

# Chlamydia Trends and Updates

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# Adolescent Sexual Behaviors

Among U.S. high school students surveyed in 2013 YRBSS

- 47% had ever had sexual intercourse
- 34% had had sexual intercourse during the previous 3 months
  - 41% did not use a condom the last time they had sex.
- Only 22% of sexually experienced students have ever been tested for HIV.



# STI Risk Factors

- Adolescence
  - Biologic, behavioral and cultural
- New or multiple sex partner
- History of STD
- Presence of another STD
- Oral contraceptive user
  - presence of columnar epithelial cells on the ectocervix (ectopy)
- Lack of barrier contraception



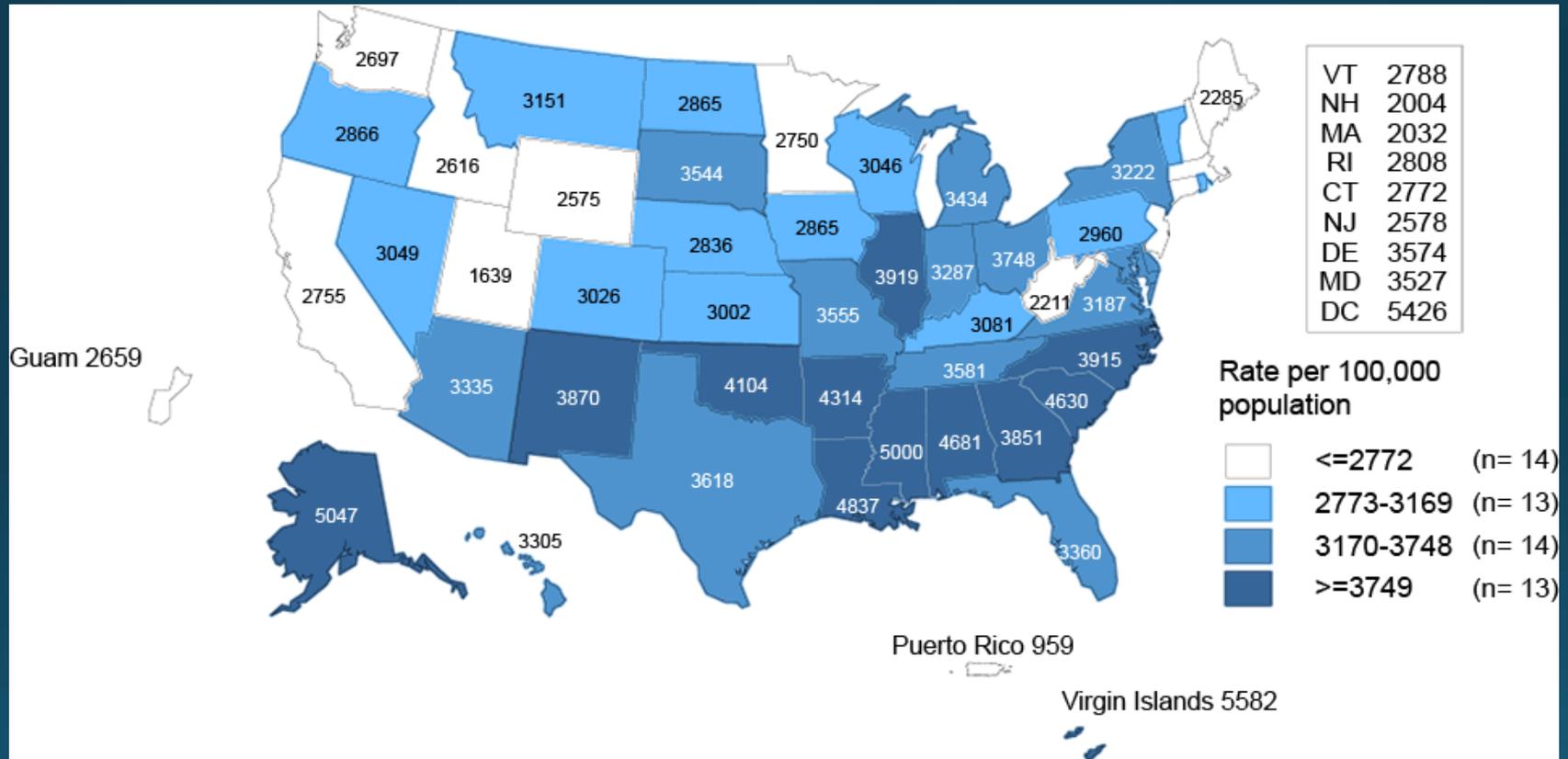
# Impact



- Chlamydia and gonorrhea
  - most commonly reported sexually transmitted infections
- In 2012, more than 1.4 million cases of chlamydia were reported to the Centers for Disease Control and Prevention (CDC).
- Chlamydial infections are **10 times** more prevalent than gonococcal infections (4.7% vs. 0.4%) in women aged 18 to 26 years<sup>2</sup>.
- STIs in the United States are associated with an annual cost of almost \$16 billion<sup>8</sup>.
  - Chlamydia associated costs of \$516.7 million

# 2014 Chlamydia:

Rate of reported cases women 15-24 year old



# Reported Cases 2013-2014

- 15–24 years of age, women and men
  - 948,102 reported cases of chlamydial infection
  - Represents 66% of all reported chlamydia cases
  - Rate decreased 3.8% in age 15-19
  - Rate increased 2.3% in age 20-25
- 15-19 years of age
  - Women – rate decreased 4.2%
  - Men rate decrease 0.6%



# 2014

## Most Reported Chlamydia and Gonorrhea Infections Occur among 15–24-Year-Olds



Percentages may not add to 100 because ages were unknown for a small number of cases.

# Screening Recommendations

- All adults and adolescents from ages 13 to 64 should be tested at least once for HIV.
- Annual chlamydia screening of all sexually active women younger than 25 years
- At least annually for sexually active MSM at sites of contact (oral, urethra, rectum) regardless of condom use
- Every 3 to 6 months if at increased risk
- Following a positive test
  - retest at 3 months
  - HIV testing



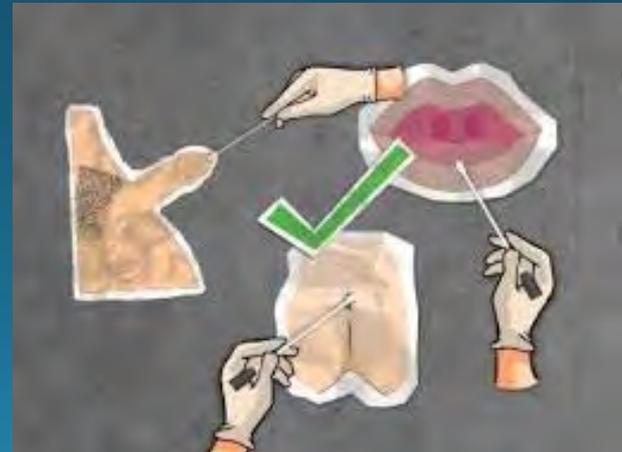
# Testing

- Nucleic acid, amplification tests (NAAT)
  - most sensitive tests for these specimens and therefore are recommended for detecting *C. trachomatis* infection
- Optimal urogenital specimen types for chlamydia screening
  - first catch-urine (men)
  - vaginal swabs (women)
- Culture is acceptable in limited circumstances
- Nonamplification test and Serology - not recommended

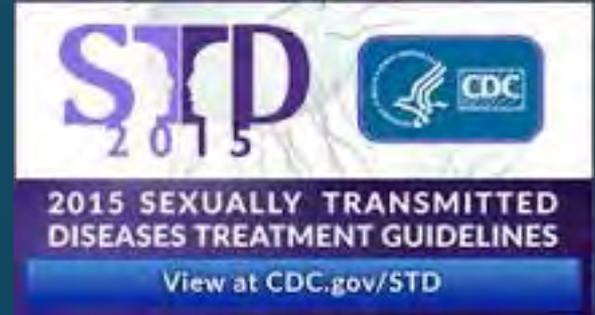


# Testing anatomic site of exposure

- Rectal and oropharyngeal infection can be diagnosed by NAATs
  - FDA-cleared for use with rectal or oropharyngeal swab specimens
  - NAATs have been demonstrated to have improved sensitivity and specificity compared with culture
- Check with your lab
- Consider patient self collected swabs for vaginal and rectal swabs



# CDC Treatment Recommendations



- Recommended Regimens
  - Azithromycin 1 g orally in a single dose
  - Doxycycline 100 mg orally twice a day for 7 days
- Alternative Regimens
  - Erythromycin base 500 mg orally four times a day for 7 days
  - Erythromycin ethylsuccinate 800 mg orally four times a day for 7 days
  - Levofloxacin 500 mg orally once daily for 7 days
  - Ofloxacin 300 mg orally twice a day for 7 days
- Partner Treatment and evaluation

# Post -Treatment

- Abstain from sexual intercourse for 7 days after single-dose therapy or until completion of a 7-day regimen
- Test-of-cure to detect therapeutic failure is **not** advised unless
  - Therapeutic adherence is in question
  - Symptoms persist, or reinfection is suspected
- **Retest** at 3-6 months because repeat exposure is common
- Use of chlamydial NAATs at <3 weeks after completion of therapy is not recommended
  - Continued presence of nonviable organisms
  - Can lead to false-positive results



## Clinical Syndromes Caused by *C. trachomatis*

	Local Infection	Complication	Sequelae
Men →	Urethritis Proctitis Conjunctivitis	Epididymitis Reactive arthritis (rare)	Infertility (rare) Chronic arthritis (rare)
Women →	Cervicitis Urethritis Proctitis Conjunctivitis	Endometritis Salpingitis Perihepatitis Reactive arthritis (rare)	Infertility Ectopic pregnancy Chronic pelvic pain Chronic arthritis (rare)
Infants →	Conjunctivitis Pneumonitis Pharyngitis Rhinitis	Chronic lung disease?	Rare, if any

# Acute Salpingitis



Source: Cincinnati STD/HIV Prevention Training Center

# References

- <http://www.cdc.gov/std/be-smart-be-well/letstalk.htm>

# Questions?

