Poster #143

Access, adherence, and acute HIV infections: A characterization of seroconversion with PrEP in Eswatini

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Background:

- Eswatini is one of the first countries in Africa to introduce the dapivirine vaginal ring alongside oral tenofovir disoproxil fumarate/lamivudine to provide pre-exposure prophylaxis (PrEP) choice and expand HIV prevention options.
- Monitoring for seroconversion and product continuation in PrEP programs is crucial to inform ongoing scale-up.
- With support from the PEPFAR/USAID-funded MOSAIC project, we evaluated product interruption and self-reported product use in individuals who acquired HIV while using PrEP in Eswatini.

Methods:

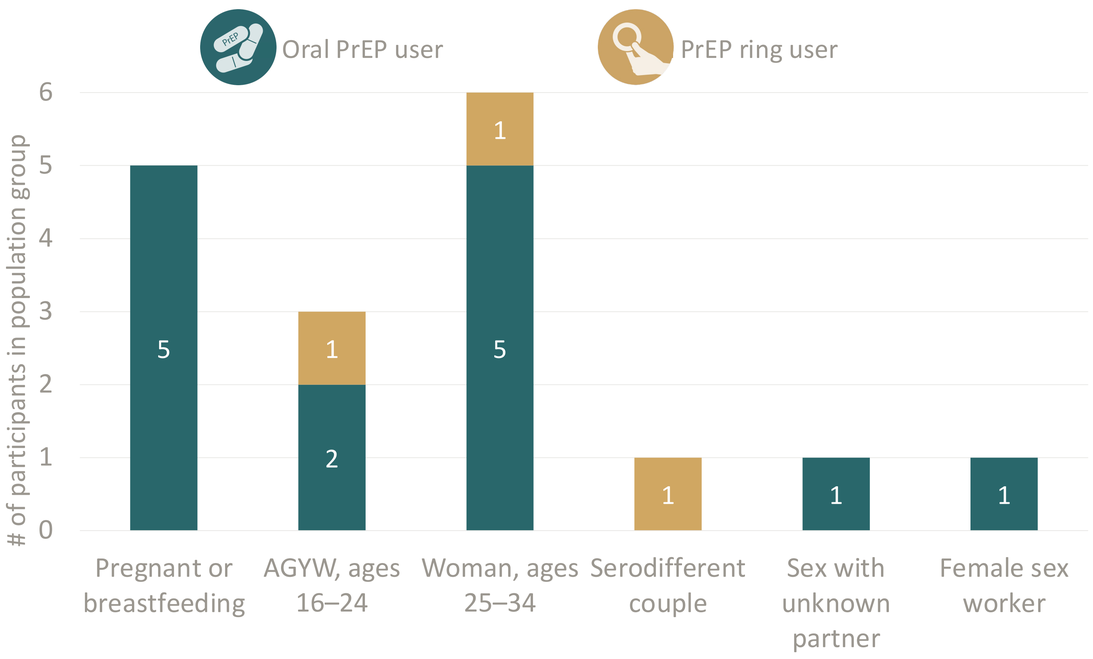
- HIV Drug Resistance Assessment Study (May 2023 – Jan 2024)
- Eligibility criteria: current or recent PrEP user (PrEP use in the last three months); diagnosed with HIV as per national algorithm using sequential third-generation rapid tests
- Descriptive analyses of demographic data, self-reported PrEP use

Table 1: Baseline characteristics

Characteristic	N = 10
Female sex	10 (100%)
Median age	28.1 years (IQR 22.7–31.9)
Oral PrEP user	7 (70%)
PrEP ring user	3 (30%)

Monitoring seroconversions provides important program data for national PrEP rollout and supports its long-term success.

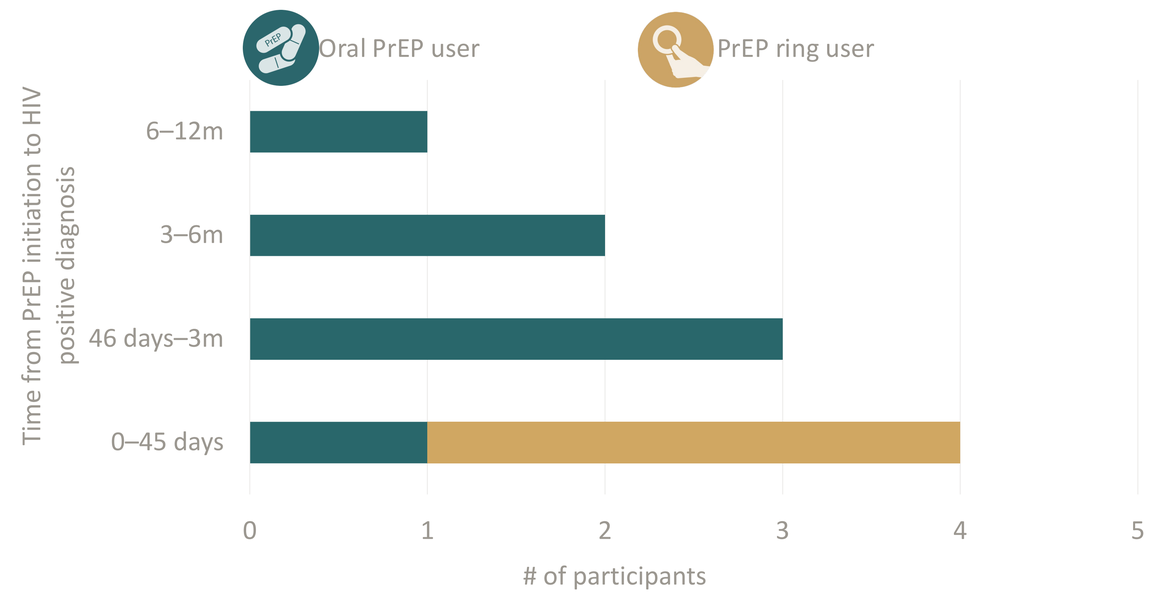
Figure 1: Participant population (participants could identify with multiple populations)



Results:

- Of approximately 15,000 PrEP initiations (mainly oral PrEP users), 10 clients tested HIV positive (see Table 1 and Figure 1 for baseline characteristics).
- Seroconversion was identified within 45 days of oral PrEP (re-) initiation in 1 of 7 oral PrEP users and all 3 ring users (see Figure 2).
- One ring user reported a product interruption of 13 days before returning to the facility for resupply; 6 of 7 oral PrEP clients reported product interruption, including 2 reporting an interruption of 3–7 days and 4 reporting an interruption of 20–84 days.
- Reported reasons for ineffective PrEP use included missing doses, delays in obtaining services, or unavailability of their PrEP product.

Figure 2: Time from PrEP initiation to HIV-positive diagnosis*



*Some participants reported product interruption during the time between product initiation and an HIV-positive diagnosis.

Conclusions:

- Seroconversions are rare in the Eswatini PrEP program.
- Initiating PrEP during acute HIV infection and interruption of PrEP availability and/or product use are potential causes of seroconversion for participants in this study.
- This study highlights the importance of monitoring seroconversions and product effective use to inform and best support PrEP programs for long-term success in reducing HIV incidence.

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