PERCEPTIONS OF HIV RISK AMONG A SAMPLE OF YOUNG WOMEN IN ESWATINI

METHODS

The DYnamics of Contraception in Eswatini (DYCE) study is a high-frequency longitudinal survey that contacts young women (ages 18-24) in Eswatini on their cell phones – every two weeks – to understand the changes taking place related to a young woman's sexual and reproductive health.

Funded by the National Institutes of Health's Eunice Kennedy Shriver National Institute of Child Health and Human Development Institute and Columbia University, the DYCE protocol was reviewed and approved by the Eswatini National Health Research Review Board in 2024 and Columbia University Medical Center Institutional Review Board in 2023. DYCE is implemented by ICAP at Columbia University in collaboration with Eswatini Ministry of Health.

The Eswatini Population-based HIV Impact Assessment survey, (SHIMS3) provided the sample for DYCE. SHIMS3 is a nationally representative, population-based cross-sectional survey conducted between May and November 2021. Overall, 12,029 individuals participated in SHIMS3, of whom 1,448 were AGYW 18-24 who completed the survey and participated in the HIV test. The DYCE sample frame includes all women ages 18-24 that completed the SHIMS3 interview, consented to follow-up for potential future research and provided a phone number. Fifty-six percent (818 of 1,448) consented to be re-contacted and 97% (794) provided a phone number. All 794 AGYW who were sampled were called at least once. Between March 16, 2024 – April 8, 2024, 326 participants consented and completed the baseline survey, and 321 consented to bi-weekly participation.

Beginning April 10, 2024, participants have been called bi-weekly to answer questions about socio-demographics, pregnancy and contraception, relationships, sexual activity and HIV. To-date, 273 participants remain active in the study. Periodically, participants are asked additional questions that were selected by the DYCE Technical Working Group, consisting of Ministry of Health (Sexual and Reproductive Health Unit and Research Unit), ICAP-New York and ICAP-Eswatini staff. This technical brief shares the results from the "HIV Risk Perception" Module. Across two biweekly survey period from September 25 to October 13, 2025, 204 participants completed this module who self-reported an HIV negative status.

RESULTS

RESPONSE RATES ACROSS STUDY

- March 2024 - Aug 2024: 83.4%
- Sept 2024 - Feb 2025: 76.1%
- March 2025 - Aug 2025: 77.5%
- Sept 2025 - Oct 2025: 81.2%

RETROSPECTIVE HIV RISK AND RISK PERCEPTION (RP)

- Over the past 2 weeks, approximately 1 in 4 young women were sexually active. Of which:
  - 7% tested for HIV
  - 72% engaged in some HIV risk behaviors (e.g. did not use condoms or PrEP consistently)
  - 6% reported a moderate/high chance of acquiring HIV
  - 15% indicated they were somewhat/very worried about acquiring HIV, quadruple that of sexual inactive young women

Table 1. Respondents' HIV-related behaviors, perceptions, and worries over the last 2 weeks

In the last 2 weeks...	**Sexually active** (N=54)	**Not sexually active** (N=150)
Tested for HIV	7%	13%
Engaged in HIV risk behaviors*	72%	N/A
Reported moderate/high chance of acquiring HIV	6%	0%
Indicated somewhat/very worried about acquiring HIV	15%	4%

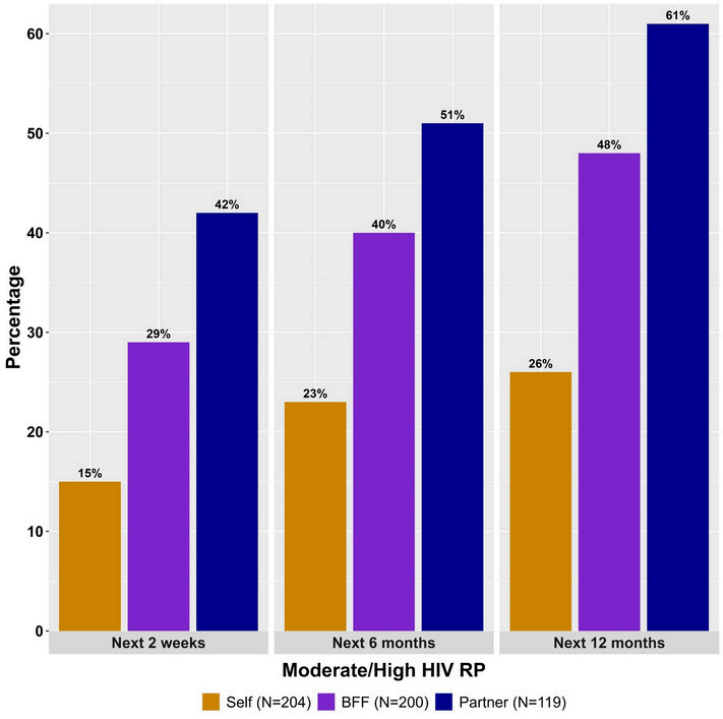
*Had sex & did not use condoms or PrEP consistently
N/A = Not applicable

MULTI-LEVEL FACTORS INFLUENCING HIV RISK AND RP

- When asked how many out of 10 random people in their community were living with HIV, the median response was 5 (IQR: 3-6), suggesting most perceived their community-level HIV prevalence to be 50%
- 41% reported at least one household member was living with HIV

PROSPECTIVE HIV RP OF SELF, BEST FEMALE FRIENDS, AND PARTNERS

Figure 1. Percent of participants reporting moderate or high HIV RP for self, best female friend (BFF), and partners over three prospective time periods



- Along with assessing their own HIV RP (N=204), participants were asked how they perceived their BFF's HIV risk (N=200), an approach that may elicit more truthful responses about themselves. Over time periods:
  - Self-assessed HIV RP increased 11 percentage points, from 15% (next 2 weeks) to 26% (next 12 months)
  - BFF's HIV RP increased 19 percentage points, from 29% (next 2 weeks) to 48% (next 12 months)
  - BFF's HIV RP was approximately double self-assessed HIV RP
- Respondents with partners with a known HIV-negative status (N=119) also reflected on their partner's risk for acquiring HIV, a proxy for their own HIV risk. Across time periods:
  - HIV RP of partners increased 19 percentage points, from 42% (next 2 weeks) to 61% (next 12 months)
  - Self-assessed and BFF HIV RP proportions were very similar to overall estimates
  - Partners' HIV RP proportions were more than double that of self-assessed HIV RP
  - BFF and partner HIV RP estimates had greater alignment, only differing by ~12 percentage points

CONCLUSION

- Although nearly 3 in 4 sexually active young women exhibited HIV risk in the past 2 weeks, very few perceived themselves as being at risk for HIV acquisition.
- Respondents perceived HIV risk as cumulative, as reports of moderate/high chances incrementally increased across timeframes.
- Proportions for BFF's and partner's HIV RP were almost always double that of respondents' self-perceived HIV risk.

Citation: "Perceptions of HIV Risk Among a Sample of Young Women In Eswatini: Dynamics of Contraception Summary Sheet." Craig J. Heck, Emma Geisler, Samkelo Simelane, Zandi Nxumalo, Mgcineni Ndlagamndle, Zwakele Tfwala, Harriet Nuwagaba-Biribonwoha, Abigail R. Greenleaf. December 2025