

Syphilis among pre-exposure prophylaxis (PrEP) initiators in selected districts of Nepal

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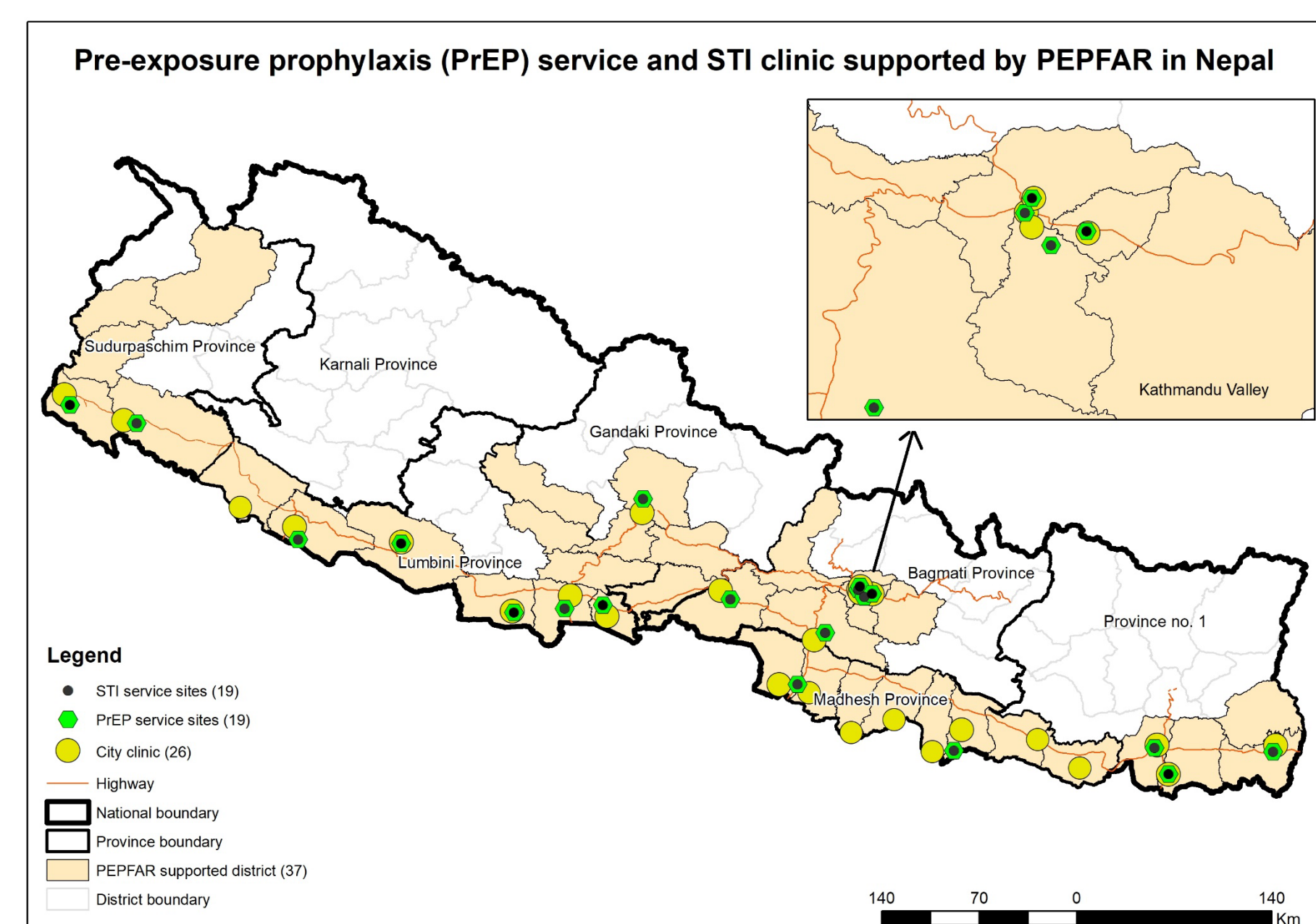


BACKGROUND

Nepal continues to face a concentrated HIV epidemic, and HIV transmission is largely driven by selected key populations (KPs), which include female sex workers (FSWs), men who have sex with men (MSM), male sex workers (MSWs), transgender people, and people who inject drugs (PWID). The HIV epidemic in Nepal is largely driven by infections among KPs, and heterosexual transmission is dominant (around 85%). HIV prevention services are crucial to achieve the goal of ending AIDS by 2030.¹ Pre-exposure prophylaxis (PrEP) is one option to prevent HIV transmission among KPs who are at higher risk of HIV infection. In Nepal, the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) and the United States Agency for International Development (USAID) support the FHI 360-led Meeting Targets and Maintaining Epidemic Control (EpiC) project, which works in 37 of 77 districts in the country to offer HIV prevention, care and treatment services to KPs. Currently, the project offers integrated PrEP and syphilis screening and treatment, as well education on HIV and sexually transmitted infection (STI) risk

reduction at its 26 city clinics (Figure 1). We report syphilis prevalence among these KPs at PrEP initiation and follow-up from a subset of these clinic sites. We followed "Case Management of Sexually Transmitted Infections, 2014," developed by the National Centre for AIDS and STD control (NCASC) for diagnosis of syphilis.

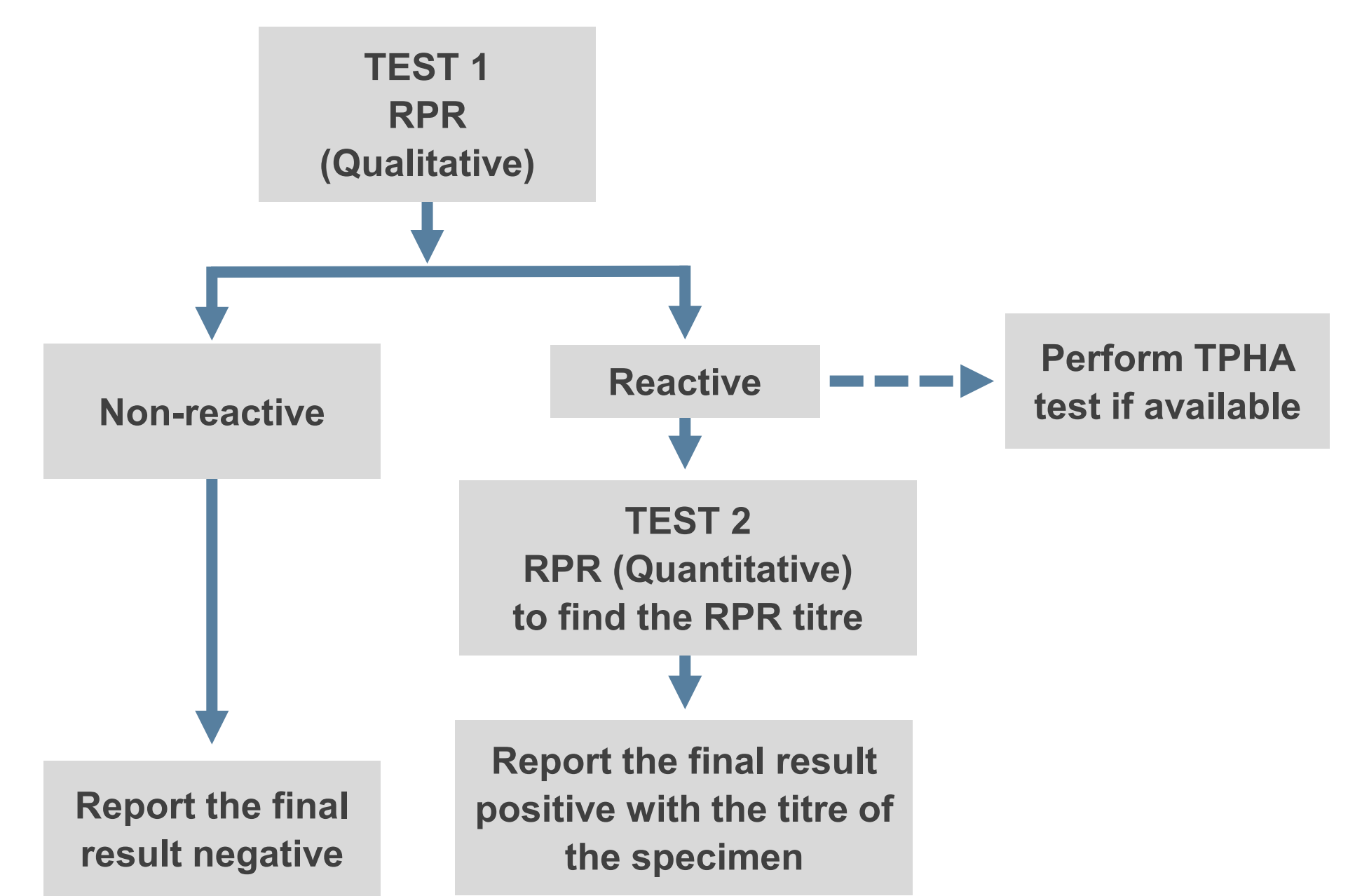
FIGURE 1. PrEP service in Nepal



METHODS

At the time of the study period, only 19 city clinics were offering PrEP and STI treatment including syphilis screening and treatment services. Before starting PrEP, all clients received STI screening and repeated the screening monthly. Syphilis prevalence was measured at baseline among all clients who initiated PrEP from October 2020 through March 2021, and incidence was measured during follow-up visits in EpiC Nepal's STI clinic from April through September 2021. In alignment with the national guidelines, syphilis was diagnosed through rapid plasma regain (RPR) and treponema pallidum particle agglutination (TPHA) performed by trained laboratory personnel (Figure 2).² Those who tested positive received treatment. These data were collected through an individual reporting system, District Health Information Software 2 (DHIS2), used by EpiC Nepal.

FIGURE 2. Syphilis testing algorithm



RESULTS

From October 2020 to March 2021, 1,780 KPs (43% FSWs, 34% MSM, 23% TG people) were initiated on PrEP (Figure 3). Almost half (43%) were ages 15–24 years. Seventy percent of those who initiated PrEP continued to take PrEP, whereas 30% had discontinued PrEP as of September 2021. At the time of PrEP initiation, 13% (n=232) tested positive for syphilis. The prevalence of syphilis was 20% among transgender people, 16% among MSM, and 7% among FSWs. All KPs were tested for syphilis in their follow-up visits. At follow-up (April–September 2021), 0.56% (n=7) of those who continued PrEP services (n=1,250) (TG: 1.31%, FSW: 0.4% and MSM: 0.2%) and 0.75% (n=4) (TG: 1%, FSW: 0.8% and MSM: 0.8%) of those who discontinued the services (n=582) tested positive for syphilis. Among the KP individuals who continued PrEP, 0.24% (n=3) tested positive for syphilis at baseline and follow-up (Table 1). In between these periods, KP individuals were provided information related to safer sexual behavior and provided condoms for safer sexual practice at each clinic visit.

FIGURE 3. Distribution of PrEP initiators (Oct 2020–Mar 2021)

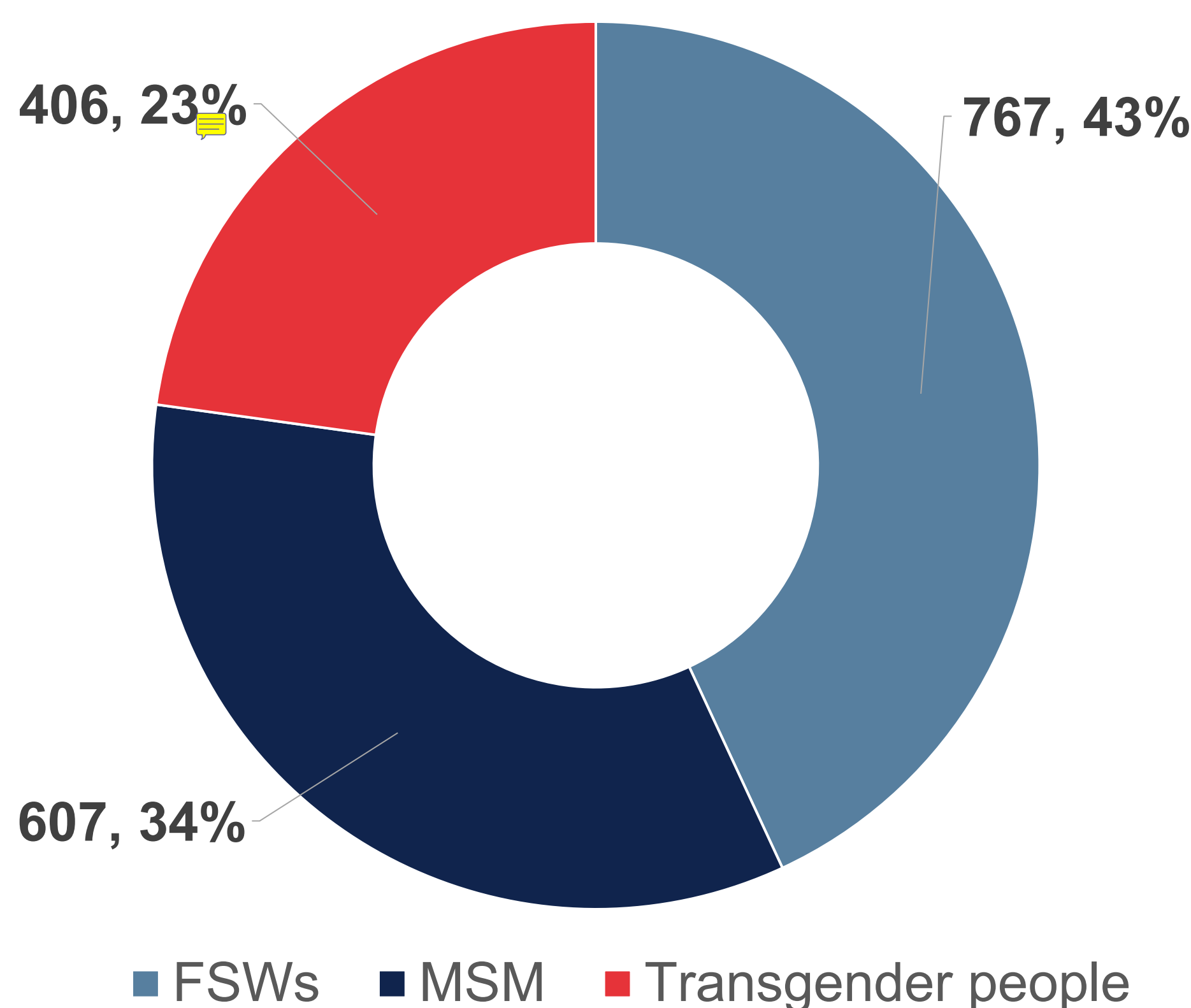


Table 1. Syphilis among PrEP initiators (Oct 2020–Mar 2021) and at follow-up (Apr–Sep 2021)

Started PrEP	Total	Syphilis test		Syphilis test
		Positive	Negative	% positivity
October 2020 to March 2021	1,780	232	1,548	13%
Continued PrEP	Total	Syphilis test		Syphilis test
		Positive	Negative	% positivity
April to September 2021	1,250 (=1,780*70%)	7 [^]	1,243	0.5%
Discontinued PrEP	Total	Syphilis test		Syphilis test
		Positive	Negative	% positivity
April to September 2021	530 (=1,780*30%)	4	526	0.7%

CONCLUSIONS

KP individuals are not only at risk of HIV infection but also other STIs, including syphilis. Our findings showed a significant decrease in the number of syphilis cases over time among the PrEP initiators. Because PrEP and syphilis services were integrated and provided at the same sites, there was an opportunity to offer comprehensive STI prevention, screening, and treatment to KP individuals who initiated and continued PrEP services, including those who discontinued PrEP but remained within the project system and services.

REFERENCES

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