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## BACKGROUND

Adolescent's men who have sex with men (aMSM) and transgender women (aTGW) are disproportionately affected by HIV and other sexually transmitted infections (STI). However, studies on the incidence of STI among these adolescents enrolled in PrEP are still scarce. We aimed to estimate the incidence of *N. gonorrhoeae*, *C. trachomatis*, *M. genitalium*, *M. hominis*, *U. urealyticum* and *U. parvum* among adolescents pre-exposure prophylaxis (PrEP) users.

## METHODS

PrEP1519 is a demonstration cohort study of daily TDF/FTC as PrEP. It is ongoing in 3 Brazilian capital cities among aMSM and aTGW aged 15-19 years-old (yo), recruited from February 2019 to September 2021, with the following eligibility criteria: HIV uninfected, high risk of HIV, and no risk of kidney and liver damage. Participants completed a sociobehavioral questionnaire, and swab samples from multiple sites (oropharyngeal, anal, and urethral) were provider-collected and tested for each STI by using qPCR, at PrEP initiation and weeks 4, 12, and then quarterly through week 96.

For this analysis, we included participants who had a minimum of 2 consecutive visits at the Salvador site and provided a swab sample at PrEP initiation and at least one more during follow-up.

Case of STI was defined as positive-qPCR from any anatomical site. STI incidence rate per person-year (PY) of follow-up and 95% confidence intervals (95%CI) were estimated.

## RESULTS AND DISCUSSION

At PrEP initiation, participants were mostly MSM (91%) and 18-19 yo (84%). Median age of sexual debut was 14 yo (IQR:12-16), and 56% of participants did not use or did not remember using a condom at first sexual intercourse. The incidence of *U. urealyticum* was particularly high.

Important incidence rates of STI among adolescents indicate that integration of STI testing and care in PrEP programs are much needed.

**Table 1 - Incidence estimates of bacterial sexually transmitted infections (bSTI) after initiating PrEP in Salvador, Northeast Brazil**

STI	N	Incident cases	Sum of PY	Incidence rate per 100 PY	(95% CI)
<i>N. gonorrhoeae</i>	132	19	219.2	8.7	(5.5-13.6)
<i>C. trachomatis</i>	132	22	246.5	8.9	(5.9-13.6)
<i>M. genitalium</i>	137	11	240.5	4.6	(2.5-8.3)
<i>M. hominis</i>	133	19	224.3	8.5	(5.4-13.3)
<i>U. urealyticum</i>	128	43	186.3	23.1	(17.1-31.1)
<i>U. parvum</i>	137	10	253.9	3.9	(2.1-7.3)

Despite significant rates of STI, comparability with other studies is difficult because there are relatively limited data on STI incidence rates among adolescents undergoing PrEP.

## CONCLUSIONS

Important incidence rates of bSTI among adolescents in PrEP1519 indicate that innovative approaches to decrease STI incidence are much needed. The integration of STI testing and care such as point-of-care or near point of care testing should be an essential component to help decrease STI incidence among aMSM and aTGW PrEP users.

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