# Evolution of the health sector response to HIV in Myanmar: progress, challenges and the way forward

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## Abstract

Critical building blocks for the response to HIV were made until 2012 despite a series of political, social and financial challenges. A rapid increase of HIV service coverage was observed from 2012 to 2015 through collaborative efforts of government and non-governmental organisations (NGOs). Government facilities, in particular, demonstrated their capacity to expand services for antiretroviral therapy (ART), prevention of mother-to-child transmission (PMTCT) of HIV, tuberculosis and HIV co-infection and methadone-maintenance therapy (MMT). After nearly three decades into the response to HIV, Myanmar has adopted strategies to provide the right interventions to the right people in the right places to maximise impact and cost efficiency. In particular, the country is now using strategic information to classify areas into high-, medium-and low-HIV burden and risk of new infections for geographical prioritisation – as HIV remains concentrated among key population (KP) groups in specific geographical areas. Ways forward include:

- Addressing structural barriers for KP to access services, and identifying and targeting KPs at higher risk;
- Strengthening the network of public facilities, NGOs and general practitioners and introducing a case management
  approach to assist KPs and other clients with unknown HIV status, HIV-negative clients and newly diagnosed clients
  to access the health services across the continuum to increase the number of people testing for HIV and to reduce
  loss to follow-up in both prevention and treatment;
- Increasing the availability of HIV testing and counselling services for KPs, clients of female sex workers (FSW), and
  other populations at risk, and raising the demand for timely testing including expansion of outreach and client-initiated
  voluntary counselling and testing (VCT) services;
- Monitoring and maximising retention from HIV diagnosis to ART initiation and expanding quality HIV laboratory services, especially viral load;
- Prioritising integration of HIV and related services in high-burden areas;
- Increasing the proportion of PLHIV receiving testing and treatment at public facilities by improving human resources and increasing public facilities providing these services to ensure sustainability;
- Obtaining intelligence and tailoring services in hard-to-reach/under-served areas;
- Strengthening planning, monitoring, and coordination capacity especially at regional levels.

## Introduction: Myanmar in context

Myanmar is classified as a lower-middle-income and a least developed country in Southeast Asia with a population of 51.4 million [1]. Administratively, the country is composed of NayPyiTaw union territories and 14 states and regions. More than 60 years of internal conflict, military rule, and sanctions from international governments have affected the country's economic growth and development. The total health expenditure in Myanmar, 1.7–2.3% of its gross domestic product (GDP) between 2001 and 2014, is among the lowest in the Asia Pacific region.

Myanmar detected its first case of HIV from a person who injected drugs in 1988 and the first AIDS case was diagnosed in 1991. Between 1990 and 2000, prevalence remained elevated in high-risk groups, notably people who inject drugs (PWID) peaking alarmingly at 74.3% in 1993, men who have sex with men (MSM), and female sex workers (FSWs), peaking at 38% in 2000. Over the following decade (2001–2010), the epidemic reached clients of sex workers and partners of PWID, and female sexual partners of men who are from key population groups, leading to vertical transmission of HIV to their newborns. National level HIV prevalence was estimated to be 28.5% among PWID in 2014, and 14.6% among FSW and 11.6% among MSM in 2015 according to the AIDS

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Epidemic Model (AEM) based on the Integrated Bio-Behavioural Surveillance (IBBS) surveys among key populations and HIV sentinel surveillance (HSS). According to the AEM in 2015, the highest proportion of new infections was among PWID (28%) from the use of contaminated injecting equipment, followed by 'low-risk' women (24%), and FSW clients (23%). New infections in 2015 were estimated to be 11,763, approximately 32 new infections daily, according to Spectrum 2016. The overall HIV epidemic in Myanmar seems to be declining with HIV prevalence among adults, 15 years and older, estimated to be less than 0.6% nationally. There were an estimated 224,795 people living with HIV (PLHIV) including those aged under 15, one-third of whom were female. The severity of the HIV epidemic in Myanmar varies widely by geographical area. HIV prevalence in some locations in Myanmar is among the highest in the Asia-Pacific region. Approximately 65% of KPs are estimated to be in five regions and states (Mandalay, Yangon, Sagaing, Kachin and Shan North), largely in urban areas. In Yangon, among MSM, the HIV prevalence at 26.6% is the highest in a specific geographical location in the Asia-Pacific region, higher than Bangkok at 24.4% in 2012. Whereas in some townships in Kachin and Shan North, nearly one in two PWID who participated in the 2014 IBBS survey tested HIV positive.

In financing the HIV response, Myanmar has received external funding support since 2002, albeit with some challenges. In 2003, the Fund for HIV in Myanmar (FHAM) was established by Norway, UK, Sweden and the Netherlands. The Three Diseases Fund (3DF),

a multi-donor trust fund was formed in 2006 to replace the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) grant upon withdrawal from the country. The FHAM was merged into the new fund to provide much needed assistance for HIV, tuberculosis (TB) and malaria. The 3DF then transitioned into the Three Millennium Development Goal Fund (3MDG), which was launched in 2012 by seven bilateral donors (Australia, Denmark, European Union, Sweden, Switzerland, United Kingdom and USA) to support maternal, newborn and child health (MNCH), HIV, TB and malaria, and health systems strengthening. Following the termination of a previous grant, the GFATM grant Round 9 was re-established in Myanmar in 2011 and continued as the New Funding Model (NFM) through 2016 [2]. As of 2015, GFATM is the single largest financing source covering 50% of the HIV response in Myanmar. Its funding beyond 2016 is being explored. Responding to HIV is a national priority, as evidenced by increasing domestic funding. The proportion of Government spending as part of total HIV expenditures increased from 2% (US\$ 0.6 million) in 2012 to 7.7% (US\$ 4.1 million) in 2013, and even further to 12.3% (US\$ 10.4 million) in 2015 [3]. The change from military rule to a civilian government in 2011 brought increased support from both government and donors. A newly established government in April 2016 will potentially bring additional increased external resources to health and development in Myanmar.

This article reviews and document Myanmar's response to the HIV epidemic over the last decades (1990–2016) and how it is moving towards the goal of ending the AIDS epidemic as a public health threat.

### **Review methods**

The review is based on a literature review of available data, documents and reports (published and unpublished), validated with key partners (National AIDS Programme, WHO, and UNAIDS).

### **Review findings**

This article describes Myanmar's response to HIV of nearly three decades in a nutshell, and the continuous efforts taken to strengthen policy and strategic directions, overcome challenges and attempts to reach the goal of ending AIDS by 2030. In particular, this review focuses on the building blocks of the country's response through four phases (Table 1).

#### Response: 1991-2000

#### Government recognition of HIV

An inter-sectoral National AIDS Committee chaired by the Minister of Health was established in 1989 and provided oversight. A short term plan for the prevention and control of HIV transmission was launched that same year. The first national medium-term plan for prevention and control of HIV/AIDS was formulated in 1991, followed by a joint plan by the National AIDS Programme (NAP), Ministry of Health, and the United Nations Development Programme (UNDP) in 1994. In the late 1990s, several collaborative projects were undertaken with the support of UN entities and bilateral agencies to enhance efforts for HIV prevention and care [4]. A limited number of international non-governmental organisations (INGOs) worked directly, or through a few national civil society organisations, with key populations such as PWID and FSW.

# Information, education and communication (IEC) across different sectors

A multilingual public education campaign was adopted as a multi-sectoral approach by several Ministries. HIV prevention, in particular IEC for key populations with HIV/AIDS and peer education for PWIDs were the mainstay of the national programme. Counselling, STI education and treatment were provided to FSWs by 45 STI/AIDS teams in priority townships and via NGOs. HIV testing and confirmation was performed only at governmentassigned laboratories, leading to delays in providing test results.

#### HIV sentinel surveillance

The national programme started systematic surveillance among key population groups in selected geographical areas in 1991. Biennial HIV sentinel surveillance (HSS) [5] was established in 1992 among different population groups (PWID, sex workers, male and female patients with sexually transmitted infections, pregnant women and military recruits), along with HIV surveillance among blood donors.

#### Response: 2001-2010

#### The 100% Targeted Condom Programme (TCP)

In 2001, the government started a 100% targeted condom programme (TCP) in sex-work settings and rapidly scaled up from four sites in 2001 to 170 sites in 78 townships by 2010 [6]. Client-oriented STI services, free distribution and social marketing of condoms, voluntary counselling and confidential testing (VCCT) were scaled up through the public and private network of service providers. In 2008, 95% of FSWs reported condom use with the most recent client while 77.6% of PWID used a condom at last sex (Progress Report 2008, National Strategic Plan for HIV/AIDS in Myanmar). Targeted outreach programmes became increasingly community-centred by 2006, being run mostly by their own members: sex workers, MSMs and PWID [7].

#### New sources of funding

In 2004, following the termination of the grant from the Global Fund to Fight Against AIDS, Tuberculosis and Malaria (GFATM), the Fund for HIV in Myanmar (FHAM) was subsequently established, with technical support from UNAIDS, bringing significant resources to the response. A group of donor countries formed the Three Diseases Fund (3DF) to support HIV efforts and continued as the Three Millennium Development Goal Fund (3MDG Fund) providing joint donor support and expanding to encompass maternal and child health and longer-term sustainability. The 2009 Global Fund 9th Round (January 2011–31 December 2012) was later integrated as a single-stream grant with the New Funding Model (NFM; 2013–2016).

#### First National Strategic Plan

The First National Strategic Plan 2006–2010 was developed by the government and international partners including INGOs, and was then funded by the 3DF to implement the following provisions.

Interventions targeting PWID and FSW were expanded by NGOs and INGOs. Needle and syringe distribution grew five-fold from 2005, from 545,000 needles and syringes to nearly 7 million distributed by 2010. In addition, 1101 PWID were receiving methadone [8]. Services for PWID were geographically concentrated in only three areas (Shan state, Kachin state and Mandalay division) as these were economic and trade zones for opium with noted higher HIV prevalence [9].

Small scale projects for MSM initiated by NGOs and INGOs provided condoms, lubricants and other HIV prevention interventions. IEC was provided through peer outreach focusing on hard-to-reach MSM. VCCT and STI services were provided by private and public sectors.

Initially, VCCT and other HIV testing and counselling (HTC) services were provided only by the public sector and at sentinel surveillance

Table 1. The four phases of the health	sector response to HIV: key features and milest	cones		
	Phase I (1991–2000)	Phase 2 (2001–2010)	Phase 3 (2011–2016)	Phase 4 (2016–2020)
HIV epidemic	First HIV case detected in 1988 [19] from PWID; nearly three-quarters of new infections are among PWID. FSW and clients also affected [20]	Adult HIV prevalence peaked at 0.74% in those aged over 15 years 2005 [20]; MSM and low-risk females became strongly affected by the epidemic	Adult prevalence declined to 0.59% in 2015 [20]; PWID and MSM contributing an increased proportion of new infections	Geographical prioritisation for HIV services across the continuum, based on the local burden and risk; differentiated service delivery in high-, medium- and low-burden townships
HIV prevention for key populations	IEC and peer education for FSW and PWID; multi-sectoral and multilingual public education campaign by several Ministries;	100% Targeted Condom Programme (TCP) expanded to 154 sites in 2005 [21]; drop-in centrers initiated for KPs;	Interventions for SW, PWID, MSM expanded through public, private and NGO sectors [22]	Reorient KP interventions to reach higher risk KPs, increase HIV testing coverage, and strengthen linkages across continuum by real-time mapping, community HTC, KP service centre and case management approaches
Testing and counselling	HIV testing only in main cities; counselling services for KPs provided at AIDS/STI services and NGO sites	PITC for pregnant women scaled up to 210 township sites; PITC provided for KPs by private practitioners	Expansion of PITC for PMTCT and TB/HIV; VCCT by AIDS/STI teams in 45 districts; decentralised HTC since 2013 and community-based HTC since 2014 through qualified NCO sites and basic health staff	Intensify the right HIV testing approaches in the right places for the right people through expanding community HTC for KPs, VCCT for other vulnerable populations including FSW clients, KP partners, and unreached KPs, VCCT in closed settings and PITC for PMTCT and TB/HIV
Care and treatment including PMTCT	STI prevention and treatment by AIDS/STI services and NGO sites	By 2010, 38 public sector hospitals were providing ART; 210 townships PMTCT, and paediatric ART through network with ART hospitals; TB/HIV collaboration expanded to 11 townships. Interventions for KPs expanded by NCOs/INGOs: PLHIV peer support groups and network emerged.	ART facilities increased to 269 by 2015, including 82 public sector ART initiation sites (including 72 hospitals), 137 ART maintenance sites and 50 NGO sites; PMTCT and TB/HIV collaboration expanded to 301 and 236 townships, respectively by 2015.	Further expansion of ART with increased domestic funding; transition from NGO to public sector, including standardising treatment support package across NGO and public sectors; integrated/co-location service delivery including HTC, ART, TB/HIV and PMTCT to minimise physical referral especially in high burden areas; individual case monitoring and response system to better track patients across the care continuum; expansion of viral load and EID testing
Strategic information	Behaviour surveillance, HIV surveillance since 1992	HIV estimates and projections produced since 2003 using AEM and Spectrum	New HIV estimates and projections developed in 2012 and 2014/2015 for PWID, MSM and SW as part of the IBBS survey	Adjusting surveillance approaches including electronic case- based reporting system using DHIS2; regional epidemic profiles and plans, especially in high-burden townships; obtaining intelligence and developing services in hard-to-reach/underserved areas
Leadership	In 1988, the NAC was established An inter-sectoral NAC, chaired by the Minister of Health, provided oversight (1989)	Myanmar Country Coordinating Mechanism ( M-CCM) played high-level coordination role	MoH allocated US\$1 million for methadone, US\$5 million for ARVs in 2015 in addition to an eight-fold increase of resources for NSP II; programme cost optimisation conducted to identify areas for costs savings and efficiencies	Government transitioning to take a larger leadership role in management and implementation of GFATM grant; strengthen planning, monitoring, and coordination capacity especially at regional level
AEM: Asian Epidemic Model; EID: early in NAC: National AIDS Committee; NGO: no voluntary confidential counselling and tes	fant diagnosis; IBBS: Integrated Biological and Beh 1-governmental organisation; PITC: provider-initiate ting.	avioural Surveillance; IEC: information, education an ed testing and counselling; PMTCT: prevention of m	d communication; KP: key populations; MoH: Ministi other-to-child transmission; PWID: people who inject	ry of Health; MSM: men who have sex with men; t drugs; (F)SW: (female) sex workers; VCCT:



Figure 1. Most at-risk populations received HIV test and post-test counselling 2006–2010. Source: NAP progress report 2010



Figure 2. Achievements in PMTCT 2003–2010. Source: NAP review March 2013

sites. INGOs and NGOs started to provide HTC, and referred individuals to public testing and confirmation sites after this process. By the end of 2004, 114 service delivery sites in 69 townships provided HTC including testing for PMTCT. In 2006, Population Services International (PSI), an INGO, was allowed to set up laboratory services for VCCT/HTC in clinics in Yangon and Mandalay. By the end of 2010, the NAP had had provided over 75,000 people with HTC including 22,655 for KPs (Figure 1).

PMTCT roll-out by the government was initiated in 2000 in four townships (Tachileik, Kawthaung, Dawei, and Myawaddy) and community-based public sector activity was extended to institutional-based PMTCT in five public hospitals. By 2010, PMTCT services including treatment for mother-baby pairs expanded through maternal and child health centres and hospitals, supported by NGOs and INGOs, and self-help groups covered 210 townships with 38 hospital-based and 210 community-based services. In 2008–2009, 2488 mother–baby pairs (65% of the 2010 target) received a complete course of two-antiretroviral (ARV) combination prophylaxis (Figure 2).

As early as 2002, a few patients accessed ART from neighbouring countries, and from MSF-Holland. Provision of ART by NAP started in 2005 through five general hospitals and one HIV specialist hospital in Yangon. Between 2001 and 2010, with significant collaboration from INGOs, NGOs, civil society and network groups,

the number of PLHIV receiving ART increased from fewer than 500 in 2004 to reach 29,825 in 2010 (2116 of whom were children) with the public sector caring for over 25% of the total patients (Figure 3).

A network of private general practitioners (Sun Quality Health practitioners), established in 2001, diagnosed and treated STI cases, especially among FSW and MSM. Stand-alone VCCT/HTC was also provided. ART maintenance was piloted in 2008 and expanded to other network clinics in 2010 as part of the decentralisation process.

The Integrated HIV Care (IHC) programme for TB/HIV co-infected patients and families was a joint collaboration between the Ministry of Health, the International Union against Tuberculosis and Lung Disease (IUATLD) and WHO, established in 2005 with departmental referral practised between NAP and the National TB Programme (NTP). Piloting of isoniazid preventive therapy (IPT) for PLHIV started in seven townships in 2007, expanding to 11 townships by 2010 where co-trimoxazole prophylactic therapy (CPT), IPT and initiation of ART as appropriate was provided.

The comprehensive continuum of care (CoC), initiated in 2006, intended to provide comprehensive HIV prevention and care activities, community home-based care for AIDS patients and their families with involvement of basic health staff, NGOs, and



Figure 3. PLHIV receiving ART 2005–2015. Source: ART programme data, Spectrum, April 2016

communities including PLHIVs [10]. PLHIV peer-support networks provided community mobilisation and advocacy, and home-based care and other support services, such as adherence support for ART. Self-help groups of PLHIV increased from 43 in 2005 to nearly 200 in 2010, with members across all states and regions providing socio-economic assistance (e.g. provision of food, loans for income generation and educational support for children)[11]. Seven community networks, including those of MSM, PWIDs, women and sex workers, and NGOs (Myanmar Interfaith Network on AIDS, 3N) and community-based organisations (Myanmar Positive Group) were active as of 2010.

#### Response: 2011-2015

#### Second National Strategic Plan

The second National Strategic Plan (NSP II; 2011–2015/16) was developed collaboratively and inclusively with government ministries, international and national partners, civil societies and PLHIV and KP networks, reflecting recommendations generated by the 2013 mid-term review of NSP II. In 2013, the GFATM NFM (1 January 2013–31 December 2016) was used to bridge the funding gap for NSP II by approximately US\$100 million and to return the focus to the planned scale up of the programme [12].

Improved collaboration between governments, NGOs and INGOs, development partners and other stakeholders was seen. The United Nations Office for Project Services (UNOPS) and Save the Children worked closely with NAP and sub-recipients (i.e. INGOs, NGOs, general practitioners, civil societies and networks) to implement the GFATM grant. INGOs, NGOs and general practitioners provided ART, care and support for PLHIV in collaboration with the public sector. Community support groups became increasingly involved in child protection advocacy and social support, working with the Ministry of Social Welfare and civil society groups [13].

#### Rapid increase of service coverage

Coverage of a range of services increased significantly in implementing NSP II with the GFATM, the government, and other sources including 3MDG, US Government, and MSF Holland during this phase.

KP outreach was expanded to achieve 67%, 53%, and 67% coverage for FSW, MSM and PWID, respectively in 2014. From 2013 to 2015, there was a 67% increase in the number of needles and syringes distributed from around 11 million to 18.5 million, equivalent to an increase from 147 to 223 units per person who injects drugs.

Coverage of ART doubled from 23.6% in 2012 to 47.4% or 106,490 PLHIV people on ART by the end of 2015 [14]. The NAP along with implementing partners increased the number of ART facilities from 147 in 2013 to 269 in 2015, with 82 public ART initiation sites, 137 public ART maintenance sites, and 50 non-government sites. There was a significant decline in the number of HIV-related deaths from 15,601 in 2011 to 9675 in 2015 [15]. Out of the 106,490 patients (adults and children) who were on ART, only 9700 had received a viral load test in 2015.

Provider-initiated testing and counselling (PICT) for pregnant women was progressively integrated in ANC settings nationwide. HIV testing coverage among pregnant women and ARV coverage among HIV-positive pregnant women to reduce mother- to- child transmission (MTCT) were 67.2% and 86.0%, respectively in 2015 [14]. In 2015, 3923 HIV-positive pregnant women received ARVs to reduce the risk of MTCT (2400 received Option B and 1523 Option B+). In 2015, 2169 exposed infants were born and started on nevirapine (NVP) prophylaxis, suggesting that about 46% of all infants born to HIV-positive women were lost to follow-up. The number of infants who received an HIV test within 2 months of birth to ensure early infant diagnosis (EID) was 801 (773 negative, 25 HIV-positive and three indeterminate), suggesting a large loss to follow-up among potentially exposed infants.

PITC was made available at TB service delivery points in 236 townships in 2015 [16]. The proportion of TB patients with known HIV status increased from 60% in 2014 to 74% in 2015, although the proportion of HIV-positive TB patients receiving ART remained low at 38% in 2015.

By the end of 2014, seven townships had 'one stop service centres' with comprehensive services for PWID, which included MMT, ART, TB referral and treatment, STI treatment, counselling, hepatitis

General practitioners were also involved in HIV diagnosis, treatment of opportunistic infections, care for TB and HIV co-infection, ART maintenance, and adherence to the treatment.

#### Government financial contributions to ART and MMT

The government demonstrated a strong commitment by allocating US\$1 million for methadone in 2014 and US\$5 million for ARV drugs in 2015, in addition to an eight-fold resource increase for the NSP II by the Ministry of Health [18].

#### The way forward: 2016–2020

Based on the review of NSP II implementation successes and challenges, the Myanmar National Strategic Plan on HIV and AIDS (2016–2020) (NSP III) has been developed. It aims to end HIV as a public health threat in Myanmar by 2030 through fast-tracking access for PLHIV to a continuum of integrated and high-quality services that protect and promote human rights for all. The NSP III defines five strategic milestones for Myanmar to achieve:

- (1) 90% of SW, MSM, PWID, prisoners and migrants have access to combination prevention services;
- (2) 90% of PLHIV know their status;
- (3) 90% of PLHIV who know their status receive treatment;
- (4) 90% of people on treatment have achieved viral suppression;
- (5) 90% of people living with, at risk of and affected by HIV report no discrimination, especially in health, education and workplace settings.

The NSP III intends to ensure highly focused and cost efficient approaches that will provide the right interventions to the right people in the right places. New features of the NSP III include the following:

- Geographical prioritisation through categorisation of townships based on epidemic burden and risk of new infections;
- Differentiation of service delivery approaches for higher impact to reach priority populations and expedite their access to services;
- Continuum of HIV prevention, testing, care and treatment services including strengthened partnerships between the public, INGOs, NGOs, community and private sectors;
- Prioritising integration/co-location of services in highburden areas;
- Transition to increased public sector management, especially of ART; and
- Streamlined programme costs to ensure savings and efficiency gains from economies of scale and scope.

Regarding the geographical prioritisation, existing data were analysed through a process of triangulating population size estimates of priority populations, known HIV prevalence, reported HIV-positive and TB/HIV-positive data, number of PLHIV on ART and reported PMTCT/HIV-positive data. This analysis resulted in the classification of 85 high-burden townships; 151 mediumburden townships; and 94 low-burden townships. It was estimated that between 63% and 77% of key populations were in highburden townships, while 76% of adult PLHIV and 78% of adults on ART resided in high-burden townships. Between 19% and 31% of key populations and adults on ART were in medium-burden townships and only up to 6% of key populations were within low-burden townships.

Each township plans to implement differentiated service delivery approaches. For prevention, in high-burden townships, government and INGO and NGO partners will jointly scale up programmes that are relevant to the needs of the key population through the Key Population Service Centre approach, which includes drop-in-centres, mobile outreach units, peer educators, as well as internet and smart phone-based applications, among other initiatives. Medium- and low-priority townships will receive a standardised basic programme package, consisting mainly of IEC, condom distribution, prevention and HIV testing information, and HIV awareness raising through activities such as World AIDS Day campaigns.

HIV testing will be optimised through intensifying different HIV testing approaches to target different priority populations. Specifically, community HTC for KPs and VCCT for other vulnerable populations including FSW clients, KP partners, and unreached KPs will be prioritised in high-burden areas while PITC for PMTCT and TB/HIV will be made available throughout the country regardless of the level of burden.

ART initiation will be focused in high-burden townships. In medium- and low-burden townships, the ART initiation service will be accessible on-site, or by referral. PMTCT services will continue to be available throughout the country. The NSP III prioritises the transition of ART services from INGOs and NGOs to the public sector. It also aims to increase community involvement in the HIV response and supports the strengthening of community systems. Providing familiarity and interactions with communities and KPs also serves to increase understanding and compassion of public sector healthcare providers towards PLHIV and KPs, ultimately reducing HIV-related stigma and discrimination.

Integrated/co-location service delivery including HTC, ART, TB/HIV and PMTCT should minimise physical referral, especially in high-burden areas, resulting in fewer loss-to-follow-up cases. Individual case monitoring and improved response systems will help to better track patients across the care continuum.

Other focus areas in the NSP III include: building infrastructure and capacity for viral load monitoring and testing, including point-of-care viral load testing in order to achieve viral suppression in ART patients; improving and speeding up treatment of TB patients who need ART; and addressing problems identified around the continued high MTCT rate.

Ultimately NSP III interventions were selected based on those that are most likely to achieve results and impact the epidemic. With rigorous programme and cost-efficiency reviews, the new NSP has identified up to US\$150 million in savings for the duration of the NSP from 2016 to 2020. Through these evidence-informed, results-oriented, innovative approaches, Myanmar strives to reach its goals to eliminate HIV as a public health threat, as part of a wider health agenda that includes providing universal access to health.

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MF, AM-M, PB, HA, MTAS, AMS and RP are staff members of the World Health Organization. The authors alone are responsible for the views expressed in this article and they do not necessarily represent the decisions, policy or views of the World Health Organization.

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