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## Receipt of Prevention Services and Testing for Sexually Transmitted Diseases Among HIV-Positive Men Who Have Sex With Men, United States

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### Background:

Reported cases of bacterial sexually transmitted diseases (STDs) have steadily increased during the past 10 years, with disproportionate increases among men who have sex with men (MSM), particularly those with HIV (1). Bacterial STDs can increase genital HIV shedding and potentially facilitate HIV transmission (2), challenging efforts to end the HIV epidemic. In addition, although hepatitis C is not generally transmitted by sex, sexual transmission among HIV-positive MSM has been identified as an emerging challenge to its elimination (3).

### Objective:

To determine the prevalence of STD transmission risk behaviors and receipt of recommended prevention services and annual STD testing among MSM receiving care for HIV infection.

### Methods and Findings:

The Medical Monitoring Project is an annual, 2-stage, complex sample survey designed to produce nationally representative estimates of behavioral and clinical characteristics of adults in the United States diagnosed with HIV ([www.cdc.gov/hiv/statistics/systems/mmp/resources.html#Surveillance%20Reports](http://www.cdc.gov/hiv/statistics/systems/mmp/resources.html#Surveillance%20Reports)). Response rates were 100% (state or territory) and 45% (person). During 2017 and 2018, a total of 4222 sampled persons were interviewed, including 1323 men who reported anal intercourse with men in the past 12 months (MSM). Of these, 50 without a medical record review were excluded. Given that service delivery differs significantly by whether health care facilities are funded by the Ryan White HIV/AIDS Program (RWHAP) (4), we ascertained whether participants' HIV care facilities

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**Reproducible Research Statement:** *Study protocol:* Available at [www.cdc.gov/hiv/pdf/statistics/systems/mmp/CDC-HIV-MMP-Protocol-and-Appendices-2015.pdf](http://www.cdc.gov/hiv/pdf/statistics/systems/mmp/CDC-HIV-MMP-Protocol-and-Appendices-2015.pdf). *Statistical code:* Available from Dr. Weiser ([jweiser@cdc.gov](mailto:jweiser@cdc.gov)). *Data set:* The Medical Monitoring Project is a U.S. federal HIV surveillance activity, and thus data cannot be shared without restrictions because they are collected under a federal Assurance of Confidentiality. Data are available from the Centers for Disease Control and Prevention for researchers who meet the criteria for access to confidential data. Data requests may be sent to Dr. Shouse ([zxz3@cdc.gov](mailto:zxz3@cdc.gov)).

received any RWHAP funding. The RWHAP is a federally funded program providing a comprehensive system of HIV primary medical care, essential support services, and medications for low-income persons with HIV who are uninsured and underserved. Four MSM who received care at facilities with unknown RWHAP funding status were excluded. Thus, the analytic data set included 1269 records. We assessed self-reported risk behaviors for STD transmission, including sexual behaviors, drug and alcohol use before or during sex, and receipt of HIV or STD prevention services during the past 12 months. Records with missing data for individual interview variables (about 1%) were excluded from each analysis. We assessed medical record documentation of testing for gonorrhea and chlamydia (including anatomical site), syphilis, and hepatitis C during the past 12 months. All tests documented in the primary HIV medical record were recorded, including those ordered at other facilities. We compared the prevalence of all measures among patients at RWHAP-funded versus non-RWHAP-funded facilities with Rao-Scott  $\chi^2$  tests and adjusted estimates for complex survey design. All analyses were done with SAS software, version 9.4 (SAS Institute).

An estimated 64.5% (95% CI, 60.3% to 68.6%) of MSM reported having condomless anal intercourse in the past 12 months; before or during sex, 46.9% (CI, 43.0% to 50.8%) drank alcohol, 35.8% (CI, 32.2% to 39.4%) used noninjection drugs, and 3.7% (CI, 2.2% to 5.2%) injected drugs. Two thirds (61.1% [CI, 53.5% to 70.6%]) received care at RWHAP-funded facilities, and 37.9% (CI, 29.4% to 46.5%) received care at non-RWHAP-funded facilities. There were no clinically relevant differences in risk behaviors by facility RWHAP funding status (not shown in the figures). Compared with patients at non-RWHAP-funded facilities, higher percentages of patients at RWHAP-funded facilities received all assessed prevention services during the past 12 months (Figure 1). The prevalence of STD testing during the past 12 months was higher among patients at RWHAP-funded facilities, although the differences in testing for pharyngeal gonorrhea and anorectal chlamydia were not statistically significant (Figure 2).

## Discussion:

Two thirds of sexually active MSM receiving HIV care had condomless anal sex in the past year, putting them at risk for acquiring STDs and potentially transmitting HIV and STDs, including hepatitis C. However, many did not receive recommended prevention services and STD testing, particularly testing for extragenital gonorrhea and chlamydia, which is essential for reducing STDs in this population. Risk behaviors for acquiring STDs were similar among patients at RWHAP-funded and non-RWHAP-funded facilities, but those at RWHAP-funded facilities were more likely to receive recommended STD prevention services and STD testing. Study limitations include possible social desirability bias and limited recall. We did not capture STD tests ordered at outside facilities and not documented in the primary HIV medical record, which may have resulted in underestimation of testing prevalence. However, our findings accurately describe the information available to clinicians responsible for providing care that is consistent with national recommendations. Meeting public health goals for preventing STDs, and in turn ending the HIV epidemic, may require closer adherence to guidelines for delivering prevention services and STD testing to HIV-positive MSM (5), especially for those receiving care at non-RWHAP-funded facilities.

Evidence-based strategies for accomplishing these objectives include using clinical reminders, nurse-led programs, opt-out testing, and self-swabbing for gonorrhea and chlamydia; monitoring provider performance; and reducing stigma with language emphasizing sexual health over disease ([www.cdc.gov/std/program/interventions.htm](http://www.cdc.gov/std/program/interventions.htm)).

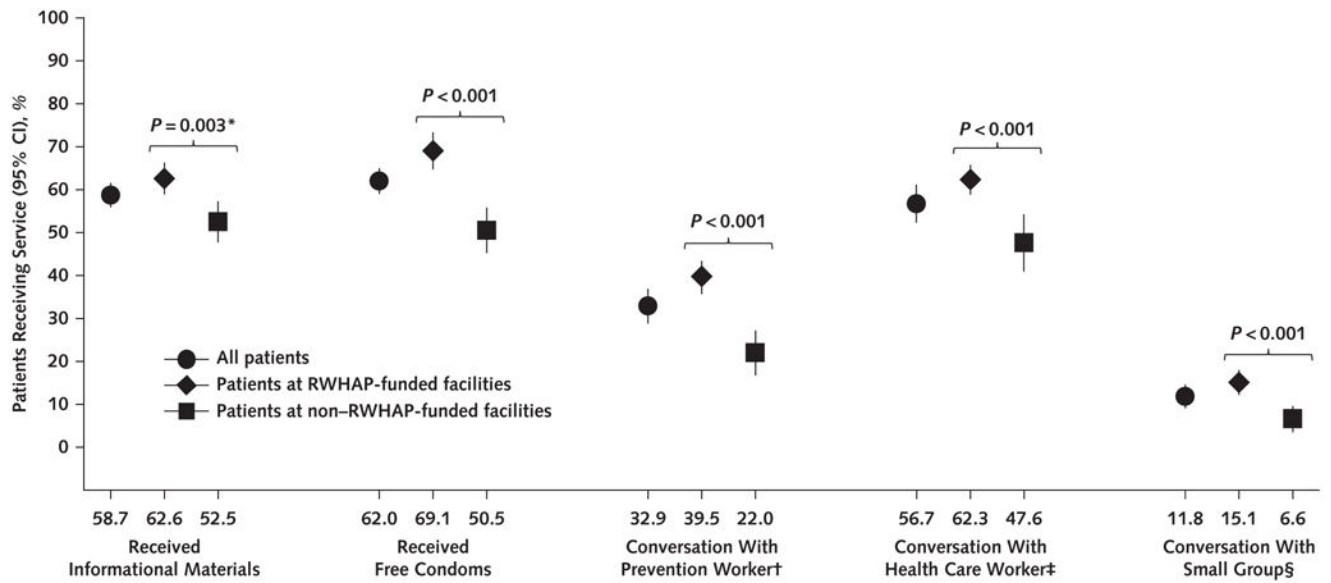
## Acknowledgments

**Disclaimer:** The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention or the authors' affiliated institutions.

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**Figure 1. Receipt of services during the past 12 mo to prevent HIV and STD transmission among sexually active, HIV-positive MSM, overall and by RWHAP funding status of the health care facility.**

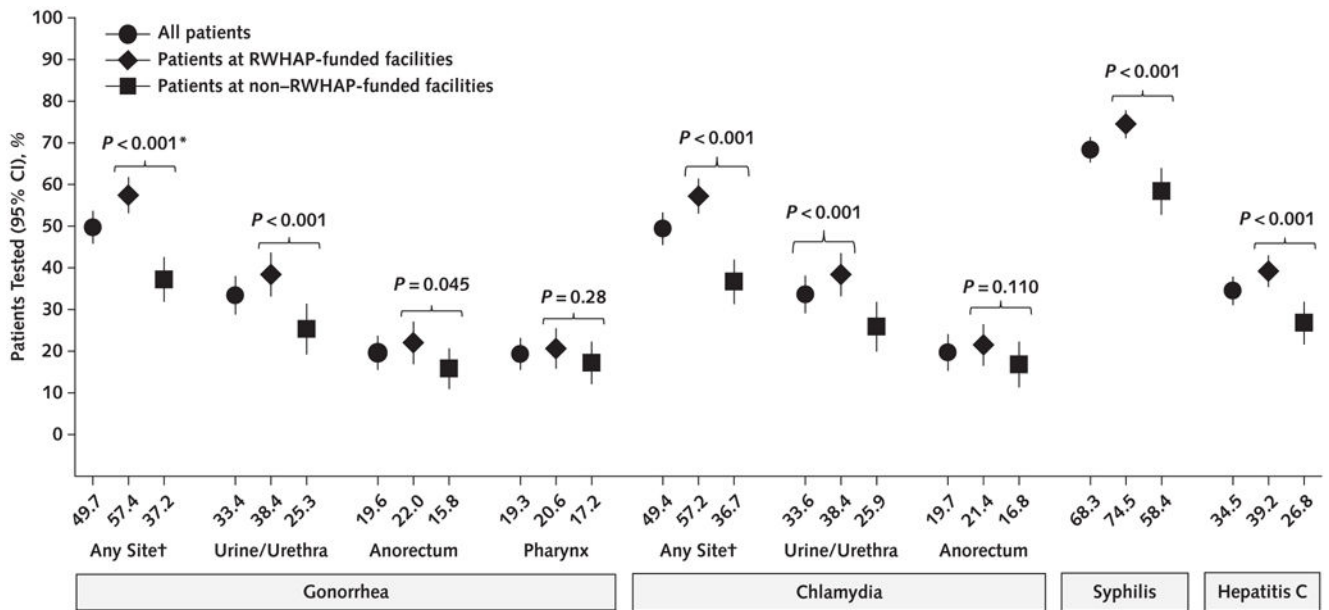
Medical Monitoring Project, 2017-2018 ( $n = 1269$ ). MSM = men who have sex with men; RWHAP = Ryan White HIV/AIDS Program; STD = sexually transmitted disease.

\* Rao-Scott  $\chi^2$   $P$  values compare percentages of patients at RWHAP-funded vs. non-RWHAP-funded facilities.

† Conversation with an outreach worker, counselor, or prevention worker about protecting oneself and partners from HIV and STDs.

‡ Conversation with a physician, nurse, or other health care worker about protecting oneself and partners from HIV and STDs.

§ Conversation with an organized small group about protecting oneself and partners from HIV and STDs.



**Figure 2. Receipt of STD testing among sexually active, HIV-positive MSM, overall and by RWHAP funding status of the health care facility.**

Medical Monitoring Project, 2017-2018 ( $n = 1269$ ). MSM = men who have sex with men;

RWHAP = Ryan White HIV/AIDS Program; STD = sexually transmitted disease.

\* Rao-Scott  $\chi^2$   $P$  values compare percentages of patients at RWHAP-funded vs. non-RWHAP-funded facilities.

† Includes urine/urethra, anus, pharynx, and other/unspecified.