Correspondence

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Prevalence of HIV testing among black and white transgender adults, 2016–2019

Transgender and gender diverse (TGD) people are disproportionately affected by HIV [1]. Although only 0.5% of the United States population identifies as TGD [2], 2% of US HIV infections diagnosed in 2018 were TGD persons, of whom half were black [1]. The number of diagnoses and deaths has increased from 2014 to 2018 among TGD populations [1]. TGD people – particularly black transgender women– face numerous prevention challenges, including delays in accessing care due to fear of mistreatment [3,4].

Identification of HIV testing's national prevalence is critical to monitor the impact of the *Ending the HIV Epidemic* initiative (EHE) and assist health advocates in directing resources to priority populations. One pillar of the *EHE* focuses on early diagnosis [5], yet the national baseline of HIV testing in the past year among TGD people is unknown. From 2014 to 2015, an estimated one-third of TGD people ($n = 1183$) had ever been tested, and 6–17% had been tested in the past year [6].

The purpose of this study is to describe the prevalence of testing for HIV in the past 12 months among black and white transgender people in a large nationally representative sample of U.S. adults.

We use data from the Behavioral Risk Factor Surveillance System (BRFSS) 2016–2019 survey downloaded in October of 2020 ($n = 2\,210\,291$). This annual survey by the CDC contains state-specific data on behavioural and health factors among noninstitutionalized adults. We include 38 states and Guam because they administered the optional Sexual Orientation and Gender Identity module at least once during the study period ($n = 1\,257\,867$). We excluded participants who had missing sex, sex identity or sexual orientation ($n = 164\,338$) and a missing response to the HIV testing question ($n = 72\,828$) for a final sample of 1 020 701 participants.

HIV test in the past year was calculated by subtracting the date of the last HIV test from the interview date. Respondents were considered cisgender if they did not identify as transgender, considered a sexual minority (S.M.) if they identified as gay, bisexual or something else, and considered heterosexual if they identified as straight. Respondents were considered high risk for HIV if they reported injecting any nonprescribed drug, treatment for a sexually transmitted disease or giving or receiving money or drugs in exchange for sex in the past year.

First, we estimated the predicted probability of getting an HIV test in the past year for TGD people, S.M. cisgender men, heterosexual cisgender men and heterosexual cisgender women, adjusting for high-risk status for HIV, age, race, educational attainment, marital status, health insurance status, household income, state and survey year. Next, to estimate predicted probabilities across sex groups by race, we ran the same model with an interaction term for race and sex group. Survey weights were applied. The analysis was conducted using Stata 15 (StataCorp LLC, College Station, Texas, USA) in November of 2020.

Fifteen percent of transgender people were tested for HIV in the past year from 2016 to 2019, compared with nearly a quarter of S.M. cisgender men and 10% of cisgender heterosexual men and women. Twenty-two percent of black and 13% of white transgender people, and 31% of black and 21% of white S.M. cisgender men were tested for HIV in the past year. An estimated 18–19% of black heterosexual cisgender men and women had a test for HIV in the past year compared with 7% of their white comparators (Fig. 1).

Only 15% of transgender people were tested for HIV in the past year, although this group is disproportionately affected by HIV. The higher testing rate for TGD people compared with cisgender heterosexual people may suggest success of expanded testing measures targeted to transgender communities. Nevertheless, the testing prevalence among TGD people is lower than cisgender S.M. men. Research focused on HIV testing has often conflated MSM and TGD women or excluded TGD people [7].

HIV testing rates were higher for black people of all sexes. Similar research indicates black adults were more likely than white adults to meet recommendations for HIV testing [8]. Specifically, the 22% of black TGD adults compared with 13% of white TGD adults may be another output of targeted testing of the black community.

Limitations include small sample sizes of transgender people, which made us unable to estimate the prevalence of HIV testing among male-to-female, female-to-male and sex nonconforming transgender people. Second, this sample does not include all states. However, the population not sampled was demographically similar; therefore, these estimates are likely representative of the U.S. population. Third, BRFSS does not allow us to determine previous HIV diagnoses; therefore, our results underestimate the true rate of HIV testing because they include people who already have an HIV diagnosis.

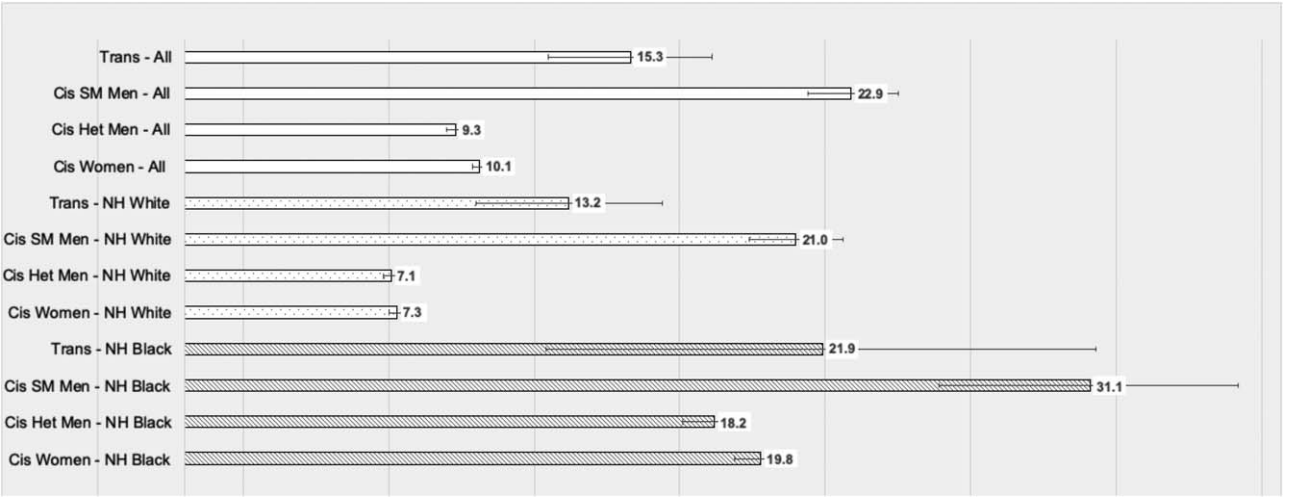

Fig. 1. Predicted probability of HIV testing in the past year by race, sex and sexual orientation. Data are from the Behavioral Risk Factor Surveillance System, 2016–2019. Error bars (lines) represent 95% confidence intervals. Model 1 (coefficients for all) are adjusted for HIV risk status, age, educational attainment, marital status, health insurance status, household income, state and year. Model 2 (white and Black) adds an interaction term between gender identity and race. Results for other race/ethnicities are not shown due to small sample sizes. Cis, cisgender; NH, non-Hispanic; SM, sexual minority; Trans, transgender.

Finally, assessment of sex identity may have created exposure misclassification bias, whereby some respondents with sex-minority identities other than those included in BRFSS might have been misclassified as cisgender, refused to answer or did not know/was not sure.

Existing HIV prevention strategies focused on other priority populations such as MSM might benefit from tailored or new modifications to reach transgender people, particularly black transgender people and those who have sex with cisgender sexual minority men.

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Conflicts of interest

There are no conflicts of interest.

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