



IMPROVING COMMUNITY-BASED/LED **HIV** TESTING SERVICES AMONG TRANSGENDER PEOPLE AND PEOPLE WHO INJECT DRUGS IN ASIA

Desk Review Report June 2019





Improving Community-Based / Led HIV Testing Services Among Transgender People and People Who Inject Drugs in Asia: Desk Review Report.

This document presents the background, objectives, methods, results, and conclusions of the desk review conducted in 2019 to capture the current situation related to HIV testing services for people who inject drugs and transgender people in the seven Asian countries under the Key Populations Research and Advocacy project – Bangladesh, Cambodia, Indonesia, Myanmar, Nepal, Thailand and Vietnam – funded by the Global Fund, and managed by Save the Children as principal recipient.

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Executive summary

HIV testing is the gateway to HIV prevention, treatment, care and other support services.¹ But in Asia and the Pacific, key populations face important challenges in accessing HIV testing services (HTS): between 2014 and 2017, only 42% of female sex workers (FSW) were covered by HTS, only 54% of men who have sex with men (MSM), only 55% of transgender people (TG), and only 44% of people who inject drugs (PWID).² Given the importance of HTS in the HIV treatment cascade, multiple mechanisms and strategies have been designed, developed and promoted to expand coverage by facilitating access and multiplying options for clients.

This report is designed to achieve the following objectives:

- Provide an overview of the current progress and scale of community-based / -led (CBL) HTS (including HIV index testing and oral fluid testing) implementation in all seven countries where the Key Populations Research and Advocacy (KPRA) project is implemented (Bangladesh, Cambodia, Indonesia, Myanmar, Nepal, Thailand and Vietnam).
- Review of national law, policies and guidelines which could affect the implementation or expansion of CBL HTS (including HIV index testing and oral fluid testing) among key populations groups (sex workers, TG and PWID in these countries).
- Review and analyze literature on CBL HTS (including HIV index testing and oral fluid testing) implementation effectiveness in these countries.
- Provide recommendations to fill in the gaps of (i) development of guidelines and policies for CBL HTS, (ii) CBL HTS implementation (iii) and evaluation of CBL HTS models.

In order to meet the objectives stated above, a comprehensive desk review has been performed. The desk review was implemented in three phases: a planning phase; a data collection phase; and a reporting phase. Despite some practical limitations, the desk review report is expected to meet critical needs in the region, to inform advocacy planning among community organizations, and to stimulate further discussion and planning related to CBL HTS in KPRA countries and beyond.

Basic epidemiological data like population size and HIV prevalence estimates are inconsistently available in KPRA project countries. HTS coverage in Asia is also extremely uneven, both across the KPRA countries, as well as between different key populations in the same country. Data about the proportion of HTS delivered by government compared to CSO and private sector agencies is also inconsistent. Such gaps are worrisome given that on the one hand, international donors have invested tens of millions of dollars to support national HIV responses in both Myanmar and Vietnam for more than a decade, and on the other that those countries are still expecting to reach the first of the 90-90-90 targets without one of the most vulnerable populations.

¹ World Health Organization. 2015. *Consolidated guidelines on HIV testing services*. (https://apps.who.int/iris/bitstream/handle/10665/179870/9789241508926_eng.pdf?sequence=1)

² AIDS Data Hub. 2019. *Regional overview slides*. (https://aidsdatahub.org/sites/default/files/Application/Regional_slide_set/Regional_Slides_April_2019.pdf)

Availability of various models of HTS delivery varies extensively across KPRA project countries: all seven countries reviewed have implemented community-based HTS, all but one country has implemented community-led HTS (Indonesia), two countries do not have explicit policy support for lay provider HTS delivery (Bangladesh and Indonesia), only five countries explicitly implement index testing (Cambodia, Myanmar, Nepal, Thailand and Vietnam), HIVST is available in four countries (Bangladesh, Indonesia, Thailand and Vietnam) but only one has developed and deployed policy support for HIVST (Vietnam), and recency testing is only implemented in Vietnam. Availability of finger-prick rapid diagnostic tests (RDTs) is explicitly mentioned in documents covering three of the seven countries under review (Bangladesh, Cambodia and Vietnam), whereas oral fluid testing is explicitly supported and available in two countries (Bangladesh and Vietnam).

Table 4: Availability of HTS mechanisms in KPRA countries

| | Bangladesh | Cambodia | Indonesia | Myanmar | Nepal | Thailand | Vietnam |
|--------------------------------------|------------|----------|-----------|---------|-------|----------|---------|
| Availability of community-based HTS | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Availability of community-led HTS | ✓ | ✓ | N/A | ✓ | ✓ | ✓ | ✓ |
| Policy support for lay provider HTS | N/A | ✓ | N/A | ✓ | ✓ | ✓ | ✓ |
| Availability of index testing | N/A | ✓ | N/A □ | ✓ | ✓ | □ ✓ | ✓ |
| Availability of HIVST | ✓ | N/A □ | ✓ | N/A □ | N/A □ | ✓ | ✓ |
| Policy support for HIVST | N/A | N/A | N/A | N/A | N/A | N/A | ✓ |
| Availability of recency testing | N/A | N/A | N/A | N/A | N/A | N/A | ✓ |
| Availability of finger-prick testing | ✓ | ✓ | N/A | N/A | N/A | N/A | ✓ |
| Availability of oral fluid testing | ✓ | N/A | N/A | N/A | N/A | N/A | ✓ |

Protective legal and policy tools deployed in the seven countries also vary extensively: legal protections against compulsory testing are in place in three countries (Cambodia, Indonesia and Vietnam); legal protections against unwanted disclosure are in place in three countries (Indonesia, Myanmar and Vietnam); legal protections against discrimination are in place in four countries (Cambodia, Indonesia, Thailand and Vietnam); legal protections that support confidentiality are in place in five countries (Bangladesh, Cambodia, Indonesia, Myanmar and

Vietnam); and legal requirements to train and retrain HTS providers are in place in only two countries (Cambodia and Vietnam).

Despite the presence of legal and policy protections, the reports reviewed indicate that key populations still face important barriers that reduce HTS accessibility. All seven countries have identified stigma and discrimination as a barrier; six of the seven countries impose an age of consent that prevents young people from accessing HTS (all except Myanmar); limited confidentiality has been identified as a barrier in five countries (Bangladesh, Cambodia, Myanmar, Thailand and Vietnam); the quality of health facility-based services has been identified as a barrier in four countries (Bangladesh, Indonesia, Myanmar and Thailand); accessibility in terms of travel distance, opening hours, and integrated services has been identified as a barrier in four countries (Indonesia, Nepal, Thailand and Vietnam); legal and policy barriers that criminalize certain behaviors also reduce accessibility in three countries (Nepal, Thailand and Vietnam); procurement and stocking of commodities has been identified as a barrier in two countries (Cambodia and Indonesia); and coercion has been identified as a barrier in one country (Myanmar).

At least six countries' national HIV strategic plans prioritize HTS (except Indonesia, although the national strategic plan was not publicly available in English). At least five countries had PEPFAR operational plans that also prioritize scale-up and expansion of HTS and implementation models (all except Bangladesh and Nepal). Only four countries had guidelines in English in the public domain covering HTS (Cambodia, Myanmar, Nepal and Vietnam). Only Cambodia had published and publicly available SOPs in English to support step-by-step implementation of HTS (although reports indicate that Thailand may also have developed SOPs, yet this could not be confirmed).

Information about donor support and financial contributions was limited, found almost exclusively from a single source – the PEPFAR country operational plans. Data about donor support and financial investments was available for all but one KPRA project country (Bangladesh). In the six countries where data about donor engagement was available, six countries received support from PEPFAR (Cambodia, Indonesia, Myanmar, Nepal, Thailand and Vietnam) and five countries received support from the Global Fund (Cambodia, Indonesia, Nepal, Thailand and Vietnam). Contributions from national governments were virtually unreported in the public domain.

CSOs, especially those implementing the KPRA project, as well as other relevant key stakeholders should consider the following recommendations to expand HTS, in addition to country-specific recommendations included in the earlier sections of this report.

- **Ensure that governments produce regular and up-to-date epidemiological data about all key populations.** Data gaps prevent the formulation of effective plans and evidence-based interventions. The needs of all key populations – including PWID and TG – must be taken into consideration in order to successfully address HIV transmission. Where

necessary, mobilize support from donors and development partners to encourage governments to address data gaps.

- **Advocate for expanded HTS** that includes new commodities such as oral fluid and finger-prick test kits; index testing; and recency testing. Encourage governments to develop national guidelines and SOPs, in consultation with CSO and key population representatives, to support implementation of a range of HTS approaches.
- **Advocate for governments to deploy and expand legal protections** to eliminate barriers to HTS. These efforts should include strengthening monitoring and evaluation systems as well as the reinforcement of mechanisms to identify breaches in legal and policy protections, and mechanisms to compensate and redress situations where legal and policy abuses have occurred.
- **Advocate to remove age of consent barriers** to HTS, or integrate conditional clauses that can facilitate access to HTS among young people.
- **Advocate for the integration of HTS** in existing HIV-related services, including OST clinics, STI clinics, HCV testing and treatment services, and other relevant service options targeting key populations.
- **Encourage national governments and donors to publicly disseminate detailed financial statements** relating HTS and include detailed costing information related to HTS in national AIDS spending assessments.
- **Advocate for the production and translation of key documents** such as national strategic plans, guidelines and SOPs to foster transparency, increase regional collaboration and to better mobilize external technical support.
- **Provide support to empower CSO and key population representatives** to further advocate for and expand HTS in their respective communities and countries.
- **Ensure country strategies and action plans include provisions to build capacity** of CSOs, especially those led and managed by key population representatives, to expand implementation of CBL HTS programs.

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Acronyms

| | |
|-------------|---|
| ANPUD | Asian Network of People who Use Drugs |
| APN+ | Asia Pacific Network of People Living with HIV/AIDS |
| APNSW | Asia Pacific Network of Sex Workers |
| APTN | Asia Pacific Transgender Network |
| ART | Antiretroviral therapy |
| CBL | Community-based / -led |
| CBO | Community-based organization |
| CBT | Community-based HIV testing |
| CLT | Community-led HIV testing |
| CSO | Civil society organization |
| DIC | Drop-in center |
| FDA | Food and Drug Administration |
| FSW | Female sex worker |
| Global Fund | The Global Fund to Fight AIDS, Tuberculosis and Malaria |
| HCV | Hepatitis C virus |
| HIV | Human immunodeficiency virus |
| HIVST | HIV self-testing |
| HTC | HIV testing and counseling |
| HTS | HIV testing services |
| KPRA | Key Population Research and Advocacy |
| MOH | Ministry of Health |
| MSM | Men who have sex with men |
| NGO | Non-government organization |
| OST | Opioid substitution therapy |
| PITC | Provider-initiated testing and counseling |
| PLHIV | People living with HIV |
| PWID | People who inject drugs |
| RDT | Rapid diagnostic test |
| RST | Regional Support Team |
| SCI | Save the Children International |
| SOP | Standard operating procedure |
| SR | Sub-recipient |
| STI | Sexually transmitted infections |
| TB | Tuberculosis |
| TG | Transgender people |
| UNAIDS | Joint United Nations Programme on HIV/AIDS |
| VAAC | Vietnam Administration for HIV/AIDS Control |
| WHO | World Health Organization |

Introduction

Background

The Asia Pacific Network of People Living with HIV/AIDS (APN+) is the regional network of people living with HIV (PLHIV) in Asia and the Pacific. It was established in 1994 as a response to the need for a collective voice for PLHIV in the region, to better link regional PLHIV with other networks throughout the world, to support regional responses to widespread stigma and discrimination, and to advocate for better access to treatment, care and support.

In late 2017, a regional concept note proposing the implementation of the *Key Population Research and Advocacy* (KPRA) project was approved by the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) for the period 2018 – 2020. The concept note covers program activities that will be implemented by APN+, the Asian Network of People Who Used Drugs (ANPUD), Asia Pacific Network of Sex Workers (APNSW), and Asia Pacific Transgender Network (APTN) in partnership with their country networks such as the National Association of People Living with HIV in Nepal and Perkumpulan Gaya Warna Lentera Indonesia. All four regional networks are project sub-recipients (SR) under the leadership of Save the Children International (SCI) acting as the principal recipient (PR) of the grant. APN+ focuses on the community-based HIV testing (CBT) component of the project, with the aim of improving understanding of existing HIV services and testing approaches for key populations in KPRA countries.³

Status of HIV testing

HIV testing is the gateway to HIV prevention, treatment, care and other support services.⁴ People's knowledge of their HIV status through HIV testing services (HTS) is crucial to the success of the HIV response. Focused and strategic approaches to HTS that are therefore needed to support the 90–90–90 global HIV targets – the first target being diagnosis of 90% of people with HIV.

Approximately 150 million children and adults in 129 low- and middle-income countries reportedly received HIV testing services in 2014.⁵ In the 77 countries that reported for both years, 33% more people were tested in 2013 than in 2009.⁶ Much of this growth stems from the expansion of provider-initiated testing and counseling (PITC) in clinical settings, the introduction of more community-based HTS and the ability to provide same-day test results, and often diagnosis, using rapid diagnostic tests (RDTs).⁷ While significant progress has been made, in 2013 it was estimated that 55% of people with HIV remain unaware of their status, and testing continues to be delivered without specifically aiming to reach those most at risk and as yet undiagnosed.⁸ Today, 9.4 million people – 25% of all PLHIV –

³ KPRA project countries include Bangladesh, Cambodia, Indonesia, Myanmar, Nepal, Thailand and Vietnam.

⁴ World Health Organization. 2015. *Consolidated guidelines on HIV testing services*.

(https://apps.who.int/iris/bitstream/handle/10665/179870/9789241508926_eng.pdf?sequence=1)

⁵ World Health Organization et al. 2015. *Global AIDS Response Progress Reporting*. Available for selected countries at:

(<https://www.unaids.org/en/dataanalysis/knowyourresponse/countryprogressreports/2015countries>).

⁶ World Health Organization. 2015. *Consolidated guidelines on HIV testing services*.

(https://apps.who.int/iris/bitstream/handle/10665/179870/9789241508926_eng.pdf?sequence=1)

⁷ World Health Organization. 2015. *Consolidated guidelines on HIV testing services*.

(https://apps.who.int/iris/bitstream/handle/10665/179870/9789241508926_eng.pdf?sequence=1)

⁸ World Health Organization. 2015. *Consolidated guidelines on HIV testing services*.

(https://apps.who.int/iris/bitstream/handle/10665/179870/9789241508926_eng.pdf?sequence=1)

remain unaware of their HIV infection.⁹

In Asia and the Pacific, key populations face important challenges in accessing HTS: between 2014 and 2017, only 42% of female sex workers (FSW) were covered by HTS, only 54% of men who have sex with men (MSM), only 55% of transgender people (TG), and only 44% of people who inject drugs (PWID).¹⁰

*Table 1: HTS coverage among key populations in KPRA countries*¹¹

| COUNTRIES | FSW | MSW | MSM | TG | PWID |
|------------|-----|-----|-----|-----|------|
| Bangladesh | 30% | 37% | 11% | 35% | 27% |
| Cambodia | 72% | N/A | 70% | 71% | 75% |
| Indonesia | 38% | N/A | 54% | N/A | 39% |
| Myanmar | 45% | N/A | 52% | N/A | 28% |
| Nepal | 83% | 90% | 73% | 89% | 49% |
| Thailand | 58% | 78% | 29% | 72% | 61% |
| Vietnam | 40% | N/A | 65% | N/A | 62% |

Critical barriers limiting access to HTS among key populations have been extensively documented and include fear of testing, test-associated and other stigma, concerns about confidentiality, inadequate follow-up services,¹² as well as discrimination and criminalization.¹³ Limited community capacity and empowerment also contributes to the limited coverage of key populations.¹⁴

Facilitating access to HIV testing among key populations

Recent estimates report that only 54% of PLHIV know their HIV status.¹⁵ Ambitious targets propose that by 2020, 90% of PLHIV will know their status, 90% of people diagnosed with HIV will receive antiretroviral therapy (ART), and 90% of people receiving ART will have achieved viral suppression. In order to reach the UN 90–90–90 goals, it is critical that HTS be strategically expanded to diagnose as many people as early as possible.

In 2013, the World Health Organization (WHO) published guidelines recommending the introduction of community-based HIV testing and counseling with linkages to prevention, care and treatment services in addition to provider-initiated HIV testing and counseling in three contexts:¹⁶

1. in generalized epidemics
2. to reach key population in any epidemic setting, and
3. to reach underserved adolescents (especially those in general epidemic).

⁹ <https://www.who.int/hiv/topics/self-testing/en/>

¹⁰ AIDS Data Hub. 2019. *Regional overview slides*.

([https://aidsdatahub.org/sites/default/files/Application/Regional slide set/Regional Slides April 2019.pdf](https://aidsdatahub.org/sites/default/files/Application/Regional%20slide%20set/Regional%20Slides%20April%202019.pdf))

¹¹ AIDS Data Hub. 2019. *Regional overview slides*.

([https://aidsdatahub.org/sites/default/files/Application/Regional slide set/Regional Slides April 2019.pdf](https://aidsdatahub.org/sites/default/files/Application/Regional%20slide%20set/Regional%20Slides%20April%202019.pdf))

¹² Tucker, J. D. et al. 2015. "HIV self-testing among key populations: an implementation science approach to evaluating self-testing" in *Journal of Virus Eradication*, 1(1): 38–42. (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4439005/>)

¹³ World Health Organization. 2015. *Consolidated guidelines on HIV testing services*.

(https://apps.who.int/iris/bitstream/handle/10665/179870/9789241508926_eng.pdf?sequence=1)

¹⁴ World Health Organization. 2016. *Consolidated guidelines on HIV prevention, diagnosis, treatment and care for key populations – 2016 update*. (<https://apps.who.int/iris/bitstream/handle/10665/246200/9789241511124-eng.pdf?sequence=1>)

¹⁵ World Health Organization. 2015. *Factsheet to the WHO consolidated guidelines on HIV testing services*.

(https://www.who.int/hiv/topics/vct/fact_sheet/en/)

¹⁶ World Health Organization. 2013. *Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection*. (<http://www.who.int/hiv/pub/guidelines/arv2013/download/en/index.html>).

The guidelines also recommend building strong linkages and guarantee of prevention, care and treatment after testing. The recommendation for community-based and community-led services, especially for key populations, was repeated in later guidelines:

HIV testing services should be routinely offered to all key populations in the community, in closed settings such as prisons and in facility-based settings. Community-based HIV testing services for key populations linked to prevention, treatment and care services are recommended, in addition to routine facility-based HIV testing services, in all settings (strong recommendation, low quality of evidence).¹⁷

HIV testing by trained lay providers using rapid diagnostic tests (RDTs): Lay providers who are trained and supervised can independently conduct safe and effective HIV testing using RDTs (strong recommendation, moderate quality of evidence).¹⁸

In addition, in order to close the diagnostic gap, WHO recommends integration of innovative strategies such as HIV self-testing (HIVST).

HIV self-testing should be offered as an additional approach to HIV testing services (strong recommendation, moderate quality evidence).¹⁹

The new recommendation on HIVST is in line with existing WHO recommendations supporting task sharing, the utilization of trained lay providers in the health sector, and the test for triage approach. As of 2018, at least 59 countries across the globe have adopted HIVST policies, while many others are currently developing them (see Figures 1 and 2).²⁰ Since then, more countries – like Nepal²¹ and the Philippines²² – have also expanded HTS to include CBL service delivery.

Figure 1: Status of HIV self-testing in national policies (2018) ²³

¹⁷ World Health Organization. 2014. *Consolidated guidelines on HIV prevention, diagnosis, treatment and care for key populations*. (<http://www.who.int/hiv/pub/guidelines/keypopulations/en/>).

¹⁸ World Health Organization. 2015. *Consolidated guidelines on HIV testing services*. (https://apps.who.int/iris/bitstream/handle/10665/179870/9789241508926_eng.pdf?sequence=1)

¹⁹ World Health Organization. 2016. *Guidelines on HIV self-testing and partner notification: Supplement to consolidated guidelines on HIV testing services*. (<https://apps.who.int/iris/bitstream/handle/10665/251655/9789241549868-eng.pdf?sequence=1>)

²⁰ <https://www.who.int/hiv/topics/self-testing/en/>

²¹ Nepal. 2017. *National Guideline on Community Led HIV Testing in Nepal*.

(https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal_National_Community_Led_HIV_Testing_Guidelines_2018.pdf)

²² HIV & AIDS Support House Inc. 2017. *Community-based HIV Screening (CBS) Demonstration Project Process Evaluation Report 2017*.

²³ https://www.who.int/hiv/topics/self-testing/HIVST-policy_map-2018.png

**Status of HIV self-testing (HIVST) in national policies
(situation as of mid-2018)**

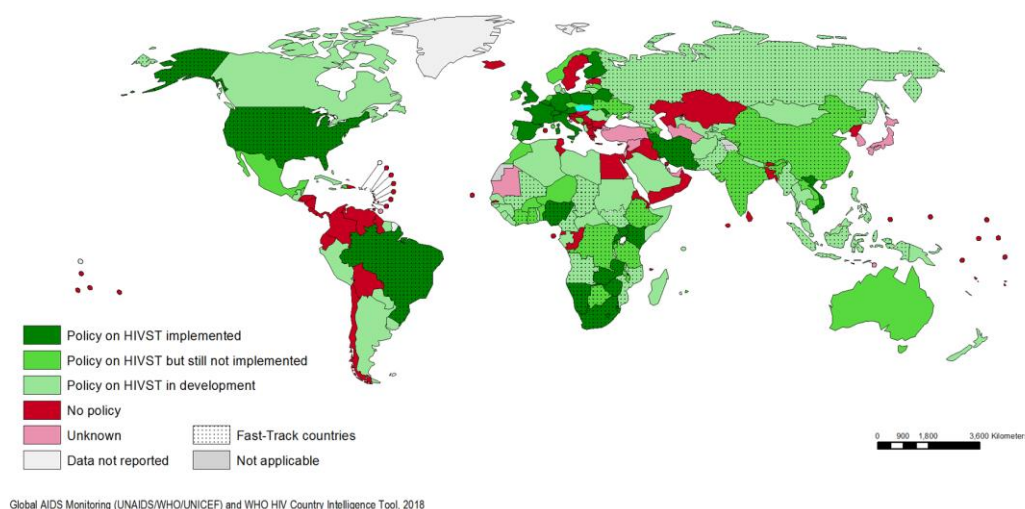
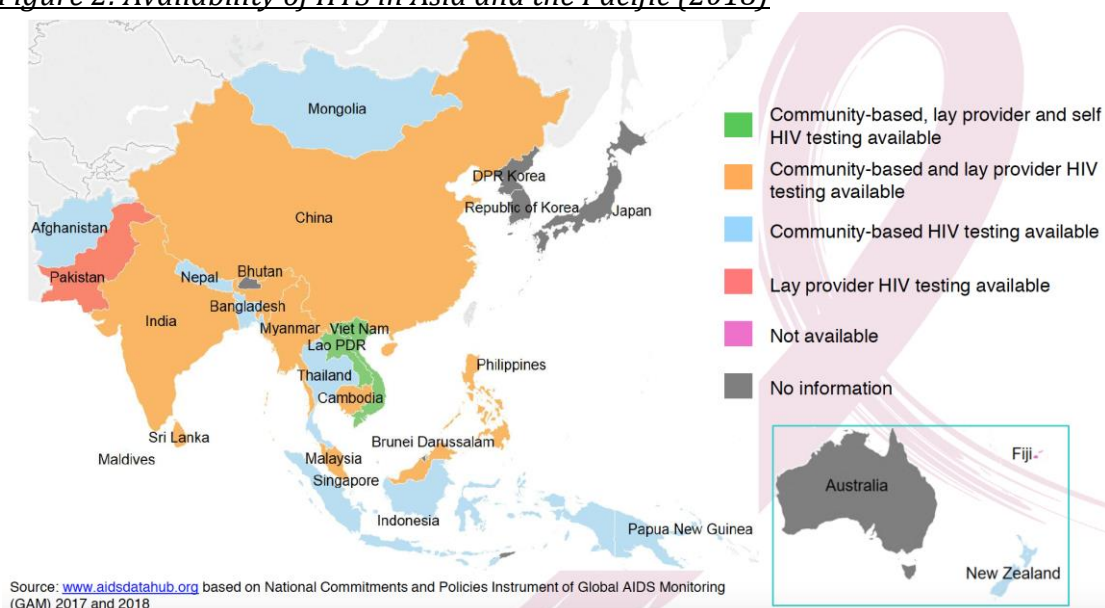


Figure 2: Availability of HTS in Asia and the Pacific (2018) ²⁴



Expanding CBL HTS & HIVST

Given the importance of HTS in the HIV treatment cascade, multiple mechanisms and strategies have been designed, developed and promoted to expand coverage by facilitating access and multiplying options for clients.

There is currently no formal accepted definition of CBT and CBL services. At the time when this report was being prepared, the UNAIDS Community Mobilization

²⁴ AIDS Data Hub. 2019. *Regional overview slides*.
(https://aidsdatahub.org/sites/default/files/Application/Regional_slide_set/Regional_Slides_April_2019.pdf)

team had issued an online survey to help formalize definitions for community-based and for community-led services. For the purposes of this report, “community-based services” will refer to services located and available in the community, close to where key populations live. In contrast, “community-led services” will refer to services that are implemented and delivered by community representatives – members of key populations. Where “community-based” refers to a geographical setting, “community-led” refers to the operationalization of service delivery modalities. Additional relevant terminology is defined in a glossary in Annex 1.

HIV self testing (HIVST): A process in which a person collects his or her own specimen (oral fluid or blood) and then performs a test and interprets the result, often in a private setting, either alone or with someone he or she trusts.²⁵

Oral fluid testing: HIV tests that make use of an oral fluid specimen detect HIV antibodies in oral mucosal transudate. Several test kits have been introduced on the global market over the years that can detect HIV antibodies in oral fluids. The testing kits and testing method have further been found to be accurate, much safer and easier to use and therefore recommended for adoption and use in the developing countries due to its simplicity, versatility and, feasibility that enables easier implementation and use even in rural areas and private health institutions.²⁶

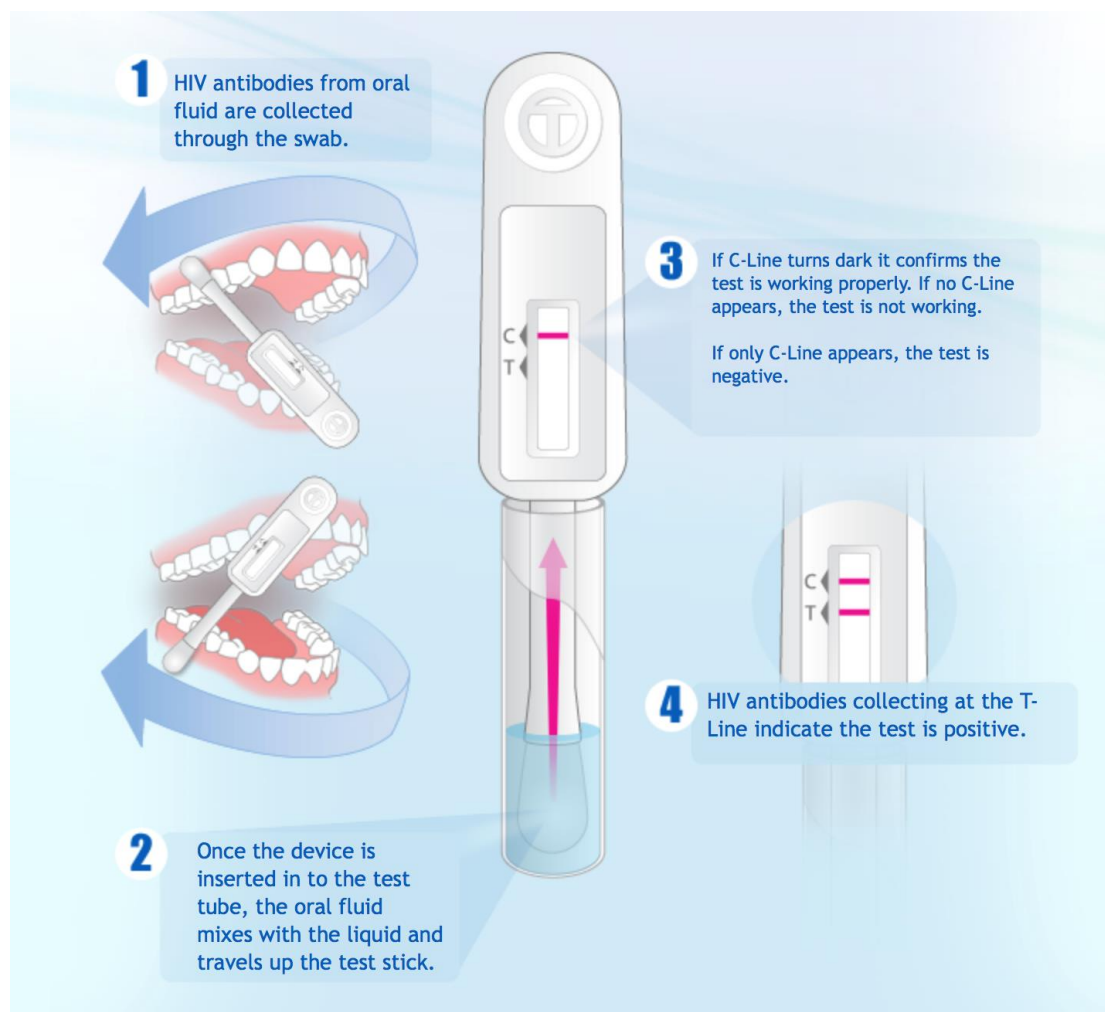
The OraQuick® HIV Self-Test is a rapid, point-of-care test that allows an individual to detect antibodies for both HIV-1 and HIV-2 with a simple oral swab and provides a result in as little as 20 minutes in the privacy of an individual’s home, during outreach, or in community settings. FDA-approved and WHO prequalified, this technology has been rolled out in several countries. Since the product was first launched, over 40 million tests have been used by health care professionals and individuals worldwide.²⁷

Figure 3: Key steps to oral fluid HIV testing

²⁵ World Health Organization. 2016. *Guidelines on HIV self-testing and partner notification: Supplement to consolidated guidelines on HIV testing services*. (<https://apps.who.int/iris/bitstream/handle/10665/251655/9789241549868-eng.pdf?sequence=1>)

²⁶ Marley, G. et al. 2014. “Introducing rapid oral–fluid HIV testing among high risk populations in Shandong, China: feasibility and challenges” in *BMC Public Health*, 14:422. (<https://bmcpublichealth.biomedcentral.com/track/pdf/10.1186/1471-2458-14-422>)

²⁷ OraSure Technologies. 21 July 2017. “OraSure Technologies Receives World Health Organization Prequalification of OraQuick® HIV Self-Test” Press release, online at: <https://www.globenewswire.com/news-release/2017/07/21/1055625/0/en/OraSure-Technologies-Receives-World-Health-Organization-Prequalification-of-OraQuick-HIV-Self-Test.html>.



Index testing: Often referred to as index case, index patient or index partner HIV testing. This is a focused HTS approach in which the household, family members (including children) and partners of people diagnosed with HIV are offered HTS. For additional details on index partner testing, see definitions on assisted partner notification, contract referral, dual referral, partner notification services, passive referral and provider referral.²⁸

Policy considerations

Several laws and policies may impact the availability, accessibility and quality of HTS, including CBL services and HIVST. The list below is largely drawn from the WHO guidelines.²⁹

- **Laws and regulations** permitting the sale, distribution, advertisement and use of in vitro diagnostics for HIVST will generally need to be adapted or developed. Countries must provide clear pathways for national validation and registration of HIVST kits. Countries where RDTs for HIVST are informally

²⁸ World Health Organization. 2016. *Guidelines on HIV self-testing and partner notification: Supplement to consolidated guidelines on HIV testing services*. (<https://apps.who.int/iris/bitstream/handle/10665/251655/9789241549868-eng.pdf?sequence=1>)

²⁹ World Health Organization. 2016. *Guidelines on HIV self-testing and partner notification: Supplement to consolidated guidelines on HIV testing services*. (<https://apps.who.int/iris/bitstream/handle/10665/251655/9789241549868-eng.pdf?sequence=1>)

available may need to develop additional systems to address this issue by informing consumers about how to identify quality-assured HIVST kits and by taking legal actions to prevent products of unknown quality from reaching the market.

- **Policies on access to HIV testing** may need to be adapted or developed to enable populations to self-test for HIV. In particular, **age of consent** policies may need to specifically address HIVST so that adolescents can self-test for HIV and be linked to additional services. This should include policies protecting the testing of minors without the consent of guardians, for example in schools.
- **Laws, policies and regulations** that address misuse and abuse (such as coercive testing, violence, discrimination and prosecution) may need to be developed or adapted to protect people who self-test. It may be important, also, to develop channels through which misuse or abuse can be reported, monitored and addressed.
- **Healthcare and managerial policies and regulations, national testing strategies and validated testing algorithms** may need to be adapted or developed to incorporate HIVST. This may involve reviewing existing policies to ensure that HIVST is recognized as a test for triage and that it does not replace first-line assays. Also, this review may involve **revisiting policies about who can perform an HIV test and who can interpret an HIV test result**. Health workers and other personnel, and national programs, are likely to need guidance, technical support and training on the integration of HIVST into existing HTS frameworks.
- **Quality assurance systems** for HTS may need to be reinterpreted and adapted to include HIVST. **Post-market surveillance systems**, if not already in existence, may need to be established and/or adapted to identify and report problems related to RDTs used for HIVST. In addition, **community-based monitoring systems** and other tools can be used to document, monitor and address potential social harm. This should also include minimum standards for training and re-training of lay people and community workers delivering HTS.
- **Legal issues concerning disclosure** of HIVST results to others (including sexual partners) must be reviewed in countries where the current legislation requires disclosure of known HIV-positive status. It should be made clear that HIVST does not provide a definitive HIV-positive diagnosis and, therefore, disclosure of a reactive result may not be relevant until confirmed by a trained provider. Messaging and other information on HTS should address this issue and clarify the legal implications of HIVST for disclosure, keeping in mind that disclosure should be encouraged when it is safe and beneficial but should not be required.
- **Anti-discrimination**, where focused testing strategies may also increase stigma and discrimination if they are seen to target certain people. For services focused for key populations, countries need strong political commitment to providing acceptable services and avoiding harm to these clients, whose behavior may be criminalized. Qualitative research and community consultation will be critical to designing and developing approaches to deliver HTS that can reach specific populations.

Project objectives

Based on guidance issued by APN+ and in line with international guidelines regularly published by WHO, the present report is designed to achieve the following objectives:

- Provide an overview of the current progress and scale of CBL HTS (including HIV index testing and oral fluid testing) implementation in all seven KPRA project implementation countries (Bangladesh, Cambodia, Indonesia, Myanmar, Nepal, Thailand and Vietnam).
- Review of national law, policies and guidelines, which could affect the implementation or expansion of CBL HTS (including HIV index testing and oral fluid testing) among key populations groups (sex workers, TG and PWID in these countries).
- Review and analyze of the literature on CBL HTS (including HIV index testing and oral fluid testing) implementation effectiveness in these countries.
- Provide recommendations to fill in the gaps of (i) development of guidelines and policies for CBL HTS, (ii) CBL HTS implementation (iii) and evaluation of CBL HTS models.

Methodology

In order to meet the objectives stated above, a comprehensive desk review has been performed. The desk review was implemented in three phases: a planning phase; a data collection phase; and a reporting phase.

Phase 1: Planning

In the planning phase, the researcher met with representatives from APN+ and from SCI in order to get more information on details of the assignment, clarify expectations regarding process and deliverables, agree on terms and conditions, project scope, and priority issues, and finalize operational contracts. The inception meeting took place at the SCI office in Bangkok, Thailand on 27 May 2019.

During the inception meeting, all parties agreed to conform to a timeline with dates for all key milestones required to complete the assignment. Table 2 below summarizes the proposed project timeline.

Table 2: Suggested preliminary timeline

| | |
|---|-------------------|
| Inception meeting | 27 May 2019 |
| Finalization of data collection methodology | 31 May 2019 |
| Data collection | 3 – 7 June 2019 |
| Desk review | 10 – 21 June 2019 |
| Consultant submit draft report | 21 June 2019 |
| Peer and internal review | 21 – 24 June 2019 |
| Finalization of report | 25 June 2019 |
| Submission of peer reviewed final report | 25 June 2019 |

The planning phase also included time for the development of the proposed methodology.

Phase 2: Data collection

Data collection for the desk review included (but was not limited to) the review of national laws, policies, guidelines and reports; project reports; studies; gray literature; and other relevant documents. Identification of documents was done primarily by internet-based search using Google. Specific keyword permutations used to guide the online search are presented in Table 3 below. In addition, the WHO, UNADS and AIDS Data Hub websites were visited to complement the keyword searches.

Table 3: Keyword search

| Keyword | In combination with... |
|----------------|-------------------------------|
| Asia | National HIV strategic plan |
| Bangladesh | HIV test guideline |
| Cambodia | HIV progress report |
| Indonesia | HIV testing coverage |
| Myanmar | Community based test |
| Nepal | Community led test |
| Thailand | HIV self test |
| Vietnam | Oral fluid test |

| | |
|-------------------------|-----------------------|
| People who inject drugs | Index testing |
| Transgender | Rapid diagnostic test |
| Key populations | Test for triage |

In addition to online data search, APN+’s national partners, as well as selected regional partners (including ANPUD, APTN and UNAIDS) were invited to support the identification and collection of relevant publications and information. To facilitate data collection through partner agencies, the researcher designed a template for colleagues to fill in and more rapidly fill in data gaps.

Eligibility of documents was based on year of publication, with a 2013 cut-off date, given that WHO guidelines recommended community-based HIV testing that year. Generally, documents from 2012 or before will be eliminated given their limited relevance to the overall project. A number of documents predating the cut-off year were analyzed given their unique content, including national laws and national strategic plans. Overall, 120 documents were reviewed and analyzed to inform the preparation of this report. All documents reviewed are listed in the bibliography located in Annex 2 of this report.

The focus on two key populations, PWID and TG, is a matter of procedure, prioritization and epidemiological realities, where individuals in those sub-populations face greater risks and more limitations in terms of accessing treatment compared to other key populations.

Phase 3: Reporting

Guiding questions were provided by APN+ to guide the elaboration of the final report. Based on discussions with APN+ and SCI representatives during the inception meeting, a tentative structure was been elaborated for consideration. Once the report was drafted, it was shared with key stakeholders and selected partners to elicit feedback and comments. Reviewers included representatives from APN+, SCI, ANPUD, APTN and UNAIDS Regional Support Team for Asia and the Pacific. Relevant comments and suggestions were integrated in the final report by the researcher. The final report was shared with the Global Fund at the end of June 2019.

After publication of the initial report, APN+ and SCI will virtually validate its content and hold the workshop to train community representatives in the use of the report for advocacy purposes. The regional workshop will be held on 30-31 July 2019.

Limitations

Limitations related to the implementation of the desk review include:

- Limited opportunities for consultation with technical partners, donor agencies, community representatives and project implementers in targeted countries and across the region;
- Limited prioritization of key issues that need to be covered in the desk review;
- The desk review only included documents available in English given that no translators were available to support the project;

- The desk review report presents findings from the published literature so findings may not reflect the present situation in the selected countries given that changes may have occurred after the publication of source materials;
- Porous, contradictory and incomplete data availability.

Despite the above limitations, the desk review report is expected to meet critical needs in the region, to inform advocacy planning among community organizations, and to stimulate further discussion and planning related to CBL HTS in KPRA countries and beyond.

Main findings

In the following section, country findings are presented related to HTC with a focus on CBL HTS. The country review includes relevant epidemiological information, current service delivery mechanisms, current legal and policy barriers and facilitators, availability and content of operational plans and national guidelines, indications regarding financial investments and donor engagement in HTS, and an assessment of overall effectiveness of current arrangements, as well as any targeted recommendations identified in the literature review. Where possible, examples of good practices are highlighted.

Estimates indicate that 3.978 million PWID live across Asia, and that HIV prevalence among this group is 15.2%.³⁰ An estimated 44% of PWID are covered by HTS,³¹ and 74% of all PLHIV know their status in the region.³² While there are no regional population size estimates and HIV prevalence data for TG in at the regional level in Asia, data shows that between 41%³³ and 55%³⁴ of TG are covered by HTS.

Bangladesh

It is estimated that there are 33,067 PWID and 10,199 TG in Bangladesh.³⁵ HIV prevalence among those groups is estimated at 18.1% and 1.4% respectively.³⁶ An estimated 27% of PWID and 35% of TG are covered with HTS.³⁷ In 2014 and 2015 respectively, 4.7% and 54.5% of PWID who received an HIV test in the past 12 months knew their status.³⁸ Meanwhile, more than 90% of PWID know where to access HTS.³⁹ An estimated 70% of male PWID and 88.6% of female PWID had ever been tested for HIV, with 78.2% of males and 85.3% of females tested in the last 12 months.⁴⁰ Between 84%⁴¹ and 89%⁴² of TG know where to access HTS. An

³⁰ Degenhardt, L. et al. 2017. "Global prevalence of injecting drug use and sociodemographic characteristics and prevalence of HIV, HBV, and HCV in people who inject drugs: a multistage systematic review" in *The Lancet Global Health*, 5(12): e1192–e1207. (<https://www.thelancet.com/action/showPdf?pii=S2214-109X%2817%2930375-3>)

³¹ AIDS Data Hub. 2019. *Regional Overview Slides*. (<https://aidsdatahub.org/regional-slides-2019>)

³² Joint United Nations Programme on HIV/AIDS. 2018. *UaIDS Data 2018*. (http://www.unaids.org/sites/default/files/media_asset/unaids-data-2018_en.pdf)

³³ Murphy, E. 20 September 2017. "Regional overview of HIV among transgender people" in *From barriers to bridges: Increasing access to HIV and other health services for trans people in Asia*. Joint United Nations Programme on HIV/AIDS. (https://www.aidsdatahub.org/sites/default/files/presentation_document/Regional_overview_of_HIV_among_transgender_people_2017.pdf)

³⁴ AIDS Data Hub. 2019. *Regional Overview Slides*. (<https://aidsdatahub.org/regional-slides-2019>)

³⁵ AIDS Data Hub. 2018. *Bangladesh review slides*. (<https://www.aidsdatahub.org/bangladesh-country-slides-2018>)

³⁶ AIDS Data Hub. 2018. *Bangladesh review slides*. (<https://www.aidsdatahub.org/bangladesh-country-slides-2018>)

³⁷ AIDS Data Hub. 2019. *Regional Overview Slides*. (<https://aidsdatahub.org/regional-slides-2019>)

³⁸ World Health Organization. 2016. *Cascade of HIV testing, care and treatment services, 2014 & 2015: country profiles*. (<http://www.who.int/iris/handle/10665/251726>)

³⁹ National AIDS/STD Control Programme. 2016. *Mapping study and size estimation of key populations in Bangladesh for HIV programs*. (https://www.aidsdatahub.org/sites/default/files/publication/Mapping_Study_and_Size_Estimation_of_Key_Populations_in_Bangladesh_2016.pdf)

⁴⁰ National AIDS/STD Control Programme. 2016. *Mapping study and size estimation of key populations in Bangladesh for HIV programs*. (https://www.aidsdatahub.org/sites/default/files/publication/Mapping_Study_and_Size_Estimation_of_Key_Populations_in_Bangladesh_2016.pdf)

⁴¹ Choo, M. et al. 2016. *Community-Initiated HIV Testing Services in South Asian Cities for Men who have Sex with Men and Transgender Women*. Asia Pacific Network of People Living with HIV/AIDS. (http://www.apnplus.org/wp-content/uploads/2017/04/0210-16-REPORT-FOR-SUBMISSION_Community-Initiated-HTS-for-MSM-and-Transgender-Women-in-South-Asia-FINAL.pdf)

⁴² National AIDS/STD Control Programme. 2016. *Mapping study and size estimation of key populations in Bangladesh for HIV programs*. (https://www.aidsdatahub.org/sites/default/files/publication/Mapping_Study_and_Size_Estimation_of_Key_Populations_in_Bangladesh_2016.pdf)

estimated 60%⁴³ to 76.5%⁴⁴ had ever been tested. An estimated 65.1% of TG had accessed HTS in the last 12 months.⁴⁵

More than 90% of PWID and 94% of TG accessed HTS in a drop-in center (DIC), compared to 4.4% of TG in HTC center and 1.6% of TG in government hospitals.⁴⁶ Data published in 2016 indicates that 98 (97%) HTS sites across Bangladesh are operated by civil society and private sector agencies, compared to three (3%) operated by government authorities.⁴⁷ Data from the same year indicates that there are 128 HTC centers throughout the country, of which 18 (14%) are operated in public facilities and 110 (86%) are operated in civil society settings.⁴⁸

HTS in Bangladesh are both located in community settings, and delivered by community representatives. The *4th National Strategic Plan for HIV and AIDS Response 2018-2022* is clear in its recommendations: “In order to increase case detection, new and innovative approaches e.g. HIV testing through oral fluid, quick HIV testing by peer educator/community health workers, etc. should be adopted and implemented.”⁴⁹ Indeed, HTS for vulnerable populations is a priority in the *National Strategic Plan for HIV and AIDS Response*, as is the roll out of community-led approaches models.⁵⁰

Community-led finger prick testing for HIV has been implemented among key populations since 2013. Community-led testing services have generated very low rates of positivity, supporting the proposition that while overall coverage is high, those at highest risk are not being reached.⁵¹ Given this reality, in order to increase case detection, new and innovative approaches such as HIV testing through oral fluid should be adopted and implemented.⁵² Already in 2012, an evaluation of the oral fluid test kit was conducted among known HIV-positive and negative

⁴³ Choo, M. et al. 2016. *Community-Initiated HIV Testing Services in South Asian Cities for Men who have Sex with Men and Transgender Women*. Asia Pacific Network of People Living with HIV/AIDS. (<http://www.apnplus.org/wp-content/uploads/2017/04/0210-16-REPORT-FOR-SUBMISSION-Community-Initiated-HTS-for-MSM-and-Transgender-Women-in-South-Asia-FINAL.pdf>)

⁴⁴ National AIDS/STD Control Programme. 2016. *Mapping study and size estimation of key populations in Bangladesh for HIV programs*. ([https://www.aidsdatahub.org/sites/default/files/publication/Mapping Study and Size Estimation of Key Populations in Bangladesh 2016.pdf](https://www.aidsdatahub.org/sites/default/files/publication/Mapping%20Study%20and%20Size%20Estimation%20of%20Key%20Populations%20in%20Bangladesh%202016.pdf))

⁴⁵ National AIDS/STD Control Programme. 2016. *Mapping study and size estimation of key populations in Bangladesh for HIV programs*. ([https://www.aidsdatahub.org/sites/default/files/publication/Mapping Study and Size Estimation of Key Populations in Bangladesh 2016.pdf](https://www.aidsdatahub.org/sites/default/files/publication/Mapping%20Study%20and%20Size%20Estimation%20of%20Key%20Populations%20in%20Bangladesh%202016.pdf))

⁴⁶ National AIDS/STD Control Programme. 2016. *Mapping study and size estimation of key populations in Bangladesh for HIV programs*. ([https://www.aidsdatahub.org/sites/default/files/publication/Mapping Study and Size Estimation of Key Populations in Bangladesh 2016.pdf](https://www.aidsdatahub.org/sites/default/files/publication/Mapping%20Study%20and%20Size%20Estimation%20of%20Key%20Populations%20in%20Bangladesh%202016.pdf))

⁴⁷ World Health Organization. 2016. *Progress Report on HIV in the WHO South-East Asia Region 2016*. (http://apps.who.int/pds_docs/B5282.pdf)

⁴⁸ National AIDS/STD Control Programme. 2016. *4th National Strategic Plan for HIV and AIDS Response 2018-2022*. (https://www.unicef.org/bangladesh/sites/unicef.org.bangladesh/files/2018-10/NSP%204th%20%202018-2022_draft-250517-2.pdf)

⁴⁹ National AIDS/STD Control Programme. 2016. *4th National Strategic Plan for HIV and AIDS Response 2018-2022*. (https://www.unicef.org/bangladesh/sites/unicef.org.bangladesh/files/2018-10/NSP%204th%20%202018-2022_draft-250517-2.pdf)

⁵⁰ National AIDS/STD Control Programme. 2016. *4th National Strategic Plan for HIV and AIDS Response 2018-2022*. (https://www.unicef.org/bangladesh/sites/unicef.org.bangladesh/files/2018-10/NSP%204th%20%202018-2022_draft-250517-2.pdf)

⁵¹ Bangladesh. 2015. *Global AIDS Response Progress Report 2015*. (https://www.unaids.org/sites/default/files/country/documents/BGD_narrative_report_2015.pdf)

⁵² National AIDS/STD Control Programme. 2016. *4th National Strategic Plan for HIV and AIDS Response 2018-2022*. (https://www.unicef.org/bangladesh/sites/unicef.org.bangladesh/files/2018-10/NSP%204th%20%202018-2022_draft-250517-2.pdf)

individuals in Dhaka, though the results of this assessment are not publicly available.⁵³ Then, in 2016, a study was conducted to assess the acceptability of oral fluid-based HIV rapid tests among returnee migrants.⁵⁴ Results from the study indicate that 97.4% accepted the test and that reasons for acceptance included easy accessibility of the test at the doorstep which saved resources (i.e., time and money), comfortable testing procedures without pain or fear, and receiving quick results with confidentiality. Some described knowing HIV status as a way to ‘get certified’ (of sexual fidelity) and to confront a prevailing silent stigma against migrants.⁵⁵

Despite these positive results, there are no policies regarding HIVST at this time in Bangladesh, there are no national HTS guidelines, there is no clear guidance regarding the role of lay providers, and parental consent is required for adolescents younger than 18 seeking to access HTS.⁵⁶ In addition, key populations report limited confidentiality and anonymity when testing in community settings, despite existing legal protections,⁵⁷ as well as low levels of HIV knowledge among health professionals who are prone to stigmatizing and discriminating behaviors.⁵⁸ Together, these factors contribute to limiting accessibility of HTS in Bangladesh.

No data was identified relating to specific donor engagement or indications of budgetary contributions to support HTS in Bangladesh.

Good Practice:

HTS offered by Bandhu Social Welfare Society in partnership with the Ashar Alo Society has been identified as an example of good practices in Bangladesh. Driven by PLHIV, MSM and TG women, it was able to capitalize on the expertise and insider peer group knowledge of all three communities to find pragmatic solutions to community-specific issues, which are highly contextual. The service now delivers quantifiable results that contribute directly to the country’s HIV response, showing that community-led services can make a real difference in the HIV epidemic.⁵⁹

⁵³ Alam, M. S. et al. 2016. “Point of care HIV testing with oral fluid among returnee migrants in a rural area of Bangladesh” in *Curr Opin HIV AIDS*, 11 Suppl 1:S52-8. doi: 10.1097/COH.0000000000000267.

(<https://www.ncbi.nlm.nih.gov/pubmed/26945144>)

⁵⁴ Alam, M. S. et al. 2016. “Point of care HIV testing with oral fluid among returnee migrants in a rural area of Bangladesh” in *Curr Opin HIV AIDS*, 11 Suppl 1:S52-8. doi: 10.1097/COH.0000000000000267.

(<https://www.ncbi.nlm.nih.gov/pubmed/26945144>)

⁵⁵ Alam, M. S. et al. 2016. “Point of care HIV testing with oral fluid among returnee migrants in a rural area of Bangladesh” in *Curr Opin HIV AIDS*, 11 Suppl 1:S52-8. doi: 10.1097/COH.0000000000000267.

(<https://www.ncbi.nlm.nih.gov/pubmed/26945144>)

⁵⁶ Joint United Nations Programme on HIV/AIDS. 2018. *UNAIDS Data 2018*.

(http://www.unaids.org/sites/default/files/media_asset/unaid-data-2018_en.pdf)

⁵⁷ Bangladesh. 2018. *National HIV/AIDS Disclosure Guideline 2018*.

⁵⁸ Choo, M. et al. 2016. *Community-Initiated HIV Testing Services in South Asian Cities for Men who have Sex with Men and Transgender Women*. Asia Pacific Network of People Living with HIV/AIDS. (http://www.apnplus.org/wp-content/uploads/2017/04/0210-16-REPORT-FOR-SUBMISSION_Community-Initiated-HTS-for-MSM-and-Transgender-Women-in-South-Asia-FINAL.pdf)

⁵⁹ Choo, M. et al. 2016. *Community-Initiated HIV Testing Services in South Asian Cities for Men who have Sex with Men and Transgender Women*. Asia Pacific Network of People Living with HIV/AIDS. (http://www.apnplus.org/wp-content/uploads/2017/04/0210-16-REPORT-FOR-SUBMISSION_Community-Initiated-HTS-for-MSM-and-Transgender-Women-in-South-Asia-FINAL.pdf)

The only specific recommendations regarding HTS scale-up were identified in the 4th *National Strategic Plan for HIV and AIDS Response 2018-2022*, yet no operational plans could be identified in the context of this review.

Cambodia

It is estimated that there are 1,200 PWID and 3,000 TG in Cambodia.⁶⁰ HIV prevalence among those groups is estimated at 15.2% and 5.9% respectively.⁶¹ An estimated 75%⁶² to 97%⁶³ of PWID and between 71%⁶⁴ and 97%⁶⁵ of TG are covered with HTS. An estimated 96% of PWID had ever been tested for HIV, and 83.3% had received an HIV test in the past six months.⁶⁶

In 2016, there were 1,159 sites providing HTS, with 902 lay providers divided in 225 teams across 33 hotspots to provide CBL HTS.⁶⁷ An estimated 62.5% of HTS was delivered through community- or peer-initiated counseling and testing, with 9% having been provided through voluntary counseling and testing centers.⁶⁸

With the approval of the Ministry of Health (MOH), community-led testing relying on trained lay providers (often peers from the target community) was initiated in 2011 to address the persistent low HTS coverage.⁶⁹ Combined with finger-prick testing using RDTs, these innovative mechanisms are reported to have dramatically changed the national response to HIV in the country.⁷⁰ For example, in 2016, Khana and its partners conducted 39,734 finger-prick HIV tests with counseling to key populations, including 3,086 tests among TG women and 334 among PWID.⁷¹

Meanwhile, HTS services have been increasingly implemented in community, through mobile outreach campaigns during special events; with testing in the workplace; with testing in places of worship; and with testing in entertainment

⁶⁰ AIDS Data Hub. 2018. *Cambodia review slides*. AIDS Data Hub. 2019. (<https://www.aidsdatahub.org/cambodia-country-slides-2018>)

⁶¹ AIDS Data Hub. 2018. *Cambodia review slides*. AIDS Data Hub. 2019. (<https://www.aidsdatahub.org/cambodia-country-slides-2018>)

⁶² AIDS Data Hub. 2018. *Cambodia review slides*. AIDS Data Hub. 2019. (<https://www.aidsdatahub.org/cambodia-country-slides-2018>)

⁶³ Cambodia. 2017. *National Consolidated Guidelines on HIV Testing Services in Cambodia*. ([http://www.aidsdatahub.org/sites/default/files/publication/Cambodia National Consolidated on Guidelines on HIV Testing Services 2017.pdf](http://www.aidsdatahub.org/sites/default/files/publication/Cambodia%20National%20Consolidated%20on%20Guidelines%20on%20HIV%20Testing%20Services%202017.pdf))

⁶⁴ AIDS Data Hub. 2018. *Cambodia review slides*. AIDS Data Hub. 2019. (<https://www.aidsdatahub.org/cambodia-country-slides-2018>)

⁶⁵ Cambodia. 2017. *National Consolidated Guidelines on HIV Testing Services in Cambodia*. ([http://www.aidsdatahub.org/sites/default/files/publication/Cambodia National Consolidated on Guidelines on HIV Testing Services 2017.pdf](http://www.aidsdatahub.org/sites/default/files/publication/Cambodia%20National%20Consolidated%20on%20Guidelines%20on%20HIV%20Testing%20Services%202017.pdf))

⁶⁶ Mburu, G. et al. 2017. "Patterns of HIV testing, drug use, and sexual behaviors in people who use drugs: findings from a community- based outreach program in Phnom Penh, Cambodia" in *Addict Sci Clin Pract*, 12:27. (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5715614/pdf/13722_2017_Article_94.pdf)

⁶⁷ Cambodia. 2016. *Strategic Plan for HIV/AIDS and STI Prevention and Control in the Health Sector 2016-2020*. (<http://www.nchads.org/Guideline/SP%20for%20hiv%20aids%20and%20sti%20prevention%20and%20control%20in%20the%20health%20sector%202016-2020.pdf>)

⁶⁸ Mburu, G. et al. 2017. "Patterns of HIV testing, drug use, and sexual behaviors in people who use drugs: findings from a community- based outreach program in Phnom Penh, Cambodia" in *Addict Sci Clin Pract*, 12:27. (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5715614/pdf/13722_2017_Article_94.pdf)

⁶⁹ Cambodia. 2017. *National Consolidated Guidelines on HIV Testing Services in Cambodia*. ([http://www.aidsdatahub.org/sites/default/files/publication/Cambodia National Consolidated on Guidelines on HIV Testing Services 2017.pdf](http://www.aidsdatahub.org/sites/default/files/publication/Cambodia%20National%20Consolidated%20on%20Guidelines%20on%20HIV%20Testing%20Services%202017.pdf))

⁷⁰ Cambodia. 2015. *Global AIDS Response Progress Report 2015*. (https://www.unaids.org/sites/default/files/country/documents/KHM_narrative_report_2015.pdf)

⁷¹ Khana. 2017. 2016 Annual report. (http://www.khana.org.kh/publicationimages/publican_pdf/Annual_report_2016.pdf)

establishments.⁷² Community-based outreach programs have been an acceptable strategy to increase HIV education, scale-up counseling and testing, with positive overall results.⁷³

In addition, Cambodia has made significant efforts to scale-up index testing and improve partner notifications. Specifically, index clients who test positive are encouraged and supported in a process that leads to disclosure to their sexual partner(s), encouraging further HTS uptake in that clients' personal network. To complement this traditional approach, innovative mechanisms – such as contract referrals,⁷⁴ provider referrals⁷⁵ and dual referrals⁷⁶ – are in place to accelerate partner notification.⁷⁷ A detailed standard operating procedure (SOP) is in place as of 2018 to guide index testing in Cambodia.

Good practice:

In 2016, KHANA worked with ART clinics to support the tracing and testing of partners, an important intervention to enable those who test HIV positive to have timely access to ART and to work with others, including serodiscordant couples, to maintain their HIV-negative status. In 2016, 296 partners of PLHIV in four ART clinics (Siem Reap, Kampong Cham, Pochentong and Meanchey) were traced and followed up; 292 were tested for HIV, with 65 testing positive and enrolled in ART services.⁷⁸

Comprehensive legal and policy tools are in place in Cambodia to guide HTS implementation and to safeguard clients.

- Cambodian law requires that all HTS be implemented only with following informed consent of the client has been obtained.⁷⁹ In conjunction, the law strictly prohibits any compulsory testing.⁸⁰
- Cambodian law also requires that national authorities build and enhance the HIV/AIDS testing capacity of all the legitimate testing centers by

⁷² Cambodia. 2017. *National Consolidated Guidelines on HIV Testing Services in Cambodia*.

(http://www.aidsdatahub.org/sites/default/files/publication/Cambodia_National_Consolidated_on_Guidelines_on_HIV_Testing_Services_2017.pdf)

⁷³ Mburu, G. et al. 2017. "Patterns of HIV testing, drug use, and sexual behaviors in people who use drugs: findings from a community-based outreach program in Phnom Penh, Cambodia" in *Addict Sci Clin Pract*, 12:27.

(https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5715614/pdf/13722_2017_Article_94.pdf)

⁷⁴ The index client enters into a "contract" with the counselor and/or health care provider whereby s/he agrees to disclose their HIV status to all partner(s) and refer them to HTS within a certain time frame. If partner(s) do not access HTS within this period, counselors/providers contact the partner(s) directly to notify them that they may have been exposed to HIV. Counselors/providers then offer voluntary HTS to partner(s) and other listed family members who may be at risk while maintaining the confidentiality of the index client.

⁷⁵ With the consent of the HIV-positive index client, the counselor/provider directly contacts the client's partner(s), informs them that they have been exposed to HIV, and offers them voluntary HTS while maintaining the confidentiality of the index client.

⁷⁶ A trained provider sits with the HIV-positive client and his/her partner(s) to provide support as the client discloses his/her HIV status. The provider also offers voluntary HTS to the partner.

⁷⁷ Cambodia. 2018. *Standard operating procedures for partner notification services and other forms of index client testing*. (http://www.nchads.org/SOPs/2018/PNTT%20SoP_En_June2018.pdf)

⁷⁸ Khana. 2017. *2016 Annual report*.

(http://www.khana.org.kh/publicationimages/publican_pdf/Annual_report_2016.pdf)

⁷⁹ Cambodia. 2002. *Law on the Prevention and Control of HIV/AIDS*. (https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---ilo_aids/documents/legaldocument/wcms_113128.pdf)

⁸⁰ Cambodia. 2002. *Law on the Prevention and Control of HIV/AIDS*. (https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---ilo_aids/documents/legaldocument/wcms_113128.pdf)

ensuring the training of competent personnel who will provide such services in all testing sites.⁸¹

- Cambodian law condemns discrimination based on health and/or HIV status, providing for penalties that include fines and imprisonment against those who fail to comply with these requirements.⁸²
- Cambodian law requires that all HTS results remain confidential and that testing remain anonymous.⁸³
- While parental consent is required for adolescents younger than 18,⁸⁴ legal provisions are in place to allow young people to access HTS in the event that consent cannot be obtained and the test is in the best interest of the individual seeking the test.⁸⁵

In parallel, comprehensive strategic and operational plans have been developed to support implementation and scale-up of HTS in Cambodia. The *Strategic Plan for HIV/AIDS and STI Prevention and Control in the Health Sector 2016-2020* identifies HTS as a focus across several priority areas and monitoring indicators:

- Core Strategy 1.3: Generate demand for and provide targeted HTS (facility-based, community-based, and adding new testing approaches as they become available) and ensure linkages to confirmatory testing.
- Core Strategy 2.1: Increase HIV case detection, and accelerate enrolment in care by referring HTC component for expanded case detection through rapid testing at health centers, outreach, and service centers to find new HIV cases.
- Core Strategy 6: HTC
 - 6.1 Provide universal access to finger prick HTC in antenatal, sexually transmitted infection (STI), tuberculosis (TB) and other medical services at health facilities.
 - 6.2 Optimize HTC among key populations and other targeted general populations, with outreach HTC identifying and targeting those groups at risk as well as those at higher risk using adapted case profiling screening tools.
 - 6.3 Improve the quality of HTC at facilities and in the community for key and targeted general populations.
- Outcome Indicator 2: Percentage of individual high-risk key populations who received HIV testing in the last semester (disaggregated by key population group).⁸⁶

The President's Emergency Plan For AIDS Relief (PEPFAR) operational plan for Cambodia also stresses the need to scale-up HTS and prioritizes interventions

⁸¹ Cambodia. 2002. *Law on the Prevention and Control of HIV/AIDS*. (https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---ilo_aids/documents/legaldocument/wcms_113128.pdf)

⁸² Cambodia. 2017. *National Consolidated Guidelines on HIV Testing Services in Cambodia*. (http://www.aidsdatahub.org/sites/default/files/publication/Cambodia_National_Consolidated_on_Guidelines_on_HIV_Testing_Services_2017.pdf)

⁸³ Cambodia. 2002. *Law on the Prevention and Control of HIV/AIDS*. (https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---ilo_aids/documents/legaldocument/wcms_113128.pdf)

⁸⁴ Joint United Nations Programme on HIV/AIDS. 2018. *UNAIDS Data 2018*. (http://www.unaids.org/sites/default/files/media_asset/unaids-data-2018_en.pdf)

⁸⁵ United Nations Development Programme. 2015. *HIV and the Law in South-East Asia*. (https://www.undp.org/content/dam/rbap/docs/Research%20&%20Publications/hiv_aids/rbap-hhd-2015-hiv-and-the-law-in-south-east-asia.pdf)

⁸⁶ Outcome indicator does not include PWID.

such as index testing to facilitate finding networks of undiagnosed PLHIV, as well as the development of a system for rapid recency testing into routine clinical practice for more effective index case based testing.⁸⁷ Other interventions suggested for scale up in the plan include HIV self-testing, virtual contact and leveraging of popular social media platforms to promote/facilitate testing for undiagnosed cases.⁸⁸

Clear guidelines and SOPs have been developed and deployed in Cambodia to ensure effective and high quality service delivery. Guidelines stress the need to ensure linkages between HTS and treatment given that, for example, reports show that out of 39,734 people who were tested using finger-prick HTC, only 245 were linked to care.⁸⁹ The guidelines also provide clear guidance on engaging lay providers from key population communities in the delivery of HTS, starting with selection, capacity building, supervision, and reporting.⁹⁰

In addition to the laws, policies, plans, guidelines and procedures that facilitate implementation and scale-up, the following factors have been identified as critical enablers: high quality counseling; challenging stigma and discrimination; integration of HTS in the most relevant healthcare services; quality assurance for counseling and quality control for HIV testing and test kits; effective partnerships, good coordination and communication; and relying on evidence to guide policy and program decisions.⁹¹ In contrast, major barriers to HTS implementation and scale-up in Cambodia include: stock-outs of critical supplies and reagents, difficulty in gathering HIV testing data, lack of a quality assurance scheme for point-of-care testing, concerns regarding confidentiality of community-based testing services,⁹² as well as stigma and discrimination.⁹³

The Global Fund and PEPFAR together cover all costs of test kits and lab reagents, where \$1,165,931 was spent on rapid test kits (1% PEPFAR, 99% Global Fund) and \$493,762 was spent on lab reagents (2.3% PEPFAR, 97.7% Global Fund).⁹⁴ In 2017, additional support for HTS from PEPFAR was estimated at \$2,339,684.⁹⁵

Two specific recommendations were identified in published documents during this review:

⁸⁷ President's Emergency Plan For AIDS Relief. 2017. *Strategic Direction Summary: Cambodia Country Operational Plan*. (<https://www.pepfar.gov/documents/organization/272005.pdf>)

⁸⁸ President's Emergency Plan For AIDS Relief. 2017. *Strategic Direction Summary: Cambodia Country Operational Plan*. (<https://www.pepfar.gov/documents/organization/272005.pdf>)

⁸⁹ Khana. 2017. 2016 *Annual report*.

(http://www.khana.org.kh/publicationimages/publican_pdf/Annual_report_2016.pdf)

⁹⁰ Cambodia. 2017. *National Consolidated Guidelines on HIV Testing Services in Cambodia*.

(http://www.aidsdatahub.org/sites/default/files/publication/Cambodia_National_Consolidated_on_Guidelines_on_HIV_Testing_Services_2017.pdf)

⁹¹ Cambodia. 2017. *National Consolidated Guidelines on HIV Testing Services in Cambodia*.

(http://www.aidsdatahub.org/sites/default/files/publication/Cambodia_National_Consolidated_on_Guidelines_on_HIV_Testing_Services_2017.pdf)

⁹² Cambodia. 2016. *Strategic Plan for HIV/AIDS and STI Prevention and Control in the Health Sector 2016-2020*.

(http://www.nchads.org/Guideline/SP%20for%20hiv_aids%20and%20sti_prevention_n_control_in_Health%20Sector_en.pdf)

⁹³ President's Emergency Plan For AIDS Relief. 2017. *Strategic Direction Summary: Cambodia Country Operational Plan*. (<https://www.pepfar.gov/documents/organization/272005.pdf>)

⁹⁴ President's Emergency Plan For AIDS Relief. 2017. *Strategic Direction Summary: Cambodia Country Operational Plan*. (<https://www.pepfar.gov/documents/organization/272005.pdf>)

⁹⁵ President's Emergency Plan For AIDS Relief. 2017. *Strategic Direction Summary: Cambodia Country Operational Plan*. (<https://www.pepfar.gov/documents/organization/272005.pdf>)

1. The national HTS guidelines specifically recommend integration of testing in drug treatment facilities, including opiod substitution clinics, in order to increase coverage among PWID and people who use non-injectable drugs.⁹⁶
2. A study on HIVST recommend accelerating dissemination of information about HIVST and understanding test results TV and social media in order to bolster confidence among self-testers.⁹⁷

⁹⁶ Cambodia. 2017. *National Consolidated Guidelines on HIV Testing Services in Cambodia*.

(http://www.aidsdatahub.org/sites/default/files/publication/Cambodia_National_Consolidated_on_Guidelines_on_HIV_Testing_Services_2017.pdf)

⁹⁷ Pal, K. et al. 2016. "Acceptability Study on HIV Self-Testing among Transgender Women, Men who Have Sex with Men, and Female Entertainment Workers in Cambodia: A Qualitative Analysis" in *PLOS One* 11(11): e0166129.

doi:10.1371/journal.pone.0166129.
(<https://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0166129&type=printable>)

Indonesia

It is estimated that there are 33,492 PWID and 38,928 TG in Indonesia.⁹⁸ HIV prevalence among those groups is estimated at 28.8% and 24.8% respectively.⁹⁹ An estimated 27.6%¹⁰⁰ to 38.8%¹⁰¹ of PWID and 29.3%¹⁰² of TG are covered with HTS. In 2015, an estimated 50% of TG had ever accessed HTS, and only 78% of them had received their results.¹⁰³ A study conducted in 2015 showed that 90.4% of TG had accessed HTS, with 64.6% being informed of their test results.¹⁰⁴ The same study also showed that approximately 85% of TG who had accessed HTS had been tested for HIV one or two times in the last six months.¹⁰⁵

Data published in 2016 indicates HTS is available in 93 (6.5%) sites operated by civil society and private sector agencies, compared to 1,345 (93.5%) sites operated by government authorities.¹⁰⁶ In 2017, a total of 152 (3.9%) HTC sites were operated by civil society and private sector agencies, compared to 3,771 (96.1%) sites operated by government authorities.¹⁰⁷ However, reports from 2018 indicate that only 13 (0.2%) out of 4,666 sites offering HTS are operated by civil society.¹⁰⁸

The national policy No. 74/2014¹⁰⁹ allows HTS to be implemented at fixed-sites and through outreach. However, Indonesian laws and policies do not permit lay providers to perform RDTs using finger-prick kits of whole blood draws.¹¹⁰ The Law states that “HIV tests [...] should only be performed by specialized medical doctors in accordance with valid standard requirements and provisions.”¹¹¹ The Law also states that “HIV tests can only be carried out by physicians with special

⁹⁸ AIDS Data Hub. 2018. *Indonesia review slides*. (<https://www.aidsdatahub.org/indonesia-country-slides-2018>)

⁹⁹ AIDS Data Hub. 2018. *Indonesia review slides*. (<https://www.aidsdatahub.org/indonesia-country-slides-2018>)

¹⁰⁰ Falkenberry, H. et al. 2018. *Assessment of HIV Service Packages for Key Populations in Indonesia*. APMG Health. (<https://hivpreventioncoalition.unaids.org/wp-content/uploads/2018/09/Indonesia-KP-Country-Report-19-September-2018.pdf>)

¹⁰¹ World Health Organization. 2016. *Cascade of HIV testing, care and treatment services, 2014 & 2015: country profiles*. (<http://www.who.int/iris/handle/10665/251726>)

¹⁰² Falkenberry, H. et al. 2018. *Assessment of HIV Service Packages for Key Populations in Indonesia*. APMG Health. (<https://hivpreventioncoalition.unaids.org/wp-content/uploads/2018/09/Indonesia-KP-Country-Report-19-September-2018.pdf>)

¹⁰³ Nevendorff, L. 2018. *Recommendation report for pilot study of community based testing for transgender population in Indonesia*. Gaya Warna Lentera Indonesia.

¹⁰⁴ Prabawanti, C. et al. 2015. “A survey on HIV-related health-seeking behaviors among transgender individuals in Jakarta, based on the theory of planned behavior” in *BMC Public Health*, 15:1138. (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4647823/pdf/12889_2015_Article_2480.pdf)

¹⁰⁵ Prabawanti, C. et al. 2015. “A survey on HIV-related health-seeking behaviors among transgender individuals in Jakarta, based on the theory of planned behavior” in *BMC Public Health*, 15:1138. (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4647823/pdf/12889_2015_Article_2480.pdf)

¹⁰⁶ World Health Organization. 2016. *Progress Report on HIV in the WHO South-East Asia Region 2016*. (http://apps.searo.who.int/PDS_DOCS/B5282.pdf)

¹⁰⁷ World Health Organization. 2017. *Review of the national health sector response to HIV in the Republic of Indonesia*. (http://www.searo.who.int/indonesia/publications/hiv_country_review_indonesia_eng.pdf)

¹⁰⁸ Nevendorff, L. 2018. *Recommendation report for pilot study of community based testing for transgender population in Indonesia*. Gaya Warna Lentera Indonesia.

¹⁰⁹ Minister of Health of the Republic of Indonesia Regulation 74/2014 on the Guidelines for the implementation of HIV Counseling and Testing.

¹¹⁰ Flynn, D. E. et al. 2017. “Can trained lay providers perform HIV testing services? A review of national HIV testing policies” in *BMC Res Notes*, 10:20. (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5216526/pdf/13104_2016_Article_2339.pdf)

¹¹¹ Indonesia. 2004. *The Decree of The Minister of Manpower And Transmigration on HIV/AIDS Prevention and Control in The Workplace*. (https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-jakarta/documents/publication/wcms_123957.pdf)

expertise according to standard regulations.”¹¹² As of February 2019, index testing is currently available only in 12 facilities in Jakarta.¹¹³

Indonesian laws and policies do not endorse or support oral fluid testing in community or health care settings.¹¹⁴ However, oral fluid testing is allowed only in the context of research.¹¹⁵ For example, in early 2017, a pilot study was initiated among MSM to assess the feasibility of community-based HTS using oral fluid screening, with plans for expansion to more sites covering PWID and TG in 2019.¹¹⁶ Even in the context of research, the absence of enabling policies created important procurement barriers delaying accessibility to commodities.¹¹⁷ Despite HIVST kits being available for online purchase in Indonesia,¹¹⁸ there is currently no policy to support HIVST.¹¹⁹

Legal protections are in place to prevent compulsory HIV testing,¹²⁰ to prohibit mandatory testing as part of screening for recruitment, promotion or opportunities to obtain education and employment extension,¹²¹ to ensure confidentiality during the testing process,¹²² and to prevent discrimination based on HIV status.¹²³ However, despite these protective elements, there is discord between national and local laws as well as policies and practices including reports of mandatory testing being used in various contexts as well as involuntary disclosure to employers, educational institutions, or on marriage certificates.¹²⁴ Meanwhile, other legal and policy instruments prohibit access to HTS for youth below the age of 16,¹²⁵ where parental consent is always required for underage individuals.¹²⁶

¹¹² Indonesia. 2004. *The Decree of The Minister of Manpower And Transmigration on HIV/AIDS Prevention and Control in The Workplace*. (https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-jakarta/documents/publication/wcms_123957.pdf)

¹¹³ President's Emergency Plan For AIDS Relief. 1-5 April 2019. "ROP 2019 Indonesia" in *PEPFAR ROP 2019 Meeting, Asia Region*.

¹¹⁴ Nevendorff, L. 2018. *Recommendation report for pilot study of community based testing for transgender population in Indonesia*. Gaya Warna Lentera Indonesia.

¹¹⁵ Nevendorff, L. 2018. *Recommendation report for pilot study of community based testing for transgender population in Indonesia*. Gaya Warna Lentera Indonesia.

¹¹⁶ Nevendorff, L. 2018. *Recommendation report for pilot study of community based testing for transgender population in Indonesia*. Gaya Warna Lentera Indonesia.

¹¹⁷ Nevendorff, L. 2018. *Recommendation report for pilot study of community based testing for transgender population in Indonesia*. Gaya Warna Lentera Indonesia.

¹¹⁸ Unitaid. 2019. *Building capacity for the roll-out of PrEP and HIV testing innovations in Asia and the Pacific*. (<https://unitaid.org/assets/HIVST-PrEP-Report-2019.pdf>)

¹¹⁹ Unitaid and World Health Organization. 2018. *Market and technology landscape: HIV rapid diagnostic tests for self-testing, 4th edition*. (<https://unitaid.org/assets/HIVST-landscape-report.pdf>)

¹²⁰ United Nations Development Programme. 2015. *HIV and the Law in South-East Asia*. (https://www.undp.org/content/dam/rbap/docs/Research%20&%20Publications/hiv_aids/rbap-hhd-2015-hiv-and-the-law-in-south-east-asia.pdf)

¹²¹ Indonesia. 2004. *The Decree of The Minister of Manpower And Transmigration on HIV/AIDS Prevention and Control in The Workplace*. (https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-jakarta/documents/publication/wcms_123957.pdf)

¹²² United Nations Development Programme. 2015. *HIV and the Law in South-East Asia*. (https://www.undp.org/content/dam/rbap/docs/Research%20&%20Publications/hiv_aids/rbap-hhd-2015-hiv-and-the-law-in-south-east-asia.pdf)

¹²³ United Nations Development Programme. 2015. *HIV and the Law in South-East Asia*. (https://www.undp.org/content/dam/rbap/docs/Research%20&%20Publications/hiv_aids/rbap-hhd-2015-hiv-and-the-law-in-south-east-asia.pdf)

¹²⁴ Falkenberry, H. et al. 2018. *Assessment of HIV Service Packages for Key Populations in Indonesia*. APMG Health. (<https://hivpreventioncoalition.unaids.org/wp-content/uploads/2018/09/Indonesia-KP-Country-Report-19-September-2018.pdf>)

¹²⁵ Joint United Nations Programme on HIV/AIDS. 2018. *UaIDS Data 2018*. (http://www.unaids.org/sites/default/files/media_asset/unaids-data-2018_en.pdf)

¹²⁶ World Health Organization. 2017. *Review of the national health sector response to HIV in the Republic of Indonesia*. (http://www.searo.who.int/indonesia/publications/hiv_country_review_indonesia_eng.pdf)

These and other issues have contributed to a very porous HIV service cascade, especially for key populations, across Indonesia. Described as “hit and run testing,”¹²⁷ HTS is implemented with limited referrals or linkages to treatment, leading to “very poor rates of retention in treatment and viral suppression.”¹²⁸

Unfortunately, the current national HIV strategic plan and national HIV testing guidelines are not publicly available in English, limiting the potential for analysis in the context of this review. However, the PEPFAR operational plan does specifically prioritize HTS scale-up, with a focus on index and network testing, community-based HTS, HIVST, as well as case management based on viral burden.¹²⁹

Conflicting data about financial investments in HTS was identified in published documents: Unitaids and WHO report that HTS is 100% funded by the Global Fund,¹³⁰ while PEPFAR reports that the same service is 100% funded by the national government.¹³¹ The PEPFAR national plan for Indonesia earmarked \$9,369,318 for HTS in 2017.¹³²

A number of targeted recommendations were identified during the literature review:

1. Develop an official protocol in HIV testing for members of key populations who are underage, building on the current good practices in many places where peer educators can become a temporary guardian to provide consent for HIV testing.¹³³
2. Strengthen linkages between health facilities and HTS and between HTS and treatment services in order to avoid “hit-and-run testing.”¹³⁴
3. Implement and scale-up community-based HTS through mobile clinics to improve testing coverage and reach a new pool of vulnerable individuals.¹³⁵
4. Integrate “test for triage in community settings” in the national algorithm.¹³⁶

¹²⁷ Falkenberry, H. et al. 2018. *Assessment of HIV Service Packages for Key Populations in Indonesia*. APMG Health. (<https://hivpreventioncoalition.unaids.org/wp-content/uploads/2018/09/Indonesia-KP-Country-Report-19-September-2018.pdf>)

¹²⁸ Januraga, P. et al. 2018. “The cascade of HIV care among key populations in Indonesia: A prospective cohort study” in *Lancet HIV*, 5:e560–68. (<https://www.thelancet.com/action/showPdf?pii=S2352-3018%2818%2930148-6>)

¹²⁹ President’s Emergency Plan For AIDS Relief. 1-5 April 2019. “ROP 2019 Indonesia” in *PEPFAR ROP 2019 Meeting, Asia Region*; President’s Emergency Plan For AIDS Relief. 2017. *Strategic Direction Summary: Indonesia Country Operational Plan*. (<https://www.pepfar.gov/documents/organization/285837.pdf>)

¹³⁰ Unitaids and World Health Organization. 2018. *Market and technology landscape: HIV rapid diagnostic tests for self-testing, 4th edition*. (<https://unitaid.org/assets/HIVST-landscape-report.pdf>)

¹³¹ President’s Emergency Plan For AIDS Relief. 2017. *Strategic Direction Summary: Indonesia Country Operational Plan*. (<https://www.pepfar.gov/documents/organization/285837.pdf>)

¹³² President’s Emergency Plan For AIDS Relief. 2017. *Strategic Direction Summary: Indonesia Country Operational Plan*. (<https://www.pepfar.gov/documents/organization/285837.pdf>)

¹³³ Falkenberry, H. et al. 2018. *Assessment of HIV Service Packages for Key Populations in Indonesia*. APMG Health. (<https://hivpreventioncoalition.unaids.org/wp-content/uploads/2018/09/Indonesia-KP-Country-Report-19-September-2018.pdf>)

¹³⁴ Falkenberry, H. et al. 2018. *Assessment of HIV Service Packages for Key Populations in Indonesia*. APMG Health. (<https://hivpreventioncoalition.unaids.org/wp-content/uploads/2018/09/Indonesia-KP-Country-Report-19-September-2018.pdf>)

¹³⁵ President’s Emergency Plan For AIDS Relief. 2017. *Strategic Direction Summary: Indonesia Country Operational Plan*. (<https://www.pepfar.gov/documents/organization/285837.pdf>)

¹³⁶ World Health Organization. 2017. *Review of the national health sector response to HIV in the Republic of Indonesia*. (http://www.searo.who.int/indonesia/publications/hiv_country_review_indonesia_eng.pdf)

Myanmar

It is estimated that 93,000 PWID live in Myanmar, and that HIV prevalence among this group is 34.9%.¹³⁷ An estimated 22.2% of PWID who accessed HTC in the past 12 months knew their status in 2014.¹³⁸ Myanmar's *National HIV Strategic Plan 2016-2020* does not recognize TG as a key population; there is therefore no calculation of population size, HIV prevalence estimate, or coverage data related to TG in Myanmar. While available data suggests that relatively high prevention service coverage has been achieved in terms of reaching key populations, including TG, coverage with HTS has remained low.¹³⁹

No data is available on the proportion of HTS delivery sites managed by civil society and private sector agencies versus government authorities.

In Myanmar, community-based HTS targeting key populations is intimately linked to prevention, treatment and care services. HTS is accessible through health facilities,¹⁴⁰ as well as through outreach¹⁴¹ in a range of community settings, including bars and clubs, cruising sites, mines and factories.¹⁴² Mobile HTS is provided through mobile vans or tents, or take place in sites temporarily used for the purposes of delivery of HTS delivery.¹⁴³

In addition, since 2014, community-led HTS has been available,¹⁴⁴ where civil society organizations (CSO) have been allowed to deliver HTS to key populations. With the introduction of RDTs, CSO have been trained to provide HTS on a much larger scale and also in hard-to-reach locations.¹⁴⁵ HTS has thus been decentralized, where tasks have been redistributed from "higher level" cadres of healthcare providers to other trained individuals who have not received formal professional or para-professional training in health care services but have been trained to provide HTS.¹⁴⁶ Trained lay providers – including key population representatives, non-medical peer educators, outreach workers and counselors – conduct a single HIV RDT for a client. If the single RDT test result is reactive, individuals are immediately referred to the nearest HIV confirmation site and provider that are certified to provide HTS following the validated national testing algorithm.¹⁴⁷ This task-shifting has successfully increased HTS coverage, reduced the pressure on current medical human resources, and reduced loss to follow-up

¹³⁷ AIDS Data Hub. 2018. *Myanmar review slides*. (<https://www.aidsdatahub.org/myanmar-country-slides-2018>)

¹³⁸ World Health Organization. 2016. *Cascade of HIV testing, care and treatment services, 2014 & 2015: country profiles*. (<http://www.who.int/iris/handle/10665/251726>)

¹³⁹ President's Emergency Plan For AIDS Relief. 2017. *Strategic Direction Summary: Burma Country Operational Plan*. (<http://www.pepfar.gov/documents/organization/285845.pdf>)

¹⁴⁰ Myanmar. 2017. *Guidelines for the clinical management of HIV infection in Myanmar*. (https://aidsfree.usaid.gov/sites/default/files/mmr_hiv_guidelines_2017.pdf)

¹⁴¹ President's Emergency Plan For AIDS Relief. 2017. *Strategic Direction Summary: Burma Country Operational Plan*. (<http://www.pepfar.gov/documents/organization/285845.pdf>)

¹⁴² Myanmar. 2018. *National guidelines on HIV testing services*.

¹⁴³ Myanmar. 2018. *National guidelines on HIV testing services*.

¹⁴⁴ Myanmar. 2017. *National HIV Strategic Plan 2016-2020*. (https://www.aidsdatahub.org/sites/default/files/publication/Myanmar_National_Strategic_Plan_on_HIV_and_AIDS_2016-2020.pdf)

¹⁴⁵ Myanmar. 2015. *Global AIDS Response Progress Report 2015*. (https://www.unaids.org/sites/default/files/country/documents/MMR_narrative_report_2015.pdf)

¹⁴⁶ Myanmar. 2018. *National guidelines on HIV testing services*.

¹⁴⁷ Myanmar. 2018. *National guidelines on HIV testing services*.

caused by delays in HIV testing and receiving results.¹⁴⁸ Other reports also indicate that key populations targeted for HTS indicated enjoying their interaction with the peer educators and appreciated the fact that they would accompany them to clinics.¹⁴⁹

Voluntary index partner notification is strongly encouraged in the national guidelines for any person diagnosed as living with HIV. Partner notification only occurs with the express consent of the index client, and must be made to their partners(s) alone, no one else. Partner and couple testing is also identified as a priority for people from key populations, including TG (but not PWID).¹⁵⁰ Guidelines also strongly recommend retesting every six months for all people who belong to key populations.¹⁵¹

HIVST is currently unavailable in Myanmar although a pilot is currently being implemented,¹⁵² and a policy is currently being developed.¹⁵³ However, an in-country policy to demonstrate the effectiveness of this new approach has not yet been finalized. This new guideline will require evidence demonstrating that either oral fluid or blood-based HIV testing approaches use WHO pre-qualified 100% sensitive RDTs in order to ensure quality.¹⁵⁴

Several legal and policy tools have been developed and deployed to protect individuals who access HTS:

- No legal minimum age requirement for consent for young people to access HTS.¹⁵⁵
- Disclosure of HIV status is legally possible when the affected individual informs a sexual partner, family member or friend; when a health worker informs another health worker; and when a health worker informs a sexual partner of the individual after having received explicit consent from the affected individual. Disclosure by a health worker to the police or other legal authorities is considered unethical in the context of HTS unless the client has consented to this disclosure.¹⁵⁶
- All HTS providers must preserve client confidentiality.¹⁵⁷

Despite these protective elements, reports highlight significant stigma, discrimination, lack of confidentiality, coercion and fear of negative outcomes, as well as lack of appropriate health services, all of which reduce motivation for

¹⁴⁸ Myanmar. 2017. *National HIV Strategic Plan 2016-2020*.

(https://www.aidsdatahub.org/sites/default/files/publication/Myanmar_National_Strategic_Plan_on_HIV_and_AIDS_2016-2020.pdf)

¹⁴⁹ Aung, P. P. et al. 2017. "Effectiveness of an Integrated Community- and Clinic-Based Intervention on HIV Testing, HIV Knowledge, and Sexual Risk Behavior of Young Men Who Have Sex With Men in Myanmar" in *Journal of Adolescent Health*, 60:S45eS53. ([https://www.jahonline.org/article/S1054-139X\(16\)30350-0/pdf](https://www.jahonline.org/article/S1054-139X(16)30350-0/pdf))

¹⁵⁰ Myanmar. 2018. *National guidelines on HIV testing services*.

¹⁵¹ Myanmar. 2018. *National guidelines on HIV testing services*.

¹⁵² Unitaid. 2019. *Building capacity for the roll-out of PrEP and HIV testing innovations in Asia and the Pacific*.

(<https://unitaid.org/assets/HIVST-PrEP-Report-2019.pdf>)

¹⁵³ Unitaid and World Health Organization. 2018. *Market and technology landscape: HIV rapid diagnostic tests for self-testing, 4th edition*. (<https://unitaid.org/assets/HIVST-landscape-report.pdf>)

¹⁵⁴ Myanmar. 2018. *National guidelines on HIV testing services*.

¹⁵⁵ Joint United Nations Programme on HIV/AIDS. 2018. *UaIDS Data 2018*.

(http://www.unaids.org/sites/default/files/media_asset/unaids-data-2018_en.pdf)

¹⁵⁶ Myanmar. 2018. *National guidelines on HIV testing services*.

¹⁵⁷ Myanmar. 2018. *National guidelines on HIV testing services*.

people to access HTS.¹⁵⁸ In contrast, effective confidentiality, privacy, and empowered disclosure, were identified as critical enablers to encourage HTS uptake.¹⁵⁹ The convenience of HIVST, including reduced need for transportation and time to go to clinics, and the availability of a pain-free testing option, were perceived as benefits that could further accelerate HTS uptake, provided that counseling remain available and accessible to HIVST clients.¹⁶⁰

The *National HIV Investment Plan 2014-2016* recommends fast and focused implementation of rapid HIV testing by communities of key populations.¹⁶¹ Myanmar's national HIV strategic plan also identifies HTS as a priority intervention, especially targeting key populations.¹⁶² However, the national plan does not recognize TG as a key population, as noted above in this sub-section.

The PEPFAR operational plan includes technical assistance and targeted support to improve the cascade of HIV prevention, testing and treatment, especially for key populations affected by high HIV prevalence and limited access to and low coverage of HIV services.¹⁶³ In 2017, PEPFAR expected to spend \$1,238,555 in support of HTS scale-up.¹⁶⁴

A number of targeted recommendations have been identified during the literature review:

1. Implement index partner tracing and testing to expand testing to intimate partners of priority populations.¹⁶⁵
2. Integrate HIV testing services within TB, and STI services (provide SOPs, HIV test kits and training).¹⁶⁶
3. Train OST sites to support HIV testing, ART initiation where possible and ART maintenance.¹⁶⁷
4. Develop SOPs and train community workers and health care workers to scale-up routine HIV testing for all TB patients and routine TB screening for all HIV-positive patients.¹⁶⁸

¹⁵⁸ Myanmar. 2018. *National guidelines on HIV testing services*.

¹⁵⁹ Wirtz, A. L. et al. 2017. "HIV Self-Testing among Men Who Have Sex with Men and Transgender Women in Myanmar" in *J Int AIDS Soc*, 20(1):21796. doi: 10.7448/IAS.20.01.21796. (<https://www.ncbi.nlm.nih.gov/pubmed/28453242>)

¹⁶⁰ Wirtz, A. L. et al. 2017. "HIV Self-Testing among Men Who Have Sex with Men and Transgender Women in Myanmar" in *J Int AIDS Soc*, 20(1):21796. doi: 10.7448/IAS.20.01.21796. (<https://www.ncbi.nlm.nih.gov/pubmed/28453242>)

¹⁶¹ Myanmar. 2017. *National HIV Strategic Plan 2016-2020*. (https://www.aidsdatahub.org/sites/default/files/publication/Myanmar_National_Strategic_Plan_on_HIV_and_AIDS_2016-2020.pdf)

¹⁶² Myanmar. 2017. *National HIV Strategic Plan 2016-2020*. (https://www.aidsdatahub.org/sites/default/files/publication/Myanmar_National_Strategic_Plan_on_HIV_and_AIDS_2016-2020.pdf)

¹⁶³ President's Emergency Plan For AIDS Relief. 2017. *Strategic Direction Summary: Burma Country Operational Plan*. (<http://www.pepfar.gov/documents/organization/285845.pdf>)

¹⁶⁴ President's Emergency Plan For AIDS Relief. 2017. *Strategic Direction Summary: Burma Country Operational Plan*. (<http://www.pepfar.gov/documents/organization/285845.pdf>)

¹⁶⁵ Myanmar. 2017. *National HIV Strategic Plan 2016-2020*. (https://www.aidsdatahub.org/sites/default/files/publication/Myanmar_National_Strategic_Plan_on_HIV_and_AIDS_2016-2020.pdf)

¹⁶⁶ Myanmar. 2017. *National HIV Strategic Plan 2016-2020*. (https://www.aidsdatahub.org/sites/default/files/publication/Myanmar_National_Strategic_Plan_on_HIV_and_AIDS_2016-2020.pdf)

¹⁶⁷ Myanmar. 2017. *National HIV Strategic Plan 2016-2020*. (https://www.aidsdatahub.org/sites/default/files/publication/Myanmar_National_Strategic_Plan_on_HIV_and_AIDS_2016-2020.pdf)

¹⁶⁸ Myanmar. 2017. *National HIV Strategic Plan 2016-2020*. (https://www.aidsdatahub.org/sites/default/files/publication/Myanmar_National_Strategic_Plan_on_HIV_and_AIDS_2016-2020.pdf)

Nepal

It is estimated that there are 30,868 PWID and 21,460 TG in Nepal.¹⁶⁹ HIV prevalence among PWID is estimated for Kathmandu, Pokhara and three districts along the Terai highway, standing at 8.8%,¹⁷⁰ 4.9%,¹⁷¹ and 3.3% respectively.¹⁷² In contrast, a national HIV prevalence estimate among TG stands at 6%,¹⁷³ compared to 8.5% across the two major urban centers.¹⁷⁴ Estimates for HTS coverage among PWID range from 43%¹⁷⁵ and 49%.¹⁷⁶ Data from 2015 indicates that 27.9% of PWID who accessed HTS in the past 12 months knew their status.¹⁷⁷ In contrast, data from Kathmandu and Pokhara indicates that 56% and 63.2% of PWID had ever accessed HTS in those respective locations, and that 61.3% and 45.9% of PWID accessed HTS in those respective locations in the past 12 months.¹⁷⁸ Other sources indicate that 34.4% and 29% of PWID in Kathmandu and Pokhara had accessed HTS in the past 12 months, and among them, 98.3% and 100% know their HIV status.¹⁷⁹ Estimates indicate that 89% of TG are covered by HTS.¹⁸⁰

Data published in 2015 indicates that there are 133 (32.8%) HTS sites operated by civil society and private sector agencies compared to 272 (67.2%) sites operated by government authorities.¹⁸¹ Unpublished data from the National Center for AIDS and STD Control suggests that there were 175 HTS sites operating in Nepal in 2016, with 136 (77.7%) of those managed by government authorities and 39 (22.3%) managed by civil society, pointing to a significant reduction from 103 to 39 of such sites, operated by civil society for key populations in recent years.¹⁸² More recent data published in 2018 confirms that there are 176 functional HTS sites across the country, including 39 (22.2%) operated by civil society.¹⁸³

¹⁶⁹ AIDS Data Hub. 2018. *Nepal review slides*. (<https://www.aidsdatahub.org/nepal-country-slides-2018>)

¹⁷⁰ AIDS Data Hub. 2018. *Nepal review slides*. (<https://www.aidsdatahub.org/nepal-country-slides-2018>)

¹⁷¹ AIDS Data Hub. 2018. *Nepal review slides*. (<https://www.aidsdatahub.org/nepal-country-slides-2018>)

¹⁷² National Centre for AIDS and STD Control. No date. *Integrated Biological and Behavioral Surveillance (IBBS) Survey among People Who Inject Drugs (PWIDs) in Eastern Terai Highway Districts of Nepal, 2017*. (https://www.aidsdatahub.org/sites/default/files/publication/Nepal_IBBS_Factsheet_PWID_Eastern_Terai_Highway_2017.pdf)

¹⁷³ Nepal. 2017. *National HIV Strategic Plan 2016-2021*.

(<http://www.aidsdatahub.org/sites/default/files/publication/Nepal-National-HIV-Strategic-Plan-2016-2021.pdf>)

¹⁷⁴ AIDS Data Hub. 2018. *Nepal review slides*. (<https://www.aidsdatahub.org/nepal-country-slides-2018>)

¹⁷⁵ AIDS Data Hub. 2019. *Regional Overview Slides*. (<https://aidsdatahub.org/regional-slides-2019>)

¹⁷⁶ Nepal. 2017. *National Guideline on Community Led HIV Testing in Nepal*.

(https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal_National_Community_Led_HIV_Testing_Guidelines_2018.pdf)

¹⁷⁷ World Health Organization. 2016. *Cascade of HIV testing, care and treatment services, 2014 & 2015: country profiles*. (<http://www.who.int/iris/handle/10665/251726>)

¹⁷⁸ National Association of PLHIV in Nepal. 2018. *Review of Policy, Program and Services Report On Community Led Screening Model for HIV and HCV Testing and Treatment among PWID in Nepal*.

¹⁷⁹ Nepal. 2018. *Global AIDS Response Progress Report 2018*.

(https://www.unaids.org/sites/default/files/country/documents/NPL_2018_countryreport.pdf)

¹⁸⁰ AIDS Data Hub. 2019. *Regional Overview Slides*. (<https://aidsdatahub.org/regional-slides-2019>)

¹⁸¹ World Health Organization. 2016. *Progress Report on HIV in the WHO South-East Asia Region 2016*. (http://apps.searo.who.int/PDS_DOCS/B5282.pdf)

¹⁸² Nepal. 2017. *National Guideline on Community Led HIV Testing in Nepal*.

(https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal_National_Community_Led_HIV_Testing_Guidelines_2018.pdf)

¹⁸³ National Association of PLHIV in Nepal. 2018. *Review of Policy, Program and Services Report On Community Led Screening Model for HIV and HCV Testing and Treatment among PWID in Nepal*.

In Nepal, community-based HTS was initiated in early 2000,¹⁸⁴ where such services have been accessible through door-to-door outreach, through home-based testing, through index testing, and through mobile outreach to parks, bars and in schools and the workplace.¹⁸⁵ HTS scale-up later evolved with the introduction of provider-initiated testing and counseling (PITC) and community-led HTS.¹⁸⁶ The addition of community-led HTS was designed to complement routine facility-based HTC. The approach aims to minimize client barriers and focus on delivering HTS and accelerating referrals in a simple, accessible, and straightforward way.¹⁸⁷ More specifically, the objectives of community-led HTS in Nepal is to improve uptake, increase yield, provide opportunities for early detection and care, prevent on-going transmission of HIV, and contribute in reduction of the "diagnosis gap" among key populations.¹⁸⁸

Community-led services in Nepal, including pre- and post-test counseling, are implemented and delivered by trained and certified lay providers.¹⁸⁹ All lay providers who are trained and certified to perform HIV screening test in the community are required to sign an oath committing to provide confidential, non-coercive and quality services.¹⁹⁰ In order to be certified, lay providers must be trained and thereafter complete six HIV tests in the community, under close supervision.¹⁹¹ Certifications are issued by HTS sites in collaboration with local health authorities.¹⁹² Certifications are renewable on an annual basis, based on performance.¹⁹³ However, lay providers who produce repeated false reactive referrals can be suspended, and de-certified if performance does not improve within a given time.¹⁹⁴

¹⁸⁴ Nepal. 2017. *National Guideline on Community Led HIV Testing in Nepal*.

([https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal National Community Led HIV Testing Guidelines 2018.pdf](https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal%20National%20Community%20Led%20HIV%20Testing%20Guidelines%202018.pdf))

¹⁸⁵ National Association of PLHIV in Nepal. 2018. *Review of Policy, Program and Services Report On Community Led Screening Model for HIV and HCV Testing and Treatment among PWID in Nepal*; Nepal. 2017. *National HIV Testing and Treatment Guidelines 2017*.

([http://www.searo.who.int/nepal/documents/communicable_diseases/national_hiv_testing_and_treatment_guidelines_2017_\(23june2017\).pdf](http://www.searo.who.int/nepal/documents/communicable_diseases/national_hiv_testing_and_treatment_guidelines_2017_(23june2017).pdf))

¹⁸⁶ Nepal. 2017. *National Guideline on Community Led HIV Testing in Nepal*.

([https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal National Community Led HIV Testing Guidelines 2018.pdf](https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal%20National%20Community%20Led%20HIV%20Testing%20Guidelines%202018.pdf))

¹⁸⁷ Nepal. 2017. *National Guideline on Community Led HIV Testing in Nepal*.

([https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal National Community Led HIV Testing Guidelines 2018.pdf](https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal%20National%20Community%20Led%20HIV%20Testing%20Guidelines%202018.pdf))

¹⁸⁸ Nepal. 2017. *National Guideline on Community Led HIV Testing in Nepal*.

([https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal National Community Led HIV Testing Guidelines 2018.pdf](https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal%20National%20Community%20Led%20HIV%20Testing%20Guidelines%202018.pdf))

¹⁸⁹ Flynn, D. E. et al. 2017. "Can trained lay providers perform HIV testing services? A review of national HIV testing policies" in *BMC Res Notes*, 10:20.

(https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5216526/pdf/13104_2016_Article_2339.pdf)

¹⁹⁰ Nepal. 2017. *National Guideline on Community Led HIV Testing in Nepal*.

([https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal National Community Led HIV Testing Guidelines 2018.pdf](https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal%20National%20Community%20Led%20HIV%20Testing%20Guidelines%202018.pdf))

¹⁹¹ Nepal. 2017. *National Guideline on Community Led HIV Testing in Nepal*.

([https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal National Community Led HIV Testing Guidelines 2018.pdf](https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal%20National%20Community%20Led%20HIV%20Testing%20Guidelines%202018.pdf))

¹⁹² Nepal. 2017. *National Guideline on Community Led HIV Testing in Nepal*.

([https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal National Community Led HIV Testing Guidelines 2018.pdf](https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal%20National%20Community%20Led%20HIV%20Testing%20Guidelines%202018.pdf))

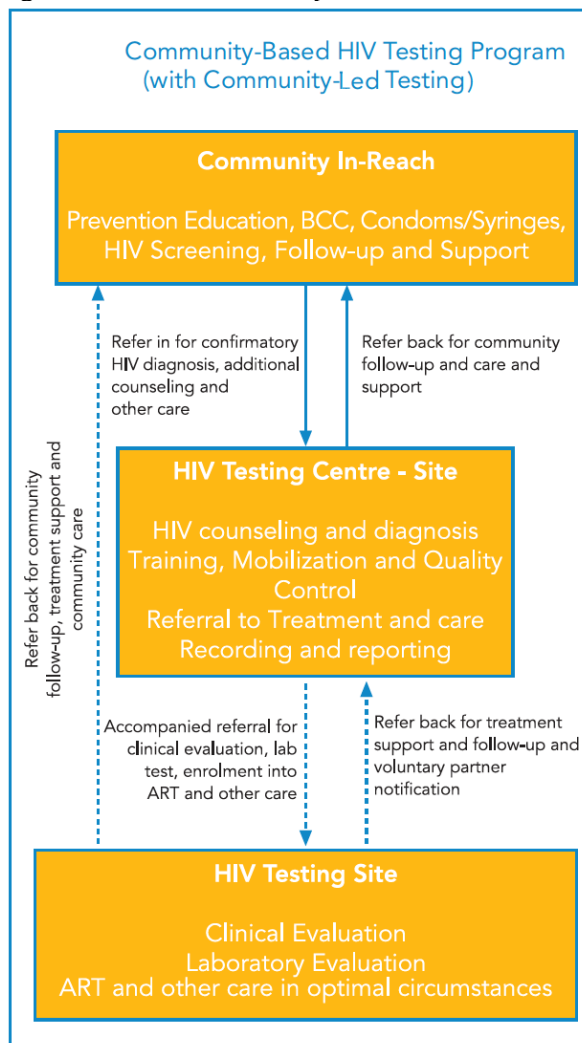
¹⁹³ Nepal. 2017. *National Guideline on Community Led HIV Testing in Nepal*.

([https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal National Community Led HIV Testing Guidelines 2018.pdf](https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal%20National%20Community%20Led%20HIV%20Testing%20Guidelines%202018.pdf))

¹⁹⁴ Nepal. 2017. *National Guideline on Community Led HIV Testing in Nepal*.

([https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal National Community Led HIV Testing Guidelines 2018.pdf](https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal%20National%20Community%20Led%20HIV%20Testing%20Guidelines%202018.pdf))

Figure 4: CBL HTS in Nepal



Once certified, lay providers are empowered to use RDTs as Assay 0 (A0) as part of a “test for triage,” in line with the national algorithm (see Figure 5).¹⁹⁵ Clients with reactive test results, through this HIV screening, will be referred and accompanied to health facilities, where confirmatory testing will be performed by trained laboratory personnel.¹⁹⁶ Lay providers must discuss, among other issues, whom the person may wish to inform and how they would like such disclosure to be done.¹⁹⁷ Regardless of the outcome of the screening test, all results must be

¹⁹⁵ Nepal. 2017. *National HIV Testing and Treatment Guidelines 2017*.

([http://www.searo.who.int/nepal/documents/communicable_diseases/national_hiv_testing_and_treatment_guidelines_2017_\(23june2017\).pdf](http://www.searo.who.int/nepal/documents/communicable_diseases/national_hiv_testing_and_treatment_guidelines_2017_(23june2017).pdf))

¹⁹⁶ Nepal. 2017. *National HIV Testing and Treatment Guidelines 2017*.

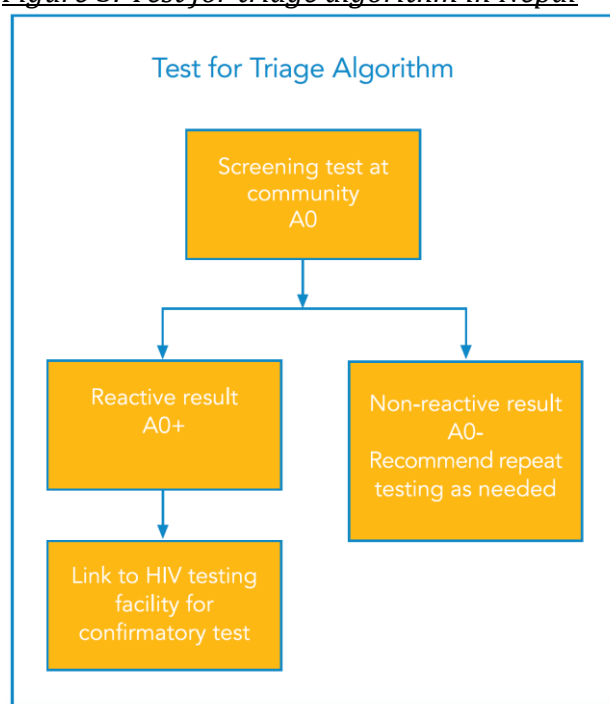
([http://www.searo.who.int/nepal/documents/communicable_diseases/national_hiv_testing_and_treatment_guidelines_2017_\(23june2017\).pdf](http://www.searo.who.int/nepal/documents/communicable_diseases/national_hiv_testing_and_treatment_guidelines_2017_(23june2017).pdf))

¹⁹⁷ Nepal. 2017. *National Guideline on Community Led HIV Testing in Nepal*.

(https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal_National_Community_Led_HIV_Testing_Guidelines_2018.pdf)

kept confidential, unless the client gives permission for a disclosure procedure.¹⁹⁸ Confirmation tests are a necessary condition for community-led HTS in Nepal.¹⁹⁹

Figure 5: Test for triage algorithm in Nepal



Evidence shows that community-based HTS contributes to reducing prejudice and discrimination, to increasing uptake of services, and to ensuring greater protection of human rights.²⁰⁰ Community organizations are often better trusted by their peers and are best placed to reach those who are hard to access and are not yet accessing HTS in general health care settings.²⁰¹

Both national policies and the national HIV strategic plan endorse and prioritize the community-led HTS approach.²⁰² Along with facility-based HTS, community-led HTS is implemented in 25 districts (20 of which are supported by the Global

¹⁹⁸ Nepal. 2017. *National Guideline on Community Led HIV Testing in Nepal*.

([https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal National Community Led HIV Testing Guidelines 2018.pdf](https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal%20National%20Community%20Led%20HIV%20Testing%20Guidelines%202018.pdf))

¹⁹⁹ Nepal. 2017. *National Guideline on Community Led HIV Testing in Nepal*.

([https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal National Community Led HIV Testing Guidelines 2018.pdf](https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal%20National%20Community%20Led%20HIV%20Testing%20Guidelines%202018.pdf))

²⁰⁰ Nepal. 2017. *National Guideline on Community Led HIV Testing in Nepal*.

([https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal National Community Led HIV Testing Guidelines 2018.pdf](https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal%20National%20Community%20Led%20HIV%20Testing%20Guidelines%202018.pdf))

²⁰¹ Nepal. 2017. *National Guideline on Community Led HIV Testing in Nepal*.

([https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal National Community Led HIV Testing Guidelines 2018.pdf](https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal%20National%20Community%20Led%20HIV%20Testing%20Guidelines%202018.pdf))

²⁰² Nepal. 2017. *National HIV Strategic Plan 2016-2021*.

(<http://www.aidsdatahub.org/sites/default/files/publication/Nepal-National-HIV-Strategic-Plan-2016-2021.pdf>)

Fund,²⁰³ and five through the LINKAGES project)²⁰⁴ to cover TG and in 27 districts covering PWID.²⁰⁵

As of 2017, distribution of test kits for home use, or for use by un-trained individuals remained prohibited in Nepal.²⁰⁶ However, in 2018, a pilot study explored uptake and acceptability of HIVST using oral fluid testing with the OraQuick® kit among MSM, male sex workers, and TG.²⁰⁷ Though the kits are unregistered in Nepal, they are currently under review for formal approval.²⁰⁸ As of the date of publication of this report, oral fluid testing is still not formally available.²⁰⁹ However, a policy to allow implementation of HIVST is currently in development,²¹⁰ and national guidelines are also being prepared.²¹¹

The *National HIV Strategic Plan 2016-2021* formally prioritizes a cascade based on 'Identify, Reach, Recommend, Test, Treat and Retain' where decentralized HTS are tailored "to identify PLHIV as early as possible and to link them appropriately, in a timely manner, to treatment and care services."²¹² In order to achieve this, several tools have been developed, including *National HIV Testing and Treatment Guidelines* and *National Community Led HIV Testing Guidelines*.²¹³ National guidelines also strongly recommend retesting every three months for all people who belong to key populations.²¹⁴

However, a number of barriers constrain access to HTS in Nepal. For example, legal age of consent to access HTS in Nepal is set at 16 years.²¹⁵ In addition, stigma and discrimination in health care and community settings has been identified as a significant barrier to HTS,²¹⁶ along with cost of transportation, long distances to

²⁰³ National Association of PLHIV in Nepal. 2018. *Review of Policy, Program and Services Report On Community Led Screening Model for HIV and HCV Testing and Treatment among PWID in Nepal*.

²⁰⁴ FHI360. No date. *LINKAGES Across the Continuum of HIV Services for Key Populations Affected by HIV (LINKAGES) Nepal Project Factsheet*. (<https://www.fhi360.org/sites/default/files/media/documents/resource-linkages-nepal-factsheet.pdf>)

²⁰⁵ National Association of PLHIV in Nepal. 2018. *Review of Policy, Program and Services Report On Community Led Screening Model for HIV and HCV Testing and Treatment among PWID in Nepal*.

²⁰⁶ Nepal. 2017. *National Guideline on Community Led HIV Testing in Nepal*.

([https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal National Community Led HIV Testing Guidelines 2018.pdf](https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal%20National%20Community%20Led%20HIV%20Testing%20Guidelines%202018.pdf))

²⁰⁷ FHI360. 2018. *Report on exploring the uptake and acceptability of HIV self-testing for men who have sex with men, male sex workers, and transgender people in Nepal – Study summary*.

²⁰⁸ FHI360. 2018. *Report on exploring the uptake and acceptability of HIV self-testing for men who have sex with men, male sex workers, and transgender people in Nepal – Study summary*.

²⁰⁹ Nepal. 2017. *National Guideline on Community Led HIV Testing in Nepal*.

([https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal National Community Led HIV Testing Guidelines 2018.pdf](https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal%20National%20Community%20Led%20HIV%20Testing%20Guidelines%202018.pdf))

²¹⁰ Unitaid and World Health Organization. 2018. *Market and technology landscape: HIV rapid diagnostic tests for self-testing*, 4th edition. (<https://unitaid.org/assets/HIVST-landscape-report.pdf>)

²¹¹ Nepal. 2017. *National HIV Testing and Treatment Guidelines 2017*.

([http://www.searo.who.int/nepal/documents/communicable_diseases/national_hiv_testing_and_treatment_guidelines_2017_\(23june2017\).pdf](http://www.searo.who.int/nepal/documents/communicable_diseases/national_hiv_testing_and_treatment_guidelines_2017_(23june2017).pdf))

²¹² Nepal. 2017. *National Guideline on Community Led HIV Testing in Nepal*.

([https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal National Community Led HIV Testing Guidelines 2018.pdf](https://www.aidsdatahub.org/sites/default/files/highlight-reference/document/Nepal%20National%20Community%20Led%20HIV%20Testing%20Guidelines%202018.pdf))

²¹³ Nepal. 2018. *Global AIDS Response Progress Report 2018*.

(https://www.unaids.org/sites/default/files/country/documents/NPL_2018_countryreport.pdf)

²¹⁴ Nepal. 2017. *National HIV Testing and Treatment Guidelines 2017*.

([http://www.searo.who.int/nepal/documents/communicable_diseases/national_hiv_testing_and_treatment_guidelines_2017_\(23june2017\).pdf](http://www.searo.who.int/nepal/documents/communicable_diseases/national_hiv_testing_and_treatment_guidelines_2017_(23june2017).pdf))

²¹⁵ Nepal. 2017. *National HIV Testing and Treatment Guidelines 2017*.

([http://www.searo.who.int/nepal/documents/communicable_diseases/national_hiv_testing_and_treatment_guidelines_2017_\(23june2017\).pdf](http://www.searo.who.int/nepal/documents/communicable_diseases/national_hiv_testing_and_treatment_guidelines_2017_(23june2017).pdf))

²¹⁶ Choo, M. et al. 2016. *Community-Initiated HIV Testing Services in South Asian Cities for Men who have Sex with Men and Transgender Women*. Asia Pacific Network of People Living with HIV/AIDS. (<http://www.apnplus.org/wp->

HIV testing services, fear of test results, and social prejudice associated with certain behaviors.²¹⁷ Additional barriers include migration, drug use and dependence, mental health issues,²¹⁸ poverty, food insecurity, unmanaged co-infections,²¹⁹ and a history of physical and sexual violence.²²⁰

Reports indicate that 63% of expenditure related to HTS in Nepal is covered through Global Fund grants, while 37% of the need remains unfunded.²²¹ Actual and planned expenditure for HTS implementation (reach, recommend and test) is reported at 23,009,480 (76%) in 2016; 27,334,805 (77%) in 2017; 28,036,365 (76%) in 2018; 28,732,844 (75%) in 2019; and 29,443,337 (74%) in 2020, overall representing 3% of targeted investments for HIV in the 2016-2021 period.²²²

A number of targeted recommendations have been identified during the literature review:

1. Integrate HIV and hepatitis C virus (HCV) services in order to rapidly increase awareness on screening, testing, and treatment among PWID.²²³
2. Scale-up HTS by facilitating access in drug dependence treatment centers, ART sites, OST clinics, and hotspots.²²⁴
3. Emphasize decentralization of HTS to communities, and expand the use of RDT through the speedy roll-out of CBL HTS through 'test for triage' to increase coverage.²²⁵
4. Expand HTS through trained lay providers working in the community to facilitate access to these services and their acceptability among people from key populations.²²⁶
5. Develop HIVST guidelines and obtain regulatory approvals as soon as possible to enable implementation.²²⁷

[content/uploads/2017/04/0210-16-REPORT-FOR-SUBMISSION_Community-Initiated-HTS-for-MSM-and-Transgender-Women-in-South-Asia-FINAL.pdf](https://www.unaids.org/sites/default/files/country/documents/NPL_2018_countryreport.pdf)

²¹⁷ National Association of PLHIV in Nepal. 2018. *Review of Policy, Program and Services Report On Community Led Screening Model for HIV and HCV Testing and Treatment among PWID in Nepal*.

²¹⁸ Nepal. 2018. *Global AIDS Response Progress Report 2018*.
(https://www.unaids.org/sites/default/files/country/documents/NPL_2018_countryreport.pdf)

²¹⁹ Nepal. 2017. *National HIV Strategic Plan 2016-2021*.
(<http://www.aidsdatahub.org/sites/default/files/publication/Nepal-National-HIV-Strategic-Plan-2016-2021.pdf>)

²²⁰ Shrestha, R. et al. 2017. "Why don't key populations access HIV testing and counselling centres in Nepal? Findings based on national surveillance survey" in *BMJ Open*, 7:e017408. doi:10.1136/bmjopen-2017-017408.
(<https://bmjopen.bmj.com/content/bmjopen/7/12/e017408.full.pdf>)

²²¹ Unitaids and World Health Organization. 2018. *Market and technology landscape: HIV rapid diagnostic tests for self-testing, 4th edition*. (<https://unitaid.org/assets/HIVST-landscape-report.pdf>)

²²² Nepal. 2017. *National HIV Strategic Plan 2016-2021*.
(<http://www.aidsdatahub.org/sites/default/files/publication/Nepal-National-HIV-Strategic-Plan-2016-2021.pdf>); no currency specified.

²²³ National Association of PLHIV in Nepal. 2018. *Review of Policy, Program and Services Report On Community Led Screening Model for HIV and HCV Testing and Treatment among PWID in Nepal*.

²²⁴ National Association of PLHIV in Nepal. 2018. *Review of Policy, Program and Services Report On Community Led Screening Model for HIV and HCV Testing and Treatment among PWID in Nepal*.

²²⁵ Nepal. 2018. *Global AIDS Response Progress Report 2018*.
(https://www.unaids.org/sites/default/files/country/documents/NPL_2018_countryreport.pdf)

²²⁶ Nepal. 2018. *Global AIDS Response Progress Report 2018*.
(https://www.unaids.org/sites/default/files/country/documents/NPL_2018_countryreport.pdf)

²²⁷ Nepal. 2017. *National HIV Testing and Treatment Guidelines 2017*.
([http://www.searo.who.int/nepal/documents/communicable_diseases/national_hiv_testing_and_treatment_guidelines_2017_\(23june2017\).pdf](http://www.searo.who.int/nepal/documents/communicable_diseases/national_hiv_testing_and_treatment_guidelines_2017_(23june2017).pdf))

Thailand

It is estimated that there are 71,000²²⁸ PWID and 313,747²²⁹ TG living in Thailand. However, the Thai Ministry of Health estimates that only 42,650²³⁰ PWID and 62,749²³¹ TG are at risk for HIV transmission, and the latter estimates are used for programming and policy purposes. National HIV prevalence among PWID is estimated at 20.5%,²³² while there is no national HIV prevalence estimate among TG. However, an HIV prevalence estimate has been calculated across four cities, standing at 13.8%.²³³ HTS coverage among PWID is officially estimated at 61%,²³⁴ based on the results of a national survey conducted in 2014 among PWID who were already accessing HIV services. However, that year, program data from the Global Fund's principal recipient for HIV prevention among PWID shows that coverage across 19 provinces was just above 2%,²³⁵ and most recent programmatic performance remains below 10% in 2018-19.²³⁶ In contrast, HTS coverage among TG is estimated between 34%²³⁷ and 72%.²³⁸

Data indicates that there are 342 (23.1%) HTS sites operated by civil society and private sector agencies compared to 1,138 (76.9%) sites operated by government authorities.²³⁹ In 2016, reports shows that 1,607 PWID accessed HTS out of which 187 tested positive, but no data was available about the proportion who actually initiated ART.²⁴⁰ Despite HTS being included in the universal health coverage, a service available and accessible to all Thai nationals, HTS uptake remains poor, especially among key populations.²⁴¹

Community-based HTS with RDTs (also known as “same-day result testing”) has recently been introduced to expand coverage, especially among key populations, so that testing can be accessed through sites managed by CSO and private sector agencies.²⁴² Indeed, a study published in 2012 confirmed that 74.2% of PWID were willing to be testing in a DIC if it were offered there.²⁴³ However, despite

²²⁸ National AIDS Management Centre. 2015. *National Consensus Meeting: Size Estimation on PWID*, September 2015. Thailand Ministry of Public Health.

²²⁹ Phanaphakphon, N. 2018. *HIV Situation among Transgender Women in Thailand*. Thai Red Cross. (<http://www.bangkok.go.th/upload/user/00000150/sti/060661/2.TGW.%20BMA%20training%206%20June%202018%20marked.pdf>)

²³⁰ AIDS Data Hub. 2018. *Thailand review slides*. (<https://www.aidsdatahub.org/thailand-country-slides-2018>)

²³¹ Phanaphakphon, N. 2018. *HIV Situation among Transgender Women in Thailand*. Thai Red Cross. (<http://www.bangkok.go.th/upload/user/00000150/sti/060661/2.TGW.%20BMA%20training%206%20June%202018%20marked.pdf>)

²³² AIDS Data Hub. 2018. *Thailand review slides*. (<https://www.aidsdatahub.org/thailand-country-slides-2018>)

²³³ AIDS Data Hub. 2018. *Thailand review slides*. (<https://www.aidsdatahub.org/thailand-country-slides-2018>)

²³⁴ AIDS Data Hub. 2018. *Thailand review slides*. (<https://www.aidsdatahub.org/thailand-country-slides-2018>)

²³⁵ Population Service International. 2014. *Progress update disbursement request narrative report*.

²³⁶ Personal communications with Global Fund Portfolio Manager. 19 June 2019.

²³⁷ Thailand. 2015. *Global AIDS Response Progress Report 2015*. (https://www.unaids.org/sites/default/files/country/documents/THA_narrative_report_2015.pdf)

²³⁸ AIDS Data Hub. 2019. *Regional Overview Slides*. (<https://aidsdatahub.org/regional-slides-2019>)

²³⁹ World Health Organization. 2016. *Progress Report on HIV in the WHO South-East Asia Region 2016*. (http://apps.searo.who.int/PDS_DOCS/B5282.pdf)

²⁴⁰ President's Emergency Plan For AIDS Relief. 2017. *PEPFAR Asia Regional Program, 2017 Regional Operational Plan*. (<https://www.pepfar.gov/documents/organization/285846.pdf>)

²⁴¹ Thailand. 2014. *National Operational Plan Accelerating Ending AIDS 2015-2019*. (https://www.aidsdatahub.org/sites/default/files/publication/Thailand_National_Operational_Plan_Accelerating_Ending_AIDS_2015-2019.pdf)

²⁴² Thailand. 2014. *National Operational Plan Accelerating Ending AIDS 2015-2019*. (https://www.aidsdatahub.org/sites/default/files/publication/Thailand_National_Operational_Plan_Accelerating_Ending_AIDS_2015-2019.pdf)

²⁴³ Ti, L. et al. 2012. “HIV testing and willingness to get HIV testing at a peer-run drop-in centre for people who inject drugs in Bangkok, Thailand” in *BMC Public Health*, 12, 189. (<https://bmcpublihealth.biomedcentral.com/track/pdf/10.1186/1471-2458-12-189>)

increased coverage following the initiation of community-based HTS, the national government acknowledged that more needed to be done in order to reach national targets.²⁴⁴ Community-led HTS were later introduced, where HTS is provided by empowered and well-trained community members of key populations as well as non-key populations.²⁴⁵ A study published in 2013 also highlights that 44% of PWID were willing to receive peer-delivered pre-test counseling, 38% were willing to receive a rapid HIV test from peers, and 36% were willing to receive post-test counseling from peers.²⁴⁶ Reports indicate that online mechanisms and internet-based communications are effective for reaching MSM and TG and motivating their access to HTS. In contrast, a study reports that PWID who had ever received an HCV test were less likely to avoid HTS, a reassuring finding given that HIV-HCV co-infection rates have been estimated as high as 95%.²⁴⁷ The national HIV plan recognizes that key populations tend to trust peers, which reduces barriers often faced within government sector facilities where concerns over stigma and discrimination and perceptions around service quality and confidentiality are limit accessibility.²⁴⁸

Lay providers in Thailand can be trained and empowered to perform HIV finger-prick RDTs as they were found to achieve results comparable to those achieved by medical professionals.²⁴⁹ Lay providers receive a three-day intensive training course on how to perform a finger-prick blood collection and use (see Figure 6).²⁵⁰ Based on the task-shifting concept, RDTs performed by lay providers as part of the community-led program has enhanced coverage among key populations.²⁵¹

Index testing is available in Thailand, with reports indicating that fewer than 1,000 such tests were performed between 1 October 2017 and 31 March 2018.²⁵²

Figure 6: Lay provider accreditation process

²⁴⁴ Thailand. 2014. *National Operational Plan Accelerating Ending AIDS 2015-2019*.

(https://www.aidsdatahub.org/sites/default/files/publication/Thailand_National_Operational_Plan_Accelerating_Ending_AIDS_2015-2019.pdf)

²⁴⁵ Wongkanya, R. et al. 2018. "HIV rapid diagnostic testing by lay providers in a key population-led health service programme in Thailand" in *Journal of Virus Eradication*, 4: 12–15. (<https://www.ncbi.nlm.nih.gov/pubmed/29568547>)

²⁴⁶ Ti, L. et al. 2013. "Willingness to access peer-delivered HIV testing and counseling among people who inject drugs in Bangkok, Thailand" in *Journal of Community Health*, 38(3), 427–33.

(https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3639360/pdf/10900_2012_Article_9635.pdf)

²⁴⁷ Ti, L. et al. 2013. "HIV test avoidance among people who inject drugs in Thailand" in *AIDS and Behavior*, 17(7), 2474–8.

(https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3742418/pdf/10461_2012_Article_347.pdf)

²⁴⁸ Thailand. 2014. *National Operational Plan Accelerating Ending AIDS 2015-2019*.

(https://www.aidsdatahub.org/sites/default/files/publication/Thailand_National_Operational_Plan_Accelerating_Ending_AIDS_2015-2019.pdf)

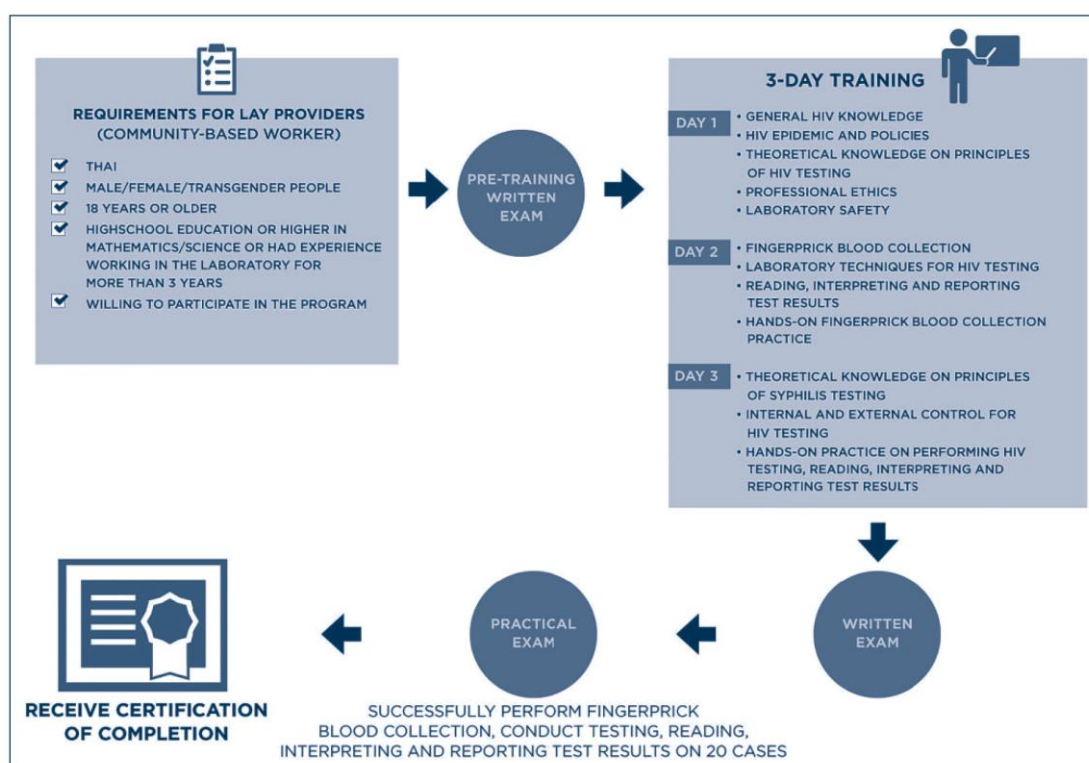
²⁴⁹ Wongkanya, R. et al. 2018. "HIV rapid diagnostic testing by lay providers in a key population-led health service programme in Thailand" in *Journal of Virus Eradication*, 4: 12–15. (<https://www.ncbi.nlm.nih.gov/pubmed/29568547>)

²⁵⁰ Wongkanya, R. et al. 2018. "HIV rapid diagnostic testing by lay providers in a key population-led health service programme in Thailand" in *Journal of Virus Eradication*, 4: 12–15. (<https://www.ncbi.nlm.nih.gov/pubmed/29568547>)

²⁵¹ Wongkanya, R. et al. 2018. "HIV rapid diagnostic testing by lay providers in a key population-led health service programme in Thailand" in *Journal of Virus Eradication*, 4: 12–15. (<https://www.ncbi.nlm.nih.gov/pubmed/29568547>)

²⁵² Larsey, A. et al. 2019. "Scaling Up Testing for Human Immunodeficiency Virus Infection Among Contacts of Index Patients — 20 Countries, 2016–2018" in *Morbidity and Mortality Weekly Report*, 68:21, 474–477.

(<https://www.cdc.gov/mmwr/volumes/68/wr/mm6821a2.htm>)



Good practice:²⁵³

From its cheerful reception area to its solicitous staff, Sisters makes HIV testing as comfortable and normal as possible. The DIC-based HTS operate from 1pm to 7pm, Monday through Friday, which is convenient for clients who often work at night. A licensed transgender nurse provides pre-counseling and then a rapid HIV test, with results available within an hour. "Rapid HIV testing makes my sisters feel comfortable. They have no need to worry about the results or wait a long time. We make them know that whatever the outcome, they will be taken care of," says nurse Bong. After an HIV test, Sisters provides a small gift, which is often a cosmetic like a body lotion or lipstick. If a person is reactive on a first rapid test, they will undergo further confirmatory tests. Once an HIV positive result is confirmed, a member of the Sisters Foundation team will accompany the person to a local health facility for HIV treatment. This way, the Foundation is helping to link TG with established health systems, which they often shun because of fear of discrimination. The Sisters Foundation has expanded from around 250 clients in 2006 to more than 500 in 2014. In 2014, it conducted over 500 rapid HIV tests with nearly 50 people testing positive.

HIVST is currently not formally endorsed by national policies in Thailand, although such a policy is reportedly under development.²⁵⁴ However, several pilots have been implemented to assess the acceptability and feasibility of HIVST

²⁵³ Unaidap. 19 January 2016. "Transgender women take health into their own hands" in *UNAIDS webblog*, online at: <https://unaids-ap.org/2016/01/19/transgender-women-take-health-into-their-own-hands/>.

²⁵⁴ Unitaids and World Health Organization. 2018. *Market and technology landscape: HIV rapid diagnostic tests for self-testing*, 4th edition. (<https://unitaid.org/assets/HIVST-landscape-report.pdf>)

in Thailand.²⁵⁵ For example, the national HIV plan reports that a supervised and assisted HIVST pilot is operating in closed settings;²⁵⁶ and additional pilots have been implemented with MSM and TG.²⁵⁷ TG women who participated in the assisted HIVST pilot found the process acceptable (93%), but few (7%) found the unassisted process acceptable.²⁵⁸ Despite the absence of a formal policy, on 9 April 2019, the Thai Food and Drug Administration approved the sale of HIVST kits through public pharmacies, although supplies are reportedly limited.²⁵⁹ Previously, HIVST kits could only be sold to medical professionals.²⁶⁰

HIVST in Thailand does not rely on oral fluid testing which is yet to be approved, despite the fact that the OraQuick® HIV Self-Test kits are assembled in Thailand.²⁶¹ However, the results of a pilot study using oral fluid testing in Thailand indicates that such a tool was widely accepted because it is quick, easy, painless and convenient. In the study, outreach workers and community health centers distributed test kits, and online social media promoted online ordering.²⁶²

In order to protect clients, a number of legal and policy tools have been deployed in Thailand. Published reports indicate conflicting age requirements for HTS access for young people: one source indicates that there are no age requirements,²⁶³ one source indicates that individuals must be 18 years old to access HTS unless they are already married,²⁶⁴ and another reports that individuals previously be 18 years old, but this requirement was removed by a formal decision of the Medical Council of Thailand which was apparently “disseminated widely” but could not be located as part of the literature review.²⁶⁵ Legal protections are also in place to prevent discrimination based on health status.²⁶⁶

Despite these legal protections, key populations report significant barriers to HTS, including limited services outside government-operated facilities, perception of

²⁵⁵ Unitaids. 2019. *Building capacity for the roll-out of PrEP and HIV testing innovations in Asia and the Pacific*.

(<https://unitaid.org/assets/HIVST-PrEP-Report-2019.pdf>)

²⁵⁶ Thailand. 2014. *National Operational Plan Accelerating Ending AIDS 2015-2019*.

(https://www.aidsdatahub.org/sites/default/files/publication/Thailand_National_Operational_Plan_Accelerating_Ending_AIDS_2015-2019.pdf)

²⁵⁷ Jantarapakde, J. et al. 2018. “Online Supervised HIV Self-Testing identified high HIV yield among Thai men who have sex with men and transgender women” in *International AIDS Conference*.

(https://programme.aids2018.org/PAGMaterial/PPT/2369_4007/WEPC0107_Online%20supervised%20HIV%20self-testing_ePoster_Jureeporn.pdf)

²⁵⁸ -. No date. “Acceptability and feasibility of oral fluid-based HIVST among MSM and transgender women in Thailand” online at: <http://hivst.org/evidence/acceptability-and-feasibility-of-oral-fluid-based-hivst-among-msm-and-transgender-women-in-thailand>.

²⁵⁹ -. 19 April 2019. “Thailand’s pharmacies can now legally sell HIV self-test kits” in *BK Asia*, online at: <https://bkasia-city.com/city-living/news/thailands-pharmacies-can-now-legally-sell-hiv-self-test-kits>.

²⁶⁰ -. 19 April 2019. “Thailand’s pharmacies can now legally sell HIV self-test kits” in *BK Asia*, online at: <https://bkasia-city.com/city-living/news/thailands-pharmacies-can-now-legally-sell-hiv-self-test-kits>.

²⁶¹ Unitaids and World Health Organization. 2018. *Market and technology landscape: HIV rapid diagnostic tests for self-testing*, 4th edition. (<https://unitaid.org/assets/HIVST-landscape-report.pdf>)

²⁶² Unitaids. 2019. *Building capacity for the roll-out of PrEP and HIV testing innovations in Asia and the Pacific*.

(<https://unitaid.org/assets/HIVST-PrEP-Report-2019.pdf>)

²⁶³ Joint United Nations Programme on HIV/AIDS. 2018. *UNAIDS Data 2018*.

(http://www.unaids.org/sites/default/files/media_asset/unaids-data-2018_en.pdf)

²⁶⁴ AIDS Data Hub. 2018. *Thailand review slides*. (<https://www.aidsdatahub.org/thailand-country-slides-2018>)

²⁶⁵ Thailand. 2014. *National Operational Plan Accelerating Ending AIDS 2015-2019*. (https://www.aidsdatahub.org/sites/default/files/publication/Thailand_National_Operational_Plan_Accelerating_Ending_AIDS_2015-2019.pdf)

²⁶⁶ United Nations Development Programme. 2015. *HIV and the Law in South-East Asia*.

(https://www.undp.org/content/dam/rbap/docs/Research%20&%20Publications/hiv_aids/rbap-hhd-2015-hiv-and-the-law-in-south-east-asia.pdf)

stigma and discrimination, lack of widespread availability of same-day result testing services, and limited numbers friendly service sites for key populations.²⁶⁷ In addition, punitive drug laws and policies, age of consent for HIV testing among young people, health policy related to non-Thais accessing health services, and inconsistent application of protective legal and policy tools also contributes to reducing accessibility to HTS. At a more personal level, studies report that key populations are less likely to access HTS due to the fear of an HIV-positive test result, the fear of being stigmatized and discriminated against by the community, and feelings of shame.²⁶⁸

The *National Operational Plan Accelerating Ending AIDS 2015-2019* relies on a cascade of services focusing on linkages between “Reach, Recruit, Test, Treat, and Retain” among key populations.²⁶⁹ Within the national plan, specific operational objectives prioritize HTS:

1. By 2019, recruit 90% of all reached KPs into HTS; and
2. By 2019, achieve a coverage of 90% for HTS among all recruited KPs.²⁷⁰

Under the testing approach, the national plan prioritizes a focus on early diagnosis, regular testing, and decentralized same-day result testing.²⁷¹

In parallel, the PEPFAR operational plan prioritizes providing technical assistance to facilitate early access to high-quality HTS and ART among TG women in priority provinces, expanding coverage and quality of HTS among TG women through 1) peer-led, peer-driven recruitment, mobile, and self-testing approaches; 2) facilitating national consultations to advance TG health and HIVST.²⁷² PEPFAR contributions have also supported the establishment of an integrated community site to demonstrate HIV-HCV test-and-start among PWID.²⁷³ Lastly, PEPFAR reports indicate that its support contributed to the development of SOPs and guidelines for HIVST, including with oral fluid tests, through discussions with CSO.²⁷⁴

Financial contributions from PEPFAR include \$250,000 for rapid test kits in 2017, and a total financial investment in HTS of \$1,098,228 that same year.²⁷⁵ PEPFAR reportedly conducted cost analyses of community-led HTS in collaboration with

²⁶⁷ Thailand. 2014. *National Operational Plan Accelerating Ending AIDS 2015-2019*.

(https://www.aidsdatahub.org/sites/default/files/publication/Thailand_National_Operational_Plan_Accelerating_Ending_AIDS_2015-2019.pdf)

²⁶⁸ Ti, L. et al. 2013. “HIV test avoidance among people who inject drugs in Thailand” in *AIDS and Behavior*, 17(7), 2474–8.

(https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3742418/pdf/10461_2012_Article_347.pdf)

²⁶⁹ Thailand. 2014. *National Operational Plan Accelerating Ending AIDS 2015-2019*.

(https://www.aidsdatahub.org/sites/default/files/publication/Thailand_National_Operational_Plan_Accelerating_Ending_AIDS_2015-2019.pdf)

²⁷⁰ Thailand. 2014. *National Operational Plan Accelerating Ending AIDS 2015-2019*.

(https://www.aidsdatahub.org/sites/default/files/publication/Thailand_National_Operational_Plan_Accelerating_Ending_AIDS_2015-2019.pdf)

²⁷¹ Thailand. 2014. *National Operational Plan Accelerating Ending AIDS 2015-2019*.

(https://www.aidsdatahub.org/sites/default/files/publication/Thailand_National_Operational_Plan_Accelerating_Ending_AIDS_2015-2019.pdf)

²⁷² President’s Emergency Plan For AIDS Relief. 2017. *PEPFAR Asia Regional Program, 2017 Regional Operational Plan*.

(<https://www.pepfar.gov/documents/organization/285846.pdf>)

²⁷³ President’s Emergency Plan For AIDS Relief. 2017. *PEPFAR Asia Regional Program, 2017 Regional Operational Plan*.

(<https://www.pepfar.gov/documents/organization/285846.pdf>)

²⁷⁴ President’s Emergency Plan For AIDS Relief. 2017. *PEPFAR Asia Regional Program, 2017 Regional Operational Plan*.

(<https://www.pepfar.gov/documents/organization/285846.pdf>)

²⁷⁵ President’s Emergency Plan For AIDS Relief. 2017. *PEPFAR Asia Regional Program, 2017 Regional Operational Plan*.

(<https://www.pepfar.gov/documents/organization/285846.pdf>)

MOH on appropriate financing models, but the results of these studies could not be located in the public domain during this literature review.²⁷⁶ Additional donors actively support HTS in Thailand, including the United States Agency for International Development (USAID),²⁷⁷ as well as the Global Fund.

A limited number of targeted recommendations have been identified during the literature review:

1. Laws related to the age of consent for testing and criminalize certain behaviors (such as drug use and sex work), need to be reviewed and interpreted in ways that support public health goals.²⁷⁸
2. Expand implementation of the national code of conduct to reduce stigma and discrimination in the workplace.²⁷⁹
3. Developing and rolling-out tools to routinely measure HIV-related stigma and discrimination as well as human rights violations.²⁸⁰

²⁷⁶ President's Emergency Plan For AIDS Relief. 2017. *PEPFAR Asia Regional Program, 2017 Regional Operational Plan*. (<https://www.pepfar.gov/documents/organization/285846.pdf>)

²⁷⁷ Wongkanya, R. et al. 2018. "HIV rapid diagnostic testing by lay providers in a key population-led health service programme in Thailand" in *Journal of Virus Eradication*, 4: 12–15. (<https://www.ncbi.nlm.nih.gov/pubmed/29568547>)

²⁷⁸ Thailand. 2014. *National Operational Plan Accelerating Ending AIDS 2015-2019*. ([https://www.aidsdatahub.org/sites/default/files/publication/Thailand National Operational Plan Accelerating Ending AIDS 2015-2019.pdf](https://www.aidsdatahub.org/sites/default/files/publication/Thailand%20National%20Operational%20Plan%20Accelerating%20Ending%20AIDS%202015-2019.pdf))

²⁷⁹ Thailand. 2014. *National Operational Plan Accelerating Ending AIDS 2015-2019*. ([https://www.aidsdatahub.org/sites/default/files/publication/Thailand National Operational Plan Accelerating Ending AIDS 2015-2019.pdf](https://www.aidsdatahub.org/sites/default/files/publication/Thailand%20National%20Operational%20Plan%20Accelerating%20Ending%20AIDS%202015-2019.pdf))

²⁸⁰ Thailand. 2014. *National Operational Plan Accelerating Ending AIDS 2015-2019*. ([https://www.aidsdatahub.org/sites/default/files/publication/Thailand National Operational Plan Accelerating Ending AIDS 2015-2019.pdf](https://www.aidsdatahub.org/sites/default/files/publication/Thailand%20National%20Operational%20Plan%20Accelerating%20Ending%20AIDS%202015-2019.pdf))

Vietnam

It is estimated that 226,900 PWID live in Vietnam, and that HIV prevalence among this group is 14%.²⁸¹ An estimated 23.6% of PWID who accessed HTC in the past 12 months knew their status in 2013, compared to 31.3% in 2012.²⁸² In 2016, PWID HTS coverage estimates rose to 36%.²⁸³ And more recent data, published in 2019, indicates a sharp rise in PWID HTS coverage, reaching 62%.²⁸⁴ Vietnam's *National Strategy on HIV/AIDS Prevention and Control 2010-2020* does not recognize TG as a key population; there is therefore no calculation of population size, HIV prevalence estimate, or coverage data related to TG in Vietnam.

No data is available on the proportion of HTS delivery sites managed by civil society and private sector agencies versus government authorities.

Vietnam was the first country in Asia to adopt the global 90-90-90 targets towards ending the HIV epidemic.²⁸⁵ The Vietnam Administration for HIV/AIDS Control (VAAC) rapidly recognized the potential for community involvement in HTS to expand case detection towards achieving the first target, and this strategy has been officially integrated into the national action plan for 2016–2020.²⁸⁶ So, in 2014, VAAC and MOH piloted rapid HTS through outreach to increase uptake among PWID and their partners.²⁸⁷ The outreach team included two health service staff, one village health worker and one peer educator.²⁸⁸ This approach was introduced in recognition that community-based HTS is effective for reaching people at risk of HIV who have never been tested or test infrequently, including PWID, MSM, FSW, and first-time HIV testers.²⁸⁹ HTS was thus decentralized using finger-prick RDTs at commune level and a confirmatory test was done for reactive cases at the district level.²⁹⁰

²⁸¹ AIDS Data Hub. 2018. *Vietnam review slides*. (<https://www.aidsdatahub.org/viet-nam-country-slides-2018>)

²⁸² Vietnam. 2014. *Global Fund TB and HIV Concept Note*.

(https://www.unaids.org/sites/default/files/country/documents/VNM_narrative_report_2015.pdf)

²⁸³ -. July 2018. "Doing it for themselves: Communities pioneer new HIV testing approach in Viet Nam" in *WHO weblog*, online at: <https://www.who.int/hiv/mediacentre/news/hiv-community-testing-vietnam/en/>.

²⁸⁴ AIDS Data Hub. 2019. *Regional Overview Slides*. (<https://aidsdatahub.org/regional-slides-2019>)

²⁸⁵ Path. 2016. *Improving access to HIV testing through lay providers and self-testing in Vietnam*.

(https://path.azureedge.net/media/documents/ID_hm_hiv_cs.pdf)

²⁸⁶ Path. 2016. *Improving access to HIV testing through lay providers and self-testing in Vietnam*.

(https://path.azureedge.net/media/documents/ID_hm_hiv_cs.pdf)

²⁸⁷ -. 12 October 2016. "Decentralization of HIV testing services to increase access for people who inject drugs in Viet Nam" in *UNAIDS weblog*, online at:

https://www.unaids.org/en/resources/presscentre/featurestories/2016/october/20161012_vietnam.

²⁸⁸ -. 12 October 2016. "Decentralization of HIV testing services to increase access for people who inject drugs in Viet Nam" in *UNAIDS weblog*, online at:

https://www.unaids.org/en/resources/presscentre/featurestories/2016/october/20161012_vietnam.

²⁸⁹ -. 31 December 2018. "Community-based HIV testing effective in reaching undiagnosed populations, new study finds" in press release, online at: https://www.eurekalert.org/pub_releases/2018-12/p-cht122818.php.

²⁹⁰ Vietnam. 2014. *Global Fund TB and HIV Concept Note*.

(https://www.unaids.org/sites/default/files/country/documents/VNM_narrative_report_2015.pdf)

Vietnam partnered with WHO to pilot community-led HTS in two provinces, making Vietnam one of the first countries to adopt international recommendations targeting those not testing in traditional health facilities.²⁹¹ In the pilot, MSM, FSW and PWID were trained to use RDT kits and to counsel their peers to take a test.²⁹² Lay providers participating in the pilot belonged to CSOs led by at-risk populations in urban areas and to village health worker networks in rural mountainous areas.²⁹³ Providers used a single RDT in clients' homes, at CSO offices and DIC, or at any private place preferred by the client.²⁹⁴ One of the key advantages of community-led HTS is that the providers conducting the tests are familiar with the people they are testing and the services are easily accessible and convenient for the clients.²⁹⁵ Indeed, 85% of key population clients reportedly preferred lay provider testing to facility-based testing.²⁹⁶

Lay providers are selected based on their access and reach to key populations.²⁹⁷ The selected lay providers attend intensive two-day trainings.²⁹⁸ Since the program began in November 2015, a total of 217 lay providers have been trained to offer quality rapid HTS, including counseling.²⁹⁹ The approach is currently being rolled out in the urban centers of Ho Chi Minh City and Hanoi, and also the rural provinces of Dien Bien and Nghe An.³⁰⁰ In Dien Bien and Nghe An, lay providers include village health workers and community workers connected to local health care stations.³⁰¹ In Ho Chi Minh City and Hanoi, providers include representatives of community organizations serving MSM and TG women.³⁰² In 2016, lay providers met minimum quality standards 96.8%, 81.5%, and 90.6% of the time in Ho Chi Minh City, Dien Bien, and Nghe An, respectively.³⁰³ There was 100% concordance between the lay providers' reading of the RDT results when compared to expert reads.³⁰⁴

²⁹¹ -. July 2018. "Doing it for themselves: Communities pioneer new HIV testing approach in Viet Nam" in *WHO weblog*, online at: <https://www.who.int/hiv/mediacentre/news/hiv-community-testing-vietnam/en/>.

²⁹² -. July 2018. "Doing it for themselves: Communities pioneer new HIV testing approach in Viet Nam" in *WHO weblog*, online at: <https://www.who.int/hiv/mediacentre/news/hiv-community-testing-vietnam/en/>.

²⁹³ -. 31 December 2018. "Community-based HIV testing effective in reaching undiagnosed populations, new study finds" in press release, online at: https://www.eurekalert.org/pub_releases/2018-12/p-cht122818.php.

²⁹⁴ -. 31 December 2018. "Community-based HIV testing effective in reaching undiagnosed populations, new study finds" in press release, online at: https://www.eurekalert.org/pub_releases/2018-12/p-cht122818.php.

²⁹⁵ Path. 2016. *Improving access to HIV testing through lay providers and self-testing in Vietnam*. (https://path.azureedge.net/media/documents/ID_hm_hiv_cs.pdf)

²⁹⁶ -. 31 December 2018. "Community-based HIV testing effective in reaching undiagnosed populations, new study finds" in press release, online at: https://www.eurekalert.org/pub_releases/2018-12/p-cht122818.php.

²⁹⁷ Path. 2016. *Improving access to HIV testing through lay providers and self-testing in Vietnam*. (https://path.azureedge.net/media/documents/ID_hm_hiv_cs.pdf)

²⁹⁸ Path. 2016. *Improving access to HIV testing through lay providers and self-testing in Vietnam*. (https://path.azureedge.net/media/documents/ID_hm_hiv_cs.pdf)

²⁹⁹ Path. 2016. *Improving access to HIV testing through lay providers and self-testing in Vietnam*. (https://path.azureedge.net/media/documents/ID_hm_hiv_cs.pdf)

³⁰⁰ Path. 2016. *Improving access to HIV testing through lay providers and self-testing in Vietnam*. (https://path.azureedge.net/media/documents/ID_hm_hiv_cs.pdf)

³⁰¹ Path. 2016. *Improving access to HIV testing through lay providers and self-testing in Vietnam*. (https://path.azureedge.net/media/documents/ID_hm_hiv_cs.pdf)

³⁰² Path. 2016. *Improving access to HIV testing through lay providers and self-testing in Vietnam*. (https://path.azureedge.net/media/documents/ID_hm_hiv_cs.pdf)

³⁰³ Path. 2016. *Improving access to HIV testing through lay providers and self-testing in Vietnam*. (https://path.azureedge.net/media/documents/ID_hm_hiv_cs.pdf)

³⁰⁴ Path. 2016. *Improving access to HIV testing through lay providers and self-testing in Vietnam*. (https://path.azureedge.net/media/documents/ID_hm_hiv_cs.pdf)

From December 2015 until June 2016, the lay providers have supported 348 clients, representing 96% of all people tested positive within this period.³⁰⁵ Again, in 2016-17, lay testing and HIVST, especially those performed through CSO in urban areas, contributed substantially to overall case detection yield with positivity rates ranging between 4% to 7%.³⁰⁶ Up until June 2016, 65% of the clients accessing lay testing were new, and that 44% of those who had been tested at least once had not tested in more than a year.³⁰⁷ In 2017, a total of 2,520 key populations living in Thai Nguyen and Can Tho provinces were accessed peer-led HTS.³⁰⁸ That same year, peer-led testing identified 60% of all new HIV cases in Thai Nguyen and 30% of new cases in Can Tho.³⁰⁹ Nearly 70% of those who took an HIV test in the pilot were first-time testers, suggesting that this community-based approach is achieving its goal of “reaching the unreached”.³¹⁰ A study published in 2018 also shows that among MSM who sought HIV lay and self-testing, 57.9% and 51.3% were first-time testers respectively.³¹¹ Another study published in 2018 concluded that 67% of clients reported being first-time HIV testers, while 85.8% preferred lay provider testing to facility-based testing.³¹² At the end of 2018, community-led HTS implemented by lay providers was available in 32 of Vietnam's 63 provinces.³¹³

In parallel, HIVST was launched in May 2016 through CSOs managed by and targeting MSM and TG women.³¹⁴ A HIVST pilot project was implemented in four provinces, with demand generated through social networks and face-to-face communication.³¹⁵ In the pilot study clients either performed the test in their own homes (unassisted) and then informed peer educators of the results, or else they performed the test at a community-based testing site with support from peer educators (assisted).³¹⁶ About 90% of those who had a reactive test result were confirmed as HIV-positive, and over 90% of those went on to receive ART.³¹⁷ Today, clients have the option to self-test using the Alere Determine™ HIV-1/2

³⁰⁵ Path. 2016. *Improving access to HIV testing through lay providers and self-testing in Vietnam*.

(https://path.azureedge.net/media/documents/ID_hm_hiv_cs.pdf)

³⁰⁶ President's Emergency Plan For AIDS Relief. 2017. *Strategic Direction Summary: Vietnam Country Operational Plan*.

(<https://www.pepfar.gov/documents/organization/272025.pdf>)

³⁰⁷ Path. 2016. *Improving access to HIV testing through lay providers and self-testing in Vietnam*.

(https://path.azureedge.net/media/documents/ID_hm_hiv_cs.pdf)

³⁰⁸ -. July 2018. “Doing it for themselves: Communities pioneer new HIV testing approach in Viet Nam” in *WHO weblog*, online at: <https://www.who.int/hiv/mediacentre/news/hiv-community-testing-vietnam/en/>.

³⁰⁹ -. July 2018. “Doing it for themselves: Communities pioneer new HIV testing approach in Viet Nam” in *WHO weblog*, online at: <https://www.who.int/hiv/mediacentre/news/hiv-community-testing-vietnam/en/>.

³¹⁰ -. July 2018. “Doing it for themselves: Communities pioneer new HIV testing approach in Viet Nam” in *WHO weblog*, online at: <https://www.who.int/hiv/mediacentre/news/hiv-community-testing-vietnam/en/>.

³¹¹ Green, K. E. et al. 2018. “From conventional to disruptive: Upturning the HIV testing status quo among men who have sex with men in Vietnam” in *Journal of the International AIDS Society*, 21(S5):e25127.

(<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6055123/pdf/IIA2-21-e25127.pdf>)

³¹² Vu, B. N. et al. 2018. “Lay provider HIV testing: A promising strategy to reach the undiagnosed key populations in Vietnam” in *PLOS One*, 13(12): e0210063.

(<https://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0210063&type=printable>)

³¹³ -. 31 December 2018. “Community-based HIV testing effective in reaching undiagnosed populations, new study finds” in press release, online at: https://www.eurekalert.org/pub_releases/2018-12/p-cht122818.php.

³¹⁴ Path. 2016. *Improving access to HIV testing through lay providers and self-testing in Vietnam*.

(https://path.azureedge.net/media/documents/ID_hm_hiv_cs.pdf)

³¹⁵ Unitaid. 2019. *Building capacity for the roll-out of PrEP and HIV testing innovations in Asia and the Pacific*.

(<https://unitaid.org/assets/HIVST-PrEP-Report-2019.pdf>)

³¹⁶ Unitaid. 2019. *Building capacity for the roll-out of PrEP and HIV testing innovations in Asia and the Pacific*.

(<https://unitaid.org/assets/HIVST-PrEP-Report-2019.pdf>)

³¹⁷ Unitaid. 2019. *Building capacity for the roll-out of PrEP and HIV testing innovations in Asia and the Pacific*.

(<https://unitaid.org/assets/HIVST-PrEP-Report-2019.pdf>)

RDT or the OraQuick® HIV-1/2 RDT, with support from a lay provider.³¹⁸ Plans were also formulated to facilitate access to HIVST through high quality chain pharmacies (in-store and online) in urban areas.³¹⁹ HIVST services are fully endorsed by a national policy,³²⁰ as well as in national guidelines.³²¹

Good practice:

With support from WHO, MOH piloted community-based HIV testing, including lay provider testing and self-testing, in Can Tho city and Thai Nguyen province in 2017. Peer educators from three key populations – FSW, MSM and PWID – received training to provide HIV testing services including self-testing. HIVST observed and supported by community providers began in July 2017. In June 2018, broader implementation was rolled out; community providers conducted brief demonstrations and provided individuals with HIVST kits to take home. HTS was integrated with testing for syphilis and HCV. Testing services were offered at various locations including peer educators' homes, a coffee shop and, if requested, participants' homes. Peer educators were available to provide support via text messages and telephone during or after self-testing. In this period, 892 people self-tested for HIV. Overall, 7.3% of self-test results were reactive. Of those, 97% were confirmed positive, and 94% of these HIV-positive people initiated treatment. The success of this pilot project encouraged the government to revise the national guidelines to include lay provider HIV testing and HIV self-testing.

Further efforts to expand HTS include the introduction of index partner testing. As a result of a successful pilot project, partners of people who test positive are strongly encouraged to also get tested.³²² It is estimated that each index person identified will facilitate access to an additional 2.5 contacts who may otherwise have remained untested and potentially undiagnosed, despite the estimated HIV positivity rates of 7.6% among those contacts.³²³ PEPFAR estimated that index partner testing would contribute 25% of the total tests and 30% of the total positives during 2018.³²⁴ Between 1 October 2016 and 31 March 2018, a total of 5,725 index tests were conducted in Vietnam.³²⁵ In order to strengthen index testing, use of recency testing will provide information to accelerate identification of active transmission chains and epidemic hotspots.³²⁶ Once identified, clients without health insurance will be enrolled since the national scheme is expected to cover the costs for ART as of the beginning of 2019.³²⁷

³¹⁸ Path. 2016. *Improving access to HIV testing through lay providers and self-testing in Vietnam.*

(https://path.azureedge.net/media/documents/ID_hm_hiv_cs.pdf)

³¹⁹ President's Emergency Plan For AIDS Relief. 2017. *Strategic Direction Summary: Vietnam Country Operational Plan.*

(<https://www.pepfar.gov/documents/organization/272025.pdf>)

³²⁰ Unitaid and World Health Organization. 2018. *Market and technology landscape: HIV rapid diagnostic tests for self-testing, 4th edition.* (<https://unitaid.org/assets/HIVST-landscape-report.pdf>)

³²¹ VUSTA. 30 May 2019. *VUSTA – Global Fund Project on HIV/AIDS Prevention and Control (2018 - 2020).* Hanoi, Vietnam.

³²² -. July 2018. "Doing it for themselves: Communities pioneer new HIV testing approach in Viet Nam" in *WHO weblog*, online at: <https://www.who.int/hiv/mediacentre/news/hiv-community-testing-vietnam/en/>.

³²³ President's Emergency Plan For AIDS Relief. 2017. *Strategic Direction Summary: Vietnam Country Operational Plan.*

(<https://www.pepfar.gov/documents/organization/272025.pdf>)

³²⁴ President's Emergency Plan For AIDS Relief. 2017. *Strategic Direction Summary: Vietnam Country Operational Plan.*

(<https://www.pepfar.gov/documents/organization/272025.pdf>)

³²⁵ Larsey, A. et al. 2019. "Scaling Up Testing for Human Immunodeficiency Virus Infection Among Contacts of Index Patients – 20 Countries, 2016–2018" in *Morbidity and Mortality Weekly Report*, 68:21, 474–477.

(<https://www.cdc.gov/mmwr/volumes/68/wr/mm6821a2.htm>)

³²⁶ President's Emergency Plan For AIDS Relief. 2017. *Strategic Direction Summary: Vietnam Country Operational Plan.*

(<https://www.pepfar.gov/documents/organization/272025.pdf>)

³²⁷ President's Emergency Plan For AIDS Relief. 2017. *Strategic Direction Summary: Vietnam Country Operational Plan.*

(<https://www.pepfar.gov/documents/organization/272025.pdf>)

In order to further accelerate access to HTS, several legal and policy tools have been deployed:

- Pre- and post-test counseling is required by law for all HTS sessions.³²⁸
- Parental consent for young people to access HTS is required for those below 16.³²⁹ In addition, consent from a parent or guardian is required when the individual accessing HTS has lost their civil capacity.³³⁰
- Legal protections against compulsory testing are in place, but exclude defense security personnel as well as flight crews.³³¹ Compulsory HIV testing can also be conducted in the case that there is an official request for judicial appraisal or following the decision of an investigative body, a people's procuracy or a people's court.³³²
- All HTS providers, whether medical professionals, health workers or lay providers, must be trained and regularly retrained, as mandated by law.³³³
- Breaching confidentiality and/or forcibly disclosing an individual's HIV status is prohibited by law.³³⁴
- Legal protections against discrimination based on HIV status are in place.³³⁵

Despite these legal and policy protections, key populations report barriers that reduce their willingness to access HTS, including perceived lack of confidentiality, fear of stigma and discrimination, inconvenient service opening times and distance, long waiting times for test results,³³⁶ legal and policy barriers that criminalize behaviors, ineffective protections, and HTS and ART clinics located at separate locations.³³⁷

The *National Strategy on HIV/AIDS Prevention and Control 2010-2020* acknowledges the need to prioritize HTS, especially focusing on key populations. However, as noted above, TG are not recognized as a key population in Vietnam's national HIV strategic plan. More specifically, the national strategy prioritizes improvement and expansion of quality HTS through the diversification of

³²⁸ Vietnam. 2006. *Law on HIV/AIDS prevention and control*. (https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---ilo_aids/documents/legaldocument/wcms_113364.pdf)

³²⁹ United Nations Development Programme. 2015. *HIV and the Law in South-East Asia*.

(https://www.undp.org/content/dam/rbap/docs/Research%20&%20Publications/hiv_aids/rbap-hhd-2015-hiv-and-the-law-in-south-east-asia.pdf)

³³⁰ Vietnam. 2006. *Law on HIV/AIDS prevention and control*. (https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---ilo_aids/documents/legaldocument/wcms_113364.pdf)

³³¹ United Nations Development Programme. 2015. *HIV and the Law in South-East Asia*.

(https://www.undp.org/content/dam/rbap/docs/Research%20&%20Publications/hiv_aids/rbap-hhd-2015-hiv-and-the-law-in-south-east-asia.pdf)

³³² Vietnam. 2006. *Law on HIV/AIDS prevention and control*. (https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---ilo_aids/documents/legaldocument/wcms_113364.pdf)

³³³ Vietnam. 2006. *Law on HIV/AIDS prevention and control*. (https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---ilo_aids/documents/legaldocument/wcms_113364.pdf)

³³⁴ Vietnam. 2006. *Law on HIV/AIDS prevention and control*. (https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---ilo_aids/documents/legaldocument/wcms_113364.pdf)

³³⁵ United Nations Development Programme. 2015. *HIV and the Law in South-East Asia*.

(https://www.undp.org/content/dam/rbap/docs/Research%20&%20Publications/hiv_aids/rbap-hhd-2015-hiv-and-the-law-in-south-east-asia.pdf)

³³⁶ -. 31 December 2018. "Community-based HIV testing effective in reaching undiagnosed populations, new study finds" in press release, online at: https://www.eurekalert.org/pub_releases/2018-12/p-cht122818.php.

³³⁷ Vietnam. 2014. *Global Fund TB and HIV Concept Note*.

(https://www.unaids.org/sites/default/files/country/documents/VNM_narrative_report_2015.pdf)

implementation models, including facility-based services, community-based and community-led services, and mobile testing and counseling models.³³⁸

Financial need for full-scale HTS in Vietnam is largely covered by the Global Fund (67%) while the balance remains unfunded (33%).³³⁹ In 2017, PEPFAR expenditure for RDT kits was \$1,260,000, of which 21% was covered by PEPFAR and 79% by the Global Fund.³⁴⁰ In 2018, PEPFAR's total planned allocation to support HTS was \$3,397,595.³⁴¹ National data sources indicate that, between 2014-2017, funding for HTS among PWID increased by 6% from domestic sources, by 16% from PEPFAR, and by 20% from the Global Fund.³⁴² PEPFAR support has reportedly been instrumental to introduce community-based testing, lay provider testing, and HIVST as well as oral fluid test kits, index testing, and recency testing.³⁴³

A limited number of targeted recommendations have been identified during the literature review:

1. Integrate the rapid recency testing algorithm into the HTS system to distinguish recent from long-term HIV infections among newly-diagnosed positives. Assisted partner services in combination with recency testing will not only help identify persons who are recently infected (e.g., within six months of infection), asymptomatic and at highest risk of transmitting HIV to others – but also accelerate the immediate linkage to care and ART initiation.³⁴⁴
2. Promote community-led HTS and HIVST through online or face-to-face interactions as an important addition to HTS.³⁴⁵
3. Integrate HTS in OST and ART clinics to accelerate uptake among key populations.³⁴⁶

³³⁸ Vietnam. 2011. *National Strategy on HIV/AIDS Prevention and Control 2010-2020*.

(https://aidsdatahub.org/sites/default/files/documents/VIETNAM_National_Strategy_HIV_AIDS_Prevention_and_Control_2010-20_draft.pdf)

Vietnam. 2006. *Law on HIV/AIDS prevention and control*.

³³⁹ Unitaid and World Health Organization. 2018. *Market and technology landscape: HIV rapid diagnostic tests for self-testing, 4th edition*. (<https://unitaid.org/assets/HIVST-landscape-report.pdf>)

³⁴⁰ President's Emergency Plan For AIDS Relief. 2017. *Strategic Direction Summary: Vietnam Country Operational Plan*. (<https://www.pepfar.gov/documents/organization/272025.pdf>)

³⁴¹ President's Emergency Plan For AIDS Relief. 2017. *Strategic Direction Summary: Vietnam Country Operational Plan*. (<https://www.pepfar.gov/documents/organization/272025.pdf>)

³⁴² Vietnam. 2014. *Global Fund TB and HIV Concept Note*.

(https://www.unaids.org/sites/default/files/country/documents/VNM_narrative_report_2015.pdf)

³⁴³ President's Emergency Plan For AIDS Relief. 2017. *Strategic Direction Summary: Vietnam Country Operational Plan*. (<https://www.pepfar.gov/documents/organization/272025.pdf>)

³⁴⁴ President's Emergency Plan For AIDS Relief. 2017. *Strategic Direction Summary: Vietnam Country Operational Plan*. (<https://www.pepfar.gov/documents/organization/272025.pdf>)

³⁴⁵ Green, K. E. et al. 2018. "From conventional to disruptive: Upturning the HIV testing status quo among men who have sex with men in Vietnam" in *Journal of the International AIDS Society*, 21(S5):e25127. (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6055123/pdf/IIA2-21-e25127.pdf>)

³⁴⁶ Vietnam. 2014. *Global Fund TB and HIV Concept Note*.

(https://www.unaids.org/sites/default/files/country/documents/VNM_narrative_report_2015.pdf)

Conclusions

Basic epidemiological data like population size and HIV prevalence estimates are inconsistently available in KPRA project countries. While data about PWID is available in every country, data about population size and HIV prevalence among TG is unavailable in Myanmar, in Vietnam and for the Asian region as a whole. In fact, two out of seven national strategic plans do not acknowledge that TG are a key population that needs to be prioritized for the national HIV response as a whole, and specifically for HTS. Such gaps are worrisome given that on the one hand, international donors have invested tens of millions of dollars to support national HIV responses in both Myanmar and Vietnam for more than a decade, and on the other that those countries are still expecting to reach the first of the 90-90-90 targets without one of the most vulnerable populations.

HTS coverage in Asia is extremely uneven, both across the KPRA countries, as well as between different key populations in the same country. Often, multiple data points can be found in the literature, for the same country and for the same populations, which raises important questions. For example, HTS coverage among TG in Thailand is reported by one source at 34%³⁴⁷ and by another at 72%,³⁴⁸ leaving a 38% gap in between the two estimates. To make matters more difficult, when coverage data is reported in the literature, there is rarely any indication of what indicator was used. For example, reports can present HTS coverage data based on the proportion of people ever tested, or on the proportion of people tested in the past 12 months, or on the proportion of people tested in the last three months, etc. Without full indicator disclosure, comparability is extremely difficult. Even more challenging is the fact that HTS coverage data is rarely accompanied with the year for which the data is presented, limiting temporal comparability even in the same country.

Data about the proportion of HTS delivered by government compared to CSO and private sector agencies is also inconsistent. Such data was identified for only four of the seven KPRA project countries (Bangladesh, Indonesia, Nepal and Thailand). Out of those four countries, only three (Bangladesh, Indonesia and Nepal) had multiple data points for different years that allowed a temporal comparison. Where such temporal comparison was possible, the data systematically points to worrying trends: in Bangladesh, Indonesia and Nepal, a decreasing proportion of HTS are being offered by CSO and private sector agencies over time. That means that, despite the introduction of CBL HTS and HIVST, governments are increasing their presence in HTS interventions and that CSO are slowly being crowded out. Given that CBL HTS and HIVST are designed to reach those who are hardest to reach, often in key population communities, often through interventions managed and implemented by the community itself, we should therefore expect that innovative HTS models would have increased the proportion of HTS delivered by CSO and private sector, but available data shows otherwise.

³⁴⁷ Thailand. 2015. *Global AIDS Response Progress Report 2015*.

(https://www.unaids.org/sites/default/files/country/documents/THA_narrative_report_2015.pdf)

³⁴⁸ AIDS Data Hub. 2019. *Regional Overview Slides*. (<https://aidsdatahub.org/regional-slides-2019>)

Availability of various models of HTS delivery varies extensively across KPRA project countries: all seven countries reviewed have implemented community-based HTS, all but one country has implemented community-led HTS (Indonesia), two countries do not have explicit policy support for lay provider HTS delivery (Bangladesh and Indonesia), only five countries explicitly implement index testing (Cambodia, Myanmar, Nepal, Thailand and Vietnam), HIVST is available in four countries (Bangladesh, Indonesia, Thailand and Vietnam) but only one has developed and deployed policy support for HIVST (Vietnam), and recency testing is only implemented in Vietnam. Availability of finger-prick RDTs is explicitly mentioned in documents covering three of the seven countries under review (Bangladesh, Cambodia and Vietnam), whereas oral fluid testing is explicitly supported and available in two countries (Bangladesh and Vietnam).

Table 4: Availability of HTS mechanisms in KPRA countries

| | Bangladesh | Cambodia | Indonesia | Myanmar | Nepal | Thailand | Vietnam |
|--------------------------------------|------------|----------|-----------|---------|-------|----------|---------|
| Availability of community-based HTS | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Availability of community-led HTS | ✓ | ✓ | N/A | ✓ | ✓ | ✓ | ✓ |
| Policy support for lay provider HTS | N/A | ✓ | N/A | ✓ | ✓ | ✓ | ✓ |
| Availability of index testing | N/A | ✓ | N/A □ | ✓ | ✓ | □ ✓ | ✓ |
| Availability of HIVST | ✓ | N/A □ | ✓ | N/A □ | N/A □ | ✓ | ✓ |
| Policy support for HIVST | N/A | N/A | N/A | N/A | N/A | N/A | ✓ |
| Availability of recency testing | N/A | N/A | N/A | N/A | N/A | N/A | ✓ |
| Availability of finger-prick testing | ✓ | ✓ | N/A | N/A | N/A | N/A | ✓ |
| Availability of oral fluid testing | ✓ | N/A | N/A | N/A | N/A | N/A | ✓ |

Protective legal and policy tools deployed in the seven countries also vary extensively: legal protections against compulsory testing are in place in three countries (Cambodia, Indonesia and Vietnam); legal protections against unwanted disclosure are in place in three countries (Indonesia, Myanmar and Vietnam); legal protections against discrimination are in place in four countries (Cambodia, Indonesia, Thailand and Vietnam); legal protections that support confidentiality are in place in five countries (Bangladesh, Cambodia, Indonesia, Myanmar and

Vietnam); and legal requirements to train and retrain HTS providers are in place in only two countries (Cambodia and Vietnam).

Despite the presence of legal and policy protections, the reports reviewed indicate that key populations still face important barriers that reduce HTS accessibility. All seven countries have identified stigma and discrimination as a barrier; six of the seven countries impose an age of consent that prevents young people from accessing HTS (all except Myanmar); limited confidentiality has been identified as a barrier in five countries (Bangladesh, Cambodia, Myanmar, Thailand and Vietnam); the quality of health facility-based services has been identified as a barrier in four countries (Bangladesh, Indonesia, Myanmar and Thailand); accessibility in terms of travel distance, opening hours, and integrated services has been identified as a barrier in four countries (Indonesia, Nepal, Thailand and Vietnam); legal and policy barriers that criminalize certain behaviors also reduce accessibility in three countries (Nepal, Thailand and Vietnam); procurement and stocking of commodities has been identified as a barrier in two countries (Cambodia and Indonesia); and coercion has been identified as a barrier in one country (Myanmar).

At least six countries' national HIV strategic plans prioritize HTS (except Indonesia, although the national strategic plan was not publicly available in English). At least five countries had PEPFAR operational plans that also prioritize scale-up and expansion of HTS and implementation models (all except Bangladesh and Nepal). Only four countries had guidelines in English in the public domain covering HTS (Cambodia, Myanmar, Nepal and Vietnam). Only Cambodia had published and publicly available SOPs in English to support step-by-step implementation of HTS (although reports indicate that Thailand may also have developed SOPs, yet this could not be confirmed).

Information about donor support and financial contributions was limited, found almost exclusively from a single source – the PEPFAR country operational plans. Data about donor support and financial investments was available for all but one KPRA project country (Bangladesh). In the six countries where data about donor engagement was available, six countries received support from PEPFAR (Cambodia, Indonesia, Myanmar, Nepal, Thailand and Vietnam) and five countries received support from the Global Fund (Cambodia, Indonesia, Nepal, Thailand and Vietnam). Contributions from national governments were virtually unreported in the public domain.

Unsurprisingly, countries that rely heavily on international donors were more likely to have their national strategic plan and their national guidelines publicly available in English; among KPRA project countries, Thailand's domestic contribution to the national HIV response is the highest,³⁴⁹ yet HTS guidelines and SOPs were not publicly available in English; Indonesia, where the national government also invests a high proportion of the total cost of the national HIV response from domestic sources, neither the national strategic plan or national HTS guidelines were publicly available in English. However, national HTS

³⁴⁹ AIDS Data Hub. 2019. *Regional Overview Slides*. (<https://aidsdatahub.org/regional-slides-2019>)

guidelines were not publicly available in English for Bangladesh and Vietnam either. Although there are exceptions, this finding could be significant and important in the context of transitions to domestic funding, where an increase in domestic financing of the national HIV response could decrease motivation of governments to translate their policy documents, thereby reducing transparency and limiting opportunities for south-south collaboration within the Asian region.

In contrast, interventions by so-called “donor darlings” like Cambodia, Nepal and Vietnam had been extensively documented in English in the public domain. In parallel, those countries are those that had the most comprehensive HTS intervention strategies and the most diversified models for HTS delivery. Again, these findings carry potentially important implications for service delivery and advocacy, as well as for planning the financing of national responses in Asia.

Recommendations

CSOs, especially those implementing the KPRA project, as well as other relevant key stakeholders should consider the following recommendations to expand HTS, in addition to country-specific recommendations included in the earlier sections of this report.

- **Ensure that governments produce regular and up-to-date epidemiological data about all key populations.** Data gaps prevent the formulation of effective plans and evidence-based interventions. The needs of all key populations – including PWID and TG – must be taken into consideration in order to successfully address HIV transmission. Where necessary, mobilize support from donors and development partners to encourage governments to address data gaps.
- **Advocate for expanded HTS** that includes new commodities such oral fluid and finger-prick test kits; index testing; and recency testing. Encourage governments to develop national guidelines and SOPs, in consultation with CSO and key population representatives, to support implementation of a range of HTS approaches.
- **Advocate for governments to deploy and expand legal protections** to eliminate barriers to HTS. These efforts should include strengthening monitoring and evaluation systems as well as the reinforcement of mechanisms to identify breaches in legal and policy protections, and mechanisms to compensate and redress situations where legal and policy abuses have occurred.
- **Advocate to remove age of consent barriers** to HTS, or integrate conditional clauses that can facilitate access to HTS among young people.
- **Advocate for the integration of HTS** in existing HIV-related services, including OST clinics, STI clinics, HCV testing and treatment services, and other relevant service options targeting key populations.
- **Encourage national governments and donors to publicly disseminate detailed financial statements** relating HTS and include detailed costing information related to HTS in national AIDS spending assessments.
- **Advocate for the production and translation of key documents** such as national strategic plans, guidelines and SOPs to foster transparency, increase regional collaboration and to better mobilize external technical support.
- **Provide support to empower CSO and key population representatives** to further advocate for and expand HTS in their respective communities and countries.
- **Ensure country strategies and action plans include provisions to build capacity** of CSOs, especially those led and managed by key population representatives, to expand implementation of CBL HTS programs.

In addition to the recommendations above, the following specific recommendations targeting the KPRA countries have been pulled forward from the literature.

Cambodia

1. The national HTS guidelines specifically recommend integration of testing in drug treatment facilities, including opioid substitution clinics, in order to increase coverage among PWID and people who use non-injectable drugs.³⁵⁰
2. A study on HIVST recommend accelerating dissemination of information about HIVST and understanding test results TV and social media in order to bolster confidence among self-testers.³⁵¹

Indonesia

1. Develop an official protocol in HIV testing for members of key populations who are underage, building on the current good practices in many places where peer educators can become a temporary guardian to provide consent for HIV testing.³⁵²
2. Strengthen linkages between health facilities and HTS and between HTS and treatment services in order to avoid “hit-and-run testing.”³⁵³
3. Implement and scale-up community-based HTS through mobile clinics to improve testing coverage and reach a new pool of vulnerable individuals.³⁵⁴
4. Integrate “test for triage in community settings” in the national algorithm.³⁵⁵

Myanmar

1. Implement index partner tracing and testing to expand testing to intimate partners of priority populations.³⁵⁶
2. Integrate HIV testing services within TB, and STI services (provide SOPs, HIV test kits and training).³⁵⁷

³⁵⁰ Cambodia. 2017. *National Consolidated Guidelines on HIV Testing Services in Cambodia*.

(http://www.aidsdatahub.org/sites/default/files/publication/Cambodia_National_Consolidated_on_Guidelines_on_HIV_Testing_Services_2017.pdf)

³⁵¹ Pal, K. et al. 2016. “Acceptability Study on HIV Self-Testing among Transgender Women, Men who Have Sex with Men, and Female Entertainment Workers in Cambodia: A Qualitative Analysis” in *PLOS One* 11(11): e0166129. doi:10.1371/journal.pone.0166129.

(<https://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0166129&type=printable>)

³⁵² Falkenberry, H. et al. 2018. *Assessment of HIV Service Packages for Key Populations in Indonesia*. APMG Health. (<https://hivpreventioncoalition.unaids.org/wp-content/uploads/2018/09/Indonesia-KP-Country-Report-19-September-2018.pdf>)

³⁵³ Falkenberry, H. et al. 2018. *Assessment of HIV Service Packages for Key Populations in Indonesia*. APMG Health. (<https://hivpreventioncoalition.unaids.org/wp-content/uploads/2018/09/Indonesia-KP-Country-Report-19-September-2018.pdf>)

³⁵⁴ President’s Emergency Plan For AIDS Relief. 2017. *Strategic Direction Summary: Indonesia Country Operational Plan*. (<https://www.pepfar.gov/documents/organization/285837.pdf>)

³⁵⁵ World Health Organization. 2017. *Review of the national health sector response to HIV in the Republic of Indonesia*. (http://www.searo.who.int/indonesia/publications/hiv_country_review_indonesia_eng.pdf)

³⁵⁶ Myanmar. 2017. *National HIV Strategic Plan 2016-2020*. (https://www.aidsdatahub.org/sites/default/files/publication/Myanmar_National_Strategic_Plan_on_HIV_and_AIDS_2016-2020.pdf)

³⁵⁷ Myanmar. 2017. *National HIV Strategic Plan 2016-2020*. (https://www.aidsdatahub.org/sites/default/files/publication/Myanmar_National_Strategic_Plan_on_HIV_and_AIDS_2016-2020.pdf)

3. Train OST sites to support HIV testing, ART initiation where possible and ART maintenance.³⁵⁸
4. Develop SOPs and train community workers and health care workers to scale-up routine HIV testing for all TB patients and routine TB screening for all HIV-positive patients.³⁵⁹

Nepal

1. Integrate HIV and hepatitis C virus (HCV) services in order to rapidly increase awareness on screening, testing, and treatment among PWID.³⁶⁰
2. Scale-up HTS by facilitating access in drug dependence treatment centers, ART sites, OST clinics, and hotspots.³⁶¹
3. Emphasize decentralization of HTS to communities, and expand the use of RDT through the speedy roll-out of CBL HTS through 'test for triage' to increase coverage.³⁶²
4. Expand HTS through trained lay providers working in the community to facilitate access to these services and their acceptability among people from key populations.³⁶³
5. Develop HIVST guidelines and obtain regulatory approvals as soon as possible to enable implementation.³⁶⁴

Thailand

1. Laws related to the age of consent for testing and criminalize certain behaviors (such as drug use and sex work), need to be reviewed and interpreted in ways that support public health goals.³⁶⁵
2. Expand implementation of the national code of conduct to reduce stigma and discrimination in the workplace.³⁶⁶
3. Developing and rolling-out tools to routinely measure HIV-related stigma and discrimination as well as human rights violations.³⁶⁷

³⁵⁸ Myanmar. 2017. *National HIV Strategic Plan 2016-2020*.

(https://www.aidsdatahub.org/sites/default/files/publication/Myanmar_National_Strategic_Plan_on_HIV_and_AIDS_2016-2020.pdf)

³⁵⁹ Myanmar. 2017. *National HIV Strategic Plan 2016-2020*.

(https://www.aidsdatahub.org/sites/default/files/publication/Myanmar_National_Strategic_Plan_on_HIV_and_AIDS_2016-2020.pdf)

³⁶⁰ National Association of PLHIV in Nepal. 2018. *Review of Policy, Program and Services Report On Community Led Screening Model for HIV and HCV Testing and Treatment among PWID in Nepal*.

³⁶¹ National Association of PLHIV in Nepal. 2018. *Review of Policy, Program and Services Report On Community Led Screening Model for HIV and HCV Testing and Treatment among PWID in Nepal*.

³⁶² Nepal. 2018. *Global AIDS Response Progress Report 2018*.

(https://www.unaids.org/sites/default/files/country/documents/NPL_2018_countryreport.pdf)

³⁶³ Nepal. 2018. *Global AIDS Response Progress Report 2018*.

(https://www.unaids.org/sites/default/files/country/documents/NPL_2018_countryreport.pdf)

³⁶⁴ Nepal. 2017. *National HIV Testing and Treatment Guidelines 2017*.

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³⁶⁵ Thailand. 2014. *National Operational Plan Accelerating Ending AIDS 2015-2019*.

(https://www.aidsdatahub.org/sites/default/files/publication/Thailand_National_Operational_Plan_Accelerating_Ending_AIDS_2015-2019.pdf)

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(https://www.aidsdatahub.org/sites/default/files/publication/Thailand_National_Operational_Plan_Accelerating_Ending_AIDS_2015-2019.pdf)

³⁶⁷ Thailand. 2014. *National Operational Plan Accelerating Ending AIDS 2015-2019*.

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Vietnam

1. Integrate the rapid recency testing algorithm into the HTS system to distinguish recent from long-term HIV infections among newly-diagnosed positives. Assisted partner services in combination with recency testing will not only help identify persons who are recently infected (e.g., within six months of infection), asymptomatic and at highest risk of transmitting HIV to others – but also accelerate the immediate linkage to care and ART initiation.³⁶⁸
2. Promote community-led HTS and HIVST through online or face-to-face interactions as an important addition to HTS.³⁶⁹
3. Integrate HTS in OST and ART clinics to accelerate uptake among key populations.³⁷⁰

³⁶⁸ President's Emergency Plan For AIDS Relief. 2017. *Strategic Direction Summary: Vietnam Country Operational Plan*. (<https://www.pepfar.gov/documents/organization/272025.pdf>)

³⁶⁹ Green, K. E. et al. 2018. "From conventional to disruptive: Upturning the HIV testing status quo among men who have sex with men in Vietnam" in *Journal of the International AIDS Society*, 21(S5):e25127. (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6055123/pdf/IIA2-21-e25127.pdf>)

³⁷⁰ Vietnam. 2014. *Global Fund TB and HIV Concept Note*. (https://www.unaids.org/sites/default/files/country/documents/VNM_narrative_report_2015.pdf)

Annex 1: Glossary of terms

Except where otherwise referenced, the definitions below were sourced from the WHO Consolidated guidelines on HIV testing services published in 2015.

Analyte: a substance or chemical constituent that is analyzed, generally referring to a component of blood or another bodily fluid. In the context of HIV, analytes include HIV p24 antigen and HIV-1/2 antibodies.

Assay: a complete procedure for detecting the presence of or the concentration of an analyte, including all the components of a test kit used to identify HIV p24 antigen or HIV-1/2 antibodies.

Concentrated epidemic: HIV has spread rapidly in a defined subpopulation (such as men who have sex with men, sex workers, transgender people, people who use drugs or people in prison or other closed settings) but is not well established in the general population. This type of epidemic suggests that there are active networks of people with high-risk behaviors 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.

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

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.

HIV status: a collection of results from one or more assays. An HIV status is similar to HIV diagnosis. It 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: the result from a single test on a given assay.

Index testing: a focused approach to HIV testing in which the household and family members (including children) of people diagnosed with HIV are offered HIV testing services; also referred to as index case HIV testing.

Key populations: Defined groups who, due to specific higher-risk behaviors, are at increased risk for HIV irrespective of the epidemic type or local context. These guidelines refer to the following groups as key populations: men who have sex with men, people who inject drugs, people in prisons and other closed settings, sex workers and transgender people.

Lay provider: any person who performs functions related to health-care delivery and has

been trained to deliver specific services but has not received a formal professional or paraprofessional certificate or tertiary education degree.

Non-reactive test result: a test result that does not show a reaction indicating the presence of analyte.

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

Reactive test result: a test result that shows a reaction to indicate the presence of analyte.

Rapid diagnostic test (RDT): Rapid diagnostic tests (RDTs) are so called as they produce a test result quickly, usually in less than 30 minutes.³⁷¹ In vitro diagnostic of immunochromatographic or immunofiltration format for, in the case of HIV diagnosis, the detection of HIV-1/2 antibodies and/or HIV p24 antigen.

Recency testing: The recency period, for the purpose of a particular test, is the mean time interval between the estimated time of HIV infection and an arbitrary time at which the given threshold of the assay is attained.³⁷²

Self-testing (HIVST): a process in which an individual who wants to know his or her HIV status collects a specimen, performs a test and interprets the result by him- or herself, often in private. Reactive test results must be followed by additional HIV testing services.

Specificity: denotes the probability that the assay will correctly detect specimens that do not contain HIV-1/2 antibodies and/or HIV-1 p24 antigen.

Supplemental assay: an assay that provides additional information for specimens that a first-line assay has found to be reactive but may not be able to definitively confirm that reactivity.

Task sharing: the 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 for triage: a community-based HIV testing approach involving trained and supported lay providers conducting a single HIV RDT. The lay providers then promptly link individuals with reactive test results to a facility for further HIV testing and to an assessment for treatment. Individuals with non-reactive test results are informed of their results, referred and linked for appropriate HIV prevention services and recommended for retesting according to recent or on-going HIV risk and national guidelines.

Testing algorithm: the combination and sequence of specific assays used within HIV testing strategies.

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

³⁷¹ World Health Organization. 2016. *Guidelines on HIV self-testing and partner notification: Supplement to consolidated guidelines on HIV testing services*. (<https://apps.who.int/iris/bitstream/handle/10665/251655/9789241549868-eng.pdf?sequence=1>)

³⁷² Yu, H.-K. et al. 2014. "The Recency Period for Estimation of Human Immunodeficiency Virus Incidence by the AxSYM Avidity Assay and BED-Capture Enzyme Immunoassay in the Republic of Korea" in *Osong Public Health Res Perspect*, 5(4): 187–192. (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4214998/>)

Verified: people diagnosed HIV-positive are retested and their HIV diagnosis is verified before they initiate care or treatment.

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