

# PROGRAM EFFECTS OF DREAMS AMONG ADOLESCENT GIRLS AND YOUNG WOMEN IN ZAMBIA

## FINDINGS FROM DREAMS IMPLEMENTATION SCIENCE RESEARCH

Zambia is severely affected by HIV. It has a current HIV prevalence of 12 percent, with women bearing a heavy burden of disease. For instance, HIV prevalence is 8 percent among 20- to 24-year-old women, compared to 2 percent among men of the same age.<sup>1</sup>

Population Council conducted implementation science research in Zambia to determine the effectiveness of the DREAMS<sup>®</sup> comprehensive HIV prevention intervention package in reducing HIV risk among adolescent girls and young women (AGYW). As part of the DREAMS interventions, AGYW were offered a comprehensive HIV prevention package, which included social asset building, educational subsidies, youth-friendly sexual and reproductive health services, and other social protection and support.<sup>2</sup> This service package aimed to empower AGYW and provide them with the necessary skills and resources in an enabling environment to reduce their vulnerability to HIV and risky sexual behaviors and increase their access and use of healthcare services.

This brief summarizes key findings from a prospective cohort study conducted with AGYW (age 15–24 years) participating in DREAMS programming in an urban site in Lusaka and Ndola. In Round 1

\*DREAMS stands for Determined, Resilient, Empowered AIDSfree, Mentored, and Safe.

**Locations:** Lusaka and Ndola, Zambia

**Study duration:** 2016–2019

**Funder:** Bill & Melinda Gates Foundation

**This research was conducted in close collaboration with:** DREAMS implementing partners (PACT) and PEPFAR Zambia

(2016–17) we surveyed 1,064 DREAMS beneficiaries and in Round 2 (2018) we surveyed 885 AGYW of the original sample, resulting in a retention rate of 83 percent. To complement the quantitative data collection, we conducted focus group discussions and in-depth interviews with AGYW and DREAMS program staff. Here we present results on AGYW's exposure to DREAMS programming and how their knowledge, attitudes, risk behaviors, and service utilization changed over time.

### WHO ARE THE SURVEY RESPONDENTS?

	ROUND 1	ROUND 2
 Average age (SD)	19 (2.7)	20 (2.7)
	%	%
 Currently enrolled in school	70	57***
 Currently employed	29	45***
 <b>Sexual activity</b>		
Ever had sex	41	50***
Currently sexually active	19	23**
 <b>Marriage and pregnancy</b>		
Ever married	5	7
Currently married	2	5***
Ever pregnant	14	18***

\*\*p<0.01; \*\*\*p<0.001

## HIGH PARTICIPATION IN DREAMS INTERVENTIONS

More than 80 percent of AGYW at Round 2 reported participating in three primary DREAMS interventions: social asset building, condom promotion and distribution, and HIV testing services. About half of the AGYW were offered contraceptives and around 40 percent had received post-violence care. Nearly two-thirds (64 percent) participated in combination socioeconomic support. Engagement in these interventions was similar across age groups. Among 15- to 19-year-olds, 46 percent had received some type of education support or subsidy (e.g., money for fees, school uniform, school bag).

Despite the high level of DREAMS program exposure, 73 percent reported periods of non-participation over the last year. The mean number of interruptions was 5.2 (SD, 8.4). Nearly half (45 percent) had an interruption that lasted one month or longer. The main reasons for interruptions were being away from the community, being away at school, and family responsibilities.

## POSITIVE PERCEPTIONS OF DREAMS MENTORS AND DREAMS' EFFECT ON HIV RISK

High proportions felt comfortable seeking advice or referral from their mentor (86 percent), that their mentor was readily available when an issue arose (84 percent), and was knowledgeable about DREAMS topics (90 percent).

Overall, the vast majority of AGYW (87 percent) reported that being part of DREAMS lowered their HIV risk. A similar proportion (86 reported) reported that DREAMS caused them to take measures to reduce their HIV risk. More than nine out of ten AGYW reported that they shared information about HIV with other girls in their community because of DREAMS (92 percent).



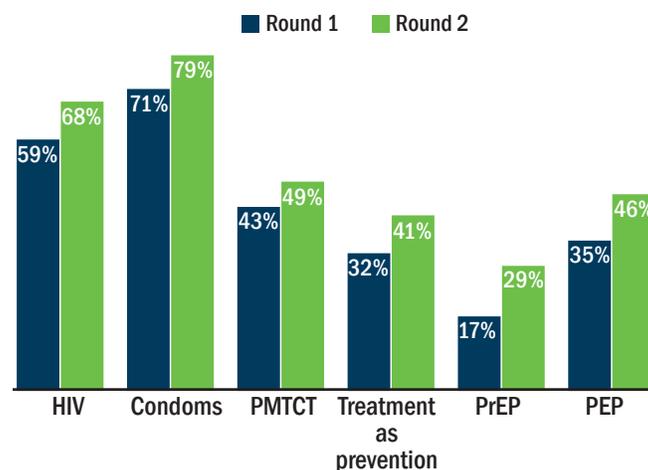
*It [DREAMS] has changed me by moving me away from men...I have stopped having multiple boyfriends, because I used to have multiple boyfriends, but now I have stopped.*

— AGYW, 21 years, Ndola

## SIGNIFICANT IMPROVEMENTS IN HIV KNOWLEDGE

AGYW's knowledge about multiple facets of HIV improved significantly over time, including around pre-exposure prophylaxis (PrEP), post-exposure prophylaxis (PEP), and treatment as prevention. Still, less than half of the AGYW were aware of intervention to prevent of mother-to-child transmission (PMTCT) (Figure 1).

FIGURE 1 HIV KNOWLEDGE



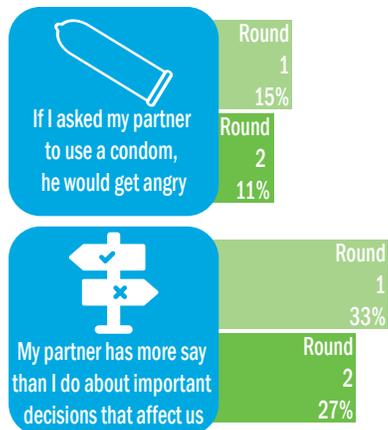
## DECREASE IN ANTICIPATED STIGMA

The vast majority (87 percent) of AGYW at Round 1 reported that they might face stigma and discrimination if they acquired HIV, compared to 69 percent at Round 2 ( $p < 0.001$ ). Yet, there was little change over time in the proportion of AGYW who reported stigmatizing attitudes toward people living with HIV (37 percent vs. 33 percent).

## INCREASED POWER IN THEIR INTIMATE RELATIONSHIPS

Over time, there was a significant increase in the proportions of AGYW reporting higher relationship power ( $p < 0.001$ ). For example, fewer AGYW thought their partner would get angry if she asked him to use a condom at Round 2 compared to Round 1. Similarly, 27 percent said their partner had more say about important decisions that affected them at Round 2, compared to 33 percent in Round 1 (Figure 2).

**FIGURE 2 AGYW WHO AGREE OR STRONGLY AGREE WITH STATEMENTS RELATED TO RELATIONSHIP POWER**



## REDUCTION IN SEXUAL VIOLENCE FROM NON-PARTNERS

Gender-based violence (GBV) has been shown to be associated with HIV risk.<sup>3</sup> Over time, there were slight decreases in physical and sexual violence from partners (among sexually active AGYW). But reduction in experience of sexual violence from non-partners was most pronounced over time among all AGYW ( $p < 0.01$ ).

**TABLE 1 CHANGES IN EXPERIENCES OF VIOLENCE**

	ROUND 1 %	ROUND 2 %
<b>Among sexually active</b>		
Physical violence from partners	19	18
Sexual violence from partners	18	16
<b>Among all AGYW</b>		
Sexual violence from non-partners	17	12**

\*\* $p < 0.01$

## NO SIGNIFICANT REDUCTIONS IN HIV RISK BEHAVIORS

Over time, there were no major changes in the number of sexual partners reported by AGYW; most sexually active AGYW had one partner. At Round 2, there was a slight decrease in the proportion of AGYW's reporting of two or more sexual partners (from 11 percent to 9 percent) and alcohol use before sex (from 9 percent to 5 percent), however these changes were not significant.

At the same time, there were decreases in consistent condom use. More AGYW reported being in transactional relationships and engaging in transactional sex, with the latter change being statistically significant ( $p \leq 0.05$ ), and thereby heightening their risk.

**TABLE 2 CHANGES IN HIV RISK BEHAVIORS**

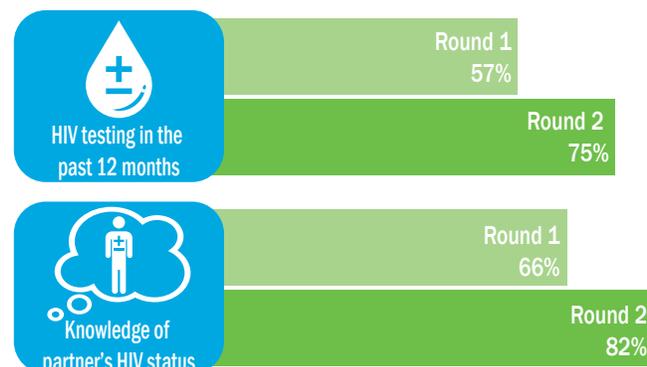
	ROUND 1 %	ROUND 2 %
Consistent condom use (among AGYW with sexual partners)	42	35
Started/stayed in a transactional relationship with a main partner (among all AGYW)	8	8
Engaged in transactional sex with a causal partner (among all sexually active AGYW)	2	5

## SIGNIFICANT INCREASE IN HIV TESTING, BUT NOT OTHER SERVICES

HIV testing increased substantially in the study sites over time ( $p < 0.001$ ). More AGYW also report knowing about their partner's HIV status over time ( $p < 0.01$ ).

Over time, while AGYW had high self-efficacy around visiting a clinic for an HIV test (94 percent in Round 2 felt confident to go to a health clinic) and asking questions during clinic interactions (73 percent in Round 2), there were no significant improvements in reported care-seeking behaviors (e.g., seeking sexually transmitted infection (STI) care among those reporting STI symptoms and post-GBV care among those reported experiencing GBV).

**FIGURE 3 HIV TESTING AND KNOWLEDGE OF PARTNER STATUS**



## RECOMMENDATIONS

- To sustain significant changes in knowledge and self-efficacy among AGYW, continue to provide AGYW with education and life skills to help them make informed decisions.
- To sustain reductions in experience of violence from non-partners, continue to invest in community-level efforts to increase safety and security for AGYW and shift norms around GBV.
- To engender reduction in experience of sexual violence from partners, engage men and boys, along with women and girls to identify, assess, and reevaluate community norms around GBV and increase support to women who experience GBV.
- To continue improvements in HIV testing, sustain continued HIV testing efforts in the community.
- To increase condom use among young women, consider engaging men/male partners in HIV prevention, promote their condom use, and address communication and power within relationships.
- To lower likelihood of AGYW entering transactional sexual relationships, consider programs to ensure school completion and increase young women's livelihoods opportunities.

## REFERENCES

1. Ministry of Health, Zambia. 2019. Zambia Population-based HIV Impact Assessment (ZAMPHIA) 2016: Final Report. Lusaka, Ministry of Health. <http://phia.icap.columbia.edu>
2. Saul, J. et al. 2018. "The DREAMS core package of interventions: A comprehensive approach to preventing HIV among adolescent girls and young women," *PLoS ONE* 13(12): e0208167. doi: 10.1371/journal.pone.0208167
3. Mathur et al. 2018. "High rates of sexual violence by both intimate and non-intimate partners experienced by adolescent girls and young women in Kenya and Zambia: Findings around violence and other negative health outcomes," *PLoS ONE* 13(9): e0203929. doi: 10.1371/journal.pone.0203929

### For more information about the DREAMS IS portfolio:

Visit the DREAMS IS special series page: [https://knowledgecommons.popcouncil.org/series\\_dreams/](https://knowledgecommons.popcouncil.org/series_dreams/)

"How to reduce HIV risk among adolescent girls and young women in sub-Saharan Africa? Implementation science around the DREAMS Initiative," *DREAMS Project Brief*. doi: 10.31899/hiv7.1009

"Reducing HIV risk among young women and their partners: highlights from the DREAMS implementation science research portfolio," *DREAMS Project Brief*. doi: 10.31899/hiv11.1026

### For more information about the study in Zambia:

"Assessment of comprehensive HIV-risk reduction programming for adolescent girls and young women: Implementation science research in Zambia," *Activity Brief*. doi: 10.31899/hiv6.1005

"What do we know about the HIV risk characteristics of adolescent girls and young women in Zambia? Findings from DREAMS Implementation Science research," *DREAMS Zambia Results Brief*. doi: 10.31899/hiv5.1024

"High rates of sexual violence by both intimate and non-intimate partners experienced by adolescent girls and young women in Kenya and Zambia: Findings around violence and other negative health outcomes," *PLoS ONE* 13(9): e0203929. doi: 10.1371/journal.pone.0203929

"HIV vulnerability among adolescent girls and young women: a multi-country latent class analysis approach," *International Journal of Public Health* 65(4): 399–411. doi: 10.1007/s00038-020-01350-1

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