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Organization**

CONSOLIDATED GUIDELINES ON
HIV TESTING SERVICES 2019

Web Annex K. Global examples of HIV testing services

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1. Introduction

The WHO [Consolidated guidelines on HIV testing services](#) were revised, and published in 2019. These updated guidelines bring together new and existing guidance on HIV testing services (HTS). A series of web annexes provide additional supporting resources for policy-makers and implementers. Annex K: Global examples of HIV testing services, includes examples of programmes delivering services in facility and community settings to reach those who are undiagnosed. To highlight the ongoing work of HTS implementers and fill potential gaps in the literature surrounding selected new and existing pieces of WHO guidance, we aimed to collect real-world examples of testing approaches in diverse geographical and population contexts. The case examples included present work across a wide range of HTS interventions and focused on key new and updated recommendations and good practice statements, including generating demand, partner services and social network-based approaches.

Demand creation for HIV testing services. The *Consolidated guidelines* include the following new good practice statement:

Good practice statement

Demand creation to increase HTS uptake and engage those in greatest need of services is a valuable tool for mitigating stigma, discrimination and criminalization. Demand creation approaches may need to be prioritized, depending on the setting, focus population and available resources, as part of a strategy to reach people with HIV who do not know their status and who have high HIV-related risk. A wide range of demand creation strategies have been rigorously tested to assess impact on HIV testing uptake and the proportion of people with HIV diagnosed, but often later outcomes related to linkage to care have not been measured.

Evidence-based platforms for delivering demand creation include:

- peer-led demand creation interventions, including mobilization;
- digital platforms, such as short pre-recorded videos encouraging testing.

Approaches that showed evidence of increased demand include:

- advertisement of specific HTS attributes;
- brief key messages and counselling by providers (less than 15 minutes);
- messages during couples counselling that encourage testing;
- messages related to risk reduction and economic empowerment, particularly for people who inject drugs;
- motivational messages.

Evidence suggests that the following approaches may be less effective for demand creation:

- personal invitation letters;
- individualized content messaging;
- counselling focused on building a relationship between the client and counsellor;
- general text messages, such as SMS.

Several studies report an increase in uptake of testing when incentives are offered. However, when considering the use of incentives for demand creation, benefits and risks should be carefully weighed, such as:

- resource use and sustainability, especially for providing financial incentives, which may undermine the principles of universal health coverage;
- longer-term behavioural changes associating HTS and other services with incentives against short-term increases in uptake;
- negative effect on equity, due to prioritization of some populations and diseases;
- potential to deprioritize systematic implementation of strategies that improve service delivery, reduce barriers and disincentives, such as patient costs associated with accessing health services more broadly.

More WHO guidance on demand creation can be found in [What works for generating demand for HIV testing services](#), and [Chapter 3 of the Consolidated guidelines for HIV testing services](#).

Partner services, including provider-assisted referral (also called index testing and assisted partner notification). The *Consolidated guidelines on HIV testing services* include an updated recommendation on provider-assisted referral:

Updated recommendation

Provider-assisted referral should be offered for all people with HIV as a part of a voluntary comprehensive package of testing, care and prevention (strong recommendation, moderate-quality evidence).

More WHO guidance on partner services can be found in [Guidelines on HIV self-testing and partner notification](#).

Social network-based approaches for HIV testing. The *Consolidated guidelines on HIV testing services* includes a new recommendation on using social network-based approaches:

New recommendation

Social network-based approaches can be offered as an additional HIV testing approach for key populations as part of a comprehensive package of care and prevention (conditional recommendation, very-low-quality evidence).

More WHO guidance on social network-based approaches can be found in [WHO recommends social network-based HIV testing approaches for key populations as part of partner services package](#), and [Chapter 5 of the Consolidated guidelines for HIV testing services](#).

2. Methodology and results

2.1 Methodology

We adapted the WHO methodology for collecting case examples as described in the *Consolidated guidelines on HIV testing services*, 2015, [Annex 3](#). The WHO HIV testing services guideline development steering committee provided inputs around the scope and focus of the case examples sought. The template included general questions on programme characteristics (e.g. key population group, country/region, organization, type of programme) and more detailed programme-specific information (e.g. description of activities, results/achievements, and monitoring and evaluation). Engagement and participation in the case example process was voluntary.

We identified prospective contributors for case examples by:

- 1) publishing a call for case examples on the WHO website. The call for global examples of HTS is presented in Appendix 2 of this document;
- 2) engaging members of the WHO HTS technical working groups covering HIV testing, HTS service delivery, self-testing and quality;
- 3) contacting all members of the WHO Steering Committee, and Guideline Development Group for the *Consolidated guidelines on HTS*.

Engagement and participation in the case example collection process was voluntary.

This is a living document and expansion of this annex is planned. Implementers wishing to share new evidence of good practices or seeking information about the programmes described here are encouraged to contact WHO Global HIV, Hepatitis and STI Programme by emailing hiv-aids@who.int.

2.2 Collection and selection process results

Fifty-seven case examples were collected by email and consolidated during the period of March through July 2019. All collected examples met the criteria for review and were reviewed by the WHO HTS Guidelines Steering Committee. To determine which case examples should be prioritized for inclusion, we asked reviewers to score the case examples and provide narrative feedback.

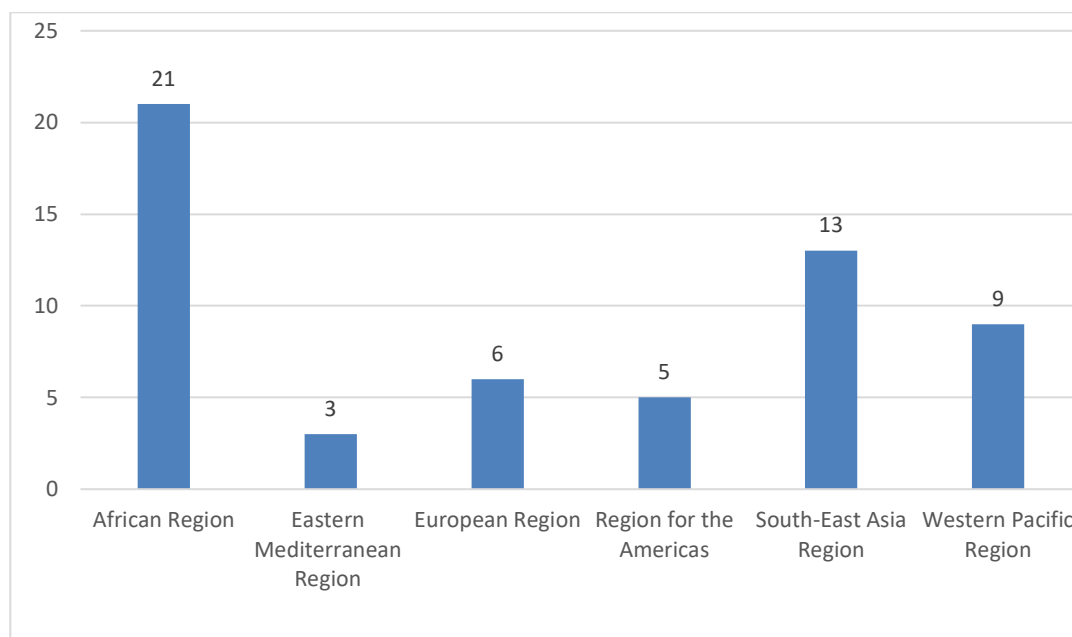
We used SurveyMonkey, an online survey platform, to collect and aggregate these scores. The scoring tool is included in [Appendix 3](#). Case examples with high scores were considered for inclusion in this annex alongside the HTS guidelines within the [WHO HTS Info](#) app platform, which is available for smartphones and tablets. In the course of the review process, missing or inconsistent information was identified in some instances. A WHO consultant followed up with the submitting programme team to collect supporting information where feasible. Case examples were revised to ensure that the content was accurate and reflective of implementation. Editing was carried out by a technical editor engaged to support the process. Among the high-scoring case examples, a diverse group of implementing contexts and population groups were selected for inclusion in this publication. The review was supplemented with inputs from technical experts and members of the HTS Guideline Development core team; therefore, some case examples did go through the initial scoring process. Forty case examples were ultimately selected for inclusion in this annex.

In line with the call for case examples launched for this work and presented in [Appendix 2](#), examples of programmatic use of HIV risk screening tools were collected and reviewed. While not presented here, these are being used in the context of ongoing review of implementation in this area.

2.3 Case example profiles

This section includes an overview of the case examples collected. Those responding to the call for case examples shared programmes implemented by governments, UN agencies, international and national nongovernmental organizations, and community-based organizations. A variety of services was described, including those that aim to create demand for HTS and link to care or prevention, deliver partner services, implement social network-based approaches for key populations, establish service integration and programmatic linkages with sexually transmitted infection (STI) testing, testing for viral hepatitis and TB programmes, promote quality assurance and use programme data strategically. Few submissions covering quality assurance and multiplex testing were collected, although these were identified as priority areas. Further work is needed to amplify the work of programmes being implemented in these thematic areas. Submissions were received from all WHO regions, with the majority of examples coming from the African, South-East Asia, and Western Pacific regions. Fig. 2.3.1 presents the submission by region.

Fig. 2.3.1. Examples of HIV testing services collected and reviewed in the 2019 guidelines process, by WHO region



Key characteristics of the case examples included in this annex are presented in [Appendix 1](#), Table A1. The appendix presents characteristics, including intervention theme, target population, implementing agency, country of implementation and WHO region.

3. Case examples

The case examples presented in this annex were developed by programmes and implementers. They are organized by theme and appear in alphabetical order by organization name within each thematic grouping. The themes include:

- 3.1. Demand creation for HTS and supporting linkage to prevention and treatment
- 3.2. Partner services and social network-based approaches
- 3.3. Assuring quality for testing services
- 3.4. Service integration and programmatic linkages
- 3.5. Strategic use of information.

3.1. Generating demand for HIV testing and supporting linkage prevention and treatment services

Health, love and safety: mobile testing for adolescents

Bangkok, Thailand

AIDS Control Division, Bangkok Metropolitan Administration

ASEAN Institute for Health Development, Mahidol University

<http://www.aihd.mahidol.ac.th/new/en/>

In recognition of the urgent need to improve STI/HIV outcomes for vulnerable populations, the Health Department, Bangkok Metropolitan Administration funded a large-scale HIV research initiative in 2017–2018 using the “reach, recruit, test, treat, retain” (RRTTR) paradigm. The RRTTR model of care involves reaching out to adolescents who have not been recently tested for STIs/HIV (reach), taking the target group to detect STIs/AIDS (recruit), engaging them in STI/HIV testing (testing), initiating, monitoring and maintaining antiretroviral therapy (ART) for those testing positive (treat) and retaining patients in care (retain).

Participants were recruited using a peer-to-peer recruitment method and provided with confidential HIV counselling and testing. Eligibility criteria were as follows: age 14–19 years, sexually active in the past year, residing in Bangkok, not actively psychotic.

A structured intervention session focused on (1) engagement in the study, (2) an orientation to study the components, and (3) boosting motivation to conduct peer recruitment and STI/HIV testing in the second session (Fig. 3.1.1). Next, participants had the opportunity to recruit peers, and then, within the same day, present to the study for a second session that included STI/HIV pre-test counselling and STI/HIV testing, including condoms, contraceptives, HIV testing, pre-exposure prophylaxis, post-exposure prophylaxis and support to promote linkage to care. As of 2017 and 2018, 1254 (2017) and 1700 (2018) adolescents were involved in the activities of programme. Of these, in 2017, 13.0% and in 2018 13.2% ($N = 163/1254$; $225/1700$) received pre-test counselling and STI/HIV testing. The rate of newly diagnosed STIs/HIV identified was 1.2% in 2017 and 1.8% in 2018 ($N = 2/163$; $4/225$).

Fig. 3.1.1. Participants at an information session



Photo credit: Kanokrat Lertriphop

Participants with a preliminary positive STI/HIV rapid test result in the first phase presented for an intervention session lasting up to 90 minutes. In this session, confirmatory STI/HIV test results (from a laboratory test) and post-test counselling were provided, following the Health Department, Bangkok Metropolitan Administration guidelines for post-test counselling. These guidelines included an initial risk reduction and disclosure plan and an appointment for STI/HIV care for participants. Participants received compensation for the session (500 Baht), plus local round-trip public transportation. After this session, those assigned to the intervention received patient navigation (3 months of intensive navigation and 3 months of maintenance navigation). Navigation is an efficacious, flexible, individualized, strengths-

based approach to assist people living with HIV (PLHIV) in identifying and overcoming barriers to accessing health services. It included in-person visits, accompaniment to health-care appointments if needed, and phone contacts. The intervention and other contacts with participants were guided by motivational interviewing in keeping with the motivational interviewing approach. Activities and programme components were designed to communicate an ethos of acceptance, non-judgement and respect for autonomy.

Primary outcomes included time to an HIV clinic appointment (i.e. whether linked to care within 3 months), time to initiating ART, HIV viral load suppression, and retention in care among the newly diagnosed. Participants were considered retained in care if they saw an HIV care provider at least three times in the year after diagnosis, with two visits at least 90 days apart.

Community prevention

Kachin State, Myanmar

Asian Harm Reduction Network, Myanmar

<https://ahrnmyanmar.org/>

In Myanmar, HIV prevalence among people who inject drugs ranges from 34.9% to 64.1%, mainly related to unsafe injecting practices in hard-to-reach rural hotspots in Kachin state in northern Myanmar. People who inject drugs avoid access to health services for fear of exposure and stigma and 72% of them reported not being tested for HIV in 2017. For decades, communities and families in Kachin have been confronted with the hardship of drug use and dependency. In response, the Asian Harm Reduction Institute (AHRN) is piloting a community empowerment response in which community-facilitated HIV testing services (HTS) enhance the reach of and enrolment in HIV care and drug treatment.

Situated in South-East Asia, Myanmar is known for its opium, jade and gold mining, and armed conflicts. Heroin use and poverty are common; it is estimated that there are 300 000 drug users and 93 000 opioid injectors. AHRN operates 15 comprehensive harm reduction programmes for marginalized drug users in rural, conflict, border and mining areas, and is funded by the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund), Access to Health Fund and the United States Agency for International Development/US President's Emergency Plan for AIDS Relief (USAID/PEPFAR).

In January 2018, AHRN started a community prevention programme in Waimaw Township, with focused advocacy and training-of-trainers workshops to local community members. Committed community prevention workers, who receive a small stipend to cover expenses, conduct prevention training in the community and provide health education for people who inject drugs/people who use drugs, and referral (cards) to access HTS in AHRN clinics, drop-in-centres (DICs) or mobile "community-facilitated HTS" teams. These consist of one trained treatment facilitator and two nurse-counsellors who offer group pre-test education. Following testing, HIV-negative clients are counselled on safer injection and safer sex practices while health-seeking referrals are established and HIV-positive clients are linked to treatment services.

AHRN's mobile community HIV testing and counselling pilot showed that from 3591 community-based HIV tests performed, 16% (578) of clients tested positive, and 65% (375) received HIV treatment. In Waimaw, comparing data from the first two quarters of 2017 and 2018, there was a remarkable increase in the number of people who inject drugs reached after implementation of the new approach: an increase of 88% among people who inject drugs reaching the DIC, from 643 to 1207; an increase of 45% among people who use drugs reaching the DIC, from 105 to 152; clients reaching the primary health centre increased by 34%, from 770 to 1028; people who inject drugs reached for HTS increased by 20%, from 196 to 237; other vulnerable populations reached for HTS increased by 39% from 64 to 89. Focus group discussions confirmed that communities' positive perception of harm reduction services significantly increased and highlighted a desire for mobile and community-based HTS and same-day referral.

Testing men in conglomerates

Zambézia, Mozambique

Jhpiego

<https://www.jhpiego.org/>

Testagem móvel em aglomerados de homens [HIV testing of males in conglomerates] is a novel approach implemented in the central province of Zambézia, Mozambique.

The approach targets men older than 15 years in the places where they work, study or play/socialize. According to the latest national HIV survey (IMASIDA, 2015), 80% of men know where to get an HIV test. However, in terms of access to testing, there is still a gender disparity with a gap between women and men, where 61% of women and only 38% of men were tested. In Zambézia, the HIV prevalence is 15.1% between the ages of 15 and 49 years, with 12.5% of men being seropositive.

The aim is to reach, test and diagnose HIV-positive men, enrol and retain them in HIV care and treatment, so that they achieve viral suppression in the 22 districts of Zambézia (Fig. 3.1.2).

Jhpiego, a nongovernmental organization (NGO) affiliated to Johns Hopkins University, works with the faith-based organization CONFHIC (Congregation of the Hospitable Franciscan Sisters of the Immaculate Conception) to provide the approach. Its implementation involves initial coordination with government health entities at provincial and district levels; identification of strategic health facilities (including peer navigators) to improve access for referred people living with HIV (PLHIV); selection, training and performance evaluation of community lay counsellors; social mobilization through local traditional and religious leaders; district mapping to identify male conglomerates; follow up of identified PLHIV to ensure their linkage to a health facility within 15 days of the test result; and testing and referral of their contacts.

Data collection uses Ministry of Health (MoH) tools and a web-based platform developed by Jhpiego to visualize PLHIV lost to follow up and enable the mapping of concentrations of PLHIV (hotspots) that may benefit from the deployment of mobile HIV clinics.

There were 51 624 men tested, with 4120 (8%) being HIV positive. About 90% of the men tested had never before been tested. Of the PLHIV identified, 3296 (80%) were linked to care, with 2801 (85%) retained at 1 month. The holistic nature of the approach also identified 110 men with sexually transmitted infections (STI) and 99 men with hypertension. It also referred 127 men for medical male circumcision.

Fig. 3.1.2. A lay counsellor testing a man as part of the mobile HIV testing approach



Photo credit: Jhpiego

The mobile testing approach has been successful in Zambézia: it reaches men who do not go to health facilities, perhaps because they risk losing wages – about a third of the men served are fishermen who migrate from home for work. The approach has now been expanded to the southern provinces of Maputo City and Maputo province.

Swab2know: an HIV testing strategy using oral fluid samples and online communication of test results for men who have sex with men

Antwerp, Belgium

Institute of Tropical Medicine

www.itg.be/

In Belgium, 870 people were newly diagnosed with HIV in 2017, a rate of 7.8 per 100 000 inhabitants. Among the highest affected populations are men who have sex with men (49% of new diagnoses). The Swab2know project targets primarily men who have sex with men to facilitate testing for HIV. The project is organized by the HIV/STI clinic of the Institute of Tropical Medicine in Antwerp and endorsed and supported by several community and prevention organizations. The project started in 2012 and is still ongoing.

A secured and encrypted website was specifically designed for the project. On this website, visitors can find information, prevention messages, order test kits and collect test results (www.swab2know.eu). The Swab2know project uses an HIV testing approach with self-sampled oral fluid specimens and combines outreach HIV testing sessions and a home-sampling approach.

During outreach sessions, epidemiological data are collected through a self-administered questionnaire. An online account is created and oral fluid is self-sampled by the participants. All samples are identified by a unique code, which links the sample with the personal account and baseline data. Home sampling is done by website visitors who create an account and provide an email address and phone number. A sampling kit is sent to their preferred address. Participants self-sample the oral fluid and send it to the laboratory using a prepaid envelope.

Once validated, test results are uploaded onto the website. Each participant receives an email once the results are available. Participants can also opt to collect their results during a face-to-face consultation. Participants who do not collect their results are reminded by phone or email. An emergency counselling session by a trained paramedic is available by phone. All participants with a reactive result are contacted by phone shortly after having read their results to offer counselling and linkage to care. Follow up is conducted with the confirmation test result.

Since the start of the project, around 1000 tests have been executed yearly. The yield of the project, measured by the number of new HIV diagnoses, is around 1% of participants. The majority of those with a newly diagnosed HIV infection are successfully linked to specialized care. Concerns remain about the number of false-reactive test results.

With increasing empowerment of key populations, we demonstrate that a home-sampling approach using oral fluid samples and delayed online communication of test results have added value in a comprehensive HIV testing portfolio.

Reaching men and boys

Lesotho

Men's clinic at Maseru Seventh Day Adventist (SDA) Health Center

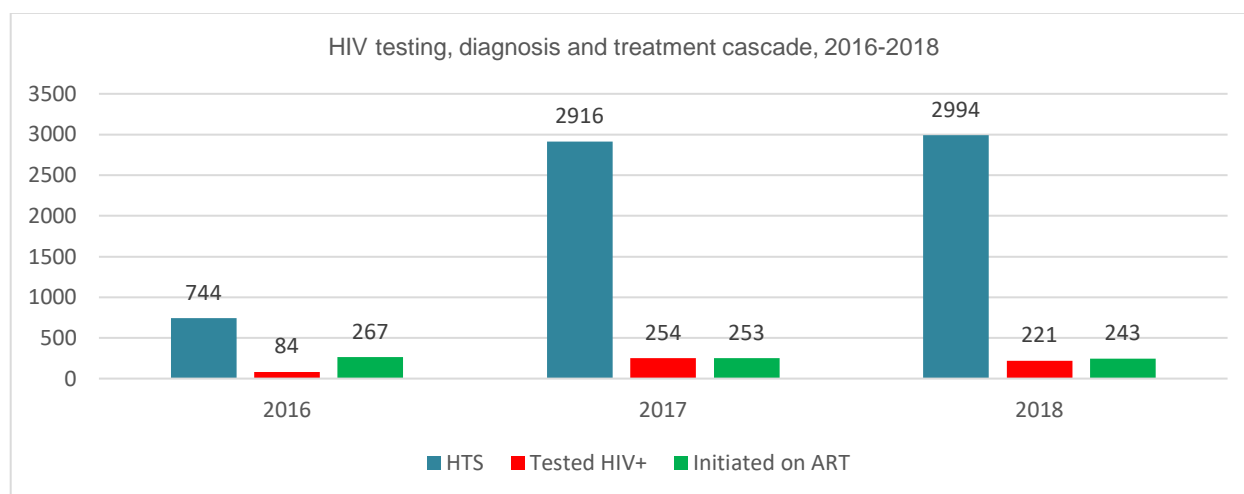
(website not available)

The men's clinic at Maseru Seventh Day Adventist (SDA) Health Center was established in a number of affiliated health facilities in Lesotho as an initiative geared towards attracting more men and boys to come for HIV services, including other related health services such as initiation of antiretroviral therapy (ART), and screening and treatment of tuberculosis and sexually transmitted infections (STIs) (Fig. 3.1.3). Maseru SDA, located in the city of Maseru, is one of the health centres that established a men's clinic in 2017.

The clinic is manned exclusively by male nurses and counsellors (as per the request of the male clients), and provides male-friendly integrated services, including for HIV, as discussed above. The services are provided in a flexible manner, accommodating the times at which men are free, such as after working hours (from 5 pm to 7 pm) and weekends. This is in addition to the normal working hours during weekdays (8:00 am to 4:30 pm, from Monday to Friday).

The innovation has resulted in an increase in the number of men coming for HIV testing services (HTS) in the clinic, from 744 in 2016 to 2916 in 2017 (after establishment of the men’s clinic) as shown in Fig. 3.1.3. This represents a 291.9% increase in men coming out for HTS in this clinic in one year. Those who tested positive also increased from 84 in 2016 to 254 in 2017, meaning that we were unable to find more than 150 men living with HIV prior to the establishment of the men’s clinic. The numbers of those who came both for testing and tested positive remained high in 2018 at 2994 and 221, respectively.

Fig. 3.1.3. Men tested for HIV, diagnosed with HIV, and initiated on ART, 2016–2018, Maseru SDA men’s clinic



Most men who tested positive were linked to treatment (initiated on ART) in the same reporting period due to the test-and-treat policy in Lesotho and, in some cases, the numbers were more than those who tested positive. This was caused by the fact that some people are not ready to immediately take treatment upon testing positive for various reasons. Some of these include: clients need some time to notify their families and partners, some are just in shock and need some time to cool off before taking treatment.

Early initiation of ART: Project Sahay

India

National AIDS Control Organisation (NACO)

<http://www.naco.gov.in/>

Solidarity and Action Against the HIV Infection in India (SAATHII)

<http://www.saathii.org/>

Solidarity and Action Against the HIV Infection in India (SAATHII), with guidance and support from the National AIDS Control Organisation (NACO), rolled out Project Sahay in 23 districts across six states in India. The objective of the programme is to identify and map potentially vulnerable areas and populations in the district and conduct community-based testing to maximize immediate/early antiretroviral therapy (ART) initiation for individuals testing HIV positive to reduce disease progression and further viral transmission. In addition to the test-and-treat paradigm, the programme aims to link the HIV-positive population to socioeconomic welfare schemes and enhance the uptake of sexually transmitted infection (STI), HIV and reproductive health services among female partners of men who have sex with men/transgender populations.

The Sahay project has deployed the following diversified and multipronged strategies localized to the needs of the targeted communities: organization of community-based testing sites in vulnerable and unreachable pockets, such as mines, mills, factories, construction sites, social gatherings and mass events as well as source and destination migration pockets. One-on-one outreach for individuals from high-risk groups, including key populations, are offered where the mass approach is not feasible due to stigma and accessibility issues. In addition, technology-based interventions are also offered, comprising a trident approach of a website (www.sahay-india.org), smartphone application and an SMS-based

application (SMS-app), for lesbian, gay, bisexual and transgender populations, and online platforms for sexual and social networking.

To achieve its targets, the project adopted an approach that included: first identifying vulnerable populations using available data and knowledge of frontline field workers, planning voluntary community testing by getting the buy-in and involvement of the local community, and ensuring linkage and personal follow up with people identified as positive.

Over 36 000 people were tested at 717 sites between November 2017 and September 2018. The positivity rate among those who received testing was 0.52% whereas the national adult HIV prevalence as per the HIV estimation report 2017 (of NACO) is 0.22%. In addition, the project has achieved a 91% linkage to ART of those confirmed positive.

Samarth: a community-led HIV screening programme in India for men who have sex with men and transgender women

India

National AIDS Control Organisation

<http://www.naco.gov.in/>

India HIV/AIDS Alliance

<http://www.allianceindia.org/>

Samarth – meaning “empowered” – is a project based on the principle of strengthening the “test–treat–adhere–prevent” cascade for men who have sex with men, transgender and *hijra* population in India. It is a community-led HIV screening programme in India. *Hijra* is a culture-based ethnic transgender population that exists in the Indian subcontinent.

Men who have sex with men and transgender hijra population groups in India continue to show a high prevalence of HIV (men who have sex with men 4.2% and transgender hijra 7.9%) as compared to the plateauing prevalence among the general population (0.21%) in India. The social and legislative environment in India is undergoing a dramatic change in favour of men who have sex with men and *hijra* population groups. However, despite attempts from multiple stakeholders, including the national programme, the communities remain extremely vulnerable to HIV. The population coverage of the national HIV programme is substantial but a significant number of individuals have yet to be reached by HIV services, including HIV testing.

Aligning with the country’s requirement of an evidence-based intervention model for the men who have sex with men and transgender hijra populations, the India HIV/AIDS Alliance initiated the Samarth programme with support from the Elton John AIDS Foundation (EJAF) aimed to establish community-friendly clinics in six diverse cities of India. This provided evidence for strategic approaches in diverse contexts such as region, culture and population base.

The programme demonstrated effective mobilization approaches in reaching men who have sex with men and transgender populations to HIV services using screening as an entry point. Mobilization techniques included health camps, utilizing web-based social media networks available on mobile phones and computers, and physical parties.

As of February 2019, Samarth had delivered community-based testing 10 842 individuals (8524 men who have sex with men and 2318 transgender hijra) for HIV, of whom 8931 (82.4%) reported having been tested for the first time in their lives. Of the clients, 352 (3.2%) had a reactive result, of whom 276 (80%) were linked with the free antiretroviral therapy (ART) programme of the country. HIV positivity among those tested was higher than that found the national HIV prevention programme and closer to the estimated HIV prevalence among men who have sex with men and transgender hijra. The project has served as a demonstration site for countrywide scale up and has contributed significantly to the development of community-based screening guidelines for the national programme.

Health Kiosk model: scaling up HTS at faith worship centres

Zimbabwe

World Vision

www.worldvision.org/

Leveraging the reach of a well-informed and mobilized faith community is essential for controlling the HIV epidemic. The Health Kiosk intervention explored the effectiveness of using faith worship centres to improve access to HIV testing services in two semiurban districts in Zimbabwe – Gwanda and Gokwe, where HIV prevalence is 21.5% and 15%, respectively, above the national average of 14% (DHS 2015). From March 2018 to February 2019, World Vision collaborated with the Ministry of Health (MoH) and local churches to generate demand for HIV services among male, female and adolescent church members.

Ninety-one faith leaders and 93 volunteers were selected from 53 faith worship centres and trained to provide HIV information and referrals for testing to their members and manage simple record-keeping of their activities. Faith leaders integrated HIV information into their sermons, and volunteers established kiosks at worship centres where they held regular health sessions. Participating sites received mobile or static booths for information dissemination, and kiosks were stocked with local information, education and communication (IEC) materials. The implementation team mapped health facilities around the worship centres and engaged health providers to receive referred clients and conduct periodic mobile clinics at the worship centres. World Vision conducted a baseline and end-line assessment to determine the local churches' access to HIV testing services and supporting health facilities.

By the end line, data from the records of local churches with health kiosks indicated that 3500 individuals (males 675, females 2825) had been reached with information on HIV and/or health. Of these, 34.6% sought information on HIV (males 321, females 887), 453 people (males 81, females 372) were tested for HIV and received their results, and 96 (males 4, females 92) tested positive for HIV – a high yield of 21.2%. Those who tested positive were linked to care and treatment at the health facility and followed up for retention. Those who tested negative were linked to health facilities for further HIV prevention services. Additionally, 23.7% of individuals reached by health kiosks sought information on maternal and child health, and 34.7% sought information on other health topics.

Health kiosks at faith worship centres are an entry point for HIV services in areas with high HIV positivity and could be mainstreamed into general HIV programming. Collaboration with the MoH and health facilities strengthened linkage to services. The use of locally available IEC materials ensured regular access to HIV information. Establishment of health kiosks fostered collaboration, experience-sharing, communication and networking among worship centres in the project.

Virtual referral for HIV testing services: men preferred 24/7 services

Uganda

World Vision

www.worldvision.org/

Access to HIV services are lower for men than women of the same age group in Uganda. Finding men and linking them to testing services is critical for epidemic control in Uganda (US President's Emergency Plan For HIV/AIDS [PEPFAR] Uganda). The HIV/AIDS and Health Initiatives in Workplaces Activity (HIWA) is a project funded by the United States Agency for International Development (USAID) implemented by World Vision and other consortium partners in Uganda from 2015 to 2020. The project aims to scale up comprehensive HIV/AIDS and other health services to support a healthy workforce in 50 districts across the country, serving the staff and family members of 80 hotels, 11 private security companies, the Uganda Police Force and the Uganda Wildlife Authority.

To increase access to HIV information, HIWA established a 24/7 call centre staffed by medical professionals. Individuals access information through a toll-free voice helpline, SMS and social media. Medical professionals managing the call centre provide health information, counselling and referral for services based on the needs of the clients. Referred clients are followed up to ensure that they receive services.

HIWA also provided direct service delivery and technical assistance to 14 and four health facilities, respectively, in index case testing and advance partner notification, in support of the demand for services generated from the call centre.

In 2018, a total of 13 506 beneficiaries were reached with mobile messaging on different health topics. Areas of interest by the callers included proper condom use, routine HIV testing, voluntary medical male circumcision, and how to stay faithful to a single partner, among others. Most beneficiaries were male (68%) between the ages of 21 and 40 years. Four hundred and three referrals were made for health services, including HIV testing (38%), voluntary medical male circumcision (21%), sexually transmitted disease (STD) screening (15%), antenatal care (8%), family planning (7%), tuberculosis (2.4%) and others (8.6%). Of the beneficiaries referred, 97% reported completion of the referral process.

For index case testing, 43 579 (females 21 865, males 21 714) were tested, resulting in the diagnosis of 1225 new HIV-positive individuals (females 800, males 425) – a positive yield of 2.8%. Of those receiving a positive diagnosis, 83% were linked to treatment at project sites, and 17% were referred to health facilities of their choice. Scaling up HIV testing through virtual mobile phone referral improved access to HIV services for men and their families.

Community-based testing and linkage to PrEP

District of Columbia, United States

One Tent Health

www.onetenthealth.org/

One Tent Health is a Washington, DC-based HIV screening and prevention non-profit organization. We set up a small canvas tent in front of community hubs, such as grocery stores and laundromats, and conduct rapid HIV screening in 15 minutes or less. We target the general population in black communities in Washington, DC where there is a generalized HIV epidemic with a prevalence rate of 1.9%. We analyse the district's surveillance data to identify neighbourhoods with the highest prevalence and incidence, then conduct an Internet search to determine if HIV testing and prevention services are being offered in those high-risk areas. If not, we partner with a community hub location to meet the unmet need. Over 90% of the people we serve are African American, which, in Washington, DC, is a group with a higher prevalence than others.

Services are provided at grocery convenience stores, laundromats and transitional housing facilities. Expansion to public libraries is planned. In the event that a person has reactive result, the test provider can accompany the client to one of three linkage-to-care partner sites. Those testing negative are linked to prevention services, including condoms and pre-exposure prophylaxis (PrEP).

One Tent Health collaborates with many key stakeholders for linkage to care and prevention services as well as to publicize services.

- One Tent Health partners with three health facilities: Whitman–Walker Health, Mary's Center and Unity Health Care (these give us geographical and demographic diversity).
- Rapid test kits that provide a result in 60 seconds are sourced through the Washington, DC Department of Health.
- One Tent has partnered with Grindr, a popular social networking platform, which publicizes to its local users where we will be each weekend.
- Recently, a pilot rapid PrEP linkage strategy was launched. It facilitates a care provider partner to write PrEP prescriptions for high-risk clients immediately after a non-reactive HIV screening test.

- One Tent Health aims to improve access to HIV testing in communities with a higher prevalence in Washington, DC. Cost can be a barrier to HIV testing for those who do not have health insurance. HIV prevalence among African Americans is higher than among whites: black males: 4.4%, black females: 1.9%, vs white males: 1.6%, white females: 0.04%. One Tent Health provides a free package of HIV information, testing and linkage services to clients on Fridays, Saturdays and Sundays when many people do not have work or other obligations. Our services take between 15 and 30 minutes only and are designed to be convenient and accessible (Fig. 3.1.5).

Fig. 3.1.5. The One Tent Health tent during a testing event



Photo credit: One Tent Health

To date, (October 2017 to April 2019), the positivity rate among testers has been 0.5%. Those who screened positive at One Tent Health have been linked to the local Department of Health for follow up. The background HIV prevalence of the population we serve is approximately 3.2% (average of African American men and women in Washington, DC). In the specific locations where we screen, on the eastern half of the district where the epidemic is at its peak, this number is likely even higher. An exit survey showed that 95% of clients were satisfied with the service and would recommend it to a friend. Programme data are collected in an electronic database within which client privacy is maintained and is compliant with United States health information privacy laws.

Sisli Health Clinic: rights-based approach to accessing HIV testing and treatment among men who have sex with men and transgender people in a Muslim majority country

Istanbul, Turkey

Website not available

In the Sisli Municipality health clinic of metropolitan Istanbul, Turkey, HIV education, prevention, testing and counselling have been integrated into the primary health services and are available to all populations regardless of gender, ethnicity, religion or nationality. This programme is one of the unique programmes providing HIV services to lesbian, gay, bisexual, transgender, intersex (LGBTI) and refugee migrants in a Muslim majority community without stigma and discrimination and follows human rights-based approaches. The Sisli Health Clinic is financially independent of international and governmental financial support. The Clinic is funded by a tax on municipality citizens and a portion of the tax funds the Clinic. All HIV services are provided to patients at no additional cost. The Sisli community through the municipality is supporting HIV services and the Institute for International Health and Education (IIHE) technically supports the programme. This is a best practice model of HIV services by the community, in the community and for the community.

The programme started in late 2014. Outreach engagement with a specific electronic coding system that maintains clients' anonymity and confidentiality has been used to track all patients and is also used to link clients to additional services, for active monitoring of care outcomes and ascertaining the client's satisfaction. The Clinic has strong ties with community-based organizations (CBOs) and civil society organizations (CSOs) in the metropolitan area of Istanbul; the organizations that work closely with LGBTI and refugee migrants refer clients to the Clinic for HIV services.

During 2018, up to 2600 clients received HIV testing and counselling (HTC) services from Sisli Clinic and 5.23% of clients were diagnosed with HIV and around 60% were reported an LGBTI identity. During the first four months of 2019, 1272 clients received HTC (930 male, 259 female, 80 transgender). Of these, 35.5% reported having heterosexual sex, 38.7% reported having sex with the same gender, 16.1% reported being bisexual, and 10% declined to identify. Of all clients in the 2019 reporting period, 3.22% were diagnosed with HIV; however, the prevalence among men who have sex with men was 5.7%.

All clients received HIV education materials, condoms and HTS. Linkage to a specialist to start HIV treatment and care was 100% successful. Clients also received testing and treatment for sexually transmitted infections and viral hepatitis in addition to a primary health care package on site. Since 2016, seven municipalities have received training from the Sisli Clinic and IIHE, visited the sites and started the same programme. The goal is to use the Sisli model and integrate HTC into the municipalities' health clinics in Turkey.

3.2. Partner services and social network-based approaches

Beyond key populations in Pakistan

Pakistan

Nai Zindagi

www.naizindagi.org

The HIV epidemic in Pakistan is driven by injecting drug use and the HIV prevalence among people who inject drugs is 38.4%. As a Principal Recipient of the Global Fund, Zindagi reaches roughly 20 000 street-based drug users with comprehensive harm reduction services annually and covers 30 districts across Pakistan. The organization uses data-driven project management to maximize impact as well as build resilient and sustainable programmes for drug users, their spouses and intimate partners.

Spouses and intimate partners of drug users are also at risk for HIV. The high disease burden among drug users has led to high vulnerability of spouses and intimate partners. A comprehensive HIV prevention package for spouses is a main component of Zindagi project services. Female outreach workers (FORWs) are present across 30 sites to offer services to spouses of HIV-positive drug users. Once consent to access spouses is obtained from a drug user living with HIV, the FORW sets up a home visit and subsequent registration in the programme. The services for spouses and partners include HIV testing and counselling, sensitization on safer sexual practices, a nutritional support package, linkage to treatment, care, prevention of mother-to-child transmission and adherence support, where applicable, to each beneficiary.

HIV testing is made available to clients in the privacy of the home and is carried out in accordance with the Pakistan national guidelines. Pre-test information messages for clients include the risks for acquiring HIV infection, explanation of the test process and exploration of the client's potential ability to cope with a positive test result. If found to be negative, they are counselled to seek follow up and retesting in three months. Those who are declared positive receive post-test counselling, which aims at setting up referrals for future care and support, including antiretroviral therapy (ART) and family planning. All records are maintained using defined confidentiality protocols using the Nai Zindagi client information management system. Condom provision is an integral part of service delivery for all clients. A nutritional support package is provided to clients every three months.

Among 54 192 people who inject drugs registered under the project, 19 079 (35%) had a reactive test result. Of those, 5660 (30%) were married. To date, 4131 (72%) of the spouses and partners of HIV-positive people who inject drugs have been tested in a total of 24 598 HIV testing episodes and 365 (8%) were reactive. Of those, 280 (81%) have been linked to ART.

The programme has demonstrated that it is feasible to deliver community-based harm reduction and HIV testing services to spouses and partners of people who inject drugs in Pakistan.

Finding HIV-positive persons among key populations in Zimbabwe

Harare, Zimbabwe

Population Services International

<http://www.psi.org/>

Population Services International leads the United States Agency for International Development (USAID) Going the Last Mile for HIV Control programme in support of the Ministry of Health and Child Care's effort to achieve HIV epidemic control in Zimbabwe. The programme seeks to identify new HIV-positive clients, link them to treatment and retain them in care, with a specific focus on hard-to-reach populations, including men who have sex with men and female sex workers.

To extend reach within these communities, enhanced peer mobilizers (EPMs) are recruited, capacitated, equipped and empowered to reach out to their peer network with key messages on HIV/AIDS and incentives for linking their peer network to clinical services. \

Clients who present for HIV testing and test HIV positive are incentivized to “bring a buddy” for testing and also asked to share contacts within their sexual and social networks who are then followed up with HIV testing services in the community through index case testing. Nurse testers provide community-based index testing for contacts.

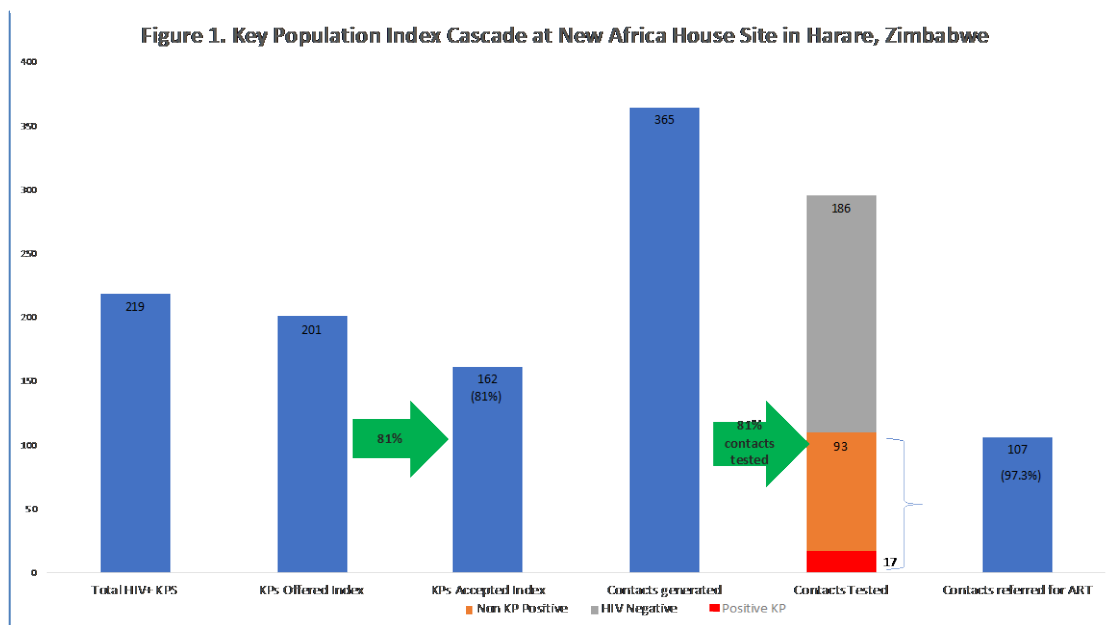
Using programme data for quarter one of the United States Government fiscal year 2019 from the New Africa House testing site in Harare, we observed that 92% of 219 HIV-positive key populations were offered index testing during this period (Fig. 3.2.1). Of these, 81% (162/201) accepted index testing and a 2.5 index-to-contact ratio was generated (365/162). Further, 81% (296/365) of the contacts were tested for HIV with 37% (110/296) of them testing HIV positive. Of clients who tested positive, 97% (107/110) were referred for antiretroviral therapy (ART). Based on the average linkage rate, 94% of those referred were linked to ART. Fig. 3.2.2 shows the number of index clients participating in testing outreach services.

Fig. 3.2.1. Clients during HIV testing services outreach activities in Harare, Zimbabwe



Photo credit: PSI

Fig. 3.2.2. Key population index client cascade at New Africa House site in Harare, Zimbabwe



Partner services to reach HIV-positive men

Homa Bay and Kisumu, Kenya

Effectiveness of Assisted Partner Services (aPS) in reaching HIV-positive men

PATH

<https://www.path.org/>

University of Washington

www.washington.edu/

The Assisted Partner Services (aPS) Scale-up Study is a five-year HIV implementation science project funded by the National Institutes of Health (NIH) and implemented by the University of Washington and PATH. It aims to evaluate the effectiveness and feasibility of integrating aPS into a real-world setting. It builds on a cluster randomized trial of aPS in Kenya completed in June 2016, which found that tracing and providing HIV testing to the sexual partners of HIV-infected adults was not only safe, but also increased identification of HIV-positive men in need of care and treatment.

The aPS scale-up study is being conducted at 31 government health facilities and nine DREAMS (Determined, Resilient, Empowered, AIDS-Free, Mentored and Safe) spaces in two high-HIV burden counties (Homa Bay and Kisumu) in western Kenya. The study enrolls two types of study participants: index female clients and their male sexual contacts. Index female clients are counselled on partner notification by the HIV testing service (HTS) provider, who also conducts partner elicitation. The elicited male sexual partners are contacted, notified anonymously of the HIV exposure, and offered HIV testing. All newly identified clients are immediately linked to care and started on antiretroviral therapy (ART).

All enrolled participants are followed up at 6 weeks, 6 months and 12 months to assess linkage to care, ART initiation and viral suppression. All serodiscordant partners identified are referred for pre-exposure prophylaxis (PrEP) to ensure that there are no missed opportunities for HIV prevention.

From May 2018 to February 2019, 555 HIV-positive index female clients were identified, who provided details of 694 male sexual contacts. Of these, 361 male sexual contacts were traced and offered HIV testing. Of those male contacts, 188 were identified as HIV positive (52% positivity), with 114 (61%) known positives and 74 (39%) newly identified HIV positive. The newly identified HIV-positive males represented 21% of all male sexual contacts traced and tested for HIV. This is a much higher yield of newly identified HIV-positive males than found through routine testing approaches in our settings. All HIV-positive individuals were immediately linked to care and treatment.

This modality of assisted partner notification services is a best-practice approach for identifying the likely HIV-positive male population and ensuring that they are enrolled in care and treatment. This calls for additional capacity-building of service providers on counselling for elicitation and tracing of sexual contacts of index cases.

Translating online reach to offline HIV testing, ART and PrEP

Viet Nam

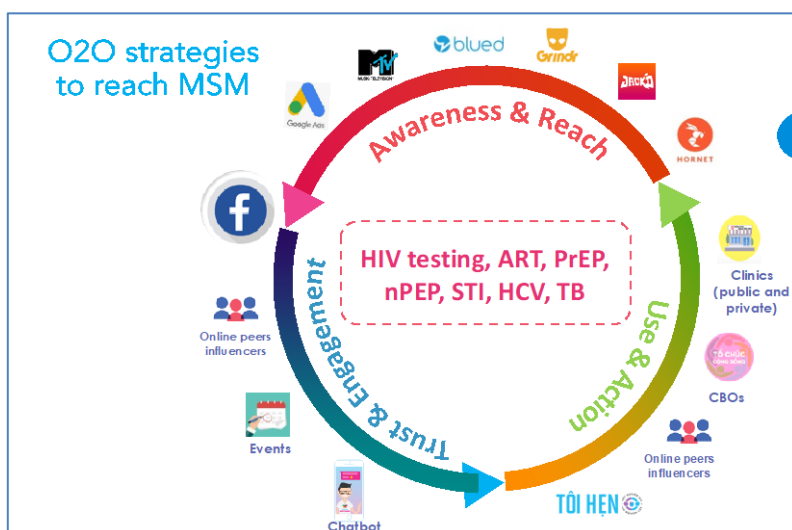
PATH

<https://www.path.org/>

Online spaces provide powerful platforms to connect with hard-to-reach key populations. In Viet Nam, the majority of men who have sex with men and transgender women use social media to seek sex partners and information about HIV. Since April 2015, the United States Agency for International Development (USAID)/PATH Healthy Markets project has used online-to-offline (O2O) strategies to reach men who have sex with men and transgender women with information about HIV, health and living a great life, and translating this reach into uptake of offline HIV services (3.2.3).

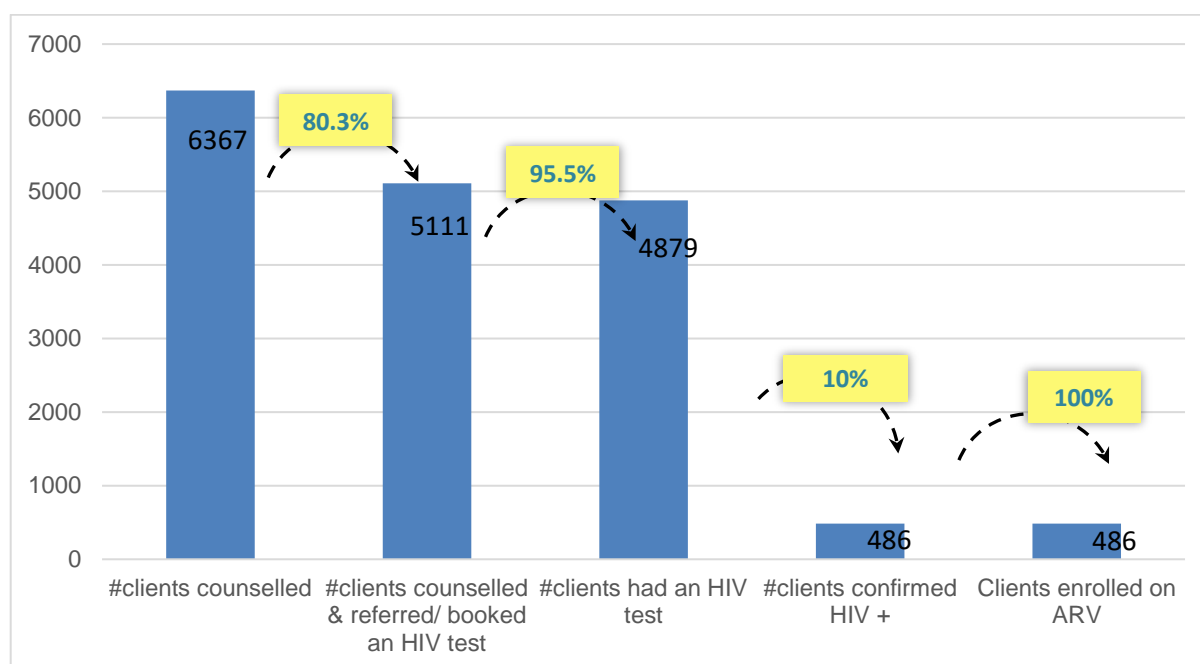
Online reach efforts involve an ecosystem of interconnected communication channels: dedicated Facebook pages, online peer influencers, gay hook-up apps, an HIV service booking app (I Reserve), and the use of artificial intelligence/chat bots. This ecosystem centres around two key population Facebook channels: Xóm Cầu Vồng (Rainbow Village) with 226 000 followers who are men who have sex with men, and Cô Nàng Gọi Cảm (Be Me. Be Sexy!) reaching 22 000 transgender women. Co-created with men who have sex with men and transgender women communities, these platforms offer an open space for men who have sex with men and transgender women to connect, feel supported, ask questions, and learn more about health and well-being.

Fig. 3.2.3. Online-to-offline strategy schematic



These Facebook pages provide a dynamic entry point for HIV lay and self-testing, antiretroviral therapy (ART), and pre-exposure prophylaxis (PrEP) through online peer influencers (OPIs), the service-booking app and chatbots. OPIs are individuals within the men who have sex with men and transgender women communities trained to provide online counselling for a range of sexual health issues among communities of men who have sex with men and transgender women, refer at-risk individuals for HIV services, facilitate dispatching of online HIV self-test orders, and conduct offline community-based HIV testing.

Fig. 3.2.4. Online-to-offline programme data, March 2016–January 2019



From March 2016 to January 2019, OPIs counselled 6367 clients, of whom 5111 (80.3%) were successfully referred to community-based HIV testing services (Fig. 3.2.4). Of the 4879 people tested, 431 (10%) were found to have HIV and were subsequently supported to enrol in ART. This HIV-positivity yield from online reach is higher among men who have sex with men and transgender women than among those seeking testing through face-to-face referrals (10% versus 6%).

From October 2018, a chatbot provided additional support to OPIs by providing automated responses to queries related to PrEP, with 24-hour support. By February 2019, the chatbot had provided 1612 instant responses. If a person needs more detailed information, they are automatically linked to an OPI; however, the online chatbot saves OPIs more than 15 hours per month and enables them to focus on the more complex questions and needs of clients.

An online survey of 3989 Xóm Cầu Vòng users found that the majority (75%) had never been in contact with a peer or outreach worker, 38% self-assessed as being at substantial risk of HIV infection, and 35% were motivated to test for HIV as a result of online content. Online content and engagement are also key factors in PrEP uptake: 86.3% of the 644 PrEP clients enrolled at Glink clinic in Ho Chi Minh City between March 2017 and January 2019 said that online content and interactions motivated them to seek PrEP.

These results highlight how an O2O approach can reach populations that are otherwise not connected to existing HIV peer outreach efforts, create trust, and successfully connect individuals to HIV testing, ART and PrEP.

Voluntary partner referral and social network-based approaches improve HIV case detection among key and priority populations

Democratic Republic of the Congo

LINKAGES

www.fhi360.org/projects/linkages-across-continuum-hiv-services-key-populations-affected-hiv-linkages

The Linkages across the Continuum of HIV Services for Key Populations Affected by HIV (LINKAGES) project in the Democratic Republic of the Congo (DRC), funded by the United States Agency for International Development (USAID) and the US President's Emergency Plan For AIDS Relief (PEPFAR) and led by FHI 360, adapted index testing for men who have sex with men and female sex workers to include two distinct approaches.

The first approach, voluntary partner referral (VPR), is consistent with the World Health Organization (WHO) global guidance on partner notification and referrals, and presents people living with HIV (PLHIV) with the voluntary opportunity to identify spouses, partners, and children who may be at risk for HIV. It offers several options for referral of the named individuals to HIV testing and other services. With varying degrees of assistance from a trained provider, these options include client-referral, contact-referral, provider-referral and dual-referral modalities according to the preferences of the PLHIV client. Safety and confidentiality of both the client and partners are integral to VPR counselling.

The second approach, risk network referral (RNR), extends beyond VPR to offer PLHIV with additional, self-guided options to informally extend linkages to HIV testing and other services to a broader set of social- and risk-network members facing elevated HIV infection risks through online and coupon-based referrals. These strategies do not require PLHIV to name – or even know the names of – these contacts to make referrals. These RNR strategies can also be implemented to allow PLHIV to make these referrals without disclosing the referral source.

LINKAGES DRC implemented VPR and RNR from October to December 2018 with the major objective of improving case detection among female sex workers and men who have sex with men. Key players included institutional health providers, peer navigators and peer educators, all of whom were involved in the identification of index clients. Each institutional health provider, peer navigator and peer educator identified index clients among the PLHIV cohort. The index clients received three to five coupons to distribute to their sexual partners (VPR) and to the most at-risk peers in their social networks (RNR).

A total of 191 index cases (66 men who have sex with men, 110 female sex workers, 15 clients of female sex workers) were offered index testing, and 143 (64 men who have sex with men, 71 female sex workers, 8 clients of female sex workers) agreed to provide contacts. From this, 169 contacts (71 female sex workers/females, 82 men who have sex with men partners, 15 female sex workers' clients, 1 biological child) were listed (Fig. 3.2.5). A total of 99 contacts (43 female sex workers/females, 40 men who have sex with men partners, 15 clients of female sex workers, 1 biological child) were tested.

A total of 47 (22 female sex workers/females, 16 men who have sex with men partners, 8 clients of female sex workers, 1 biological child) of the 99 index contacts tested positive (representing an overall case detection rate of 47.5%, and case detection of 51.2% for female sex workers/females, 40% for partners of men who have sex with men, 53.3% for clients of female sex workers and 100% for biological children) (Fig. 3.2.6).

The case detection rate using regular outreach during the same period was 10.8% for female sex workers, 8.1% for men who have sex with men and 5.2% for clients of female sex workers. Thus, index testing has been an effective strategy for reaching and improving case detection among female sex workers, men who have sex with men, and clients of female sex workers in DRC.

Fig. 3.2.5. Index cases in the programme who were offered and agreed to receive HIV testing services, Q1 FY2019

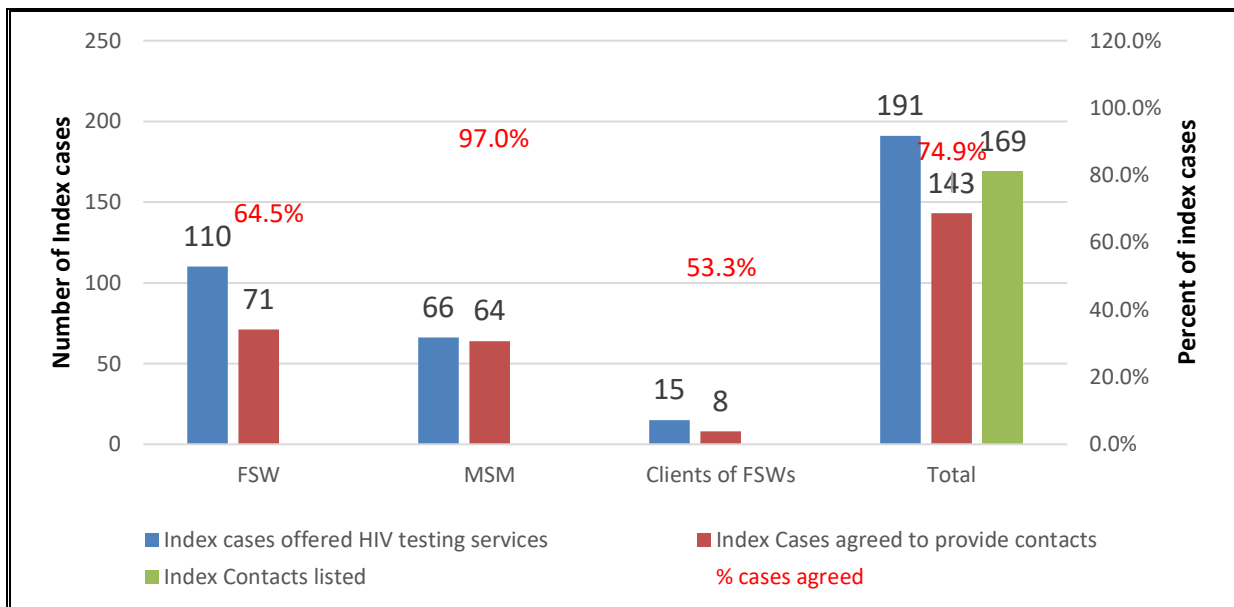
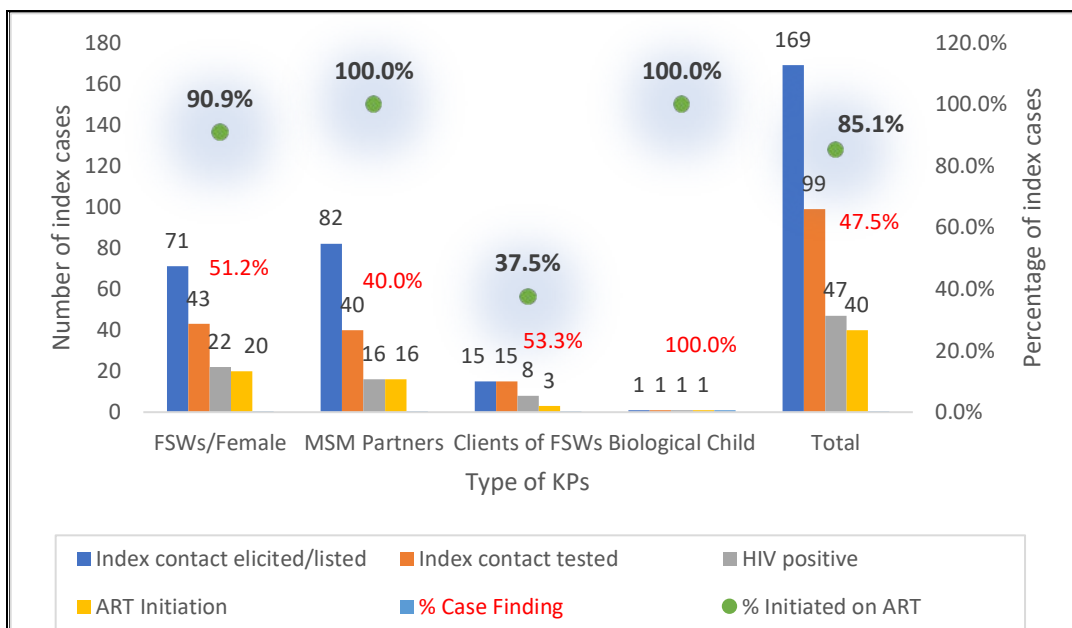


Fig. 3.2.6. Cascade of services for index contacts in the programme, Q1 FY2019



Voluntary partner referral and risk network referral increase HIV case detection among key and priority populations

Haiti

LINKAGES

www.fhi360.org/projects/linkages-across-continuum-hiv-services-key-populations-affected-hiv-linkages

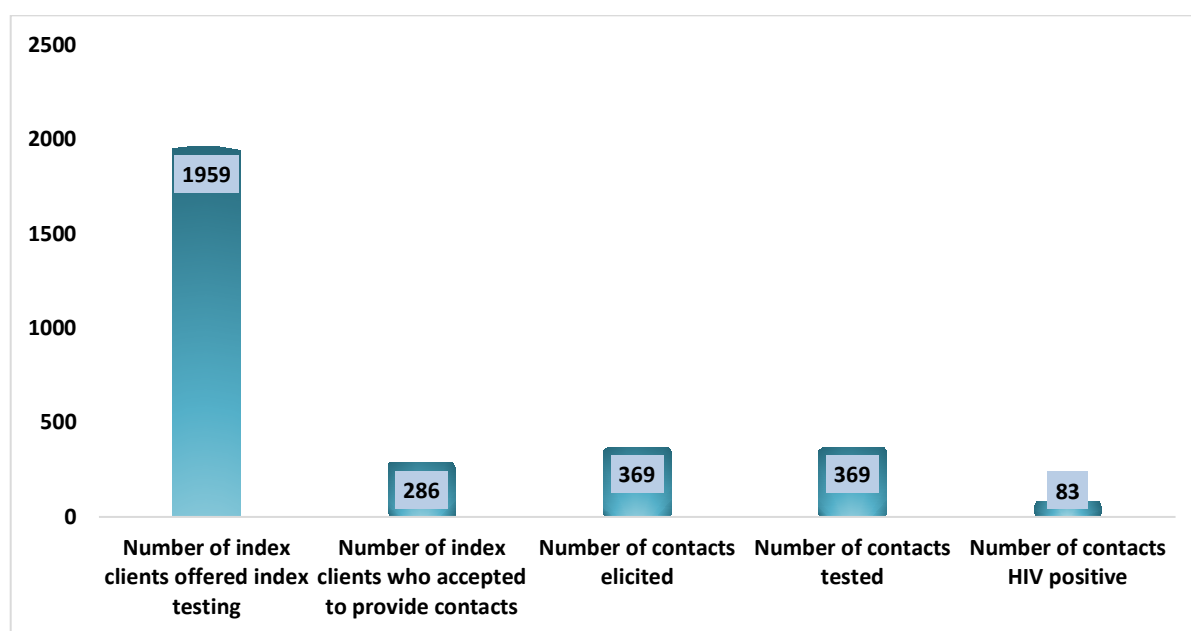
Linkages across the Continuum of HIV Services for Key Populations Affected by HIV (LINKAGES) project – funded by the US Agency for International Development (USAID) and the US President’s Emergency Plan for AIDS Relief (PEPFAR) and led by FHI 360 – delivers essential HIV prevention, care and treatment services to adult key population members (15–49 years of age) in Haiti. This group primarily includes men who have sex with men, female sex workers and sexual partners of female sex workers.

In April 2018, Haiti’s Ministry of Health introduced assisted partner notification (APN) in the national HIV programme guidelines. Because key populations face a high degree of violence, stigma and discrimination, including from sexual partners and health-care workers, and are often part of high-risk social networks, LINKAGES adopted APN in 13 sites using two distinct approaches. The first approach, voluntary partner referral (VPR), presents people living with HIV (PLHIV) with the voluntary opportunity to identify spouses, partners and children who may be at risk for HIV and offers several options for referral of the named individuals to HIV testing and other services. With varying degrees of assistance from a trained provider, these options include client-referral, contact-referral, provider-referral and dual-referral modalities according to the preferences of the PLHIV client. Safety and confidentiality of both the client and partners are integral to VPR counselling.

Risk network referral (RNR) extends beyond VPR to offer PLHIV with additional, self-guided options to informally extend linkages to HIV testing and other services to a broader set of social- and risk-network members facing elevated HIV infection risks through coupon-based referrals. These strategies do not require PLHIV to name – or even know the name of – these contacts. PLHIV may also make these referrals without disclosing the referral source.

Index testing options are presented to the index clients during adherence counselling conducted by a nurse or medical doctor. The client selects the option with which they feel most comfortable. HIV testing is offered to the contacts either at the facility or during outreach testing activities.

Fig. 3.2.7. People reached and tested through index testing services



From 1 April to 31 December 2018, 286 index clients accepted to bring their contacts to the implementing partner (IP) clinics for HIV testing services (HTS). Trained providers reached and tested 369 contacts of index clients as shown in Fig. 3.2.7. The group included 144 contacts of HIV-positive female sex workers, 109 contacts of HIV-positive men who have sex with men, and 116 contacts of HIV-positive clients of female sex workers. Of the index testing modalities, all 13 sites

reported that the client-referral one worked best across the network. Eighty-three of the contact cases were diagnosed to be HIV positive, with a case-detection rate of 37.5% among positive contacts of female sex workers, 10.9% among positive contacts of men who have sex with men, and 15.5% among client contacts of HIV-positive female sex workers. The case-detection rate among index contacts was higher compared to the rate among key populations via routine outreach during the same period (7.5% among HIV-positive female sex workers, 9.9% among HIV-positive men who have sex with men and 6.1% among HIV-positive clients of female sex workers, respectively).

VPR and RNR improved case detection among key and priority populations and are acceptable index testing strategies for key populations.

Index testing for key populations

India

National AIDS Control Organisation

www.naco.gov.in/

LINKAGES

www.fhi360.org/projects/linkages-across-continuum-hiv-services-key-populations-affected-hiv-linkages

The HIV epidemic in India is concentrated among key populations, including men who have sex with men, transgender people, people who inject drugs and female sex workers. India's National AIDS Control Programme (NACP) implements HIV interventions for key populations through a targeted intervention (TI) programme. The Linkages across the Continuum of HIV Services for Key Populations Affected by HIV (LINKAGES) project in India – funded by the US Agency for International Development (USAID) and the US President's Emergency Plan for AIDS Relief (PEPFAR) and led by FHI 360 – partnered with the NACP to engage individuals from key populations who enrolled themselves in the TI programme as well as those not reached by the programme in index testing.

LINKAGES India adapted index testing for key populations to include two distinct approaches. The first approach, voluntary partner referral (VPR), is consistent with global guidance from WHO on partner notification and referrals, and presents people living with HIV (PLHIV) with the voluntary opportunity to identify spouses, partners and children who may be at risk for HIV and offers several options for referral of the named individuals to HIV testing and other services. With varying degrees of assistance from a trained provider, these options include client-referral, contact-referral, provider-referral and dual-referral modalities according to the preferences of the PLHIV client. Safety and confidentiality of both the client and partners are integral to VPR counselling. Providers offering VPR inquire about intimate partner violence (IPV) and meet a set of minimum requirements to help ensure the safety and provision of appropriate support to all clients who face such risks.

The second approach, risk network referral (RNR), extends beyond VPR to offer PLHIV from key populations with additional, self-guided options to informally extend linkages to HIV testing and other services to a broader set of social- and risk-network members facing elevated HIV infection risks through online and coupon-based referrals. These strategies do not require PLHIV to name – or even know the names of – these contacts to make referrals. These RNR strategies can also be implemented to allow PLHIV to make these referrals without disclosing the referral source.

Index testing was implemented in TI and non-TI sites in six high HIV-burden districts of Andhra Pradesh and Maharashtra. In the TI sites, index testing was facilitated by peer navigators, who counselled and worked with key population members diagnosed with HIV on partner notification and testing. In the non-TI sites, the role of the peer navigator was taken up by community mobilizers, who were staff appointed by the project. To support implementation, a standard operating procedure for index testing was developed, and capacity-building of the outreach team on partner notification, risk mitigation and documentation was completed. Testing was performed through facility-based or community-based approaches, such as at drop-in centres and community events. Monitoring and evaluation tools were revised, and supportive supervision was provided. Challenges of partner identification, notification, referral and tracking were addressed by providing appropriate information and counselling to community members and service providers. Violence redressal committees helped resolve challenges related to fear of disclosure and risk of IPV resulting from disclosure.

A total of 2544 individuals (562 spouses and 1982 partners) were provided testing through index testing referrals during the period October 2017 to September 2018 (an average of 1.5 referrals per index client), and 393 (232 spouses and 161 partners) new positive diagnoses were made, resulting in a case detection rate of 15.5%. The case detection rate among spouses was 41%, higher than that for partners at 8%, and case-finding from index testing represented 21% of total case detection during this 12-month reporting period. Of the 393 KP individuals diagnosed with HIV through index testing, 302 were linked to treatment as of the end of September 2018.

Expanding the paradigm: supporting civil society organizations to stimulate demand for HIV services through online platforms

Jamaica

LINKAGES

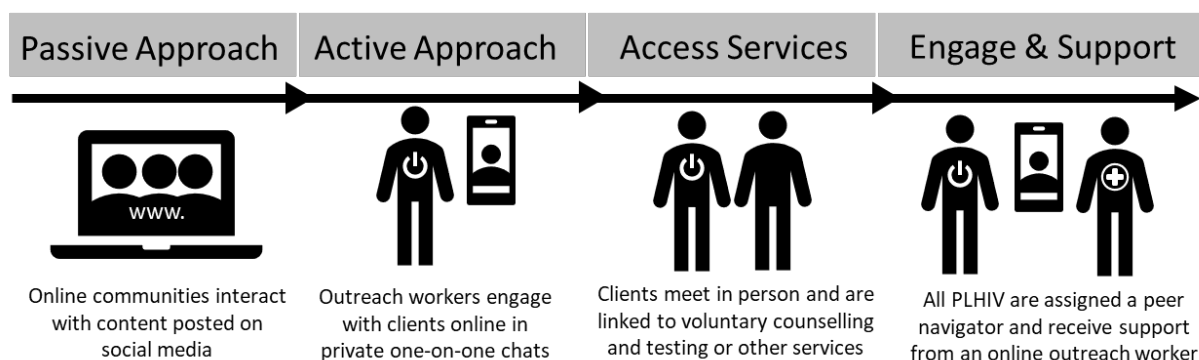
www.fhi360.org/projects/linkages-across-continuum-hiv-services-key-populations-affected-hiv-linkages

Talk About Your Business Safely (TABS) and iFlex are online programmes created to scale up the reach and impact of HIV services for men who have sex with men and transgender women in Jamaica. These programmes are part of the Linkages across the Continuum of HIV Services for Key Populations Affected by HIV (LINKAGES) project, which is supported by the US Agency for International Development (USAID) and the US President's Emergency Fund for AIDS Relief (PEPFAR) and led by FHI 360.

Each programme is run by a local civil society organization (CSO) and has at least three online outreach workers whose primary role is to identify and reach online contacts with HIV-related information and navigate them to HIV services offline. These workers have been trained to apply standardized messaging and client engagement tactics using both passive and active approaches. When applied with the requisite training, outreach teams are likely to engage with clients through posted content on social media (passive) or through private conversations online following purposeful, initiated contact (active).

Both TABS and iFlex are mainly used through social media platforms such as Instagram, Facebook and Twitter for passive engagements. Content design, shared between the two, triggers open dialogue and includes a call to action and web links to more detailed information. Campaigns are usually participatory, which means that regular users are encouraged to join by resharing, submitting photos or inviting friends to act.

Fig. 3.2.10. TABS and iFlex outreach process



The active approaches used by TABS and iFlex require outreach workers to engage clients in private and sometimes have user-anonymous conversations online. These engagements are more likely to happen in dating apps and messengers, and the aim is to link clients to services such as HIV and sexually transmitted infection (STI) screening or enrolment in HIV care and treatment. A client who agrees to meet with an outreach worker in person is administered a risk assessment and offered commodities and an HIV test. Pretest counselling, testing and post-test counselling are provided by trained staff. A person diagnosed with HIV is assigned a peer navigator who may also use information communications technology to support clients in care, as described in Fig. 3.2.10.

Custom indicators have been designed to track the progress of the online social network outreach efforts against regular HIV programme targets. Results are summarized in Table 3.2.1.

Between January and December 2018, more than 1400 individuals were engaged in online conversations. Based on online interactions, 452 men who have sex with men presented at a physical space and close to half of those (47%) received HIV testing services. The majority of men who have sex with men engaged online were aged 24 years or younger (68%).

Participants were engaged predominately through Grindr (35%), Instagram (23%) and Facebook (15%), and were commonly linked to in-person support at the CSO site (38%), an externally organized intervention (27%), or a public space such as a park (15%). Reasons for declining testing included being tested in the past three months (60%), not feeling comfortable about being tested at the time of the visit (15%), or already knowing their positive status (6%). Approximately 43% of all diagnosed people living with HIV (PLHIV) at the TABS parent CSO were recruited from online outreach, but only 7.74% of all HIV tests administered were to online clients.

Online social network outreach can help HIV programmes tap into high-risk networks and engage with clients who have never been previously reached by a programme. Custom indicators and supporting tools can help track clients online as they are navigated into regular offline services. Clients who access services through online engagement can also be supported with continuous education, reminders and encouragement.

Table 3.2.1. Online social network activities in Jamaica, January–December 2018

Programme indicators	Combined data	TABS*	iFlex**
Number of interactions with posted content (ON_CLICK)	15 477	8 468	7 009
Number of persons engaged in individual online conversations (ON_GAGE)	1 428	1 000	428
Number of persons who presented at a physical space as a result of online interaction (KP_PREV_LINK)	452	312	140
Number of KP members who originated from online recruitment and received HIV testing services	213	141	72
Percentage of those testing who tested positive	3.2%	4.25%	1.4%
Conversion rate from online engagement to in-person meeting	32%	31%	33%
Conversion rate from in-person meeting to testing	47%	45%	51%

Assisted partner referral and social network-based approaches increase case detection among key populations

Malawi

LINKAGES

www.fhi360.org/projects/linkages-across-continuum-hiv-services-key-populations-affected-hiv-linkages

Key populations are part of high-risk social networks, and they face high degrees of violence, stigma and discrimination from sexual partners and health-care workers. The Linkages across the Continuum of HIV Services for Key Populations Affected by HIV (LINKAGES) project – supported by the US Agency for International Development (USAID) and the US President’s Emergency Plan for AIDS Relief (PEPFAR) and led by FHI 360 – in six districts in Malawi implemented both voluntary partner referral (VPR) and risk network referral (RNR) interventions as a strategy to increase case detection and referral for HIV testing among key and priority population groups. These groups include men who have sex with men, female sex workers and their clients, and transgender people.

VPR presents people living with HIV (PLHIV) with the voluntary opportunity to identify spouses, partners and children who may be at risk for HIV. VPR offers varying degrees of assistance from a trained provider to assist with passive client-referral, contact-referral, provider-referral and dual-referral modalities according to the preferences of the client. The assistance is provided while embracing the safety and confidentiality of partners and sets standards of mitigating intimate partner violence (IPV) as per World Health Organization (WHO) guidance.

The second approach, RNR, offers PLHIV options to extend linkage through online and coupon-based referrals to services for a broader set of social- and risk-network members facing an increased risk of HIV infection. PLHIV are not required to name – or even know the name(s) of – these contacts and do not have to disclose the referral source.

LINKAGES Malawi used VPR and RNR to reach out to direct sexual partners, members within the respective risk networks, and biological children of PLHIV among key populations. LINKAGES staff in all six districts, peer outreach workers and staff from district health offices were oriented. These strategies were integrated in all community-based testing approaches (mobile outreach, moonlight service hours and 17 drop-in centres). Unique identifier codes were used to link sexual partners, spouses and biological children to treatment, care or support services.

Table 3.2.2. Summary of VPR and RNR HIV testing results, January–February 2019

Population	Modality of testing								
	RNR (30/124)			VPR (94/124)			HTS via traditional outreach		
	Tested	Positive	HIV positivity	Tested	Positive	HIV positivity	Tested	Positive	HIV positivity
Clients of female sex workers	11	2	18%	62	21	34%	145	9	6%
Female sex workers	6	0	0%	12	2	17%	1667	276	17%
Men who have sex with men	12	3	27%	18	5	28%	449	94	21%
Transgender	2	0	0%	3	2	67%	13	0	0%
Total	31	5	16%	95	30	32%	2274	379	17%

VPR and RNR promote peer-to-peer sharing of information on HIV testing, disclosure, treatment, care and support. Both approaches led to increased case detection among men who have sex with men, transgender people and clients of sex workers compared to testing via traditional outreach. Overall, VPR (76%) was more popular than RNR (24%), and uptake with both approaches was greatest among clients of sex workers and transgender people (Table 3.2.2).

Scaling up partner services

Kenya

Eastern Deanery AIDS Relief Program

www.edarp.org/

The Eastern Deanery AIDS Relief Program (EDARP) is a Catholic faith-based organization (FBO) providing integrated HIV and TB prevention, care and treatment. Founded in 1993, EDARP provides high-quality compassionate services in the eastern part of Nairobi County, Kenya. Its target area has an HIV prevalence of 6.1% and includes 95 informal settlements with an estimated population of 2.1 million people. The programme implements a linked community-to-facility-based care model and delivers services through 1200 community health workers (CHWs) supervised by 410 clinical staff and organized around community units. All activities are implemented in collaboration with the Kenyan Ministry of Health (MoH) in line with MoH guidelines, and under the devolved health system structure in the five sub counties where EDARP operates.

In its testing programmes, EDARP focuses on prevention, care and treatment for the general population with a current emphasis on youth and young adults, key populations and men who have never previously accessed HIV services. CHWs work to generate demand for HIV testing services (HTS) through outreach, promotion of HIV self-testing (assisted and unassisted), and community mobilization and awareness. Beginning in June 2019, partner notification services (PNS) were re-emphasized within facility-based testing and EDARP has achieved sustained linkages of HIV-positive patients to care at 100%. In addition to HIV care and treatment, these services include: TB symptom screening, sexually transmitted infection (STI) screening, disclosure assistance and support, and ongoing psychosocial support through individual, group and community-based structures. An electronic medical record utilizes linkage registers to ensure that clients receive services they want and need. Client information is kept confidential through data encryption, access password protection and designated user access rights. A case management approach for all clients includes the HTS provider physically escorting clients for additional services. EDARP is a Catholic organization that provides every client with complete and accurate information regarding all evidence-based prevention methods but does not directly provide condoms or other family planning services. Clients are referred to MoH facilities for these services.

From July 2018 through June 2019, 119 604 people received facility-based HTS at EDARP clinics. Of these, 1651 adults and 52 children were found to be positive. Beginning in June 2019, EDARP began a concentrated effort to target HIV testing to those most at risk, with a concentrated PNS intervention. Between July and September 2019, 4368 partners were elicited from HIV-positive clients; 21% of the negative partners accepted and were placed on pre-exposure prophylaxis (PrEP). Also during this period, EDARP integrated HIV self-testing (HIVST) into its testing interventions. Two thousand and fifty-eight HIVST kits have been distributed. Of the 678 results that have been returned thus far, the positivity yield was 4.5%. All persons with HIV-reactive results have received confirmatory testing and 100% linked to care and treatment.

For clients who tested positive from January to September 2019 ($n = 2034$, 1305 adults and 63 children), HTS post-test services include counselling support for linkage to care (99.9%), peer support services and provider-assisted referral. Provider-assisted referral is client directed and occurs in a time frame within which the client feels comfortable. Once partners are contacted, either by the client or by EDARP staff, they are referred to EDARP facilities for HTS. Several EDARP clinics now offer early morning and late evening services, specifically targeting men and partners. Contacts identified through partner services may access testing at these services. Common challenges experienced while delivering PNS included: client reluctance to identify sexual partners with whom they engage in transactional relationships or rely upon for other non-monetary support, elicited contacts not taking the information positively and hostile contacts.

For clients who tested negative, post-test services included provision of targeted information about prevention services that were relevant to client needs. Staff supports linkage via direct client escort to HIV prevention services, including voluntary medical male circumcision (VMMC), prevention of mother-to-child transmission (PMTCT), post-exposure prophylaxis (PEP) and PrEP. Of the HIV-negative individuals identified through PNS, 21% are receiving PrEP.

3.3. Assuring the quality of HIV testing

Post-market surveillance

Rwanda

World Health Organization

https://www.who.int/diagnostics_laboratory/postmarket/en/

WHO maintains a database of complaints for any in vitro diagnostics (IVDs) within the scope of WHO prequalification as a form of post-market surveillance. IVD manufacturers are obliged to report serious and moderate complaints to WHO within specific timelines. Additionally, any end-user can report a complaint directly to WHO, who in turn informs the IVD manufacturer. WHO prequalification primarily focuses on IVDs used in low-resource settings. Therefore, WHO's complaint database supports WHO Member States where pre- and post-market regulation for IVDs is not well implemented. Since 2015, 113 complaints have been reported to WHO for HIV IVDs (32% of them serious, 49% moderate, 19% mild). For each complaint, WHO requests the IVD manufacturer to provide an investigation report and oversees the course of their investigation for timeliness and scientific rigour. If a correction (e.g. lot recall) is required, or a corrective action (e.g. change to more reliable key supplier), WHO works with the IVD manufacturer to ensure that WHO Member States are adequately informed through field safety notices issued by the IVD manufacturer and posted on WHO's website.

Complaints can be reported at:

https://www.who.int/diagnostics_laboratory/procurement/complaints/en/.

This is an example of a complaint that was reported to WHO, as per the conditions of WHO prequalification listing. A nongovernmental organization (NGO) noted complaints from testing providers in the national programme that they could not understand sections of the instructions for use for a new HIV rapid test. Upon closer inspection, parts of the instructions for use contained text in an unfamiliar language. The NGO assisted the national authorities to report the complaint to WHO using the WHO IVD complaint form.

WHO informed the IVD manufacturer, who immediately began an investigation into the root cause of the problem. The IVD manufacturer submitted an investigation report to WHO that identified the root cause as an editing error made by one of their outsourced key suppliers (the translation agency). The key supplier was working according to the pre-defined standard operating procedure, and they were competent to carry out the assigned translation task. An error was made when two different translation tasks were conducted at the same time and a cut-and-paste error occurred.

The agreed correction (action taken to eliminate a detected nonconformity) was to issue a new version of instructions for use with the correct language throughout. This was informed to testing providers through a field safety notice, which contained a copy of the new version of the instructions for use.

The agreed corrective action (action is taken to eliminate the cause of a detected nonconformity) was to revise the standard operating procedure for translation by adding back-translation into English and proofreading by a native speaker of the language.

3.4. Service integration and programmatic linkages

A people-centred approach to the HIV response

Odessa, Ukraine

AIDS Healthcare Foundation

www.aidshealth.org/

A people-centred approach should be a part of a successful HIV response. HIV diagnosis, care and treatment services should be easily accessible and affordable, and address the needs of people, especially from vulnerable groups, who usually do not seek care. This can be achieved within primary health care. Moving from centralized and vertically organized service delivery to integrated service delivery that address the health and psychosocial needs of communities and individuals is essential for achieving sustainable health outcomes in the HIV response. Fragmentation of HIV, tuberculosis (TB), sexually transmitted infection (STI) and mental health services can be significantly reduced through people-centred care, delivered in a "one-stop shop" manner, at the primary health care level as the entry point for HIV diagnosis, initiation and treatment in most cases.

The Odessa Test & Treat Clinic uses the AIDS Healthcare Foundation (AHF) approach to integrated testing, treatment and care, and creation of a free, comprehensive, patient-centred primary health service as an entry point for service delivery.

The Clinic provides HIV testing services, including rapid testing, condom distribution, information and counselling as well as linkage to treatment and care.

- Diagnosis is provided without delay on the same day and linkage is also done the same day and in the same building.
- Multiplex test kits are used as a first screening test in order to increase the attractiveness of testing services and to reach high-risk groups for prevention activities.
- Partner testing and prevention services for those with partners who are people living with HIV (PLHIV) are part of the model and counselling is later offered to discordant couples regarding possible childbearing.
- Lay provider testing and peer counselling for men who have sex with men have been piloted and lay providers increase the demand for HIV testing and work during “comfortable” hours for the clients, on evenings and weekends.
- Condoms are easily accessible and distributed among all visitors. Counselling is provided on safe sex behaviour.
- Information materials on HIV prevention and testing are available and distributed among all visitors.

The clinic offers linkage support and provision of ART, treatment monitoring and comprehensive services.

- The clinic emphasizes short time to ART, within 14 days of diagnosis.
- According to the national regulations, ART provision can be done only through government institutions. To ensure that all services are at one place, AHF Ukraine is providing antiretrovirals (ARVs) as well and laboratory monitoring of treatment to patients through close cooperation with the government.
- TB screening and prevention are provided according to the national guidelines.
- Reproductive health counselling and services, including cervical cancer screening, are supported by a gynaecologist. Pap test and colposcopy are available to women in the Clinic. Modern equipment for gynaecological services creates a comfortable and professional environment for women.

To simplify procedures and reduce waiting times, clear patient pathways were introduced for testing, diagnosis, treatment, mental health and general practitioner (GP) services. To meet the needs of patients and reduce stigma, AHF Ukraine has created a friendly atmosphere at the Clinic by introducing the appointment system – evening appointment hours until 19:00 and HIV testing and antiretroviral therapy (ART) services on Saturdays. Key innovations are presented in Table 3.4.1.

To support linkage to ART initiation, the Clinic offers the StART Club, a peer support group to help people with HIV develop and retain adherence to ART. The Club is conducted in an informal atmosphere and facilitated by an expert in ART, general care, vaccination or psychology. Participation helps people to accept their HIV status, link to care, and be with a community of “peers”. Through regular communication with medical professionals, the participants receive professional and comprehensive information about their health.

Table 3.4.1. AHF Ukraine service delivery modifications

Service delivery approaches before 2018	Odessa Test & Treat Clinic service delivery approaches
An infectious disease doctor sees patients and provides ART only and offers referrals	An interdisciplinary team sees patients and offers comprehensive services within the clinic
HIV testing and HIV diagnosis and ART initiation/delivery located in different places	HIV testing, diagnosis, ART initiation, care and treatment in one place
Remote locations and fixed schedule of treatment service delivery	Flexible services: downtown location of the clinic, evening and weekend opening hours, outreach possibilities
No systematic process to address loss to follow up (LTFU)	Regular LTFU process, monitoring of quality of services with quarterly recommendations based on analysis
Very limited cooperation with GP and mental health services	Mental health counselling, gynaecology and GP services provided

Fragmented peer support	Regular peer support and StART Clubs, and initiatives led by patients
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AHF Ukraine uses standard checklists to monitor the quality of services. A patients' advisory group is involved with the monitoring services at the clinic so that the interests of the patients and suggested improvements are followed through.

Start counting from one again

Napneung, Thailand

Faculty of Associated Medical Sciences, Chiang Mai University, Thailand

<http://www.ams.cmu.ac.th/main/web/index.php?langId=3>

French National Research Institute for Sustainable Development

www.en.ird.fr/

Napneung ("Start Counting from One Again" in Thai language) was a programme aimed at comparing methods that could improve and provide easier access to HIV testing and increase the number of at-risk individuals coming for regular testing.

The programme was implemented by the PHPT International Research Collaboration (Faculty of Associated Medical Sciences, Chiang Mai University, Thailand, and French National Research Institute for Sustainable Development, Research Unit IRD 174). It was supported by Expertise France through the 5% Initiative. Trained nurses and medical technologists provided free-of-charge anonymous and confidential testing and counselling in four settings in Chiang Mai and Chiang Rai, two medium-sized cities in northern Thailand. All individuals ≥ 18 years of age from South-East Asia were welcome, regardless of sexual orientation or risk behaviour. Outreach relied on distribution of vouchers in public places, posters, social media and Google ads. After appointment, made through a 24/7 telephone line or online through the programme website, clients were provided with pre- and post-test counselling and rapid testing for HIV, syphilis, hepatitis B (HBsAg) and hepatitis C antibodies in less than one-hour sessions. Different counselling methods and reminder strategies to encourage uptake of HIV retesting by at-risk individuals were evaluated and compared. If HIV positive, confirmatory HIV tests and CD4 cell count (point-of-care device) were immediately performed. All clients with a positive test were personally referred to partner hospitals for evaluation and treatment, with direct contact made with the treatment programme.

From October 2015 to January 2019, a total of 5733 single clients (52% females, median age 25 years [interquartile range [IQR]: 22–35 years], 65% never tested before) received 7057 tests for each of the four infections (1324 retests). Based on self-reported data, 1140 (20%) belonged to key populations: 897 men who have sex with men, 34 transgender women, 83 males and 82 females with current or former engagement in sex work, and 120 males and 32 females with current or former injection drug use (multiple categories possible). Median time between arrival at the facility and disclosure of test results was 42 minutes (IQR: 35–49 minutes). Computer-assisted counselling greatly reduced the time spent by counsellors and clients as compared to standard face-to-face counselling. Overall, >99% of clients reported being satisfied with the testing and counselling session. A total of 577 (10%) clients tested positive for at least one of the four infections – in particular, 94 clients were newly diagnosed with HIV (1.7% of all clients previously unaware of their status), 106 with syphilis (1.9%), 122 with hepatitis B (2.2%) and 42 with hepatitis C antibodies (0.7%). Scheduling an appointment for retest in advance and sending reminders shortly before the scheduled appointment was the most effective strategy to encourage at-risk individuals to come back for retesting.

Increasing HIV testing uptake among tuberculosis clients

Jakarta, Indonesia

LINKAGES

www.fhi360.org/projects/linkages-across-continuum-hiv-services-key-populations-affected-hiv-linkages

According to a 2017 Indonesia Ministry of Health report, just 35% of tuberculosis (TB) patients in Indonesia's capital city, Jakarta, knew their HIV status. Increasing HIV testing coverage among TB patients was compromised by the placement of HIV testing services at subdistrict public health clinics (*puskesmas kecamatan*), while TB treatment often takes place at primary health care centres in sub-subdistricts (*puskesmas kelurahan*). Individuals requiring HIV testing services in 2017 received passive referrals to subdistrict health clinics. Referrals were not systematically tracked, nor was HIV testing uptake systematically reported within the national HIV and TB health information systems.

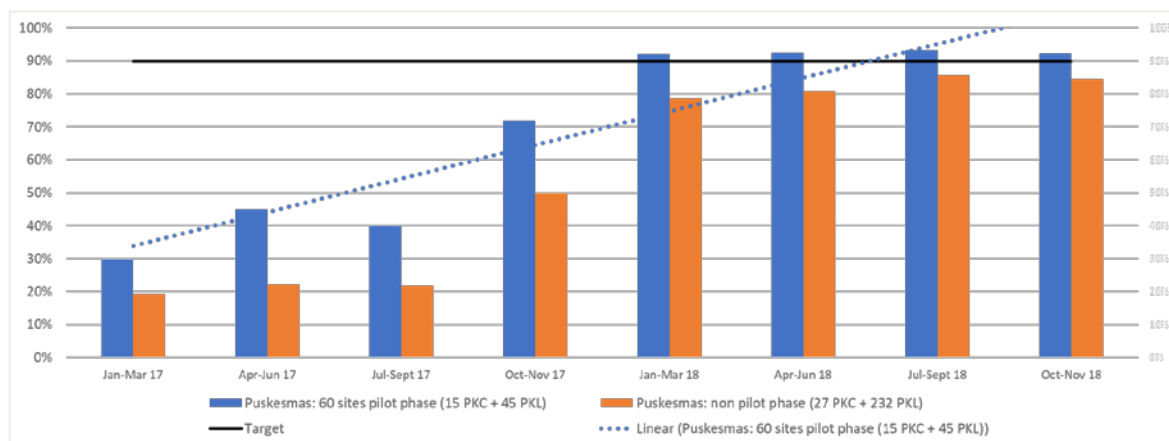
In 2018, a joint service delivery technical assistance (TA) strategy was implemented to increase HIV testing coverage of TB clients at *puskesmas kecamatan* and *puskesmas kelurahan* across five districts. The strategy was developed by Challenge TB, funded by the US Agency for International Development (USAID); Linkages across the Continuum of HIV Services for Key Populations Affected by HIV (LINKAGES) project, funded by USAID and the US President's Emergency Plan for AIDS Relief (PEPFAR) and led by FHI 360; and the USAID Global Health Supply Chain program. Sixty TA-focus facilities – 15 *puskesmas kecamatan* and 45 *puskesmas kelurahan* – were offered four intensification options for HIV testing, based on their preferences or needs:

1. **provision of mobile HIV testing services** to TB patients at *puskesmas kelurahan* organized and tracked through the electronic mobile testing scheduler system (DOKLING) developed by USAID/LINKAGES;
2. **assisted HIV testing service navigation** by community-based personnel linked to *puskesmas kelurahan*;
3. **transport of HIV testing specimens** from *puskesmas kelurahan* to/from *puskesmas kecamatan*;
4. **HIV screening using fingerprick** at *puskesmas kelurahan*, with assisted referral to *puskesmas kecamatan* for HIV-reactive individuals.

Forty-six per cent of facilities selected option 4, 34% chose option 3, while the remaining facilities implemented options 1 and 2.

Following 12 months of TA, HIV testing coverage for TB patients at these 60 facilities rose from a 2017 baseline of 47% to 93% by November 2018. The Jakarta Provincial Health Office requested USAID assistance to roll out HIV acceleration options across the remaining 27 *puskesmas kecamatan* and 232 *puskesmas kelurahan* in June 2018, with HIV testing coverage reaching 83% among all TB patients presenting at public health centres in Jakarta at the end of 2018 (Fig. 3.4.3).

Fig. 3.4.1. HIV testing coverage (January 2017–November 2018) at sites receiving joint TA service delivery versus sites not receiving joint TA service delivery



PKC = *puskesmas kecamatan*
 PKL = *puskesmas kelurahan*

Integrated community-based harm reduction: improving access and linkages to treatment and care

Myanmar
 Medical Action Myanmar (MAM)
www.medicalactionmyanmar.com/
 National AIDS program and Myanmar Oxford Clinical Research Unit
 (Website not available)

The severity of the HIV epidemic within Myanmar varies across geographical locations and behavioural risk profile. Data suggest that the HIV burden is substantially higher in urban or semi urban areas and areas where injecting drug use is prevalent, illustrated by an HIV prevalence ranging from 6% to 47% among people who inject drugs in different areas of Myanmar. In Kachin state, heroin use is contributing to dual epidemics of injecting drug use and HIV infection.

Putao is one of the northernmost townships in Kachin state and known for its access to the Himalayas. The area is very remote and difficult to access even for regular health care. However, similar to other areas in Kachin state, drug use is high in Putao. Many people who inject drugs have difficulty in accessing harm reduction activities such as HIV testing and counselling, antiretroviral therapy (ART), needles and syringes and condom supply, and diagnosis and treatment of tuberculosis (TB), sexually transmitted infection (STI), hepatitis B virus (HBV) and hepatitis C virus (HCV).

With funding support of the United States Agency for International Development (USAID) and the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund), Medical Action Myanmar (MAM) has started a harm reduction project in Putao since late 2017. A new strategy of community-based intervention using mobile clinic teams and integration with networks of existing malaria community health workers (CHWs) has been established. Malaria CHWs are already well known by the community and are in place in remote villages providing diagnosis and treatment of malaria and basic health care. With the integration model, CHWs are being trained and mobilized on HIV-related activities, including health education, referrals for HIV testing and counselling, needle and syringe exchange, and referral for methadone maintenance therapy (MMT) and ART. CHWs' homes are modified and designed to be able to supply harm reduction services easily (such as installing automated needle and syringe supply boxes, used needle disposal places, provision of information, education and communication [IEC] materials) as in drop-in centres. These CHWs are regularly trained and monitored by a medical doctor (MD)-led MAM mobile team, which includes a doctor, counsellor and peer educator. During a medical mobile team visit, the team performs (together with CHWs) HIV testing, counselling and provision of basic health care, health education and linkage to HIV confirmatory testing and ART and MMT at MAM-run HIV clinics and ART and MMT centres in the hospital.

Before MAM started working in Putao, people who inject drugs were well hidden and integrated biobehavioural survey (IBBS) data only showed 35 people who inject drugs. With this new model, MAM has run a harm reduction programme effectively within a short time frame, reaching more than 1200 people who inject drugs with community acceptance and support. And around 900 people who inject drugs have been screened and treated for HIV, HBV, HCV, STI and TB infection.

Community-based service delivery integrated through existing CHWs in rural Kachin state is feasible for better identification, linkages to care and reduction in transmission of HIV among people who inject drugs in hard-hit rural areas of Myanmar.

Strengthening public–private sector integration to accelerate HIV case-finding and linkage to treatment among people with TB

India

PATH

www.path.org/

India reports approximately 2.7 million new tuberculosis (TB) cases annually, of which 3% are among people living with HIV. The 2018 India TB Report suggests that an equal number of TB patients seek care in the private sector, but only 13% of those notified from the private sector are aware of their HIV status. To increase private sector TB notifications, PATH introduced the Patient Provider Service Agency (PPSA) and engaged an extensive network of private providers to provide free TB diagnosis and treatment services, aligned with national standards for TB care. However, there remained a gap in the proportion of TB patients with documented HIV status in the private sector. This highlighted a need for sustainable approaches to improve HIV case-finding and linkage to antiretroviral therapy (ART) among private sector TB patients.

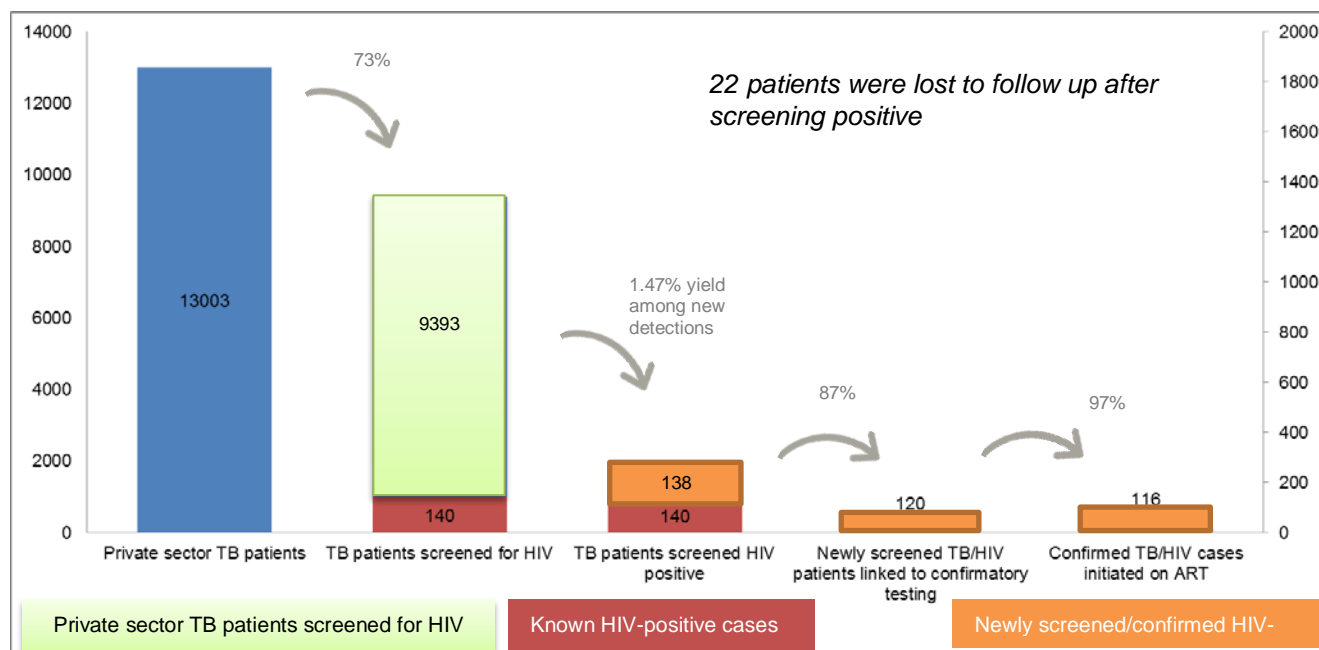
To close this gap, PATH, under the Challenge TB mechanism with funding from the US President's Emergency Plan for AIDS Relief (PEPFAR), collaborated with the Mumbai District AIDS Control Society (MDACS)/Maharashtra State AIDS Control Society (MSACS) to integrate HIV testing services (HTS) and referrals into the PPSA platform using the following strategies:

1. strengthening the capacity of private sector providers and laboratories to provide HIV rapid testing at the first point of care for people with TB;
2. establishing formal agreements between private laboratories/hospitals/clinics and MDACS/MSACS to report HIV testing data to the national strategic information management system and provide free HTS, reimbursed by the project;
3. using the link counsellor model to provide accompanied referrals for TB/HIV-coinfected patients to public sector HIV Integrated Counselling and Testing Centres (ICTCs) for confirmatory HIV diagnosis and ART centres (ART-C) for fast-tracked treatment initiation within seven days. Link counsellors also followed up with TB patients in the private sector who were not tested for HIV.

Of the 13 003 TB patients notified from 135 private sector sites, 9533 (73%) were tested for HIV; 278 TB patients tested positive for HIV, of whom 140 were known to be positive and were already on ART (101 receiving public sector services and 39 receiving private sector services). The overall HIV positivity rate was 2.9%. HIV testing yield among newly tested cases was 1.47%. One hundred twenty of the 138 (87%) newly detected HIV-positive patients were linked to ICTC facilities, of which 116 (97%) were linked to ART (Fig. 3.4.2).

The integration of public- and private-sector providers increased the offering of HTS and improved HIV case-finding among private sector TB patients. To ensure sustainability, this model was transitioned to the public sector by April 2019, with MDACS supplying HIV test kits directly to private sector sites to continue provision of subsidized/free HTS to TB patients.

Fig. 3.4.2. Cascade of HIV services provided to private sector TB patients in Maharashtra, March 2016 to December 2017



Reaching men through integrative care: hypertension services as an entry point for HTS

Western Kenya

PATH

www.path.org/

Although Kenya has been very successful in making progress towards the 90-90-90 targets, HIV testing and treatment among men remains a challenge. At the same time, an epidemiological transition has occurred in Kenya, which has resulted in a population with increased rates of noncommunicable diseases (NCDs), primarily cardiovascular disease (CVD). Given the coexistence of these twin epidemics, the US President’s Emergency Plan for AIDS Relief (PEPFAR) and Astra-Zeneca partnered with PATH through a United States Agency for International Development (USAID)-funded project to provide an integrated hypertension (HTN) and HIV screening, diagnosis and treatment platform with the aim of engaging at-risk men, who might otherwise not come for HIV testing, in health services in western Kenya.

Mobile blood pressure screening and HIV testing services were offered in 51 locations in western Kenya (out of the 210 sites supported by PEPFAR/USAID/PATH for HIV care and treatment) from January 2017 to November 2018. The integrated HTN/HIV screening outreach targeted places where men between the ages of 18 and 50 years congregated. The outreach was conducted in informal workplaces, including *boda-boda* sheds, sand harvesting sites, road construction areas and cattle markets, etc. The outreach services were advertised beforehand through community channels and conducted during the day at workplaces and at night (“moonlight outreach”) at social venues. All individuals testing HIV positive were immediately linked to a health facility for confirmatory testing and linkage to care.

With this targeted testing approach, the project was able to reach more men (53.5%) than women (46.5%) as compared to the conventional testing approach, which reached 45.1% of men and 54.9% of women (an 8.4 percentage point increase). The difference in men tested for HIV in the intervention sites versus the control sites was statistically significant ($P < 0.001$). We found that offering non-stigmatizing HTN services resulted in a modest increase in HIV testing uptake among men, and that the men who opted for both HTN and HIV services found them to be acceptable.

Table 3.4.2. Male testing, intervention versus control sites, March–November 2018

Month	Intervention sites			Control sites			Percentage point difference	P-value
	% males tested	Total tested (M&F)	Total males tested	% male tested	Total tested (M&F)	Total males tested		
March 2018	55.8%	(5 716)	3 190	52.7%	(13 578)	7 162	3.1	<0.001
April 2018	54.3%	(4 227)	2 294	44.5%	(11 421)	5 078	9.8	<0.001
May 2018	51.2%	(6 851)	3 511	42.5%	(11 945)	5 075	8.7	<0.001
June 2018	52.2%	(6 410)	3 347	43.7%	(12 306)	5 381	8.5	<0.001
July 2018	51.4%	(4 421)	2 274	46.7%	(13 149)	6 145	4.7	<0.001
August 2018	52.2%	(8 526)	4 450	47.2%	(11 920)	5 625	5.0	<0.001
September 2018	58.5%	(8 121)	4 747	42.2%	(10 661)	4 502	16.3	<0.001
October 2018	46.0%	(4 690)	2 156	41.8%	(12 390)	5 176	4.2	<0.001
November 2018	61.2%	(3 124)	1 912	42.6%	(10 608)	4 524	18.6	<0.001
Total	53.5%	(52 086)	27 881	45.1%	(107 978)	48 668	8.4	<0.001

F: female; M: male

Friendly HIV testing services: an innovative community-based testing approach to HIV and linkage to care for men who have sex with men

Hanoi, Viet Nam

PATH

www.path.org

In 2016, Lighthouse (with PATH) began to offer free community-based HIV testing through trained lay testers in Hanoi, Viet Nam. Prior to 2016, the main testing method was performed by professional testers at voluntary counselling and testing (VCT) facilities, the community did only outreach and referred people for VCT. These had inconvenient opening times and were not lesbian, gay, bisexual, transgender, intersex and queer/questioning (LGBTIQ) friendly, the community was not empowered to provide services and many positive cases were lost follow up. To increase HIV testing coverage, appropriate counselling and treatment, a community-based initiative was launched.

As a community-based organization (CBO), Lighthouse has easier access to the community with a great understanding of the community's characteristics, habits and needs. The services offered result from conducting a survey to understand community needs in combination with Lighthouse's experience in providing services over nearly 15 years. First, the on-site clinic offers longer, more convenient opening hours (Fig. 3.4.3). Second, to combat the discrimination encountered at health-care settings, Lighthouse offers testing by trained lay testers who identify as men who have sex with men as well as ensuring that any linkage to care provides prejudice-free and LGBTIQ-friendly sexual health care.

Specific to Lighthouse, around 75% of HIV testing is conducted on-site, 15% through hotspot and community event testing and 10% through self-test kits. On-site testing allows for rapid sexual health screening, including for gonorrhoea, chlamydia and HIV/syphilis dual testing, while self-testing and community event testing increases outreach.

Services are promoted by peer outreach educators sharing extensive information on young key populations' online channels (social network sites, dating apps, etc.). Offline, Lighthouse organizes service promotion, communication events and is present at other community events to introduce services and provide information on where to obtain sexual health products and where testing hotspots are available.

Before individuals engage with the services, consent is obtained and confidentiality principles are adhered to (both verbally and in writing). With a reactive result, the trained lay person escorts the individual to a confirmatory testing site and provides linkage to care, when necessary. Through index/combination testing, it is possible to detect who has been newly infected. Once detected, information and skills on how to tell sexual partner(s) are provided to encourage their partners to test. When the result is non-reactive, individuals are encouraged to test every 3–6 months (in accordance with WHO guidelines), with around 40% of on-site HIV tests offered to previous clients. Individuals are educated on preventive methods such as pre-exposure prophylaxis (PrEP) and post-exposure prophylaxis (PEP) and offered free condoms and lubricants. Since the implementation of PrEP in Viet Nam (June 2017), Lighthouse has engaged about 90 men who have sex with men on PrEP.

Fig. 3.4.3. Testing at the Lighthouse office



Photo credit: PATH

In total, in 2018, Lighthouse provided HIV testing to 1259 LGBTIQ, with 68 receiving a reactive result and 68 with a confirmed positive result. Of the confirmed results, 100% were referred to antiretroviral therapy (ART) services.

“I felt very comfortable when I did test at Lighthouse; they are very close, warm and enthusiastic. I can easily share my risks and receive appropriate counselling, moreover, they are same like me, so they can understand my issues and support me when I need.” –Lighthouse client

Community-led testing for HIV, syphilis and HCV

Viet Nam

World Health Organization Viet Nam

<https://www.who.int/countries/vnm/en/>

This community-led, multiple disease-testing pilot project for key populations in Viet Nam was designed to assess the feasibility and effectiveness of lay and self-testing approaches for HIV, HCV and syphilis. The purpose was to address low testing coverage among key populations compared to national and global targets, and barriers to accessing facility-based testing experienced by key populations. The results of testing uptake and yield as well as linkage to prevention, treatment and care were used to inform national policy and programme development.

The pilot study, which was supported by WHO, was launched in January 2017 and targeted people who inject drugs and men who have sex with men in Thai Nguyen in northern Viet Nam, and men who have sex with men and female sex workers in Can Tho in the south of the country. Lay-provider, self-testing and partner notification services were offered. Clients had a choice of HIV oral fluid test (with or without assistance from lay providers) and/or blood-based finger-prick tests for syphilis and HCV. Rapid diagnostic tests were used in this project, including HIV oral fluid tests, dual HIV–syphilis tests and HCV rapid tests. Peer educators from networks of people who inject drugs, men who have sex with men and female sex workers in two provinces received three days’ training on comprehensive service provision for testing and counselling and linkage to

Fig. 3.4.4. Clients and counsellors in Viet Nam

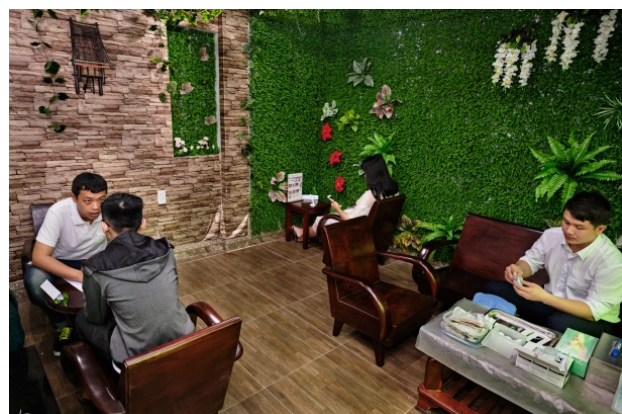


Photo credit: WHO/Yoshi Shimizu

prevention, treatment and care. Peer educators who passed the final exams were assigned to provide testing and counselling (Fig. 3.4.4). Those did not pass the exam were assigned to participate in outreach activity. Demand was created through conventional community outreach, use of social media networks and community events. Data were collected from client forms and routine logbooks and verified by the Provincial AIDS Centres. Quality was assured through training, examination and certification of peer educators, development of standard operating procedures (SOPs), regular monitoring and supervision from national and provincial levels, and provision of quality-assured test kits, timers and consumables.

Between January 2017 and December 2018, a total of 6534 clients underwent HIV testing, 4520 (69%) of whom had never previously been tested; 2280 (35%) were people who inject drugs, 3695 (57%) men who have sex with men, 281 (4.3%) female sex workers and 278 (4.3%) partners; 50% were below 25 years of age, 93% were male and 0.7% were transgender people. Unassisted testing reached younger clients and more men who have sex with men (87% vs 60% and 82% vs 73%, respectively) and more first-time testers (86% vs 78%) when compared with assisted HIV testing. Among the 6534 HIV tests, 337 (5.2%) were confirmed HIV positive, and 319 (95%) clients received ART. There were 1588 syphilis tests, 99 (5.7%) were confirmed to have active syphilis and 93 (94%) received treatment. Among 663 HCV tests conducted, 126 (19%) were positive. Access to HCV diagnosis and treatment were limited due to the fact that hepatitis C oral medicines were not covered by national health insurance.

All clients receiving HIV, syphilis and HCV testing services were provided with prevention messages and commodities, including needles and syringes, condoms and lubricant.

The pilot demonstrated that passionate, committed peer educators could be highly effective in case-finding and linkage to care among the “unreached” and that lay- and self-testing were highly accepted by key populations, especially young men who have sex with men. Challenges included that young female sex workers remained hard to reach and HCV diagnosis and treatment were limited.

Results from the pilot study informed the development of updated national guidelines on HIV testing and community-based HIV testing, which were approved by the Viet Nam Ministry of Health in 2018.

3.5. Strategic use of information

Codes, colours and maps: community HIV counselling and testing

Mozambique

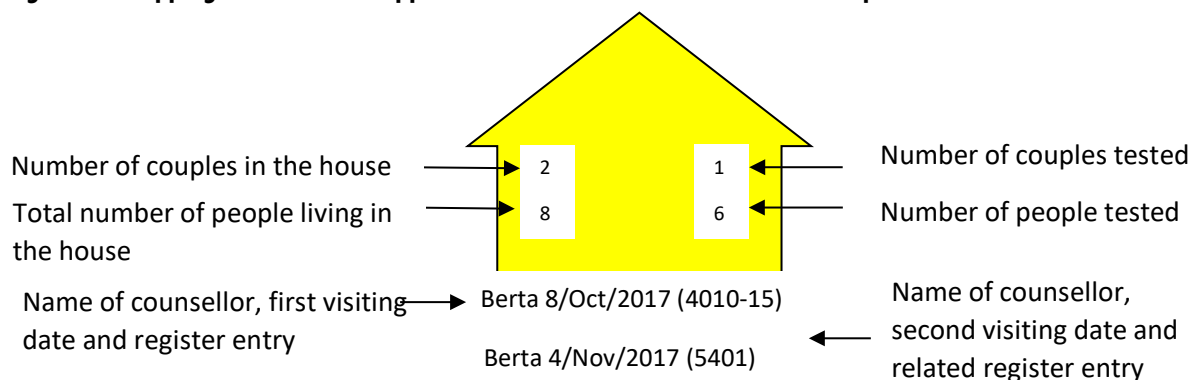
Jhpiego

<https://www.jhpiego.org/>

Lay counsellors are arguably the most important actors in the provision of HIV counselling and testing (HIV CT) in Mozambique. These women and men are usually native to the areas they serve and have proved to be very successful in reaching people, particularly in underserved, remote and poor areas. Since 2009, the counsellors supported by Jhpiego through nine different community or faith-based organizations, in up to nine of the 11 provinces have tested more than 2 million people. The geographical magnitude of their work required a new way of finding and coding households, especially given the repeated contacts counsellors often need to establish to gain trust, check counter-referrals and provide follow up.

Counsellors start with a blank piece of paper and draw symbols representing each household to be visited in a given area. This results in a map where numbers are written inside each house indicating the number of couples and people living in the house. Houses are painted as follows: all household members received CT (green), some received CT (yellow), refused CT (red) or no tenants found (blank). The name of the counsellor, the visiting dates and register entry numbers are also recorded on the map. An X indicates that people refused to be seen or were absent (Fig. 3.5.1).

Fig. 3.5.1. Mapping tools used to support CT in rural communities in Mozambique



Additional codes used by counsellors indicate HIV status, including discordance among couples and those receiving antiretroviral therapy (ART), as well as tuberculosis (TB) status, to account for the HIV/TB association. Counsellors modify the codes accordingly at subsequent visits.

The mapping tools identified above result in a picture of the distribution of households and their HIV status. CT counsellors have been creative in adding details to locate and follow up rural households (Fig. 3.5.2). In Fig. 3.5.2, note the different colours of the households indicating CT coverage; the trees, school buildings and water holes serve as reference points. All households in an intervention area are mapped. CT coverage varies from 70% to 90%, a substantial increase subsequent to the introduction of mapping and coding.

Fig. 3.5.2. Mapping of an area covered by a CT counselor



The use of simple tools to find and follow households in the rural areas of Mozambique has contributed to increasing community access to HIV CT. The maps provide documentation from a household perspective to a community perspective, which can be used to estimate coverage and identify geographical areas in need of additional attention for preventing HIV in rural communities of developing countries. This is a best practice because it can be easily replicated (especially in low-resource settings), is inexpensive and successful.

User personas to inform the design and delivery of new HIV self-tests

South Africa, Viet Nam
 PATH
<https://www.path.org/>

In 2018, PATH initiated a project to design next-generation HIV self-tests that better align with user needs and are cheaper to manufacture. To inform product design, PATH conducted user research focused on developing and validating personas for three key populations: female sex workers (age 18–35 years) in Viet Nam, and adult males (age 18–77 years) and adolescent females (age 18–21 years) in South Africa. User personas are a tool in user-centred design to communicate user needs to design teams and developers. They capture the characteristics and goals of a user group, including common behaviours, skills, attitudes and limitations. In product design and delivery, personas represent a best practice for building cognitive empathy and a common understanding of the user, which helps to inform design decisions and improve product uptake.

A mixed-methods approach was used to develop the user personas. The personas were initially drafted based on expert interviews (*n*=3) and a literature review on each user group’s care-seeking behaviours and engagement with HIV testing

services. PATH then partnered with community-based organizations to design and conduct semi-structured interviews to validate the draft personas. In total, interviews were conducted in Viet Nam with 40 female sex workers and in South Africa with 28 adolescent females and 35 adult males. Interviews were analysed for key themes and descriptive statistics, which shaped the design and content of the personas. The personas describe demographic data as well as information on the following: home life, care-seeking behaviours, sexual behaviours, HIV testing experiences, factors influencing the decision to test for HIV, advantages and disadvantages of testing for HIV in a facility versus self-testing, perspectives on self-test usage and product features, and analysis on service delivery approaches and differentiated care models. The personas are freely available on PATH's website: <https://path.org/resources/hiv-self-testing-personas/>.

The user personas informed refinements to product design, as well as identified new opportunities to generate demand for HIV self-tests among these target populations through innovative delivery strategies. They helped prioritize product features, such as discrete packaging to protect privacy and a certificate of quality to build trust in the result. Digital technologies were also recognized as promising tools for disseminating HIV information, training on test use, and linkage to care and counselling. The personas are now being used alongside novel self-test designs to engage manufacturers in the development of next-generation tools.

Using programme data to prioritize HIV testing scale up and optimize yield

India

National AIDS Control Organisation

www.naco.gov.in/

India has a concentrated HIV epidemic with an estimated 2.1 million people living with HIV. The country has seen HIV prevalence reducing from 0.41% in 2002 to 0.26% in 2015. Given India's commitment to achieving the 90-90-90 targets by 2020, and the need to identify another 2.85 lakh PLHIV to achieve the first 90 target, the country achieved a 119% scale up in HIV testing from 2012–2013 to 2016–2017 but this also resulted in a lower yield (number of HIV-positives per test) from 2.1% to 0.5%. This highlighted the critical and urgent need to adopt targeted testing strategies to enable efficient utilization of limited resources.

The National AIDS Control Organisation (NACO) conducted a retrospective analysis of programme data from over 20 000 testing facilities all over the country to segment and identify geographical areas where testing strategies could be improved. All districts were divided on the basis of testing coverage (people tested/target district population) and positivity (positives identified/people tested) and categorized into high or low for a metric (positivity and coverage) based on the value of that metric above or below the national median. Table 1 presents the four segments identified: high positivity-high coverage, high positivity-low coverage, low positivity-high coverage, low positivity-low coverage. After the analysis, testing was increased in all categories of districts, with over 60% of districts in each category showing an increase in testing.

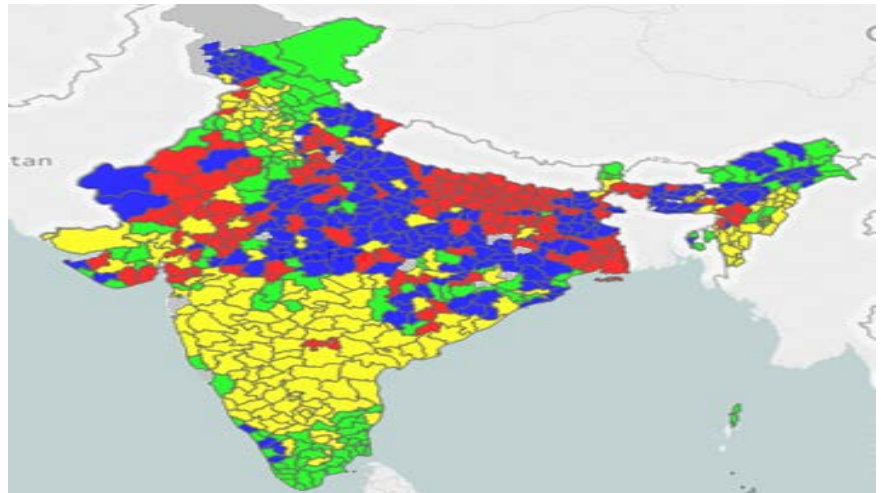
Table 3.5.1. HTS coverage and HIV positivity in 664 India districts

	Total districts 2016–2017	Total population (in millions) 2016–2017	PLHIV identified (in thousands) 2016–2017	Districts where testing increased in 2017–2018	Districts where positivity increased in 2017–2018
High positivity-high coverage	203 (100%)	431 (35%)	135 (70%)	165 (81%)	38 (19%)
High positivity-low coverage	129 (100%)	320 (26%)	35 (18%)	95 (74%)	52 (40%)
Low positivity-high coverage	129 (100%)	184 (15%)	15 (8%)	95 (74%)	38 (29%)
Low positivity-low coverage	203 (100%)	284 (23%)	8 (4%)	130 (64%)	97 (49%)
India total	664	1 219 (100%)	193 (100%)	485	225

The highest number of districts showing an increase in positivity were from the high positivity-low coverage (HP-LC) and low positivity-low coverage (LP-LC) regions (Fig. 3.5.3). This increase in testing yield demonstrated a higher dividend to scale up of testing in low-coverage regions. Even though overall positivity has declined in India, there are many districts

and states where an increase in positivity was observed, necessitating customized testing scale up within some districts. The 225 districts with an increase in positivity were determined to be priority districts going forward. A special focus was placed on the 52 districts from HP-LC regions and 97 from LP-LC regions. The programme is building capacity in these districts to upscale testing through testing strategies most effective for their location.

Fig. 3.5.3. India map with district categorization (2016-17)



Appendix 1. Case example characteristics

Appendix 1 presents a table that includes each case example and its key characteristics, including title, name of organization, intervention theme(s), populations covered, country and WHO region.

Table A1. Case example characteristics

No.	Title of example	Name of organization	Intervention theme(s)	Target population(s)	Country	WHO region
1	Health, love and safety: mobile testing for adolescents	AIDS Control Division, Bangkok Metropolitan Administration, ASEAN Institute for Health Development, Mahidol University	Generating demand for HIV testing and supporting linkage prevention and treatment services	Adolescents	Thailand	South-East Asia (SEA) Region
2	Community prevention, Kachin State, Myanmar	Asian Harm Reduction Network	Generating demand for HIV testing and supporting linkage prevention and treatment services	Injecting drug users Key populations	Myanmar	SEA Region
3	Testing men in conglomerates	Jhpiego, Congregation of the Hospitable Franciscan Sisters of the Immaculate Conception	Generating demand for HIV testing and supporting linkage prevention and treatment services	Men	Mozambique	African Region
4	Swab2know: an HIV testing strategy using oral fluid samples and online communication of test results for men who have sex with men	Institute of Tropical Medicine	Generating demand for HIV testing and supporting linkage prevention and treatment services	Men who have sex with men	Belgium	European Region
5	Reaching men and boys	Christian Health Association of Lesotho, Men's clinic at Maseru Seventh Day Adventist (SDA) Health Center	Generating demand for HIV testing and supporting linkage prevention and treatment services	Men	Lesotho	African Region
6	Early initiation of ART: Project Sahay	National AIDS Control Organisation, Solidarity and Action Against the HIV Infection in India	Generating demand for HIV testing and supporting linkage prevention and treatment services	General population, key populations	India	SEA Region
7	Samarth: A community-led HIV screening programme in India for men	India	Generating demand for HIV testing and supporting linkage prevention and treatment services	Key populations, men who have sex	India	SEA Region

No.	Title of example	Name of organization	Intervention theme(s)	Target population(s)	Country	WHO region
	who have sex with men and transgender women	National AIDS Control Organisation, India HIV/AIDS Alliance		with men, transgender women		
8	Health Kiosk model: scaling up HTS at faith worship centres	World Vision	Generating demand for HIV testing and supporting linkage prevention and treatment services	General population	Zimbabwe	African Region
9	Virtual referral for HIV testing services: men preferred 24/7 services	World Vision	Generating demand for HIV testing and supporting linkage prevention and treatment services	Men	Uganda	African Region
10	Community-based testing and linkage to PrEP	One Tent Health	Generating demand for HIV testing and supporting linkage prevention and treatment services	General population, key populations, men who have sex with men	United States	African Region
11	Sisli Health Clinic: rights-based approach to accessing HIV testing and treatment among men who have sex with men and transgender people in a Muslim majority country	International Health and Education	Generating demand for HIV testing and supporting linkage prevention and treatment services	Key populations, men who have sex with men	United States	Eastern Mediterranean Region
12	Beyond key populations in Pakistan	Nai Zindagi	Partner services and social network-based approaches	Partners of injecting drug users	Pakistan	Eastern Mediterranean Region
13	Finding HIV-positive persons among key populations in Zimbabwe	Population Services International	Partner services and social network-based approaches	Key populations, men who have sex with men, sex workers	Zimbabwe	African Region
14	Partner services to reach HIV-positive men	PATH	Partner services and social network-based approaches	General population	Kenya	African Region
15	Translating online reach to offline HIV testing, ART and PrEP	PATH	Partner services and social network-based approaches	Key populations, men who have sex with men, transgender women	Viet Nam	Western Pacific Region

No.	Title of example	Name of organization	Intervention theme(s)	Target population(s)	Country	WHO region
16	Voluntary partner referral and social network-based approaches improve HIV case detection among key and priority populations	LINKAGES	Partner services and social network-based approaches	Key populations, men who have sex with men, sex workers	Democratic Republic of the Congo	African Region
17	Voluntary partner referral and risk network referral increase HIV case detection among key and priority populations	LINKAGES	Partner services and social network-based approaches	Key populations, men who have sex with men, sex workers, partners of sex workers	Haiti	Region of the Americas
18	Index testing for key populations	National AIDS Control Organisation, LINKAGES	Partner services and social network-based approaches	Key populations	India	SEA Region
19	Expanding the paradigm: supporting civil society organizations to stimulate demand for HIV services through online platforms	LINKAGES	Partner services and social network-based approaches	Men who have sex with men and transgender women	Jamaica	Region of the Americas
20	Assisted partner referral and social network-based approaches increase case detection among key populations	LINKAGES	Partner services and social network-based approaches	Key populations, men who have sex with men, female sex workers and their clients, and transgender people	Malawi	African Region
21	Scaling up partner services	Eastern Deanery AIDS Relief Program	Partner services and social network-based approaches	General population, partners	Kenya	African Region
22	Post-market surveillance	World Health Organization	Assuring the quality of HIV testing	General population, key population	Rwanda	African Region
23	A people-centred approach to the HIV response	AIDS Healthcare Foundation	Service integration and programmatic linkages	General population, key populations	Ukraine	European Region
24	Start counting from one again	Faculty of Associated Medical Sciences, Chiang Mai University, French National Research Institute for Sustainable Development	Service integration and programmatic linkages	General population	Thailand	SEA Region

No.	Title of example	Name of organization	Intervention theme(s)	Target population(s)	Country	WHO region
25	Increasing HIV testing uptake among tuberculosis clients	LINKAGES	Service integration and programmatic linkages	People with TB	Indonesia	Western Pacific Region
26	Integrated community-based harm reduction: improving access and linkages to treatment and care	Medical Action Myanmar, National AIDS program, Myanmar Oxford Clinical Research Unit	Service integration and programmatic linkages	People who inject drugs, general population	Myanmar	SEA Region
27	Strengthening public–private sector integration to accelerate HIV case-finding and linkage to treatment among people with TB	PATH	Service integration and programmatic linkages	People with TB	India	SEA Region
28	Reaching men through integrative care: hypertension services as an entry point for HTS	PATH	Service integration and programmatic linkages	Men, general population	Kenya	African Region
29	Friendly HIV testing services: an innovative community-based testing approach to HIV and linkage to care for men who have sex with men	PATH	Service integration and programmatic linkages	Key populations, men who have sex with men, transgender people	Viet Nam	Western Pacific Region
30	Community-led testing for HIV, syphilis and HCV	World Health Organization	Service integration and programmatic linkages	People who inject drugs, Men who have sex with men, sex workers, partners	Viet Nam	Western Pacific Region
31	Codes, colours and maps: community HIV counselling and testing	Jhpiego	Strategic use of information	General population	Mozambique	African Region
32	User personas to inform the design and delivery of new HIV self-tests	PATH	Strategic use of information	General population, key populations	South Africa, Viet Nam	African Region, Western Pacific Region
33	Using programme data to prioritize HIV testing scale up and optimize yield	National AIDS Control Organisation	Strategic use of information	General population, key populations	India	SEA Region

Appendix 2. Call for case examples

This appendix presents the call for case examples, which was published on the WHO website on 20 March 2019.

Call for case examples and good practices of HIV testing services

20 March 2019 – The World Health Organization (WHO) is updating its *Consolidated guidelines on HIV testing services* to develop up to date guidance on HIV testing services (HTS).

The meetings of the Guideline Development Group will be held on 28–29 March and 5–7 August 2019 and will focus on reviewing the latest evidence on HIV testing services. The purpose of the meetings is to review the evidence, then provide recommendations and guidance on:

- optimizing newer service delivery approaches, including HIV self-testing, partner services and social network-based testing models;
- demand creation and mobilization strategies to increase uptake of HIV testing services and linkage to post HIV testing services; and
- increasing efficiency of HIV diagnosis through simplified testing strategies and algorithms.

To support this work, WHO is seeking examples of good practice for HIV testing among the general population or key population groups in a wide range of settings, testing strategies and service delivery approaches. As it has been carried out in previous guideline development processes, relevant case studies are sought by WHO and will be published within the body of the new guideline as well as in an annex.

WHO seeks case examples that describe HTS programmes, which include the following:

- service integration and programmatic linkages, including HIV and other disease areas, such as STIs, TB, and hepatitis B and/or C;
- assisted partner notification services and social network-based approaches among key population groups, including sex workers;
- demand creation for HIV testing, as well as linkage to prevention and care;
- risk-based or symptom screening tools, as well as experiences using indicator condition-guided testing;
- multiplex testing and its use, particularly the use of HIV/syphilis dual test.

What are HIV testing services?

HIV testing services include the full range of services that should be provided together with HIV testing:

- counselling (pre-test information and post-test counselling);
- linkage to appropriate HIV prevention, treatment and care services, and other clinical and support services; and
- coordination with laboratory services to support quality assurance and the delivery of correct results.

All HIV testing services should continue to be provided in line with WHO's essential 5 Cs: Consent, Confidentiality, Counselling, Correct test results, and Connection/linkage to prevention, care and treatment.

How will the case studies be used?

Successful case studies of HIV testing services may be included in the upcoming *Consolidated guidelines on HIV testing services*, currently planned for release in December 2018. Case examples should not exceed 1–2 pages, including photos.

The deadline for submission is 15 May 2019. To submit a case study or ask questions, please email barrdichiam@who.int.

Related links

Annex 19: HIV self-testing and partner notification services: Case examples, 2016, <https://www.who.int/hiv/pub/vct/Annex19.pdf?ua=1>.

Template for submission of case examples of successful programmes on HIV testing

To make the case study more appealing and closer to health providers, we would like 1 or 2 pictures of your choice illustrating the programme. If possible, please send the highest image resolution (at least 300 dpi). If the picture includes an identifiable individual, you must also send a written consent for each individual (see template below).

Case examples should be approximately 400 words in length and address the following subheadings:

1. A brief description of the HIV testing programme and its purpose including:
 - population group targeted: please specify age ranges, sex, and particular groups such as adolescents, young people or key populations (e.g. men who have sex with men, sex workers, people in prisons or other closed settings, people who inject drugs, transgender people or a combination of these groups);
 - country/countries and region of programme implementation. Please also indicate if the programme is implemented in a rural or urban area;
 - organization(s) and key stakeholders implementing the programme;
 - setting of implementation (e.g. home-based, school, church, workplace, mobile, index testing), and how users are linked to further HIV testing and care;
 - the specific aims of the programme, including development-related goals; and
 - the programme's start date and dates corresponding to the data within the case study.
2. Key methodologies used to develop, implement and evaluate the HIV testing programme, including:
 - methodologies used to develop the programme or services;
 - methodologies used to reach the target population(s) of interest;
 - methodologies used to monitor and evaluate outcomes of the services, including data collection methodologies where available;
 - methodologies used to develop a national policy and regulatory frameworks; and
 - methodologies used to develop and implement monitoring systems following HIV testing, such as pre- and post-market surveillance and community-based monitoring systems to identify adverse events or harm.
3. Measures of success, including (but not limited to):
 - pre- and post-intervention data relating to
 - background HIV prevalence and/or HIV incidence in the population being tested, HIV testing uptake and the frequency of testing following HIV testing (particularly among key populations and other groups at high risk);
 - number and percentage of people: with reactive test results, with reactive test results confirmed HIV-positive; with confirmed HIV-positive results following HIV testing linked to treatment and care; and if available, viral load measurements at HIV-positive diagnosis; and
 - number and percentage of people: with non-reactive tests results linked to health-care and HIV prevention services (including condoms, contraceptives, HIV testing, pre-exposure prophylaxis, post-exposure prophylaxis, voluntary male medical circumcision, and harm reduction services).
 - impact of policy or regulatory frameworks, e.g. the presence or absence of clear policy, which supports integration of HIV testing services within tuberculosis or family planning service delivery sites;
 - reasons for the programme's success;
 - programme failures or impediments to success; and
 - additional evidence from monitoring and evaluation to demonstrate the programme's success.

Appendix 3. Case example scoring tool

This appendix presents the case example scoring tool questions used by the HTS guideline steering committee to guide review of the submissions.

HTS case example scoring tool

Case examples share best practices of HIV testing services (HTS) and provide information that will be helpful to programme managers in diverse contexts. WHO has sought case examples that describe HTS programmes, which include the following thematic areas:

- service integration and programmatic linkages, including HIV and other disease areas such as STI, TB, and hepatitis B and/or C
- assisted partner notification services and social network-based approaches among key population groups
- demand creation for HIV testing, as well as linkage to prevention and treatment
- risk-based or symptom screening tools, as well as experiences using indicator condition-guided testing
- multiplex testing and its use, particularly use of HIV/syphilis dual tests

Instructions

- Use this web form to score case examples.
- Use one form for each case example.
- Carefully insert the ID number of the case example on the survey form.
- Note that if the content of the case example is promising but the writing needs work, our team may be able to work with authors to improve clarity; suggest this in the response for question 3.

Case example number _____

1. Rate the overall quality of the case example content

Strong case examples should:

- clearly describe programme setting, methods used to reach target population(s) of interest, and innovations.
- present programme data used to monitor outcomes of services.
- present data about clients accessing HIV testing services, number of people with positive results, linkage to prevention, treatment and other services, client satisfaction, etc.
- contain evidence of programme successes or challenges that could be useful for future programming.
- present approaches that target key populations, other vulnerable groups not yet reached with HIV testing services.

The quality of this case example is: (select one)

- 5 Very good
- 4 Good
- 3 Average
- 2 Weak or incomplete
- 1 Poor.

2. Identify any clarifications needed or request additional information here: (optional, box for free text entry)

3. How important is this case example's subject matter in the context of the new HTS guidelines?

- 5 – Very important
- 4—Important
- 3—Moderately important
- 2—Of little importance
- 1—Unimportant

4. **What is the area of importance?** (select one)

- Service integration and programmatic linkages, including HIV treatment and prevention and other disease areas, such as STIs, TB, and hepatitis B and/or C
- Assisted partner notification services and social network-based approaches among key population groups
- Demand creation for HIV testing, as well as linkage to prevention and care
- Risk-based or symptoms screening tools, as well as experiences using indicator condition guided testing
- Multiplex testing and its use, particularly use of HIV/Syphilis dual tests
- Recency assays
- Quality assurance
- Retesting, including use of longitudinal registers
- Other (specify).

5. **Where should this case example be published?**

Selected case examples may be presented in the body of the guideline chapters. Many will be included in an annex to the guidelines.

Please select one of the following options for this case example: (select one)

- a) This case example could be included in the body of the main guideline document.
- b) This case example could be included in an annex of case examples.
- c) This case example should not be included.

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