TOWARDS ENDING AIDS** 



#### WHO/HIV/2016.05

© World Health Organization 2016

All rights reserved. Publications of the World Health Organization are available on the WHO website (www.who.int) or can be purchased from WHO Press, World Health Organization, 20 Avenue Appia, 1211 Geneva 27, Switzerland (tel.: +41 22 791 3264; fax: +41 22 791 4857; e-mail: bookorders@who.int).

Requests for permission to reproduce or translate WHO publications – whether for sale or for non-commercial distribution–should be addressed to WHO Press through the WHO website (www.who.int/about/licensing/copyright\_form/en/index. html).

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 the World Health Organization 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 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 the World Health Organization 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 the World Health Organization 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 the World Health Organization be liable for damages arising from its use.

The definitive versions of the global health sector strategies on HIV, viral hepatitis and sexually transmitted infections, for the period 2016–2021, can be found in the official records of the Sixty-ninth World Health Assembly (document WHA69/2016/REC/1).

Design and layout by 400.co.uk

Printed by the WHO Document Production Services, Geneva, Switzerland.

### **CONTENTS**

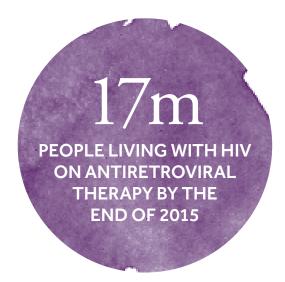
01	Why the world must step up the HIV response quickly	10
02	Framing the strategy	18
03	Vision, goal and targets	22
04	Strategic directions and priority actions	26
05	Strategy implementation: partnerships, accountability, monitoring and evaluation and costing	50

# INTRODUCTION AND CONTEXT

The international community has committed to ending the AIDS epidemic as a public health threat by 2030 – an ambitious target of the 2030 Agenda for Sustainable Development adopted by the United Nations General Assembly in September 2015.¹ Interim targets have been established for 2020. This strategy describes the health sector contribution towards the achievement of these targets. It outlines both what countries need to do and what WHO will do. If implemented, these fast-track actions by countries and by WHO will accelerate and intensify the HIV response in order for the "end of AIDS" to become a reality.

he strategy builds on the extraordinary public health achievements made in the global HIV response since WHO launched the Special Programme on AIDS in 1986.2 It continues the momentum generated by the Millennium Development Goals and the universal access commitments.3 Recently, the Global health sector strategy on HIV/ AIDS 2011–2015<sup>4</sup> has galvanized global and country action that has helped halt and reverse the AIDS epidemic. During that period, HIV treatment coverage was expanded rapidly with well over 17 million people living with HIV on antiretroviral therapy by the end of 2015; new HIV infections and deaths declined; dozens of countries moved towards the elimination of mother-to-child transmission of HIV; and HIV responses have been embedded in broader health and development programmes. However, there is no room for complacency. Much has changed since 2011, with new opportunities to exploit and many new challenges to overcome. Ending the AIDS epidemic will require rapid acceleration of the response over the next five years and then sustained action through to 2030 and beyond. This can only be achieved through renewed political commitment, additional resources, and technical and programmatic innovations.

The strategy positions the health sector response to HIV as being critical to the achievement of universal health coverage – one of the key health targets of the Sustainable Development Goals. The strategy promotes a people-centred approach, grounded in principles of human rights and health equity. It will contribute to a radical decline in new HIV infections and HIV-related deaths, while also improving the health and well-being of all people living with HIV. It will guide efforts to accelerate and focus HIV prevention, enable people to know their HIV status, provide antiretroviral therapy and comprehensive long-term care to all people living with HIV, and challenge pervasive HIV-related stigmatization and discrimination.



<sup>2</sup> In March 1987, WHO published the "Special Programme on AIDS: strategies and structure projected needs", which is available at: http://apps.who.int/iris/bitstream/10665/62299/1/WHO\_SPA\_GEN\_87.1.pdf (accessed 15 March 2016). In addition, the Global Programme on AIDS 1987–1995 published its "Final Report with Emphasis on 1994–1995 Biennium", available at: http://apps.who.int/iris/bitstream/10665/65955/1/WHO\_ASD\_97.1.pdf (accessed 15 March 2016).

<sup>3</sup> United Nations General Assembly resolution 65/277 — Political Declaration on HIV and AIDS: Intensifying Our Efforts to Eliminate HIV and AIDS http://www.unaids.org/sites/default/files/sub\_landing/files/20110610\_UN\_A-RES-65-277\_en.pdf (accessed 15 March 2016).

<sup>4</sup> The global health sector strategy on HIV/AIDS 2011–2015 is available at: http://apps.who.int/iris/bitstream/10665/44606/1/9789241501651\_eng.pdf (accessed 15 March 2016).

Broad partnerships and strong linkages with other health and development issues must be emphasized in the next phase of the response. This strategy is fully aligned with the post-2015 health and development agenda and targets. It provides the health sector contribution to a broader multisectoral response as outlined in the UNAIDS strategy for 2016–2021.5 It is also aligned with other relevant global health strategies and plans, including those for sexually transmitted infections, tuberculosis, viral hepatitis, sexual and reproductive health, maternal and child health, blood safety, mental health, noncommunicable diseases and integrated people-centred health services. It has been informed by the extraordinary efforts of many countries, recognizing that countries and communities are central to the response. It takes into consideration the HIV and broader health strategies of key development partners, including the Global Fund to fight AIDS, Tuberculosis and Malaria, and the United States President's Emergency Plan for AIDS Relief.<sup>6</sup> Full implementation of the strategy will contribute to the achievement of other Sustainable Development Goals – it will prevent and relieve poverty, reduce inequities, promote gender equality, enhance productivity and tackle exclusion, stigmatization and discrimination.

The strategy outlines a vision, goals and actions for the global health sector response, including five strategic directions: strengthening and focusing national HIV programmes and plans through sound strategic information and good governance; defining a package of essential HIV services and high-impact interventions along the HIV services continuum; adapting and delivering the HIV services continuum for different populations and locations to maximize quality and achieve equitable coverage; implementing systems to fully fund the continuum of HIV services and to minimize the risk of financial hardship for those requiring the services; and embracing innovation to drive rapid progress (see Figure 1).



01 – State-sponsored educational programme on the prevention of mother-to-child transmission of HIV, Nigeria.

<sup>5</sup> UNAIDS Strategy 2016–2021, see http://www.unaids.org/en/resources/documents/2015/UNAIDS\_PCB37\_15-18 (accessed 15 March 2016).

<sup>6</sup> For more information on the United States President's Emergency Plan for AIDS Relief, see http://www.pepfar.gov/about/strategy/laccessed 15 March 2016).

### **OUTLINE OF THE STRATEGY**

The strategy has five major components:

Setting the scene –

reviews the current status of HIV epidemics and responses, identifies opportunities and challenges for the future, and argues the case for adequate investment in the health sector response to HIV;

- Framing the strategy describes the three organizing frameworks for the strategy (universal health coverage, the continuum of HIV services and the public health approach);
- Presenting a global vision and setting global goals and targets presents a set of impact and service coverage targets for 2020 and 2030 to drive the response;
- Recommending priority actions recommends fast-track actions to be taken by both countries and WHO under each of *five strategic directions*;
- Guiding implementation –
  outlines key elements of strategy implementation, including
  strategic partnerships, monitoring and evaluation, and costing.



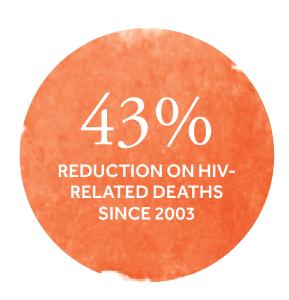
The enormous investments in the HIV response over the past 15 years are paying off. Large declines in HIV-related deaths in the past decade attest to the commitment, resources and innovations that have already been directed at the global HIV epidemic. Fewer people are dying of HIV-related causes, with an estimated 1.1 million (range of 940 000 – 1.3 million) deaths in 2015, down 43 % from 2003 the date that treatment targets were first set, largely the result of increased access to antiretroviral therapy. In 2015, new HIV infections were estimated at 2.1 million (range of 1.8 million–2.4 million). The second response over the past 15 years are paying of 1.8 million–2.4 million).

### THE CHALLENGES

Despite major progress in the response, HIV epidemics continue to pose serious public health threats in all regions. Shadowing the gains are important challenges.

Not enough and not fast enough – Current coverage of services is inadequate and the rate of expansion is too slow to achieve global targets. The full benefits of effective HIV interventions and services are not being realized. Globally, 17 million of the 37 million people living with HIV at the end of 2014 did not know their HIV status and 22 million were not accessing antiretroviral therapy.<sup>8</sup>

Major inequities persist and populations are being left behind – Success in the global HIV response is distributed unevenly and inequitably. While HIV incidence is declining overall, it is increasing in some countries and regions. Adolescent girls and young women in sub-Saharan Africa are being infected at twice the rate as that of boys and men of the same age. Progress is not sufficient or quick enough, and is not reaching many of the populations most at risk for HIV infection. In addition, there are substantial disparities in access to treatment and care, with boys and men lagging behind in many countries. Human rights violations, along with widespread gender-based violence and stigmatization and discrimination, continue to hinder access to health services, particularly for children, adolescents, young women and key populations.<sup>9</sup>



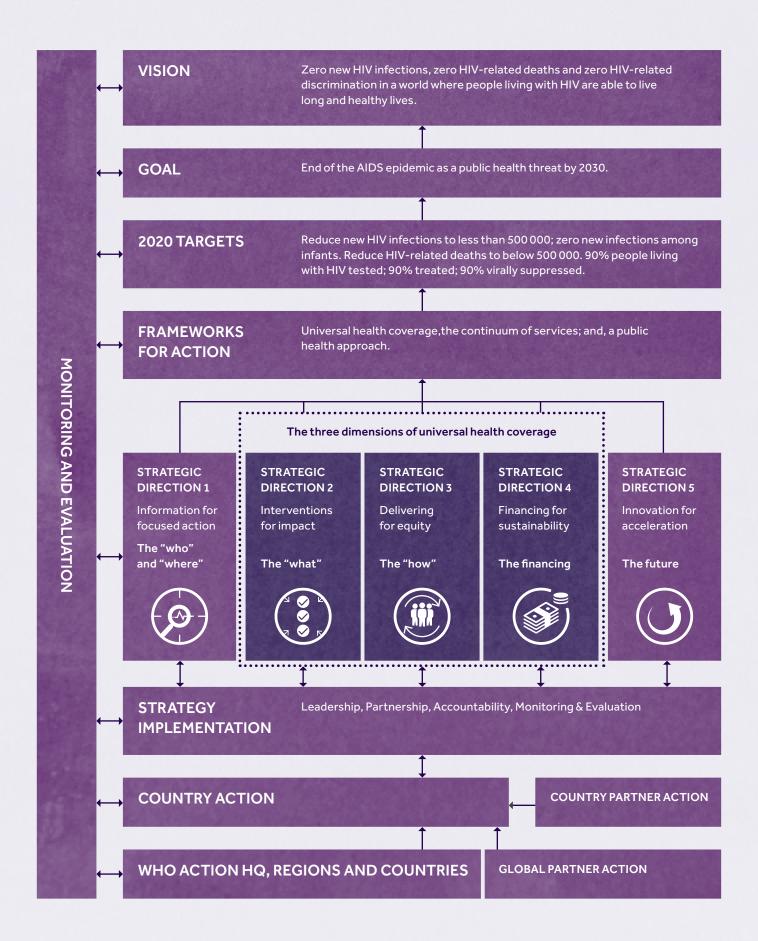
Middle-income countries require specific focus — An estimated 70% of people living with HIV worldwide are in middle-income countries and global success will also be determined by whether efforts in these countries accelerate or stall. With changing donor priorities, expanding equitable and sustainable health financing systems is particularly critical for middle-income countries. At the same time, low-income countries will continue to rely on external development assistance to ensure that essential HIV services are funded adequately.

<sup>7</sup> Most data presented in the strategy are drawn from routine country reports, World Health Organization and Joint United Nations Programme on HIV/AIDS reporting systems, such as the Global AIDS Response Reporting (GARPR) system.

<sup>8</sup> Global AIDS Update 2016, UNAIDS http://www.unaids.org/en/resources/documents/2016/Global-AIDS-update-2016 (accessed 23 June 2016)

<sup>9</sup> The present strategy on HIV uses the definition of "key populations" presented in the UNAIDS Strategy 2016–2021, available at http://www.unaids.org/en/resources/documents/2015/UNAIDS\_PCB37\_15-18 (accessed 15 March 2016): "Key populations, or key populations at higher risk, are groups of people who are more likely to be exposed to HIV or to transmit it and whose engagement is critical to a successful HIV response. In all countries, key populations include people living with HIV. In most settings, men who have sex with men, transgender people, people who inject drugs, sex workers and their clients and prisoners are at higher risk of exposure to HIV than other groups. However, each country should define the specific populations that are key to their epidemic and response based on the epidemiological and social context."

Figure 1. Outline of the global health sector strategy on HIV, 2016-2021



### Fragile communities and mobile populations -

The world is facing an increasingly complex series of challenges. Conflict, natural disasters, economic crises and climate change can trigger humanitarian emergencies, which destroy local health systems, displace communities and force increasing numbers of people into migration with interrupted or poor access to health services.

Insufficiently targeted interventions and services – National HIV responses often fail to focus interventions on the populations and locations most in need, thereby increasing inefficiencies and undermining their impact.

Ensuring and maintaining quality – Rapid expansion of HIV programmes without ensuring the quality of services risks undermining programme effectiveness, wasting precious resources and contributing to negative public health outcomes, such as the emergence of drug resistant strains of HIV. Assuring the quality of prevention, diagnostic and treatment commodities is essential as demand and use increases.

Increasing burden of coinfections and other comorbidities – AIDS deaths are declining with expanding access to antiretroviral therapy, however, investments in treatment are being challenged by increasing morbidity and mortality associated with coinfections, such as hepatitis B and hepatitis C, and other comorbidities, including cancers, cardiovascular disease, diabetes and other noncommunicable diseases, and mental health and substance use disorders. Despite a scale-up in antiretroviral therapy, and improvements in the prevention and management of HIV and tuberculosis coinfection, tuberculosis is still the leading cause of hospitalization of adults and children living with HIV, and remains the leading cause of HIV-related deaths.

Doing more of the same is not enough – The global epidemic has reached a point where a steady-state response – that is, maintaining coverage at current levels or gradual expansion – will soon see a rebound in new HIV infections and HIV-related deaths. Proceeding at the current pace will not be enough to end an epidemic that is constantly evolving. New HIV infections will increase and more people will require HIV treatment and care. The costs of prevention, care and treatment will continue to expand. By the end of 2015, the number of people living with HIV had reached an estimated 33.3 million (range of 30.9 million – 36.1 million) worldwide.

The world is faced with a dilemma: "business as usual" will see the HIV response lose steam and slide back. The actions outlined in this strategy will avoid that outcome. They involve accelerating the development and implementation of comprehensive, high-impact HIV prevention and treatment interventions, using rights-based and people-centred approaches, identifying sustainable financing for HIV programmes into the future and ensuring progressive integration of the HIV response into broader health programmes and services.

33.3m

PEOPLE LIVING WITH HIV BY THE END OF 2015

### READY FOR A MAJOR LEAP FORWARD

There are enormous opportunities for capitalizing on the progress made over the past 15 years, to catapult the response to a new trajectory towards the elimination of the AIDS epidemic. The health sector must show leadership as the response moves forward.

### CRITICAL AREAS FOR FAST-TRACK ACTION

We must build on the existing momentum of the HIV response, to benefit from the solid base of comprehensive national progammes and to exploit renewed political commitment. More, however, is required. There are six areas where new commitments, resources and intensified efforts will be essential for the attainment of the 2020 and 2030 targets.

Bolstering combination prevention with new tools:

The HIV prevention effects of antiretroviral drugs, including antiretroviral therapy are well recognized. The game-changing potential of pre-exposure prophylaxis – using antiretroviral drugs to prevent HIV infection – has been confirmed. Strategically combining antiretroviral therapy with pre-exposure prophylaxis, as part of combination HIV prevention, could almost eliminate HIV transmission to HIV-negative sexual and drug-using partners.

There is great scope to capitalize further on the preventive power of voluntary medical male circumcision. Innovations that close in on the 80% coverage target for voluntary medical male circumcision in designated "priority" countries would dramatically curtail new infections in some of the world's largest HIV epidemics.

Male and female condoms, in combination with lubricants, must continue to be the mainstay of prevention programmes. However, the full benefits of consistent condom use are yet to be realized. Innovations in condom programming could catapult the HIV response forward. The development of an effective topical microbicide and HIV vaccine would be powerful additions to an increasingly robust HIV prevention intervention portfolio.

Ensuring all people living with HIV know their status: New HIV testing approaches, including self- and community-based testing, and new quality-assured testing technologies, promise to identify and link greater numbers of people living with HIV to early treatment and care, maximizing HIV prevention potential and treatment effectiveness. The strategic focusing of HIV testing services will be critical in reaching those most at risk and diagnosing people early.

Expanding quality treatment for all people living with HIV: Filling the treatment gap, expanding from 17 million people to all people who are living with HIV, must be a priority and will massively curtail new infections and deaths. However, the initiation of antiretroviral therapy for everyone living with HIV will require an unprecedented effort from countries and partners. Specific attention must be given to addressing the greatest inequities in access to treatment – to reach those left behind: infants, children, adolescent girls and boys, men and key populations. The quality of medicines and services must be assured. Strategies to maximize treatment adherence and retention in care will be essential to fully realize the potential of treatment.

Keeping people healthy and alive through person-centred and holistic care: The broad health needs of the millions of people living with HIV, including those on lifelong antiretroviral therapy, must be addressed. Linkages between HIV services and those for tuberculosis, viral hepatitis and other major health issues are significantly reducing morbidity and mortality. Strengthening those linkages, including with noncommunicable disease services, will ensure holistic and integrated person-centred care, boosting the overall impact of programmes. Joint HIV and tuberculosis programming in countries with the highest burden of tuberculosis and HIV coinfection further strengthens integration, enhancing access to life-saving interventions, while maximizing efficient use of resources. Using a chronic care model for HIV treatment and care offers opportunities for addressing broader health needs, particularly noncommunicable diseases, and mental health and substance use disorders. Palliative care remains a critical component of a comprehensive health sector response, helping to ensure dignity and comfort for people in managing their pain and other symptoms.

Reaching and protecting those most vulnerable and at risk: The HIV response can no longer ignore those populations most affected and left behind. Effective HIV prevention and empowerment interventions must reach girls and young women - a group which continues to be the most vulnerable and affected in many communities, particularly in the high-burden epidemics of sub-Saharan Africa. Major new and focused investments will be required to strengthen community-based services to: provide appropriate interventions for adolescents; tackle effectively gender-based violence, also related to harmful alcohol use; reduce the vulnerability of girls and young women; bring men and boys into treatment; reach key populations (notably men who have sex with men, people who inject drugs, sex workers, transgender people and prisoners); expand harm reduction programmes for people who use drugs; and deliver services to mobile and displaced populations. More has to be done to overturn laws and change policies that marginalize and stigmatize populations, promote risk behaviours, create access barriers to effective services and perpetuate these inequities and inequalities.

Reducing costs and improving efficiencies: In a resource-constrained environment with competing development priorities, an unprecedented scale-up in HIV services by 2020 can only be achieved by making radical savings through reduced prices of key medicines and other commodities and increased efficiencies in service delivery, along with a more rational allocation of resources.

#### **HUGE BENEFITS FORESEEN**

An immediate, fast-tracked global response that achieves the targets set out in this strategy will effectively end the epidemic as a global public health threat (see Figures 2 and 3). Modelling undertaken by UNAIDS shows that, in combination with high-impact prevention packages and a strengthened commitment to protect human rights, an accelerated testing and treatment effort would:<sup>10</sup>

- Reduce new adult HIV infections from 2.1 million in 2010 to 500 000 in 2020;
- Avert 28 million HIV infections between 2015 and 2030;
- Avert almost 6 million infections in children by 2030;
- Avert 21 million AIDS-related deaths between 2015 and 2030;
- Avoid US\$ 24 000 million of additional costs for HIV treatment;
- Enable countries to reap a 15-fold return on their HIV investments.

Further investments in HIV responses have the potential to significantly impact on other health targets of the Sustainable Development Goal on health (Goal 3), including those related to maternal and child health, tuberculosis, viral hepatitis, noncommunicable diseases and mental health, substance use disorders, sexual and reproductive health, and universal health coverage.

Figure 2. Projections for decline in new HIV infections

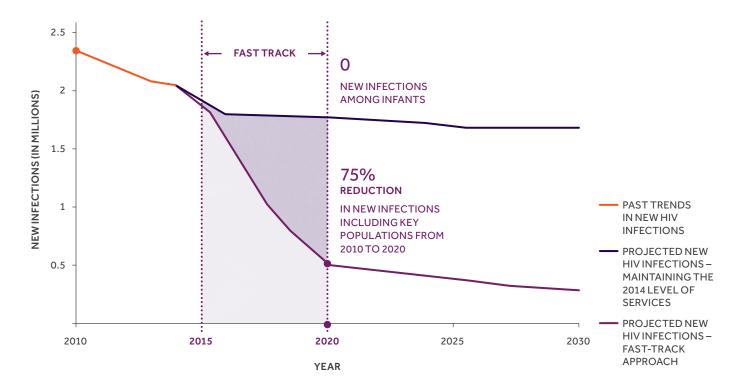
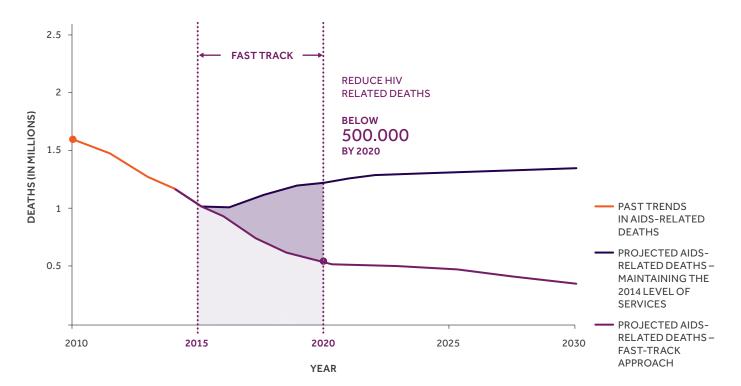


Figure 3. Projections for decline in HIV-related deaths



Source: UNAIDS, 20162021 Strategy, see: http://www.unaids.org/sites/default/files/media\_asset/20151027\_UNAIDS\_PCB37\_15\_18\_EN\_rev1.pdf (accessed 15 March 2016).

#### **BUILDING AN INVESTMENT CASE**

Most of the tools required to reach the fast-track targets are in hand, and several potentially vital upgrades and innovations are imminent. Using them to full effect, however, will require a rapid augmentation of existing investments in the HIV response, and focusing resources on both the most effective services and interventions, and on the populations and geographical locations where HIV transmission and burden are greatest. Resources mobilized from all sources for HIV programmes in lowand middle-income countries increased by an additional US\$ 250 million from 2012 to reach US\$ 19 100 million in 2013 and then increased again to an estimated US\$ 21 007 million in 2015. The rising trend was due mainly to greater domestic investments, which comprised about 57% of the total in 2014. Nevertheless, investments in HIV will need to grow to US\$ 31 900 million in 2020 and US\$ 29 300 million in 2030 if long-term control of the epidemic is to be achieved.

Many countries have gained significant experience and expertise in designing and implementing high coverage, high-quality and comprehensive HIV services that have had a major impact on HIV vulnerability, incidence, morbidity and mortality, and the quality of lives of people living with HIV. There are many opportunities for countries to "leap-frog" their own HIV responses, learning from other countries so that they can rapidly adapt and implement the most effective policies, services and interventions.

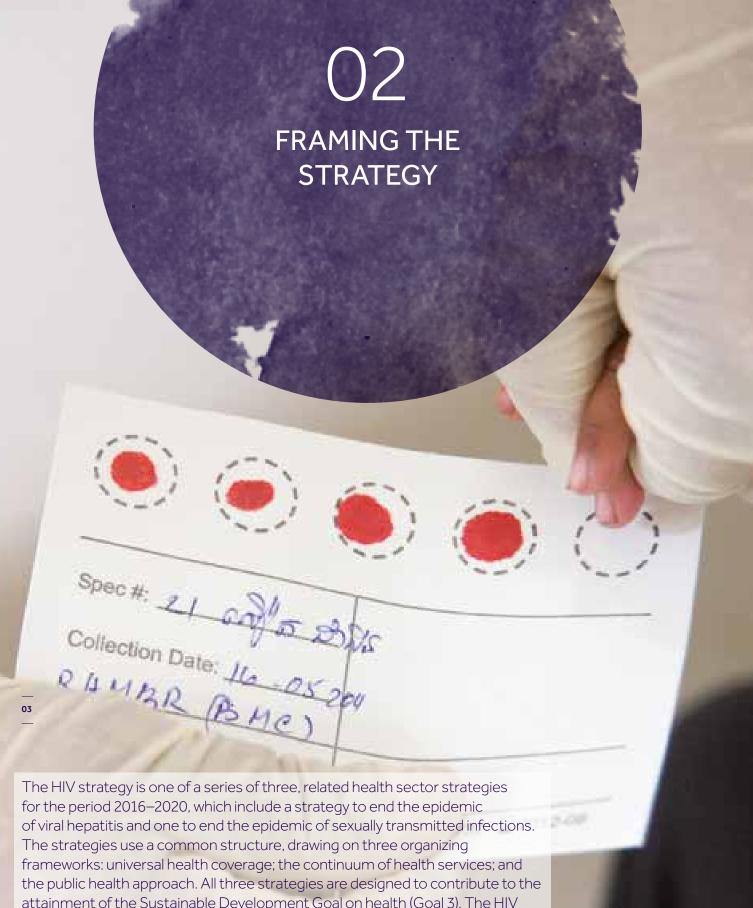
With limited available resources, countries need to plan carefully, setting ambitious but realistic country targets, and develop strong investment cases. The investment case should provide justification for an adequate allocation of domestic resources, facilitate the mobilization of external resources and help identify global partners who would support efforts.

Investment cases need to:

- Define and provide a budget for the packages of interventions and services required, based on the country context;
- Argue for the most cost-effective interventions;
- Identify the populations and locations most affected and where resources should be focused;
- Define the most efficient and equitable models of service delivery;
- Outline the most appropriate allocation of resources across the different levels of the health system; and
- Identify potential and reliable sources of funding.

Refocused actions, innovations that can boost impact and a renewed commitment to investment are required throughout the six years of this strategy.

The strategy builds a case for such investment: it identifies five strategic directions to focus the actions of country programmes and WHO, and outlines the priority interventions and innovations that can achieve the greatest impact.



attainment of the Sustainable Development Goal on health (Goal 3). The HIV strategy describes how the health sector response to HIV can contribute to the achievement of the "ending AIDS" target, universal health coverage, and other key health and development targets. The HIV strategy is also aligned with other relevant health strategies, notably the End TB Strategy, 11 the UNAIDS strategy (mentioned previously), and other HIV strategies (those of key partners, and those that are sectoral and multisectoral in nature).

# THE SUSTAINABLE DEVELOPMENT GOALS – PROVIDING DIRECTION

The Sustainable Development Goals provide an ambitious and far-reaching development agenda for the period 2016–2030. Health is a major goal in this post-2015 agenda, reflecting its central role in alleviating poverty and facilitating development. The health-related Sustainable Development Goal (Goal 3) addresses a range of health challenges critical for development, notably target 3.3 on communicable diseases, which includes ending the AIDS epidemic.12 Efforts to end AIDS will also impact on other health targets, including on reducing maternal mortality (target 3.1), preventing deaths of newborns and children under the age of 5 years (target 3.2), reducing mortality from noncommunicable diseases and promoting mental health (target 3.4), preventing and treating substance use disorders (target 3.5), sexual and reproductive health (target 3.7), achieving universal health coverage (target 3.8), access to affordable medicines and vaccines (target 3.b) and health financing and health workforce (target 3.c). In addition to its impact on Goal 3, ending the AIDS epidemic will contribute to ending poverty (Goal 1), ending hunger (Goal 2), achieving gender equality and empowering women and girls (Goal 5), reducing inequality in access to services and commodities (Goal 10), promoting inclusive societies that promote non-discrimination (Goal 16), and financing and capacity building for implementation (Goal 17).

# UNIVERSAL HEALTH COVERAGE – AN OVERARCHING FRAMEWORK

At the global level, 150 million people experience financial catastrophe and 100 million people suffer impoverishment every year as a result of out-of-pocket health expenses. The Sustainable Development Goals focus on the importance of ensuring financial security and health equity and universal health coverage provides a framework for addressing them. Universal health coverage (see Figure 4) is achieved when all people receive the health services required, which are of sufficient quality to make a difference, without those people incurring financial hardship. It comprises three major, interlinked objectives: improving the range, quality and availability of essential health services (covering the range of services needed); improving the equitable and optimal uptake of services in relation to need (covering the populations in need of services); and reducing costs and providing financial protection for those who need the services (covering the costs of services).

As resources, efficiencies and capacities increase, the range of services provided can be expanded, the quality can be improved, and more populations can be covered with less direct costs to those who need the services – a progressive realization of universal health coverage.

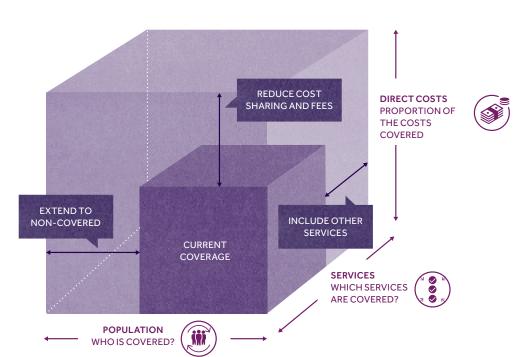


Figure 4. The three dimensions of universal health coverage

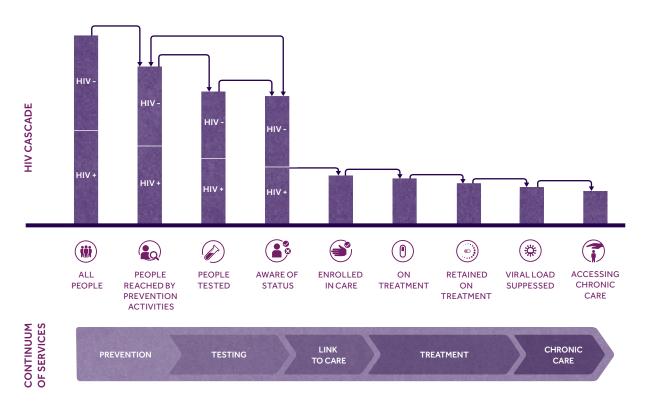
<sup>12</sup> United Nations General Assembly resolution 70/1 – Transforming our world: the 2030 Agenda for Sustainable Development, see http://www.un.org/ga/search/view\_doc.asp?symbol=A/RES/70/1&Lang=E (accessed 15 March 2016).

## THE CONTINUUM OF HIV SERVICES – AN ORGANIZING FRAMEWORK

Universal health coverage provides an overarching framework for the strategy while the continuum, or cascade, of HIV services provides an organizing framework for implementation. Countries need to implement high impact, evidence-based interventions along the entirety of the continuum of services for HIV vulnerability and risk reduction, prevention, diagnosis, treatment and chronic care (see Figure 5), focusing on populations and geographic locations where most HIV transmission is occurring and which are experiencing the greatest HIV burden.

The continuum of services will need to be adapted and monitored for different populations, settings and epidemic types, while ensuring that common comorbidities such as tuberculosis and viral hepatitis are also well addressed. The strategy defines the essential services and interventions along the continuum, and it recommends ways for assuring and improving the quality of services and programmes. As people move along the HIV services continuum, there is a loss to follow up, with this "leakage" creating a retention cascade (see Figure 5). The objective is to engage individuals as early as possible along the continuum, retain them in care, and minimize any leakages along the cascade.

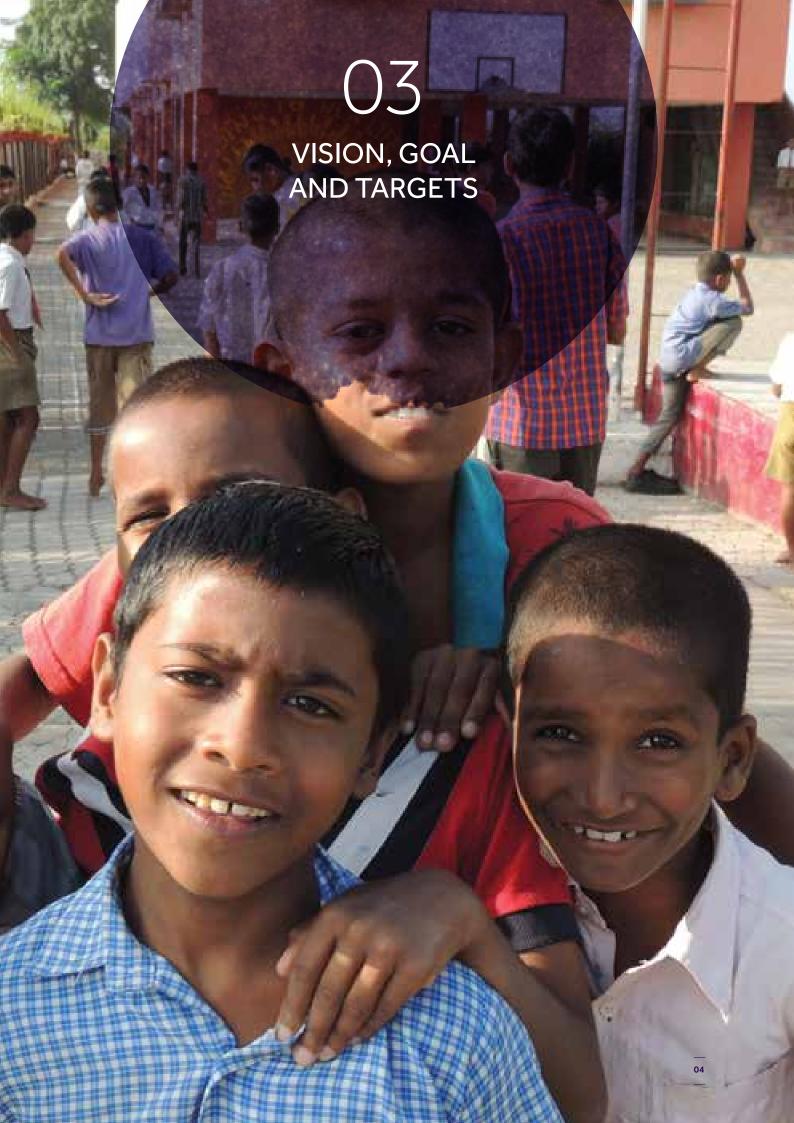
Figure 5. The continuum of HIV services and retention cascade



### A PUBLIC HEALTH APPROACH

The strategy is rooted in a public health approach that is concerned with preventing disease, promoting health, and prolonging life among the population as a whole. It aims to ensure the widest possible access to high-quality services at the population level, based on simplified and standardized interventions and services that can readily be taken to scale, including in resource-limited settings. A public health approach aims to achieve health equity and promote gender equality, to engage communities and to leverage public and private sectors in the response. It promotes the principle of health in all policies through, where necessary, legal, regulatory and policy reforms. It aims to strengthen integration and linkages between HIV and other services, improving both impact and efficiency.

The strategy builds on the many ways in which HIV responses have helped strengthen health systems in many countries, leading to better quality services. Those responses have pioneered financing models and strategies for reducing the prices of commodities and the financial risks to individuals and communities. HIV responses have catalysed breakthroughs in science and technology and proven that it is feasible to rapidly scale-up clinical and public health programmes in challenging settings. They have driven transformations in the way health services are delivered, through decentralized and linked services, task shifting, and stronger intersectoral collaboration. Benefits are also apparent in enhanced systems for the provision of chronic care and for strengthening adherence to and retention on lifelong treatments, as well as improved systems concerned with monitoring and evaluation, and procurement and distribution. Crucially, they have capitalized on the advantages of engaging communities in designing, implementing and monitoring HIV programmes, and have highlighted their roles in strengthening governance and accountability.



The strategy outlines a global vision, a global goal and a set of global targets, all of which are fully aligned with the vision, goal and targets of the multisectoral UNAIDS strategy and the Sustainable Development Goals.

### VISION

The vision: Zero new HIV infections, zero HIV-related deaths and zero HIV-related discrimination in a world where people living with HIV are able to live long and healthy lives.

### GOAL

The goal: To end the AIDS epidemic as a public health threat by 2030, within the context of ensuring healthy lives and promoting well-being for all at all ages.

### **GLOBAL TARGETS FOR 2020**

Global targets: Countries have an opportunity to take a decisive leap towards ending their AIDS epidemics – if they act swiftly and with enough resolve to reach ambitious targets for 2020. These targets apply to everyone: children, adolescents and adults; rich and poor; women and men; and all key populations. Tracking new HIV infections is the leading indicator to measure progress towards the overall goal of ending the AIDS epidemic as a public health threat by 2030.

### HIV-related deaths:

- reduce global HIV-related deaths to below 500 000;
- reduce tuberculosis deaths among people living with HIV by 75%;
- reduce hepatitis B and C deaths among people coinfected with HIV by 10%, in line with mortality targets for all people with chronic hepatitis B and C infection.

### Testing and treatment:

- ensure that 90% of people living with HIV know their HIV status;
- ensure that 90% of people diagnosed with HIV receive antiretroviral therapy;
- ensure that 90% of people living with HIV, and who are on treatment, achieve viral load suppression.

#### Prevention:

- reduce new HIV infections to below 500 000;
- zero new infections among infants.

#### Discrimination:

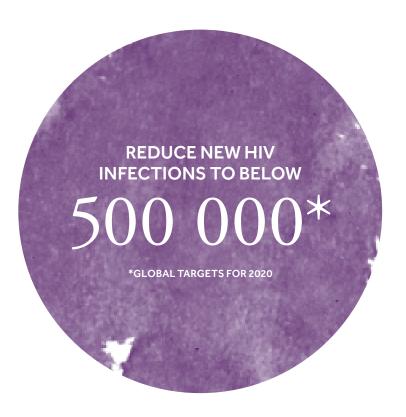
- zero HIV-related discriminatory laws, regulations and policies, and zero HIV-related discrimination in all settings, especially health settings;
- 90% of people living with HIV and key populations report no discrimination in the health sector.

### Financial sustainability:

- overall financial investments for the AIDS response in low- and middle-income countries reach at least US\$ 26 billion, with a continued increase from the current levels of domestic public sources;
- ensure all countries have integrated essential HIV services into national health financing arrangements.

### Innovation:

- increase research into and development of HIV-related vaccines and medicines for use in treatment and prevention;
- provision of access by 90% of countries to integrated health services covering HIV, tuberculosis, hepatitis B and C, reproductive health and sexually transmitted infections.





05 – Demonstration of a female condom, Myanmar

### **COUNTRY TARGETS FOR 2020**

Countries should develop, as soon as practicable, ambitious national goals and targets for 2020 and beyond, which ideally would be guided by global goals and targets. Such goals and targets should take into consideration the country context, including the nature and dynamics of country HIV epidemics, populations affected, structure and capacity of the health care and community systems, and resources that can be mobilized. Targets should be feasible and based on the best possible data available on the HIV situation, trends and responses, and monitored through a set of standard and measurable indicators. The targets should apply to everyone.



### STRATEGIC DIRECTIONS

The five strategic directions that guide priority actions by countries and by WHO are presented below:

### Strategic direction 1:

Information for focused action (know your epidemic and response).

### Strategic direction 2:

Interventions for impact (covering the range of services needed).

#### Strategic direction 3:

Delivering for equity (covering the populations in need of services).

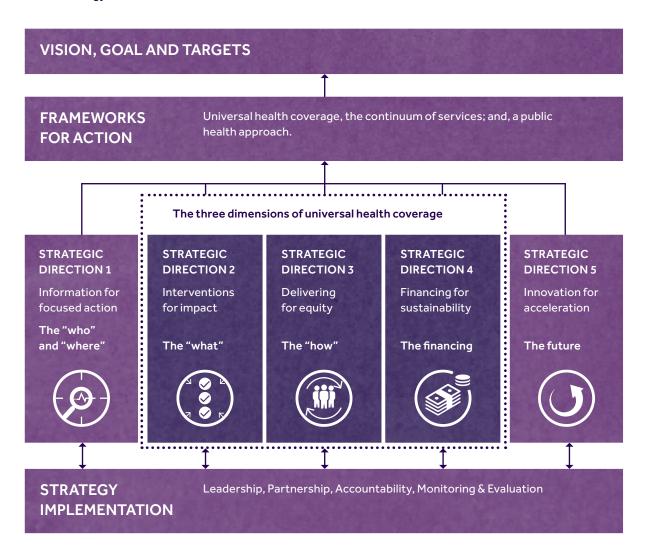
### Strategic direction 4:

Financing for sustainability (covering the financial costs of services).

#### Strategic direction 5:

Innovation for acceleration (looking towards the future).

Figure 6. The five strategic directions of the global health sector strategy on HIV, 2016-2021



Each of the strategic directions addresses a specific set of questions:

### STRATEGIC DIRECTION 1 WHAT IS THE SITUATION? –

Focuses on the need to understand the HIV epidemic and response as a basis for advocacy, political commitment, national planning, resource mobilization and allocation, implementation, and programme improvement.

### STRATEGIC DIRECTION 2 WHAT SERVICES SHOULD BE DELIVERED? –

Addresses the first dimension of universal health coverage by describing the essential package of high-impact interventions that need to be delivered along the continuum of HIV services to reach country and global targets, and which should be considered for inclusion in national health benefit packages.

### STRATEGIC DIRECTION 3 HOW CAN THESE SERVICES BE DELIVERED? –

Addresses the second dimension of universal health coverage by identifying the best methods and approaches for delivering the continuum of HIV services to different populations and in different locations, so as to achieve equity, maximize impact and ensure quality.

## STRATEGIC DIRECTION 4 HOW CAN THE COSTS OF DELIVERING THE PACKAGE OF SERVICES BE COVERED? –

Addresses the third dimension of universal health coverage by identifying sustainable and innovative models for financing HIV responses, approaches for reducing costs and financial protection systems so that people can access the services they need without incurring financial hardship.

### STRATEGIC DIRECTION 5 HOW CAN THE TRAJECTORY OF THE RESPONSE BE CHANGED? –

Identifies those areas where there are major gaps in knowledge and technologies, where innovation is required to shift the trajectory of the HIV response so that actions can be accelerated and the 2020 and 2030 targets achieved.

### STRATEGIC DIRECTION 1:

### INFORMATION FOR FOCUSED ACTION

Knowing your HIV epidemic and response in order to implement a tailored response

THE SUCCESS OF
THE NEXT PHASE OF THE
RESPONSE WILL DEPEND
ON MORE EFFICIENT,
TAILORED AND SUSTAINED
ACTION INFORMED BY
COUNTRY REALITIES AND
QUALITY DATA.

The global HIV response has matured over the past 30 years, supported by unprecedented financial investments and public health and technical innovations. Nevertheless, major service gaps exist, inequities in access persist and resource constraints are becoming more pressing. The success of the next phase of the response will depend on more efficient, tailored and sustained action informed by country realities and quality data.

High-quality "granular" data – disaggregated by sex, age and other population characteristics, across the different levels of the health care system – make it possible to focus HIV services more precisely and effectively, and to deploy or adapt services to reach greater numbers of people in need. Greater community and stakeholder involvement in collecting and analysing the data has the potential to improve the quality and effective use of the information. The rigorous application of ethical standards in gathering and using data is important so as not to compromise the confidentiality and safety of individuals and communities. With limited resources available, countries need to use these data to build strong investment cases, to argue for fair allocation of domestic resources and to mobilize external resources.

### UNDERSTANDING THE EPIDEMIC AND THE RESPONSE – DATA FOR DECISIONS

A robust and flexible strategic information system is the cornerstone for advocacy, national strategic planning, and ensuring accountability for the best and fairest use of resources. Such HIV information systems must be integrated within the broader national health information system.

### UNDERSTANDING THE EPIDEMIC – THE "WHO" AND THE "WHERE"

HIV information systems must be capable of: identifying the locations where and among whom new HIV infections are occurring; determining the major modes of HIV transmission and risk behaviours; estimating the size of populations at risk and affected; monitoring the health consequences of HIV epidemics, including common HIV coinfections and other comorbidities; and ascertaining the social, legal and economic conditions that increase the vulnerability of populations.

In the most affected region, sub-Saharan Africa, adolescent girls and young women continue to experience the greatest burden of HIV, with HIV incidence and prevalence among young women more than twice as high as among young men. Those disproportionately affected by HIV epidemics in all regions, including in high-burden settings, have been identified as: men who have sex with men, people who inject drugs, sex workers, transgender people and prisoners.

They are also the ones more likely to have limited access to critical HIV services. In many settings, some populations fall outside the routine HIV surveillance system, often because they are less likely to access health services. These include adolescents, men and mobile populations. Migration and population movements within and between countries can significantly influence the dynamics of local HIV epidemics, highlighting the importance of including mobile populations in national HIV strategies, plans, efforts and activities.

### MONITORING AND UNDERSTANDING THE RESPONSE

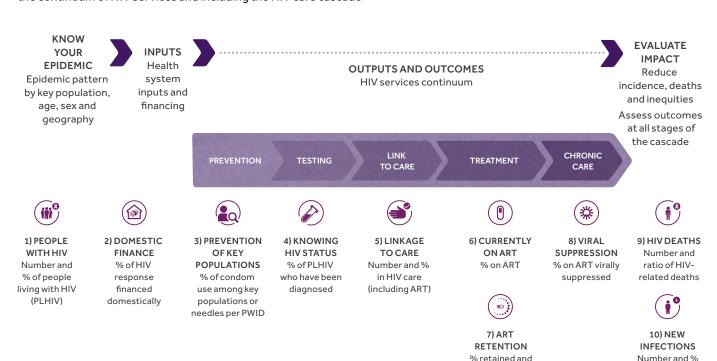
surviving on ART

of new HIV

infections

Monitoring and understanding the HIV response at country and global levels is critical for informing more strategic investments in HIV programmes, and for maximizing their effectiveness, responsiveness and cost—effectiveness. Quality data are required to measure service access, service uptake, populations covered, quality and acceptability along the entire continuum of HIV services. This ensures that gaps and deficiencies are identified, which in turn ensures that remedial actions can be implemented. With the aim of gauging the health sector response along the continuum of HIV services, WHO guidelines recommends for countries to consider the adoption of 50 national indicators where appropriate, of which 10 are identified for global monitoring (see Figure 7).

Figure 7. Key indicators for monitoring the HIV response across the continuum of HIV services and including the HIV care cascade



#### INFORMATION FOR ACTION

### **FAST-TRACK ACTIONS FOR COUNTRIES**

**Build a comprehensive strategic information system** to provide quality and timely data, using standardized indicators and methodologies, guided by WHO and UNAIDS quidelines.

Increase the "granularity" of data, appropriately disaggregated to the district, community and facility levels by age, sex, population and location to better understand subnational epidemics, assess performance along the continuum of HIV services and quide more focused investments and services.

Link and integrate HIV strategic information systems with broader health information systems and identify opportunities for integrated strategic information platforms.

#### **FAST-TRACK ACTIONS FOR WHO**

**Provide global leadership,** in cooperation with UNAIDS, in HIV surveillance and monitoring the health sector response.

Set standards and provide updated guidance and operational tools for data collection, analysis and reporting, including the WHO and UNAIDS guidelines for second generation HIV surveillance and the WHO consolidated strategic information guidelines.

Provide technical support to countries for the adaptation and implementation of WHO and UNAIDS HIV strategic information guidelines and tools for strengthening national, district and facility data systems. Support the analysis of health services cascades in key countries to guide quality improvement.

**Report** annually on the health sector response to HIV and progress towards the 2020 and 2030 HIV targets.

### GOVERNANCE, NATIONAL STRATEGIC PLANNING AND ACCOUNTABILITY

National HIV governing structures, such as national HIV programmes, HIV commissions and country coordination mechanisms, play a critical role in advocating for an effective response, national strategic planning and resource allocation, promoting policy coherence, coordinating roles and actions across different stakeholders, aligning the HIV response with broader health programmes and ensuring that an enabling environment is in place. National government leadership is essential for achieving coherence and coordination, although the importance of decentralized decision-making, where appropriate, should also be recognized.

Data generated from the national HIV strategic information system are critical for informing the national HIV strategy and implementation plan and other HIV-related efforts and activities. The strategy should define national targets that are aligned with global targets and actions required to reach these targets. The strategy should outline critical policy, legal and structural measures that need to be taken to enable and enhance the HIV response.

The linkages need to be clearly shown between the HIV health strategy and other related strategies, including: sectoral HIV strategies; other relevant strategies specific to diseases and risk factors, such as those for tuberculosis and sexual and reproductive health; and broader national health and development strategies.

### **GOVERNANCE AND ACCOUNTABILITY**

#### **FAST-TRACK ACTIONS FOR COUNTRIES**

Review and, where necessary, reform national HIV governance structures to ensure that HIV is "taken out of isolation" by promoting appropriate linkages and integration of HIV services within the broader national health programme and coordinating the HIV response across relevant sectors.

**Set national targets and milestones** for 2020 and 2030, based on global targets for eliminating AIDS as a public health threat.

Review and update the national HIV strategy to reflect the new national HIV targets and priorities and develop a costed implementation plan to operationalize the strategy.

**Strengthen programme accountability** by regularly reporting on national HIV programme implementation, financing, performance and impact, including progress towards the 2020 and 2030 targets.

#### **FAST-TRACK ACTIONS FOR WHO**

**Develop and update guidance** on national HIV strategic planning, prioritization and costing, with a focus on achieving 2020 and 2030 targets.

**Provide technical support to countries** to undertake regular HIV programme and impact reviews to monitor progress towards national and global HIV targets and to improve country implementation.

### STRATEGIC DIRECTION 2:

### INTERVENTIONS FOR IMPACT

People should receive the full range of HIV services they need

Achievement of the prevention, testing and treatment targets for 2020 requires a robust health system that is able to engage and retain people along the entire continuum of HIV prevention and care services. It must ensure that people: can access effective HIV prevention services; are tested, receive and understand their HIV diagnosis; are referred to appropriate HIV prevention services or enrolled in care; are initiated early on antiretroviral therapy if diagnosed HIV positive; are retained on effective treatment to achieve sustained viral suppression; are moved to alternative antiretroviral regimens if treatment fails; and can access chronic and palliative care, including prevention and management of major coinfections and other comorbidities.

### DEFINING AN ESSENTIAL BENEFIT PACKAGE FOR HIV

Each country should review its package of essential HIV services in light of changing epidemics, new knowledge and innovations, and define a set of essential HIV interventions, services, medicines and commodities to be included in its national health benefit package. The benefit package should be covered in whole, or in part, through public funding so as to minimize out-ofpocket payments, ensure access to services for all who need them and cover the entire continuum of HIV services. Selection of essential interventions and services should be through a transparent process, involving key stakeholders, considering the following criteria: effectiveness, cost, costeffectiveness, acceptability, feasibility, relevance, demand and ethics. The package should be regularly reviewed to ensure that the selected interventions reflect changes in the country epidemic and context, advances in technologies and service delivery approaches and evidence of impact or harm. Combinations of interventions should be specifically considered, recognizing that some interventions will only be effective, or achieve maximum impact, if they are delivered in combination with other interventions.

WHO guidelines make recommendations on the selection and use of interventions along the full continuum of HIV services, summarize the evidence of effectiveness of different interventions and services, and provide guidance on how such interventions might be applied in different contexts.



07 – Volunteer at a prison needle-exchange programme, Moldova.



### REDUCING HIV VULNERABILITY AND HIV TRANSMISSION AND ACQUISITION

Reducing new HIV infections by 75% by the end of 2020 as compared with 2010 will require major reductions in vulnerability and risk behaviour, new approaches to delivering effective prevention interventions to those who need them, and new prevention technologies.

Some populations are particularly vulnerable to HIV infection because of their high exposure to HIV and/ or their inability to avoid risks or to use effective HIV prevention interventions. As mentioned, factors that increase HIV vulnerability in certain locations and populations, notably among girls and young women in sub-Saharan Africa, include gender inequality, gender-based and sexual violence, and stigmatization and discrimination. For other populations, vulnerability may be associated with their living conditions, such as men living in remote mining communities and in detention or with their inability to access services, such as migrants and displaced populations.

Evidence-based and comprehensive prevention frameworks are most effective when there is a strategic combination of behavioural, biomedical and structural approaches that includes primary prevention methods that reach HIV-negative people and a focus on working with people living with HIV as important partners in prevention by placing an emphasis on positive health, dignity and prevention. The HIV prevention landscape is changing dramatically

and rapidly with the introduction of new technologies and approaches, most notably the use of antiretroviral drugs to prevent HIV transmission and acquisition. Combination HIV prevention will continue to rely on long-standing and highly effective interventions, including male and female condoms, behaviour change communication, harm reduction for people who use drugs and universal precautions in health care settings. However, even if these interventions were widely accepted and taken to scale, the world would still fall short of the 2020 target. The strategic use of antiretroviral drugs and the expansion of voluntary medical male circumcision for HIV prevention have the potential to change the course of the HIV response. To achieve the prevention target HIV prevention programmes will require a focused and combination approach, using high-impact interventions to reduce vulnerability and prevent sexual transmission, transmission through injecting drug use, transmission in health care settings, and mother-to-child transmission.

The following high-impact interventions should be included in a comprehensive HIV prevention package:

Male and female condoms and lubricants: Despite their effectiveness and their central role in the prevention of HIV and other sexually transmitted infections, the acceptability and uptake of these interventions remain low. Opportunities to realize the potential of such critical interventions include: reducing the cost of female condoms; revitalizing condom marketing approaches; and expanding distribution through diverse services and marketing outlets.

### Harm reduction for people who inject drugs:

The comprehensive package of harm reduction interventions is defined in the WHO Consolidated guidelines on HIV prevention, diagnosis, treatment and care for key populations. 13, 14 Sterile needle and syringe programmes, opioid substitution therapy for opioid users, and risk reduction communication are highimpact interventions within this broader harm reduction package. Needle and syringe programmes substantially and cost-effectively reduce HIV transmission among people who inject drugs. Opioid substitution therapy is highly effective in reducing injecting behaviours that put opioid-dependent people at risk of HIV infection. These services need to reach high coverage to have a public health impact. Special attention is required for cocaine and amphetamine-type stimulant users, for which opioid substitution therapy is not effective, and for non-injecting drug users where sexual transmission risk may be high.

<sup>13</sup> Consolidated guidelines on HIV prevention, diagnosis, treatment and care for key populations, see http://www.who.int/hiv/pub/guidelines/keypopulations/en/(accessed 18 March 2016).

<sup>14</sup> WHO's comprehensive package for the prevention, treatment and care of HIV among people who inject drugs includes the following interventions: needle and syringe programmes; opioid substitution therapy and other drug dependence treatment; HIV testing and counselling; antiretroviral therapy; prevention and treatment of sexually transmitted infections; condom programmes for people who inject drugs and their sexual partners; targeted information, education and communication for people who inject drugs and their sexual partners; vaccination, diagnosis and treatment of viral hepatitis; prevention, diagnosis and treatment of tuberculosis; and prevention and management of overdose.

Antiretroviral-based prevention: Antiretroviral drugs have great potential to prevent HIV transmission and acquisition, including through pre-exposure prophylaxis and post-exposure prophylaxis, by preventing mother-tochild transmission, and through antiretroviral therapy that achieves viral suppression. Pre-exposure prophylaxis should be considered as an additional, powerful HIV prevention tool for individuals who are at high risk of HIV acquisition; post-exposure prophylaxis should be made available for people who have had a significant exposure to HIV. Guidance on the use of pre-exposure prophylaxis, post-exposure prophylaxis and antiretroviral therapy for HIV prevention is provided in the WHO Consolidated guidelines on the use of antiretroviral therapy for treating and preventing HIV infection.<sup>15</sup> Countries should establish appropriate criteria for risk assessment, develop models of service delivery and decide on the most strategic combination of antiretroviral and other prevention approaches based on their country context. Particular attention should be given to testing for HIV before people start pre-exposure prophylaxis in order to minimize the risk of the emergence of HIV drug resistance. HIV drug-resistance surveillance should be extended to cover pre-exposure prophylaxis services if they are introduced.

Prevention of HIV infection in infants: In 2014, only 62% of the estimated 1.5 million pregnant women living with HIV received antiretroviral therapy through "Option B+". Although elimination of mother-to-child transmission is feasible, HIV transmission rates remain unacceptably high – in excess of 10% in many countries. Since 2011, the Global Plan: towards the elimination of new HIV infections among children by 2015 and keeping their mothers alive<sup>16</sup> has helped accelerate elimination efforts. Similarly, countries are increasingly active in working towards the elimination of congenital syphilis in infants. Despite gains, achievement of the dual elimination target for 2020 will require intensified efforts for many countries. Critical elements of this elimination strategy are lifelong antiretroviral therapy for all pregnant and breastfeeding women living with HIV; early infant diagnosis; and infant prophylaxis and treatment.

Voluntary medical male circumcision: It is estimated that, in high HIV-prevalence countries in sub-Saharan Africa, circumcising 80% of men aged 15–49 years who have not already been circumcised would prevent 3.3 million HIV infections by 2025, generating savings of US\$ 16 500 million. To achieve this coverage, accelerated scale-up is needed through innovative approaches, such as the use of safe male circumcision devices that enable the procedure to be performed by mid-level health care workers, and targeted campaigns to increase demand for circumcision among populations with low circumcision rates and significant exposure to HIV.

Injection and blood safety: Although reliable data are lacking, it is likely that unsafe medical injections and blood transfusions account for significant numbers of new HIV infections. Safe medical injections and blood supplies, along with universal precautions, are central to a well-functioning health system. The launch of the WHO injection safety policy in 2015 has focused greater attention on the issue and promotes a transition to the use of safety-engineered injection devices for therapeutic injections and vaccinations that prevent reuse and sharps injuries.

Behaviour change interventions: A range of behavioural interventions can provide information and skills that support primary prevention and risk reduction, address factors that increase risk behaviours, promote transitions to less risky behaviours, prevent HIV transmission, and increase the uptake of effective prevention services. Behaviour change messages and communication approaches can have the desired impact if they are targeted, specific to particular population groups and settings, and linked to increased access to prevention commodities, such as condoms and sterile injecting equipment. Adolescent girls and young women in sub-Saharan Africa require specific attention, given their vulnerability and the very high HIV incidence witnessed in some communities.

Prevention and management of gender-based and sexual violence: It is widely recognized that women and girls are particularly vulnerable to gender-based and sexual violence; however, boys, men and transgender people are also vulnerable. Structural interventions, such as addressing gender inequities and antisocial behaviour, harmful use of alcohol and other major risk factors, are required to prevent violence. The health sector also has an important role in providing care to those who have experienced such violence, including post-rape care and provision of post-exposure prophylaxis.

<sup>15</sup> Consolidated guidelines on the use of antiretroviral therapy for treating and preventing HIV infection, see http://www.who.int/hiv/pub/guidelines/en/laccessed 18 March 2016).

<sup>16</sup> Global Plan: towards the elimination of new HIV infections among children and keeping their mothers alive, see http://www.unaids.org/en/resources/documents/2011/20110609 JC2137 Global-Plan-Elimination-HIV-Children en.pdf (accessed 22 March 2016).

#### **HIV PREVENTION**

#### **FAST-TRACK ACTIONS FOR COUNTRIES**

Prioritize high-impact prevention interventions, including for male and female condom programming, injection and blood safety, and behaviour change communication.

Maximize the prevention benefits of antiretroviral drugs by scaling up antiretroviral therapy coverage for all people living with HIV and implementing a strategic combination of pre-exposure prophylaxis and post-exposure prophylaxis with other prevention interventions.

Eliminate HIV and congenital syphilis in infants by setting national targets and providing lifelong antiretroviral therapy for pregnant and breastfeeding women, expanding early infant diagnosis and providing immediate antiretroviral therapy for all infants diagnosed with HIV.

Implement, to scale, a comprehensive package of harm reduction interventions tailored to and appropriate for the local drug-using patterns and country context. Priority should be given to the high-impact interventions, where appropriate, including the provision of sterile injecting equipment, opioid substitution therapy, risk reduction information and drug dependence treatment.

Prioritize combination HIV prevention to adolescents, girls and young women, and male sexual partners, particularly in high-burden settings in sub-Saharan Africa, using interventions that aim to reduce both vulnerability and risk behaviours, including gender-based and sexual violence and sexual risk behaviour associated with alcohol and other drug use.

#### **FAST-TRACK ACTIONS FOR WHO**

Advocate for and support expansion of new prevention technologies and approaches in the context of combination prevention, including implementation of early antiretroviral therapy, pre-exposure prophylaxis and post-exposure prophylaxis, and, in priority countries, voluntary medical male circumcision.

Provide guidance on combination HIV prevention, rapidly integrating new, evidence-based health sector interventions into HIV prevention packages for different epidemic contexts, with particular attention to female and male adolescents, girls, women and key populations (including young key populations).

Support increased commitment, resources and actions to eliminate HIV infections in children, working in cooperation with UNICEF. Validate the elimination of mother-to-child transmission of HIV and syphilis in countries.

Reinforce country implementation of WHO standards and policies on existing prevention interventions, including quality male and female condom and lubricant programmes, and injection and blood safety.



08 – HIV prevention counselling with men who have sex with men, Indonesia.

#### **EXPANDING HIV TESTING**

Achieving the target of 90% of people with HIV knowing their HIV status by 2020 will demand wider use of effective and new HIV testing approaches, strategies and technologies, while at the same time ensuring the quality of testing and ethical testing practices. Testing services need to target those populations, settings and locations where HIV risk and transmission is highest. Testing should be consensual, confidential and accompanied by appropriate information and counselling.

HIV testing is the first step in enabling people with HIV to know their HIV status and to be linked to HIV prevention, treatment and care services. Late diagnosis can compromise efforts to ensure long-term effectiveness of treatment and lessen the potential impact on prevention. It is estimated that, globally, about half of people living with HIV currently do not know their HIV status. HIV testing also offers an opportunity, in parallel, to screen for other infections and health conditions, including sexually transmitted infections, tuberculosis and viral hepatitis, which is likely to contribute significantly to reducing comorbidity and mortality. Early diagnosis of HIV in infants born to women living with HIV is critical to ensure the timely initiation of life-saving antiretroviral therapy, and yet, in 2013, fewer than 50% of exposed infants were tested.

Selection of the most appropriate combination of HIV testing approaches and strategies will depend on HIV epidemic dynamics, the populations affected and the local health system. New and targeted approaches provide opportunities to rapidly expand the coverage, quality and yield of testing services, for example, the routine offer of testing to all key populations in primary care and clinical settings including tuberculosis services, couples testing, community-based testing, self-testing and the use of lay testers, along with testing technologies that may be used at point-of-care. When resources are limited, testing should be targeted where yields will be greatest while maintaining equity. Expanding testing coverage requires specific attention to ensuring the quality of the diagnostics and testing services to minimize the risk of misdiagnosis of HIV status. Comprehensive guidance on HIV testing approaches and strategies is presented in the WHO Consolidated guidelines on HIV testing services.

#### **HIV TESTING**

### **FAST-TRACK ACTIONS FOR COUNTRIES**

**Diversify testing approaches and services** by combining provider-initiated and community-based testing, promoting decentralization of services and utilizing HIV testing services to test for other infections and health conditions.

Focus testing services to reach populations and settings where the HIV burden is greatest and to achieve equity.

 $\label{prioritize} Prioritize the expanded coverage of early infant diagnosis technologies.$ 

Ensure that HIV testing services meet ethical and quality standards.

#### **FAST-TRACK ACTIONS FOR WHO**

Regularly update consolidated guidance on HIV testing and testing for common coinfections, rapidly integrating guidance on new testing approaches, strategies and diagnostics.

Support countries to implement quality assurance programmes for testing, guided by data on misdiagnosis and misclassification.

**Support expansion of paediatric HIV testing** through updated guidance and technical support to countries, including early infant diagnosis and testing in low-prevalence settings.

## EXPANDING ANTIRETROVIRAL THERAPY, MANAGING COMORBIDITIES AND PROVIDING CHRONIC CARE

The target of having 90% of people with HIV on antiretroviral therapy by 2020 will require acceleration in the scale-up of antiretroviral therapy and improved retention in care. Achievement of the target of viral suppression of 90% of people on antiretroviral therapy will require major improvements in treatment adherence, robust and well-tolerated antiretroviral therapy regimens and effective HIV drug-resistance surveillance and toxicity monitoring systems to minimize treatment failure. WHO guidelines on the use of antiretroviral drugs provide a means of achieving the 90% coverage target and help simplify treatment initiation protocols by recommending that anyone diagnosed with HIV should begin antiretroviral therapy as soon as possible following diagnosis. Countries should develop national treatment plans that provide a road map for expanding access to antiretroviral therapy through differentiated care that ensures rapid and equitable access to treatment, particularly for people at an advanced stage of HIV-related disease.

The global target of having 15 million people on treatment was achieved in early 2015. Nevertheless, this represents only about 40% of people living with HIV, all of whom should have access to treatment. The situation is particularly poor for children living with HIV, only 32% of whom were receiving antiretroviral therapy in 2014. Similarly, people from key populations tend to have very poor access to antiretroviral therapy. In addition, as more asymptomatic people are treated with antiretroviral drugs, viral load testing to assess treatment effectiveness and prevent the emergence of HIV drug resistance will be important. HIV drug resistance surveillance at the population level is essential for monitoring the quality of treatment programmes and the selection of treatment regimens. Access to second- and third-line antiretroviral therapy regimens continues to be severely limited in most low- and middle-income countries, highlighting the importance of preventing first-line treatment failure.

As coverage of antiretroviral therapy expands, people living with HIV are also experiencing a broad range of other health issues, including those related to HIV infection and HIV treatment, non-HIV-related coinfections and comorbidities, and ageing – all of which require comprehensive care and management.

Expand antiretroviral therapy coverage: Safe, simple, affordable and well-tolerated first-line antiretroviral regimens, using one tablet a day fixed-dose combinations, enable rapid and sustainable scale-up of antiretroviral therapy for adults. Continuous assessment of evidence on treatment efficacy and toxicity, with regular updates of WHO consolidated antiretroviral guidelines will ensure that the latest scientific evidence, new medicines and technologies, and country experiences in treatment scale-up can inform national treatment guidelines and protocols. The lack of early infant diagnosis, fixed-dose antiretroviral combinations and palatable antiretroviral formulations pose particular barriers to paediatric treatment scale-up. To maximize treatment outcomes, antiretroviral therapy should be started as early as possible for both adults and children, highlighting the need for early diagnosis and effective linkages to treatment for those testing HIV positive.

Prevent and manage HIV and tuberculosis coinfection: Effective tuberculosis and HIV co-management has resulted in a decline in the number of people dying from HIV-associated tuberculosis by a third between 2004 and 2014. However, tuberculosis continues to be the major cause of morbidity among people living with HIV and is estimated to account for around a third of HIV-related deaths. More than half of the cases of HIV-associated tuberculosis are undetected, undermining access to lifesaving antiretroviral therapy. Intensified implementation and uptake of key interventions, including systematic tuberculosis screening among people living with HIV, isoniazid preventive therapy, as well as HIV testing of all people with diagnosed or presumed tuberculosis, timely initiation of antiretroviral therapy, and co-trimoxazole prophylaxis, will be required to further reduce tuberculosis-related morbidity and mortality.

Prevent and manage HIV and viral hepatitis coinfection: Chronic hepatitis B infection and chronic hepatitis C infection are growing causes of morbidity and mortality among people living with HIV in a range of countries. HIV and hepatitis C virus coinfection rates are highest among people who inject drugs, affecting all regions. HIV has a profound impact on hepatitis B virus and hepatitis C virus infection, resulting in higher rates of chronic hepatitis infection, accelerated fibrosis progression with increased risk of cirrhosis and hepatocellular carcinoma, and higher liver-related mortality. Integrated management of HIV and viral hepatitis infection should be provided, with early diagnosis and treatment of both HIV infection and viral hepatitis infection based on WHO guidelines on HIV, hepatitis B virus and hepatitis C virus treatment.

Address other HIV coinfections: The prevalence and impact of other coinfections, both opportunistic and non-opportunistic, among people living with HIV varies by country and population, requiring tailored responses. If not addressed, they have the potential to compromise gains made through the expansion of antiretroviral therapy. Prevention, early detection and treatment of common coinfections, such as candidiasis, cryptococcus, human papilloma virus and other sexually transmitted infections, malaria and Pneumocystis pneumonia require specific attention.

Prevent and manage HIV drug resistance: Preventing and managing the emergence of HIV drug resistance will be crucial as the world moves towards wider and earlier use of HIV medicines for both HIV treatment and prevention. Addressing HIV drug resistance is critical for achieving viral suppression, addressing treatment failure, and preventing the need to move to more expensive and toxic second- and third-line antiretroviral therapy regimens. HIV drug-resistance surveillance and monitoring of early warning indicators should be integrated into national HIV treatment services, quality improvement efforts and broader health information systems, including those for antimicrobial resistance.

Provide person-centred chronic care for people living with HIV: Simple and effective care interventions can improve the general health and well-being of people living with HIV, including factors such as adequate nutrition, access to safe water and sanitation, and palliative care. People living with HIV are at increased risk of developing a range of noncommunicable diseases as a consequence of their HIV infection or related to side-effects of their treatment or ageing, including cardiovascular disease, diabetes, chronic lung disease and various cancers. Common mental health comorbidities include depression, anxiety, dementia and other cognitive disorders. Chronic HIV care services should include interventions across the continuum of care, including screening for, monitoring and managing the most common health risks and comorbidities experienced by people living with HIV. The increasing burden of cervical cancer among women living with HIV, associated with human papillomavirus infection, requires specific attention, particularly given the availability of effective human papillomavirus vaccine, screening and treatment. Effective pain management, palliative care and end-of-life care are also essential interventions to be included in HIV services.

### TREATMENT AND CARE

### **FAST-TRACK ACTIONS FOR COUNTRIES**

Regularly review and update national HIV treatment and care guidelines and protocols, including guidance on the prevention and management of common comorbidities.

**Develop and update treatment plans** to ensure continuity of treatment, differentiated care, as well as timely transitioning from old to new treatment regimens and approaches.

**Implement strategies to minimize HIV drug resistance** and use the data to inform national antiretroviral policies and guidelines.

**Provide general and chronic care services,** make available the WHO Package of essential noncommunicable disease interventions for primary care, <sup>17</sup> provide community and home-based care, and ensure access to opioid medicines for the management of pain and end-of-life care.

### FAST-TRACK ACTIONS FOR WHO

Review and report on the major causes of, and trends in, morbidity and mortality among people living with HIV, disaggregated by geographic region, population and gender.

Provide updated consolidated guidelines on the use of antiretroviral drugs for HIV treatment and prevention and the prevention and management of common comorbidities that will guide rapid and sustainable treatment scale-up to all people living with HIV. Provide guidance on differentiated care for people presenting at different stages of HIV infection and disease.

**Provide assistance to countries to** develop and implement national HIV treatment guidelines, plans and protocols based on the WHO global guidelines.

**Provide guidance on HIV drug resistance surveillance, prevention and management** and regularly report on global HIV drug-resistance prevalence and trends.

# STRATEGIC DIRECTION 3: **DELIVERY FOR EQUITY**

All people should receive the services they need, which are of sufficient quality to have an impact

COUNTRIES NEED
TO STRIKE A BALANCE
BETWEEN FOCUSING
THEIR HIV RESPONSES
FOR MAXIMUM IMPACT
AND ENSURING
THAT NO ONE IS
LEFT BEHIND

Achievement of the 2020 HIV targets will require a robust and flexible health system that includes: a strong health information system; efficient service delivery models; a sufficient and well-trained workforce; reliable access to essential medical products and technologies; adequate health financing; and strong leadership and governance. HIV interventions are most effective when they occur in appropriate social, legal, policy and institutional environments that encourage and enable people to access and use services, which, in themselves, are free of stigmatization and discrimination. Such interventions therefore need to be grounded in an enabling environment that promotes health equity and human rights, and that features well-supported health and community systems.

HIV is an area of public health in which major inequities exist in terms of vulnerability and risk, service access, and health and social outcomes. Countries need to strike a balance between focusing their HIV responses for maximum impact and ensuring that no one is left behind, particularly children and adolescents, girls and women, key populations, and people living in remote areas. Priority should be given to reaching populations and locations in greatest need and overcoming major inequities.

### ADAPTING THE HIV SERVICES CONTINUUM FOR DIFFERENT POPULATIONS AND LOCATIONS

HIV interventions and the continuum of HIV services need to be adapted for different populations and locations, to reach those most affected and to ensure that no one is left behind. WHO guidelines, and implementation tools developed with partners, define essential packages of HIV interventions and service delivery models for different populations and settings, including specific packages for adolescents, women and girls, people who use drugs, sex workers, men who have sex with men, transgender people and prisoners.

Decentralization: Different levels of the health system have different roles to play in delivering HIV and related services. The strategic decentralization, integration and linking of services provide opportunities to increase access, coverage, acceptability and quality. Decentralizing services can strengthen community engagement and may improve access to services, care-seeking behaviour and retention in care.

Differentiated care: As national guidelines evolve towards providing antiretroviral therapy to all people with HIV regardless of clinical and immunological status, HIV services will be challenged to manage an increasing number of patients on treatment and an increasingly diverse set of patient needs. Differentiated care involves the provision of different care packages to patients on antiretroviral therapy based on the stage of their HIV disease, their stability on treatment and their specific care needs. Patients who are stable on treatment, for example, may be moved to community-based care, enabling overburdened clinical care settings to focus on patients who are unwell either because they are unstable on antiretroviral therapy or because they present to the clinic with an advanced stage of HIV disease or major comorbidities.

Person-centred and integrated care: People living with HIV and affected communities experience a broad range of health risks and problems; therefore, HIV and related services need to identify and deliver appropriate interventions in order to address commonly occurring conditions. With the effectiveness of antiretroviral therapy and ageing populations of people living with HIV, HIV services will need to evolve to provide comprehensive chronic care that includes the management of noncommunicable diseases. Greater integration, linking and coordination of HIV services with those for other relevant health areas (including for sexually transmitted infections, broader sexual and reproductive health, substance use disorders, hepatitis, tuberculosis, blood safety, noncommunicable diseases and genderbased violence) has the potential to reduce costs, improve efficiencies and lead to better outcomes. Appropriate models of integration and linkage will depend on the country context and health system, and should be informed by operational research. Joint planning should occur for cross-cutting areas such as health information systems and monitoring and evaluation, laboratory and diagnostic services, human resource planning and capacity building, procurement and supply chain management, and resource mobilization.

Linking HIV and tuberculosis services: The strategic linking and integration of HIV and tuberculosis services and programmes provide a good model for integration. WHO guidelines for national programmes on collaborative tuberculosis and HIV activities identify 12 collaborative activities for implementation to integrate tuberculosis and HIV services. Uptake of indicators from the WHO publication, A guide to monitoring and evaluation for collaborative TB/ HIV activities (2015 revision), <sup>18</sup> helps countries identify and reduce weak linkages within the care cascade. The introduction of electronic reporting and web-based systems with unique patient identifiers to be used by both programmes can facilitate smooth interoperability and enhanced patient follow-up.

Community engagement and community-based services: The meaningful involvement of the community, particularly people living with HIV, is essential for the delivery of effective HIV and broader health services, especially in settings and among populations affected by stigmatization, discrimination and marginalization. Engagement of communities at all levels bolsters advocacy efforts, policy coherence and programme coordination, strengthens accountability and can address factors that affect access, uptake, performance and outcomes of HIV responses. Community organizations and networks play

a key role in delivering services to people who are not reached by government services, generating strategic information that might not be available through national HIV information systems and promoting and protecting human rights. Developing community capacities through adequate training and supervision helps improve the quality of community-based services and programmes. National HIV programmes should facilitate predictable funding of community organizations and adequate remuneration for services provided.

Addressing the needs of special settings: There are specific settings where HIV vulnerability and risk are high and where access to basic HIV services might be severely compromised, such as in prisons and detention centres, refugee camps and settings of humanitarian concern. Services provided to individuals in such settings should be equivalent to those available to the broader community. Particular challenges exist for mobile and displaced populations, including those affected by conflict, natural disasters and economic migration. Members of such population groups are dislocated from their communities, support networks and regular health services, the effect of which may be interruptions in the continuity of their prevention, treatment and care. For example, they may not be able to access or utilize local HIV and other health services because of lack of necessary documentation or high costs of the services with no form of financial protection, such as health insurance.

### Ensuring the quality of interventions and services:

Rapid expansion of programmes to improve coverage should neither compromise the quality of services nor contribute to inequities in access to services and health outcomes. Countries should monitor the integrity of their continuum of HIV services to determine where improvements can be made. Services should be organized to minimize "leakages" and maximize retention and adherence. Major challenges include: acceptability and uptake of effective prevention interventions; targeting HIV testing and counselling to achieve greatest yield; ensuring quality of testing to minimize incorrect diagnosis; linking people diagnosed to appropriate prevention and treatment services as early as possible; ensuring adherence to and continuity of treatment; providing chronic care to prevent and manage comorbidities, including tuberculosis and viral hepatitis; and monitoring treatment outcomes, including antiretroviral toxicity and viral suppression in order to ensure timely switching to second- and thirdline treatment and to prevent the emergence of HIV drug resistance.

Quality of care can be optimized by ensuring that HIV services, including testing and laboratory services adhere to national and international norms and standards, are continuously monitored and improved, and are made more acceptable and accessible to patients' needs and preferences. Indicators and mechanisms for monitoring the quality of services should address such issues as waiting lists, facility waiting times, frequency of visits, and competencies and supervision of health care workers. Ultimately, the quality of HIV interventions must be measured by their ability to improve people's health and well-being.

### **ADAPTING SERVICES**

#### **FAST-TRACK ACTIONS FOR COUNTRIES**

**Set national norms and standards** across the HIV service continuum based on international guidelines and other standards and monitor their implementation.

Define and implement tailored HIV intervention packages for specific populations and locations, ensuring services are relevant, acceptable and accessible to populations most affected.

**Provide differentiated care** by providing tailored intervention packages to individuals at different stages of HIV disease and with different treatment needs.

Adapt service delivery models to strengthen integration and linkages with other health areas and to achieve equity, with a particular focus on reaching adolescents, young women, men and key populations.

Enable effective engagement of and capacity building of communities and ensure that legal and regulatory frameworks facilitate stronger collaboration and partnerships with community groups and between the public and private sectors.

Integrate HIV into national emergency plans to ensure the continuity of essential HIV services during emergencies and in settings of humanitarian concern, with a particular focus on preventing treatment interruptions. Provide training to essential emergency and health service staff based on the Inter-Agency Standing Committee Task Force on HIV/AIDS in Emergency Setting's Guidelines for HIV/AIDS interventions in emergency settings. 19

**Provide equitable services in closed settings,** including implementing the comprehensive package of HIV interventions for prisoners and prison settings as developed by WHO and the United Nations Office on Drugs and Crime.

#### **FAST-TRACK ACTIONS FOR WHO**

Provide updated guidance on essential HIV packages, differentiated care and service delivery models for specific populations and specific settings, including for adolescents, mobile populations, populations in humanitarian settings (WHO in cooperation with UNHCR). Prisoners (WHO in cooperation with the United Nations Office on Drugs and Crime) and key populations.

Support countries in their effort to adapt their HIV services continuum, based on an analysis of their situation, with a particular focus on improving treatment adherence and retention in care.

Provide technical support to countries for implementing the WHO policy on collaborative TB/HIV activities<sup>20</sup> and A guide to monitoring and evaluation for collaborative TB/HIV activities.<sup>21</sup>

Provide guidance on community-based services and community engagement and involve civil society in the development and implementation of WHO policies and guidance.

Provide technical assistance to countries and partners to undertake timely health needs assessments in settings of humanitarian concern and among fragile communities.

<sup>19</sup> Guidelines for HIV/AIDS interventions in emergency settings, see http://www.who.int/3by5/publications/documents/en/iasc\_quidelines.pdf (accessed 22 March 2016).

<sup>20</sup> WHO policy on collaborative TB/HIV activities: guidelines for national programmes and other stakeholders, see http://apps.who.int/iris/bitstream/10665/44789/1/9789241503006\_eng.pdf?ua=1 (accessed 22 March 2016).).

<sup>21</sup> A guide to monitoring and evaluation for collaborative TB/HIV activities, see http://www.unaids.org/sites/default/files/media\_asset/2015\_guide\_monitoring\_evaluation\_collaborative\_TB-HIV\_activities\_en.pdf (accessed 22 March 2016).).

## STRENGTHENING HUMAN RESOURCES FOR HEALTH

The expansion of HIV services to achieve the HIV targets for 2020 and 2030 will place unprecedented demands on the health workforce. Different cadres of health care workers will be required to perform different roles across the full continuum of HIV services. New models of service delivery for meeting more ambitious targets will require strengthening the health workforce, reviewing the roles and tasks of health workers and their deployment across different services. In addition to the provision of routine HIV services, there will be an increasing need for health workers to be competent in delivering services to specific populations, including key populations, and in providing chronic care for people living with HIV. A comprehensive national health workforce plan should address the needs of the overall health system, along with what is required to deliver the full HIV service continuum.

Task-shifting is increasingly being used as part of broader human resources reforms to improve service accessibility, efficiency and quality. Such approaches have already enabled rapid scale-up of HIV testing, treatment and other services in low-resource settings and will play an increasingly important role in expanding the capacity of health care systems. Within the context of task-shifting and task-sharing, supportive mechanisms need to be put in place, including mentoring and supervision, to ensure the quality of services. Peer-support workers can provide valuable services and can help link the community and health services, and in turn should receive regular training, mentoring, supervision and appropriate compensation for their work.

Given the risk of HIV transmission in health care settings, health workers should be protected by comprehensive occupational health and safety programmes, which promote universal precautions, access to prevention commodities such as condoms, post-exposure prophylaxis following significant exposure to HIV, confidential HIV testing, and treatment and care for health workers living with HIV.

### **HUMAN RESOURCES**

### **FAST-TRACK ACTIONS FOR COUNTRIES**

**Develop, monitor implementation and regularly update a national HIV health workforce plan** that is part of a broader health workforce plan, and aligned with the national health plan and priorities.

**Develop the capacity of the health workforce** by defining core competencies for different roles in the provision of comprehensive HIV services, providing relevant training and introducing appropriate accreditation and certification processes.

**Identify opportunities for task-shifting** to extend the capacity of the health workforce, and apply an appropriate training system and regulatory framework including for community health workers.

**Promote the retention of health workers** through appropriate incentives, in particular ensuring adequate wages for all health workers, including for community health and lay workers.

### **FAST-TRACK ACTIONS FOR WHO**

**Advocate for training of health workers** to focus on the delivery of people-centred care that addresses discrimination in the health sector, including discrimination against key populations.

**Provide guidance on task-shifting** across the full continuum of HIV services, including on the use of lay providers for the delivery of specific services, such as HIV testing, support for pre-exposure prophylaxis and antiretroviral therapy delivery, and prevention and management of common comorbidities.

# SECURING THE SUPPLY OF GOOD QUALITY AND AFFORDABLE MEDICINES, DIAGNOSTICS AND COMMODITIES

The rapid expansion in coverage of HIV prevention, diagnosis and treatment interventions is dependent on the availability and secure supply of affordable and high-quality HIV medicines, diagnostics and other commodities. Inferior quality and interrupted supplies of essential HIV commodities, whether it be condoms, injecting equipment, male circumcision devices, diagnostics, medicines or other commodities, impede programme expansion and risk prevention and treatment failure, including the emergence of HIV drug resistance.

The accurate forecasting of country and global needs of all HIV commodities is required to inform the readiness and capacity of manufacturers to meet expected needs and to ensure the continuity of supplies. Local manufacturing capacity should be considered, with the potential to reduce prices, guarantee supply and promote national ownership. National HIV and broader health plans and budgets should address procurement and supply chain management needs. Medicines, diagnostics and other commodities constitute a major component of national HIV programme costs. Selecting the right products of sufficient quality is critical for achieving the best outcomes at an affordable price. WHO offers a range of guidance for countries to facilitate the selection process, including guidelines on the use of antiretroviral drugs for HIV treatment and prevention, the WHO list of essential medicines, testing strategies, and the WHO list of prequalified products.

To ensure their long-term secure supply, the procurement and supply management of HIV commodities should be integrated into the broader national procurement and supply management system. The demand for affordable HIV treatment has resulted in comprehensive price reduction strategies for HIV medicines that may be applied to other medicines, diagnostics and health commodities. Strategies include fostering generic competition, including through, where appropriate, voluntary licences that include pro-access terms and conditions such as those negotiated by the Medicines Patent Pool, and applying, as appropriate, the use of the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and in accordance with the Global Strategy and Plan of Action on Public Health, Innovation and Intellectual Property, including compulsory licences and filing patent oppositions, differential pricing and direct price negotiations with manufacturers, as well as local manufacturing. WHO maintains databases on the prices of HIV medicines and diagnostics, and collaborates with the Medicines Patent Pool,<sup>22</sup> which maintains a database on patent status to help countries achieve the best possible prices for these commodities.

There are also many opportunities to spend less on the procurement of HIV medicines, diagnostics and commodities, and improve efficiencies in supply management, such as bulk procurement with staggered deliveries for short shelf-life commodities, advance purchasing and improved forecasting in order to avoid wastage through expired products.



09 – Preparing to take antiretroviral medicine. Uganda.

#### **SECURING SUPPLY**

### **FAST-TRACK ACTIONS FOR COUNTRIES**

Strengthen the national HIV procurement and supply management structures and processes by ensuring that they are integrated into the broader national procurement and supply management system.

Ensure the procurement of quality-assured HIV medicines, diagnostics, condoms, male circumcision devices and other HIV-related commodities, including through the use of WHO prequalification.

**Plan and implement an HIV medicines and commodities access strategy** to reduce prices of HIV medicines, diagnostics and other commodities, including through the use of the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health.

Safeguard and expand availability of WHO-prequalified generic products through the expansion of licence agreements and expedition of registration at national level.

#### **FAST-TRACK ACTIONS FOR WHO**

**Forecast demand** for, access to and uptake of medicines, diagnostics and other commodities for HIV and major comorbidities, and use this information to advocate for adequate manufacturing capacity of producers, including, where appropriate, in suitable low- and middle-income settings.

**Promote the WHO prequalification programme** to allow fast-track registration of priority medicines and commodities, and to safeguard and expand availability of quality-assured medicines and diagnostics.

**Provide guidance on HIV product selection** by national programmes, donors and implementing agencies through the generation and dissemination of strategic information on prices and manufacturers of HIV medicines, diagnostics and other commodities.

**Provide technical support to countries** to forecast the need for essential HIV commodities, include them in their national procurement and supply management plans and develop a strategy for negotiating price reductions with manufacturers.

**Support regulatory authorities** in pre-market assessment and registration of new HIV medicines and diagnostics, with post-market surveillance.

**Provide technical support to countries** to develop comprehensive price reduction strategies in order to ensure access to essential HIV medicines, diagnostics and commodities.

## CREATING AND SUSTAINING AN ENABLING ENVIRONMENT

An effective HIV response requires a supportive social, legal and policy environment that encourages and enables people to access and use services. Reaching diverse populations in many different settings requires strong, well-supported health and community systems and an enabling environment that promotes health equity, gender equality and human rights.

Policies, laws and regulations: The health sector has a major obligation to ensure that policies, laws and regulations, including those in other sectors, are pro-health and support national HIV responses. When properly enforced, laws and policies that eliminate gender inequality and protect and promote human rights can reduce vulnerability to and risk of HIV infection, expand access to health services and enhance their reach, quality and effectiveness — especially for key populations.

An array of barriers, nevertheless, continues to prevent certain populations from accessing and using effective interventions and services, such as age of consent laws for adolescents, lack of social protection for migrants and displaced populations, and the criminalization of some populations and behaviours (such as drug use, sex work and sex between men). HIV programmes have an important role in monitoring policies, laws and regulations in other sectors to determine their possible implications for the HIV and broader health response, and where barriers exist to advocate for appropriate reviews and reforms to ensure pro-health outcomes.

#### **ENABLING ENVIRONMENT**

### **FAST-TRACK ACTIONS FOR COUNTRIES**

**Reform policies, laws and regulations** that hinder equitable access to HIV-related services, especially for key populations and other vulnerable groups.

End policies and practices that reinforce stigmatization and discrimination (especially in health care settings), particularly for people living with HIV and key populations.

Create institutional and community environments that make it safe for people to access HIV services without fear of discrimination, involving communities in the planning and delivery of services to improve their reach, quality and effectiveness.

**Address gender inequality** by integrating evidence-based interventions into national HIV plans and strategies.

#### **FAST-TRACK ACTIONS FOR WHO**

Advocate for the use of public health evidence to shape pro-health laws and actions based on medical ethics, human rights and public health principles.

Develop and promote WHO policies and guidelines that explicitly address gender inequality, gender-based violence, stigmatization and discrimination, human rights, key populations, and public health alternatives to criminalization.

Develop, update and implement guidance and implementation tools on the prevention and management of gender-based violence and the inclusion of structural barriers to accessing essential HIV services for different populations, including children, adolescents and key populations.

### STRATEGIC DIRECTION 4:

### FINANCING FOR SUSTAINABILITY

All people should receive the services they need without experiencing financial hardship

INCREASING
HIV FUNDING
NEEDS TO BE PART
OF THE BROADER
EFFORTS IN PLACE TO
INCREASE OVERALL
INVESTMENTS
IN HEALTH

Implementing fast-track actions to end the AIDS epidemic by 2030 will require major new global investments, increasing from US\$ 21 700 million in 2015 to US\$ 32 000 million in 2020. By front-loading investments, the full continuum of HIV interventions and services can be rapidly taken to scale.

Financing for a sustainable HIV response requires action in three areas:

Revenue raising to pay for HIV interventions and services, with an emphasis on improving domestic tax collection (including both general revenues and compulsory health insurance contributions) supplemented by external sources, such as donor grants and private revenues;

Financial risk protection and pooling, including establishing equitable mechanisms to pool funds across the health system to ensure adequate coverage of the continuum of HIV services that reduces financial barriers to services while providing financial risk protection;

Improving efficiency in the use of health system resources to enable greater effective coverage of HIV services, including by reducing the costs of HIV medicines, diagnostics and other commodities and by reducing duplication of underlying subsystems with other programmes and the wider health system, such as strategic information, human resources, and procurement and supply management. Systematic use of cost studies and programme and financial data should inform programmatic priorities.

The national health financing system should address HIV along with all other national priority health needs, avoiding fragmented funding channels and aiming to achieve health equity.

## INCREASING INVESTMENTS THROUGH INNOVATIVE FINANCING AND NEW FUNDING APPROACHES

Existing international and domestic funding commitments are not enough to achieve the 2020 and 2030 targets outlined in this strategy. New sources of funding will be required, not only to fund a sustainable scale-up of HIV-related interventions and services, but also to fill funding gaps resulting from shifting donor priorities. The HIV response has already stimulated innovation in health system financing, at global and country levels, such as the use of levies on airline tickets and mobile telephones, and through income taxes. Further innovation will be required to generate the resources required for a sustained response.

Increasing HIV funding needs to be part of the broader efforts in place to increase overall investments in health, in order to ensure that all priority health services can be scaled up towards universal health coverage. Public, domestic funding is central to funding essential and sustainable health services, including those for HIV. UNAIDS has set 2020 targets for domestic funding of HIV programmes, including 12% domestic funding for programmes in low-income countries, 45% for lowermiddle income countries and 95% for upper middleincome countries. Public spending on health can be increased either by raising more tax revenues (increasing the government's fiscal capacity) or by allocating a greater share of overall government funds to health (giving health a greater priority in the public budget). Health ministries need to actively engage with ministries of finance on issues related to budgets, public financial management systems, and fiscal space concerns. HIV investment cases should be used to advocate for and negotiate a fair allocation of public resources for HIV.

Most low-income and lower middle-income countries will continue to rely on external and private sector funding for their HIV services and interventions through to 2020 and beyond. It is important that revenue flows from such sources are fully aligned with national HIV priorities, programmes and plans that are in turn embedded in a coherent national health plan. Stability and predictability of these flows are essential in order to minimize the risk of service interruption.

## ADDRESSING FINANCIAL BARRIERS TO ACCESS AND PROVIDE FINANCIAL RISK PROTECTION

Health financing systems that minimize out-of-pocket payments for all essential health services increase access to these services and prevent impoverishment. To minimize catastrophic health payments, out-of-pocket spending should be limited to less than 15–20% of total health spending.

Essential HIV interventions, across the continuum of HIV services, should be included in the national health benefit package and be provided free of charge. In addition, the provision of supportive arrangements (such as decentralizing services or offering transport vouchers) to minimize the indirect costs for people using services can improve service uptake and impact. User fees result in inequities in access to HIV treatment, undermine service use, contribute to poor treatment adherence, increase risks of treatment failure, and constitute unnecessary financial burdens on households.

Financial risk protection and access to needed services for people living with HIV and other affected populations will depend on a broader robust and fair national health financing system. Public financing systems for health, involving predominant reliance on revenues raised from general taxation and/or payroll taxes for compulsory health insurance are the most equitable and efficient systems. Such prepayment mechanisms should be based on ability to pay, with broad pooling of the revenues to enable benefits to be provided to those in need, including those who cannot afford to contribute to the system.

## REDUCING PRICES AND COSTS AND IMPROVING EFFICIENCIES

Fiscal pressures require that countries select the most effective HIV interventions and approaches, target those activities according to the populations and settings where they will have greatest impact, reduce the prices of medicines and other health commodities, and increase the efficiency of services. Programmes that can demonstrate "value for money" and efficiency gains are better positioned to argue for fair allocation of resources and external financial support. There are various opportunities to improve efficiencies and reduce costs.

Good programme management can improve the efficient flow, allocation and utilization of resources from national budgets or external sources to service delivery. This includes better coordination of donor funding and alignment with national plans and the broader health system, pooling of resources, performance-based funding and increased accountability at all levels and across all stakeholders, including implementers and funders.

Improved selection, procurement and supply of affordable medicines diagnostics and other health commodities can reduce the cost of services and eliminate waste. These approaches are described under Strategic direction 3.

More efficient and high-quality service delivery can result in major savings and improved health outcomes. Strategic direction 3 already considers opportunities for improving service delivery models, including through service integration and linkages, decentralization, task-shifting and the use of lay health providers and community systems strengthening. Assuring the quality of services is essential for improving efficiencies – good quality services will result in greater health gains for every dollar spent. Good treatment adherence and retention in care, for example, will minimize treatment failure, reduce hospitalization, and lessen the need to switch to more expensive second- and third-line treatments. The coordination of HIV interventions and services with other health programmes and the overall health system will reduce inefficiencies, and, as a result, will maximize intended results.



10 – Promoting HIV awareness with homeless people. Bangladesh.

#### FINANCING FOR SUSTAINABILITY

### **FAST-TRACK ACTIONS FOR COUNTRIES**

**Develop a robust HIV investment case** to advocate for adequate allocation of domestic resources and to mobilize external funding support.

Estimate national HIV resource needs and, where necessary, develop plans to transition from external to public domestic funding of HIV services, with a particular focus on protecting essential services most reliant on external funding in order to avoid service interruption.

Reduce financial barriers, including phasing out direct, out-of-pocket payments for accessing HIV and other health services.

Provide universal protection against health-related financial risk, covering all populations, and identify the most appropriate way for achieving such protection, including public compulsory health financing systems.

Monitor health expenditures and costs and costeffectiveness of HIV services through the national monitoring and evaluation system in order to identify opportunities for cost reduction and saving.

Strengthen coordination with other health programmes including identifying opportunities to consolidate underlying health systems, such as those for strategic information, human resources, and procurement and supply management.

#### **FAST-TRACK ACTIONS FOR WHO**

Estimate and regularly review resource needs (in cooperation with UNAIDS) to achieve the 2020 and 2030 targets.

Advocate for full funding of the HIV response by building political commitment for sustained national financing and by promoting strategic financing partnerships, including with the Global Fund to fight AIDS, Tuberculosis and Malaria, UNITAID, the United States President's Emergency Plan for AIDS Relief, the Bill & Melinda Gates Foundation and others.

**Support countries to develop national HIV investment cases** and financial transition plans to move from external to domestic HIV funding.

Provide guidance and tools for assessing and monitoring health service costs and cost—effectiveness and support countries to adopt WHO's Health Accounts Country Platform.<sup>23</sup>

Advocate for countries to include essential HIV intervention and services into national health benefit packages and remove financial barriers to accessing HIV services and commodities.

ASSURING THE
QUALITY OF SERVICES IS
ESSENTIAL FOR IMPROVING
EFFICIENCIES – GOOD
QUALITY SERVICES WILL
RESULT IN GREATER
HEALTH GAINS FOR EVERY
DOLLAR SPENT

### STRATEGIC DIRECTION 5:

### INNOVATION FOR ACCELERATION

Changing the trajectory of the response to achieve ambitious targets

Research and innovation provide the tools and knowledge that can change the trajectory of the HIV response, improve efficiency and quality, achieve equity and maximize impact. It is unlikely that the HIV targets set for 2020 and 2030 will be achieved if countries rely only on existing HIV knowledge, technologies and service delivery approaches.

Innovation is not only required to develop new technologies and approaches, but also to use existing tools more efficiently and to adapt them for different populations, settings or purposes. Interventions that have been developed and established in one region may require "re-engineering" to be effective elsewhere, such as the concept of task-shifting developed in high prevalence settings of southern Africa being adapted as a novel approach in eastern Europe or Asia. Harm reduction programmes developed for opioid users will require innovative approaches to make them relevant for cocaine users. The rapid transfer of knowledge can help countries to "leapfrog" their HIV responses, learning from the experiences of others to quickly identify and adapt the most promising interventions and approaches. Operational research can guide HIV service improvements to ensure investments are maximized.

WHO supports HIV research in four main areas: building capacity of health research systems; convening partners around priority-setting for research; setting norms and standards for good research practice; and facilitating the translation of evidence into affordable health technologies and evidence-informed policy. While having a very limited direct role in research and product development, WHO works closely with research and development partners and manufacturers to ensure that essential new HIV technologies are available and affordable to countries as soon as possible.

Given the critical role of partners in innovation, this Strategic Direction describes key areas for innovation that will require joint effort by countries, WHO and other partners. Given the 15-year time horizon for achieving the 2030 targets, short-, medium- and long-term research priorities should be considered. This strategy focuses on the short- and medium-term priorities.

#### **OPTIMIZING HIV PREVENTION**

Recent innovations in prevention technologies have dramatically strengthened the HIV prevention portfolio, including the use of antiretroviral drugs for preventing HIV transmission and acquisition, and the expansion of medical male circumcision for prevention of HIV acquisition. More extensive use of these opportunities and further innovations – some already in the pipeline – will increase impact.

To fully realize the potential of pre-exposure prophylaxis of HIV infection will require improved formulations, delivery systems and service delivery models, including topical and long-acting injectable formulations.

Innovations in male and female condom design and medical male circumcision devices should aim to improve acceptability and uptake. HIV vaccine research and efforts to find a functional cure in people living with HIV will continue to be a key component of the HIV research agenda. New information and communication technologies should be exploited to deliver effective prevention interventions through eHealth, using web-based and mobile-based applications.

### **OPTIMIZING HIV TESTING AND DIAGNOSTICS**

New and improved diagnostics technologies and testing approaches will lead to earlier and more accurate HIV diagnosis, and strengthened patient monitoring. There are several opportunities for innovation. New developments in HIV self-testing have the potential to expand HIV testing dramatically, but will need to ensure quality and adequate linkages to confirmatory testing and broader HIV services. Simple, affordable and reliable point-of care diagnostics for HIV diagnosis, including early infant diagnosis, and patient monitoring, particularly for viral load measurement, will enable HIV testing and patient monitoring to be taken to communities and remote areas. The development of polyvalent or integrated diagnostic platforms for the combined diagnosis of HIV and coinfections, such as tuberculosis, viral hepatitis and syphilis, has the potential to increase service efficiencies and improve patient care.

## OPTIMIZING HIV MEDICINES AND TREATMENT REGIMENS

Despite major advances in the safety, potency and acceptability of antiretroviral drugs and regimens, there are still areas where innovations and improvements are required. Whereas much progress has been made in the development of simple and effective first-line antiretroviral therapy regimens and formulations, innovation is required to develop simple and robust fixed-dose second-line and third-line regimens. Research on optimal doses of antiretroviral drugs should aim to inform effective regimens while minimizing toxicity and drug-drug interactions and reducing costs. Much innovation is still required on developing suitable antiretroviral formulations and harmonized regimens, including simple and palatable formulations for infants and children, regimens for adolescents to improve acceptability and adherence, and long-acting oral and injectable formulations to improve adherence and viral suppression. At the same time, there is the need to develop more effective drugs and regimens for the prevention and management of major coinfections and other comorbidities.

#### **OPTIMIZING SERVICE DELIVERY**

Much of the success of a rapid scale-up of antiretroviral therapy can be attributed to the adoption of a public health approach to HIV treatment and care, which promotes the use of simplified and standardized regimens, protocols and approaches, makes efficient use of the different levels of health services and engages fully with communities. Similarly, many of the HIV prevention successes can be attributed to innovations in health services and the strengthening of community systems, so that those populations most vulnerable and at risk can be reached with effective interventions.

However, as HIV programmes mature, they need to be adapted to meet new challenges, expand their reach and impact, and enhance equity. A careful balance is required, whereby services are tailored to specific settings and populations, while at the same time maintaining a certain level of simplicity and standardization to allow for large-scale, efficient and sustainable expansion. Experience from a scale-up of antiretroviral therapy has highlighted the need to consider differentiated HIV treatment and care to respond to the different treatment needs of people living with HIV (depending on their age, the stage of HIV disease, their response to treatment, the presence of comorbidities and other health conditions, and local contexts).

Particular focus needs to be given to the development of innovative services to reach, engage and retain in care a number of populations and to deliver specific packages of interventions. Innovative combination prevention packages are urgently needed to tackle the high HIV incidence in some populations of adolescent girls and young women particularly in sub-Saharan Africa, and to increase the engagement of boys and men in both prevention and treatment services. Poor treatment adherence, low rates of retention in care and increasing mortality among adolescents living with HIV require priority attention. Low coverage of voluntary medical male circumcision in adolescent boys and older men needs to be addressed.



11 – Families in Ethiopia have come together to address HIV-related stigma.



Effective implementation of the strategy depends on concerted action from all stakeholders in the health sector response to HIV. Success requires strong partnerships to ensure policy and programme coherence. Within the health sector, linkages across different disease-specific and cross-cutting programmes need to be established and strengthened.

### COLLABORATION WITH PARTNERS

WHO has an important convening role in bringing together different constituencies, sectors and organizations in support of a coordinated and coherent health sector response to HIV. In addition to working with the ministries of health of Member States, the WHO Secretariat works closely with other key partners, including:

Multilateral and bilateral donor and development agencies, funds and foundations: WHO has developed joint HIV workplans and other collaborative arrangements with a range of major HIV donor agencies, including the Global Fund to fight AIDS, Tuberculosis and Malaria; UNITAID; and the United States President's Emergency Plan for AIDS Relief.

Civil society: WHO has established a Civil Society Reference Group on HIV, which brings together representatives from a broad range of HIV-related civil society constituencies and networks. The Reference Group advises WHO on its HIV policies and programme of work, and facilitates dissemination and implementation of WHO policies and guidance. Civil society is represented in all WHO technical working groups, including those involved in the development of WHO policies, guidelines and tools. A range of civil society organizations have official relations with WHO, enabling them to attend as observers various WHO governing body meetings, including the World Health Assembly.

### UNAIDS and partner United Nations agencies:

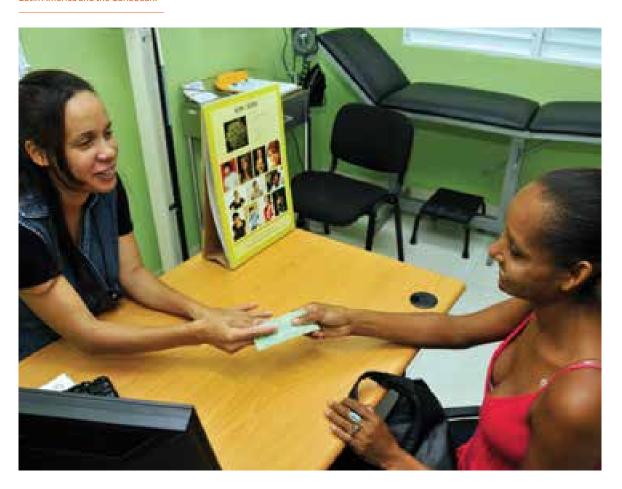
WHO, as a cosponsor of UNAIDS, depends on the broader United Nations system to provide a comprehensive multisectoral HIV response. The ten other UNAIDS cosponsors, along with the UNAIDS secretariat, contribute to the health sector response to HIV, guided by the UNAIDS "division of labour" which outlines key areas of responsibilities across the UNAIDS family.

Technical partners: WHO has established a Strategic and Technical Advisory Committee on HIV, which comprises a range of technical experts from national HIV programmes, implementing organizations, research institutes and civil society to advise the Director-General on the Organization's HIV policies and programme of work. Technical partners play a critical role in WHO working groups that are responsible for developing WHO policies and guidelines.

# GLOBAL AND COUNTRY ACCOUNTABILITY

Accountability mechanisms that function well and are transparent and that have strong civil society participation are vital, given the range of partners and stakeholders that is needed for an effective HIV response. Important building blocks include nurturing strong leadership and governance and involve: full engagement with all relevant stakeholders; setting clear national targets that reflect, where appropriate, the Sustainable Development Goals, including the goals and targets of this strategy, and other global commitments; using appropriate indicators on the availability, coverage, quality and impact of interventions to track progress; and establishing transparent and inclusive assessment and reporting processes. Several instruments already exist for measuring progress (including for creating an enabling environment). Consistent monitoring and regular reporting on progress at country and global levels are vital for strengthening accountability.

13 – Prenatal check-up, Latin America and the Caribbean.



# MONITORING, EVALUATING AND REPORTING

Implementation of the strategy will be monitored at four levels, using existing mechanisms:

- Monitoring and reporting progress towards global goals and targets;
- Monitoring and evaluating the response at regional and country levels;
- Applying WHO's framework for results-based management;
- Applying the UNAIDS accountability framework.

BENCHMARKING –
OR COMPARISONS BETWEEN
AND WITHIN COUNTRIES
– WILL ALSO BE USED TO
ASSESS PERFORMANCE IN
REACHING TARGETS

## MONITORING AND REPORTING PROGRESS TOWARDS GLOBAL GOALS AND TARGETS

At the global level, regular reviews will assess progress on the various commitments and targets. These reviews will build on data received from countries through various existing monitoring and evaluation mechanisms and procedures, such as the Global AIDS Progress Reporting and complemented by additional data where necessary. WHO has identified a set of ten **core global** indicators, which are organized along the continuum of HIV services, and which should be used for monitoring and reporting on the progress of the health sector response to HIV (see Figure 7).

Progress at global and regional levels in moving towards the targets set out in this strategy will be regularly assessed. Benchmarking – or comparisons between and within countries – will also be used to assess performance in reaching targets. The strategy is designed to be sufficiently flexible to incorporate additional priorities or fill gaps in the health sector response to HIV that may be identified. To that end, WHO will continue to work with its partners to provide support to countries for the harmonized and standardized collection of core indicators, based on WHO's Consolidated strategic information guidelines for HIV in the health sector,<sup>24</sup> and in the preparation of global and regional reports. Regular reporting of the data is proposed.

WHO will implement a monitoring and accountability framework for the strategy in consultation with stakeholders. It will also monitor and share data on the uptake of its guidelines on HIV, as well as on progress in implementation of the strategy, to highlight barriers and promote best practices.

## MONITORING AND EVALUATING THE RESPONSE AT COUNTRY LEVEL

Progress in implementing the health sector response to HIV should be assessed with indicators on availability, coverage outcome and impact, taking into consideration other relevant recommendations for monitoring implementation. The WHO Consolidated Strategic Information Guidelines recommends a standardized core set of 50 national indicators that countries may use to monitor and report on their national HIV programmes and overall national HIV responses. Progress towards the HIV-related Sustainable Development Goals will be tracked and reported.

Indicators for monitoring the strengthening of health systems derive from a common platform for monitoring and evaluating national health strategies coordinated by WHO. Instruments are also available for measuring progress in implementing policy, legal and structural measures for enhancing the HIV response.

## WHO'S FRAMEWORK FOR RESULTS-BASED MANAGEMENT

WHO's Twelfth General Programme of Work 2014– 2019,<sup>25</sup> provides the high-level strategic vision for the work of WHO, and outlines six areas of work. Most activities related to HIV fall under Category 1 on communicable diseases. However, other important HIV-related activities fall under other categories, notably, Category 2 on noncommunicable diseases (including substance use, mental health and chronic care), Category 3 on promoting health through the life course (including maternal, adolescent and child health, and sexual and reproductive health) and Category 4 (including access to medicines and diagnostics, integrated service delivery, strategic information and human resources). Under Category 1, HIV and viral hepatitis have their own area of work for which biennial workplans are developed along with a set of agreed outcomes and budget.

This strategy covers three biennia (2016–2017, 2018–2019 and 2020–2021). Workplan implementation is monitored through progress reports at the end of each biennium. Mid-term biennium reviews will be undertaken to facilitate implementation.

#### THE UNAIDS ACCOUNTABILITY FRAMEWORK

WHO's HIV work is reflected in the budget and workplan of the UNAIDS unified budget, results and accountability framework<sup>26</sup> which entails a single framework for 2016-2021 that promotes joint planning and budgeting across the 11 cosponsors and the UNAIDS secretariat. Detailed workplans and budgets are developed for two-year periods, for the period of this strategy starting with 2016–2017. Each cosponsor is responsible for implementing a set of broad activities related to their organizational mandate and the UNAIDS Technical Support Division of Labour. The UNAIDS Unified Budget, Results and Accountability Framework is accompanied by a performance-monitoring framework, which defines indicators against which progress in implementation of the budget and work plan is measured. Annual progress reports are submitted to the UNAIDS Programme Coordinating Board.

14 – HIV training for maternal and child health assistants, Sierra Leone.



<sup>25</sup> Twelfth General Programme of Work 2014–2019: not merely the absence of disease, see http://www.who.int/about/resources\_planning/twelfth-gpw/en/ (accessed 22 March 2016).

<sup>26</sup> At the 37th meeting of the UNAIDS Programme Coordinating Board (Geneva, 26–28 October 2015), the framework was presented, entitled: UNAIDS unified budget, results and accountability framework 2016–2021, see http://www.unaids.org/sites/default/files/media\_asset/20151103\_UNAIDS\_UBRAF\_PCB37\_15-19\_EN.pdf (accessed 22 March 2016)..

## COST OF IMPLEMENTING THE STRATEGY

The Global health sector strategy on HIV, 2016–2021, describes the health sector contribution to the goal of ending AIDS as a public health threat by 2030. The costing of implementation of the strategy has been undertaken based on the costing of the UNAIDS 2016–2021 Strategy, which used specific targets and unit costs for the interventions included in the strategy.

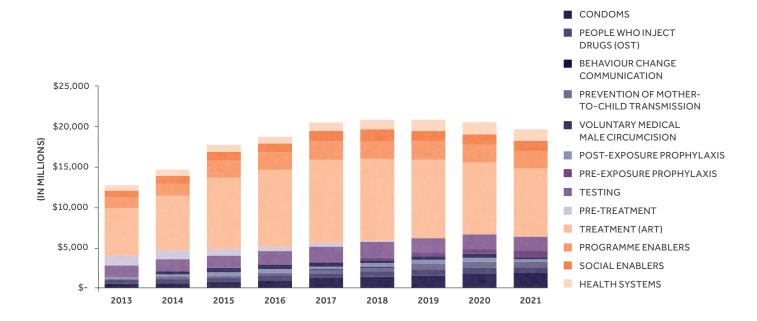
Data for the costing are drawn from demographic estimates prepared by the United Nations Population Division, national household surveys (Demographic and Health Surveys and AIDS Indicator Survey),<sup>27</sup> UNAIDS estimates of the burden of HIV by country, and country reports through the Global AIDS Response Progress Reporting system.<sup>28</sup> The costs are calculated for 120 lowand middle-income countries across the six WHO regions.

Unit costs are based on reviews of costing studies and have been reviewed by experts from a range of countries. An expert panel provided estimates of future costs of antiretroviral therapy. Those estimates assume some continued decline in antiretroviral prices and reductions in both laboratory costs (as testing regimens are simplified) and in service delivery costs, as some patients are transferred to community care. Future coverage targets are from the UNAIDS 2016–2021 Strategy.

The total costs of the present strategy are estimated to rise from about US\$ 20 000 million in 2016 to almost US\$ 22 000 million in 2020 and to US\$ 21 000 million in 2021 (see Figure 8). Antiretroviral therapy requires the largest amount of resources, about 47% of the total; programme enablers represent the next largest component at 13%; HIV testing services are next at 9%; followed by condom programmes at 8%.

More than one third of all resources are required for four countries (in order of burden): South Africa, Nigeria, Brazil and China. Over half of all resources required for low- and middle-income countries are needed in the African Region (55%).<sup>29</sup> The next largest regions are the Americas Region at 16%, the Western Pacific Region at 13% and the South-East Asia Region at 8%. In the European Region, 5% of resources are needed, and 4% are needed in the Eastern Mediterranean Region. About one quarter of resources are needed in low-income countries, about one quarter in lower middle-income countries, and just under one half in upper middle-income countries.

Figure 8. Costs by intervention and year (in US\$)



<sup>27</sup> The DHS Program: demographic and health surveys, see http://dhsprogram.com/What-We-Do/Survey-Types/DHS.cfm (accessed 22 March 2016)

<sup>28</sup> Global AIDS Response Progress Reporting, see http://www.unaids.org/en/dataanalysis/knowyourresponse/globalaidsprogressreporting (accessed 22 March 2016).

<sup>29</sup> The regions refer to the six WHO regions, with data covering 120 low- and middle-income countries.

### Photo credits

	© 2014 Kunle Ajayi, Courtesy of Photoshare; tion: Lagos, Nigeria
	HIV conference, Latin America and the Caribbean. HO/PAHO
mon © 20	A blood sample is prepared for HIV testing from a seven th old child, Cambodia. 11 David Snyder for the CDC Foundation, rtesy of Photoshare; Location: Seireisophon, Cambodia
04-	© WHO
05-	© UNAIDS
06-	© WHO/PAHO
07 – 0	© UNAIDS
	© 2015 Aulia Human, Courtesy of Photoshare tion: DKI Jakarta Indonesia
09-	© UNAIDS
	© 2014 M Ponir Hossain, Courtesy of Photoshare tion: Dhaka Bangladesh
11-0	© UNAIDS
12-0	© WHO/PAHO
13 –	© WHO/PAHO
14-0	© Abbie Trayler-Smith/Panos/H4+



For more information, contact:

World Health Organization Department of HIV/AIDS 20, avenue Appia 1211 Geneva 27 Switzerland

E-mail: hiv-aids@who.int www.who.int/hiv

WHO/HIV/2016.05