

Opportunities for HIV Prevention: Screening for Rectal Chlamydia and Gonorrhea among Men Who Have Sex With Men in New York City

HIV infection continues to disproportionately affect gay, bisexual and other men who have sex with men (MSM) in the United States.¹ In New York City (NYC), almost three-quarters of new HIV diagnoses among men are among MSM. Black men are disproportionately affected by HIV. Among males ages 13 to 59, the diagnosis rate among Black males was 1.6 times higher than among Latino males and more than three times higher than among White males.²

MSM in NYC also have high rates of bacterial sexually transmitted infections (STIs), such as gonorrhea, chlamydia, and primary and secondary syphilis.^{3,4} The use of condoms during anal sex reduces the risk of HIV and other STIs. Infection with a rectal bacterial STI in a male patient indicates the practice of receptive anal sex without condoms, and diagnoses of rectal STIs have been associated with an especially high risk

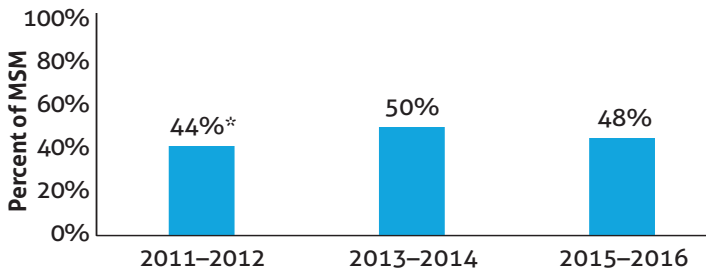
for HIV infection.^{5,6} Most rectal bacterial infections among MSM are asymptomatic.

The NYC Health Department promotes the use of condoms and HIV pre-exposure prophylaxis (PrEP) for all New Yorkers at high risk for HIV. Identification of HIV-negative MSM with rectal STIs is critical for maximizing use of PrEP, a highly effective intervention to prevent HIV. For individuals on PrEP who cannot or do not use condoms consistently, the NYC Health Department encourages frequent screening for bacterial STI to detect and treat these infections.

This report examines trends in the practice of anal sex without condoms and rectal gonorrhea and chlamydia diagnoses among NYC MSM, and presents estimates of HIV risk among MSM with rectal gonorrhea and/or chlamydia. Recommendations for health care providers on improving STI screening and offering PrEP are also included.

Approximately half of New York City MSM do not use condoms during anal sex

Anal sex without condoms during the past 12 months among men who have sex with men (MSM), ages 18 to 64 years, New York City, 2011-2016



- In 2011-2012, 44%* of MSM who reported engaging in anal sex in the previous year reported never or sometimes using condoms when they had anal sex. In 2013-2014, half of MSM (50%) reported inconsistent condom use.
- In 2015-2016, almost half (48%) of MSM who reported engaging in anal sex in the previous year reported not using condoms the last time they had anal sex.

Data are age-adjusted to the US 2000 standard population. Data from 2011-2012 and 2013-2014 represent MSM who reported never or sometimes using a condom; 2015-2016 data represent MSM who reported they did not use a condom at last anal sex.
Source: NYC Community Health Surveys, 2011-2016

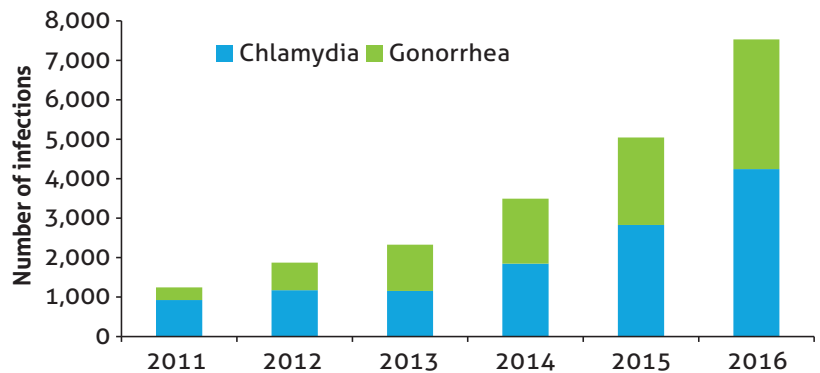
* Estimate marked with an asterisk should be interpreted with caution. Estimate's 95% Confidence Interval half-width is greater than 10, making the estimate potentially unreliable.

DATA SOURCES: The NYC Community Health Survey (CHS) is conducted annually by the NYC Health Department with approximately 9,000 to 10,000 non-institutionalized adults ages 18 and older. Data presented are from 2011 to 2016. The CHS has included adults with landline phones since 2002 and, starting in 2009, has included adults who can be reached by cell phone. For more survey details, visit nyc.gov/health/survey. NYC Health Department Bureau of STD Control surveillance data represent cases of chlamydia and gonorrhea reported from 2011 to 2016. NYC Health Department Sexual Health Clinic data include data on persons attending public sexual health clinics in NYC from 2008 to 2016. NYC Health Department Bureau of HIV/AIDS Prevention and Control surveillance data represent diagnoses of HIV reported from 2008 to 2015.

Screening is critical to identify more rectal gonorrhea and chlamydia infections

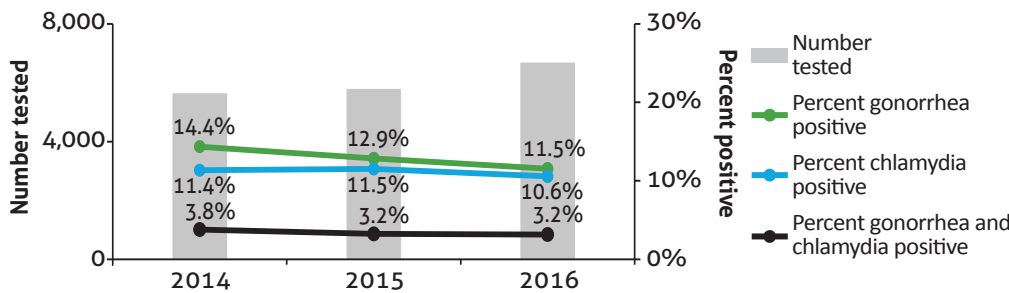
- From 2011 to 2016, there were steady increases in the number of rectal gonorrhea and chlamydia diagnoses reported to the NYC Health Department.
- This reflects increases in the number of laboratories that offer rectal testing and increases in the number of health care providers who tested patients for rectal STIs, or increased population burden.

Reported cases of rectal gonorrhea and chlamydia among men, New York City, 2011-2016



Source: NYC Health Department Bureau of STD Control surveillance data, 2011-2016

Number tested and prevalence of rectal gonorrhea and chlamydia among men who have sex with men attending Health Department clinics, New York City, 2014-2016



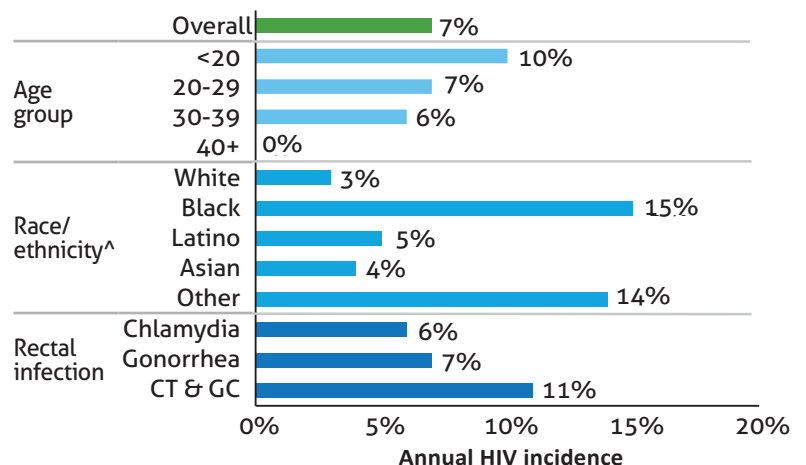
Source: NYC Health Department Sexual Health Clinics, 2014-2016

- At NYC Health Department Sexual Health Clinics, all patients reporting receptive anal sex are screened for rectal STI (more than 5,000 MSM per year). From 2014 to 2016, more than 10% had rectal chlamydia, and 3% had concurrent infections each year.

There is a high risk of HIV diagnosis following rectal gonorrhea and/or chlamydia diagnoses⁶

- One in 15 (7%) HIV-negative MSM who were diagnosed with rectal gonorrhea or rectal chlamydia (or both) in NYC Health Department Sexual Health Clinics were diagnosed with HIV within a year.
- HIV incidence was highest among Black MSM with rectal gonorrhea and/or chlamydia (15%; one in seven Black MSM with rectal infections).
- HIV incidence was also high among MSM with concurrent rectal gonorrhea and chlamydia infection (11%; one in ten MSM with concurrent rectal infections).

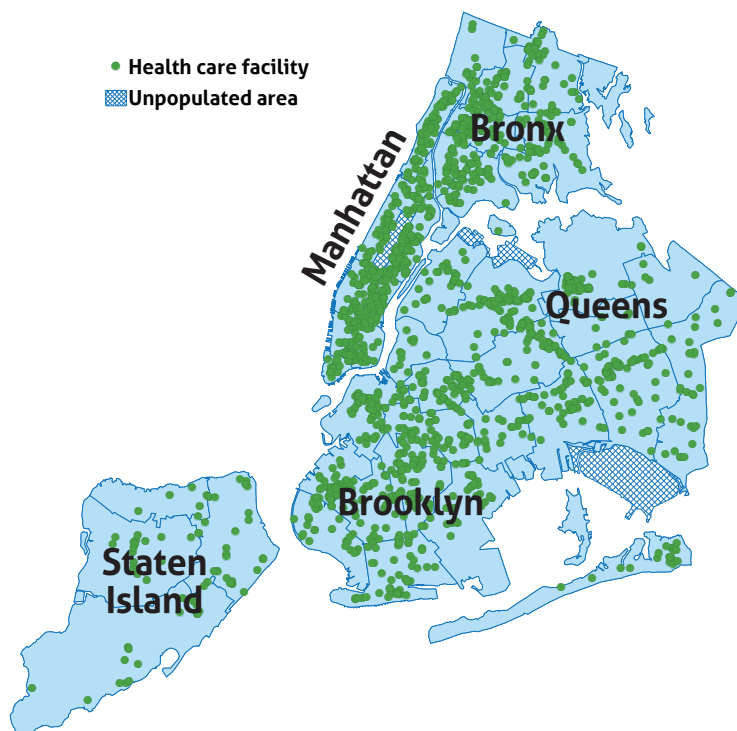
Annual HIV incidence among MSM with a history of rectal gonorrhea and/or chlamydia, New York City, 2008-2011



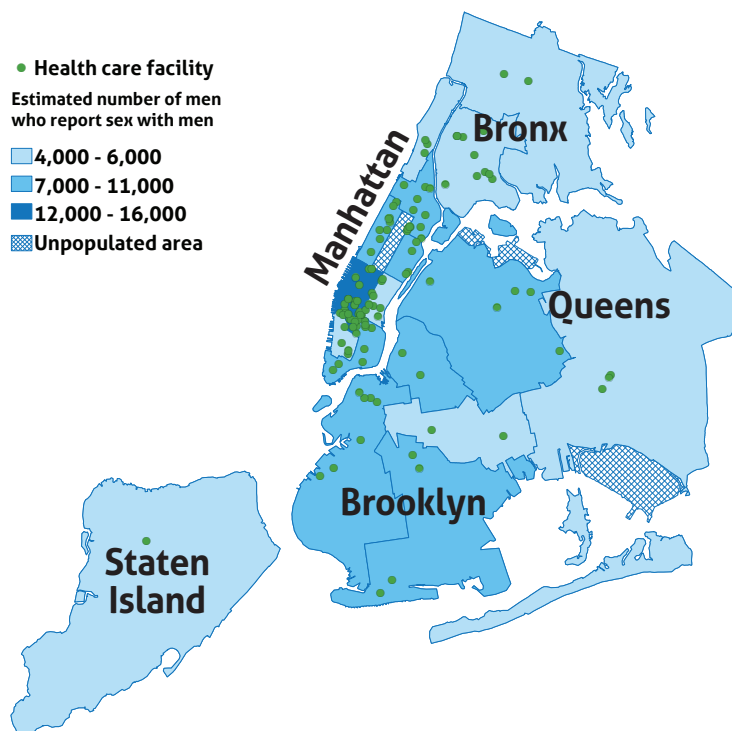
MSM=men who have sex with men.
[^]White, Black, Asian, and Other race categories exclude Latino ethnicity.
 Latino includes Hispanic or Latino of any race. Other race includes persons with missing or multiple races.
 CT= chlamydia; GC= gonorrhea
 Sources: NYC Health Department Sexual Health Clinic data, 2008-2011 and NYC Health Department HIV/AIDS Prevention and Control surveillance data, 2008-2011

Despite gonorrhea and chlamydia screening recommendations for men and women, few New York City providers diagnose rectal gonorrhea and chlamydia among HIV-negative men

Health care facilities reporting urogenital gonorrhea and/or chlamydia diagnoses among women 15 to 24 years, 2015



Health care facilities reporting rectal gonorrhea and/or chlamydia diagnoses among HIV-negative men (2015), and estimated MSM population by neighborhood



The United Hospital Fund classifies New York City into 42 neighborhoods, comprised of contiguous ZIP codes.
 Source: NYC Health Department Bureau of STD Control surveillance data, 2015

MSM=men who have sex with men. The United Hospital Fund classifies New York City into 42 neighborhoods, comprised of contiguous ZIP codes, several of which were combined to create the 17 neighborhoods presented here.
 Sources: NYC Health Department Bureau of STD Control surveillance data, 2015, NYC Health Department HIV/AIDS Prevention and Control surveillance data, 2015, and NYC Community Health Survey, 2012-2016

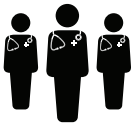
- In 2015, more than 1,700 health care providers and facilities across NYC reported diagnoses of urogenital chlamydia and/or gonorrhea among women ages 15 to 24 years.
- This indicates adherence to national screening guidelines for annual chlamydia and gonorrhea screening of all sexually active women less than 25 years.⁷
- Despite national, state, and local recommendations to screen MSM who engage in receptive anal sex for rectal gonorrhea and chlamydia at least annually,⁷⁻⁸ diagnoses among HIV-negative men in NYC were scarce among health care facilities across the city. Only 118 facilities reported at least one case of rectal gonorrhea or chlamydia among HIV-negative MSM in 2015.
- In 2015, the majority of rectal gonorrhea and chlamydia diagnoses in NYC were reported by providers and facilities in neighborhoods where many MSM live. However, there were other neighborhoods in parts of Queens and Brooklyn where a large number of MSM live, but where very few diagnoses were reported, indicating a need for expanding availability and access to rectal STI screening.

Recommendations



All New Yorkers should:

- Know how to find health care providers who are knowledgeable about the sexual health and HIV prevention services that they need. Use the [NYC Health Map](#) to find providers.
- Know that the NYC Health Department's eight [Sexual Health Clinics](#) provide low- to no-cost services, including testing and treatment for STIs, including HIV, to anyone 12 years and older, regardless of immigration or insurance status, on a first come, first served basis, six days a week.
- Be open and honest with their doctors to get the most effective health care services; this means [telling their doctors everything](#), including details of their sex lives and drug use.



All health care providers should:

- Take a [nonjudgmental and confidential sexual history](#) that ascertains the sex of a patient's sex partners and anatomic sites of sexual exposure, and provide appropriate screening tests based on risk and sites of sexual exposure.
- [Screen all sexually active MSM](#) for syphilis, chlamydia and gonorrhea at least once a year. MSM who have multiple or anonymous partners, and MSM who are on PrEP, should be screened more frequently (e.g., at three to six month intervals).
- Routinely screen male patients who report engaging in receptive anal intercourse for rectal chlamydia and gonorrhea whether or not they have symptoms, and regardless of condom use, as most bacterial rectal infections among MSM are asymptomatic.
- Assure that the laboratories they use perform nucleic acid amplification testing (NAATs) on rectal specimens. A list of [local laboratories](#) that perform rectal NAATs is available on the NYC Health Department website.
- Use modifier codes when billing for rectal testing to indicate that different anatomic sites were tested at the same visit. This enables reimbursement.
- Consider frequent HIV testing (e.g., every three to six months) for HIV-negative men with diagnosed rectal STIs, given high risk for HIV acquisition.
- Offer PrEP to HIV-negative patients who are infected with rectal gonorrhea and/or chlamydia, or refer them to PrEP providers. The NYC Health Department's [PrEP and PEP Action Kit](#) offers HIV prevention resources for providers as well as patients.

REFERENCES

1. Centers for Disease Control and Prevention. *HIV Surveillance Report, 2015*; vol 27. cdc.gov/hiv/library/reports/hiv-surveillance.html. Published November 2016. Accessed October 2017.
2. HIV Epidemiology and Field Services Program. *HIV Surveillance Annual Report, 2016*. New York City Department of Health and Mental Hygiene: New York, NY. December 2017.
3. Pathela P, Braunstein SL, Schillinger JA, Shepard C, Sweeney M, Blank S. Men who have sex with men have a 140-fold higher risk for newly diagnosed HIV and syphilis compared with heterosexual men in New York City. *J Acquir Immune Defic Syndr*. 2011;58: 408–416.
4. The New York City Department of Health and Mental Hygiene Bureau of Sexually Transmitted Disease Control Quarterly Report (Vol. 14, No. 4 December 2016).
5. Bernstein KT, Marcus JL, Nieri G, Philip SS, Klausner JD. Rectal gonorrhea and chlamydia reinfection is associated with increased risk of HIV seroconversion. *J Acquir Immune Defic Syndr*. 2010;53(4):537-543.
6. Pathela P, Braunstein SL, Blank S, Schillinger JA. HIV incidence among men with and without sexually transmitted bacterial rectal infections: estimates from matching against an HIV case registry. *Clin Inf Dis* 2013;57(8):1203–9.
7. Centers for Disease Control and Prevention. Sexually Transmitted Diseases Treatment Guidelines, 2015. *MMWR Recomm Rep* 2015;64(No. RR-3): 1-137.
8. Chun E, Blank S. Preventing sexually transmitted infections. *City Health Information*. 2013;32(4):19-27.



Authors: Preeti Pathela, Jennifer Sanderson Slutsker, Julia A. Schillinger

Acknowledgments: Liza King, Charon Gwynn, Hannah Gould, Kinjia Hinterland, Kelly Jamison, Susan Blank

Suggested citation: Pathela P, Slutsker JS, Schillinger JA, Opportunities for HIV Prevention: Screening for Rectal Chlamydia and Gonorrhea among Men Who Have Sex With Men in New York City. *NYC Vital Signs* 2018, 17(3); 1-4.

Copyright ©2018 NYC Department of Health and Mental Hygiene. Prepared by NYC Department of Health and Mental Hygiene.

All Vital Signs are available at NYC.gov/health. To contact NYC Vital Signs, e-mail VitalSigns@health.nyc.gov.