

LINKAGES INDIA

Summary of Achievements

July 2015–September 2019

The Linkages across the Continuum of HIV Services for Key Populations Affected by HIV (LINKAGES) project was implemented in India in partnership with civil society, government stakeholders, and key population (KP) individuals, with support from the U.S. Agency for International Development (USAID) and the U.S. President's Emergency Plan for AIDS Relief (PEPFAR). LINKAGES India implemented innovative programming designed to fortify the national HIV response by improving the impact, quality, and efficiency of HIV services for KP members facing the greatest risk of HIV. Recognizing that long-term, effective approaches to reaching KP individuals are required to achieve epidemic control, the FHI 360-led LINKAGES team successfully demonstrated that strategies such as the enhanced peer outreach approach, index testing, peer navigation, and online outreach offered new and impactful ways to engage previously unreached KP members and link them to quality HIV services. Over the life of the project, LINKAGES India worked not only to introduce and scale KP-focused innovations, but also to ensure that the innovations were transferred to the Government of India, thereby leaving a legacy of a country-led, sustainable response to the epidemic. This brief summarizes the achievements of the LINKAGES project in India.

BACKGROUND

India's adult HIV prevalence is comparatively low at 0.26%, but because of the country's large population this translates to the third largest epidemic in the world, with 2.1 million people living with HIV (PLHIV).^{1,2} An estimated 79% of those living with HIV know their status, and 71% of them are on antiretroviral therapy (ART).

Compared to HIV prevalence in the general population, the prevalence among KPs in India is substantially higher, ranging from 2.2% among female sex workers (FSWs) to 9.1% among people who inject drugs (PWID).¹ There is considerable variation in HIV prevalence among states, however. For example, in 2015, the HIV prevalence among men who have sex with men (MSM) in Andhra Pradesh was 10.1%, while it was 4.9% among MSM in Maharashtra.³

India's National AIDS Control Programme (NACP) works to reach KPs with HIV services through targeted interventions (TIs). TIs offer a standard package of prevention and care services to KPs and are implemented through nongovernmental organizations or community-based organizations. However, the key to ending India's concentrated HIV epidemic is reaching all KP individuals,

Highlights

- Newly diagnosed 4,397 individuals living with HIV and initiated 87% of them on treatment
- Rapidly scaled up index testing with almost half of those newly diagnosed with HIV in the last quarter of the project identified through index testing
- Introduced Yes4Me.net, a cutting-edge online platform through which virtual outreach workers successfully engaged high-risk individuals and connected them to HIV testing services, producing a case-finding rate of 5.5%
- Pioneered the first country-wide, KP-focused communication needs assessment of its kind in India, produced a package of more than 100 behavior change communications materials, and transferred them to the national HIV program
- Incorporated effective new case-finding and treatment adherence strategies into the national HIV guidelines
- Developed a differentiated prevention services model for KPs that was adopted as a national model and used to standardize KP programming across states

including those who are not accessing TI services and, therefore, are not being reached through the national program.

From July 2015 to September 2019, the LINKAGES project implemented programming in India to improve the impact, quality, and efficiency of HIV services being delivered under the NACP. To achieve this, LINKAGES India introduced innovative strategies to engage new and non-venue-based KP individuals, while simultaneously working to strengthen India's existing TI efforts. TIs had been operational for more than two decades prior to LINKAGES India, but new investments were needed to identify and engage KP members previously unreached by the TIs. LINKAGES' programming was designed to reach FSWs, MSM, PWID, and transgender (trans) women, as well as other priority populations, such as children, spouses, and partners of KPs.

The project covered three districts in the state of Andhra Pradesh (i.e., Guntur, Krishna, East Godavari) and three districts in Maharashtra state (i.e., Mumbai, Pune, Thane). In the Northeast region, the project covered an additional four districts (i.e., Imphal East, Imphal West, Aizawl, Dimapur).

LINKAGES India was implemented in collaboration with a number of local partners, including The Humsafar Trust (HST), Aastha Parivaar and Ravicherla Integrated Development and Education Society (RIDES), Care Foundation, Kripa Foundation, the India HIV/AIDS Alliance, Everwell Health Solutions, Tata Institute of Social Sciences, and the Centre for Community Development through Network, Education, Research, Training, Resource Mobilisation and Capacity Building (COD NERC).

KEY PROGRAMMATIC ELEMENTS

The LINKAGES project in India delivered a comprehensive package of services for KPs and other priority populations across the HIV cascade of services, including prevention interventions, HIV testing, linkages to and retention in care, initiation on and adherence to ART, and viral load testing (Table 1). These services were delivered via technical assistance (TA) from LINKAGES to the TIs, as well as through direct implementation of new approaches for case finding and linkage to care, such as the enhanced peer outreach approach (EPOA), community-based testing, index testing, and peer navigation. Implementation of these new approaches — referred to as direct service

Table 1

LINKAGES India core programming

Reach, Test, and Prevent

- Peer education, risk assessment, counseling
- Differentiated prevention services based on individual risk
- Strengthened referrals to integrated counseling and testing centers
- Enhanced peer outreach approach (EPOA)
- Virtual outreach and “going online” approaches
- Targeted HIV testing and counseling at community events
- Community-based testing in hard-to-reach areas
- Index testing for children, partners, and spouses of KP individuals

Care and Treatment

- Community-led models to support linkage to care and treatment services
- Peer navigation and community-based enhanced adherence counseling to support treatment initiation and adherence
- Differentiated ART services enabling community members to access treatment outside of facility settings
- Viral load testing and enhanced adherence counseling for viral suppression
- Self-verified adherence to support PLHIV during their early months of treatment and improve long-term retention

Figure 1. Number of individuals diagnosed with HIV and linked to treatment by population, FY16–FY19

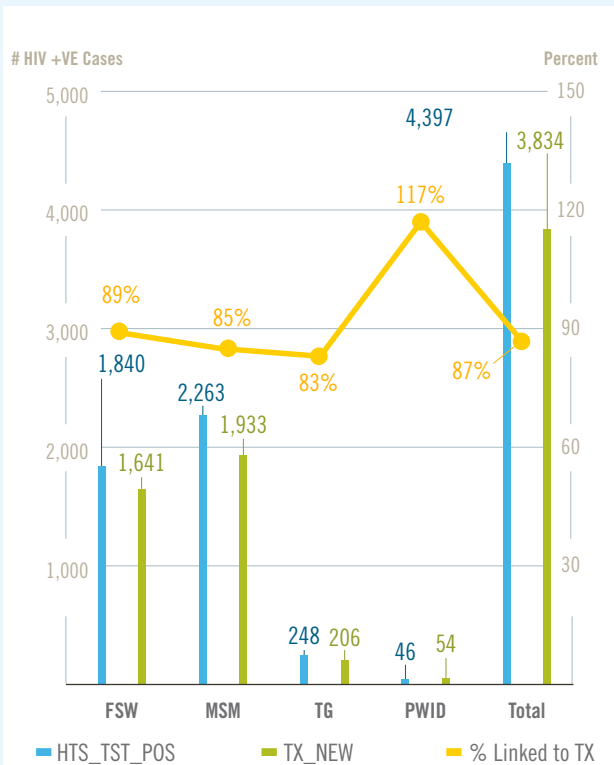
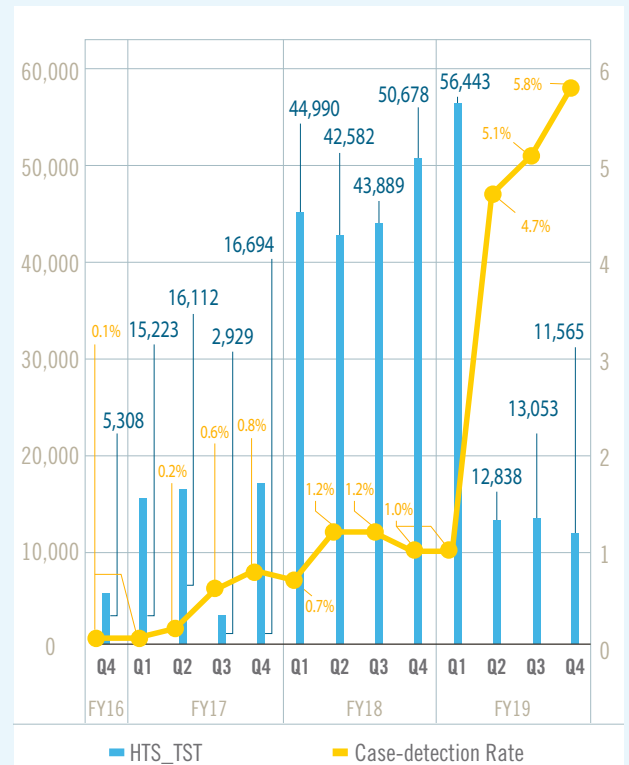


Figure 2. Trends in uptake of HIV testing and case finding among all populations, FY16–FY19



delivery (DSD) approaches — was intended to reach networks of KPs previously unreached by the TIs.

SERVICE DELIVERY IMPACT

Over the life of the project, LINKAGES India administered 324,938 HIV tests to KP members and their contacts (spouses, children, sexual partners, and injecting partners).⁴ This included 286,810 HIV tests through TA to the TIs (88%) and 38,128 through DSD approaches (12%). Approximately 98% of the tests were administered directly with KP individuals; the remaining 2% were with “others” identified through index-testing referrals.

LINKAGES India newly diagnosed a total of 4,397 individuals with HIV over the life of the project and linked or initiated 3,834 people on treatment (Figure 1). The overall case-detection rate was 1.3%, though it varied considerably by approach. The case-detection rate was 0.4% through TI-based services and 8.2% through DSD approaches. The trend in case detection increased over the life of the project with the introduction of new DSD approaches such as index

testing (Figure 2). Indeed, the overall case-detection rate among KP individuals reached through the project was 1%, while the case-detection rate among “others” reached through index testing was 15%.

The innovative case-finding strategies LINKAGES implemented directly over the course of the project successfully reached KP individuals who were not being served through traditional TI programming. By the end of the project, LINKAGES had reached 10,887 KPs through EPOA; 9,752 through community-led interventions by community-based organizations advocating for sex workers; 9,082 through community-based HIV testing strategies; and 1,098 through the online Yes4Me platform.

In July 2018, LINKAGES India began programming for children of FSWs, PWID, and MSM. Through this component, LINKAGES worked toward improving the health and well-being of all enrolled children of KPs through age-appropriate, tailored interventions and linkages to critical health and social services and support based on individual needs assessments. Health, nutrition, education, psychosocial, life skills education, and social security were among the services

provided. Index testing was also extended to children of KP individuals living with HIV. In FY19, the program served 29,796 people (21,310 children and 8,486 caregivers) with at least one service, which was 99% of the annual target.

TECHNICAL HIGHLIGHTS

DIFFERENTIATED PREVENTION SERVICES

One of the flagship initiatives of LINKAGES India was a collaboration with the Maharashtra State AIDS Control Society (MSACS) and the Mumbai District AIDS Control Society (MDACS) to develop a differentiated prevention services model for KPs. A key component of this model was a KP-specific, Excel-based tool to segment KP individuals into different categories according to their risk for HIV. The risk segmentation categories were: stable, maintenance, active in risk, newly registered KP individuals, and KP individuals living with HIV. Service packages were then tailored based on the category assigned to the KP individual. Moreover, the tool was used to realign and optimize human and financial resources to prioritize meeting the needs of newly identified KP individuals and partners, and to navigate KP individuals living with HIV to treatment. The strategy included strengthening the linkages to prevention services for KP individuals who were HIV negative, and integrating EPOA, index testing, and peer navigation, which were not previously part of the national program, into the TIs. Individuals from KPs and civil society provided input into the differentiated service delivery strategy, which LINKAGES then piloted. The model was subsequently scaled up to 88 TIs across the country and adopted as a national-level model. Overall, the differentiated service delivery model has helped ensure a standardized approach across states, enabled more targeted services tailored to the needs and preferences of KP members, and allowed for more efficient utilization of human resources.



ENHANCE PEER OUTREACH APPROACH (EPOA)

EPOA⁵ is a peer-led, coupon-based referral network approach used to access hard-to-reach networks of KPs to offer HIV prevention, testing, and treatment services in ways that ensure the privacy of more KP members. Recognizing that achieving the 90-90-90 targets in India will require reaching KP members — especially HIV-positive individuals who have yet to be identified, LINKAGES piloted EPOA in six high-prevalence districts of India in a phased approach. EPOA was piloted in Mumbai, first through a virtual approach targeting MSM using social media, and later in physical hot spots. Later, LINKAGES scaled up EPOA across multiple sites of the PEPFAR priority districts in Maharashtra (i.e., Pune, Thane, Mumbai) and Andhra Pradesh (i.e., Krishna, Guntur, East Godavari).

Through EPOA, the project reached and tested 10,887 individuals, identified 1,524 PLHIV, and initiated 1,432 (94%) of these PLHIV on treatment. The overall case-detection rate was 14%, with variations across sites and KP types. The highest rate of case detection was 15% among MSM, followed by 12% among FSWs, 11% among PWID, and 9% among trans people.



Members of the Yes4Me online outreach team

GOING ONLINE⁶

In May 2018, LINKAGES India launched a virtual platform called Yes4Me.net to engage individuals at high risk through online outreach and targeted ads. Through Yes4Me, clients complete a short risk assessment to understand their risk for HIV and other STIs and then continue to book an appointment for an HIV test by choosing a convenient day, time, and lab location. Lab staff follow their routine process for informing clients of their test results (via email or in-person) and confidentially share results with LINKAGES. Clients with nonreactive HIV tests are offered the option to receive reminders to rebook an HIV test quarterly, education on safe sex, and referrals for pre-exposure prophylaxis (PrEP), condoms, and lubricant.

Key features of the Yes4Me platform include:

- **Online client support team:** This team of online outreach workers and counselors posts educational messages and information about HIV services on social media, and uses both social media and dating apps to connect with at-risk men and women. Counselors provide online follow-up prevention, care, and treatment counseling to those who have been tested, and they offer HIV testing to the client's peers and partners.

- **Social influencers:** Select people with a large audience on social media are engaged by Yes4Me to serve as social influencers and promote Yes4Me as a platform for accessing HIV services.
- **Advertisements:** Advertisements on social media platforms like Facebook, Instagram, and dating apps like Grindr direct at-risk populations online to Yes4Me or a chat with a member of the online client support team.

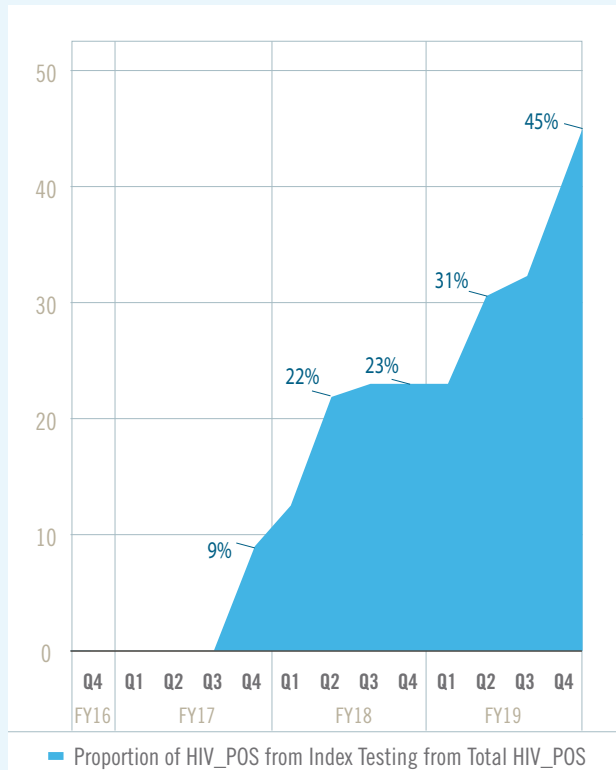
Of the 43,000 unique users who landed on the Yes4Me website, 19,415 completed the risk assessment and 2,528 used the site to book an HIV test. Of those, 1,098 received HIV testing. The HIV case-finding rate from this approach was 5.5%, compared to the standard physical HIV outreach and testing approach in the same geographic areas with a case-finding rate of 0.3%.⁷ The approach has been scaled up to 15 cities in India after widespread appreciation from both the donor and national program. In all 15 cities, the platform connects to government-funded testing services to provide free testing, in addition to paid testing at private laboratories. The platform has also initiated a partnership with a private doctor in Delhi to provide PrEP.

LINKAGES India also hosted the RETHINK HIV Grand Challenge as part of its portfolio of online work. Launched in 2017 by FHI 360 in collaboration with NACO, the Ministry of Health and Family Welfare, the Government of India, and USAID, this unique initiative promoted innovative use of technology to reach at-risk populations in the virtual space. Out of a pool of 64 applicants, three innovative start-up companies were selected to receive a seed grant for six months to pilot test their respective innovations encouraging awareness and uptake of HIV testing. The solutions piloted during this phase included: (a) use of artificial intelligence for developing a chatbot to promote HIV awareness, by Jubi.ai; (b) use of gamification to reach unreached populations on dating apps, by OneKeyCare Venture; and (c) use of personalized automated pathways that nudge behavioral change and promote ART adherence, by Twistle India. The pilot tests reached 300,000 people online with information on prevention, testing, and treatment. Twistle India was declared the winner of the RETHINK HIV Grand Challenge, and the innovation will be adopted by NACO for further scale-up.

INDEX TESTING

As part of PEPFAR India's index testing scale-up strategy, LINKAGES India implemented index testing in six PEPFAR cluster districts with the children and sexual and injecting partners of KP individuals living with HIV. Index testing was introduced with HIV-positive clients identified through both testing strategies implemented directly by LINKAGES, as well as at facilities in selected high-load integrated counseling and testing centers. When LINKAGES India first began index testing, the overall case-detection rate from this strategy was 20%. However, by the last quarter of the project, almost half of those newly diagnosed with HIV through the project were identified through index testing (Figure 3).

Figure 3. Proportion of new HIV diagnoses identified through index testing, FY16–FY19



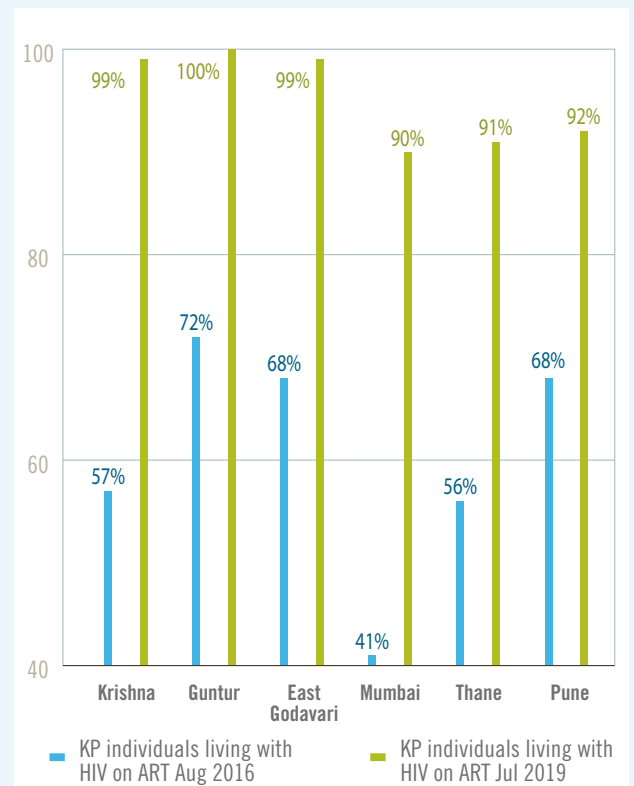
PEER NAVIGATION

The Government of India adopted the test-and-treat policy in 2017, which says newly diagnosed PLHIV should be enrolled on treatment as soon as possible, regardless of CD4 count. However, operational challenges hampered implementation of the policy at scale. To support implementation of test and treat and complement existing peer outreach efforts focused

on prevention, LINKAGES India introduced the peer navigation approach⁸ in three high-prevalence districts of Andhra Pradesh in 2017, and later scaled it up to districts in Maharashtra.

Overall, more than 2,400 HIV-positive KP individuals received community-based support from peer navigators for treatment adherence and retention from 2017 to 2019. This included helping 752 KP members initiate treatment, and reinitiating 228 who had been lost to follow-up. Peer navigators also helped initiate on treatment 200 HIV-positive spouses, children, and partners identified through index testing. By the end of the project, more than 90% of KP individuals living with HIV who were registered in TIs were accessing treatment, an average increase of 40% since the beginning of the project. Figure 4 shows the increase in treatment uptake through TIs among KP individuals living with HIV over the life of the project in six districts. Peer navigation has also been integrated into all non-TI settings. Of the 3,140 individuals newly diagnosed through direct implementation by LINKAGES (2,258 KP individuals and 882 contacts), 76% have been initiated on treatment.

Figure 4. Increase in KP individuals living with HIV accessing treatment through TIs (August 2016–July 2019)



SELF-VERIFIED ADHERENCE

ART dispensation data captured by the inventory management system, which is a national health management system operated by NACO, revealed that over a one-year period from 2015 to 2016, about 30% of the newly initiated PLHIV dropped out of treatment within the first three months, after which retention levels remained nearly constant. In an effort to improve adherence and achieve greater levels of viral suppression, LINKAGES India collaborated with USAID and NACO to initiate a real-time ART adherence-monitoring platform called “self-verified adherence” (SVA). SVA aims to minimize loss to follow-up and improve treatment and adherence rates of patients initiated on ART through a web-based dashboard, mobile app, and SMS reminders for use by ART centers, outreach workers, and clients.

LINKAGES India pre-tested SVA and then initiated a phased introduction of the platform in 20 ART centers from March 2019 to September 2019. Enrolled patients are counseled by their ART counselor to take their medications and to call a toll-free number from their mobile phone to confirm that they took their pills. The calls then trigger SMS reminders, which prompt patients to take their medication at a time they designate. ART centers (through a web dashboard) and outreach workers (through a mobile app) are able to see whether a patient has called the number and taken their medication. Clients who do not call are contacted by the outreach worker for additional adherence support.

From March to August 2019, 1,800 KP individuals living with HIV were enrolled in SVA. Sixty-nine percent of enrolled clients called to confirm they had taken their medication. When the outreach workers followed up with the clients who had not called, the adherence rates improved to 80%, as some of them had taken their medication but forgotten to call. The outcomes of this initiative will be further evaluated using the adherence data captured through other mechanisms, such as the drug inventory management system and self-reported adherence captured at ART centers.

OPERATIONS RESEARCH

LINKAGES extended support to NACO by providing technical and financial assistance to local partners to implement two operations research studies. The first study, led by the Tata Institute of Social Sciences (TISS) in 2018, explored changing sex work dynamics among FSWs in India. The second study, which also began in 2018, was implemented by the National AIDS Research Institute (NARI)-Indian Council of Medical Research (ICMR) and assessed the social and sexual networks of men reporting same-sex behavior who were not accessing HIV prevention services. Both studies received monitoring support from NACO, which will use the research findings to refine the intervention package implemented by TIs and ensure it is responsive to the evolving sexual and social networks of KP members (e.g., recognizing newer forms of solicitation such as online contacts, and sexual networks operating out of spas).



SOCIAL AND BEHAVIOR CHANGE COMMUNICATION

To help move India closer to the 95-95-95 targets, LINKAGES India was tasked with designing innovative approaches to behavior change in the context of today's smartphone generation, while going beyond traditional top-down communication

methods. In collaboration with NACO, LINKAGES India commissioned a communication needs assessment (CNA) at the national level and a review of existing communication packages. The objective of the CNA was to provide recommendations to support development of a new package of SBCC materials for NACO and address gaps along the HIV continuum. The CNA was conducted with 1,039 respondents in 10 districts of 10 states, selected purposely on the prevalence and availability of KP and bridge population interventions. LINKAGES India used the key findings of the CNA to support development of a national communications strategy on HIV that included new materials promoting information-seeking behavior with regard to HIV, increased self-risk perception, regular HIV testing, and ART adherence. A total of 100 SBCC materials were developed in English and Hindi to support behavior change efforts. These materials will be adapted and disseminated across India by NACO and the SACS.



THE LINKAGES LEGACY IN INDIA

Over the life of the project, LINKAGES India not only introduced and scaled innovations to improve KP individuals' access to high-quality services, but it also transferred them to the Government of India. The project introduced new approaches designed to reach “hidden” KP individuals and their partners, spouses, and children. Given the concentration of HIV among KPs in India, this is a critical need in the effort to reach epidemic control. LINKAGES India demonstrated that approaches such as EPOA, index testing, peer navigation, self-verified adherence, differentiated prevention services, and virtual outreach are effective for engaging previously unreached KP members in HIV services. Each of these approaches was adopted by the national program and incorporated into the revised national TI guidelines, cementing LINKAGES India's legacy as a catalyst for modernizing the country's HIV programming and helping prepare for a long-term response to the epidemic that is locally led and sustainable.

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 India: Summary of Achievements July 2015-September 2019. Durham (NC): FHI 360; 2019.

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.

1. National AIDS Control Organisation; Ministry of Health & Family Welfare, Government of India. National strategic plan for HIV/AIDS and STI 2017–2024: [Paving way for an AIDS free India](#); 2017.
2. LINKAGES. [LINKAGES India EPOA Practice Brief. FHI 360](#); 2019.
3. National AIDS Control Organisation. [National Integrated Biological and Behavioural Surveillance \(IBBS\) 2014-15](#). New Delhi: NACO, Ministry of Health and Family Welfare, Government of India; 2015.
4. Based on guidance from USAID/India, HTS_TST from TIs was reported only for people who tested one time in a year for FY16 and FY17, for all HIV tests in FY18, and only from KP individuals newly registered in TIs from Q2 FY19 onward.

5. For more information about EPOA, please see the [LINKAGES Enhanced Peer Outreach Approach Implementation Guide](#).
6. For more information on online approaches, see [Going Online to Accelerate the Impact of HIV Programs](#).
7. Shah, P. HIV programming goes online with the launch of Yes4Me in India Blog [Internet]. 2018 Nov – [cited 2019 Oct 16]. Available from: <https://linkagesproject.wordpress.com/2018/11/25/hiv-programming-goes-online-with-the-launch-of-yes4me-in-india/>.
8. For more information on peer navigation, please see the [LINKAGES Peer Navigation Implementation Guide](#).