



# DIFFERENTIATED HIV-SERVICE DELIVERY

along the cascade for  
men who have sex with men  
and transgender women  
in Thailand: lessons learned  
from the LINKAGES project

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# ACRONYM & ABBREVIATIONS

ART	antiretroviral treatment	NAP	National AIDS Program
CBO	community-based organization	NHSO	National Health Security Office
CBS	community-based supporter	OI	opportunistic infection
CHC	community health center	PEP	post-exposure prophylaxis
CHW	community health worker	PEPFAR	U.S. President's Emergency Plan for AIDS Relief
CM	cryptococcal meningitis	PHO	Public Health Offices
DSD	differentiated service delivery	PLHIV	people living with HIV
EPM	Enhanced Peer Mobilization	PM	peer mobilizer
EPOA	Enhanced Peer Outreach Approach	PN	peer navigator
HBsAg	hepatitis B virus surface antigen	PrEP	pre-exposure prophylaxis
HBV	hepatitis B virus	RSAT	Rainbow Sky Association of Thailand
HCV	hepatitis C virus	Sisters	Sisters Foundation
HIV	human immunodeficiency virus	STI	sexually transmitted infection
HTS	HIV testing services	SWING	Service Workers In Group
IAS	International AIDS Society	TB	tuberculosis
KP	key population	TGSW	transgender sex worker
KPLHS	Key Population-Led Health Services	TGW	transgender women
MoPH	Ministry of Public Health	TRCARC	The Thai Red Cross AIDS Research Centre
MSM	men who have sex with men	UIC	unique identifier code
MSW	male sex workers	UNAIDS	Joint United Nations Programme on HIV/AIDS
		USAID	United States Agency for International Development

# EXECUTIVE SUMMARY

The number of new HIV infections in Thailand has been in decline for more than 10 years, but HIV prevalence continues to be high among members of key populations (KPs) that account for more than 50% of all new infections in this concentrated epidemic.

The Key Population-Led Health Services (KPLHS) Model was developed by the Thai Red Cross AIDS Research Centre (TRCARC) and is currently being implemented by community-based partners through funding provided by USAID/PEPFAR through the LINKAGES Project managed by FHI 360. KPLHS was started in four provinces (Bangkok, Chiang Mai, Chonburi and Songkhla) in Thailand, is now placed in the national HIV/AIDS strategy for scale-up, and receiving financing from the Thai National Health Security Organization (NHSO). The model defines a set of HIV-related health services, which focuses on improving HIV service uptake among KPs including men who have sex with men (MSM), male sex workers (MSW), transgender women (TGW), and transgender women sex workers (TGSW) and delivers differentiated HIV services, tailored to the needs of the specific subpopulation.

## DIFFERENTIATED SERVICE DELIVERY PRINCIPLES

- The best way to reach and serve KPs is by
- understanding the different needs and preferences of specific sub-populations
  - understanding the different needs and preferences of specific individuals within those sub-populations
  - tailoring program approaches accordingly based upon their sociodemographic characteristics, their HIV serostatus and relative risk of infection (or onward transmission)

The model is built upon the principle of differentiated service delivery (DSD) and offers a variety of options instead of a one-size-fits-all approach (see box).

Currently, global examples of the differentiated delivery of HIV services, as well as supporting evidence for these approaches, mainly relate to differentiated antiretroviral therapy (ART) for stable adults living in sub-Saharan Africa.

Here we seek to provide a systematic, integrated and comprehensive documentation of DSD along the entire HIV care cascade (reach, recruit, test, prevent, treat and retain) for KPs in Thailand and connect each of the different cascade components. With this report, we aim to allow implementers, policymakers and providers from around the globe, working in different settings and contexts, to understand the background, methodology and experiences of KPLHS, and adapt relevant elements to fit their local situation. Furthermore, the dissemination of the report to stakeholders in Thailand will enable the advocacy for sustainable scaling-up of these models to address HIV among KPs in the country.

Under the KPLHS model, HIV services throughout the cascade are delivered by KP-led community based organizations (CBOs) in partnership with the public health sector. These services were designed in consultation with KP members themselves, and are therefore needs-based, demand-driven, and client-centered. They adhere to standards for health service delivery that were developed in partnership with the Thailand Ministry of Public Health (MoPH). Differentiated options within each section of the cascade are described below.

## DIFFERENTIATED SERVICES ALONG THE CASCADE THROUGH KPLHS

### REACH AND RECRUIT

Differentiated approaches to recruitment are based on the understanding that KPs increasingly have different preferences for how they meet one another and socialize. Tailored strategies, including interactions across a variety of online platforms and offline venues, result in reaching more and different types of clients.

To reach clients who may not want to engage with an outreach worker, a peer-led referral chain recruitment approach is used: Enhanced Peer Mobilization (EPM)



Face to face



Online & social media



EPM

### HIV TESTING

To meet the needs of KPs, HIV testing services are offered by KP-health workers in community health centers (CHC). Clients engaged during mobile outreach may choose on-site testing, referral to a CHC, or a regular healthcare facility.

To accommodate clients who may not want to interact with a healthcare facility, oral fluid-based self-testing is provided through a pilot study at sites in Bangkok, Pattaya and Chiang Mai.



Oral fluid self-testing offered and delivered by multiple channels



Testing at mobile outreach sites



Testing at the CHC



Referral for testing at the public hospitals

### PREVENTION

HIV prevention services for clients who test HIV negative are differentiated to meet individual preferences and individual levels of risk. Condoms and lubricants are provided in CHCs, and KP-health workers have been trained to provide same-day pre-exposure prophylaxis (PrEP) or post-exposure prophylaxis (PEP) as needed. PrEP services are further differentiated by providing the option of daily or on-demand PrEP based on level of risk.



Condoms/ lubricants



PrEP at the CHC



PEP at the CHC

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## TREATMENT

A key strategy to maximize HIV treatment uptake is to ensure the availability of a variety of options, rather than providing a 'one-size-fits-all' approach. Through the LINKAGES project, TRCARC developed a differentiated approach for ART initiation by providing same-day ART services, to address low levels of successful linkage to treatment for newly diagnosed clients.

To address high loss-to-follow up rates after treatment initiation, three options for ART maintenance based on local context and conditions are provided through KPLHS. Clients who are clinically stable and have successfully remained on ART can receive their ART outside of a hospital in CHCs, provided by KP-health workers.



Same-day ART



Referral to ART services at registered hospitals



ART services at the CHC for stable clients

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## RETENTION

Retention of HIV negative clients in PrEP and/or HIV-testing services and HIV-positive clients in ART services is facilitated by telephone reminders and social network applications (e.g. LINE, WhatsApp, email, Facebook).



Retaining HIV-negative clients



Retaining HIV-positive clients

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## LESSONS LEARNED AND ONGOING CHALLENGES

Implementation of the KPLHS program as a DSD model over the last three years has generated a significant amount of quantitative and qualitative data, much of which can be used to posit a number of lessons learned:

- KP-led DSD approaches are successful in identifying and linking previously unreachable clients to HIV services. However, a continuing challenge remains the implementation fidelity and strategies to scale up.
- The KPLHS model does not replace, but complements services offered by the formal health sector.
- Models for reaching key populations should match the changing habits and preferences and adapt accordingly.
- With appropriate training and support, HIV testing services performed by members of the community or clients themselves, and integrated in a holistic approach to promote health and wellbeing, are an effective way of increasing testing uptake.
- Providing same-day, KP-led PrEP services can successfully enroll and retain MSM and TGW on PrEP. PrEP retention remains a challenge.

- Differentiated ART services such as same day ART, and ART maintenance services provided in the CHC through KPLHS can accelerate and improve ART initiation, and improve retention in care.
- The regular and consistent use of program data is essential to
  - » improve understanding of key population risk and needs and tailor services accordingly;
  - » strategize the use of resources; and
  - » improve program outcomes.
- To truly demonstrate the effectiveness of DSD models, consideration of costs and cost-savings associated with the models are necessary.





Photo: IAN TAYLOR/USAID LINKAGES, FHI 360

# I. THE PROBLEM

Since the beginning of the HIV epidemic, Thailand has achieved unprecedented success in mitigating the burden of infection among affected populations including female sex workers and members of the general population. New HIV infections rose rapidly in the 1980s and early 1990s, driven principally by heterosexual transmission and a widespread sex work industry. At its peak, the government reported almost 150,000 new infections per year between 1990-1992.<sup>1</sup> In the past 25 years, the number of annual new infections dropped precipitously, credited to strong national leadership and collaboration between civil society organizations, research institutions, and the public health sector. In 2016, UNAIDS estimated that annual incidence had dropped to 6,400 HIV infections.

Despite these gains, Thailand still faces challenges in eliminating its epidemic. Some evidence suggests that the number of new infections may soon rise. In 2003, the government and civil society partners recognized that there were burgeoning, previously hidden sub-epidemics among gay men, other men who have sex with men (MSM), and transgender women (TGW). In 2017, UNAIDS estimated that nationwide, HIV prevalence among MSM was 9.15%.<sup>2</sup> However, in urban areas, prevalence estimates are much higher: in Bangkok, prevalence rose from 17.8% to 30.3% between 2003 and 2007.<sup>3</sup> More than half of new HIV infections in Thailand annually can be attributed to MSM and TGW.<sup>4</sup>

Thailand has a strong public health system with free HIV testing services (HTS) and antiretroviral treatment (ART). There are a limited number of community-based organizations (CBOs) working to promote HIV awareness and testing among key populations including MSM and TGW, including those involved in sex work, and HTS and treatment uptake among these sub-populations remain low. In mid-2015, estimates suggest that fewer than half of MSM had

1. The A<sup>2</sup> (Analysis and Advocacy Project) Thailand and the Thai Working Group on HIV/AIDS Projections (2005). The Asian Epidemic Model (AEM) Projections for HIV/AIDS in Thailand: 2005-2025
2. UNAIDS Data Book 2017
3. Van Griensven F. et al, Trends in HIV prevalence, estimated HIV incidence, and risk behavior among men who have sex with men in Bangkok, Thailand, 2003-2007. JAIDS. 2010 Feb 1;53(2):234-9.
4. FHI 360 and MOPH, 2018

been reached with HIV prevention interventions (for male sex workers the figure was 64%); only one-fifth of HIV-positive MSM knew their sero-status, and only one-third of those known to be living with HIV were on ART.<sup>5</sup>

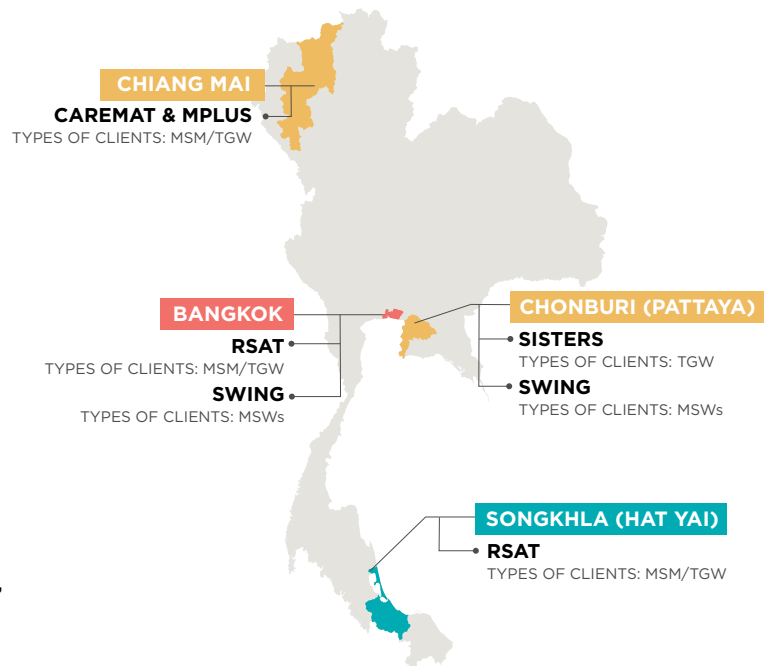
In order to improve HTS and treatment uptake among MSM, male sex workers (MSW), TGW, and transgender sex workers (TGSW), the Thai Red Cross AIDS Research Centre (TRCARC) developed the Key Population-Led Health Services (KPLHS) model, which is currently implemented by community-based partners through funding provided by USAID/PEPFAR

through the LINKAGES Project managed by FHI 360. The KPLHS model is built upon the principle of differentiated service delivery (DSD)- the principle that the best way to reach and serve key populations (KPs) is by understanding the different needs of specific sub-populations, and of specific individuals within those sub-populations, and tailoring program approaches accordingly based upon their sociodemographic characteristics, their HIV serostatus and relative risk of infection (or onward transmission), and their individual preferences. Rather than prescribing a one-size-fits-all approach, KPLHS is therefore about offering a variety of options, which are described below. The model was first piloted in 2015 in four provinces: Bangkok, Chiang Mai, Chonburi and Songkhla

(Figure 1). Beginning in 2017, FHI 360 and partners expanded various versions of the model to five more provinces. The approach offers tailored and differentiated HIV prevention, treatment and care services to the four sub-groups mentioned above.

Currently, global examples of differentiated approaches, as well as supporting evidence for these approaches, mainly relate to differentiated ART for stable adults living in sub-Saharan Africa. Good practices are not as well documented for other populations (e.g. children, adolescents, key populations), for geographical contexts beyond sub-Saharan Africa, or for other points along the HIV care cascade. This document aims to provide a systematic, integrated and comprehensive documentation of DSD along the entire HIV care cascade for KPs in Thailand (reach, recruit, test, prevent, treat and retain) and connect each of the different cascade components. The dissemination of this work will enable advocacy for sustainable scale-up of these models to address HIV among KPs in Thailand, will also allowing implementers, policymakers and providers from around the globe, working in different settings and contexts, to better understand the background, methodology and experiences of KPLHS, and adapt relevant elements to fit their local situations.

**Figure 1. Implementation provinces and CBOs**



5. AEM HIV Estimation and NAP-Plus Database, National Health Security Office



## II. THE HIV SERVICES CASCADE: Reach, recruit, test, treat, prevent & retain

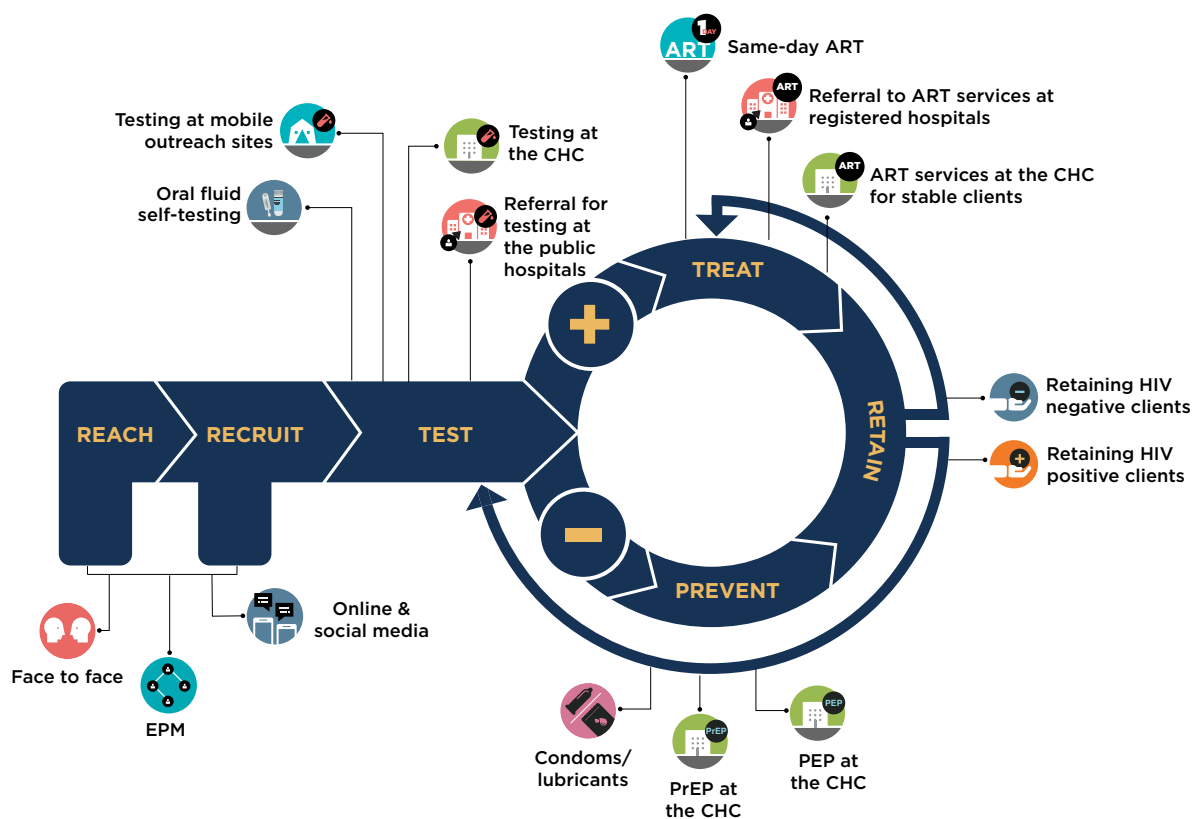
Photo: JIRANTANIN T./USAID LINKAGES, MPLUS

Comprehensive HIV programs can be conceptualized as a ‘client flow’ along a cascade of services ([Figure 2](#)). The cascade moves from left to right, beginning with reaching and recruiting individuals not previously engaged in the program (i.e. those at risk for HIV acquisition). The ‘reach’ phase requires identification of members of ‘key’ populations at highest risk of becoming infected with HIV or of transmitting infection onwards, and increasing their awareness and knowledge of HIV transmission, the importance of knowing their HIV status, and the benefits of early treatment initiation. Once an individual is reached, the recruitment phase involves assigning them a unique identifier code (UIC). The UIC allows for identification and tracking of individuals throughout the health system while protecting their personal information, confidentiality, and privacy.

Individuals who have been recruited into the services cascade are then offered HIV counseling, and those who present risk factors and/or have not been tested within a certain window period are offered to take an HIV test. Those who test positive are offered HIV treatment. After initiating ART, treatment clients are provided the requisite support to ensure they remain adherent to their medication until their HIV viral load becomes undetectable. They are also offered education and commodities including condoms and lubricants to support them to prevent onward transmission. Partners of people living with HIV (PLHIV) are also encouraged to receive an HIV test and those who test negative may also be offered pre-exposure prophylaxis (PrEP) for up to six months, until their HIV positive partner has an undetectable viral load.

Clients who test negative enter the prevention part of the cascade. They receive prevention education, condoms and lubricants, and are encouraged to return for an HIV test at least every 6 months, consistent with national guidelines. Those at high risk for HIV infection and who pass specific eligibility criteria are offered PrEP.

Figure 2. Key Population-Led Health Services model in which Key Population Community Health Workers perform Reach – Recruit – Test – Treat and Prevent – Retain roles with their peers



*EPM: enhanced peer mobilization, CHC: community health center, PrEP: pre-exposure prophylaxis, PEP: post-exposure prophylaxis, ART: antiretroviral therapy*

In the KPLHS model, HIV services throughout the cascade are delivered by key population-led CBOs in partnership with the public health sector. These services were designed in consultation with KP members themselves, and are therefore needs-based, demand-driven, and client-centered. They adhere to standards for health service delivery that were developed in partnership with the Thailand Ministry of Public Health (MoPH).

The remainder of this document describes how the KPLHS model helps to achieve better results across the HIV services cascade by reaching clients when and where they are, with the services they need and want, and describes in detail how the principle of differentiation has been applied at each stage of the cascade: reach, recruit, test, treat, prevent and retain.



### III. REACHING & RECRUITING KEY POPULATIONS

Photo: IAN TAYLOR/USAID LINKAGES, FHI 360

The reach and recruit components of the program offer individual- and group-level HIV prevention education, behavior change communication, and distribution of condoms and water-based lubricant. They also aim to generate demand for HIV testing and improve awareness about the benefits of early initiation of HIV treatment. For most KP members, the outreach workers who conduct these activities are the first point of contact in their engagement with HIV-related services. The goal of outreach, in addition to reaching beneficiaries with key messages and commodities, is to refer previously unreached clients to HTS (see [Section IV](#)), and to enroll those who are diagnosed with HIV or already known to be HIV-positive into ART ([Section VI](#)).


HIV prevention outreach and recruitment has traditionally been a group-centric, venue-based model focused on “hot spots” where members of KPs congregate socially. While hotspot-based outreach continues to be a major strategy under the KPLHS model (particularly for populations such as venue-based sex workers), a differentiated approach to recruitment requires an understanding that KPs increasingly have different preferences for how they meet one another and socialize, which require tailored responses including virtual interactions across a variety of platforms and which may encompass one-on-one encounters with a trained outreach worker, or recruitment by a trusted friend or sexual partner, or (for some) being reached with prevention and testing messages through a carefully selected key opinion leader or social media influencer who is not officially affiliated with the HIV program. By broadening the range of models by which coverage is achieved, the program brings in not only more, but different types, of clients and is able to pinpoint where risk is highest and resources may be most effectively targeted.

## | PREPARATION

Before implementing outreach, it is important to conduct **hotspot mapping** to identify physical and virtual spaces where and when unreached beneficiaries can be encountered. Hotspot mapping can be informal or rigorous, depending on a program's financial and human resources. In general, it is ideal if outreach teams are involved in the mapping, so that they become familiar with the sites, gatekeepers, and ideal days/times to access clients. The maps can be used to make weekly/monthly plans (**microplanning**<sup>6</sup>) to ensure that outreach workers work collaboratively to maximize reach and reduce overlap. Outreach teams should update their maps regularly (e.g. every six months). More frequent revisions may be needed when there is high mobility at key sites. Maps generated through these processes are securely stored and not shared publicly, to protect the privacy and safety of KPs.

## | IMPLEMENTATION MODEL

Under the KPLHS model, community-based civil society organizations lead the reach and recruitment services. These organizations employ teams of trained peers to conduct outreach in hotspots and other venues where KPs congregate. They also manage community health centers (CHCs) that serve as KP-friendly platforms for the delivery of HIV, health, and related services (e.g. HIV/sexually transmitted infection (STI) testing, hormone level measurement, peer/psychosocial support, nutrition, legal aid, etc.). CBOs maintain close partnerships with provincial and municipal healthcare providers, including public sector hospitals, private clinics, and provincial health offices (PHOs). These partners jointly assess, assure, and improve the quality of the KP-led health service program and, where needed, facilitate referral to other services within the healthcare sector and beyond.



SWING Pattaya's outreach team in the notorious Walking Street giving out safe-sex package and recruiting those at risk to the system.

Photo: IAN TAYLOR/USAID LINKAGES, FHI 360

6. Hotspot mapping and microplanning is a process that decentralizes outreach management and planning to grassroots-level workers— outreach workers and peer educators —and allows them to make decisions on how to best reach the maximum number of community members. To learn more about hotspot mapping and microplanning, visit the following link: [https://docs.gatesfoundation.org/documents/Microplanning%20Handbook%20\(Web\).pdf](https://docs.gatesfoundation.org/documents/Microplanning%20Handbook%20(Web).pdf)

Partners use a diversity of face-to-face and online-mediated approaches to reach and recruit new KP clients in hotspots and online platforms. Physical locations include bars, dance clubs, cabaret shows, bathhouses/saunas, and public parks. Since the advent of the internet and with increased access to mobile telephones, social and sexual networking has increasingly moved to non-physical spaces such as chatrooms and bulletin boards, social media platforms such as closed Facebook groups and Facebook Live chats, and dating apps including Grindr, Hornet, and Blued. These virtual spaces are of increasing importance in reaching younger MSM/TGW who may eschew traditionally 'gay' venues or cruising spots for reasons of convenience, anonymity, and/or personal safety.

## | STAFFING AND VOLUNTEER RECRUITERS

Reach and recruitment services are primarily provided by paid 'community-based supporters' (CBS) or outreach workers. They are recruited from members of the target populations themselves. The program provides them with training and communications tools, commodities, regular field monitoring and mentoring, and a monthly salary. Frontline workers are assigned monthly targets for reach and referral for HIV testing.

However, not every potential client wants to speak with an outreach worker or can be reached in the settings where outreach workers have entrée. To address this challenge, the program also employs a peer-led referral chain recruitment approach called **Enhanced Peer Mobilization (EPM)**. Peer Mobilizers (PMs) are KP peers, often clients of the program, who are offered a small incentive to recruit their peers to meet with an outreach worker, access counseling and testing, or return to care for PLHIV who were lost to follow-up. They do this by distributing coupons with unique or QR codes to peers, friends, and sexual partners. PMs can be recruited after receiving an outreach session, an HIV test, or initiating or re-entering treatment. They do not receive formal training or sign a contract, and do not receive a monthly salary like peer educators or CBS. Their remuneration is based on the number of clients they successfully recruit into the program who receive appropriate services.

The model is designed to extend reach into otherwise untapped KP networks that may be less accessible by peer educators and CBS. When clients bring in peers from their personal networks, these new individuals are offered the chance to serve as mobilizers, resulting in successive waves of recruitment. One advantage of this approach is that it reduces the required number of trained part- or full-time outreach workers while increasing access to new networks among KPs. Mobilizing those who practice higher-risk behaviors or are living with HIV may increase the likelihood of case finding.

## | RECRUITMENT PROTOCOL

Individual-level reach and recruitment follows a five-step protocol:

1. **Screening** of potential clients **for eligibility** (i.e. MSM or TGW, aged 18 or above, who are at risk for HIV acquisition/transition), and generation of a UIC to protect client confidentiality. The program tracks registered clients using an online/mobile platform with a smartphone application called *eCascade*.
2. **Assessment of risks and behaviors** including HIV testing/treatment history, STI history, sexual practices, drug and alcohol use, and violence; this also involves taking a client's contact details. The outreach worker then decides whether the client is high or low priority for further engagement.

3. **Delivery of targeted HIV prevention information** and promotion of HIV testing and relevant health and psychosocial services, based on the results of the risk assessment.
4. **Referral** as necessary to facility-based services (or, in some cases, on-site HIV testing - described below). The outreach worker might offer to accompany a client to the testing site, per client preference. Sometimes they provide transportation assistance to the client if this is an obstacle to getting tested.
5. Asking clients if they would like to “**pass it on**”, i.e. offering them incentives to serve as mobilizers to recruit peers within their social or sexual networks.

## | PROMOTION OF SERVICES

The program uses a human rights and social support approach to attract clients to its HIV and related services, based on the needs identified by KP clients. For example, the program provides MSW with non-formal education and English classes during convenient days/times (i.e. during times when MSW are not seeking sex work clients). Critical to the success of this approach, outreach teams need to build trust and working relationships with sex work establishment owners and other gatekeepers.

The program attracts TGW by providing information and education about hormone therapy and human rights. Partner organizations organize beauty pageants and visits to religious sites where other services might be provided, including condoms and lubricant distribution and HTS, or referrals to offsite testing centers. Similar to MSW, it is important for outreach teams to establish working relationships with influential gatekeepers in the TGW community, including *mama-sans* and entertainment establishment owners.



Photo: IAN TAYLOR/USAID LINKAGES, FHI 360

CBO partners also conduct other forms of recruitment in the community and via online platforms. Small-group interactions and community mobilization activities (parties, sporting events, dramatic performances, etc.) help generate opportunities for face-to-face engagement. Outreach workers and CBS post about events on social media groups or participate in online chats, including interaction via dating apps like Grindr, Hornet, and Blued. The program also recruits individuals using targeted promotion via organizations’ websites, Facebook pages, paid social media advertisements, and promotional content.



A significant proportion of clients access partner-supported CHCs without having interacted with an outreach worker or volunteer. Some of these cases are due to word-of-mouth and the center’s reputation within the KP community. Other cases arrive on account of local advertising (posters, banners, etc.) and online promotion. These ‘walk-in’ clients also receive a full package of risk assessment, education, and behavior change communication services.

## RETHINKING REACH AND RECRUITMENT

Implementation of a differentiated KPLHS model has required fundamental reconsideration of the roles and responsibilities of outreach workers, moving from large, group-based interventions that provide HIV prevention education and awareness raising, toward individualized engagement based on an assessment of each client’s different risk profile and needs. Outreach has also been redefined with a clear end goal: HIV service uptake. This has required organizations to become more data-driven in program planning and decision-making, responding in a timely and effective manner. In order to implement this more tailored approach, LINKAGES has trained program staff on the Enhanced Peer Outreach Approach (EPOA), as well as on interpersonal communication skills using an adaptation of a University of North Carolina motivational interviewing toolkit called Motiv8.

This approach is differentiated at the level of the individual client: it focuses on tailoring interpersonal communication with clients according to their needs, preferences, and barriers to behavior change. Outreach workers utilizing this approach face ongoing challenges in shifting their thinking and approaches with each individual client. Although this makes EPM significantly more intensive, the impact of outreach can be maximized by providing ongoing training, regular field-based supervision and mentoring.

## RESULTS

From the program’s inception (January 2015) through January 2018, coverage increased by 319% (from 3,264 to 13,680 MSM, MSW, TGW and TGSW reached). Among a subset of clients who were tracked longitudinally, 31.8% were successfully referred to HTS at least one time over the life of the project, of whom 9% tested positive. This is a lower sero-positivity rate than would be expected based on HIV prevalence estimates. Table 1 outlines observed prevalence during fiscal year 2017 among KP subgroups at KPLHS-supported sites as compared to recent prevalence estimates (based on 2015 AEM Update; Thai Bureau of Epidemiology, 2018).

Although recruitment by PMs accounts for roughly 10% of overall reach, 89% of clients recruited by their peers received an HIV test, compared with only 25% of those recruited via CBS. Initial data suggest that clients recruited by their peers are less likely to have previously received an HIV test, and although overall sero-positivity levels among clients tested were similar (9.3% via CBS vs. 8.4% via peers), in some sites, peer-recruited clients had much higher sero-positivity levels than clients recruited by a CBS.

PM contributions to service delivery under the project have increased over time. The number of clients

**Table 1. Estimated and observed HIV prevalence among KP subgroups (2017)**

	HIV PREVALENCE (estimated/observed)		
	MSM	MSW	TGW/TGSW
<b>Bangkok</b>	20%/11%	12%/9%	12%/8%
<b>Chiang Mai</b>	14%/7%	7%/2%	13%/4%
<b>Chonburi</b>	2%/9%	18%/13%	17%/7%

*Source: Estimated prevalence data come from the 2015 AEM Update; Thai Bureau of Epidemiology; observed prevalence data are aggregated from KPLHS-supported sites for FY17*

successfully referred to testing by PMs increased by 178% between 2016 and 2017, and the number of cases identified increased by 190% over the same period. In some sites, peer-driven recruitment has had a significant impact on overall service delivery. In Chiang Mai, for example, peer-driven recruitment accounts for 43% of all outreach, as well as 42% of all testing uptake and 41% of all case-finding (including walk-in clients). A recent analysis of recruitment waves at one partner in Chiang Mai over a twelve-month period additionally showed that PM diagnosed with HIV recruited more clients living with HIV who did not know their status than PM who were not living with HIV (see box, right).

This suggests that peer mobilization (particularly utilizing HIV-positive PMs) can lead to a higher number of new HIV diagnoses than traditional outreach, at a much lower cost. However, it has been challenging implementing this approach consistently across partners and at scale. Most clients asked to ‘pass it on’ within their networks decline, and of those who accept, only about 20% successfully recruit new clients. Despite this, successful recruiters account for an average of 13 new clients per PM.



LINKAGES is also tracking the outcomes of an online recruitment approach that follows previously unreached clients via an ‘online-to-offline’ reservation system. The system tracks clients from an online platform/advertisement/outreach worker to a clinic for HIV testing and links the tracking number with their test results. The system has been in operation for nine months. During that period, clients made 1,820 unique online reservations for HIV testing. More than half (55%; n=1,009) showed up and were successfully registered at one of ten participating clinics. In comparison, only 34% of clients reached via face-to-face outreach during the same period were successfully referred to a clinic. These data show the potential for enhancing recruitment via online channels.

The message is clear that, despite challenges bringing more innovative and individualized approaches to scale, diversifying recruitment models based on different clients’ needs has helped to not only increase program coverage and service uptake, but to reach new and underserved populations who in some cases appear to be at higher risk of HIV infection.



## VOICES FROM THE FIELD

*“My first contact with the Service Workers In Group (SWING) Foundation was during their outreach work, providing condoms at the strips where I worked. As a male sex worker from a rural area, coming to Bangkok was rough. For me the clinic is more than just an HIV testing center; it’s a place for making new friends and sharing experiences. Otherwise, I would have had nowhere to go and no one to turn to. I don’t just come here to get free condoms and lubricants...I’m also taking non-formal education classes at SWING. The opportunity is great. I would have been unable to do this elsewhere because I don’t get paid leave. SWING understands my lifestyle and the work I do, so the classes are scheduled at a flexible time, which is really convenient for many sex workers.”*

**HIV-negative male sex worker - CBO SWING in Bangkok**

*“I know I am at risk. Having an HIV test [using] oral fluid is very convenient for me...The outreach workers come to the place where I work. It’s a win-win [situation] for me. They get a client reached, and I get tested. I’m a manager at an entertainment venue and I have a lot of girls under my supervision. Sisters Foundation (Sisters) is really one of a kind, a center for TGW run by TGW. Their mission resonates well with me, so I don’t keep things to myself. I share it with the girls I supervise and they tell their friends”*

**HIV-negative transgender woman - recruited by Sisters in Chonburi**

*“I first heard of Mplus from a peer mobilizer in my neighborhood. I joined their retreat when I was young. Apart from the fun activities and games, I learned a lot about HIV/AIDS, transmission routes, and so on. I also learned about different sexual identities and sexual orientation...I have learned to accept myself and become a more responsible person. I soon asked to join and became a volunteer in my neighborhood. It may sound a bit exaggerated, but promoting Mplus and providing education has become [a part of] my soul...I’m very proud of the job I do and wouldn’t trade it for anything else...There is plenty to do, so I want to get more volunteers and people to support us.”*

**HIV-negative client who later became a PM at Mplus, Chiang Mai**





Photo: IAN TAYLOR/USAID LINKAGES, FHI 360

## IV. HIV COUNSELING AND TESTING

HIV testing uptake among MSM and TGW remains suboptimal in Thailand. The reasons for this are manifold. Some MSM and TGW may not view themselves as at risk for HIV, despite significant risk behaviors; however, many KPs report reservations of challenges accessing HTS via a formal healthcare sector that does not align with their needs, due to stigma and discrimination, inconvenient locations or opening hours that do not fit their schedules. The KPLHS program is not only working to increase HIV testing uptake among KPs by improving the quality and acceptability of existing services, but also by diversifying options for getting to know one's HIV status based on clients' different preferences. Rather than specifying a single, "gold standard" testing model, the underlying principle of the KPLHS approach to testing provision has been to offer choices.

### | IMPLEMENTATION MODEL

Currently, HIV testing in Thailand must officially be conducted by a credentialed medical technologist, most often in a formal healthcare facility. While this system works for the general population, and for some KPs, the KPLHS model has sought to offer a differentiated approach by recruiting trained health care workers from the communities they serve to provide HIV testing in CBO CHCs and mobile clinics. Training includes pre- and post-test counseling and HIV testing using rapid finger prick test kits. In addition to health center-based services, the teams offer HIV testing directly in the community, during routine outreach in hotspots including clubs, outside entertainment venues, and gay saunas. Outreach is performed up to seven days per week, during hours convenient for the target populations (usually in the evenings). Clients may choose to receive an on-site testing (if a mobile clinic is available) or get referred to a CHC. Recognizing that some clients may want to know their status, but may feel uncomfortable going to a KP-identified CHC, CBSs can also refer or accompany a client to a public healthcare facility, if this is their preference.

CBOs that perform HIV screening are also equipped with lab facilities. This enables them to conduct confirmatory testing for clients with reactive screening results, as well as CD4 counts for clients who are confirmed HIV-positive. The fact that these services are KP-led has contributed substantially to increased HIV testing uptake among MSM, TGW, MSW and TGSW, who tend to feel more connected to service providers from their communities.

## | HIV SELF-TESTING

Some clients do not want to interact with a healthcare facility at all. This is why the program has been piloting the use of oral fluid-based HIV self-test kits for MSM and TGW in Bangkok, Pattaya and Chiang Mai. The study is examining the feasibility and acceptability of HIV self-testing models and the extent to which newly diagnosed clients are successfully linked to confirmatory HIV testing and treatment services. Outreach workers recruit MSM and TGW into the study during community outreach (physical locations) or during online outreach (social media).

During enrollment, outreach workers offer their clients three HIV testing options: a) assisted HIV self-testing, b) unassisted HIV self-testing, or (c) referral to a facility (either a community-based facility managed by a CBO, or a health facility within the network). If they opt for **assisted HIV self-testing**, a trained peer health worker provides support for the HIV self-testing process at a time and location convenient for the client. Participants who select **unassisted HIV self-testing** can receive a test kit from an outreach worker, pick one up at a CHC, or receive one through express mail, and take the test without the presence of a program staff member.



Sisters' outreach team explaining how to use an oral fluid-based HIV self-test kit to TGW in pattaya

Photo: CHRISTIAN KÖPPEL/USAID LINKAGES, TRCARC

Participants are asked to answer a questionnaire and indicate their HIV test result on a secure project webpage. Those who report an invalid or reactive result are provided follow-up by a CBS via the phone number or social media channel that was obtained during intake. This information is collected to ensure that every newly-diagnosed client has support to conduct a confirmatory test, and if diagnosed HIV-positive, to ensure that they are successfully linked to and access treatment services.

## | MEETING CLIENTS' HOLISTIC NEEDS

Differentiation does not only mean offering clients the same service in different ways – it also means understanding KPs' broader needs and developing models to integrate HIV service delivery within a holistic framework of service delivery. In order to address low uptake of HIV testing among TGW and TGSW, the program has trained staff working with these populations to provide gender-affirmative hormone therapy monitoring support, as part of a 'wrap-around' health service package. The monitoring service is provided at no cost as a strategy to encourage TGW and TGSW to enroll in the program, and subsequently engage them in HTS and treatment services. TGW and TGSW who are on PrEP or are taking ART often have concerns about the interactions of these medications with their hormone therapy. The monitoring support alleviates common fears, and helps improve adherence to PrEP and ART. It also promotes correct and responsible use of gender-affirmative hormone medication. Staff link these clients to physicians at the TRCARC to provide interpretation of results and recommendations on dosing/frequency of hormone therapy.

## | RESULTS TO DATE

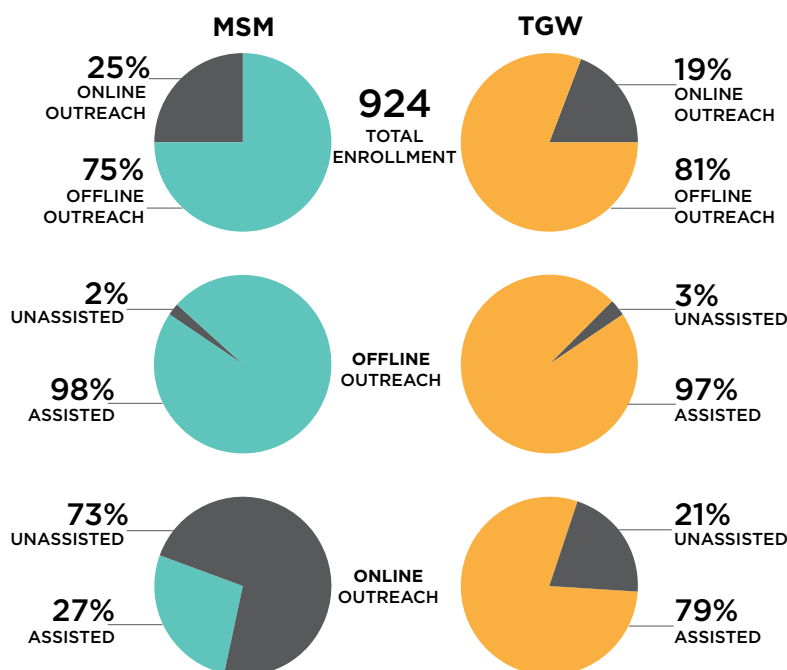
During the period between October 2016 and September 2017, the program tested 28,332 KP members at CHCs, of whom 10.3% were HIV positive. In mobile clinics during the same period, the program tested 5,532 KPs, of whom 5.0% were HIV-positive. In gay saunas, the program tested 293 clients during this period, of whom 12.6% tested positive for HIV. During this period, CBOs operating under the KPLHS model account for 35% of HIV testing uptake among MSM and TGW nationwide, and 26% of all MSM and TGW case finding. By expanding service delivery options to better meet KP preferences, the model is able to reach MSM and TGW in the community in a way the formal healthcare sector does not, resulting in relatively few CBOs making a significant contribution to national indicators regarding testing and case finding.



From April through October 2017, the program enrolled 462 MSM and 462 TGW in the HIV self-testing implementation science study. Most participants were enrolled through face-to-face interactions with an outreach worker; 25% percent of MSM and 19% of TGW were enrolled through social media. The majority of clients preferred to have assistance with their HIV self-test - MSM (79%) and TGW (93%). However, participants enrolled in the study via social media showed markedly different preferences, again underscoring the importance of providing options in service delivery.

The overwhelming majority of participants who enrolled with an outreach worker in person selected assisted HIV self-testing (98% of MSM and 97% of TGW). Of participants who enrolled through social media, data differed substantially between MSM and TGW (see Figure 3). Almost three-quarters (73%) of MSM selected unassisted HIV self-testing, versus about one-fifth (21%) of TGW. The HIV positivity rate between assisted and unassisted HIV self-testing was similar for MSM, at 12%. There were no reported reactive cases among TGW who preferred unassisted HIV self-testing. However, 9% of TGW screened reactive under the assisted HIV self-testing option. Out of 96 participants who screened invalid or reactive during assisted or unassisted HIV self-testing, 55 (57%) were linked to a confirmatory test facility. Among those confirmed positive (52 of 55 participants), 41 (79%) were successfully referred to treatment services.

**Figure 3: Preference for differentiated HIV testing services**



Oral fluid screening was highly acceptable for both MSM and TGW, with peer-mediated HIV self-testing the favored screening option. However, unassisted HIV self-testing clearly meets the needs of a specific segment of these KPs, particularly those who use social media and/or are not inclined to meet face-to-face with an outreach worker or access HIV testing at a facility. No serious adverse or socially harmful events were reported by any research participants, though linkage to confirmatory testing remained a challenge and it was critical that a counselor provide follow-up within 48 hours of a screening. This ensured that clients in need of HIV case management were identified promptly and provided support.

Provision of hormone therapy monitoring services has proven to be an effective means of engaging TGW in HIV services. Since the initiation of hormone therapy monitoring services in August 2016 through May 2018, 545 TGW have accessed the support. All have subsequently undergone HIV testing, and 15 tested positive and were linked to care. Despite successes in enrolling TGW in the program via the provision of hormone therapy monitoring, a 2.8% case-finding rate was low compared to a case finding rate of 9.0% among clients tested at the same CBOs between May 2015 – October 2016 as part of a KP-led Test & Treat cohort study.



## VOICES FROM THE FIELD

*“Many TGW still rely on information about hormones from other TGW. There were no guidelines on the kinds or appropriate amounts of hormones to be used. No one really paid attention to hormone monitoring because as long as I look good, everything is great! But at Sisters, they teach you about the different types of hormones and the importance of hormone monitoring. I’m now using Oestrogel like they suggested. More importantly, Sisters is changing attitudes among TGW in the area; everyone is taking better care of themselves.”*

HIV-negative transgender woman, Sisters, Chonburi







## V. PREVENTING HIV AMONG HIGH-RISK MEMBERS OF KEY POPULATIONS

Photo: IAN TAYLOR/USAID LINKAGES, FHI 360

Among clients who test HIV-negative, the primary strategy for remaining negative since the beginning of the epidemic has been consistent condom use, and for many this strategy has been sufficient. However, consistent condom use has not been a realistic strategy for all KPs, and now evidence for the effectiveness of PrEP in preventing HIV infection among those most-at-risk is mounting globally.

The KPLHS model offers clients HIV prevention options, based on individual preference and also on individual levels of risk. It is recognized that not all KPs would benefit from, or would want, a daily PrEP regimen, but certain members of KPs may be ideal candidates for PrEP. These include MSM and TGW who test negative for HIV and: a) report unsafe sexual behaviors with casual partners of unknown HIV status, b) are engaged in sex work, c) use recreational drugs, and/or d) have a steady romantic partner who is living with HIV. By offering choice, and by identifying those individuals who would most benefit from that choice, KPLHS following a DSD approach is helping to expand prevention options in a targeted and strategic manner.

### | EXPANDING ACCESS TO PrEP

The KPLHS model provides free PrEP services to KP clients in four high HIV prevalence provinces in Thailand via the Princess PrEP Project, initiated in 2016. In addition to training health workers and counselors on the provision of pre- and post-test counselling and same-day HIV testing, the program also trains them on combination prevention strategies, including PrEP service delivery. Additionally, staff receives training on how to assess client needs and characteristics, including risk behavior patterns, frequency of sex, concerns clients may have about PrEP side effects and their ability to adhere to their regimen, and how to offer tailored messages on HIV prevention based on individual client assessments. The program also trains staff to advise on the provision of PrEP or post-exposure prophylaxis (PEP), when to use daily versus on-demand PrEP, and how to support PrEP adherence using the Life-Steps Adherence Counseling tool.

Initially, the program focused on providing daily PrEP to clients at risk for HIV acquisition, but different clients have different patterns of risk, and emerging data show that intermittent and on-demand PrEP (i.e. used just prior to and after episodes of sexual risk) are nearly as effective at preventing HIV infection as daily PrEP. Since early 2018, the program includes 'on-demand' PrEP as an option for MSM, and TGW not on hormone therapy. PrEP users can also switch between daily and on-demand PrEP, based on their needs, in consultation with community health workers (CHWs) and counselors.



Photo: IAN TAYLOR/USAID LINKAGES, FHI 360

Same-day PrEP is now available at each of the implementing CBOs. Clients who are eligible for PrEP based on the risk assessment, or who ask for PrEP, are counselled, offered basic information, and then given an HIV test. Anyone with an HIV negative test is offered additional information on PrEP to gauge their eligibility and interest in enrolling. Those who are eligible and interested complete a risk assessment and behavioral questionnaire. They also provide a blood sample which is sent to a partner hospital or laboratory for free creatinine and hepatitis B surface antigen (HBsAg) testing. The program provides eligible clients with a first bottle of PrEP pills while awaiting these results. If there is evidence of decreased creatinine clearance (<60 mL/min) or hepatitis B virus (HBV) infection, a CHW contacts the client immediately, advises the client to discontinue PrEP, and refers them to relevant care services.

The program requests that clients return for risk assessment, HIV testing, and adherence counselling at one and three months after initiation and every three months thereafter. Creatinine clearance is tested every six months. For clients who remain HIV negative and report adherence, counseling sessions are reduced to once every three months. Clients are also welcome to return at any time for guidance, support, and screening.

As discussed above, differentiation is not only about understanding and responding to different clients' different needs - it is also about targeting resources effectively and ensuring that the highest-risk clients are targeted for the greatest impact. Data from a KP-led cohort followed within the program, showed a high HIV incidence of 7.65 per 100 person-years among MSM and TGW aged 18-19 years. To effectively reach and engage high-risk adolescent KP members,

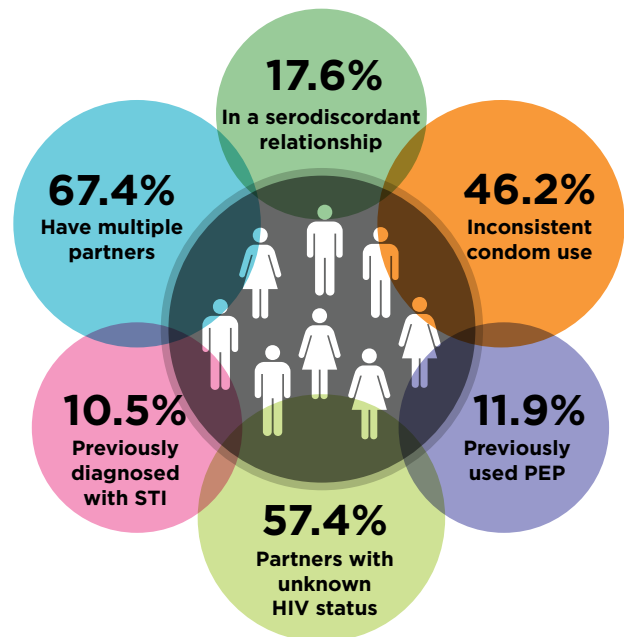
the Rainbow Sky Association of Thailand (RSAT) and Service Workers In Group (SWING) (two CBOs based in Bangkok), in partnership with TRCARC, started to extend PrEP services to MSM and TGW aged 15-19 years in March 2018. The CBOs provide PrEP services and consultations by physicians and nurses with expertise in working with adolescents. Clients are eligible for PrEP if they are 15 years or older and confirmed HIV negative by same-day HIV testing at the CBOs. The program also collaborates closely with the Department of Pediatrics at the King Chulalongkorn Memorial Hospital in Bangkok to provide counselling and clinical services for MSM and TGW adolescents who prefer to go there for HIV testing and/or PrEP services.

## RESULTS TO DATE

Since January 2016, a total of 2,104 clients have accessed PrEP through the Princess PrEP Project, which as of May 2018 represented more than half of all reported Thai PrEP users. The majority of these PrEP users reported multiple partners (67.4%) and/or had partners with unknown HIV status (57.4%); half of users reported inconsistent condom use (46.2%). The KP-led, same-day dispensing approach has been critical in increasing PrEP uptake. KP members who access PrEP through the Princess PrEP Project now account for more than half of all reported PrEP users in Thailand. Data from the Princess PrEP Project have been used by the National Health Security Office (NHSO), Thailand's national health program, to inform policy decisions on PrEP provision for KPs. The NHSO has also expressed its intention to start including PrEP for KPs under the National Health Scheme in the near future.

In 2017, the proportion of PrEP users below 20 years of age accounted for only 2% of the total population of PrEP users. In order to increase PrEP uptake among adolescents, and improve PrEP retention and adherence, TRCARC is exploring alternative models for PrEP delivery. Options may include home delivery, dispensation at a preferred venue, and/or dispensation at CBOs. TRCARC is also considering the use of 'virtual clinic visits' in lieu of appointments/walk-in visits at CBOs to increase client accessibility options.

Figure 4. Risk factors of PrEP users



## VOICES FROM THE FIELD

*"I didn't know that PrEP existed until I came here! I know that I am at risk for HIV and PrEP serves as another protective barrier besides condoms. I love that PrEP is free and provided by community health workers, because I hate going to hospitals. I hate being judged about the work I do. I don't feel comfortable talking about my risks with people in white gowns. The fact that a lot of staff [at SWING] are ex-sex workers makes it easier for me to talk to them."*

HIV-negative male sex worker currently on PrEP at SWING, Pattaya, Chonburi



## VI. TREATMENT INITIATION FOR KEY POPULATIONS WHO TEST POSITIVE

Photo: CHRISTIAN KÖPPEL/USAID LINKAGES, TRCARC

A key strategy to maximize HIV treatment uptake among MSM, TGW, MSW and TGSW is to ensure they are given a variety of options, rather than providing a 'one-size-fits-all' approach. LINKAGES developed a differentiated approach for ART initiation and three options for ART maintenance based on local context and conditions in order to address low levels of successful linkage to treatment for newly diagnosed clients, and high loss-to-follow up after treatment initiation. The section below discusses ART initiation, and Section VII focuses on differentiated models for ART maintenance.

### | SAME-DAY ART INITIATION

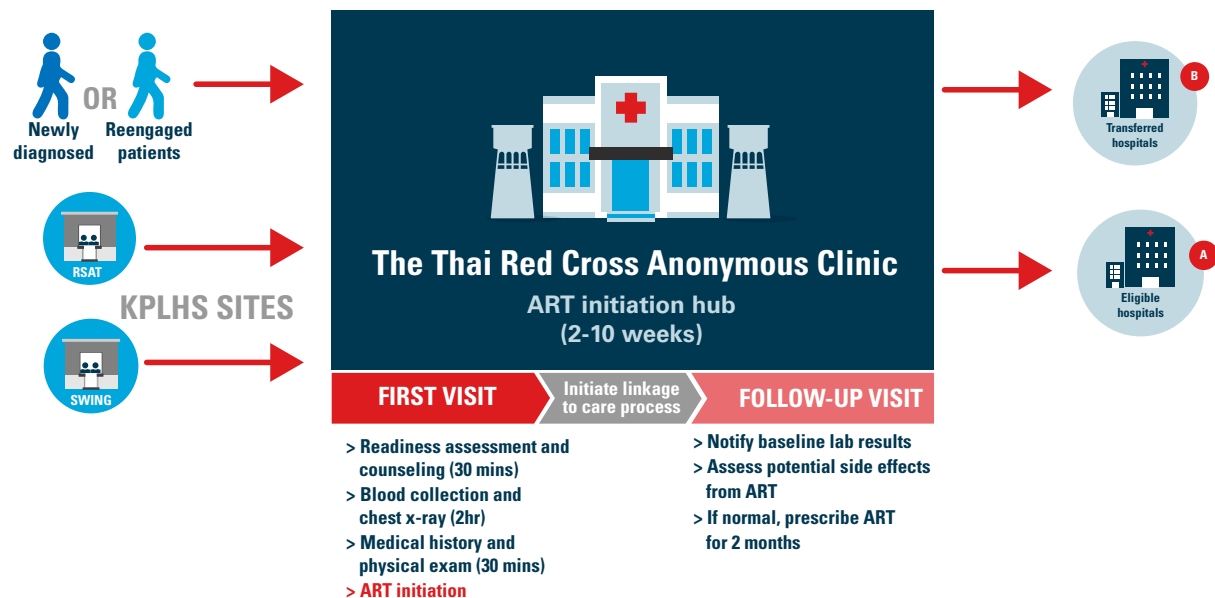
The Thai Red Cross Anonymous Clinic provides HIV testing to over 30,000 clients per year, including KP clients and those from the general population. However, it does not function as a hospital. Previously, clients who tested positive for HIV needed to be referred to the hospital assigned by their health insurance in order to access ART. This procedural bottleneck, combined with the initial shock of a positive diagnosis, reportedly is the reason that a large proportion of newly diagnosed KP members did not access ART services.

Since July 2017, the Anonymous Clinic has implemented a model in which newly diagnosed clients can initiate ART on the day of their diagnosis (barring suspected cases of opportunistic infection (OIs)) to reduce loss to follow-up while clients are supported through the process of transferring to a long-term ART provider of their choice. This has been described as a 'hub-and-spoke' model for ART initiation (Figure 5).

In this immediate ART model, newly diagnosed clients receive post-test counseling, psychosocial support, ART, adherence counseling, development of a long-term care plan, and linkage to care and support services. For clinical follow up, they are provided baseline lab screening consisting of: anti-HIV (same day), chest X-ray (same day), CD4, liver and kidney function (ALT and creatinine), syphilis, hepatitis B (HBsAg), hepatitis C (anti-HCV), and

urinalysis. Symptomatic screening is performed for tuberculosis (TB), cryptococcal meningitis (CM) or other OIs that may require hospital admission. Nurses and physicians review baseline lab results, assess the likelihood that clients wishing to start ART will be adherent, discuss potential side effects, and initiate the referral process to a long-term ART site.

Figure 5. Same-Day ART using ART Initiation Hub Model at the TRC Anonymous Clinic



If there is no medical concern, clinicians will provide a two-month supply of ART. Clients are then linked to peer navigators (PNs) – usually health workers living with HIV who can share personal experiences accessing HIV and related services, and who are matched with newly-diagnosed clients based on shared characteristics<sup>7</sup> and client preferences. PNs provide ART education, assess emotional and psychosocial readiness for treatment, develop long-term care plans, remind clients of appointments, and provide ongoing adherence support. PNs also familiarize themselves with the process of reassigning clients to a registered hospital to provide long-term HIV care and treatment based on each individual client’s health benefit scheme and can even assist clients to register under the address of a CBO partner if the client cannot or does not wish to access treatment at a provider within their own geographic catchment area. If desired, PNs will accompany clients during medical appointments at the hospital or CBO, and ensure they fully understand what was discussed or decided afterwards, ensuring what has been referred to as a “warm handover.”

The same-day ART model was initially unique to the Anonymous Clinic; clients who tested HIV positive at LINKAGES-supported CBOs were referred to a hospital for further care. This model has now been expanded to two Bangkok CBOs, where clients are counseled and offered the services of a PN to accompany them to initiate immediate ART at the clinic. LINKAGES is working to replicate same-day ART under a similar ‘hub and spoke’ arrangement in other provinces.

For clinical screening under this model, nurses and physicians follow Thailand’s National Guidelines on Treatment and Prevention, with emphasis on TB, CM, and OI screening using

7. Gender, sexual orientation, religion, socioeconomic level, ethnic identity, language/dialect etc.

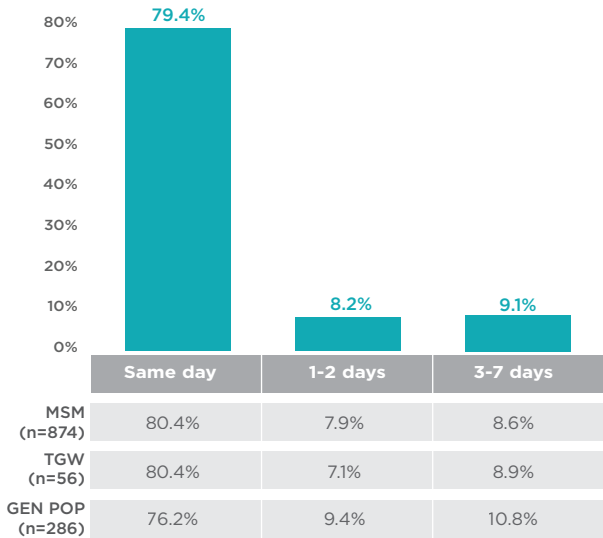
custom designed checklists. Clients with suspected serious OIs that may require hospital admission are referred for further investigation. The algorithm is based largely on the national guidelines; no extra laboratory or clinical procedures are added to the protocol. This allows for maximum generalizability in settings that wish to implement same-day ART. Per the Thai National HIV Guidelines, clients are initiated on an ART regimen comprising tenofovir (TDF), emtricitabine (FTC), and efavirenz (EFV).

## RESULTS TO DATE

Between January 2015 and January 2018, LINKAGES-supported sites newly diagnosed a combined 3,427 people with HIV, of whom 69.5% initiated ART. A subset of these newly diagnosed clients (n=435) were monitored between May 2015 and October 2016 as part of a KP-led Test and Treat Cohort; among these, ART initiation was 84.6%, and the median duration from HIV diagnosis to ART initiation was 15 days. Median CD4 count at HIV diagnosis was 368 cells per mm<sup>3</sup>. Among the cohort, 87.0% achieved HIV RNA suppression to a level of <40 copies/mL, and 94.3% had reduced viral loads under 1,000 copies/mL within six months.

Under the same-day ART model specifically, 1,835 people tested positive at the Anonymous Clinic between July 2017 and April 2018. The majority of clients (90.4%) agreed to enter the same-day ART program. After symptomatic screening, 84.7% of those who agreed to enter the program were successfully placed on treatment, and those for whom there were clinical concerns were referred to a hospital for further investigation. Among those who were placed on ART, 79.4% received same-day initiation, 8.2% started within two days, and 9.1% started within seven days (Figure 6).

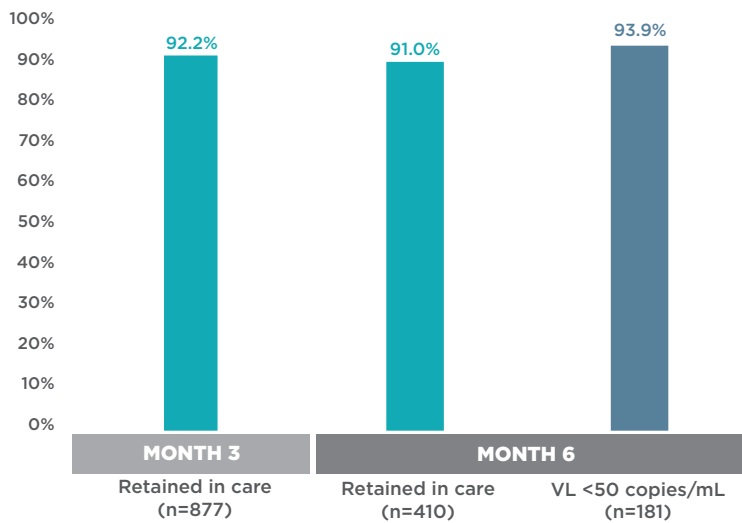
**Figure 6. ART initiation time at TRCARC**



Source: Same-Day ART database, Thai Red Cross Anonymous Clinic (July 2017-April 2018).

Retention was relatively high: by April 2018 877 clients had been on ART for three months, 92.2% of whom were retained in care, while 410 clients had been on ART for six months, 91.0% of whom were retained in care (Figure 7). Loss to follow-up was 6.7% at three months, of whom

Figure 7. Retention and VL suppression



Source: Same-Day ART database, Thai Red Cross Anonymous Clinic (July 2017-April 2018).

0.7% discontinued ART according to the National AIDS Program (NAP) database, and 8.5% at six months, of whom 0.5% discontinued ART according to NAP. Among those who received viral load testing, 93.9% were virally suppressed.

Among clients who were referred to same-day ART from CBOs in Bangkok (n=112), only 28 (25%) agreed to enter the program, 26 (92.9%) of whom were successfully placed on ART. These data suggest the need for improvement of the link between the same-day ART program and satellite CBOs within the network of services.

## BRINGING THE APPROACH TO SCALE

In comparison with an ART initiation rate of 69.5% for all beneficiaries supported by the LINKAGES Thailand project (2015-2018), the same-day ART program at the Anonymous Clinic has shown promising results with 90.6% agreeing to enter the program and 84.7% initiating ART within the first week. This has generated interest in implementing same-day ART in other provinces, illustrating that successful pilots are leading to a scaled-up response throughout the country. To tailor the model to local circumstances, same-day ART at other hospitals will include all necessary services/diagnostics (i.e. a 'one-stop shop' approach). They will serve as both initiation and long-term sites for their clients' HIV care, unlike the hub-and-spoke model. Local CBOs, run by KP health workers, will provide support for retention and adherence for KP clients. The program is also exploring ways to enhance linkages between HIV testing at the community health centers operating under the KPLHS model and health facility-based same-day ART under a hub-and-spoke approach.



## VOICES FROM THE FIELD

*“I work at a public hospital in the area, and I fear that my colleagues may find out about my positive serostatus...I heard from a friend that there’s a clinic for MSM/TGW. I have been to many different clinics to get HIV testing, but I ended up using the services here. It’s unlike any other; their sincerity—they truly care about me...I am not related to any of them, but they have become my second family. At first, I was reluctant to receive help from one of the care and support volunteers, because he is from the same neighborhood/village. Confidentiality was a top concern...Once I got over it, I was happy there is someone always [there] for me who I can talk to even if it is not health related. The care and support volunteer accompanied me to the hospital for my first visit. He helped me navigate through what seemed to be a really big and complex place. He knew which counters and which nurses to contact and go to. It was easier and faster for me and better than having to go through that myself. He also calls to remind me of my appointments and any lab testing (CD4 or VL testing) that has to be done.”*

**HIV-positive client, CAREMAT, Chiang Mai**

*“Hospitals are understaffed and often don’t have enough time to call or follow up with patients. Having volunteers at the hospital or CBOs really helps fulfill this duty. Sometimes, when patients miss their appointments, we ask the community health workers to call them and see what happens. Often times, these patients come back and the community health workers assist them in rescheduling their appointments. They often remind their clients of the necessary CD4 or viral load testing and the importance of adherence, because our doctors will only spend 10 minutes with the patients. This is simply because our ARV clinic is only open on certain days of the week.”*

**Health care worker in Chonburi**







## VII. RETAINING CLIENTS IN ART SERVICES

Photo: CHRISTIAN KÖPPEL/USAID LINKAGES, TRCARC

Adherence to ART is critical to the success of any HIV program. The KPLHS program has developed and gauged the effectiveness of **three different models** to improve ART maintenance (Figure 8). The models provide a means for receiving ART medication outside of a hospital for clients who are clinically stable and have successfully remained on ART.

### | ART MAINTENANCE SUPPORT: THREE MODELS

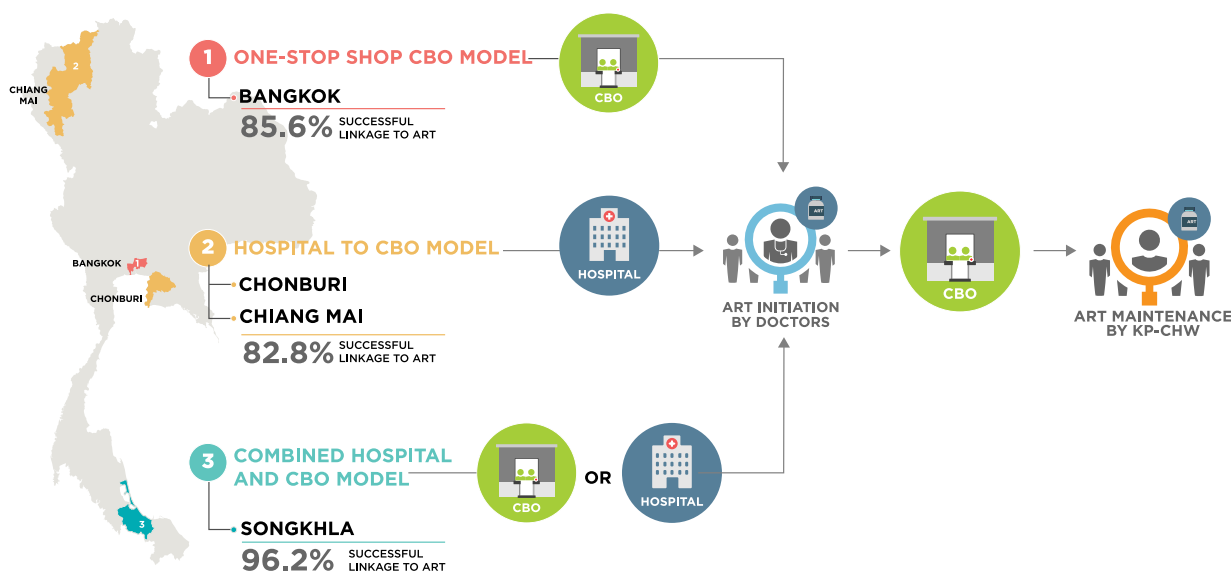
HIV-positive clients can enroll in one of three differentiated ART maintenance service models (depending on site) if they have successfully remained on ART for more than one year. They must demonstrate evidence of suppressed viral load (defined as two consecutive HIV-RNA results of less than 20 or 40 copies/mL), and a CD4 count of more than 200 cells/mm<sup>3</sup>. They cannot enroll if they have any adverse drug reactions or OIs, or if they have other diseases or conditions that need regular medical follow-up. Finally, they need to demonstrate an understanding of the importance of lifelong adherence.

The three models are:

- **One-Stop Shop CBO model** (RSAT and SWING, Bangkok): Medical doctors initiate ART at CBO-run CHCs within the community. CHWs (e.g. PN) at the CBOs support clients to maintain ART adherence.
- **Hospital-to-CBO model** (Caremat and MPlus in Chiang Mai; SWING and Sisters in Chonburi): CBO staff accompany clients who have been diagnosed with HIV to their provincial ART network hospital where ART is initiated on the first visit. Doctors then refer clinically stable clients to CHWs at the CBO of their choice for ART maintenance.

- **Combined hospital and CBO model** (RSAT, Songkhla): Treatment initiation can occur either at a hospital or at the CBO. CHWs from the CBO accompany clients to the hospital for ART initiation, or doctors can come from the hospital to initiate ART at the CBO on certain days of the month with CBO partners responsible for ongoing maintenance support. This model provides greater flexibility and options for clients. However, the model only works if there is a strong partnership between the hospital, individual health care providers, and CBO partners.

Figure 8. Models of differentiated ART adherence support



In order to ensure ART maintenance services at the CBOs, on-going capacity building of CHWs is critical to success. The training involves three modules:

- 1) psychosocial support,
- 2) basic HIV care and treatment, and
- 3) HIV-related lab diagnostics.

It is important to ensure that CHWs have strong understanding on the concepts of differentiated ART maintenance, and the steps involved in an ART refill visit. They are given an appropriate clinical checklist to gauge if there are any signs or symptoms that would warrant referral to a hospital. This checklist includes assessment of vital signs, symptoms (e.g. fever, cough, diarrhea, nausea, vomiting, dizziness, trouble sleeping, etc.), and ART adherence. This can help to ensure that clients adhere to appointments for blood draws and/or requisite visits to the CBO or hospital.

## RESULTS TO DATE

Among 453 HIV positive clients in the cohort study, 376 (83%) were on ART for at least a year by June 2018. Among these, 161 (42.8%) were stable by clinical criteria. A total of 135 were still in follow-up by the time the differentiated ART models were introduced, and hence were offered ART maintenance by CHWs at CHCs. Among those, 104 (77.0%) agreed to enroll. No adherence or clinical concerns that would have required referral to a hospital/clinical team have occurred thus far.

The program surveyed 82 clients who received differentiated ART services at the CHCs and have been on ART for more than one year. All 82 clients (100%) were satisfied with their care at CHCs, and 63.9% indicated they would prefer to receive ART maintenance at a CBO clinic rather than a hospital setting. The most-cited perceived advantages of differentiated ART care at CBOs included: ‘empowerment of individual responsibility for one’s health’ (93.8%), ‘encouragement of one’s autonomy as a patient’ (87.3%), and ‘enhancement of retention in care’ (86.3%). The majority of caregivers (82.7% of CHWs and 86.7% of hospital-staff) reported positive attitudes with respect to differentiated ART delivery. They appreciated increased patient autonomy. A small group worried about regulatory barriers that might occur if these models are expanded in the future.



Preliminary data suggest that the models to provide differentiated ART service delivery to MSM, MSW, TGW and TGSW are feasible and effective. These models, mutually designed by KP-led clinics and hospitals, are highly acceptable by clients, hospital staff, and community health workers at the implementation sites. Findings will be further elaborated by upcoming qualitative studies.

Despite these positive findings, one of the key obstacles for enrolling clients into differentiated ART service delivery is the requirement of proof of viral suppression for two consecutive tests. CBO clinics do not have online access to their clients’ viral suppression test results, which appears to have inhibited access to differentiated ART services for some clients. The partnerships between CBOs and hospitals need to be strengthened to ensure easier access to these results, so that CBO staff can quickly and conveniently initiate stable clients on differentiated ART services. Scale up of differentiated ART maintenance services beyond key population groups could benefit all people living with HIV in Thailand. Findings from this program can be used to advocate and create demand for these types of services for the general population.

## “ VOICES FROM THE FIELD

*“Getting to pick up my ART medication here at the drop-in center is amazing. Although I have learned to accept it, I still fear that people would recognize me at the ARV clinic. I think it can serve as a motivation for other people to get healthy faster, so they don’t have to go to the ARV clinic for ARV maintenance.”*

HIV-positive client at CAREMAT, Chiang Mai

*“Having ART maintenance at RSAT really meets my needs. It would be a bit unfortunate to start ART here, but always have to go the hospital for refills. The clinic is really close to where I live and opens late, so the timing is very convenient for me. My [community health worker] has a way of talking to me and making me aware of what can happen if I stop taking my medications. Doctors sometimes scold me for not taking my ARVs. I once had to go to the hospital...when I informed them of my HIV serostatus, the doctor referred me to a specialist who didn’t even want to touch me. I didn’t expect such service from health care providers. I have never received such treatment from RSAT staff.”*

HIV-positive client at RSAT, Bangkok





## VII. RETAINING CLIENTS IN HIV PREVENTION SERVICES

Photo: JIRANTANIN T./USAID LINKAGES, MPLUS

While there are several innovative approaches for retaining KP members living with HIV in care and treatment, retention among HIV-negative clients can be more challenging. Telephone reminders have been essential for ensuring clients show up for their follow-up appointments. Generally, the program advises partners to call PrEP clients one week prior to a scheduled visit. In addition, frontline and support staff are encouraged to maintain regular communication with their clients to remind them to get retested for HIV/STIs using social networking applications (e.g. LINE, Grindr, WhatsApp, Facebook, email). Clients choose their preferred method of communication, and outreach workers confirm client information during each visit/contact.

Staff also use other creative means to maintain contact. For example, if someone who has previously been engaged in HIV testing does not show up for a follow-up test and happens to respond to a post on social media (e.g. 'likes' a Facebook post by the CBO/staff), the staff member will try to re-engage the client by liking their Facebook post back. After several likes back and forth, the staff member will initiate a chat to invite the client to return for an HIV test or relevant service.

There are far more HIV-negative clients than those living with HIV; however, the bulk of human and financial resources under the program are geared toward clients living with HIV but not yet on treatment, and those eligible for and on PrEP. In the next phase, the project will develop and pilot efficient and effective mechanisms through which it can meet the needs of HIV-negative clients at high risk of HIV acquisition.



Photo: JIRANTANIN T./USAID LINKAGES, MPLUS

## IX. LESSONS LEARNED AND ONGOING CHALLENGES

The KPLHS model is based upon the principle of DSD and provides differentiated HIV services along the cascade by offering a wide range of options to access and utilize these services. The model ensures that the specific needs of KPs are identified and met, and is effective in reaching and engaging those at high risk, particularly those who are not reached by facility based approaches. KPLHS provides a foundation for integrating new innovations to address the HIV epidemic, such as HIV self-testing and same-day ART.

Implementation of the KPLHS program as a DSD model over the last three years has generated a significant amount of quantitative and qualitative data, much of which can be used to provide a number of lessons learned and challenges encountered:

- Differentiated service delivery approaches under a KP led model can successfully identify and link previously unreached clients to HIV services and can contribute substantially to national service uptake targets. However, innovative strategies to meet clients where they are, and to address their individual needs, continue to face challenges with implementation fidelity and with being brought to scale. Implementation of the models described above requires intensive field-based monitoring and mentoring to ensure that they are rolled out and replicated with sufficient quality, and at sufficient scale, to achieve epidemic impact.
- The KPLHS model does not exist in a vacuum nor is it intended as a competitor to the formal healthcare sector. Community health workers do not replace trained healthcare providers but offer additional options to serve a wider variety of populations and needs. Working in partnership under a DSD model with clearly defined roles and strong linkages can ensure continuity of care, leading to better health outcomes, and greater client and provider satisfaction.
- To keep pace with the changing habits and preferences of key populations, programs must embrace a variety of models for reaching individuals, including through peer-

driven approaches and with the use of gatekeepers such as social media influencers and other opinion leaders. These models may not always reach large numbers of individuals but, with proper monitoring and targeting, can help extend coverage to previously unreached and higher-risk clients.

- With appropriate training and support, HIV testing services can be safely and effectively provided by members of the community and, indeed, by clients themselves and can be an effective means of increasing testing uptake. These services may be most effective when they take into account the “wrap-around” services that KPs require for more holistic well-being (for instance, STI management or hormone monitoring services). In settings where policy restricts the availability of alternative and community-led testing models, evidence-based advocacy is needed to demonstrate the potential contribution of these approaches to national targets. Additionally, close coordination with community-based care and proactive follow-up and peer navigation are necessary to ensure that HIV-positive clients are successfully refer to treatment and care.
- MSM and TGW can be successfully enrolled and retained on PrEP through KP-led PrEP services, particularly when same-day service delivery is available, though to achieve the greatest impact it requires targeting the most-at-risk individuals. PrEP retention additionally remains a challenge, perhaps particularly for those clients who may make individual decisions regarding their evolving degree of risk. While KP-led PrEP service delivery should be linked to strong mechanisms to encourage treatment adherence, service delivery models should also recognize that not all KPs are equally at risk, and PrEP should be promoted as one of many choices clients have for managing their risk. Additionally, as the evidence base continues to develop, implementers should consider DSD approaches for PrEP that take into account varying risk levels by individual client and over time (i.e.intermittent PrEP).
- The provision of a variety of differentiated treatment options, including same-day ART services and community-based treatment, can be an effective strategy to speed up and improve ART initiation, as well as to improve retention and adherence. Development of clear clinical guidelines to support these innovations is critical for engaging public sector health facilities and providers in the services network. Programs should also take into account the resources and capabilities of the existing healthcare system when rolling out new innovations like same-day ART, which can entail significant resource requirements and modification of operational requirements. ‘Hub-and-spoke’ models like that being developed under TRCARC and the Thailand Provincial Health Offices for same-day ART may be one way to replicate successful models without placing unrealistic burden on under-resourced healthcare facilities.
- Effective DSD models require the regular and consistent use of project data in HIV service delivery implementation to lead to better understand of target populations risks and needs, more strategic use of resources and improved outcomes. Programs should not underestimate the time and resources necessary not only to ensure collection of these data, but to create a feeling of ownership and a culture of data use among implementing partners, who may otherwise view data collection as an exercise primarily to fulfill funding requirements. Programs must also address the real-world contradictions between the impetus to use data for adaptive program management and the requirement to protect patient confidentiality and conform to data privacy regulations that can hamper the sharing of necessary information across service providers and among staff at implementing partners.
- To truly demonstrate the effectiveness of DSD models, it is necessary to examine not only their impact on service uptake and retention, but to consider the costs associated with these models and whether they represent cost-savings in comparison to more traditional, one-size-fits-all models - which may be easier to implement and to bring to scale.