Sexually Transmitted Infections (STI)
The Local (NYC) Perspective

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Learning Objectives
After attending this presentation, learners will be able to:
▪ Describe local NYC trends in syphilis, gonorrhea (GC), and chlamydia (CT) in NYC, and in relation to HIV
▪ Identify gaps in screening for CT, GC infections among men who have sex with men (MSM)
▪ Use an incident STI diagnosis as an opportunity to discuss HIV testing and Preexposure prophylaxis (or treatment and Undetectable = Untransmittable (U=U)) with patients

Outline
▪ Trends in STI epidemiology in NYC
▪ Current, local NYC issues in syphilis, gonorrhea (GC) & chlamydia
▪ Local Health Department Resources
Reported rates CT, GC, P&S syphilis, and HIV (per 100,000) New York City, 2007-2018*

![Graph showing reported rates CT, GC, P&S syphilis, and HIV (per 100,000) New York City, 2007-2018.]

Sexually Transmitted Infections, 2017-2018, NYC & U.S.

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>(P&amp;S) Primary and Secondary Syphilis</td>
<td>1,796</td>
<td>2,024</td>
<td>↑ 13%</td>
<td>↑ 1%</td>
</tr>
<tr>
<td>Latent Syphilis</td>
<td>6,192</td>
<td>6,348</td>
<td>↑ 3%</td>
<td>↑ 1%</td>
</tr>
<tr>
<td>Gonorrhea</td>
<td>23,479</td>
<td>26,068</td>
<td>↑ 11%</td>
<td>↑ 1%</td>
</tr>
<tr>
<td>Chlamydia</td>
<td>71,660</td>
<td>72,335</td>
<td>↑ 1%</td>
<td>↑ 1%</td>
</tr>
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</table>

Source: Bureau of STI, NYC DOHMH

↑g bacterial STI & ↓g HIV rates… so what?

- 1 in 42 HIV-neg MSM attending NYC STD Clinics were diagnosed with HIV within a year²
- 1 in 15 HIV-neg MSM (1 in 7 Black MSM) diagnosed w/ anorectal chlamydia/gonorrhea in NYC STD Clinics were diagnosed with HIV within a year²
- 1 in 20 HIV-neg MSM diagnosed with P&S Syphilis in NYC were diagnosed with HIV within a year²

So……

HIV prevention opportunities exist w/ dx of bacterial STI

Reported P&S syphilis case rates (per 100,000), by sex, New York City, 2000-2018*

*2018 data are preliminary

Reported male P&S syphilis case rates (/100,000), by race/ethnicity, New York City, 2000-2018

Source: Bureau of STI, NYC DOHMH
Reported sex of sex partners, male P&S syphilis cases, by race/ethnicity, New York City, 2018*

Reported congenital syphilis (CS) cases by vital status, and early syphilis (ES) rate (/100,000 women), NYC, 2010-2018

Gonorrhea & Chlamydia
Reported gonorrhea case rates (/100,000), by sex, New York City, 2000-2018*

Reported chlamydia case rates (per 100,000), by sex, New York City, 2000-2018*

Reported gonorrhea case rates (per 100,000), by race/ethnicity, New York City, 2000-2018*

* Source: Bureau of STI, NYC DOHMH
Reported chlamydia case rates (per 100,000), by race/ethnicity, New York City, 2000-2018*

Extragenital Ct/GC infections associated w/ concurrent negative urethral tests among MSM

Reported male rectal gonorrhea and chlamydia cases, New York City, 2011-2018*
Sentinel Lymphgranuloma Surveillance, NYC MSM attending NYC Sexual Health Clinics (since 2008)

- Rectal Ct/GC NAAT testing for all men reporting receptive anal sex, at NYC PH Lab
- Ct-positive male rectal swabs archived, and batch shipped to Wadsworth Lab (NYS PHL)
- Multiplex PCR targeting omp1 gene confirms Ct-positive sample as L-2
- 2008-2011 (9-12% L-2) → 2015 (18% L-2)
- L-2 infection a/w: HIV status, rectal symptoms (14% asymptomatic)

In NYC SHC, presumptive treatment for LGV:

- Patients with rectal symptoms suggestive of proctitis, or
- Asymptomatic HIV positive patients with lab-confirmed rectal Ct infection

Source: Bureau of STI, NYC DOHMH

Neisseria gonorrhoea isolates with reduced susceptibility to select antibiotics¹, NYC DOHMH Sexual Health Clinics, 2013-2019*

<table>
<thead>
<tr>
<th>Year</th>
<th>Ceftriaxone (MIC)</th>
<th>Cefixime (MIC)</th>
<th>Azithromycin (MIC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>24 15 8 3</td>
<td>16 7 4 28</td>
<td>4 1 2 49</td>
</tr>
<tr>
<td>2014</td>
<td>13 11 6 2</td>
<td>11 9 6 5</td>
<td>1 2 4 1</td>
</tr>
<tr>
<td>2015</td>
<td>10 7 6 3</td>
<td>10 7 6 5</td>
<td>1 2 4 1</td>
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<tr>
<td>2016</td>
<td>10 7 6 3</td>
<td>10 7 6 5</td>
<td>1 2 4 1</td>
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<td>2017</td>
<td>10 7 6 3</td>
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<tr>
<td>2018</td>
<td>10 7 6 3</td>
<td>10 7 6 5</td>
<td>1 2 4 1</td>
</tr>
<tr>
<td>2019</td>
<td>10 7 6 3</td>
<td>10 7 6 5</td>
<td>1 2 4 1</td>
</tr>
</tbody>
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High MIC: 0.32 1.5 16 0.125 0.5 ≥256
Low MIC: 0.32 0.25 2.0 0.125 0.25 2.0
Mode: 0.32 0.25 2.0 0.125 0.5 2.0 0.125 0.25 2.0

¹ Expanded criteria for collection of specimens for GC culture was implemented at 6 additional Sexual Health Clinics between May-July 2018
*Results received through 8/21/2019

Source: Bureau of STI, NYC DOHMH

NYC Health Department Resources
NYC Health Department Resources

- STI case reporting, NYC: electronic or phone
- NYC Syphilis Registry: Patient results & treatment history
  Google: “NYC DOHMH syphilis registry check”
- STD Quarterly Reports: Citywide and SHC data
- NYC Health Alert Network (HAN): public health notices for providers
  www.nyc.gov/health/nycmed
- Screening & Treatment Guidelines
- STD Clinical Consultations, 347-396-7200

Thank You!
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Question-and-Answer