National HIV Strategic Plan 2016–2021

Nepal HIV ision 2020

Ending the AIDS epidemic as a public health threat, by 2030

Government of Nepal Ministry of Health National Centre for AIDS and STD Control



Hon. Gagan Kumar Thapa Minister Ministry of Health



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Ref. No.

MESSAGE

The progressive, new and actionable Political Declaration on Ending AIDS was adopted by Member States, including Nepal, at the United Nations General Assembly High-Level Meeting on ending AIDS that took place in New York on 8 June 2016. The Declaration includes a set of specific, time-bound targets that must be reached by 2020 to end the AIDS epidemic by 2030 within the framework of the Sustainable Development Goals.

As we stand united with the global community in our resolve to end the AIDS epidemic, Nepal's National HIV Strategic Plan for the period 2016–2021 will drive our country's progress in creating healthier outcomes for everybody affected by HIV and building a strong healthy society prepared for future challenges.

Nepal HIVision 2020 provides the strategic directions for the implementation of an innovative, evidence-informed and socially just HIV plan that will set us on a Fast-Track course to surely end our AIDS epidemic by 2030.

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Honourable Gagan Kumar Thapa Minister of Health, Nepal



On 30 January 2015, during the United Nations Economic and Social Commission for Asia and the Pacific intergovernmental meeting in Bangkok, Nepal committed to Fast-Tracking its HIV response. Nepal reaffirmed this commitment on 8 June 2016 at the United Nations General Assembly High-Level Meeting on ending the AIDS epidemic as a public health treat by 2030.

Nepal HIVision 2020 is Nepal's Fast-Track approach to closing the gap between people who have services and people being left behind, by urgently and fully funding and front–loading investments to prevent new HIV infections and save lives.

Nepal's National HIV Strategic Plan for the period 2016–2021 has been informed by the country's 30 years of experience in the HIV response and by updated recommendations based on new evidence, approaches and technologies.

Central in Nepal HIVision 2020 is our responsibility to achieve the 90–90–90 treatment targets for 2020, whereby 90% of people living with HIV know their HIV status, 90% of people who know their HIV-positive status are accessing antiretroviral therapy, and 90% of people on treatment have suppressed viral loads.

Other targets include zero infections among children, and 90% of women and men, especially young people and people living in high-prevalence settings, have access to a combination of undertakings and commodities to prevent HIV, including sexual and reproductive health services.

These targets are based firmly on an approach that leaves no one behind and is grounded in human rights.

For this to become a reality, we can not depend only on foreign aid, and we will gradually increase our own domestic investments in HIV.

Nepal HIVision 2020 can not only be the vision of the Ministry of Health. It is the vision of every sector of the Government of Nepal, Nepal's nongovernmental and international partners, and all people of Nepal.

I reaffirm the commitment of the Government and people of Nepal that ending our AIDS epidemic by 2030 is not only a vision. It is also a goal that indeed will be achieved.

Dr Senendra Raj Uprety Health Secretary, Nepal



INTRODUCTION

Nepal has been steadily progressing and showing success in addressing the HIV epidemic more systematically since the implementation of its first HIV strategy in 1997. With the development of subsequent strategies in 2002, 2006 and 2011, Nepal has experienced continuous generous financial and technical support from national and international stakeholders and donors, including the Global Fund to Fight AIDS, Tuberculosis and Malaria. Civil society organizations, key affected people and their organizations and networks have played a critical and constructive role in supporting and participating in the national HIV response.

In order to achieve the national 2020 treatment and prevention targets towards ending the AIDS epidemic by 2030, Nepal needs to be more strategic and judicious in investing its resources to capitalize on the critical five-year window between now and 2020.

This will be possible only by being ambitious, embracing innovation, being clear on focus and priorities for actions, expanding the scope of work, and intensifying and scaling up strategies that will deliver the maximum results; all within an environment that respects and protects human rights. For this, sustainable investments, increasingly from domestic financing, are central.

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Dr Plushpa' Chaudhary Director General, Department of Health Services, Nepal



FOREWORD

We are fortunate in Nepal to have ample evidence, acquired over many years, of what works and what does not work well in the HIV response, and we have reliable results from studies and surveys.

The AIDS Epidemic Model presented us with a number of investment scenarios to choose from, based on our own local contexts. This modelling exercise analysed Nepal's country data to produce scenarios to optimize return on investments and to wisely and strategically drive a national HIV response towards ending the AIDS epidemic in Nepal by 2030.

The National Centre for AIDS and STD Control stands ready and is fully committed to Fast-Tracking Nepal's national HIV response towards achieving Nepal HIVision 2020 over the next five years through the National HIV Strategic Plan 2016–2021.

As the Sustainable Development Goals embody a renewed commitment to equality, non-discrimination and leaving no one behind, so does Nepal's National HIV Strategic Plan. This is also a renewed commitment to shared responsibility and national solidarity and investing wisely towards achieving these goals through a human rights approach that is rooted in giving all people the opportunity to achieve their right to life, well-being and dignity.

We would like to acknowledge the efforts of the members of the Steering Committee and the Strategic Plan Development Team in undertaking this rigorous exercise. We also appreciate the support provided by our international development partners in making this exercise possible. We are confident that the Government of Nepal and our people will continue to receive international technical and financial support in order to fully implement the activities and strategies and make the necessary evidence-informed investments to achieve the vision.

Dr Tarun Paudel Director, National Centre for AIDS and STD Control

REMARKS FROM THE COMMUNITY

No response to HIV can be effective without community involvement, as the people that make up communities-the people living with HIV, the people most affected by HIV-are the ones who have the most to lose and the most to gain.

Through the years, the role of communities in the HIV response in Nepal has grown from the initial care and support to a wider, well-recognized role in supporting health and social services, networking and advocating for the rights of people living with HIV and other key populations, being equal partners in the decisions and policies affecting people living with HIV, reducing fear, prejudice and discrimination associated with HIV, and tackling human rights violations and gender injustice.

Working alongside public health and other systems, community responses are critical to the success and sustainability of Nepal's response to HIV. Community responses are practical and therefore need to be innovative. Civil society is skilled at finding concrete solutions that negotiate the complex social, political and cultural contexts in which HIV operates in Nepal. For instance, after the 2015 devastating earthquake, the roles of communities have been well recognized in humanitarian contexts for their ability to adapt, move quickly and develop solutions that reach those most affected to effect change preparedness, response and recovery.

This is a remarkable moment in the history of the response to HIV in Nepal, as we embark on our National HIV Strategic Plan for the years 2016–2021. We have the tools, knowledge and commitment needed to end AIDS as a public health threat by 2030 by using a Fast-Track approach over the next five years, followed by sustained action until 2030.

Much of the fundamental work needed to have successful results through a Fast-Track approach will be achieved only with our strong community presence, voice and actions. This includes broadening in-reach of services to people in greatest need, and being innovative in community-based and community-led service delivery-in particular for testing and treatment, linkages to care and in creating demand, monitoring quality, expanding the scale and reach of services to prevent HIV, and forcefully addressing upstream drivers that could impede success, such as violations of human rights, gender injustice, prejudice and discrimination.

This National HIV Strategic Plan is an expression of Nepal's community engagement and community-led responses to tackle specific challenges in Fast-Tracking: engagement in advocacy and accountability for strategic investments; reaching and advocating for human rights of key populations; understanding social, cultural and other issues relevant to health and well-being; adherence support; demand creation; services delivery in the prevention-treatment continuum through community organizations and in-reach workers;

navigators in health and other social services; and collaboration in relevant public–private partnerships through task-sharing. In short, the "identify, reach, recommend" paradigm of this National HIV Strategic Plan relies fully on us, the communities.

It is essential that we integrate community and health systems into sustainable, comprehensive and resilient systems for health. Our community-based services are the best positioned and stand ready to support and participate in these systems to achieve good-quality, concrete health and well-being outcomes.

The National HIV Strategic Plan, to which communities have greatly contributed, calls on us to work in partnerships with the Nepali Government, the private sector and external development partners. It recognizes our unique strengths for participating in resilient and sustainable systems towards HIV prevention, treatment and care. This means that our community responses to HIV in Nepal are integral components of the National HIV Strategic Plan 2016–2021 from the beginning-starting from planning, investment choices and coordination-our Nepal vision for HIV in 2020.

Achut Sitaula, President, National Association of People Living With HIV

Mathura Kunwar, President, National Federation of Females Living With HIV/AIDS

Manisha Dhakal, President, Federation of Sexual and Gender Minorities Nepal

Bijaya Dhakal, President, Jagriti Mahila Mahasangh

Bishnu Fueal Sharma, President, Recovering Nepal, National Network of People Who Use Drugs

Sonam Sherpa, President, Nepal Drug Users Prevention Association for Women in Nepal

Ganesh Lohani, President, National NGO Group Against AIDS Nepal

Rishi Ojha, President, Nepal HIV/AIDS Alliance

Tuka Devi Regmi, President, National Migrants Network on HIV, AIDS and SRHR

Sara Thapa Magar, Coordinator, Young Key Affected Population in Nepal

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ABBREVIATIONS

AIDS	acquired immunodeficiency syndrome
AusAID	Australian Agency for International Development
DfID	United Kingdom Department for International Development
e-health	electronic health technologies
eVT	elimination of vertical transmission
HIV	human immunodeficiency virus
MDG	Millennium Development Goal
m-health	mobile health technologies
SDG	Sustainable Development Goal
ТВ	tuberculosis
UNAIDS	Joint United Nations Programme on HIV/AIDS
USAID	United States Agency for International Development
WHO	World Health Organization

NATIONAL HIV STRATEGIC PLAN AT A GLANCE

An estimated 39 397 people were living with HIV in Nepal at the end of 2015. In the same year 1 331 people were newly infected with HIV and there were 2263 AIDS-related deaths. Despite steady improvements, the global target to reach 90% treatment coverage is far from being accomplished, as only about 30% of people living with HIV in Nepal were enrolled in treatment. With the National HIV Strategic Plan, Nepal has accepted the challenges of Fast-Tracking towards ending the AIDS epidemic as a public health threat by 2030, through achieving the 90–90–90 treatment targets by 2020.

The National HIV Strategic Plan for the period 2016–2021 is a set of evidence-informed strategies focused on building one consolidated, unified, rights-based and decentralized HIV programme with services that are integrated in the general health services of the country. It builds on lessons learned from implementation of the National AIDS Strategy 2011–2016, its mid-term review and the Nepal HIV Investment Plan 2014–2016, and it applies recommendations from the AIDS Epidemic Model exercise and other strategic information from studies, surveys and assessments.

The National HIV Strategic Plan has been prepared through a wide range of consultations, including the Nepali Government, civil society networks, international partners and service providers, under the leadership of the National Centre for AIDS and STI Control. The National HIV Strategic Plan includes recommendations from these consultations as strategic directions. The strategic directions are to:

- identify and reach key populations with a combination of initiatives to prevent HIV;
- focus on reaching key populations through outreach and, by communities of key populations, through in-reach;
- recommend and offer HIV "test and treat" services, regardless of CD4 count;
- retain people living with HIV in treatment, resulting in undetectable viral load;
- Fast-Track prioritized investments of a scope, scale, intensity, quality, innovation and speed to have the biggest impact;
- enhance critical programme and critical social enablers;
- establish functional public-private partnerships to bridge the prevention-treatment continuum through task-sharing;
- focus on innovative, well-coordinated and integrated services towards primary HIV prevention for and with key populations.

Key populations remain the main focus of the National HIV Strategic Plan. In Nepal, these populations include female sex workers, transgender sex workers, male sex workers, clients of sex workers, transgender people, gay men and other men who have sex with men, people who inject drugs, incarcerated people, mobile, migrant and displaced populations, young people and uniformed services. In addition, all pregnant women are the focus of the National HIV Strategic Plan for elimination of vertical transmission.

Innovative service delivery approaches include intensified testing to reach key populations through facility-based outreach and community-led in-reach; linking testing to treatment and retention with smart and innovative referral systems, and case management that will be introduced systematically in public, private and nongovernmental organization-operated facilities; and introducing "test for triage", initiated through community-led HIV screening. Task-sharing to "identify, reach, recommend, test, treat and retain" is essential, central and fundamental in the National HIV Strategic Plan. In order for this forward-looking prevention-treatment continuum to be successful within a case-finding/case management approach, the capacity and competence of health service providers and trained community laypeople will be updated and made fit for purpose.

By investing no less than 73% of the total HIV budget in a combination of focused and innovative services, activities and strategies to prevent new HIV infections, Nepal will close the prevention gap.

As a matter of moral and ethical obligation, the elimination of vertical transmission of HIV (eVT) will be achieved, because this can and must be accomplished, so that no child is born with HIV in Nepal, and mothers are kept alive and well.

With Nepal HIVision 2020, the prospect of zero new HIV infections has never been so real. Time-proven approaches, combined with new tools and discoveries, will provide people with a real chance of protecting themselves and preventing HIV transmission, leaving no one behind.

Introduction

1.1 Context

After Nepal's first case of HIV was diagnosed in 1988, the epidemic increased rapidly in the 1990s through injecting drug use. This was successfully brought under control. Although injecting drug use is still an important route of transmission of HIV in Nepal, the current major mode of HIV transmission is sexual, accounting for 85% of new infections. At the time of development of the National HIV Strategic Plan, at the end of 2015, there were an estimated 39 397 people living with HIV in Nepal, with an adult HIV prevalence of 0.2%. New HIV infections peaked in 2000 and then declined rapidly and significantly from over 7 500 in 2000 to 1 331 in 2015 (1).

Nepal's responses to HIV and sexually transmitted infections are guided by national AIDS strategies, the last one being the National HIV/AIDS Strategy 2011–2016. The framework for HIV strategies reflect the national development plans, which recognize HIV as a Priority 1 Programme for Nepal, and the national HIV policies, which have established the policy and governance frameworks for Nepal's responses to HIV and sexually transmitted infections. These frameworks also include Nepal's health sector plans and strategies, including the current Nepal Health Sector Strategy (2), covering the period 2015–2020. The National TB Control Strategy, under development for the period 2016–2021, includes components for the tuberculosis (TB) and HIV response.

The Constitution of Nepal guarantees basic health services free of cost to Nepali citizens. As HIV control is one of the high-priority national development programmes, the National HIV Strategic Plan 2016–2021 carries the ethos of this constitutional provision to guarantee access to basic health services as a fundamental right of every citizen. The Nepal Health Sector Strategy includes indicators and targets to be achieved by 2020, including free first-line antiretroviral medicines as essential treatment and free HIV testing services. Other sector ministries indicate their commitment to address HIV in their strategies and programmes. The National Planning Commission commits to leading such multisector HIV coordination. The commitment by Nepal to the global Joint United Nations Programme on HIV/AIDS (UNAIDS) Strategy 2016–2021 and the Sustainable Development Goals (SDGs) adopted by the United Nations General Assembly includes a commitment to Fast-Tracking the HIV response towards ending the AIDS epidemic as a public health threat by 2030.

The National Centre for AIDS and STD Control is accountable for the implementation of the National HIV Strategic Plan through the public health service infrastructure at the national, regional, district and village levels. Its implementation takes place in coordination with other public entities and the private sector, including services provided by civil society and nongovernmental and organizations. Because financing the HIV response in Nepal relies heavily on external funding, which is declining rapidly, it is imperative that relevant and mutually beneficial public–private partnerships are established and maintained, and that wise evidence-informed investment choices are made. The National HIV Strategic Plan 2016–2021 is meant to provide prioritization and investment guidance.

The National HIV/AIDS Strategy 2011–2016 drew upon experiences of earlier strategies, built on the Millennium Development Goals (MDGs) and the United Nations General Assembly 2006 and 2011 Political Declarations on AIDS. It set its targets to achieve the following by 2016, compared with 2010:

- reduce new HIV infections by 50%;
- reduce AIDS-related deaths by 25%;
- reduce new infections in children by 90%.

By the end of 2015 the achievements were:

- new infections reduced by 43%;
- AIDS-related deaths reduced by 12% (one of the reasons for this is low treatment coverage and late HIV diagnosis; the percentage of people living with HIV with a first CD4 cell count below 200 cells/mm³ in 2015 was 46%);
- new infections among children reduced by 57%.

These are important findings and an urgent call for vigorous efforts to Fast-Track towards achieving the 2011–2016 strategy goals by the end of 2016.

The Review of the National Response to HIV in Nepal (3), while recognizing Nepal's achievements in the implementation of the National HIV Strategic Plan, identified the following challenges:

- cohesion, integration, availability and quality of HIV-related services;
- participation of key populations and people living with HIV;
- HIV-response policies for migrants and their spouses;
- clarity and focus of roles of service providers;
- integration of community and private services with public-sector services;
- elimination of vertical transmission services through integration of maternal and child health services, also through private and community services.
- strategic information, data quality and use.

The Review of the National Response to HIV in Nepal made recommendations to address these challenges, such as:

- focusing and intensifying good-quality services for key populations in key locations;
- adopting zero tolerance to discrimination;
- ensuring an adequate HIV response, including addressing migration and mobility;
- eliminating vertical transmission of HIV and keeping mothers alive and well;

- recognizing that treatment is also prevention;
- integrating relevant HIV services into general health services;
- limiting the responsibilities of the National Centre for AIDS and STD Control to national HIV response policy and coordination, coordination of public-private partnerships, quality control and strategic information, rather than engaging in programme or project implementation.

The findings and recommendations of the mid-term review (4) were incorporated in the Nepal HIV Investment Plan 2014–2016 (5), the adoption of which was a significant step in bringing the national response towards the post-2015 development of a focused, efficient, effective and sustainable HIV response.

The Nepal HIV Investment Plan 2014–2016, fully in line with the mid-term review recommendations, highlighted too much foreign aid dependency of Nepal's HIV response and suggested prioritized actions and strategic allocation of resources for reducing the country's HIV burden. Fundamental recommendations were the establishment of relevant public–private partnerships between the Nepali Government and civil society to drastically improve the scope, scale, intensity, speed, quality and innovation towards HIV prevention, and drastically scaling up HIV testing and treatment. During the process of developing the Nepal HIV Investment Plan 2014–2016, a range of critical programme and social enablers were identified and included for prioritized investments in improving the HIV response in Nepal, including:

- focusing on disaggregated key populations and geographical locations with the highest HIV prevalence, identifying high-priority subpopulations, and scaling up testing, antiretroviral therapy and retention in treatment through public-private partnerships;
- fast and focused implementation of rapid HIV testing by communities of key populations, and implementation of a robust programme for elimination of vertical transmission at the antenatal care level in rural areas;
- ending fragmentation and duplication of services, making services efficient and effective, and improving and integrating HIV-competent government outreach and community in-reach in a well-governed systems-for-health approach;
- addressing gender violence, promoting social protection and social cohesion, adopting zero tolerance for discrimination, revoking punitive laws, and respecting the "rights of all" principle-whoever they are, wherever they are;
- promoting leadership, coordination and cooperation among implementers, and establishing accountability and redress mechanisms at all public and private service levels;
- investing in collection, generation, analysis, translation and use of relevant highquality strategic information, and using modern information and communication technology, such as mobile health (m-health) and electronic health (e-health) technologies.

1.2 Global and regional commitments

The world has entered the post-MDG period, shifting from the MDGs that displayed HIV prominently among the goals and targets to the SDGs. United Nations Member States unanimously endorsed the 17 SDGs in September 2015. These include Target 3.3 among the health goals under SDG 3 to end the AIDS epidemic by 2030. As HIV is not only a health issue, an effective HIV response will contribute to the achievement of other SDGs and targets, especially Goals 5, 10, 16 and 17.

Countries in the Asia–Pacific region committed to ending the AIDS epidemic by 2030 at the United Nations Economic and Social Commission for Asia and the Pacific consultation in January 2015 and endorsed a regional framework to Fast-Track the HIV response. The South Asian Association for Regional Cooperation, as the regional coordination mechanism, has adopted regional strategies on HIV, TB/HIV coinfection, and advocacy, communication and social mobilization for TB and HIV.

Following the adoption of the SDGs by the United Nations General Assembly, the UNAIDS Programme Coordinating Board in October 2015 adopted the Fast-Track strategy, which seeks to guide and achieve a set of far-reaching and people-centred goals and targets that must be met by 2020 if countries are to reach the 2030 ambition of ending the AIDS epidemic. The strategy recognizes the need for locally tailored responses within a framework that fosters regional and local leadership and accountability. The Fast-Track strategy aims to rapidly scale up effective HIV services by 2020. The global Fast-Track targets include:

- 75% reduction of new infections between 2010 and 2020 (leading to 90% reduction by 2030);
- achieving the 90–90–90 treatment targets by 2020 and the 95–95–95 targets by 2030;
- achieving zero discrimination by 2020;
- eliminating new infections among children by 2020.

The principles of the Fast-Track approach are:

- Ambition: ensuring leadership, political commitment and ambitious national targets;
- Focus: investing in services in locations and populations most affected;
- Change: scaling up effective responses and innovating community-based approaches;
- Speed: front-loading investment to accelerate scale-up of effective and efficient services;
- Saturation: investing in high-impact services with intensity and quality;
- Human rights: ensuring effective, equitable, people-centred HIV responses.

On 8 June 2016 the United Nations General Assembly, in a High-Level Meeting, unanimously adopted the Political Declaration on Ending the AIDS Epidemic as a Public Health Threat by 2030. This global commitment largely endorses the UNAIDS Fast-Track global strategy. The High-Level Meeting debated the Fast-Track strategy and the Political Declaration and provided guidance for their eventual implementation.

1.3 Process of developing the National HIV Strategic Plan 2016–2021

The development of Nepal HIVision 2020, Nepal's National HIV Strategic Plan 2016–2021, was initiated in 2015 through consultations led by the Ministry of Health and the National Centre for AIDS and STD Control. The governing and coordination structures for the strategy development were established in December 2015:

- A multisector steering committee guides the development of the National HIV Strategic Plan, chaired by the Secretary of Health, with membership of other ministries, civil society, the United Nations and other key partners, with the Director of the National Centre for AIDS and STD Control as the member secretary.
- A multi-stakeholder technical strategic plan development team is chaired by the Director of the National Centre for AIDS and STD Control, with members from the Government, the public sector, the private sector, civil society community networks and groups, the United Nations and other key partners.
- Strategic plan development team thematic groups meet and report on their national and subnational consultations to the wider strategic plan development team, supported by the Joint United Nations HIV Team and other partners and assisted by two national and two international consultants. The thematic groups are:
 - Key populations: high-priority subpopulations, prevention-treatment services modalities and community in-reach;
 - Systems for health: integration, harmonization, access to services, workforce competencies, quality, prevention-treatment continuum, case-finding and case management, public-private partnerships and task-sharing;
 - Evidence and strategic information: collection, generation, analysis, translation and use of strategic information, monitoring, special studies, research, programme and project evaluations;
 - » Governance: leadership, partnerships, investments and accountability;
 - Human rights: gender justice, and zero tolerance for discrimination and social protection;
 - Emerging issues and innovation: new technologies, social media and emergency preparedness.

It is remarkable that the national networks of key populations stood central during the entire National HIV Strategic Plan development. They were also the conveners of these six thematic areas.

The six thematic groups conducted their first round of consultations in January 2016. The first National HIV Strategic Plan draft, with initial costings, was presented to the Director General of Health and the Secretary of the Steering Committee on 12 February 2016. The consultations continued at the regional level in February and March in four consultations. The outcomes of a simultaneous gender assessment consultation, national AIDS spending assessment reporting, and grant reprogramming exercise by the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) contributed to the development of the National HIV Strategic Plan. Further consultations with civil society networks, implementers and external development partners were held before submitting the second draft of the National HIV Strategic Plan on 4 April 2016. This version incorporated findings from the consultations. After accommodating the comments from partners, another revised version was prepared by the strategic plan development team on 6 April 2016. The observations of the strategic plan development team were incorporated in the draft National HIV Strategic Plan for presentation to the steering committee. As most of the the additional observations related to the operationalization of the National HIV Strategic Plan, these are annexed as guidance for the operationalization of the National HIV Strategic Plan, which will be initiated after the endorsement of the National HIV Strategic Plan's strategic directions. The National HIV Strategic Plan 2016–2021, Nepal HIVision 2020, was finalized in June 2016.

The National HIV Strategic Plan is a set of evidence-informed strategies focusing on building one consolidated, unified, rights-based and decentralized programme of services for HIV and sexually transmitted infections integrated in the general health services of Nepal. The National HIV Strategic Plan builds on the National HIV/AIDS Strategy 2011–2016, its mid-term review and the Nepal HIV Investment Plan 2014–2016. It applies recommendations from the AIDS Epidemic Model (6) exercise and other strategic information from studies, surveys and assessments to Fast-Track Nepal's HIV response towards ending the AIDS epidemic by 2030 through achieving the 90–90–90 treatment targets by 2020 and by investment in activities to prevent HIV that amount to at least 25% of the total HIV investment: "a quarter for prevention" (7). In Nepal the investment to prevent HIV was more than 40% in 2015.

1.4 Recommendations from thematic, regional and national consultations

A wide range of consultations that engaged government, civil society networks, international partners and service providers under the leadership of the National Centre for AIDS and STD Control recognized achievements and obstacles towards achieving national and subnational HIV goals and targets. Recommendations of these consultations have been incorporated in the strategic directions of the National HIV Strategic Plan.¹

¹These recommendations are available at http://tinyurl.com/hobs7f5

⁶ National HIV Strategic Plan 2016–2021

Situation analysis

2.1 Epidemiology

The HIV epidemic in Nepal is driven largely by sexual transmission, which accounts for more than 85% of new HIV infections. According to 2015 estimates, the national HIV prevalence was 0.2% [0.17%–0.25%] among adults aged 15–49 years. There were estimated to be 39 397 people living with HIV in Nepal in 2015 (Figure 1), but only 22 267 of these had tested positive for HIV (8). Over the years the number of new infections has declined in Nepal, from a peak of over 7 500 in 2000 to 1 331 in 2015 (Figure 2). Males accounted for two-thirds of people living with HIV in Nepal in 2015. An estimated number of 2263 deaths were due to AIDS-related illness in 2015, declining from 2558 deaths in 2010 (1).





Source: national HIV infection estimation, 2015.





HIV prevalence remained at a stable level of 6.4% in the Kathmandu Valley and 8.3% in the eastern Terai among people who inject drugs (9,10), and at 5.6% in the Kathmandu Valley among male sex workers (11). The average HIV prevalence among female sex workers in the Kathmandu Valley was 2%, but the prevalence among street-based female sex workers (4%) in the Kathmandu Valley was several times higher than that among establishment-based sex workers (1%) (12). The prevalence of active syphilis among female sex workers in the Kathmandu Valley has increased to 3.6%, up from 0.7% in 2011 (12). HIV prevalence among people with TB is 2.4%, and prevalence of TB among people living with HIV is 11.2% (13). Despite the national Guidelines on TB/HIV Co-infection Management, as of 2014 only 78.2% of people living with HIV had been screened for TB, and only 8.8% of people with TB had been tested for HIV (8). An alarmingly high rate of HIV/hepatitis C coinfections, ranging from 13.1% to 47.5%, has been found among people who inject drugs (9,10,14,15).

The geographical areas with the most infections are the Kathmandu Valley, the highway districts, and the far-western development region. Because of their high numbers, mobile and migrant populations and their partners from the mid- and far-western development regions contribute to high numbers of HIV. There is some evidence that prevalence of HIV has declined among seasonal labour migrants to India (16).



Figure 3: estimated proportion of adults living with HIV, by key population, Nepal, 2015

Male, female and transgender sex workers constitute about 3% of all people living with HIV in Nepal (Figure 3). Half of all reported infections have occurred among sex workers (4.8%), their clients (36.7%) and migrant workers (7.2%). There is evidence that these key populations transmit HIV to their low-risk sexual partners. Low-risk males and females accounted for 40% and 35%, respectively, of all people living with HIV in 2015, and yet their HIV prevalence is much lower than that in key populations due to their larger numbers.

Source: national HIV infection estimation, 2015 (*N* = 37 807).

In 2015, out of a total of 724 839 pregnant women, 187 552 were tested at Nepali Government health services, either at antenatal clinics or in labour rooms. Of these, 145 pregnant women were diagnosed as living with HIV and were enrolled on antiretroviral therapy. A total of 114 children born to mothers living with HIV received HIV prophylaxis. Of these, 67 children were tested at age 2 months, and 2 of these children were found to be living with HIV. As most deliveries take place in private-sector health facilities or at home, there is no reliable estimate of the total number of children born with HIV in Nepal. It is estimated, however, that there were about 1600 children aged 0–14 years living with HIV in Nepal in 2015. Of these, 893 have been started on antiretroviral therapy.

HIV treatment coverage is still unacceptably low in Nepal, despite significant and steady improvements since 2009 (4 509 people on antiretroviral therapy in 2009, rising to 11 922 people in 2015). Treatment coverage remains at around 30% of all estimated people living with HIV, and at around 53% (out of 22 267 people) of people diagnosed and eligible for treatment with a CD4 count below 500 cells/mm³. The retention of people on antiretroviral therapy in 2015 was 83.7% after 12 months and 78% after 24 months (Figure 4).



Figure 4: HIV treatment cascade, 2015

Source: Routine programme data, National Centre for AIDS and STD Control; and Nepal global AIDS response progress report. Kathmandu: National Centre for AIDS and STD Control; 2015.

In 2015 viral load testing coverage was only around 50%. Viral load suppression among people who were tested was 90% (8). The availability and access to viral load testing is limited, as it is offered only at the National Public Health Laboratory in Kathmandu.

2.2 Services

The Nepali national public health system is extensive, with at least one health facility in each village development committee area. Female community health volunteers, health posts, primary health-care centres, district hospitals, zonal hospitals, regional hospitals and central hospitals provide services ranging from basic health services to increasingly specialized diagnosis and treatment and referrals, all free of charge.

The private sector contributes significantly to health services provision in Nepal. A census carried out by the Central Bureau of Statistics² shows a total of 301 private hospitals in Nepal. Lack of reporting from these private facilities to Government authorities does not allow assessment of their contributions to the HIV response. There is limited engagement with the private sector for the dissemination of good practices.

HIV services available in the public sector include HIV testing, services for sexually transmitted infections, antiretroviral therapy, elimination of vertical transmission and screening of donated blood. Antiretroviral therapy services are available through 65 sites in 59 districts as of June 2016. HIV screening services for pregnant women are available in some health posts with a birth delivery facility. Only qualified medical doctors can initiate antiretroviral therapy. Antiretroviral therapy follow-up is delegated to paramedical staff once the person has been stabilized on treatment.

Most antiretroviral therapy centres in public health facilities have adopted a "one-stop shop" approach by providing antiretroviral therapy, including paediatric antiretroviral therapy, elimination of vertical transmission, services for sexually transmitted infections and HIV testing services together. An HIV recording and reporting system has been integrated into the health management information system, and most of the HIV-related aggregate indicators have been included in this system.

A total of 263 HIV testing service sites, of which 133 are operated by nongovernmental organizations, provide the first entry point to treatment, care and support, as they conduct HIV testing and counselling and maintain linkages with key populations, antiretroviral therapy, TB services and services for elimination of vertical transmission.

There are a number of national and international nongovernmental organizations working in the health sector among key populations, supporting and complementing the Nepali Government's services. Packages of services designed for the specific needs of key populations have the potential for further expansion, as coverage of these programmes remains limited. Coverage of needle–syringe exchange programmes for people who inject drugs is 54%, whereas coverage of opioid substitution therapy is below 2%.

The National Tuberculosis Programme is implementing TB/HIV activities in all districts. Currently isoniazid prevention therapy services are being provided through all antiretroviral therapy centres. Periodic reviews of side-effects will be undertaken.

²Available at http://www.cbs.gov.np.

¹⁰ National HIV Strategic Plan 2016–2021

2.3 Periodic reviews and updates of antiretroviral therapy regimens

As with all other national HIV-related guidelines and recommendations, the antiretroviral therapy guidelines are to be updated periodically and included in the National List of Essential Medicines. The continuous development of new antiretroviral medicines expands treatment choices and warrants periodic updates of recommendations to treat people living with HIV, emphasizing when to start treatment, what treatment to start, the use of laboratory monitoring tools, managing treatment failure and switches, and simplification. Because antiretroviral therapy is recommended for all living with HIV after confirmed diagnosis of HIV infection, antiretroviral therapy needs to be initiated in all people who are willing and ready to start treatment. As part of pharmacovigilance, regimens, including those for paediatric antiretroviral therapy, need to be selected or changed based on resistance test results, with consideration of dosing frequency, pill burden, adverse toxiceffect profiles, comorbidities and drug interactions.

2.4 Financial landscape

The Government of Nepal incurs spending on HIV prevention, care and treatment programmes in Nepal through the National Centre for AIDS and STD Control within the Ministry of Health. The National Centre for AIDS and STD Control receives an earmarked budget that covers almost all Nepali Government spending on HIV and sexually transmitted infections. This includes human resource costs; training and skills development; programme expenses; monitoring at the central, regional and district levels; travel; and procurement of medicines. Earmarked domestic resources for HIV are limited and have not increased substantially in recent years (4). It is noteworthy that from the fiscal year 2016–2017, the Ministry of Health has included first-line antiretroviral therapy regimens in the essential health-care package (2).

The Government of Nepal has, since the fiscal year 2011–2012, maintained a dual stream of resources to the national HIV response through its regular funding to the National Centre for AIDS and STD Control and through a pool fund. The pool fund is a health sector-wide approach that comprises a basket of funds from the Nepali Government and external resources, including the World Bank, KfW (a German financial cooperation), the Australian Agency for International Development (AusAID) and the United Kingdom Department for International Development (DfID). These funds supplement the health-sector budget through a sector-wide approach. The proportion of external resources to total resources in the pool fund has varied from year to year, but generally has fluctuated around an annual average of 20%. For the fiscal year 2013–2014, the proportion of external resources to total resources in the pool fund ended in 2015, and domestic funding for HIV is now through regular Ministry of Health allocation.

HIV-related services that relied on this pooled funding will be assessed and reshaped to fit the new prevention-treatment paradigm and public-private partnerships through task-sharing. In light of more effectiveness and efficiency, formal engagements with recipients and subrecipients of these funds will be streamlined, and multi-year contracts will be issued, where feasible, to avoid implementation gaps. Additional external funding is expected to continue through funding mechanisms such as the Global Fund, United States Agency for International Development (USAID) and other bilateral and multilateral channels.

The Country Coordination Mechanism in Nepal has been established for the Global Fund programme development, grant application and oversight purposes. The financial flows from the Global Fund are through the principal recipients to the implementing partners, with a separate accountability review mechanism. As the majority of the prevention programmes and projects rely mainly on Global Fund grants, these will be closely coordinated with other elements of the national programme.

The Nepal HIV Investment Plan 2014–2016 funding landscape indicates that activities to prevent HIV received 46% funding, exceeding the global recommendation of at least 25% of total investment to be allocated towards HIV prevention. Furthermore, programme implementation will be aligned with Mid-Term Expenditure Framework of the Ministry of Health for optimal budgetary management.

2.5 Challenges and priority action areas

2.5.1 Foreign aid dependency

Nepal's HIV programme is heavily dependent on foreign aid. Data from 2014 on HIV spending show that the Nepali Government's contribution was 10.1% of the total investment on HIV-related activities. The biggest investments in the HIV response came from the Global Fund and external development partners, which provided almost 90% of the total HIV funding in Nepal. The 2016 United Nations High-Level Meeting on Ending the AIDS Epidemic by 2030 Political Declaration, which was endorsed by Nepal as a Member State of the United Nations General Assembly, recommends that countries substantially increase their domestic contribution to a comprehensive HIV prevention, treatment and care response. The Government of Nepal has increased its investment in HIV over the past several years, through its contributions to the pooled fund health sectorwide approach, which included earmarked funding for HIV. As of mid-2016, however, this health sector-wide approach is no longer earmarked for HIV. A further increase in domestic investment in HIV is required to ensure the sustainability of the HIV response in Nepal. Nepal has a gross domestic product per capita of US\$ 2400 (17) and a Human Development Index of 145 (18), and therefore increasing Nepal's domestic investment in HIV is challenging. The devastating earthquake in 2015 has also affected the Nepali Government's capacity to increase domestic investment in the HIV response. At the same time, development aid from donor countries and international financing mechanisms

such as the Global Fund have been tightened up, as priorities are shifting to support countries with the highest HIV burdens. Importantly, donors demand more transparency and accountability for the resources they make available to countries. This implies that services need to be as efficient and effective as possible, and must be delivered in a transparent accountable manner that shows results.

2.5.2 Systemic issues

The Review of the National Response to HIV in Nepal shows that services are not always delivered in the most effective, efficient and integrated way. There is insufficient integration of HIV and related services at the national level, particularly for TB, sexual and reproductive health, and maternal and child health. Logistics and procurement services for HIV and general health will be harmonized. There is fragmentation of services on the one hand and service gaps on the other hand, particularly at the district and village levels. Much is to be gained by improved cooperation between service providers at these subnational levels. Cooperation between nongovernmental organizations working towards preventing HIV in key populations, and mutually beneficial working relations and partnerships between government and nongovernment service providers, is limited. There are reports from key populations, including people living with HIV, of prejudice and acts of discrimination in the health services.

The lack of effective dialogue between the public sector, private sector and communities remains a key barrier for key populations to be tested for HIV and, if positive, to enter and adhere to treatment. Additionally, strategic information for programme planning and monitoring is not of adequate quality, being largely constrained by the lack of a unique identifier implemented across the programme, which would help to track a person through the HIV prevention, treatment and care continuum and reduce duplication.

2.5.3 Service delivery issues

The public-sector health services and nongovernmental organizations working with and for key populations and their partners need to find solutions that increase demand for services: identifying and reaching key populations towards preventing HIV; recommending HIV screening and testing for case-finding and case management by providing antiretroviral therapy; and retaining people on antiretroviral therapy. Collaboration between the Nepali Government and private-sector health facilities, nongovernmental organizations and community service providers in a prevention-treatment continuum will be formalized through a division of labour. Such task-sharing will address crucial HIV programme failures, such as insufficiently reaching and testing key populations, starting only a minor proportion of people living with HIV on antiretroviral therapy, and ensuring a continuum of care, including retaining people in treatment to achieve an undetectable viral load.

Testing levels among key populations are unacceptably low: in the Kathmandu Valley, only 28% of people who inject drugs, 56.6% of female sex workers, 43.8% of gay men

and other men who have sex with men, and 67.8% of male sex workers had an HIV test in the past 12 months.

The number of needles and syringes provided per person who injects drugs falls far below the recommendation of 200 needles and syringes per person per year: in 2015 only 25 needles and syringes were distributed per person per year.

Once "reached", a person living with HIV needs access to a continuum of services, including HIV testing and diagnosis, linkage to appropriate treatment and other health services, support while in care, access to antiretroviral therapy, support while on treatment, and retention on treatment. The barriers to getting tested, staying in care, and starting and adhering to antiretroviral therapy include fragmentation and accessibility of services; ignorance of and prejudice about HIV and key populations, and discrimination by health service providers; poverty, food insecurity, migration and mobility; drug dependence; unmanaged coinfections; and mental health issues.

2.6 AIDS Epidemic Model projections

The AIDS Epidemic Model exercise conducted from December 2014 to July 2015 generated a number of scenarios based on projected new infections, spending patterns and investment potential for the future (6). The following three options were recommended for Nepal, based on 2014 baseline, to optimize the county's return on investment (*Figures 5 and 6*):

- Ending the AIDS epidemic: treat 95% of all people living with HIV, regardless of CD4 count, increase prevention coverage for key populations to 80–95% and for migrants to 53%, increase opioid substitution therapy coverage to 10%, and eliminate vertical transmission by increasing coverage to 95%. The investment requirement is approximately US\$ 36 million a year, and the number of new infections is estimated to be 482 in 2030.
- Midway to ending AIDS: treat all people living with HIV, regardless of CD4 count, with a lower prevention coverage target than in the "ending the AIDS epidemic" scenario. The investment requirement is approximately US\$30 million a year, and the number of new infections is estimated to be 533 in 2030.
- Optimized: treatment as prevention is applied, with increased prevention coverage targets. The investment requirement is approximately US\$29 million a year, and the number of new infections is estimated to be 512 in 2030.

The "Ending the AIDS epidemic" scenario above would have the highest impact in terms of disability-adjusted life-years saved and number of new infections averted. The "Optimized" scenario has the highest cost-effectiveness; if resources are constrained, this scenario would therefore be preferable.



Figure 5: Resource needs for different investment scenarios, 2014–2030

Source: AIDS Epidemic Model: impact modelling and analysis for Fast-Tracking HIV response in Nepal. Kathmandu: National Centre for AIDS and STD Control; 2015.



Figure 6: Number of new infections among adults, 2014–2030

Source: AIDS Epidemic Model: impact modelling and analysis for Fast-Tracking HIV response in Nepal. Kathmandu: National Centre for AIDS and STD Control; 2015.

The following priority actions are recommended by the AIDS Epidemic Model :

- Scale up HIV testing and treatment for key populations: "identify, reach, recommend, test, treat and retain" and "treatment as prevention". In 2015 the Nepali Government revised the eligibility threshold for treatment to a CD4 count of 500 cells/mm3 or lower. Nepal needs innovative approaches such as decentralizing HIV screening to communities; expanding the use of rapid diagnostic tests; community-led testing through "test for triage" to increase HIV testing; and linking people who are screened positive immediately to HIV confirmation testing and, if needed, enrolment in care. This will be considered, in close collaboration with the National Public Health Laboratory, for a phased rollout. The 2014 national testing guidelines will be updated accordingly.
- Scale up evidence-informed innovative methods to prevent new HIV infections among key populations: scale up targeted investments and coverage of communityled activities and strategies, including strategic behavioural communication, condom programmes and harm-reduction services for people who inject drugs. While other prevention targets recommended by the AIDS Epidemic Model are applied, the opioid substitution therapy target has been increased in the National HIV Strategic Plan from 4% to 10%.
- Focus on major sources of new infections: the AIDS Epidemic Model indicates that the most new HIV infections are from husband to wife-perceived as "low risk"-and from gay men and other men who have sex with men to their sexual partners. It is recommended to institutionalize "identify, reach, recommend, test, treat and retain" with and for all key populations in order to minimize HIV transmission. Due to the significant number of infections occurring among migrants, it is important to assess and improve the current programmes to better prevent HIV transmission related to migrants and other mobile populations. It is also important to promote testing of intimate sexual partners of people at high risk and to consider whether, and in which settings, pre-exposure prophylaxis may be a beneficial option.
- Integrate and decentralize HIV service delivery systems: reduce inefficiencies and cost by integrating HIV services more effectively within the country's health system and programmes that work with similar and overlapping populations (TB, sexual and reproductive health, maternal and child health). Invest in improving community systems' capacity for identifying, reaching, recommending and ensuring a continuum of care.
- Leverage sustainable financing and increase domestic financing, particularly in antiretroviral therapy: identify sustainable and predictable funding streams from domestic and other sources. Improve overall spending patterns to ensure funds flow in effective programmes. As increased health financing from domestic sources is a key recommendation in Nepal's Health Sector Strategy 2015–2020, it is expected that this would translate into more domestic funding available for the HIV response. It is imperative that this includes prioritization, cutting out non-effective programmes and projects, and making the money work.

Strategic directions

3.1 Vision: ending the AIDS epidemic as a public health threat in Nepal by 2030

3.1.1 Targets and indicators for Fast-Tracking the response by 2021 (Table 1)

- Identify, recommend and test 90% of key populations.
- Treat 90% of people diagnosed with HIV.
- Retain 90% of people diagnosed with HIV on antiretroviral therapy.
- Eliminate vertical transmission of HIV and keep mothers alive and well.
- Eliminate congenital syphilis.
- Reduce 75% of new HIV infections.

3.1.2 Strategies

These are the broad concepts and approaches to achieve the 90–90–90 targets of the National HIV Strategic Plan. The targeted investments in actions that will be undertaken within these strategies to identify and reach key populations with a combination of activities to prevent HIV are:

- Focus on reaching key populations through outreach and, by communities of key populations, through in-reach.
- Offer HIV "test and treat" services, regardless of CD4 count.
- Retain people living with HIV in treatment, resulting in undetectable viral load.
- Fast-Track prioritized investments with a scope, scale, intensity, quality, innovation and speed to have the biggest impact.
- Enhance critical programme and critical social enablers.
- Establish functional public–private partnerships to bridge the prevention–treatment continuum through task-sharing.
- Focus on innovative, well-coordinated and integrated services towards primary HIV prevention for and with key populations.

Key indicator	Baseline, 2015	Target, 2021
HIV prevalence in young people aged 15–24 years	0.030	0.029
HIV incidence rate per 1 000 population	0.05	0.03
Percentage of adults with HIV known to be on treatment after initiation of antiretroviral therapy	83.7%	90%
Percentage of children with HIV known to be on treatment after initiation of antiretroviral therapy	78.1%	90%
Percentage of key population living with HIV		
Men who have sex with men	2.4%	1.5%
Male sex workers	5.6%	3.0%
Transgender people	6%	3.0%
People who inject drugs	6.4%	4.0%
Female sex workers	2%	1.5%
Migrants	0.4%	<0.4%
Reduction of HIV transmission		
Percentage of people within key populations reporting use of a condom with their most recent partner		
Men who have sex with men	86%	90%
Male sex workers	93.0%	93%
People who inject drugs	52.5%	90%
Female sex workers	83%	90%
Percentage of people within key populations who received an HIV test in the past 12 months and know the result		
Men who have sex with men	43.8%	90%
Male sex workers	67.8%	90%
People who inject drugs	27.9%	90%
Female sex workers	56%	90%
Migrants	4.1%	90%
Percentage of people who inject drugs reporting the use of sterile injecting equipment last time they injected	96%	96%
Elimination of vertical transmission		
Percentage of pregnant women with known HIV status	25.8%	90%
Percentage of pregnant women living with HIV who received antiretroviral therapy to eliminate vertical HIV transmission	35%	90%
Treatment care and support		
Percentage of adults and children living with HIV currently receiving antiretroviral therapy	30.3%	90%
Percentage of adults and children living with HIV known to be on treatment 12 months after initiation of antiretroviral therapy	83.7%	90%
Percentage of adults and children receiving antiretroviral therapy who are virally suppressed	44%	90%

Table 1: indicators and targets to be achieved by 2021

3.1.3 Guiding principles

- Universal equitable access to services for HIV prevention, treatment, care and support,
- National solidarity and shared responsibility,
- Fast-Tracking towards ending the AIDS epidemic as a public health threat,
- Integration of HIV within systems for health,
- Innovation,
- Evidence-informed planning and programming,
- Decentralized, multisector and interdisciplinary engagement,
- People-centred inclusive approaches,
- Advancing human rights,
- Gender justice,
- Zero tolerance for prejudice and discrimination related to HIV and key populations,
- Prevention and treatment continuum using the "identify, reach, recommend, test, treat and retain" approach,
- Meaningful involvement of affected communities,
- Public–private partnerships and task-sharing, and
- Country stewardship.

Figures 7a and 7b illustrate case-finding and case management in the continuum of identifying, reaching, recommending, testing, treating and retaining people on antiretroviral therapy through task-sharing, founded on public–private partnerships. These principles and practices lie at the centre of, and will be applied to each of the strategic directions of, the National HIV Strategic Plan.



Figure 7a: Prevention-treatment continuum





²⁰ National HIV Strategic Plan 2016–2021

The private sector includes community service organizations, nongovernmental organizations, medical colleges, teaching hospitals and private hospitals. The public sector includes Nepali Government services. These services complement each other seamlessly throughout the case-finding and case management continuum.

Antiretroviral coverage of 11 922 people reflects around 30% of the estimated 39 397 people living with HIV in Nepal in 2015, and around 53% of all 22 600 reported cases. There is a large pool of undiagnosed people living with HIV, and another large group of people who have tested positive but not started antiretroviral therapy. Identifying and reaching undiagnosed people living with HIV, recommending testing (including community testing and provider-initiated testing and counselling), decentralizing treatment monitoring and case management are all essential.

Nepal is not yet harvesting the benefits of the prevention effect of antiretroviral therapy, especially for its key population groups. It is expected that by 2020 it would be possible to reach more people living with HIV through an intensified "identify, reach, recommend, test, treat and retain" strategy that includes an effective retention component through public–private partnerships between government, civil society and the private sector; task-sharing between professional health-care providers and trained lay care providers; and adjusting traditional services models to include more active case-finding and case management.

3.2 Targeted investment areas for the National HIV Response in Nepal

3.2.1 Basic programme activities

Key populations remain the main focus of the National HIV Strategic Plan 2016–2021. In Nepal these populations include female, transgender and male sex workers and their clients, transgender people, gay men and other men who have sex with men, people who inject drugs, incarcerated people, and mobile and migrant populations, especially people going to India and elsewhere for work. The priority is to work with these key populations and subgroups. For the purpose of HIV planning, female sex workers have been disaggregated into street-based female sex workers, female sex workers who inject drugs regularly, and other female sex workers. Transgender people, gay men and other men who have sex with men have been disaggregated into four groups: transgender sex workers, male sex workers, transgender people, and high-risk gay men and other men who have sex with men.

The primary focus areas are female sex workers, with special attention paid to those who inject drugs, street-based female sex workers, transgender sex workers and male sex workers. These groups have lower service coverage than the other groups of female sex workers, people who inject drugs, and gay men and other men who have sex with men. They are perceived as harder to reach through outreach and are not attracting sufficient attention in service providers' programmes. This needs to drastically improve. Programme

and service coverage for these highly vulnerable key populations must include service packages that address their specific prevention and harm-reduction needs, including sexual exploitation and violence, though increased in-reach.

An effective programme to eliminate vertical HIV transmission and keep mothers alive and well is another priority that needs special efforts and key investments to reach acceptable coverage levels and approach the target of eliminating new HIV infections in children by 2021. Paediatric antiretroviral therapy coverage is low, due to a suboptimal programme for elimination of vertical transmission. The scale-up is expected to reach 90% from the present coverage of 26% by the end of 2021 through intensified casefinding. For this, the private-sector contribution to elimination of vertical transmission has to be enhanced, including through in-reach by women in communities, such as female community health volunteers reaching pregnant women who do not access antenatal services and health institutions for deliveries. In line with international guidance, all pregnant women living with HIV will receive antiretroviral therapy for life. Good-quality early infant diagnosis and paediatric antiretroviral therapy are also important priorities.

People who inject drugs remain a high-priority key population, even after the successful reduction of the initially high prevalence among people who inject drugs, since an injecting drug use epidemic can flare up rapidly. The needle–syringe distribution and opioid substitution therapy programmes need to be much improved, as the numbers of people who inject drugs receiving new needles and syringes and opioid substitution therapy are unacceptably low. This important harm-reduction programme towards preventing HIV and other infections, such as hepatitis C, needs a standardized approach and review and adoption of more cost-effective approaches.

The potential of opioid substitution therapy in Nepal to substantially reduce HIV infections further by reducing the injecting pool and supporting adherence for antiretroviral therapy and hepatitis C virus treatment has remained unlocked. Key challenges in the current programme have been limited coverage of services; services being unlinked to other HIV and hepatitis C virus prevention, treatment and care services; and limited quality impacting on both demand and retention.

The expansion of opioid substitution therapy will address supply and demand issues and must be client-centred in order to improve demand. A key barrier to client retention in opioid substitution therapy is the need for daily visits to the opioid substitution therapy site. The current service delivery model for harm reduction, including opioid substitution therapy, will be reviewed in consultation with clients, and services will be designed to take a differentiated approach towards unstable and stable clients. Opioid substitution therapy will be offered according to the "Operational guidelines for oral substitution therapy on drug use, 2070". A competent and good quality approach followed in some countries to improve the user-friendliness of treatment is to set up dispensing sites where clients who have been started on treatment and are stable after two months can access

their medication closer to their workplace or home; where social support can be offered, and where further referals can be made.

Currently opioid substitution therapy in Nepal uses methadone and buprenorphine. Given the patterns of poly-drug injection in Nepal, with reported use of antihistamines and benzodiazepines, there is an opportunity to ensure the improved use of sublingual buprenorphine, which permits alternate-day dosing, has a low overdose risk, and has reduced potential for misuse when combined with naloxone. Buprenorphine is no longer under patent and can be procured as a generic drug. The changes in drug use practices will be monitored, and the opioid substitution therapy guidance will reflect these changes on a regular basis.

For a successful harm-reduction programme, intensified collaboration among various ministries is essential, particularly between the Ministry of Health and the Ministry of Home Affairs. Collaboration must address issues of client-centred care and diversified treatment modalities, and ensure that drug dispensing and storage follow international good practice.

Males and females at higher risk for HIV, such as female sex workers and their clients, female partners of males who inject drugs, and gay men and other men who have sex with men, are another priority in the National HIV Strategic Plan. Through both outreach and in-reach, these key populations, including young key populations, need to access services through programmes that address HIV prevention, sexual exploitation, violence in sex work and elimination of vertical transmission, and in their contacts with other health services, including sexual and reproductive health and rights services. A gradual introduction of pre-exposure prophylaxis could be achieved for selected key populations in settings with good-quality clinical, laboratory and retention monitoring and counselling support.

People who are mobile, migrate or are displaced may not receive appropriate HIV services due to their specific characteristics of being away from their communities. Some HIV programmes have been able to reach spouses of male labour migrants with awareness programmes in the far and mid-west of Nepal, where the majority of mobile and migrant populations, going to India live or originate. Evidence-informed investments will be made in programmes that are developed and implemented for and by these and other mobile populations and their families, including in work place programmes, based on the lessons that have been learned over the past years in Nepal and in countries with large numbers of labour migrant populations, especially those going to India. As not all migrants, mobile and displaced persons face the same risks, it is necessary to identify those at higher risk as a priority. It is also important to address structural barriers, such as the lack of identity cards.

Investments in programmes for people in closed (prison) settings are important. Vague punitive laws may lead the arrest of drug users, sex workers and transgender women. Many of these people end up in prisons and custodial institutions, where they are exposed or expose others to HIV and TB and may be cut off from the HIV services on which they rely. Incarcerated populations have the same right to health as any other segment of the population. Health services are provided by the prison and detention centre authorities, in coordination with the national and local health authorities, following the nationally agreed protocols. Existing standard operating procedures will be reviewed and updated as needed to ensure the services are delivered during detention and will remain uninterrupted after detention.

People displaced after natural disasters may not have access to services, may be vulnerable to sexual violence, or may resort to sex work for survival and drug use, increasing the risk for HIV transmission.

Uniformed services, such as prison staff, police officers and law enforcement staff, are the frontline contact of many key populations. It is important that people employed in the uniformed services are trained adequately in HIV issues in order to provide supportive and protection services to key populations, and to enhance their own safer sexual practices. Nepal is a major provider of troops for international peacekeeping missions. These troops need to be trained adequately in HIV, including in protecting themselves and host and displaced populations.

Young people aged 10–24 years from key populations are at increased risk for HIV, due partly to multiple biological and psychological transitions and developmental stages, such as establishing an identity during this period. Among these key populations are young gay men and other men who have sex with men, transgender young people, young people questioning their sexual identity and sexual orientation, young people who inject drugs, young sex workers, and young people who belong in multiple groups, such as transgender youth who inject drugs. HIV programming for young key populations must begin with counselling and HIV testing and thereafter provide appropriate services for young people living with HIV, with the ultimate goal of viral suppression, and for young people not living with HIV to enhance virus-free living through a combination of activities and services to prevent HIV.

Encouraging young people to access and remain engaged with sexual and reproductive health and other adolescent health services is key. Engagement with health services needs to be at the local level, integrated, quick, confidential, non-prejudicial and hasslefree. Capacity-building of health service providers must include youth-specific needs and issues. Legal protection of young people will be ensured so their specific human rights are respected.
3.2.2 Service delivery modalities to promote HIV testing

The following service delivery approaches will be considered for HIV testing services in Nepal, depending on resources and feasibility:

- Facility-based: in existing clinical settings such as standalone HIV testing services and antiretroviral therapy sites, mobile facility, antenatal care and labour rooms, opioid substitution therapy sites, TB care sites and private clinics, and public–private partnerships.
- Community-based: in-reach among key populations using mobile units, entertainment sites, and hotspots for sex work and injecting drug use, and also focusing on remote birthing sites and areas with higher numbers of male labour migrants and their partners. This will include community led testing using "test for triage".

A critical aspect of both models of testing is the linkage to treatment and retention in care of people testing positive for HIV. This necessitates the need for strong referral systems and case management services that will be introduced systematically in public, private and nongovernmental organization-run health facilities. The role of a case manager who supports the person living with HIV is pivotal to the success of the "identify, reach, recommend, test, treat and retain" approach from a medical and psychosocial perspective over a long period: the person may, for example, be symptom-free and not understand the importance of adherence, be living with alcohol or substance dependence, or be traumatized or depressed after the recent earthquake.



"Test for triage" is a communityled HIV testing approach involving trained and supported lay providers conducting a single HIV rapid diagnostic test, referred to as A0 in Figure 8. Lay providers promptly link people with reactive test results to a facility for further HIV testing and, if necessary, assessment for treatment. People with nonreactive test results are informed of their results, referred and linked for appropriate services to prevent HIV, and for retesting according to HIV risk and national guidelines.

This approach to expanding community-based HIV testing services to reach higher-risk populations who may not otherwise test for HIV and link to prevention, treatment and care will be augmented by innovation and technology such as m-health and e-health. The possibility of rapid diagnostic tests using non-blood samples such as oral fluid will be considered.

Note that A0 does not replace A1 in the national testing algorithm, under the auspices of the National Public Health Laboratory. If the single rapid diagnostic test is reactive (A0+), then the person is promptly linked to a facility for further HIV testing, where the validated national testing algorithm is performed, beginning with A1. If the reactive test result (A0+) is confirmed and the person diagnosed as living with HIV, the person is then linked to clinical assessment and, if eligible, for treatment. People with a non-reactive test result (A0–) are diagnosed HIV-negative, referred for and linked to appropriate HIV prevention services, and advised to retest if they have had recent or have ongoing HIV risk.

3.2.3 Critical programme enablers: systems for health

The Nepali public health system is extensive, ranging from central referral hospitals and district-level hospitals to primary health centres and health posts covering the country. This is complemented by private hospitals. The capacity remains insufficient, however, to cover all the needs of the population. Female community health volunteers will play an important role through in-reach towards low-risk women, especially for elimination of vertical transmission.

Public-sector hospitals and other facilities are the backbone for HIV diagnostics and treatment. Integration of HIV services within the system, particularly with TB services, sexual and reproductive health and rights services, maternal and child health services, procurement and supply chain management, logistics and diagnostics, will be improved. Screening of donated blood will continue. Testing and treatment for sexually transmitted infections, including elimination of congenital syphilis, will continue. Addressing coinfections, including treatment of hepatitis C virus, will be improved. The capacity of laboratory services for viral load testing, polymerase chain reaction, quality assurance and maintenance of equipment will be improved. New technologies will be adopted, and evidence-gathering through surveillance and surveys, including monitoring of drug resistance, will be improved considerably.

The private sector and community services, including private hospitals, will be integrated in the "systems for health" approach, which will include integrated social services, to ensure the continuum of "identify, reach, recommend, test, treat and retain" though community in-reach approaches and relevant public–private partnerships to reduce fragmentation of services. Experimental models of antiretroviral therapy clinic structures and their services will be tested, reviewed and replicated, learning from experiences that have worked well and what is affordable in the country context, and scaling up good-quality treatment and prevention services, drawing on experiences from various implementing partners.

Capacity and competence of health service providers will be updated and made fit for purpose. The Ministry of Health, in coordination with the Ministry of Education, will train all health workers in primary HIV prevention, diagnosis, treatment and care as part of the formal medical and nursing curriculum.

Continuing medical education, which may include facility-based technical working groups, will be introduced and replicated, based on models already operational in selected sites. Induction training for all caregivers and clinicians will include training in care, support and treatment related to HIV. The Ministry of Health, in coordination with the Ministry of Education, will orient all health workers in HIV-related prevention and care in their curricula, which are expected to also address problems related to share experiences and discuss specific cases in a geographical area, and periodically at the national level. These initiatives will also address quality assurance and improvement.

Community-level services, in particular those to prevent new HIV infections, have been largely developed and implemented by and for civil society organizations, supported by international nongovernmental organizations, as an important contribution to Nepal's HIV response. To Fast-Track the response towards ending the AIDS epidemic, better integration of community and health facility services is essential, and new ways of working and task-sharing will be adopted.

Community competence in case-finding to "identify, reach, recommend, test, treat" is an innovative way of working in and with communities to identify community strengths and stimulate positive attitudes and actions to increase HIV testing of community members through in-reach. This is based on the core principle that communities can apply their own intrinsic skills and competencies rather than focusing on deficits and weaknesses and reliance on external experts and support. Community-based support mechanisms will be enhanced, including home-based care. This is a paradigm shift that is much needed for sustainable public health outcomes.

A case-management approach through transformation of the current peer educator/ outreach worker/community mobilizer/drop-in centre modality will be introduced to create a performance-based basic programme modality, with improved clarification of roles and responsibilities, and expanded competencies in support of the Nepal's "identify, reach, recommend, test, treat, remain" paradigm. Standardization of results-oriented job descriptions and remuneration of community in-reach workers is important to create coherence within different nongovernmental organizations and to create a more effective and efficient network of community in-reach workers that is fit for purpose and fully part of a comprehensive system for health. Establishment of support groups of people living with HIV at selected antiretroviral therapy sites is expected to further enhance case management, especially towards better treatment adherence and retention.

The 2015 World Health Organization (WHO) Consolidated Guidelines on HIV Testing Services (19) recommend that trained lay providers can independently conduct safe and effective HIV testing services using rapid diagnostic tests. Task-sharing-the rational redistribution of tasks between cadres of health-care providers with longer training and other cadres with shorter training, including trained lay providers-is a pragmatic response to increasing the effectiveness and efficiency of all available personnel and to enable the existing workforce to serve more people.

Expanding HIV testing services to trained lay providers working in the community will increase access to these services and their acceptability to people from key populations and other high-priority groups. These groups may be reluctant or unable to use HIV testing services in health facilities.

Services delivered by trained lay providers can be both welcome and important, providing information and teaching skills that facilitate safer behaviours. Trained lay providers based in the community or a facility can provide HIV testing services, link people to treatment and prevention services, and provide ongoing care and support. Beyond this, trained lay providers who are their clients' peers can act as role models and offer non-judgemental and respectful support. Their role can help to reduce prejudice, expand the coverage of HIV testing services, and improve the uptake of services.

3.2.4 Critical social enablers

Social protection is recognized as a critical enabler of the HIV response. It has the power to address the social economic drivers of the HIV epidemic, reduce HIV risk behaviour, break down barriers to the access of HIV services, and make HIV programmes more effective.

For the first time there is a consensus that the tools now exist to end the AIDS epidemic as a public threat by 2030. To accelerate progress towards that goal, the Fast-Track targets for 2020 have been established to ensure 90% of people living with HIV know their HIV status, 90% of people who know their HIV-positive status are accessing treatment, and 90% of people on HIV treatment have suppressed viral loads.

The Fast-Track approach seeks to scale up proven programmes for populations left behind. Such a proven programme includes HIV treatment, which dramatically extends the lifespan of people living with HIV and effectively prevents HIV transmission when combined with social and structural approaches, including social protection. In the face of competing priorities and limited resources, the HIV response must exploit synergies for identifying fiscal space, cross-sectoral financing and co-programming of HIV and social protection programmes. Combining HIV and social protection programmes offers opportunities to tap into new resource streams and increases the potential for the HIV response to reach more people, especially those left behind by the current provision of HIV services. HIV and social protection integration also promote the recognition and protection of the rights of people living with and most affected by HIV.

Human rights, gender, justice, equity and inclusion are centrepieces for an effective HIV response. The key populations and people living with HIV continue to experience prejudice and discrimination, including in the health services. Many of them require extensive social protection and support. Gender norms in traditional societies prevent them from reaching their potential as members of society. Women and girls may be subjected to sexual violence. Laws and regulations will have to be reviewed and harmful ones removed. Special attention will be given to human rights and gender issues and zero tolerance monitored, so that nobody is left behind in Fast-Tracking the HIV response towards ending the AIDS epidemic. Law enforcement and other uniformed services have an important role to play in protecting disadvantaged key populations and need to be well trained in their functions. The Ministry of Home Affairs has an important part in this, including in the scale-up of opioid substitution therapy and harm-reduction programmes and participation in condom promotion and distribution.

Nepal is a disaster-prone country. A devastating earthquake in 2015 was a reminder of the country's vulnerability. Key populations and people living with HIV were among those worst affected, with access to preventive and treatment services interrupted, social networks disrupted, and women and girls particularly vulnerable and subject to sexual violence. Plans and services towards HIV prevention, treatment and care are built in the national and health-sector contingency and emergency preparedness planning.

3.2.5 Development synergies

An adequate HIV response is not only about health-sector capacities and competencies to deliver medical services. A multitude of national development sectors will have to contribute, from education to social protection to home affairs and local government. A list of Nepali Government development sectors and their intersectoral responsibilities has been proposed through the National Planning Commission. These will be reviewed and updated, under the leadership of the National Planning Commission. Participation of key Nepali Government ministries and their contributions to the HIV response will be ensured through participation in governance and coordination mechanisms, led by the National Planning Commission. Each of the development sector ministries and agencies is expected to include HIV relevant responses in its plans and budgets.

Development partners have provided the major part of investments in the HIV response in Nepal and are expected to continue this for Fast-Tracking the response. In addition to their HIV-specific programmes, improvement of HIV-related systems, including intercountry and regional activities, will be reviewed and adjusted to support Nepal's HIV response. Regional programmes, such as the South Asian Association for Regional Cooperation Tuberculosis and HIV/AIDS Centres, will be enlisted for potential technical assistance and support. It is expected that the Global Fund will continue its financial support through HIV and other grants. The Joint United Nations HIV Team and the HIV external development partners will increasingly serve as entry points for the provision of strategic technical assistance towards the implementation and monitoring of the HIV investments.

Innovation is essential for Fast-Tracking the HIV response. One important component will be the implementation of e-health and m-health networks throughout Nepal. This will revolutionize and influence how health services are delivered. e-Health and m-health recognize the transformative potential that information and communication technologies hold for the health-care system in Nepal. Mobile telecommunication technologies will open new opportunities for innovation in health data collection, supply chain management, and patient monitoring and treatment. m-Health offers the opportunity to improve health literacy through the use of mobile telephones that offer access to health-care systems at the press of a button.

e-Health will support the prevention of duplicate HIV testing and link patient records across service providers through installation and use of unique personal identification. Such technological innovation will improve case management; permit the tracking of drugs, supplies and services; minimize duplication; train health-care workers; support patients; educate the public; and have applications in diagnostics, training, distance learning courses, and public outreach and in-reach, including awareness and testing campaigns.

3.3 Governance, structures and responsibilities

The National HIV and STI Policy, in the early days of Nepal's HIV response, established the governance structures and responsibilities for the response. This policy has been in force, with revisions, for more than 20 years. With the evolving epidemic, scientific breakthroughs and lessons learned, the governance structures will have to be adjusted to Fast-Tracking mode towards ending the AIDS epidemic. The policy will be reviewed and revised as appropriate.

While reviewing and adjusting the policy framework, transitional adjustments within the policy framework will be considered, as appropriate, for Fast-Tracking.

The National AIDS Council was established for policy coordination under the chairmanship of the Nepali Prime Minister, with high-level representation of numerous ministries and

Government entities, civil society representatives and other partners. This structure is important for overall leadership at the highest level of government.

The National HIV/AIDS and STI Control Board was established to work as the secretariat of the National AIDS Council and for the formulation of national policies, strategies and plans; coordination, monitoring and evaluation of the national multisector response to AIDS; mobilization of internal and external resources; and fulfilment of national and international commitments.

The National Centre for AIDS and STD Control was established for the execution, coordination and monitoring of the National HIV and STI Policy, Strategy and Action Plan, in order to implement the endorsed policy and programmes at the central, regional, zonal and district levels through health infrastructures, public health offices, health posts and female community health volunteers. The National Centre for AIDS and STD Control is facilitating the work of the thematic committees established to develop guidance for the programme, including review and revision of guidelines, standards and protocols, a valuable asset for programme management. The National Centre for AIDS and STD Control maintains and, where necessary, establishes functional technical and thematic working groups comprising multiple sectors of Nepali Government and nongovernmental members.

The workload and functions of the National Centre for AIDS and STD Control have greatly expanded with the multitude of partners and initiatives, to include financial functions of channelling resources to implementing partners from external sources. The workload has exceeded the capacity of the National Centre for AIDS and STD Control to perform its main public health and other normative functions of guiding, quality control, coordination and monitoring the implementation of the national response. The monitoring and reporting capacities will be improved, including improvement of reporting and electronic information systems.

The tasks of the National Centre for AIDS and STD Control, under the National HIV Strategic Plan, focus on coordination; leveraging and mobilization of financial and technical resources; quality control; development and implementation of policy, programmes and plans; and monitoring and reporting.

Strategic information, including monitoring and reporting of the HIV response and research, builds on the regular epidemiological reporting by health service providers and on sentinel surveillance, surveys and special studies, including the Integrated Biological and Behavioural Surveys coordinated by the National Centre for AIDS and STD Control. Programme monitoring is based on periodic reporting by service providers of their activities, leading to annual Global AIDS Response Progress reporting at the international level, and national AIDS spending assessment reviews for transparency and accountability. The National Guidelines on Monitoring the HIV Response in Nepal (20) will be reviewed

and updated to correspond to Fast-Tracking of the HIV response, based on the WHO Consolidated strategic information guidelines for HIV in the health sector (21). Recording and reporting HIV in the health management information system will be improved.

Periodic independent external evaluations of Nepal's HIV response will be conducted, as required.

The channelling of both Nepali Government and nongovernmental funding for HIV activities through the National Centre for AIDS and STD Control, rather than directly to the implementing entities, creates another layer of unnecessary bureaucratic processes with the potential to seriously delay implementation and overburden the institution with fiduciary responsibilities, potentially slowing down Fast-Tracking. For specific areas where HIV services are integrated with other disease areas or within the Ministry of Health itself, funding must be allocated directly to those services in line with their workplans. Specific programmes and projects supported by external donors will be aligned and coordinated with the financial flows of the Government.

The functions of the National Centre for AIDS and STD Control and the implementing entities, particularly those directing the health services in the country, will be reviewed and revised, including review and streamlining of the financial procedures in the Ministry of Health to Fast-Track the HIV response.

Procurement and supply management for HIV commodities has been a parallel system to the Ministry of Health supply and logistics management. The Ministry of Health procurement process is long (rarely less than six months), with regular further delays as competing suppliers raise claims for selection. The logistics system of the Ministry of Health is slow and multilayered, leading to delays of medical supplies, potential expiry of perishable items and stockouts.

Integration of the logistics systems has been initiated and will be further improved. The key components for future procurement and supply mechanism include establishment of early warning systems for stockouts or expiry of medicines.

AIDS coordination committees were established at the district, municipality and local levels to implement programmes for HIV and sexually transmitted infections. These committees are not equipped to implement HIV programmes.

There are several similar coordination committees for other health programmes at the district level, such as district reproductive health committees, which could, to some extent, take on coordination of the HIV response at the district level. The committee structures and functions will be reviewed and revised as necessary. One option is to combine these committees under a district health committee, with possible establishment of subcommittees or other coordination mechanisms, as relevant and necessary. It is imperative that key

population networks and other relevant nongovernmental partners are part of these local committees. A key role of these committees would be to prepare results-based district HIV plans to be integrated into district health or development plans.

Federal restructuring is expected to make fundamental changes in the political, management and governance structures and responsibilities at the federal, state and local levels in a few years. Before these changes take shape, it is expected that the proposed changes at the national level will help streamline the functions at the district level under the leadership of district health offices. This restructuring is a great opportunity to establish public–private partnerships for Fast-Tracking the HIV response at the central and local levels.

The National HIV Strategic Plan calls for systematic and coordinated action from line ministries beyond the Ministry of Health. Relevant line ministries have a role to play to prevent HIV; to reduce vulnerability to and risk of HIV transmission among the populations they serve; to contribute to care and support for people living with HIV; to protect human rights and reduce discrimination; and to create enabling environments for coordinated and scaled up good-quality responses by recognizing and including HIV in their development agendas.

The National Planning Commission at the apex of the planning hierarchy ensures that multisectoral engagement is executed effectively through regular meetings and review processes. Sector ministries focus on adapting sectoral functions and allocating resources in order to incorporate HIV in their activities. The ministries incorporate HIV-related functions in their core functions by preparing sectoral guidelines and monitoring their implementation in collaboration with the Ministry of Health, the National Centre for AIDS and STD Control, civil society and other stakeholders.

3.4 Summary of targeted investments

The National HIV Strategic Plan prioritizes strategic allocation of resources for Fast-Tracking the HIV response over the next five years. The investments required for the first fiscal year (July 2016–June 2017) amount to US\$ 30126304 and increase every year to reach US\$ 39532029 for the fiscal year 2020–2021. Every year around three-quarters of the total investment is allocated for "identify, reach, recommend", which includes activities to identify and reach key populations for prevention and case-finding and ensuring linkages to testing and treatment. "Identify, reach, recommend" also includes the smallscale introduction of pre-exposure prophylaxis from 2017–2018. Blood safety is also incorporated in this component.

Testing HIV among key populations, people with TB and pregnant women represents 3% of the total investment every year. This includes elimination of congenital syphilis, as pregnant women will be reached through antenatal clinics for both elimination of vertical transmission and elimination of congenital syphilis.

Targeted investment areas	2016–2017		2017–2018		2018–2019		2019–2020		2020–2021	
	N	%	Ν	%	N	%	N	%	N	%
Reach, recommend and test	23 009 480	76	27 334 805	77	28 036 365	76	28732844	75	29 443 337	74
Treatment and retention	4079939	14	4 523 319	13	5012196	14	5 492 376	14	5952482	15
Programme enablers and social enablers	1 145 175	4	1 586 356	4	1 576 394	4	2017 145	5	2029201	5
Systems for health	1 148 697	4	1 172 647	3	1 207 043	3	1 164 357	3	1 066 330	3
Strategic information	743012	2	928 929	3	862 409	2	1 005 104	3	1 040 678	3
Total	30 1 26 304		35 546 055		36 694 408		38 411 827		39 532 029	

Table 2: Estimated investment need, 2016–2021

Treatment and retention includes initiation of and retention on antiretroviral therapy and adherence monitoring and operating care centres. Investment in treatment monitoring of people enrolled in antiretroviral therapy through CD4 counting and, increasingly, viral load testing is also included. Costing of treatment and retention is modelled around the concept of case management.

Social programme enablers include social protection to children affected by AIDS, nutritional support, treatment of hepatitis C, testing for hepatitis B virus among people living with HIV, preparation of guidelines, protocols and standard operating procedures, and legal and policy reviews. The National HIV Strategic Plan 2016–2021 envisages treatment of hepatitis C among people living with HIV, with a target of 1000 people by 2020–2021.

Systems for health mainly include the resources required for improving the National Public Health Laboratory by procurement of two CD4 machines, six viral load machines and four gene expert machines. This also entails maintenance and operational costs of new and existing equipment, including quality assurance, training of laboratory personnel, and transportation of blood samples. The National HIV Strategic Plan includes investment in female community health volunteers engaged in elimination of vertical transmission and elimination of congenital syphilis as priorities. Identification through enhanced strategic information includes the costs of routine programme monitoring for tracking the epidemic, and conducting HIV-related community-led and traditional operational research.

Acknowledgements

The National HIV Strategic Plan, with its mission of targeted investments and vision towards ending the AIDS epidemic in Nepal by 2030, would not have been developed without the hard work, inspiration and good critique from the following:

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Dr Senendra Raj Uprety, Secretary, Ministry of Health Dr Padam Bahadur Chand, former Acting Secretary, Ministry of Health Mr Shanta Bahadur Shrestha, former Secretary, Ministry of Health Dr Pushpa Chaudhary, Director General, Ministry of Health Mr Mahendra Shrestha, Chief, Policy Planning and International Cooperation Division, Ministry of Health Mr Narayan Dhakal, Under Secretary, Ministry of Finance Mr Devi Prasad Subedi, Under Secretary, Ministry of Education Mr Tilak Bahadur Khadka, Section Officer, Ministry of Federal Affairs and Local Development Ms Binita Bhattarai, Under Secretary, Ministry of Women, Children and Social Welfare Mr Basudev Devkota, Section Officer, Ministry of Labour and Employment Ms Sita Ghimire, Section Officer, Ministry of Home Affairs Representative, Ministry of Youth and Sports Mr Radha Krishna Pradhan, Programme Director, National Planning Commission Dr Jos Vandelaer, Representative, World Health Organization Dr Ruben F del Prado, Country Director and Representative to Nepal and Bhutan, Joint United Nations Programme on HIV/AIDS Mr Sanjaya Sharma, Representative, Civil Society Networks Dr Dipendra Raman Singh, Former Director, National Centre for AIDS and STD Control Dr Tarun Poudel, Director, National Centre for AIDS and STD Control National networks of key populations Achut Sitaula, President, National Association of People Living With HIV Mathura Kunwar, President, National Federation of Females Living With HIV/AIDS Manisha Dhakal, President, Federation of Sexual and Gender Minorities Nepal

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Other key contributors

We also acknowledge all other individual and organizational contributors at the regional and national level meetings and dialogues, and the following:

Dr Yadu Chandra Ghimire, National Centre for AIDS and STD Control Dr Bhesh Raj Pokharel, National Centre for AIDS and STD Control Dr Purusotam Sedain, National Centre for AIDS and STD Control Shambhu Kafle, National Centre for AIDS and STD Control Bal Krishna Karki, National Centre for AIDS and STD Control Bir Bahadur Rawal, National Centre for AIDS and STD Control Krishna Prasad Nagila, National Centre for AIDS and STD Control Usha Bhatta, National Centre for AIDS and STD Control Jhalak Raj Poudel, National Centre for AIDS and STD Control Punya Maya Guragain, National Centre for AIDS and STD Control Rajesh Khanal, National Centre for AIDS and STD Control, Global Fund Programme Madhav Chaulagain, National Centre for AIDS and STD Control, Global Fund Programme Dip Narayan Sapkota, National Centre for AIDS and STD Control, Global Fund Programme Dr Rajya Shree Kunwar, National Centre for AIDS and STD Control, Global Fund Programme Dr Sushil Koirala, National Centre for AIDS and STD Control, Global Fund Programme Shiv Hari Adhikari, National Centre for AIDS and STD Control, Global Fund Programme Suvadra Kafle, National Centre for AIDS and STD Control Narayan Prasad Dhakal, Department of Drug Administration Sanjay Dahal, Ministry of Health Dr Geeta Shakya, National Public Health Laboratory Dr Raj Kumar Mahato, National Public Health Laboratory Subash Dhital, National Public Health Laboratory Surya Deuja, Nepal Health Research Council Purushottam Dhakal, Nepal Health Research Council Ivana Lohar, United States Agency for International Development Dr Manav Bhattarai, World Bank Franziska Fuerst, Deutsche Gesellschaft für Internationale Zusammenarbeit Ujjwal Karmacharya, Deutsche Gesellschaft für Internationale Zusammenarbeit Dr Philippe Creach, Global Fund to Fight AIDS, Tuberculosis and Malaria Nicole Daleny, Global Fund to Fight AIDS, Tuberculosis and Malaria Irina Tokatly, Global Fund to Fight AIDS, Tuberculosis and Malaria Dr Prakash Ghimire, World Health Organization Dr Nihal Singh, World Health Organization Dr Atul Dahal, World Health Organization Akjemal Magtymova, World Health Organization Binija Goperma, United Nations Office on Drugs and Crime Dr Hendrikus Raaijmakers, United Nations Children's Fund Birendra Pradhan, United Nations Children's Fund Kristine Blokhus, United Nations Population Fund Neera Thakur, United Nations Population Fund

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Front cover design: Ruben F del Prado Artist: Kamal Shrestha

Glossary

Biological surveillance: collection and use of biological markers to inform surveillance-in this context, HIV surveillance systems. The term replaces "sero-surveillance" because biological specimens other than serum are increasingly being collected routinely.

Case-finders: people who facilitate case-finding through offering prevention and testing services, such as peer educators, outreach workers, peer influencers, counsellors and female community health volunteers.

Case-finding: activities related to identifying key populations, reaching key populations with prevention combination, offering HIV testing services, and facilitating enrolment in care and treatment services.

Case management: management of services within clinical settings that provide HIV testing, care and treatment, monitoring of antiretroviral therapy adherence, viral load suppression, psychosocial support and ensuring early management of coinfections.

Case managers: people who provide case management services, such as paramedics, doctors, laboratory technicians, and treatment adherence counsellors and educators.

Combination HIV prevention: is a result of a combination of activities and strategies that seeks to achieve maximum impact by combining behavioural, biomedical and structural strategies that are based on human rights and are evidence-informed, in the context of a well-researched and understood local epidemic.

Community-Based Testing: An HIV testing service that is implemented in settings that are easily accessible and comfortable for populations who might not access medical services regularly. They typically provide same-day rapid HIV testing and offer other HIV prevention services. HIV testing in these settings offers an effective way to bring HIV testing to the community. This could include community-led testing, whereby a Rapid Diagnostic HIV Screening Test is performed, in a nonclinical setting, by trained community laypersons. All persons who are found HIV positive through such screening are accompanied to a health facility for confirmatory testing.

Community systems strengthening: initiatives that contribute to the development or strengthening of community-based organizations in order to increase knowledge of and access to improved health service delivery. It usually includes capacity-building of infrastructure and systems, building of partnerships, and development of sustainable financing solutions.

Comprehensive HIV prevention, treatment, care and support: approach that includes tailored HIV prevention strategies, clinical care, adequate nutrition, psychological support, social and daily living support, involvement of people living with HIV and their families, and respect for human rights and legal needs.

Concentrated epidemic: HIV has spread rapidly in a defined subpopulation (such as gay men and other men who have sex with men, sex workers, transgender people, people who use drugs, and people in prison or other closed settings) but is not well established in the general population. This type of epidemic suggests there are active networks of people with high-risk behaviours within the subpopulation. The future course of the epidemic is determined by the nature of the links between subpopulations with a high HIV prevalence and the general population. Numerical proxy: HIV prevalence is consistently over 5% in at least one defined subpopulation but is below 1% in pregnant women attending antenatal clinics.

Confirmed: to issue an HIV status, initially reactive test results need to be confirmed according to the national validated testing algorithm.

Continuum of prevention: complement of HIV information support and services that responds to the evolving behaviours, risks, vulnerabilities and opportunities of individuals as they progress through various stages of their lives.

Coverage: measurable extent to which a good-quality HIV programme is being implemented in the right places and reaching its intended population. It refers to all targeted public and private investments to prevent HIV, promote health and well-being and prolong life. The concept of coverage in the National HIV Strategic Plan also includes the principles of the Fast-Track approach: ambition, focus, change, speed, saturation and human rights.

Critical enablers: "activities that are necessary to support the effectiveness and efficiency of basic programme activities". Programmes that are critical enablers "should be primarily assessed in terms of their effectiveness in increasing the uptake, equitable coverage, rights-based delivery and quality of basic programme activities". Critical enablers also "overcome major barriers to service uptake, including social exclusion, marginalization, criminalization, prejudice and inequity" (22).

Decentralization: process of delegating or transferring significant authority and resources from the central ministry of health to other institutions or field offices of the ministry at other levels of the health system (provincial, regional, district, sub district, primary health-care centre, community).

Development synergies: "investments in other sectors that can have a positive effect on HIV outcomes". Some key development sectors, such as social protection, gender equality and health systems, present opportunities for synergies in multiple contexts. Development synergies "tend to have a broader range of impacts across health and development sectors. Although development synergies can have a profound impact on HIV outcomes, their primary objective is not typically related to HIV. Maximizing the HIV-related benefits and minimizing the HIV-related harm of development synergies would make them HIV-sensitive. The most relevant development synergies for HIV will vary according to epidemic and social contexts" (22).

Early infant diagnosis: testing of infants to determine their HIV status, given that HIV can be acquired during pregnancy, during delivery, through breastfeeding and via bloodborne exposure.

e-Health: transfer of health resources and health care by electronic means. It encompasses three main areas:

- delivery of health information, for health professionals and health consumers, through the internet and telecommunication;
- using the power of information technology and e-commerce to improve public health services, such as through education and training of health workers;
- using e-commerce and e-business practices in health systems management.

Evidence and evidence-informed: in the context of research, treatment and prevention, "evidence" usually refers to qualitative or quantitative results that have been published in a peer-reviewed journal. The term "evidence-informed" is preferred to "evidence-based" in recognition of the fact that several elements may play a role in decision-making, only one of which may be scientific evidence. Other elements may include cultural appropriateness, concerns about equity and human rights, feasibility and opportunity costs.

External quality assessment: inter-laboratory comparison to determine whether the HIV testing service can provide correct test results and diagnosis.

Generalized epidemic: HIV is firmly established in the general population. Although subpopulations at high risk may contribute disproportionately to the spread of HIV, sexual networking in the general population is sufficient to sustain the epidemic. Numerical proxy: HIV prevalence is consistently over 1% in pregnant women attending antenatal clinics.

Harm reduction: policies, programmes and approaches that seek to reduce the harmful health, social and economic consequences associated with the use of psychoactive substances. For example, people who inject drugs are vulnerable to bloodborne infections such as HIV if they use non-sterile injecting equipment; therefore, ensuring adequate supplies of sterile needles and syringes helps to reduce the risk of bloodborne infections. Harm reduction is a comprehensive package of evidence-informed programming for people who use drugs. The components in the package are opioid substitution therapy; HIV testing and counselling; HIV care and antiretroviral therapy for people who inject drugs; prevention of sexual transmission; outreach (information, education and communication for people who inject drugs and their sexual partners); hepatitis diagnosis, treatment and vaccination; and TB prevention, diagnosis and treatment.

HIV status: collection of results from one or more assays. HIV status is similar to HIV diagnosis. HIV status refers to reports of HIV-positive, HIV-negative or HIV-inconclusive, whereas HIV diagnosis generally refers to HIV-positive diagnoses and in some cases HIV-negative diagnoses.

HIV test result: result from a single test on a given assay.

HIV treatment cascade: chain of events involved in a person living with HIV receiving treatment until their viral load is suppressed to undetectable levels. Each step in the cascade is marked by an assessment of the number of people who have reached that stage, making it possible to determine where gaps might exist in the treatment of people living with HIV. The cascade emphasizes the need to focus on all the required steps in order to suppress the virus in the cohort of people living with HIV. The stages of the HIV treatment cascade are as follows: number of people living with HIV; number who are linked to medical care; number who start HIV treatment; number who adhere to their treatment regimen; and number who suppress HIV to undetectable levels in their blood.

Indicator condition-guided HIV testing: focused approach to test people more likely to be infected with HIV who are identified through indicator conditions, such as sexually transmitted infections, lymphoma, cervical or anal neoplasia, herpes zoster and hepatitis B or C. These conditions occur more frequently in people living with HIV than in people who do not have HIV, either because they share a common mode of transmission with HIV or because their occurrence is facilitated by the characteristic immune deficiency associated with HIV infection.

In-reach: community members or members of networks reaching other members within their community with services to prevent HIV and recommend testing (case-finding) and support treatment, care and support services, including treatment literacy, adherence and retention (case management).

Integration: co-location and sharing of services and resources across different disease areas. In the context of HIV, this may include the provision of HIV testing, prevention, treatment and care services alongside other health services, such as for TB, sexually transmitted infections or viral hepatitis, antenatal care, contraceptive and other family planning services, and screening and care for other conditions, including noncommunicable diseases.

Investment approach: approach that maximizes returns on investment in the HIV response. It

allocates resources towards combinations of interventions that will achieve the greatest impact, and it enhances equity and impact by focusing efforts on key locations and populations with the greatest needs. An investment approach also improves the efficiency of HIV prevention, treatment, care and support programmes. It does this by using empirical evidence and modelling to identify priorities and gaps, and enabling countries to secure sustainable funding for HIV programmes. An investment approach provides the framework to align government domestic funding strategies for the medium and long term with donor-supported efforts.

Investment case: document that makes the case for optimized HIV investments. At its core, it is a description of returns on investment in a country's optimized HIV response over the long term (typically more than 10 years). It summarizes the state of the epidemic and the response, describing the prioritized interventions to be implemented, and the populations and geographical areas that should be focused on, in order to achieve the greatest impact, indicating the resources required. It also outlines the main access, delivery, quality and efficiency issues to be addressed in order to improve HIV services, and it describes what will be done to address these issues. Finally, it likely the services are the depictent or the expension of the transition of the transition of the expension of the beaksy approximates the depictent of the expension of the

Loss/lost to follow-up: describes people who at one point in time were actively participating in a clinical research trial but who have since become lost at the point of follow-up. It also refers to people who have registered to receive some kind of health service or commodity at a point in time but who have not done so until completion, instead dropping out of care or treatment.

m-Health: mobile health; a component of e-health. To date, no standardized definition of m-health has been established. For the purposes of the survey, the Global Observatory for eHealth defined m-health as medical and public health practice supported by mobile devices, such as mobile telephones, patient monitoring devices, personal digital assistants and other wireless devices. m-Health involves the use of and capitalization on a mobile telephone's core utility of voice and short messaging service (SMS) and more complex functionalities and applications, including general packet radio service (GPRS), third- and fourth-generation mobile telecommunications, global positioning system (GPS) and Bluetooth technology.

National AIDS spending assessment: flow of resources spent in the HIV response from their origin to the beneficiary populations. It provides decision-makers with strategic information that allows countries to mobilize resources and have a stronger accountability and a more efficient and effective programme implementation. National AIDS spending assessment is a tool within the national monitoring and evaluation framework and is a recommended measurement tool to track HIV spending at the country level.

Negative predictive value: probability that a person with a negative test result is not infected with HIV-that is, "true negative".

Non-reactive test result: test result that does not show a reaction, which indicates that antibodies are not present.

Opioid substitution therapy: recommended form of drug dependence treatment for people who are dependent on opioids. It has proved to be effective in the treatment of opioid dependence, in the prevention of HIV transmission and in improving adherence to antiretroviral therapy.

Outreach: public, private and community services reaching out to key populations with prevention, care and treatment services.

Pooled fund: fund comprising a basket of funds from both the Nepali Government and external resources, including the World Bank, KfW, AusAID, and DfID, that supplements the entire health sector budget in the sector-wide approach. This was part of the Nepal Health Sector Programme-II, in which the pooled funding partners (KfW, AusAID and DfID) committed US\$ 19 million for a period of five years for activities that ranged from supporting the implementation of targeted intervention programmes to strengthening the national surveillance system.

Positive predictive value: probability that a person with a positive test result is infected with HIV-that is, "true positive".

Post-exposure prophylaxis: antiretroviral medicines taken after exposure or possible exposure to HIV. The exposure may be occupational, as in a needle-stick injury, or non-occupational, as in unprotected sex with a partner with HIV infection.

Pre-exposure prophylaxis: antiretroviral medicines prescribed before exposure or possible exposure to HIV.

Pre-test information: dialogue and provision of accurate information by a trained lay provider or health worker before an HIV test is performed.

Prevention (see also Combination HIV prevention): result of a combination of activities and strategies to prevent HIV.

Prisons and other closed settings: places of detention that hold people who are awaiting trial, who have been convicted or who are subject to other conditions of security. These settings may differ in some jurisdictions and can include jails, prisons, police detention, juvenile detention, remand/pre-trial detention, forced labour camps and penitentiaries. There is a need to be inclusive in the language used to describe people in prison and other incarcerated people. Universal access to HIV prevention, treatment, care and support ideally should extend to these settings.

Private for non-profit: describes non-profit-making nongovernmental organizations, communitybased organizations and networks of key populations providing prevention, care and treatment services.

Private for profit: describes private clinics or hospitals and medical corporates that provide HIV prevention, care and treatment services based on a profit or business model.

Private service: any service outside the public sector that provides prevention, care and treatment services at the community, district, regional or central level.

Provider-initiated testing and counselling: HIV testing and counselling recommended by a healthcare provider in a clinical setting. It is defined in contrast to client-initiated testing, where a person takes the initiative to seek information on their HIV status. Testing for diagnostic purposes may be recommended for all adults, adolescents and children who present to health facilities with signs or symptoms that could indicate HIV infection. HIV testing may be recommended as part of the clinical evaluation of people with sexually transmitted infections and during pregnancy in order to identify the need for antiretroviral therapy or prophylaxis. Regardless of the type of testing or location, all HIV testing should always be carried out under conditions respecting the "three Cs"-confidentiality, informed consent and counselling.

Public services: services provided by the state, such as health centres, hospitals and laboratories, and managed by the ministry of health, other government ministries or sectors at the community, district, regional or central level.

Quality assurance: part of quality management focused on providing confidence that quality requirements will be fulfilled.

Quality control: material or mechanism that, when used with or as part of a test system (assay), monitors the analytical performance of that test system (assay). It may monitor the entire test system (assay) or only one aspect of it.

Quality improvement: part of quality management focused on increasing the ability to fulfil quality requirements.

Quality management system: system to direct and control an organization with regard to quality.

Rapid diagnostic test: in vitro diagnostic of immune chromatographic or immune filtration format for, in the case of HIV diagnosis, the detection of HIV-1 or HIV-2 antibodies or HIV p24 antigen.

Repeat testing: additional testing performed for an individual immediately following initial test results, within the same testing visit, using the same assays and, where possible, the same specimen.

Reproductive health: "state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes. It implies that people are able to have a satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so. Implicit in this last condition are the rights of men and women to be informed and to have access to safe, effective, affordable and acceptable methods of family planning of their choice, as well as other methods of their choice for regulation of fertility that are not against the law, and the right of access to appropriate health-care services that will enable women to go safely through pregnancy and childbirth and provide couples with the best chance of having a healthy infant" (22).

Retesting: there are certain situations in which individuals should be retested for HIV after a defined period of time: people who previously tested negative for HIV but with recent or ongoing risk of exposure, people with an HIV-inconclusive status, and people living with HIV before they enrol in care or start treatment. Reasons for retesting before initiation of care or treatment include ruling out laboratory or transcription error, and ruling in or out seroconversion.

Self-testing: process in which an individual who wants to know their HIV status collects a specimen, performs a test and interprets the result themselves, often in private. Reactive test results must be followed by additional HIV testing services.

Sensitivity: probability that an HIV assay will correctly identify all specimens that contain HIV-1 or HIV-2 antibodies or HIV p24 antigen.

Sentinel surveillance: type of surveillance conducted through selected sites among populations of particular interest or that may provide approximations of prevalence for a larger population, for example in antenatal clinics.

Seroconversion: when an individual first produces a quantity of HIV antibodies sufficient to be detectable on a given HIV serological assay.

Serodiscordant couple: couple in which one partner is living with HIV and the other partner is HIV-negative.

Stewardship: ethic that embodies the responsible planning and management of resources.

Strategic behavioural communication: interactive process with individuals and communities to develop tailored communication strategies, messages and approaches using a mix of communication channels and activities to promote healthier behaviours and support individual, community and societal improvement towards safer, less risk-taking behaviours. Strategic behavioural communication supports the continuum of "reach, recommend, test, treat and retain" with strategic communication. It lends communication expertise to advocacy, social and community mobilization and community action to deliver consistent messages through multilayered approaches and channels for maximum effectiveness.

Systems for health: people-centred structures through health and social systems, especially for populations that epidemiological evidence shows are at higher risk of infection. These include expanded community-led service delivery to cover a substantial proportion of all service delivery (30% by 2030) through investments in human resources for health and in the necessary equipment, tools and medicines. Systems for health have policies in place that are non-discriminatory and respectful, promoting and protecting human rights. Competent civil society organizations deliver services for HIV prevention and treatment through task-sharing.

Task-sharing: rational redistribution of tasks between cadres of health-care providers with longer training and other cadres with shorter training, such as trained lay providers.

Test and treat: voluntary HIV testing and the offer of antiretroviral therapy after diagnosis, irrespective of WHO clinical stage or CD4 cell count. The voluntary nature of both testing and treatment should be emphasized to ensure individual autonomy is respected. Where "test and treat" is offered, it is necessary to establish strong support for adherence in order to keep people on lifelong treatment. "Test and treat" strategies should always be supplemented by strong combination HIV prevention, including risk-reduction counselling, condom provision or pre-exposure prophylaxis. In settings where it is recommended, "test and treat" can also include referral to male circumcision services for men who test negative for HIV.

Test for triage: community-based HIV testing approach involving trained and supported lay providers conducting a single HIV rapid diagnostic test. The lay providers promptly link individuals with reactive test results to a facility for further HIV testing and, if necessary, assessment for treatment. Individuals with non-reactive test results are informed of their results, referred and linked to appropriate HIV prevention services, and recommended for retesting according to recent or ongoing HIV risk and national guidelines.

Testing strategy: testing sequence for a specific objective, taking into consideration the presumed HIV prevalence in the population being tested.

Treatment as prevention: prevention methods that use antiretroviral therapy to decrease the risk of HIV transmission. Treatment as prevention works by using antiretroviral therapy to reduce the HIV viral load, or the amount of HIV in the blood. A low viral load helps keep a person living with HIV healthy and greatly reduces the chance of HIV transmission to others.

Verified: people diagnosed as living with HIV are retested and their HIV diagnosis is verified before they initiate care or treatment.

Good health and well-being (SDG 3)

Children, adolescents and adults living with HIV access testing, know their status and are immediately offered and sustained on affordable good-quality treatment

- HIV testing services are available for and accessible to people at risk of HIV infection.
- Early infant diagnostic services are accessible to all children exposed to HIV; and all children under five years of age living with HIV are on treatment.
- All adults, adolescents and children are offered antiretroviral therapy and linked to treatment services following HIV diagnosis (case management).
- People on treatment are supported and monitored regularly, including scaled up viral load monitoring, and treatment literacy and nutritional support.
- Accessibility, affordability and quality of HIV treatment are improved, including through community delivery systems.
- HIV services are scaled up and adapted to local contexts, including in cities, fragile communities and humanitarian emergencies.
- Adequate investments are made for innovation in HIV services for prevention and treatment services.

New HIV infections among children are eliminated and their mothers' health and well-being are sustained

- Immediate treatment is accessible to all pregnant women living with HIV (Option B+).
- Services for HIV, sexual and reproductive health, including family planning, TB, and maternal and child health are integrated and accessible for women, especially women living with HIV.
- HIV prevention services for male partners are promoted, including testing and treatment.

Reduced inequalities (SDG 10)

Young people, especially young women and adolescent girls, access a combination of activities and strategies, and are in a position to protect themselves from HIV

- Youth-competent HIV, sexual and reproductive health and harm-reduction information and services are accessed independently and equally by young women and men.
- All people, especially young people, reduce HIV-related risk behaviour and access HIV services for HIV prevention, including primary prevention and sexual and reproductive health services.
- Sufficient good-quality male and female condoms and lubricants are available, as per the National HIV Strategic Plan 2016–2021 estimations, for people of all ages.
- Good-quality comprehensive sexuality education is accessed by all adolescents and young people.
- Information is accessed, awareness raised and demand created through traditional and new forms of communication, outreach and in-reach.
- Young people are meaningfully engaged in the response to ensure effectiveness and sustainability.

Tailored HIV combination prevention services are accessible to key populations, including sex workers, gay men and other men who have sex with men, people who inject drugs, transgender people, people in prison and migrants

- Key populations are identified, reached and recommended for testing through communityled "test for triage", which is adequately resourced and available, tailored to populations, locations and activities and services with maximum impact (case-finding).
- Outreach, in-reach and new media inform and create demand for use of traditional and new technologies to prevent HIV, including condoms and pre-exposure prophylaxis.
- Pre-exposure prophylaxis is considered, focusing particularly on key populations and people at high risk in high-prevalence settings.
- People who inject drugs access clean needles and syringes, opioid substitution therapy and other evidence-informed drug dependence treatment.
- Migrants, refugees and crisis-affected populations have access to HIV-related services.
- People living with HIV and other key populations are meaningfully engaged in decisionmaking and implementation of HIV programmes within a prevention-treatment continuum through task-sharing.

Gender justice (SDG 5)

Women and men practise and promote healthy gender norms and work together to end gender based, sexual and intimate partner violence to mitigate risk and impact of HIV

- Women, girls, men and boys are engaged and empowered to prevent gender-based, sexual and intimate partner violence, and to promote healthy gender norms and behaviours.
- Laws, policies and practices enable women and girls to protect themselves from HIV and access HIV-related services, including by upholding their rights and autonomy.
- Sexual and reproductive health and rights needs are fully met to prevent HIV transmission.
- Young women in high-prevalence settings access economic empowerment initiatives.
- Women are meaningfully engaged in decision-making and implementation of the HIV response.

Peace, justice and strong institutions (SDG 16)

Punitive laws, policies, practices, prejudice and discrimination that block effective responses to HIV are removed

- Punitive laws, policies and practices are removed, especially those that block access of key
 populations to services.
- People living with, at risk of or affected by HIV know their rights and are able to access legal services and challenge violations of human rights.
- HIV-related prejudice and discrimination are eliminated among service providers in healthcare, workplace and educational settings.
- Laws, policies and programmes to prevent and address violence against key populations are issued and implemented.

Partnerships for the goals (SDG 17)

AIDS response is fully funded and efficiently implemented based on relevant and reliable strategic information

- Investments, including through increased domestic funding, with at least a quarter invested towards prevention, adequately fund the National HIV Strategic Plan 2016–2021.
- Nepal, as a low-income country, mobilizes at least 12% of country resource needs for the National HIV Strategic Plan 2016–2021 from domestic sources.

- Financial sustainability transition plans and country compacts are implemented.
- Nepal uses timely, appropriate and reliable strategic information to prioritize resource allocation, evaluate responses and inform accountability processes.
- Allocative and productive efficiency gains are fully exploited and commodity costs reduced by overcoming restrictive intellectual property and trade barriers.
- Relevant and necessary competencies are enhanced, including through technology transfer arrangements.
- Investment and support to civil society, including networks of people living with, at risk of
 or affected by HIV, are scaled up to enhance their essential role in the response through
 relevant public-private partnerships.

People-centred HIV and health services are integrated in the context of stronger systems for health

- HIV-sensitive universal health coverage schemes are implemented.
- People living with, at risk of or affected by HIV are empowered through HIV sensitive national social protection programmes, including cash transfers.
- People living with, at risk of or affected by HIV access integrated services, including for HIV, TB, sexual and reproductive health, maternal, newborn and child health, hepatitis, drug dependence, food and nutrition support and noncommunicable diseases, especially at the community level.
- Comprehensive systems for health are improved through integration of community service delivery with formal health systems through task-sharing.
- Human resources for health are trained, capacitated and retained to deliver integrated health and HIV services.
- Stockouts are prevented and procurement accelerated through improved procurement and supply chain systems.

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Further reading

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For further information:

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