

INNOVATIVE SERVICE DELIVERY MODELS TO IMPROVE HIV CASCADE OUTCOMES FOR KEY POPULATIONS

OVERVIEW

Globally, key populations (KP) bear a disproportionate burden of HIV compared to the general adult population. Men who have sex with men (MSM), people who inject drugs, and female sex workers (FSW) have 28, 22 and 13 times greater risk, respectively, of acquiring HIV, when compared to the general population. Transgender women are 13 times more likely to acquire HIV compared to adults, aged 15-49 years.¹

Many of the factors that increase risk for HIV infection among KPs also compound the challenges that these populations experience in obtaining timely and respectful antiretroviral treatment (ART) services. Stigma, discrimination and criminalization of behaviors, in particular, are major factors restricting adequate coverage for prevention, testing, and ART services, among key populations.² While great strides have been made in providing ART to reduce the global HIV burden,³ comparatively less has been done to “fast track” ART services for KPs, who are estimated to account for more than 47 percent of all new HIV infections in 2017.

CDC'S ROLE

To increase ART coverage among KPs, the U.S. Centers for Disease Control and Prevention (CDC) works with multiple partners to design, implement, evaluate, and scale innovative models to identify HIV-positive KP and link them to HIV services supported by the U.S. President's Emergency Plan for AIDS Relief (PEPFAR).

Examples of CDC's strategic partnerships to build high-impact programs include:

- **Implementation Science:** With the introduction of the Key Population Implementation Science initiative in 2014, CDC collaborated with multiple awardees to complete a range of implementation science projects that identified effective models for diagnosing HIV-positive KPs and linked them to and retained them on ART. Key Population Implementation Science projects in Brazil, Guatemala, Kenya, Thailand, and Ukraine demonstrated effective approaches to improve HIV-cascade outcomes, such as peer ART navigators, HIV self-testing, and same-day Test and Start models to improve the initiation and retention of KPs in HIV treatment.
- **Pre-Exposure Prophylaxis (PrEP):** CDC, in collaboration with the International Center for AIDS Care and Treatment Programs (ICAP) at Columbia University, provided technical assistance to successfully implement, mentor, and scale PrEP delivery models for KPs in the Democratic Republic of Congo, Brazil, and Uganda. Nigeria will be the fourth country to receive this CDC/ICAP technical support to scale PrEP for KPs.
- **Cascade Monitoring:** CDC has partnered with University of California, San Francisco (UCSF) to conduct the Key Population Cascade Monitoring and Evaluation project in the Dominican Republic, Uganda, Ukraine, and Kenya. The purpose of this effort is to improve data and information systems for constructing and evaluating HIV-services cascades for KPs. With reliable HIV-cascade data for KPs, CDC and UCSF are assisting country programs in targeting programmatic limitations along the HIV services continuum and in working diligently to improve health outcomes for KPs at individual service delivery sites and at the national level.
- **Technical assistance:** CDC delivers technical assistance to individual country programs to quickly identify and scale up effective prevention, HIV testing, PrEP, and ART delivery models for KPs. Examples include quality assessments for KP prevention programs, sensitivity training for health care workers to provide KP-friendly services, social network strategies to increase HIV case finding and differentiated models of care including Tanzania's same-day community-based ART initiation to improve rapid initiation and retention on HIV treatment.

ACCOMPLISHMENTS / RESULTS

Many of CDC's investigations and assessments include components to improve ART coverage for KPs. Some preliminary data are available for the projects that are currently underway, including:

- Tanzania's FIKIA model introduced same-day ART initiation in 2016 following their success in diagnosing KPs in community outreach testing tents. Prior to introducing this community ART model, only ~40 percent of HIV-positive KP were initiating ART. After approximately six months of implementation, ART initiation reached 84 percent.

¹ Joint United Nations Programme on HIV/AIDS (UNAIDS). Miles to Go: Closing Gaps, Breaking Barriers, Righting injustices. Global AIDS Update 2018. Geneva 2018

² World Health Organization. Policy brief: Consolidated guidelines on HIV prevention, diagnosis, treatment and care for key populations, 2016 update. Geneva, Switzerland: World Health Organization; 2017

³ PEPFAR Fact Sheet, March 2018. PEPFAR Latest Global Results

- Brazil's Key Population Implementation Science project showed that among MSM accepting peer navigators after HIV diagnosis, a higher percentage are linked to ART services within 90 days, compared with those who do not accept a peer navigator (83 percent versus 40 percent).
- In Thailand, among a cohort of nearly 2,000 MSM seeking HIV testing at health facilities, 84 percent (245 out of 292) of those diagnosed HIV-positive initiated ART in the immediate Test and Treat model.
- ART initiation among HIV-positive FSW at Kenya's Makongeni "integrated" health facility is 99 percent, compared with 53 percent ART initiation among female sex workers nationally.

Additional programmatic accomplishments include:

- A KP sensitivity training for health care workers was translated into French, Spanish, Portuguese and Russian. This training has been conducted in 14 PEPFAR countries and regional programs with over 500 health care worker attendees. The Ministry of Health, CDC, and ICAP have completed a program evaluation of this training and KP friendly service delivery at public health care facilities in Myanmar with results forthcoming.
- CDC provided focused technical assistance through partnerships with ICAP, as well as through multiple-country learning visits, to introduce and scale up PrEP services for KP in PEPFAR-supported countries, with results to be shared in an upcoming issue of MMWR.
- CDC collaborated with the International AIDS Society and the World Health Organization (WHO) to develop and disseminate new models for delivering ART services using a differentiated service delivery model for KPs.⁴

FUTURE EFFORTS

With new funding from PEPFAR—the Key Population Investment Fund (KPIF)—CDC will be working closely with local implementing partners in nine countries in 2019 to accelerate innovative and effective program models for KPs. CDC intends to implement and measure the impact of best-practice models to improve HIV-cascade outcomes, such as HIV case-finding, PrEP delivery, rapid ART initiation, and sustained viral load suppression among KP. Successes identified from implementation of these KPIF models will be shared with all 26 PEPFAR country and regional programs to have immediate benefit across programs funded by host-country governments and other donors.

BENEFITS OF OUR WORK

Best practices, promising programmatic data, and evidence-based interventions from CDC's efforts to improve prevention, testing, and ART coverage and retention for KPs are frequently shared with the broader PEPFAR community, National Institutes of Health, WHO, and UNAIDS. Through these channels and in other venues, innovations developed and scaled in individual countries with specific KP subgroups, may be translated to new settings and the broader KP community in the U.S. and globally.

⁴ International AIDS Society. Differentiated Service Delivery for HIV: A Decision Framework for Differentiated Antiretroviral Therapy Delivery for Key Populations