Expanding Access to PrEP for Adolescent Girls and Young Women

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Introduction & Background

At the outset of the DREAMS project, adolescent girls and young women (AGYW) in sub-Saharan Africa accounted for nearly three-quarters of new HIV infections. This brief explores how DREAMS Innovation Challenge grantees enabled AGYW ages 15–24 to reduce their risk of HIV infection through holistic and innovative interventions that enhanced access to pre-exposure prophylaxis (PrEP). Oral PrEP is an antiretroviral self-administered pill taken once daily. Used in combination with safer sex practices, PrEP can reduce the risk of sexually acquired HIV in high-risk individuals by as much as 70 to 92% (Fonner et al. 2016; WHO 2015; UNAIDS 2017).

AIDS remains the leading cause of death for adolescent girls in Africa, and in 2017, as many as 7,000 new infections occurred each week among the most vulnerable AGYW in Eastern and Southern Africa (UNAIDS 2014). To date, prevention efforts have not had the maximum impact on AGYW's risk of acquiring HIV (Celum et al. 2015). The traditional HIV-prevention strategies, such as ABC (abstinence, be faithful, use condoms), are too often not within a girl's power to control, and no single approach has proven effective in reducing their vulnerability to HIV (Fleischman and Peck 2017). Gender-based violence (GBV), limited access to health services, limited education, and policies or systems that exclude young women are understood to be the key contributors to their increased vulnerability to HIV (Fonner et al. 2016). Furthermore, transactional sex, or exchanging sex for financial or other rewards, is associated with HIV risk factors such as sexual violence, multiple partners, and high sexual frequency (Stoebenau et al. 2016).

In 2015, South Africa became the first country in sub-Saharan Africa to issue full regulatory approval of and include PrEP in its national HIV program for key populations (Fonner et al. 2016).[1] Kenya followed swiftly in 2016, and for the first time in Africa delivered PrEP services targeting the general

The DREAMS Innovation Challenge

The DREAMS Innovation Challenge was launched in 2016 to advance the U.S. President's Emergency Plan for AIDS Relief's (PEPFAR's) commitment to reducing HIV infection among adolescent girls and young women (AGYW) in sub-Saharan Africa. Funded by the U.S. Department of State, Office of the Global AIDS Coordinator, and managed by JSI Research & Training Institute, Inc. (JSI), DREAMS-IC spurred new partnerships and approaches in a multi-dimensional response to HIV prevention for AGYW ages 15 to 24 in 10 DREAMS countries: eSwatini, Kenya, Lesotho, Malawi, Mozambique, South Africa, Tanzania, Uganda, Zambia, and Zimbabwe. Forty-six global and local organizations implemented two-year projects in six focus areas: 1) strengthening the capacity of communities to deliver services; 2) keeping girls in secondary school; 3) linking men to services; 4) supporting pre-exposure prophylaxis (PrEP); 5) providing a bridge to employment; and 6) applying data to increase impact.

population, and specifically AGYW (UNAIDS 2016). In these countries, the introduction of PrEP has made a new HIV-prevention option available for AGYW, offering them greater control of their health.

Overview of innovations for expanding access to PrEP

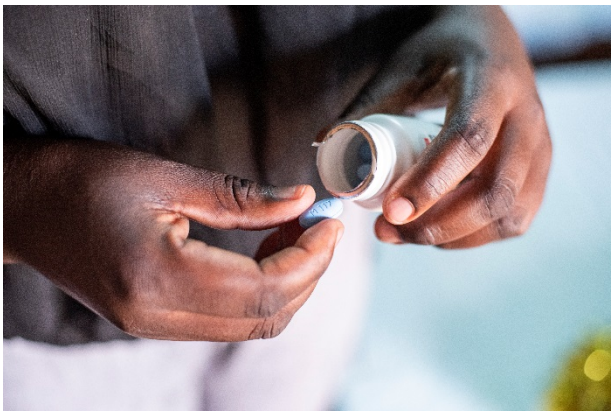


Photo: Lambert Coleman.

Under the DREAMS Innovation Challenge, JSI supported five implementing partners in Kenya, South Africa, and Uganda to test models for increasing PrEP demand and expanding access to PrEP for nearly 10,000 AGYW. Grantees working in this area contributed to these national programs by testing novel approaches for reaching AGYW with PrEP, and by extension reaching their male sexual partners (MSP) with HIV self-test (HIVST) kits. Innovations included:

- Girl-friendly demand creation for PrEP through peer-led community mobilization to raise awareness, dispel myths and misconceptions; administer PrEP to 6,000 AGYW; distribute HIVST kits to AGYW to give to their MSPs; and conduct support groups facilitated by peer educators to enhance retention on PrEP modeled on factors that extend beyond PrEP medication such as economic empowerment *(Bar Hostess Empowerment Program, Kenya).*
- Integration of PrEP services in maternal and child health (MCH) clinics to enhance the capacity of the public health system to deliver PrEP to 3,200 AGYW through training and mentoring staff nurses; administering PrEP and distributing HIVST kits for AGYW to give to their MSPs; and disseminating scientific evidence to inform scalable PrEP delivery strategies for AGYW in high HIV-prevalence settings *(University of Washington, Kenya).*
- Promotion of male-friendly clinics to enhance knowledge of HIV prevention and testing services including provision of HIVST to MSPs of 2,500 AGYW enrolled in the project; linkage to HIV care and treatment at a male-centered evening clinic; and provision of PrEP to AGYW in discordant relationships*. (Witkoppen Health and Welfare Centre, South Africa).*
- Enhancing capacity for HIV education and advocacy for 80 community-based organizations and service providers, supporting the implementation of PrEP and linking men to health services, targeting 1,600 AGYW, 50 adolescent boys and young men, and family members *(Sister Love, South Africa).*
- Generating new evidence for policy advocacy through participatory research in the form of 10 community dialogues led by trained youth ambassadors, gathering the views, priorities, and preferences for HIV prevention and PrEP of up to 250 young female participants *(ATHENA Network, Kenya and Uganda).*

By the end of two years, the grantees established the systems required by the government and reached 33,008 people (more than double their intended reach) with information on HIV and PrEP. They provided 17,834 AGYW with HIV testing services (HTS), and initiated 9,761 HIV-negative AGYW on PrEP, achieving 104% of their LOP targets.

Notably, PrEP coverage in Kenya under the DREAMS Innovations Challenge accounted for at least 45% of total PrEP enrollment nationally. With PrEP being a new service, grantees also equipped 507 service providers with knowledge and skills through training and mentorship to support sustainable PrEP service delivery.

HIV self-testing of MSPs made strides in both Kenya and South Africa: 4,183 AGYW accepted the kits to deliver to their partners. Follow-up data from Witkoppen indicated that 1,275 of 1,421 (90%) MSPs used the kits, of whom 99% shared their results with the AGYW, with 98% testing negative. Despite acceptability of the use of HIVST kits, more effort is needed to ensure actual use and disclosure of status to AGYW partners.

Selected Innovations & Results

Nairobi County, Kenya: *Consumer Demand-Driven PrEP for Adolescent Girls and Young Women.* Bar Hostess and Empowerment Support Program (BHESP)

BHESP is women-led non-governmental organization (NGO) registered in 2005 to influence policy and facilitate provision of high-quality health services, human rights awareness, legal services, and economic empowerment for bar hostesses, sex workers, AGYW, and other key populations. Working closely with the Government of Kenya, and in line with national PrEP service delivery protocols, BHESP used an AGYW-led demand-driven model to enhance access and uptake of PrEP in Nairobi County. The project emphasized the benefits of PrEP to AGYW to create and sustain demand, and used youth-friendly facilities drop-in centers to provide integrated HIV/sexual and reproductive health services. Demand creation entailed "edutainment" through radio shows, social media, musical events, PrEP champions and celebrities, sports tournaments, and beauty therapy sessions to attract and retain AGYW in the program. Key to the project's design were peer educators (PEs) embedded at the community level, who helped enroll girls on PrEP and led support groups to bolster adherence. The PEs helped break down barriers to PrEP uptake and helped BHESP providers understand why girls might initially refuse or discontinue PrEP.

In two years, BHESP hosted 96 radios shows to raise awareness and breakdown myths and perceptions on PrEP, reaching 30,455 community members (three times the intended reach). Nearly 27,000 accessed HTS, of whom 62% were AGYW. Of the 213 individuals who tested positive, 53% were AGYW, all of whom were linked to care and treatment at BHESP's drop-in centers. ***Following PrEP clinical service delivery protocols, BHESP screened 10,834 AGYW for eligibility and enrolled just under 5,000 AGYW on PrEP, reaching 85% of its goal. After six months, 45% of***

"I am in control of my life"

Vivian, a 23-year-old mother has been taking PrEP to prevent HIV for more than a year. She was at risk of infection because she had multiple sexual partners. Vivian learned about PrEP from a friend who was a peer educator at BHESP. It took Vivian about three months to visit the BHESP clinic. There she was taken through HIV counseling and testing services, screened for and initiated on PrEP to help her stay HIV-negative.

Through the mentorship and engagement with the project as a PrEP user and an active participant of the support group, she became a peer educator herself. Now Vivian is a PrEP champion. She leads adherence support meetings and has referred over 200 at-risk peers for PrEP. These support groups have also embarked economic empowerment. Vivian says "I am in control of my life because my health is secured and I can take care of my son."

these young women were still taking daily PrEP. This high continuation rate that is attributed to BHESP's youth-friendly outreach and service delivery mechanisms: 1) drop-in centers staffed by PEs; 2) PE links at community level for follow-up; and 3) SMS reminders to take PrEP, come for PrEP refill appointments, and attend support groups. All PrEP clients were screened for GBV; the 17% who reported GBV either received services on site (funded by another donor) or were referred. Recognizing the success of BHESP's model, the government has facilitated learning visits for visiting dignitaries from Ministries of Health of Lesotho, Mozambique, Tanzania, and Namibia.

Kisumu County, Kenya: PrEP Implementation in Young Women and Adolescents. University of Washington Department of Global Health (UW).

The UW is a U.S.-based institution that has collaborated on HIV implementation research in Kenya for over 25 years. Under the Innovation Challenge, UW collaborated with the Kenyan MOH to pioneer a nurse-led, integrated PrEP service delivery program at 16 MCH and family planning (FP) clinics at public facilities in Kisumu County. UW leveraged existing women's health systems to reduce structural barriers to PrEP for women, including lack of time, cost, and potential stigma of visiting a facility solely for HIV prevention.

The project tested two service delivery approaches. The first integrated PrEP counseling, screening, and prescription to all eligible women attending MCH clinics, in line with national guidelines. The second model added PrEP service integration and the delivery of HIVST kits for MSPs. Finally, UW nested several rigorous evaluation studies within the project to assess PrEP acceptance and continuation among young women, infant outcomes, HIV risk-perception, adherence, MSP engagement, cost-effectiveness, and affordability, among others. These studies generated proof of concept for MOHs, program teams, and policy makers that are considering scale up of integrated PrEP services in regions with high HIV prevalence.

Within two years, UW trained and mentored 352 MCH and FP providers (primarily nurses) to deliver PrEP as part of routine services; screened 13,621 AGYW for PrEP; and enrolled 4,684, exceeding all targets (Pintye et al. 2019). As of December 2018, 14% of young women initiated on PrEP were still using it (comparable to sustained PrEP use in non-AGYW populations). Via the second model, the project screened 12,749 men for PrEP and enrolling more than 2,100.

The project also introduced a two-way interactive mHealth SMS system that provided PrEP clients with adherence support. Notably, young women enrolled in that platform had twice the PrEP continuation rate than women who initiated PrEP before the project (42% vs. 22%), while women who reported having an HIV-positive partner had the highest continuation rates, at 52%. These results underscore the value of components for adherence support and engaging MSPs. However, more attention in future programming is needed to increase young women's acceptance of HIVST kits for their MSPs and to offset any risks, including GBV that they may face in so doing.

Lessons & Recommendations

The five DREAMS Innovation Challenge partners working in this area provided insights for reaching vulnerable AGYW with PrEP, underscoring the importance of dispelling myths and misconceptions about and destigmatizing PrEP; providing services that are responsive to AGYW needs and realities; and supporting sustained use by young women for as long as they are at high-risk of HIV exposure. The lessons below highlight some of the key takeaways from this experience and offer recommendations for scale-up.

Observe local government policies and protocols for PrEP.

PrEP programming is generally government-led and has been accepted by a few countries with caution due to varying value systems. When the Innovation Challenge project started, for example, PrEP was not yet being delivered to AGYW in Kenya, even though its use for high-risk AGYW was part of national guidelines. The grantees working in this focus area faced stringent programming requirements, including communication to the public. Facilities had to meet eligibility criteria before embarking on service delivery and using national messaging and communication materials, which were not approved until 14 months into the project.

Balance support to public, private, and NGO health systems for sustainable, youth-friendly PrEP services.

PrEP services are primarily implemented through public health facilities. While this bodes well for sustainability, many public health facilities are not known for being youth-friendly so AGYW are more inclined to seek services in facilities like BHESP's drop-in centers. While the government supplies PrEP and other HIV commodities, NGOs like BHESP will require continued funding to sustain PrEP services. The UW model, on the other hand, integrated PrEP services in routine MCH service packages in public facilities and ensured that the limited staff in those facilities were able to deliver PrEP to young women without prejudice.

Ensure that community mobilization and demand-generation are tied to PrEP services.

Raising awareness usually results in demand for services. This was evident in the ATHENA and Sister Love models that worked to raise awareness and gather perspectives on PrEP. In future programming, the mobilizers should have PrEP samples on hand to discredit myths and misperceptions, and better still, have health workers on the mobilizing team. The BHESP PEs, who were the link between the facilities and the community, had the advantage of raising awareness at community level, and directly linking the AGYW to the services.

MCH and FP clinics are safe and effective entry points for expanding young women's access to PrEP.

Clinics that offer PrEP to pregnant women must allay women's concerns about effects on unborn children. Analysis of data gathered by UW on 206 infant outcomes at birth and at six months showed no significant differences among infants whose mothers did and those who did not use PrEP during pregnancy. Delivering PrEP at FP clinics enables targeting of sexually active young women to prevent HIV infection and unintended pregnancy, and will ultimately pave the way for the delivery of injectable forms of PrEP now in development that may be more acceptable to young women.

Understand AGYW perceptions of risk that affect PrEP uptake and adherence.

It is hard to define adherence and effectiveness of PrEP for any population. Even though PrEP is an ARV, adherence protocols are different from those of care and treatment, as the risk for HIV varies with each person and is determined at the individual level. Ordinarily, AGYW should be able to determine their own risk levels and adhere to a daily dosage at least seven days before exposure. Service delivery protocols require that PrEP cessation for AGYW who are no longer at risk be in consultation with a clinician, but this is not often the case. The perceived risk among AGYW determines PrEP use, which has complicated objective determinations of retention and adherence. In Kenya, for example, the terminology has evolved to "PrEP continuation." Feedback from AGYW

participating in the program indicates a need for injectable PrEP to avoid pill burden, side effects, and stigma. Ongoing research will reduce barriers to adherence and thus improve efficacy.

Involve AGYW PrEP users as service providers and change agents.

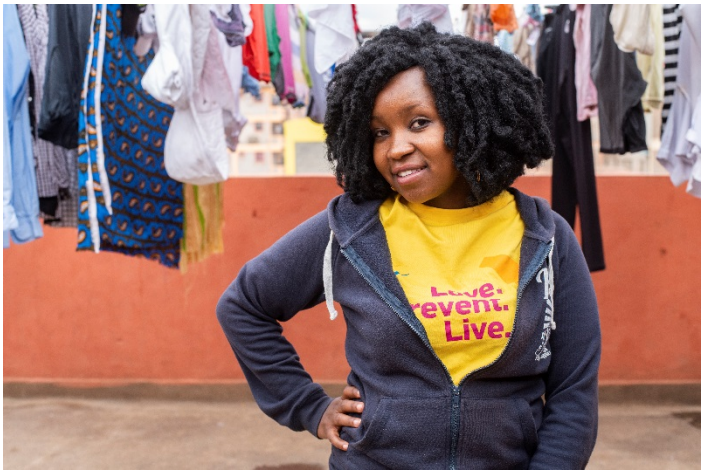
ATHENA and Witkoppen realized that AGYWs have dynamic lives, so programing must be iterative and adaptive. Engaging AGYW who use PrEP as service providers at all stages is highly effective. BHESP used PEs as community mobilizers, service providers, data managers, and adherence promoters. Because of the challenges to defining adherence and measuring PrEP effectiveness, including young women in its design and delivery is critical for reducing barriers to sustained PrEP use. Focus group discussions with AGYW provided critical feedback to technical working groups on various aspects of PrEP, from stigma and adherence detractors to components including pill packaging, color, and size, and slogans and messaging.

Integrate economic empowerment in PrEP programming.

Vulnerable AGYW tend to be financially insecure, which contributes to their involvement in risky transactional sex. Grantees like BHESP introduced activities to help AGYW meet their basic needs, including saving and lending groups. This not only helped PEs and participants to improve their financial standing; it motivated them to remain in the program and on PrEP.

Involve men in PrEP interventions to reduce GBV and increase men's use of services.

The models implemented by the grantees in both Southern and Eastern Africa included components of MSP involvement. Witkoppen had well-defined male-friendly interventions for MSPs and obtained desirables outcomes through indirect contact with AGYW. However, the pathways for male partner involvement were not as well-defined by UW and BHESP, and it was cumbersome to account for outcomes.



A BHESP peer educator. Photo: Lambert Coleman.

Many AGYW seeking PrEP services have experienced or are at risk of GBV. Because HIVST kits are part of the combination HIV-prevention approaches for AGYW, it is critical to empower them in a way that does not escalate their risk of GBV. Programs seeking to reduce HIV risk among this target group and women in general should integrate MSPs and general male involvement in the design stage to address the underlying gender dynamics affecting AGYW and reduce their long-term vulnerability.

References

Fonner, V.A., S. Daglish, C. Kennedy, R. Baggaley, K. O'Reilly, F. Koechlin, M. Rodolph, I. Hodges-Mameletzis, and R. Grant. 2016. "Effectiveness and safety of oral HIV pre-exposure prophylaxis (PrEP) for all populations: A systematic review and metaanalysis," *AIDS*, 30(12):1973–1983.

World Health Organization. 2015. "Guideline on when to start antiretroviral therapy and on pre exposure Prophylaxis for HIV." Geneva: World Health Organization.

UNAIDS. 2017. Latest available data. http://www.unaids.org/en/resources/fact-sheet.

Joint United Nations Programme on HIV/AIDS. 2014. "The gap report." Geneva: UNAIDS.

Celum, C.L. et al. 2015. "Rethinking HIV prevention to prepare for oral PrEP implementation for young African women," *Journal of the International AIDS Society* 18 (Suppl 3): 20227.

Fleischman, J. and K. Peck. 2017. The Next Frontier Stop New HIV Infections in Adolescent Girls and Young women. CSIS Global Health Policy Center, Washington DC. https://www.csis.org/analysis/next-frontier.

Stoebenau, K., L. Heise, J. Wamoyi, and N. Bobrova. 2016. Revisiting the understanding of "transactional sex" in sub-Saharan Africa: a review and synthesis of the literature. *Social Science Medecine,* 168: 186–97.

WHO. 2016. Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection. Recommendations for a public health approach, 2nd edition. http://www.who.int/hiv/pub/arv/arv-2016/en/.

Pintye, J., J. Kinuthia, D.A. Roberts, A.D. Wagner, K. Mugwanya, F. Abuna, H. Lagat, et al. 2018. Brief Report: Integration of PrEP Services Into Routine Antenatal and Postnatal Care: Designing an effective HIV response for AGYW requires understanding of the inter-related behavioral, structural and biological factors that drive HIV acquisition and transmission by and to AGYW. *J Acquir Immune Defic Syndr,* Sep 4. doi: 10.1097/QAI.0000000000001850.

Mugwanya, K., J. Kinuthia, J. Pintye, J. Dettinger, E. Begnel, F. Abuna, H. Lagat, J. Sila, G. John-Stewart, and J. Baeten. 2019. Persistence with PrEP Use Among Young Women Initiating PrEP in Maternal Child Health and Family Planning Clinics in Kenya. Presentation at Conference on Retroviruses and Opportunistic Infections (CROI). March 4–7, 2019. Seattle, USA. *Abstract #0993.*

Pintye, J., A. Drake, E. Begnel, J. Kinuthia, F. Abuna, H. Lagat, J. Dettinger, A. Wagner, H. Thirumurthy, and K. Mugwanya, et al. 2019. Acceptability and outcomes of distributing HIV self-tests for male partner testing in Kenyan maternal child health and family planning clinics. *AIDS* (in press).

Dettinger, J., J. Kinuthia, J. Pintye, F. Abuna, E. Begnel, H. Lagat, K. Mugwanya, J. Baeten, and G. John-Stewart. 2018. No Association Found Between Prenatal PrEP Use and Adverse Infant Outcomes: Results from a Large PrEP Implementation Program in Kenya. Presentation at HIV Research for Prevention (HIVR4P) Conference. Abstract# P07.22LB. October 21–25, 2018. Madrid, Spain.

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