

LINKAGES LAO PEOPLE'S DEMOCRATIC REPUBLIC

Summary of Achievements

October 2015 – September 2020

The Linkages across the Continuum of HIV Services for Key Populations Affected by HIV (LINKAGES) project—funded by the U.S. Agency for International Development (USAID) and the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) — was implemented in Lao People's Democratic Republic (PDR) in partnership with governmental and nongovernmental partners. The project enabled unprecedented access to HIV prevention, care, and treatment services for men who have sex with men (MSM) and transgender women. By successfully implementing case-finding innovations such as the enhanced peer mobilizer (EPM) approach and index testing, supporting the government to introduce HIV self-testing, and decentralizing access to antiretroviral therapy (ART), the project contributed meaningful progress toward epidemic control in Lao PDR. The project also helped introduce changes in national HIV guidelines and policies that favor key populations. The achievements of the LINKAGES Lao PDR project are summarized here.

BACKGROUND

Lao PDR, a landlocked state in southeast Asia with a current estimated population of 7.5 million people,¹ shares borders with China, Thailand, Vietnam, Cambodia, and Myanmar. HIV prevalence in the general population aged 15–49 years was 0.3% in 2018.² The number of people living with HIV (PLHIV) was estimated at 13,000 in 2019, and the number of new HIV infections decreased from 980 in 2013 to 780 in 2019.³ However, the 2017 Integrated Biological and Behavioral Surveillance (IBBS)⁴ conducted in the three provinces with the highest HIV burden revealed a substantial increase in HIV prevalence among MSM in Vientiane Capital (2.8% in 2014 to 7.0% in 2017), while in the other two provinces prevalence remained somewhat stable: 0.8% in 2014 versus 0.4% in 2017 in Champassak, and 1.0% in 2014 versus 1.4% in 2017 in Savannakhet.

In August 2014, the USAID Regional Development Mission for Asia (RDMA) approached the LINKAGES project in Lao PDR to manage and implement interventions designed to (1) reduce HIV transmission among MSM and trans women; and (2) improve the quality of life for PLHIV. After a series of initial meetings between USAID RDMA, the Lao Ministry of Health's Center for HIV, AIDS, and STIs (CHAS), and local

Highlights

- Diagnosed (new) 1,147 individuals (1,010 MSM and 137 trans women) through community and facility-based testing; 89% successfully initiated on treatment
- Strengthened the capacity of LaoPHA and provincial government partners to support the implementation of the enhanced peer mobilizer (EPM) model to reach different segments of MSM and trans women populations
- Pioneered a decentralized approach to ART distribution in collaboration with international and local partners, which led the government to integrate the approach in the new national HIV and AIDS Strategy and Action Plan 2021–2025 (under final review)
- Improved performance through capacity-building activities arising from south-to-south collaboration between partners of LINKAGES Thailand and Laos organized by partners from both countries
- Merged the program's eCascade dataset with the national HIV program database (HIVCAM) enabling better monitoring of ART clients and provision of adherence support to those at the community level by LINKAGES partners

organizations, the LINKAGES scope of work was honed to focus on the following country-specific needs: (1) develop and test innovative approaches to behavior change communication (BCC) and demand generation; (2) develop and test service delivery models; (3) improve uptake of services across the HIV prevention, care, and treatment cascade; and (4) improve the use of strategic information to guide program improvements. In pursuit of these goals, LINKAGES Lao PDR supported CHAS at the central level, provincial authorities through the Provincial Committee for the Control of AIDS (PCCA), and a nongovernmental partner, the Lao Positive Health Association (LaoPHA). From October 2015 to September 2019, the LINKAGES project focused on the three provinces in Lao with the highest HIV prevalence for key populations (KPs), namely Vientiane Capital (VTC) and Savannakhet (SVK) and Champassak (CPS) provinces (Figure 1), while from October 2019 to September 2020 the project reduced its geographical focus to VTC only.

KEY PROGRAMMATIC ELEMENTS

During the beginning of fiscal year (FY) 2016, the project was fully operationalized in three key provinces offering a range of prevention, testing, care, and treatment services for MSM and trans women (Table 1) implemented by LINKAGES partners at community (LaoPHA) and facility levels including governmental HIV testing services (HTS) at provincial and selected district hospitals, and antiretroviral therapy (ART) centers at provincial hospitals.

A core programmatic element of the LINKAGES project in Lao PDR was the enhanced peer mobilizer (EPM) model (also known as the [enhanced peer outreach approach](#)). EPM consists of a peer-led coupon-based referral network approach to reach high-risk networks of MSM and trans women and offer key HIV services. HIV self-testing (HIVST) using oral fluid-based kits was embedded in the EPM model as an option for accessing HTS and offered by community-based supporters (CBSs) to MSM and trans women referred by peer mobilizers (PMs) or through outreach activities conducted by CBSs. At the beginning of FY20, index testing was also integrated into the EPM model, using HIVST as an option.

To further reach hidden networks of MSM and trans women who were hesitant to meet in person with community outreach workers or health providers,

Figure 1. LINKAGES project locations in Lao PDR



selected CBSs conducted online-to-off-line (O2O) activities through targeted gay apps and other popular social networks (such as Facebook, LINE, WhatsApp, etc.). While prevention services, including risk assessment and options to reduce risk, were provided during online discussions, CBSs also tried to convince their peers for a face-to-face (off-line) meeting to receive commodities, such as condoms and water-based lubricant, and to offer HIVST or referral to HTS services.

Furthermore, the LINKAGES project supported the establishment of links between the community and facilities for a solid and efficient referral network to meet the needs of MSM and trans women. To strengthen the connection, the LINKAGES project sustained navigation services between community and facilities, organizing regular meetings with provincial health authorities, LaoPHA, and health care provider teams to discuss issues and solutions to sustain and improve the referral network. The LaoPHA team, after obtaining authorizations from health authorities and facilities, posted a CBS at each ART center to assist clients accessing the services and supported health care providers in managing follow-up of clients including tracing those lost to follow-up.

Table 1. LINKAGES Lao PDR package of services

<p><i>Reach (community level)</i></p> <ul style="list-style-type: none"> • Peer education through the enhanced peer mobilizer model in physical and virtual venues • Community-based events aimed to increase awareness and generate demand for services 	<p><i>Prevent (community and facility levels)</i></p> <ul style="list-style-type: none"> • Risk assessment and risk reduction planning • Distribution of condoms and water-based lubricant
<p><i>Test (community and facility levels)</i></p> <ul style="list-style-type: none"> • HIVST (assisted HIVST first and then both assisted and unassisted modalities) • Referral through navigation to HTS for confirmatory HIV testing for those tested reactive or invalid under HIVST or for HIV testing • HIV testing for MSM and trans women walk-in clients at facilities • Index testing 	<p><i>Care and Treatment (community and facility levels)</i></p> <ul style="list-style-type: none"> • Care and support for PLHIV in the community including home visits and support groups for psychosocial support and adherence to treatment and retention counseling • Since FY20, ART refill at community level for stable clients • Navigation services for PLHIV accessing care and treatment services at facility level • Link to care and treatment services for ART initiation, clinical follow-up, viral load testing and monitoring, and reengagement of clients lost to follow-up

In FY20, due to the COVID-19 lockdown, LINKAGES with the support of CHAS and the authorization of the Lao PDR Ministry of Health (MOH), introduced differentiated ART services by allowing CBSs to deliver ART refills for stable clients at the community level, including at clients' homes. This new step was an important milestone for the process of decentralization of HIV treatment services beyond provincial ART centers. As a matter of fact, in Lao PDR, ART is provided only by ART centers located in key towns (not in all provinces). District hospitals and health centers are not allowed to initiate or refill ART, and patients must access, sometimes from far, these centers for treatment and clinical follow-up visits. LINKAGES was the first project in Lao PDR to implement this decentralized approach to ART distribution, which led CHAS to integrate the approach in the new national HIV and AIDS Strategy and Action Plan 2021–2025.

Since inception of the LINKAGES project, eCascade — a mobile data collection application based on CommCare software — was implemented at the community and health facility levels. ECascade was designed to track individuals across different services offered under the LINKAGES project. ECascade datasets were successfully merged, using the unique identification code (UIC) and the ART center unique registration code, with clinical data

from the national HIV program database (HIVCAM) with the support of CHAS and the regional office of the U.S. Centers for Disease Control and Prevention (CDC). The merging of these datasets enabled better monitoring of ART clients and provision of adherence support to those at the community level by LINKAGES partners.

Additionally, the LINKAGES project team provide technical assistance to CHAS at the national level and PCCA in each targeted province for conducting regular monitoring and evaluation (M&E) activities and implementing quarterly quality assessment and improvement (QA/QI) for core activities and data (DQA/DQI). Provincial teams of community-based workers, health care providers, and public health officers from CHAS, PCCA, and LaoPHA were formed and trained to conduct these QA/QI and DQA/DQI activities. Findings and recommendations were discussed and endorsed during quarterly meetings with PCCA and CHAS.

SERVICE DELIVERY IMPACT

Over the life of the project, LINKAGES Lao PDR newly diagnosed 1,147 individuals (1,010 MSM and 137 trans women) through community and facility-based testing activities. Of the total newly diagnosed HIV positive,



1,025 (89%) of them (922 MSM and 103 trans women) were successfully initiated on treatment. Treatment initiation was notably higher among MSM (91%) compared to trans women (75%).

As depicted in Figure 2, case finding and treatment initiation steadily increased over the first five years of the project when implemented in VTC, and SVK and CPS provinces, but decreased sharply during FY20 mainly due to covering only VTC in the last year. LINKAGES Lao PDR and partners implemented a range of innovative approaches to ensure a targeted response to increase case finding and link MSM and trans women to treatment services for ART initiation. While HIVST was critical for increasing case finding in the community, especially for those less inclined to access facility-based HTC services due to fears of stigmatization and discrimination and inconvenient hours of governmental facilities, effective link to services was supported by continuous coordination among community and facilities actors, navigation services, and the daily presence of CBSs at facilities.

The annual performance of LINKAGES Lao PDR project at the end of FY19 and FY20 (shown in Figure 3) illustrates service delivery impact. It reflects the combined results from community-based services implemented by LaoPHA and facility-based services operationalized by governmental health structures.

During FY19, the project — still implemented in VTC, and SVK and CPS provinces — met all targets. A total of 5,571 individuals (4,770 MSM and 801 trans women) were reached, representing coverage of 67% of the MSM size estimation in the three sites.⁵ Furthermore, quarterly HIV positivity rates varied from 6% to 10% during FY19 (not shown in Figure 3) totaling 312 MSM and trans women diagnosed HIV positive. Of the total diagnosed HIV positive during FY19, 285 individuals (91%) were initiated on ART.

For FY20, the project sized down to only one site (VTC) resulting in a significant reduction of people served. However, the project exceeded its annual targets.⁶ In the beginning of FY20, LINKAGES Lao PDR integrated index testing into the EPM and combined with HIVST as a test for triage. Despite the disruptions caused by the COVID-19 lockdown in FY20, quarterly HIV positivity rates varied from 33% to 36% with a total of 239 MSM and transwomen diagnosed HIV positive and initiated on ART (100%). Compared to FY19, quarterly HIV positivity rates were significantly higher during FY20 suggesting a more effective and targeted HIV testing strategy with the introduction of index testing in the EPM model.

During the last two years of project implementation, the percentage of HIV-positive MSM and trans women enrolled in the LINKAGES Lao PDR cohort with

Figure 2. Case-finding (HTS_TST_POS) trends and treatment initiation for MSM and trans women over life of project

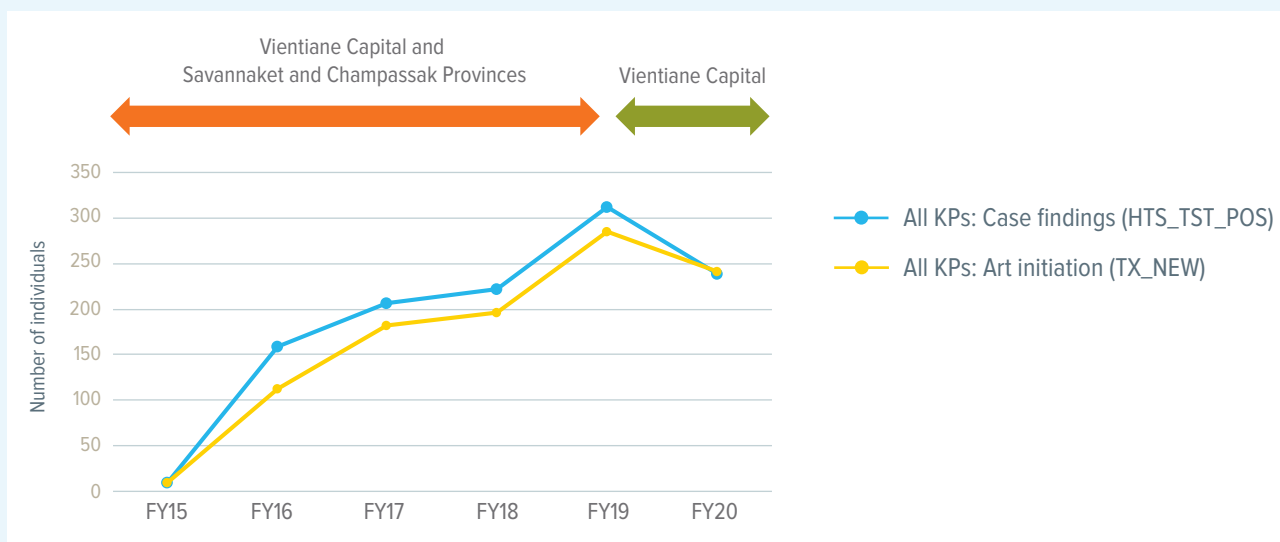


Figure 3. Annual performance end of FY19 (3 sites) and FY20 (1 site) by key population

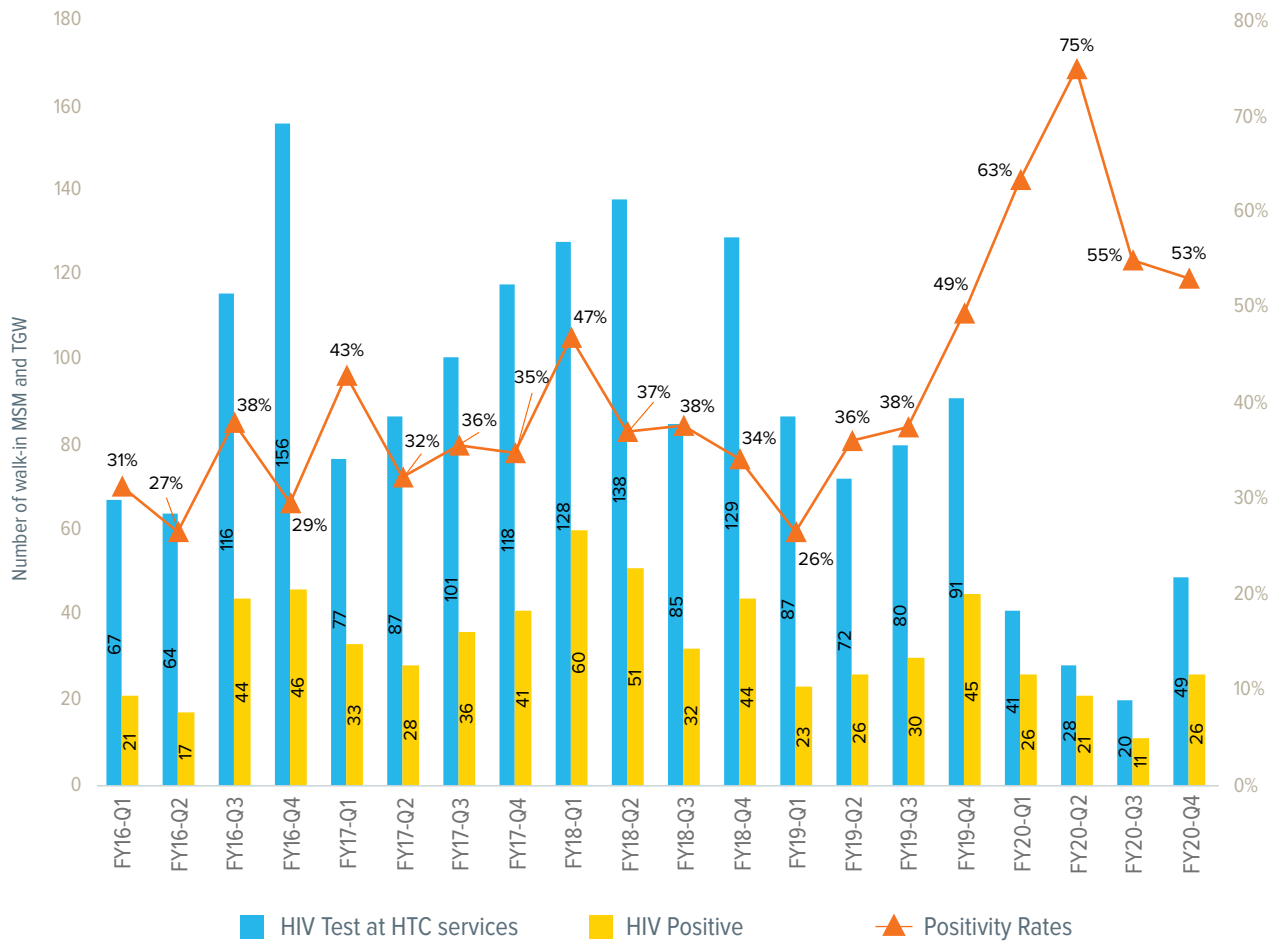


suppressed viral load (TX_PVLS) was between 94% and 96%. Those who remained unsuppressed faced challenges related to the absence of decentralized distribution of ARV drugs to district hospitals and at community-level, hampering access and retention for PLHIV living far from ART centers located only in provincial towns of most affected provinces. Transportation, distance to, and time spent at ART centers represent a significant level of out-of-pocket payments for PLHIV living far from these services⁷ and could not be afforded by low-income clients.

Under the LINKAGES Lao PDR project, facility-based services were also supported to provide HIV testing to walk-in MSM and trans women clients. HIV positivity rates among these clients⁸ were higher than those obtained with HIVST conducted at the community level. As shown in Figure 4, rates ranged from 26% to 49% during FY19 (VCT, and SVK and CPS provinces) and from 53% to 75% during FY20 (VCT only). The increase in case finding during FY20 is attributed to the introduction of index

testing. Program data revealed walk-in clients had similar age and level of CD4 count at the time of registration at the ART center as those referred by the EPM model and confirmed HIV-positive at a facility. However, consultations with health care providers suggested that these MSM and trans women walk-in clients, in general, belonged to “more discreet” segments of these populations, less inclined to approach and receive services from community-based organizations.

The LINKAGES Lao PDR project served far more MSM than trans women during its implementation, as depicted in Figure 3 for FY19 and FY20. Despite the inclusion of trans women in the pool of CBSs of the EPM model, the number of them receiving services from the project remained steadily limited. This is explained by the relatively small networks of trans women in Laos and the high mobility of these populations to Thailand where there are more opportunities for them to work while affirming their own gender identity and expression.

Figure 4. Facility-based HIV positivity rates over life of project

TECHNICAL HIGHLIGHTS

ENHANCED PEER MOBILIZER MODEL (EPM)

Throughout the life of the LINKAGES project, the Lao PDR team strengthened the capacity of LaoPHA and the three PCCAs to support the implementation of the EPM to reach different segments of MSM and trans women populations. The EPM model aimed to increase access to and retention in the continuum of HIV services by combining the following innovations:

- A standardized approach to prevention education and behavior change communication

- An incentive-based reimbursement system that pays for performance
- Field-based delivery of rapid HIV testing by trained community counselors
- A social networking approach to expand reach into new audience segments

CBSs were full-time staff expected to reach different networks of MSM and trans women through peer mobilizers (PMs) who were, in contrast, volunteers. Similar to the respondent-driven sampling (RDS) method used in surveillance, PMs recruited peers (or recruits) exclusively from their social network and referred

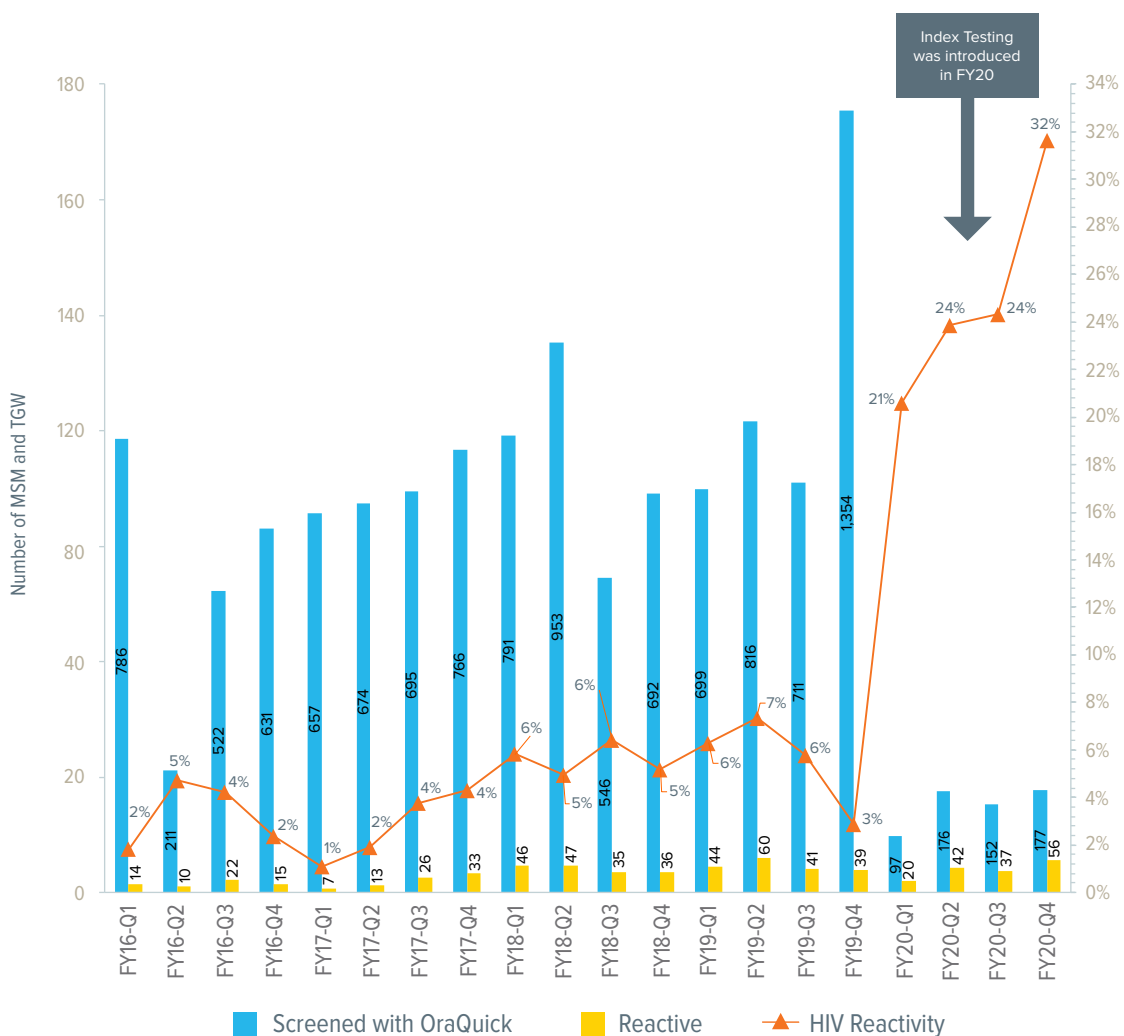
them to the CBSs, who then offered them HIVST using the oral fluid test kit. Once a PM had exhausted the potential recruits in his/her social network, he/she was replaced with a new PM selected by the CBS. Recruits were also eligible to serve as new PMs, and in this manner, the EPM model continually refreshed the pool from which project clients were drawn. This process is akin to fishing with a net instead of a line.

CBSs also served as clinic “navigators” at CST services to assist peers with accessing different HIV services at ART centers, and provide counseling on retention, adherence, and ART literacy. CBSs provided ongoing care and support activities outside health facilities, i.e., at the community level. During FY18, one CBS was

posted at each ART center supported by LINKAGES to ensure optimal coordination and continuity of services for clients between the community and facility level.

The annual number of MSM and trans women reached with prevention services under the EPM model ranged from 602 in FY20 when the project’s geographic coverage was reduced and index testing was integrated and prioritized within EPM to 5,260 in FY19. Likewise, the number of HIVST kits distributed was 602 in FY20 and 3,637 in FY19. Furthermore, community-level positivity rates⁹ ranged from 1% in FY16 to 32% in FY20 suggesting a notable contribution of the approach to the national HIV program strategy for increasing case finding.

Figure 5. Community-based HIVST reactivity rates over life of project



Compared to the traditional outreach approach, EPM was recognized as successful and cost-effective by national and provincial HIV/AIDS authorities. Based on this recognition, CHAS, supported by LaoPHA, has advocated for the integration of the EPM model into proposals for The Global Fund for organizations working with key populations in Lao PDR.

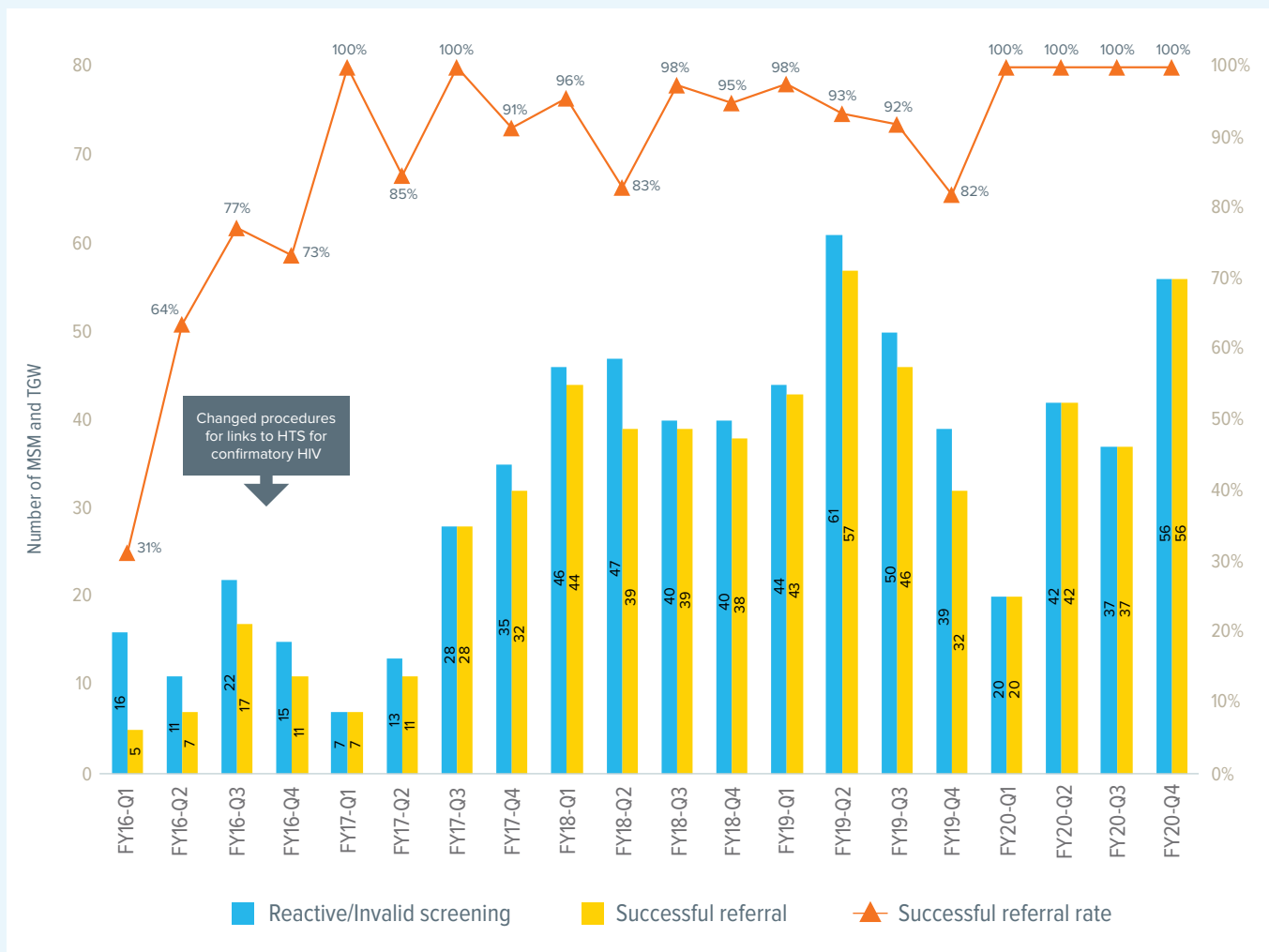
TEST FOR TRIAGE WITH ORAL FLUID-BASED HIVST

When developing the LINKAGES program for Lao PDR, the USAID and LINKAGES teams proposed the integration of a test for triage strategy with HIVST into the EPM model to increase uptake of HIV testing. While HIVST was not included as an option in the national HIV testing guidelines and no HIVST kits were registered in the country, the LINKAGES team, strongly supported

by CHAS and the WHO office in Lao PDR, requested MOH authorization to import and use oral fluid-based HIVST kits (OraQuick™10) for operationalizing the test for triage strategy. After documenting the experience of HIVST implemented in other countries through programs and research and organizing rounds of discussion with different stakeholders, the MOH granted LINKAGES approval to import OraQuick™ kits and the integration of HIVST approach for MSM and trans women.

The LINKAGES Lao team operationalized the test for triage approach right after the rollout of the EPM model at the beginning of FY16. While only assisted HIVST was offered during the first years of the project, unassisted HIVST was integrated progressively in FY19. HIVST was offered, at no cost, by CBSs in the community to MSM and trans women whose HIV status was unknown or last HIV

Figure 6. Links to HTS for MSM and trans women with an invalid or reactive HIVST result over life of project



test was more than three months ago. Peers found with a reactive or invalid HIVST test result or who declined HIVST were systematically referred, mainly through navigation services, to facility-based HTS using the national algorithm. Active follow-up through private messaging on social media apps was implemented by CBSs for peers who declined navigation services for referral to HTS. At the beginning of FY20, HIVST was also integrated into index testing as an option for HIV testing.

From FY16 to FY19, reactivity rates¹¹ fluctuated from 1% to 7% across quarters and significantly increased in FY20 after introducing index testing into the EPM model, reaching 21% in Q1 FY20 and 32% in Q4 FY20 (Figure 5). During the last year of the project, index testing was the only approach implemented at the community level for case finding compared to previous years when CBSs offered HIVST to their high-risk peers during outreach activities.

As per the SOPs for HIVST developed for LINKAGES Lao PDR, CBSs referred peers screened reactive to facility-based HTS for confirmatory HIV testing. However, in the first year of the project, links to HTS services remained suboptimal, jeopardizing individual and public health benefits expected from the HIVST strategy. To optimize links to services, the SOPs were modified in consultation with CHAS and LaoPHA, and CBSs were asked to conduct systematic follow-up through regular contacts via phone or social media (private message) and offer navigation assistance to services. As illustrated in Figure 6, links for confirmatory testing significantly improved after the introduction of new procedures at the end of FY16 and fluctuated between 80% and 100% until the project ended.

DECENTRALIZED ART SERVICES

When confronted with the COVID-19 pandemic and country lockdown in the final year of the project, the LINKAGES Lao PRD team moved swiftly to ensure uninterrupted access to ART for PLHIV. Recognizing how restrictions on movement and the limited use of health facilities for emergency use only would reduce access to health services, the LINKAGES team joined with other implementing partners in devising delivery alternatives. The project worked with stakeholders including United Nations agencies, the Global Fund, government authorities, health care providers, CBSs, and PLHIV organizations to obtain MOH approval for CBSs to provide ART refills at community

level, including through home delivery of ARVs. In collaboration with and under supervision of a health care provider at the ART site, CBSs were equipped to safely dispense multi-month supplies of ARVs upon client's request to their homes.

By September 2020, a total of 126 PLHIV had received home delivery, accounting for 26% of 480 individuals who were due for refills. This delivery choice initially was an attractive option for those who live far from the hospital or who struggled financially to travel to the hospital. It continues to be an option for those who prefer it, even with an ease in COVID-related restrictions.

STRENGTHENING CAPACITY OF LOCAL PARTNERS

The LINKAGES Lao PDR team provided TA to local partners through training courses and mentoring activities during regular field visits for implementing innovative interventions and monitoring using the HIV cascade framework. Project performance project was also improved through routine M&E activities and QA/QI activities conducted every quarter by provincial QA/QI teams comprised of staff from community-based organizations, health facilities, provincial and national authorities, and LINKAGES Lao PDR office. Furthermore, south-to-south collaboration between partners of LINKAGES Thailand and Laos was also critical in improving performance through capacity-building activities organized by local partners from both countries. All training and workshops with staff from LaoPHA and health care providers from governmental facilities helped improve coordination between the community and the facilities and increase understanding of health care providers on MSM and trans women needs.

FUTURE DIRECTIONS

LINKAGES Lao PDR established comprehensive and innovative interventions enabling MSM and trans women to access critical HIV prevention, testing, and treatment services, and contributed to the progress of the national HIV program to reach 95-95-95 targets. However, further work is needed to scale up and sustain these interventions. In FY21, the LINKAGES project transitioned to the USAID- and PEPFAR-supported Meeting Targets and Maintaining Epidemic



Control (EpiC) project. This new project will focus on strengthening the capacity of local partners to implement interventions that meet the needs of key and priority populations in Lao PDR.

Through a differentiated services approach, the EpiC project will amplify and scale up the index testing model to community and facility levels, integrate PrEP services for KPs and other priority populations, scale up community-based ART delivery, reinforce online-to-off-line activities to reach and serve high-risk populations, and strengthen the capacity of local partners to monitor their program and use data to improve the performance of the project.

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8. Excluding MSM and trans women accessing HTS services for confirmatory HIV testing after receiving an HIVST reactive result.
9. Tested reactive with HIVST at community level and confirmed positive at facility-based HTS using national algorithm.
10. OraQuick™ HIV 1/2 Rapid Antibody Test (OraSure Technologies, Inc.) manufactured in Thailand.
11. HIVST reactive test result not confirmed at HTS.

Linkages across the Continuum of HIV Services for Key Populations Affected by HIV (LINKAGES)

is a global cooperative agreement funded by USAID through PEPFAR. Led by FHI 360 with partners Pact, IntraHealth International, and the University of North Carolina at Chapel Hill, LINKAGES has worked in more than 30 countries since 2014 to reduce HIV transmission among key populations — sex workers, men who have sex with men, transgender people, and people who inject drugs — and to improve their enrollment and retention in care.

This report is made possible by the generous support of the American people through USAID and PEPFAR through the terms of cooperative agreement #AID-OAA-A-14-00045. The contents are the responsibility of the LINKAGES project and do not necessarily reflect the views of USAID, PEPFAR, or the United States Government.

Suggested citation: LINKAGES. LINKAGES Lao People's Democratic Republic: Summary of Achievements October 2015–September 2020. Durham (NC): FHI 360; 2020.

