Under the USAID- and PEPFAR-funded Linkages Across the Continuum of HIV Services for Key Populations (LINKAGES) project, FHI 360, alongside three core partners—Pact, IntraHealth, and the University of North Carolina at Chapel Hill—accelerates the ability of governments, organizations working with key populations (KPs), and private-sector providers to plan and implement services that reduce HIV transmission among KPs and their partners and extend the lives of those already living with HIV.

LINKAGES reduces leaks in the HIV prevention and care cascade by expanding reach to KPs most at risk of acquiring or transmitting HIV, promoting routine HIV testing services, actively enrolling those with HIV into care and treatment, and supporting them to remain in care. The project also assists countries in the use and scale-up of evidence-based approaches to service provision and works with police, health care workers, and other key stakeholders to reduce stigma, discrimination, and violence against KPs. In addition, LINKAGES supports KPs to mobilize and advocate for changes in laws, and works with governments to make programs sustainable for the long term.

In late 2015, LINKAGES established a global acceleration initiative to fast-track and strengthen delivery of a comprehensive package of health services for KPs at scale. In this context, “acceleration” means simultaneously delivering speed, scale (within and across countries), and standards (a common core program). Acceleration also leverages existing partnerships to achieve rapid scale-up of KP programming. Seventeen LINKAGES countries were included in the acceleration initiative: Angola, Bahamas, Barbados, Botswana, Burundi, Cameroon, Cote d’Ivoire, Democratic Republic of the Congo (DRC), Haiti, Jamaica, Kenya, Malawi, Mali, Mozambique, South Sudan, Suriname, and Trinidad and Tobago.

### SUCCESS STORY

**Acceleration**

- **SPEED**
  Increased rate of implementation of KP interventions in seven program areas at the country level and globally.

- **SCALE**
  Increased geographical coverage and reach of HIV services for KPs, including peer outreach, clinical services, and structural interventions.

- **STANDARDS**
  Improved implementation of KP programming at the country level according to program standards.

**KEY POPULATION PROGRAM IMPLEMENTATION GUIDE**
The **Acceleration Guide**

To support the acceleration process, LINKAGES developed the *Key Population Program Implementation Guide* (the *Acceleration Guide*), a set of common core KP program guidelines that can be applied globally and adapted locally. The guide, which focuses on *site-level* implementation, ensures cohesion of technical competence across seven acceleration elements tied to the LINKAGES cascade framework (Figure 1). These elements are:

- **Engage KPs in population size estimation, mapping, and program planning**
- **KP engagement and empowerment in programs**
- **Structural interventions**
- **Peer outreach (including peer education and peer navigation)**
- **Clinical services**
- **Program management**
- **Monitoring and data use**

The *Acceleration Guide* draws from global guidelines, including best practices in developing common minimum program/standards from the Avahan India AIDS Initiative (one of the largest KP programs to date) funded by the Bill and Melinda Gates Foundation (BMGF); the 2014 World Health Organization (WHO) Consolidated Guidelines on HIV Prevention, Diagnosis and Treatment and Care for Key Populations; and the KP “implementation tools” (Implementing Comprehensive HIV/STI Programmes with Sex Workers [SWIT], Implementing Comprehensive HIV and STI Programmes with Men Who Have Sex with Men [MSM]), and the soon-to-be-finalized TRANSIT, specific to transgender people, and IDUIT, specific to people who inject drugs).

The *Acceleration Guide* also includes a simple assessment tool to identify the capacity development needs of organizations implementing KP programs. The initial version of the guide was released in March 2016 and an updated version that incorporated feedback and experience from its first year of use was released in January 2017.

As a common core program, the *Acceleration Guide* continues to serve as the basis for training, technical assistance (TA), and mentoring, as well as monitoring and evaluation. It is a user-friendly tool that includes step-by-step guidance for implementing the critical elements of KP programming. The *Acceleration Guide* also includes links to resources tailored to the needs of each KP.

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Acceleration Teams

To quickly scale up KP programming at the site level in the project’s buy-in countries, LINKAGES established “program acceleration teams” to diminish bottlenecks and provide frequent and rapid TA to country-level programs across the cascade to reach 90/90/90 for KPs. These program acceleration teams include technical staff from LINKAGES, resource partners (such as the University of Manitoba [UoM] and WHO), as well as expert consultants and TA providers.

The UoM was contracted to provide technical guidance in all seven areas of the guide, with a focus on programmatic mapping and size estimation, microplanning, peer outreach, and programmatic monitoring. Teams of UoM technical experts were assigned to Cote d’Ivoire, DRC, Haiti, Kenya, Malawi, and South Sudan. Additional support was provided to Jamaica and the Eastern Caribbean. Other technical consultants, along with TA providers from LINKAGES, were assigned to the rest of the acceleration countries.

LINKAGES partnered with WHO, which drafted the clinical section of the Acceleration Guide and provided TA to roll out this component and enhance clinical service delivery related to sexually transmitted infections (STIs) and HIV. During this rollout, WHO and clinical acceleration teams reinforced links among clinical services, outreach, and programmatic monitoring in LINKAGES countries. The senior technical advisor for acceleration carried out overall coordination of acceleration teams.

Regional Acceleration Workshops

A series of regional acceleration workshops was held for LINKAGES country teams in 2016-2017 (see Figure 2 for a timeline of events). In 2016, two regional acceleration workshops were held in each region (Africa and the Caribbean). The first series of workshops (held in February for Africa and May for the Caribbean) was conducted with UoM and focused on:

- Mapping and size estimation
- Microplanning and peer outreach
- Programmatic monitoring
- Violence prevention and response

FIGURE 2. Program acceleration timeline
The second series of workshops (held in April 2016 for Africa and June 2016 for the Caribbean) focused on clinical acceleration and was facilitated by LINKAGES, with WHO and UoM participation. Specifically, the clinical acceleration workshops focused on strategies and tools to:

- Increase links to care and treatment adherence, including anticipating test and start, case finding, addressing loss to follow-up, and offering additional models of service delivery appropriate for KPs
- Optimize outcomes by coordinating outreach and clinical work
- Introduce new services (such as pre-exposure prophylaxis and periodic presumptive treatment of STIs), including assisting ministries of health with revising guidelines, adapting protocols, and training staff
- Reduce stigma toward KPs among health care workers and improve their clinical competency

The initial workshops also included site visits to high-performing sites. The training content was in line with the *Acceleration Guide*, which served as the key tool during the workshops. Workshops also addressed how country teams could plan for scale.

In 2017, an additional acceleration workshop was held in each region (Africa in February and the Caribbean in April). These workshops focused on knowledge exchange among LINKAGES country teams, who presented on real-life examples of technical achievements and challenges.

Countries that bought into LINKAGES after the initial workshops, such as Burundi, were given mini acceleration workshops, where they were able to visit KP learning sites. In addition, South Sudan, which was not part of the original acceleration workshops, also had its own focused clinical acceleration workshop in September 2016. Countries such as Botswana, that had specific needs for acceleration because of new project areas or the addition of a new community-based organization partner, also received tailored acceleration support.
Acceleration’s Impact on Country Performance

Acceleration teams assessed the implementation quality of each program area by country using a checklist linked to the Acceleration Guide. Figure 4 compares the maximum possible score (targets) for each program area with the average scores of all the countries in December 2015, December 2016, and in May 2017. Improvements have been made in all program areas with scores more than doubling in five of the seven program areas from December 2015 to May 2017.

Country Acceleration Plans

At the end of each workshop, country teams also drafted country acceleration plans that outlined when the key program areas of acceleration would be implemented and noted any TA required.

Targeted Intensive In-country Acceleration TA

Targeted in-country acceleration TA based on country acceleration plans was then initiated (Figure 3).

FIGURE 3. Number of countries reached* with targeted country-level TA by program area (March 2016–June 2017)

FIGURE 4. Average scores* on quality implementation by program area

*University of Manitoba Kenya made an additional 73 domestic trips to provide support in Kenya.

Acceleration’s Impact on Country Performance

Engaging Key Populations in Size Estimation, Mapping, and Program Planning

Key Population Empowerment and Engagement in Programs

Structural Interventions

Peer Outreach

Clinical Services

Program Management

Monitoring and Data Use

Categories

*Includes Cote d’Ivoire, DRC, Haiti, Kenya, Malawi, and South Sudan
Total Scores on Quality Implementation by Country

In Figure 5, the scores of all the program areas have been totaled for each year to illustrate the annual improvement of implementation quality for each country. The maximum possible score (target) is 136. All countries have shown significant improvement from December 2015 to December 2016 and have continued to improve in 2017.

The number of female sex workers (FSWs) reached and tested for HIV greatly increased after the acceleration workshops in early 2016 and the intensive acceleration TA throughout 2016 (Figure 6).

**FIGURE 5.** Total scores on quality implementation by country

![Bar chart showing total scores on quality implementation by country for various years and countries.]

**FIGURE 6.** Program acceleration countries*: number of FSWs reached and HIV testing uptake trend for FSWs per quarter, FY15-17

*Angola, Bahamas, Barbados, Botswana, Burundi, Côte d’Ivoire, DRC, Haiti, Jamaica, Kenya, Malawi, Mozambique, South Sudan, Suriname, and Trinidad and Tobago
Success Stories
Côte d'Ivoire, Malawi, South Sudan
LINKAGES Côte d’Ivoire Maps Out Success, Rolls Out Enhanced Peer Outreach

**LINKAGES Côte d’Ivoire**

When LINKAGES Côte d’Ivoire (CI) began its programming in early 2016, current and reliable data on the size and locations of key populations for HIV-related services were lacking. Key populations, including female sex workers (FSWs) and men who have sex with men (MSM) are the focus of LINKAGES CI’s work. As the LINKAGES CI team began planning to allocate resources for local programming to reach FSWs and MSM, they realized that little could sensibly be done before completing mapping and size estimation of key populations in the 26 project communes (across 23 districts). Therefore, the team decided to move quickly to undertake these essential steps.

**Mapping for Success**

The mapping and size estimation were to be a three-phased, joint exercise with staff from LINKAGES, local nongovernmental organization implementing partners, and the Ministry of Health. During workshops and trainings in early 2016, the team received technical support from the University of Manitoba (UoM) and benefitted from lessons learned during similar LINKAGES efforts in Kenya and Malawi. Notably, members of the key populations of interest themselves (i.e., FSWs and MSM) were trained to conduct the activities.

In the first phase, staff developed a rough list of hot spots — places where there is a high prevalence of people living with HIV and other sexually transmitted infections (STIs), or where behaviors that put people at risk of becoming infected with HIV are likely to take place. They identified the hot spots by talking with key population members and their associates, who included taxi drivers, food vendors, brothel owners and managers, hotel and lodge workers, and bar staff.

Next, the team visited these sites and talked to multiple key population members to validate the information on the hot spots. They collected information on the types of key populations who patronized the hot spots, the minimum and maximum number of people present at different times, and the peak days and times of activity. They also learned whether condoms and lubricant were available at the location and whether the people who frequented it participated in any HIV prevention activities.

In the third phase, the mapping team visited and validated any previously unrecorded hot spots that had been suggested by key population members during the first round of hot spot visits. After a pilot mapping exercise in two sites, the remaining 24 communes were mapped in July and August 2016.

**Key Accomplishments Under the Acceleration Initiative**

- The acceleration initiative supported the critical steps of mapping and estimating the size of key populations.
- Acceleration technical assistance on mapping and microplanning led to outreach being focused on high-density and high-risk areas, as 81 percent of the estimated female sex worker population was found to be in 11 of the 23 districts, and 90 percent of men who have sex with men were found to be in 12 districts.
- The technical assistance team introduced and supported the design and rollout of the enhanced peer outreach approach, resulting in average HIV case finding that was significantly higher than during routine outreach (7 percent vs. 3 percent; \( p < 0.01 \)).
A More Informed Approach to Planning

The resultant baseline numbers of hot spots identified and key population members estimated to frequent the hot spots are evidence of just why this type of mapping is invaluable for HIV programming. One reason is that LINKAGES program planners can now set more realistic reach targets. For FSWs, a total of 1,650 hot spots were identified, and FSWs were estimated to number a maximum of 13,948 — far fewer than the original PEPFAR target of 23,566 FSWs to be reached through the program. Two hundred MSM hot spots were also mapped, with an estimated maximum of 3,157 MSM, which was less than half of the PEPFAR target of 7,123.

In addition, the size estimates of these two key populations at various hot spots have informed where to focus outreach efforts; for example, 81 percent of the estimated FSW population was found to be in 11 of the 23 districts, and 90 percent of MSM were found to be in 12 districts (Figure 2).

Human resource allocations are also more realistic thanks to these mapping exercises. In particular, program planners know how many peer educators are required for each site, as well as the best days and times to reach key population members. According to the mapping data, current staffing ratios are approximately one peer educator for every 60 to 90 FSWs and one peer educator for every 70 MSM; the program is working to achieve consistent ratios of 1:60 and 1:30, respectively.

Having established baseline estimates, the team plans to conduct annual validation exercises with continuing technical assistance from acceleration teams. This will allow them to take into account the mobility of key populations and any further hot spots that may have developed or been missed. In addition, LINKAGES and partners are seeking to recruit peer educators from the hot spots where they will work, rather than employing hot spot outsiders as peer educators.

The Acceleration Initiative in Côte d’Ivoire

Technical support offered through the LINKAGES acceleration initiative has included the Regional Acceleration Workshops held in Nairobi. The LINKAGES CI team has found these workshops helpful for learning from LINKAGES partners in other countries, not only for seeing how their efforts are aligned with work in those countries, but also to gauge the extent to which CI has progressed. The workshops have also offered an opportunity for the team to think about new approaches that could be applied in the CI context within budget parameters. In addition, they have provided the team a forum to learn about program components not yet implemented and to solicit technical support to begin them sooner than they might otherwise have been able to do. Finally, acceleration support has helped the team identify gaps, for example, when the hot spot mapping and microplanning process highlighted the need to engage more peer outreach workers.

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**FIGURE 1.** Timeline of selected technical support offered to the LINKAGES Côte d’Ivoire program
FIGURE 2. Cumulative coverage of FSWs and MSM, by district
The Enhanced Peer Outreach Approach to Increase HIV Case Finding

Although LINKAGES CI already had strong reach and testing numbers, they needed to improve their HIV case finding. After finalizing an implementation plan during a technical support visit in April 2017, the program piloted the enhanced peer outreach approach (EPOA) in June with a month-long campaign in 14 FSW communes and eight MSM communes.

During one month of EPOA implementation, a total of 3,476 FSWs and 744 MSM were reached with prevention messages, and all were tested for HIV. Of those engaged by the campaign, nearly 90 percent had not previously been registered with the program. Of those tested, 194 FSWs and 110 MSM were diagnosed as HIV positive, producing an HIV case finding rate of 6 percent for FSWs and 15 percent for MSM. Approximately 77 percent of the FSWs and 87 percent of the MSM who tested positive were successfully linked to antiretroviral therapy (ART) services. By comparison, during three months of traditional outreach activities prior to EPOA, 5,840 FSWs and 1,539 MSM were tested, 106 FSWs (1.81 percent) and 93 MSM (6.04 percent) were diagnosed as living with HIV, and 29 percent of FSWs and 88 percent of MSM were linked to ART. The average HIV case finding rate was significantly higher during EPOA implementation than during routine outreach (7 percent vs. 3 percent; p < 0.01). Figure 3 illustrates that EPOA contributed to 60 percent of the total HIV case finding during June 2017. Factors critical to the success of EPOA included training peers on the EPOA recruitment process and data collection tools, securing the appropriate quantity of commodities such as HIV test kits and condoms to avoid stock outs during EPOA implementation, conducting weekly analysis of EPOA data to inform adjustments to implementation, and replacing unproductive “seeds” (members of key populations who volunteer to pass out referral slips for HIV testing to peers in their social or sexual networks).

Looking ahead, the program plans to expand community-based testing by peer educators and to continue linking key population members living with HIV to treatment, care, and support services through peer navigators.

**FIGURE 3.** HIV case finding among FSWs and MSM, with and without EPOA
**Acceleration Pays Off with Improvements in Quality Implementation Scores in Key Program Areas**

As a result of LINKAGES CI's work under the acceleration initiative, its score greatly improved on assessments aligned with the program areas in the Key Population Implementation Guide. The assessments were conducted by the TA team using a 68-element checklist in May 2016 and June 2017. For each element, the program could assign a score of zero (not yet addressed), one (partially done), or two (completed).

The score for 14 elements in the program area of population size estimation and mapping rose from a three in May 2016 to 16.5 in June 2017, out of a possible total of 28 (Figure 4). The program had gone from making partial progress on three of the 14 elements in this program area in May 2016, to making partial progress on eight and completing an additional four in June 2017.

Likewise, over the same period, the checklist scores on the seven elements of peer outreach — including microplanning — increased from six to 13, out of a possible total of 14. The program moved from having made partial progress on six elements, to completing six elements and making partial progress on the remaining element.

**FIGURE 4.** Improvements in program quality assessment scores, May 2016 and June 2017
LINKAGES Malawi initiated its programming in February 2015 in four districts — Blantyre, Lilongwe, Mzuzu, and Mangochi — and expanded activities to Zomba and Machinga districts with the start of the PEPFAR DREAMS Initiative in 2016. To improve services related to HIV and sexually transmitted infections (STIs) for key populations, focusing particularly on female sex workers (FSWs) and men who have sex with men (MSM), the LINKAGES Malawi team sought to improve the enrollment and retention in care and treatment of people who test positive for HIV; reduce loss to follow-up of people who drop out of the HIV services cascade; identify, respond to, document, and report cases of gender-based violence (GBV); and improve the monitoring and use of data. In 2016, the LINKAGES Malawi team benefitted from a series of five visits from the acceleration initiative’s University of Manitoba (UoM) technical assistance (TA) team to help the project fast-track progress toward its goals (Figure 1).

**Key Accomplishments Under the Acceleration Initiative**

- The acceleration technical assistance team supported Malawi to design, establish, and manage 13 drop-in centers for female sex workers and three for men who have sex with men. These drop-in centers not only provided a much-needed safe space for key populations, but they also expanded the range of clinical services offered to key populations in Malawi. In the first quarter of FY 2016, 63 female sex workers were initiated on antiretroviral therapy. By the third quarter of FY 2017, more than 400 female sex workers were initiated on antiretroviral therapy.

- LINKAGES Malawi worked with the District Health Offices to have five of the drop-in centers categorized as subunits of the local government-run health facilities so that they could offer antiretroviral therapy to key populations within the national health infrastructure. This is already improving enrollment in care and treatment among people found to be living with HIV and is reducing loss to follow-up.

- Acceleration technical assistance supported the Malawi team to develop and roll out a crisis response system for cases of gender-based violence toward key populations. Using LINKAGES guidance, one implementing partner, Pakachere, promoted messages through female sex worker peer outreach workers around the reporting of incidents of gender-based violence. Of the 57 cases reported between October 2016 and August 2017, more than 80 percent of the cases were reported within 24 hours, and Pakachere responded to 79 percent of cases within 72 hours.

- Acceleration initiative technical assistance in microplanning increased the number of contacts with key population members by two to three times from May to September 2016.

- Strong management and leadership by the LINKAGES Malawi team were critical to ensuring that technical assistance recommendations were implemented and resulted in program improvements.
The Acceleration Initiative in Malawi

Since December 2015, LINKAGES Malawi has made significant progress under the acceleration initiative, which aims to strengthen delivery of the comprehensive package of services rapidly, at scale, and with quality. LINKAGES Malawi has done so, in part, thanks to technical support from LINKAGES headquarters advisors and consultants. This has included a TA team from UoM, who visited the program five times in 2016 (Figure 1).

In addition to receiving the TA team in Malawi, LINKAGES Malawi staff traveled to Nairobi in February 2016 to participate in the Regional Program Acceleration Workshop, where they were oriented to the LINKAGES common core program and the Key Populations Program Implementation Guide being developed as part of the acceleration initiative. The team developed a country acceleration plan following the workshop, and then in April attended the Regional Clinical Acceleration Workshop and updated their plan.

During the Regional Program Acceleration Workshop in February 2017, the enhanced peer outreach approach (EPOA) was presented. This approach aims to increase HIV testing uptake and yield, and to link those who are HIV positive to services. During an acceleration team TA visit in May 2017, the program made plans to roll out EPOA beginning in June 2017.

Drop-in Centers and Clinical Services

One of the most notable LINKAGES accomplishments under the acceleration initiative has been the establishment of drop-in centers. Criminalization of sex work and the culture of stigma and discrimination discourage FSWs from openly identifying themselves as such. In addition, real or perceived stigmatization by providers makes FSWs reluctant to disclose their sexual risk behaviors when seeking health services. Both make it difficult to reach them with these services. In particular, the need to improve enrollment and retention in antiretroviral therapy (ART) calls for expanding ART service points.

Since the inception of the project, LINKAGES has set up 13 drop-in centers for FSWs in Lilongwe, Blantyre, Mzuzu, Machinga, Mangochi, and Zomba. This has greatly increased the number of FSWs seeking services (Figure 2). With support from the acceleration initiative’s TA team, the drop-in centers are increasingly meeting the needs of FSWs.

LINKAGES has expanded the range of services at the DICs over time (Figure 3). Initially, the services offered at the DICs consisted of HIV counseling and testing, STI screening and management, post-exposure prophylaxis, referrals to ART, and other health services. Family planning and GBV screening and response have also been added to the list as staff capacities have been built. In addition, LINKAGES has begun integrating ART provision at the DICs.

Adding ART to the repertoire of services offered at drop-in centers was a critical goal, but there was a roadblock: drop-in centers are not considered part of the national health infrastructure in Malawi,
and they needed to be in order to provide ART. To surmount this difficulty, LINKAGES Malawi staff drew on their positive rapport with the District Health Offices, who in March 2016 agreed to have five of the drop-in centers categorized as subunits of the local government-run health facilities. This is already increasing the number of FSWs visiting the drop-in centers (Figure 4), improving enrollment in care and treatment among people found to be living with HIV, and reducing loss to follow-up. The team hopes to make ART available in other drop-in centers, including in the three they have recently opened for MSM.

Expanding the range of clinical services offered at drop-in centers beyond HIV testing has broadened the appeal of drop-in centers for key population members. Peer educators encourage them to attend the drop-in center to receive resources and support for their health and well-being, regardless of their HIV status. LINKAGES also negotiated with the Ministry of Health to establish a separate supply chain for free STI drugs, ensuring that key population members can reliably receive STI treatment, which is sometimes unavailable at public health facilities due to stock outs.

Extending Hours and More for Success at Drop-in Centers

When the TA team from the acceleration initiative visited the drop-in centers in May 2016, they made two key recommendations. First, they suggested extending the hours of operation of the centers to encourage greater attendance. Second, they recommended involving members of key populations in decision making related to the design and amenities of the drop-in centers. Upon implementing these recommendations, the number of FSWs tested for HIV increased from 971 in the third quarter of FY16, to 1,765 in the fourth quarter of FY16, to 1979 in the third quarter of FY17. The number of FSWs tested for HIV also increased during the same period (Figure 4).

Drop-in centers were also a focus of the technical support visit in September 2016, when the TA team recommended reinforcing the communication skills of peer educators to help them promote routine quarterly health check-ups to key population members. This would further increase the use of the drop-in centers and encourage key population members to take advantage of the range of services now offered.
Tailoring Violence Prevention and Response

LINKAGES Malawi, with support from the acceleration team, has also developed a locally tailored response to the multiple faces of GBV against key population members. FSWs and transgender populations are especially vulnerable to GBV, whether emotional, physical, sexual, or economic, with such violence also potentially an issue in the MSM community.

One aspect of the LINKAGES Malawi response has focused on educating stakeholders who are the first point of contact in GBV cases. In March 2016, 25 participants, including drop-in center managers, health care workers, LINKAGES staff, and police officers, benefitted from a general training on GBV facilitated by a LINKAGES consultant and UoM staff from the acceleration TA team. The next step was to train peer educators and navigators on GBV. But first, a training module was needed.

With help from the UoM TA team, the LINKAGES Malawi team developed a GBV training module for peer educators and navigators. They also created a one-page screening tool that could be integrated into the questions peer educators ask each time they meet with a member of a key population. This will ensure that going forward, screening for and data collection on GBV are routine features of their work. The module was then used to train 150 peer educators and 34 peer navigators on GBV screening, data collection, and reporting.

In September 2016, the acceleration team conducted a training of trainers on crisis response with the LINKAGES Malawi and South Sudan teams.

The Malawi team then developed an action plan for rolling out the crisis response effort. Using LINKAGES guidance, one implementing partner, Pakachere, promoted messages through FSW peer outreach workers around reporting GBV incidents. This had palpable results, as more than 80 percent of the 57 cases reported between October 2016 and August 2017 were reported within 24 hours, and Pakachere responded to 79 percent of the cases within 72 hours. Responses included provision of post-GBV medical services, including post-exposure prophylaxis, psychosocial counseling, and legal support, as well as assistance filing complaints/cases with police (Figure 5).

Peer Outreach and Peer Navigation

Microplanning plays a key role in the LINKAGES approach to reaching key population members, encouraging them to present for routine health screenings, and retaining them in care and treatment as needed. Given the importance of the approach, it was another focus of the acceleration team’s five visits to Malawi in 2016.

In addition to microplanning, peer navigators have been trained to work with members of key populations living with HIV by offering support and referrals across the HIV cascade (Figure 6). They use

![FIGURE 5. Types of post-GBV services provided to FSWs by Pakachere, a LINKAGES Malawi implementing partner](image)

![FIGURE 6. Cumulative cross-sectional HIV diagnosis and treatment cascade for female sex workers in six LINKAGES districts of Malawi (Q3 FY17)](image)
their training and their own experience living with HIV to answer questions and link individuals to relevant services. The navigators also help key population members access and remain on ART, as well as undergo viral load testing.

To date, LINKAGES Malawi staff have trained 129 peer navigators from the three implementing partners working with FSWs, and they have plans to train MSM navigators as well. The significant gap between the number of FSWs diagnosed with HIV and those initiated on ART (Figure 6) is largely explained by the fact that government clinics did not adopt the WHO-recommended Test and Start approach until toward the end of 2016. Beginning in October 2016 (Q1 FY17), a far higher proportion of those testing HIV positive were initiated on ART (Figure 7). This proportion increased even more in the second quarter of the financial year, once some drop-in centers began offering ART.

Unique Identifier Codes and the DHIS 2 to Increase Monitoring and Use of Cascade Data

The need for consistent monitoring of cascade data prompted the TA team to help the LINKAGES Malawi team improve monitoring forms and procedures during their April, May, and July 2016 visits. With their support, the Malawi team revised the forms used by peer educators and outreach workers to be consistent with the LINKAGES Program Monitoring Toolkit and compatible with microplanning, and to more closely track referrals. The TA team also recommended ways to ensure that implementing partners were using the revised forms consistently.

During the May 2016 TA visit, the LINKAGES Malawi and TA team made the decision to institute unique identifier codes (UICs) for program clients to track their use of services. The team then developed a standard operating procedure for generating UICs. Two of the four implementing partners are currently using UICs, and the other two partners have now also been trained and are preparing to use them.

By September 2016, LINKAGES Malawi staff were ready for the UOM TA team to introduce the DHIS 2 E-Cascade, the system that uses UICs to ensure that individuals are not counted more than once when program coverage is assessed. DHIS 2 also makes it easier to track services in real time at the individual and program levels, and to monitor and analyze outreach activities. The system was developed with input from implementing partners, peer outreach workers, and peer navigators. A user guide has been developed, and training has been provided to users. This makes Malawi one of the first LINKAGES programs to computerize its data.

Program Management and Staff as Keys to LINKAGES Malawi's Success

The leadership provided by the LINKAGES Malawi team has been outstanding thus far, and its management is largely responsible for the program's success to date. During the TA team's visits to Malawi in 2016, they noted several key attributes that they felt contributed to the success of LINKAGES Malawi. These included the clearly defined roles of each member of the country team, the team's investment in building the capacity of the implementing partners and outreach staff, and its commitment to spending time in the field to gain a deeper understanding of the realities of programming on the ground.

LINKAGES Malawi team members also accompanied the acceleration team on their field visits and increased their own knowledge through the capacity building and mentoring offered to the implementing partners. For example, one team member attended the entire GBV workshop offered to implementing partner staff and outreach workers, not only to understand how the concepts and training were received by the implementing partners, but also to signal the importance of the intervention to the other workshop participants.
Another factor in the project’s success at the program management level is that TA has been well received by the LINKAGES Malawi team. Each time recommendations have been provided, the Malawi team has created action plans to respond concretely and promptly. They have also developed tools to mentor implementing partners and monitor their performance. They also conduct monthly or quarterly mentoring visits, as needed, along with follow-up visits to learn whether improvements have been made.

Taking the initiative to adapt some of the tools proposed by LINKAGES to better suit the local context is also a factor in the team’s success. Examples are the GBV screening tool from the Monitoring Toolkit, which was reduced from three pages to one page to make it easier for peer educators to use. Once they had translated the GBV tool and the microplanning tools into the local language, the Malawi team decided to include literacy as a criterion for selecting peer educators, to ensure that they could use the tools effectively.

Acceleration Pays Off with Improvements in Quality Implementation Scores in Key Program Areas

The LINKAGES Malawi team, with TA provided under the acceleration initiative, conducted assessments aligned with the program areas in the Key Population Program Implementation Guide. The assessments were conducted by the TA team using a 68-element checklist in December 2015 and May 2017. For each element, the program could assign a score of zero (not yet addressed), one (partially done), or two (completed). In May 2017, the team found that their total score had risen since December 2015 from 21 to 115, out of a possible total score of 136 (Figure 8). Their progress is also evident in that during the first assessment, the LINKAGES Malawi program had completed one element and made partial progress on 19, while by the second assessment it had completed 51 elements and made partial progress on 13.

**FIGURE 8.** Improvements in program quality assessment scores, December 2015 and May 2017
LINKAGES South Sudan Forges Ahead Through Government Partnerships, Despite Civil War

In 2015, a year prior to the acceleration initiative, LINKAGES South Sudan began programming to reach key populations in the four towns of Juba (the capital), Nimule, Yei, and Yambio. Key populations in South Sudan are primarily female sex workers (FSWs) and men who have sex with men (MSM). Both initial and subsequent LINKAGES activities revolved around a peer outreach model, as the team felt strongly that this should be the cornerstone of delivery of HIV prevention, testing, care, and treatment services to key populations, as well as the best way to foster community ownership of the project.

Launching the project was itself already an accomplishment, as circumstances in South Sudan are exceptionally difficult for establishing and delivering health services to key populations. Civil war, which has affected parts of the country with intermittent violence since 2013, escalated in the second half of 2016. This has led scores of people, including key population members, to migrate to other areas of the country or to move to neighboring nations, making it difficult to provide them with services. In addition, key populations face widespread hostility related to their sexual behaviors and identities; FSWs regularly experience harassment and violence, while frequent arrest sweeps at the gathering places of MSM have forced most into hiding. Key population members who are HIV positive are doubly stigmatized.

Developing and Adapting Standards for Key Population Activities
As part of their early efforts, the LINKAGES South Sudan team developed a set of tools that covered outreach planning; peer educator selection, training, supervision, and compensation; referrals to health and other services; and program monitoring.

By the time the team was set to put the outreach planning standards into action in mid-2016, the acceleration initiative staff were there to assist. The local LINKAGES team was up against no small task, as the civil war and resulting displacement of people had rendered previous mapping data out-of-date; hot spots would need to be mapped again before program activities could advance.

Mapping Revisited
To address these issues, in May 2016, a team of experts from acceleration initiative partner UoM visited South Sudan to offer technical assistance and training to the larger LINKAGES team — comprised of staff from LINKAGES South Sudan and civil society organizations (CSOs), including 30 peer educators — on how to update the mapping data (Figure 1).

This larger LINKAGES South Sudan team then mapped 170 hot spots in Juba and completed mapping in Nimule, Yei, and Yambio over the next month. Peer educators also mapped their own networks of peers so that project staff could assign the peer educators to clusters of hot spots where they were known. This would increase their

Key Accomplishments Under the Acceleration Initiative
• The acceleration team supported the LINKAGES South Sudan team to adapt and apply best practices related to key populations to this civil war context.
• The Clinical Acceleration Workshop held in Kenya and attended by the LINKAGES South Sudan team and Ministry of Health officials fostered growth in the LINKAGES–Ministry of Health partnership, resulting in colocation of LINKAGES clinical staff within government health facilities and reorganization of clinical services at the government hospital in Juba to make services “friendlier” to key populations.
• The acceleration initiative supported LINKAGES South Sudan to establish strong links between peer outreach teams and government health facilities through a referral system. This includes a referral directory updated monthly, and weekly visits and monthly review meetings with facility staff to ensure that referrals are being made correctly and that clients and providers are following through as planned.
• Overall, acceleration initiative activities helped to fast-track achievement of results. For example, sexually transmitted infection screening and HIV testing and counseling of female sex workers greatly increased both before and after the resurgence of civil war in late 2016 (see Figures 2 and 3).
ability to build rapport with other members of key populations and ensure a short travel distance. Peer educators were then assigned specific cohorts of FSWs to contact, eliminating duplication of efforts and allowing for a consistent ratio of one peer educator for every 50 FSWs. In the last quarter of 2016, the South Sudan team trained an additional 40 peer educators and conducted further hot spot validation to account for population movement caused by the resurgence of civil conflict.

Clinical Service Delivery Through Peer Outreach
Clinical services are provided in LINKAGES South Sudan using an extension of the peer outreach approach used in the mapping activities, combined with clinic-based offerings through referrals to public health facilities. In the peer outreach component, peer educators meet with key population peers on a weekly basis and use microplanning tools to track people due for routine sexually transmitted infection (STI) or HIV testing. They then encourage them to attend the mobile services, which are organized at times and places convenient to key populations.

The success of the approach is evident in the numbers. Testing and antiretroviral therapy (ART) initiation among FSWs are on a steady rise, although a sharp decline during the summer of 2016 reflects the outbreaks of violence in the country at that time (Figures 2 and 3). However, by early 2017, the number of HIV tests had surpassed the previous levels (Figures 2 and 3), and there was also a closer congruence between the numbers of those diagnosed with HIV and those initiated on ART (Figure 4).

Strong Links Through Referrals with Public Health Facilities
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The Acceleration Initiative in South Sudan
The acceleration initiative has introduced LINKAGES South Sudan staff to the programs of other LINKAGES countries, helped them build skills, and worked with them to adapt LINKAGES program components to the South Sudan conflict through Regional Acceleration Workshops and site visits from the University of Manitoba technical assistance (TA) team (Figure 1). For example, during a site visit in May 2016, the TA team helped LINKAGES South Sudan staff apply the LINKAGES standard for outreach planning by assisting them to map hot spots and organize peer educators for outreach activities. Then, in June 2016, the TA team helped LINKAGES South Sudan staff more clearly define the roles of peer supervisors and peer educators to avoid overlaps. They also provided guidance on microplanning, such as using peer lists and tools to conduct a condom gap analysis.

In February 2017, LINKAGES South Sudan staff attended the Africa Regional Acceleration Workshop in Nairobi and learned about the enhanced peer outreach approach, which they plan to implement to reach underserved key population members and increase HIV testing and HIV case finding.

Going Beyond Referrals in LINKAGES’ Partnership with Public Health Facilities
In LINKAGES South Sudan’s efforts to provide clinic-based services to key populations, flexibility has been essential. Initial plans were to provide services through drop-in centers, beginning with a drop-in
**FIGURE 2.** Trend in coverage of hot spots for FSWs shows steady rise and HIV testing increases before and after political crisis

**FIGURE 3.** Screening for sexually transmitted infections increases before and after political crisis

**FIGURE 4.** Congruence between HIV case identification and ART initiation among female sex workers increases over time
center in Juba that was approved by the Ministry of Health, to provide HIV testing and counseling services as of February 2016, and ART in April 2016. However, approval was unexpectedly rescinded less than two months later, and service delivery was necessarily terminated. (The drop-in center continues to distribute condoms and serves as a gathering place for FSWs for health education and other activities.)

Undaunted, the LINKAGES team responded by working to colocate and integrate its clinical service delivery at the Juba Teaching Hospital instead. Colocation has proven more effective than simply making referrals to the public health facilities, given government health care workers’ frequent stigmatization of and inexperience with key populations. In the colocation approach, a LINKAGES clinical officer and nurse are on-site to provide a friendly face to welcome and provide HIV and STI treatment for key population members. They also work with other patients. This has had the effect of mainstreaming care for key population members while modeling good clinical practice to other staff.

In addition, LINKAGES has partnered with public facilities to provide services in locations where LINKAGES does not have its own clinical staff. This has meant cultivating relationships among government health care providers and the LINKAGES community outreach team. For example, when possible, a nurse from the health facility joins the LINKAGES outreach team when they provide community-based HIV and STI testing and family planning to key populations. This serves as an opportunity for the nurse to learn firsthand what it means to deliver services that are “friendly” to key populations. Monthly meetings are also held among LINKAGES implementing partners, peer navigators, and facility staff to ensure smooth operation of services for key populations and to address any problems that arise.

Over time, the relationships among LINKAGES and MOH staff and their experience and expertise related to key populations have evolved. For example, most ART centers now designate a specific day of the week to cater to clients from key populations. Initially, staff from the local LINKAGES implementing partner attended the centers on that day to support service delivery. As providers have grown more accustomed to providing services to key populations, this has become less necessary. Additionally, at least one health care worker at each facility has been trained on delivering services that are friendly to key populations and is encouraged to share what he or she has learned with colleagues.

**Other Critical Partnerships to Benefit Key Populations**

LINKAGES also partners with the South Sudan AIDS Commission, which has long identified key populations as priority groups. The partnership has included the Commission both spearheading advocacy campaigns that LINKAGES has supported and helping to connect LINKAGES staff to government officials, as well as involving LINKAGES in its current revision of the national strategic plan for HIV.

In addition, because the civil conflict has made it difficult to move supplies by road, LINKAGES South Sudan has formed partnerships with humanitarian organizations such as the World Food Programme, which delivers HIV test kits, STI drugs, condoms, and lubricant by air on behalf of LINKAGES. LINKAGES South Sudan staff had found that they needed to adapt their outreach services to cope with logistical challenges, such as the difficulty of obtaining government security clearance to transport supplies for service delivery. The solution the team developed was to make two large shipments each month and stockpile commodities locally for distribution with the help of their partners.

**Addressing Stigma, the LINKAGES South Sudan Way**

The LINKAGES South Sudan team has taken a multipronged approach to addressing the high prevalence of stigmatization against key populations. On the one hand, project staff advocate with government officials and other community leaders to explain the services they are providing. They have also conducted basic training about stigma with service providers in most health care facilities, featuring key population members as panelists.

Another strategy is that peer navigators meet with health care providers to address misconceptions about sex workers and people living with HIV. In evidence of the growing appreciation for the expertise of peer navigators, health care staff have in many instances come to see peer navigators as part of the service delivery team. Furthermore, peer navigators have reduced stigma among members of the sex worker community by sharing their own experiences of living with HIV. For their part, after having positive experiences with being mainstreamed for care at Juba Teaching Hospital, sex workers have described recommending the services at the hospital to friends.

**Building on Sex Workers’ Strategies to Address Sexual and Gender-based Violence**

Sexual and gender-based violence (SGBV) against key populations is directly related to pervasive stigmatization of these groups — but in South Sudan, it is also linked to the civil war, when high rates of these crimes have been reported. Perpetrators include law enforcement officers, clients of FSWs, family members, and community members.

An assessment of SGBV by the LINKAGES South Sudan team in 2016 led to hiring a local SGBV coordinator to lead the project’s efforts in
Adapting the Acceleration Initiative Tools and Approaches

Once the acceleration initiative began in South Sudan, the LINKAGES South Sudan team quickly saw the need to adapt the initiative's tools and approaches to suit the local context. For example, they redesigned microplanning tools for peer educators with low literacy by substituting illustrations for text, and they paired peer educators with lower and higher literacy levels when necessary.

In February 2017, a LINKAGES consultant and the South Sudan SGBV coordinator trained 21 health care workers, three peer educators, and three LINKAGES staff members to identify and respond to violence prevention and response. The approach developed builds on what key populations are already doing informally, such as mobilizing resources to bail out a sex worker who has been arrested, or helping sex workers who become sick.

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Acceleration Pays Off with Improvements in Quality Implementation Scores

LINKAGES South Sudan, with TA provided under the acceleration initiative, nearly doubled its score on assessments aligned with the program areas in the Key Population Program Implementation Guide. The assessments were conducted by the TA team using a 68-element checklist in May 2016 and June 2017. For each element, the program could assign a score of zero (not yet addressed), one (partially done), or two (completed). The score rose from 52 to 100, out of a possible total score of 136, between May 2016 and June 2017 (Figure 5). In May 2016, the LINKAGES South Sudan program had completed five elements and made partial progress on 42, while by June 2017 it had completed 38 elements and made partial progress on an additional 24.

**FIGURE 5.** Improvements in program quality assessment scores, May 2016 and June 2017

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<thead>
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<th>Category</th>
<th>MAY 2016</th>
<th>JUNE 2017</th>
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<td>POPULATION SIZE ESTIMATION AND MAPPING</td>
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