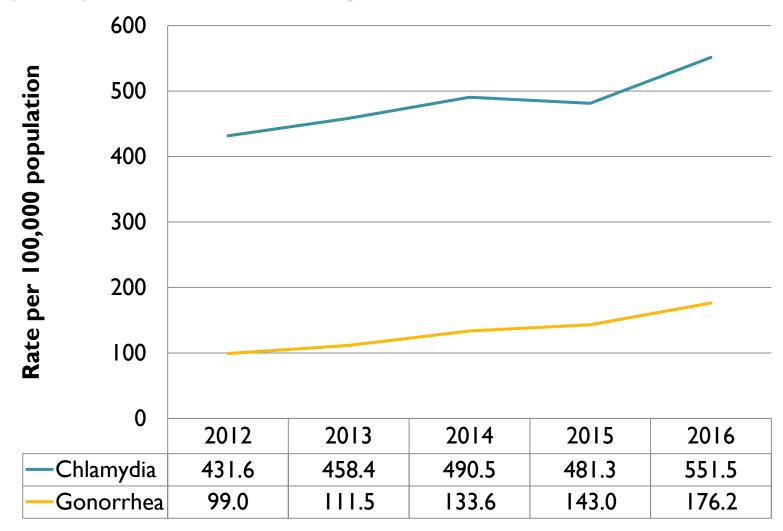
# Extragenital Chlamydia and Gonorrhea

Angel Stachnik, MPH
Sr. Epidemiologist
Office of Epidemiology and Disease Surveillance

# Rate of Chlamydia (CT) and Gonorrhea (GC), Clark County, 2012-2016



### Possible Reasons for the Increase

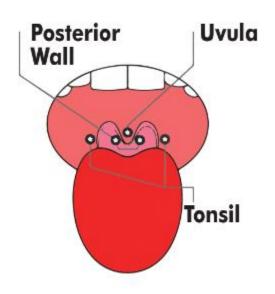
- Better surveillance processes
- Increase in Testing
- Hook-up sites and phone apps (e.g. Grindr, Adam4Adam, Jack'd, etc...)
- Untreated or Undertreated infections
- Missed diseases because all sites of exposures are not being screened.

## **Urogenital Testing**

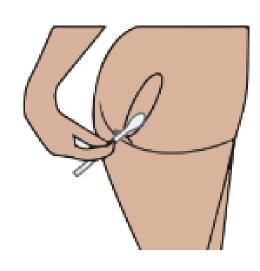
- Urethra
- Cervix
- Vagina
- Urine

## Extragenital Testing

#### O Areas to swab







Rectal

### CDC's Current Recommendations<sup>1</sup>

 Screen Men who have sex with Men (MSM) who had receptive anal sex within the past year for rectal CT/GC.

 Screen MSM who had receptive oral sex within the past year for pharyngeal GC.

Test method: Nucleic Acid Amplification
 Test

# Demographics of CT/GC Testing Population, SNHD SHC, 2016

- 9600 people
  - 53% male, 47% female, < 1% transgender</li>
  - 38% hispanic, 26% white, 23% black
  - 48% 20-29 yr olds
  - 59% heterosexual, 22% unknown, 13% MSM
  - 6% HIV+
  - MSM- higher proportion extragenital tests vs. urogenital tests
- I1,363 CT and GC test visits

 Common infections at pharyngeal and rectal sites in MSM

### Positivity

	Published Studies <sup>2-4</sup>	Our Study
Pharyngeal CT	2-3%	3%
Rectal CT	7-14%	19%
Pharyngeal GC	5-11%	13%
Rectal GC	9-18%	18%

- 2. Rectal CT/GC infections are associated with risk of acquiring HIV infection
  - I out of I5 MSM diagnosed with HIV I year after rectal CT/GC diagnosis<sup>5</sup>
  - 8 fold increase with 2 prior rectal CT/GC infection<sup>6</sup>

- 3. HIV positive status is significantly associated to prevalence of rectal CT and GC infections
  - Rectal CT higher among HIV positive MSM than HIV negative MSM

HIV positive MSM was  $2.18 \times (95\% \text{ CI: } 1.04\text{-}4.60)$  as likely as HIV negative MSM to acquire rectal CT infection<sup>7</sup>

Our study: 1.56 x (95% CI: 1.15-2.11)

- 4. Substantial amount of disease can be missed if extragenital sites are not screened.
  - 13-85% of CT infections and 30-70% of GC infections were found only in extragenital sites in MSM<sup>2,4,8,9</sup>

## Our Study: Potentially Missed Infections

### MSM:

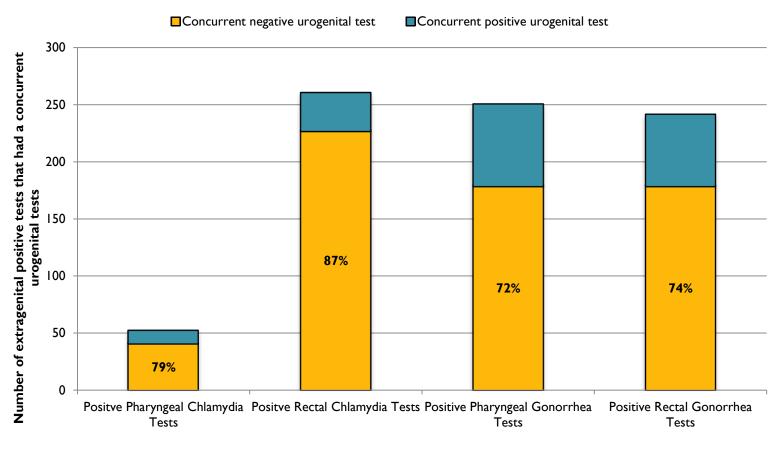
- 57% of CT infections among MSM
- 48% of GC infections among MSM

### Overall:

- 12% of all CT infections
- 24% of all GC infections

...would have been missed if only urogenital tests were done!

## Proportion of Extragenital GC/CT Infection with Concurrent Urogenital Tests



## Barriers to Extragenital Testing 10

 Physicians are uncomfortable taking sexual history

Extragenital tests are not FDA approved.

### **OEDS's Role**

Technical Bulletin

- Focus outreach efforts to advocate for extragenital testing
  - Taking proper sexual history
  - Ordering of the correct swab kits
  - Proper swabbing techniques
    - Self-collection vs. provider-collection

#### References

- Centers for Disease Control and Prevention. Sexually Transmitted Diseases Treatment Guidelines, 2015: Screening Recommendations and Considerations Referenced in Treatment Guidelines and Original Sources. Atlanta: U.S. Department of Health and Human Services; 2015. Available at http://www.cdc.gov/std/tg2015/screening-recommendations.htm.
- 2. Garner AL, Schembri G, Cullen T, Lee V. Should we screen heterosexuals for extra-genital chlamydial and gonococcal infections? International Journal of STD & AIDS. 2015;26(7):462-466. doi:10.1177/0956462414543120.
- Trebach JD, Chaulk CP, Page KR, Tuddenham S, Ghanem KG. Neisseria gonorrhoeae and Chlamydia trachomatis Among Women Reporting Extragenital Exposures. Sexually Transmitted Diseases. 2015;42(5):233-239. doi:10.1097/olq.000000000000248.
- 4. Patton ME, Kidd S, Llata E, et al. Extragenital Gonorrhea and Chlamydia Testing and Infection Among Men Who Have Sex With Men--STD Surveillance Network, United States, 2010-2012. Clinical Infectious Diseases. 2014;58(11):1564-1570. doi:10.1093/cid/ciu184.

#### References

- 5. Pathela P, Braunstein SL, Blank S, Schillinger JA. HIV Incidence Among Men With and Those Without Sexually Transmitted Rectal Infections: Estimates From Matching Against an HIV Case Registry. Clinical Infectious Diseases. 2013;57(8):1203-1209. doi:10.1093/cid/cit437.
- 6. Bernstein KT, Marcus JL, Nieri G, Philip SS, Klausner JD. Rectal Gonorrhea and Chlamydia Reinfection Is Associated With Increased Risk of HIV Seroconversion. JAIDS Journal of Acquired Immune Deficiency Syndromes. 2009;53(4):1-7. doi:10.1097/qai.0b013e3181c3ef29.
- 7. Turner AN, Reese PC, Ervin M, Davis JA, Fields KS, Bazan JA. HIV, Rectal Chlamydia, and Rectal Gonorrhea in Men Who Have Sex With Men Attending a Sexually Transmitted Disease Clinic in a Midwestern US City. Sexually Transmitted Diseases. 2013;40(6):433-438. doi:10.1097/olq.0b013e31828fd163.

#### References

- 8. Kent CK, Chaw JK, Wong W, et al. Prevalence of Rectal, Urethral, and Pharyngeal Chlamydia and Gonorrhea Detected in 2 Clinical Settings among Men Who Have Sex with Men: San Francisco, California, 2003. Clinical Infectious Diseases. 2005;41(1):67-74. doi:10.1086/430704.
- 9. Ali F, Kaushik GN, Carr ND, Hayes E, Plax KL. Screening for Urethral, Rectal and Pharyngeal Gonorrhea & Chlamydia among Asymptomatic Male Adolescents and Young Men who have Sex with Men. Journal of Family Medicine and Disease Prevention. 2016;2(4):1-4. doi:10.23937/2469-5793/1510046.
- 10. Smith W. Not a Moment to Lose: ExtraGenital STDs and Gay Men's Sexual Health. Promoting Sexual Health through STD Prevention. April 2015. http://www.ncsddc.org/blog/not-moment-lose-extragenital-stds-and-gay-men%E2%80%99s-sexual-health. Accessed April 27, 2017.

Thank you!

Questions?