

Is undiagnosed HIV prevalence among MSM in London changing in the era of combination prevention? Data from the Gay Men's Sexual Health Survey, a serial cross-sectional community sample.

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BACKGROUND

- Context:** New HIV diagnoses among gay, bisexual, and other men who have sex with men (MSM) in England have dropped over the last decade.
- Policy Change:** The routine implementation of HIV pre-exposure prophylaxis (PrEP) in sexual health services since 2020 has significantly contributed to this decline.
- Objective:** We used data from the Gay Men's Sexual Health Survey to assess changes in diagnosed and undiagnosed HIV prevalence before and after routine PrEP implementation among MSM in London.

METHODS

- Study Design:** Serial, anonymised, cross-sectional surveys conducted in London commercial venues (e.g. clubs, bars, saunas), with an optional oral fluid (OF) sample for anonymous HIV antibody (Ab) testing.
- Time Frames:** The first survey iteration was between June–August 2019, and the second was between November 2022–January 2023.
- Participants:** MSM aged ≥ 18 years, including cisgender and transgender individuals, who provided an OF sample for HIV Ab testing.
- Data Collection:** Socio-demographic characteristics, sexual behaviours and prevention practices, and service engagement, HIV testing and health outcomes.
- Exclusion criteria:** Samples were excluded from analysis for those who did not report their HIV status or those with total IgG $< 0.2\text{mg/L}$.
- Analysis:** Descriptive statistics examining self-reported HIV status; and PEP or PrEP use among those with positive HIV Ab who self-reported negative.

Figure 1. Comparison of HIV Antibody Positive MSM and Undiagnosed HIV Prevalence in London (2019 vs. 2022)

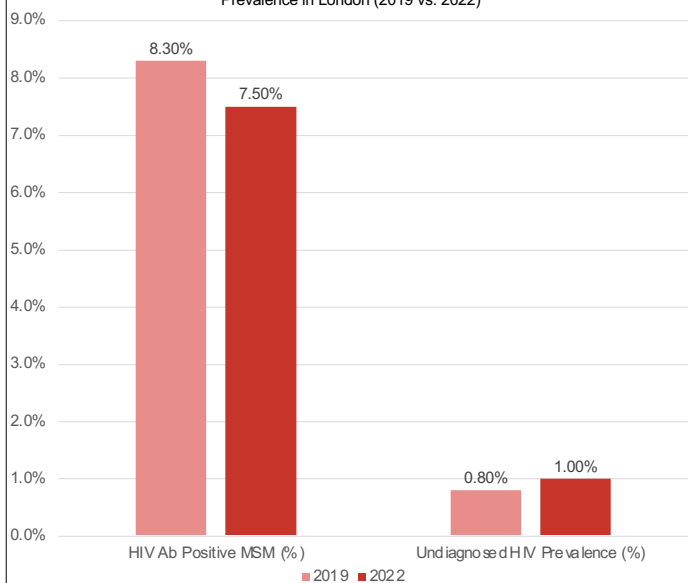
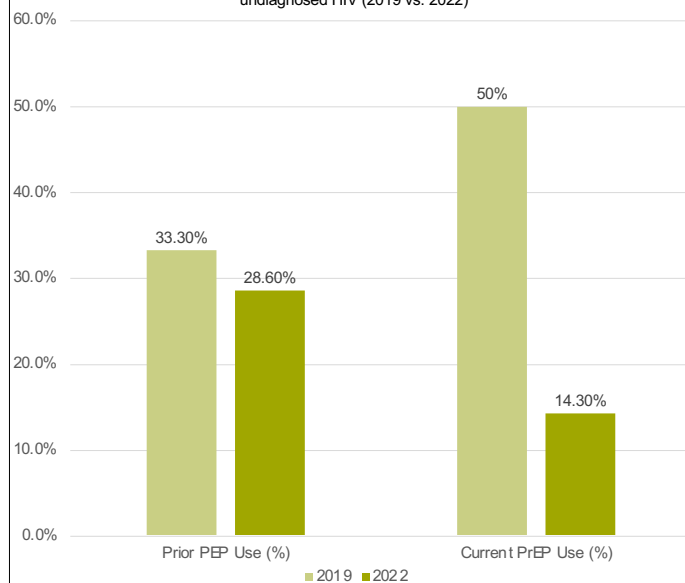


Figure 2. Comparison of prior PEP use and current PrEP use in MSM with undiagnosed HIV (2019 vs. 2022)



RESULTS

- HIV Ab positivity:** Of the 855 MSM who provided an eligible OF sample in 2019 and 751 in 2022, 8.3% (n=71) and 7.5% (n=56) were HIV Ab positive, respectively (p-value=0.58) (Figure 1).
- Undiagnosed HIV prevalence:** Of those HIV Ab positive, 8.5% (6/71) of MSM self-reported as HIV-negative in 2019 and 12.5% (7/56) in 2022 (p-value=0.57); this resulted in a 0.8% (6/784) and 1.0% (7/696) undiagnosed HIV prevalence (p-value=0.78) (Figure 1).
- 33.3% (n=2) of MSM with undiagnosed HIV reported PEP use in the year prior in 2019 and 28.6% (n=2) in 2022 (p-value=1.00) (Figure 2).
- 50% (n=3) of MSM with undiagnosed HIV reported current PrEP use in 2019 and 14.3% (n=1) in 2022 (p-value=0.58) (Figure 2).

CONCLUSION

- The prevalence of undiagnosed HIV infection among MSM in London remained relatively constant between 2019 and 2022, despite national declines in new HIV diagnoses.
- Community Engagement:** Strengthening community-based efforts is needed to ensure prevention measures reach all those who need it and diagnose those who erroneously assume they are HIV-negative to meet the UK Government's goal to end new HIV transmissions by 2030.

