Monthly Public Health Webinar
(Part 1)

Gonorrhea
Chlamydia
Doxycycline PEP

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March 14, 2024
New Hampshire Division of Public Health Services

Webinar Slides Will Be Posted to our Healthcare Provider Resources Website

https://www.dhhs.nh.gov/programs-services/disease-prevention/infectious-disease-control/bidc-resources-healthcare-providers

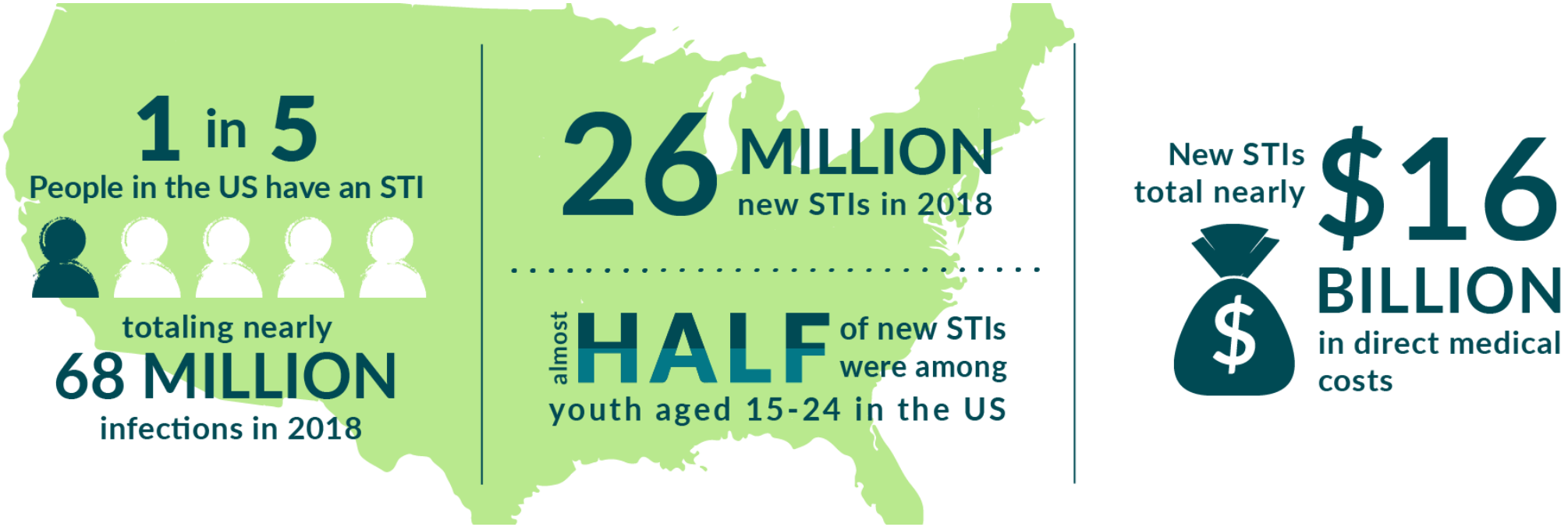
Watch the webinar on Syphilis

Healthcare Provider Webinar, 12/14/2023: Syphilis & Congenital Syphilis

National Epidemiology

Testing and Treatment

Gonorrhea and Chlamydia



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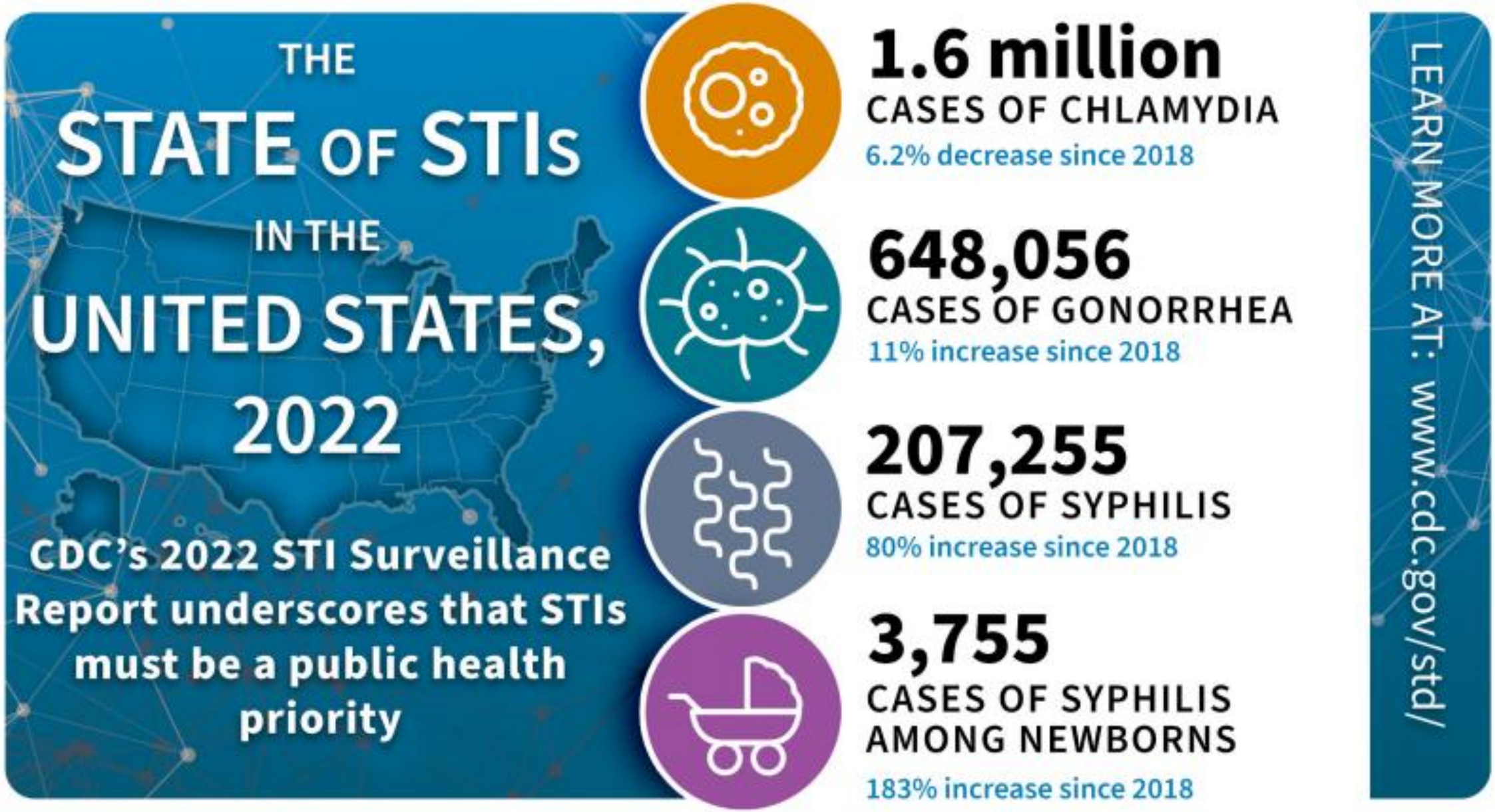

THE
STATE OF STIs
IN THE
UNITED STATES,
2022
CDC's 2022 STI Surveillance Report underscores that STIs must be a public health priority
1.6 million
CASES OF CHLAMYDIA
6.2% decrease since 2018
648,056
CASES OF GONORRHEA
11% increase since 2018
207,255
CASES OF SYPHILIS
80% increase since 2018
3,755
CASES OF SYPHILIS AMONG NEWBORNS
183% increase since 2018
LEARN MORE AT: www.cdc.gov/std/

LEFT UNTREATED, STDS CAN CAUSE:

INCREASED RISK OF GIVING OR GETTING HIV

LONG-TERM PELVIC/ABDOMINAL PAIN

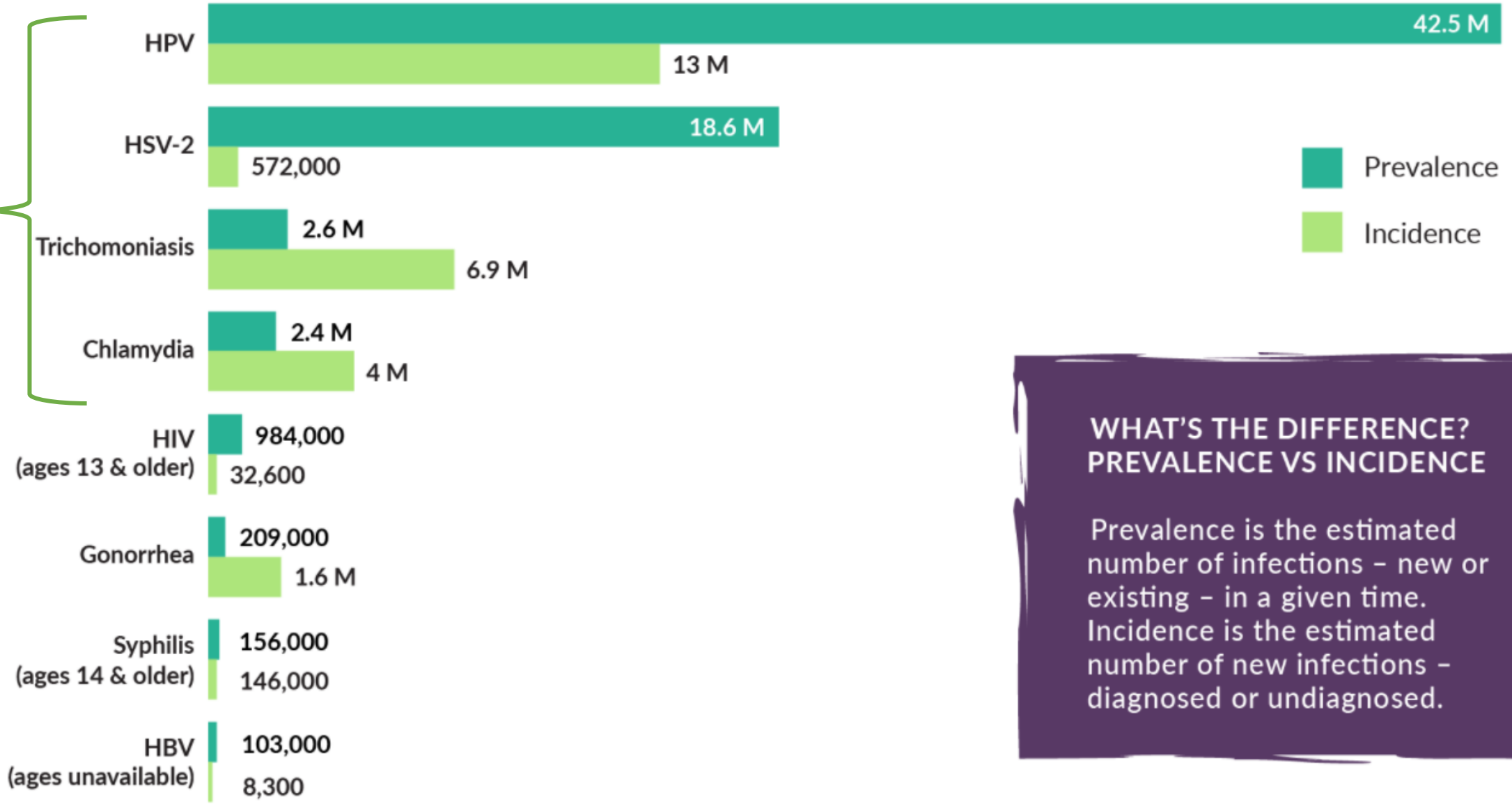
INABILITY TO GET PREGNANT OR PREGNANCY COMPLICATIONS

PREVENT THE SPREAD OF STDS WITH THREE SIMPLE STEPS:

talk | test | treat

STI Prevalence and Incidence in the US (2018 data)

98% of all prevalent STIs and 93% of all incident STIs

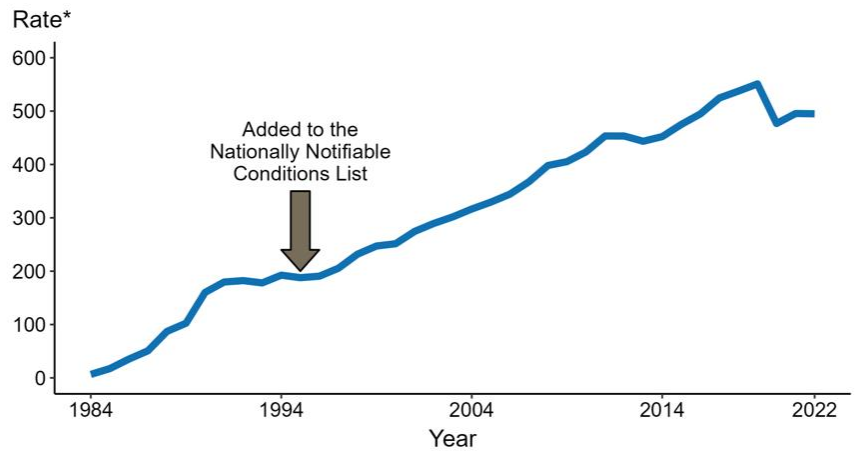


WHAT'S THE DIFFERENCE? PREVALENCE VS INCIDENCE

Prevalence is the estimated number of infections – new or existing – in a given time. Incidence is the estimated number of new infections – diagnosed or undiagnosed.

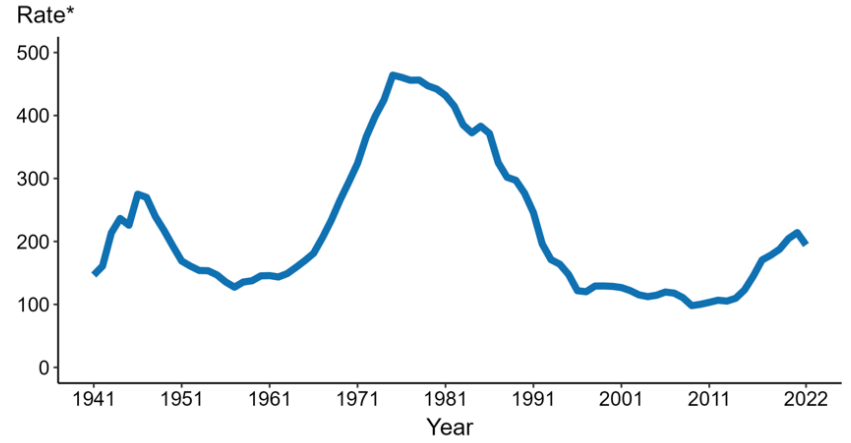
*Bars are for illustration only; not to scale, due to wide range in number of infections. Estimates for adults and adolescents ages 15+ unless otherwise stated. HIV and HBV data only represent sexually acquired infections.

Chlamydia — Rates of Reported Cases by Year, United States, 1984–2022



* Per 100,000

Gonorrhea — Rates of Reported Cases by Year, United States, 1941–2022



* Per 100,000

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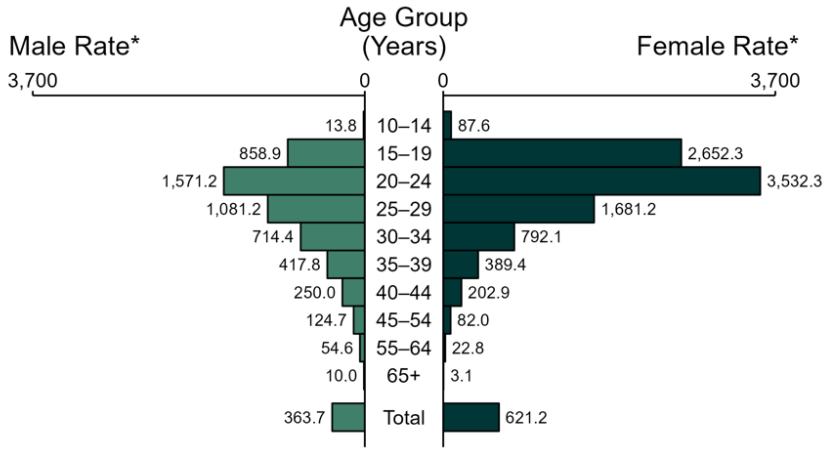
Chlamydia — Rates of Reported Cases by Age Group and Sex, United States, 2022



* Per 100,000

NOTE: Total includes cases of all ages, including those with unknown age.

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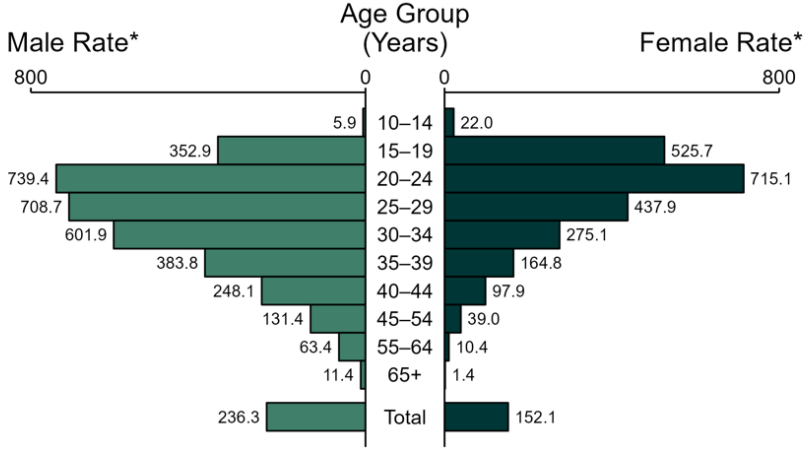
Gonorrhea — Rates of Reported Cases by Age Group and Sex, United States, 2022



* Per 100,000

NOTE: Total includes cases of all ages, including those with unknown age.

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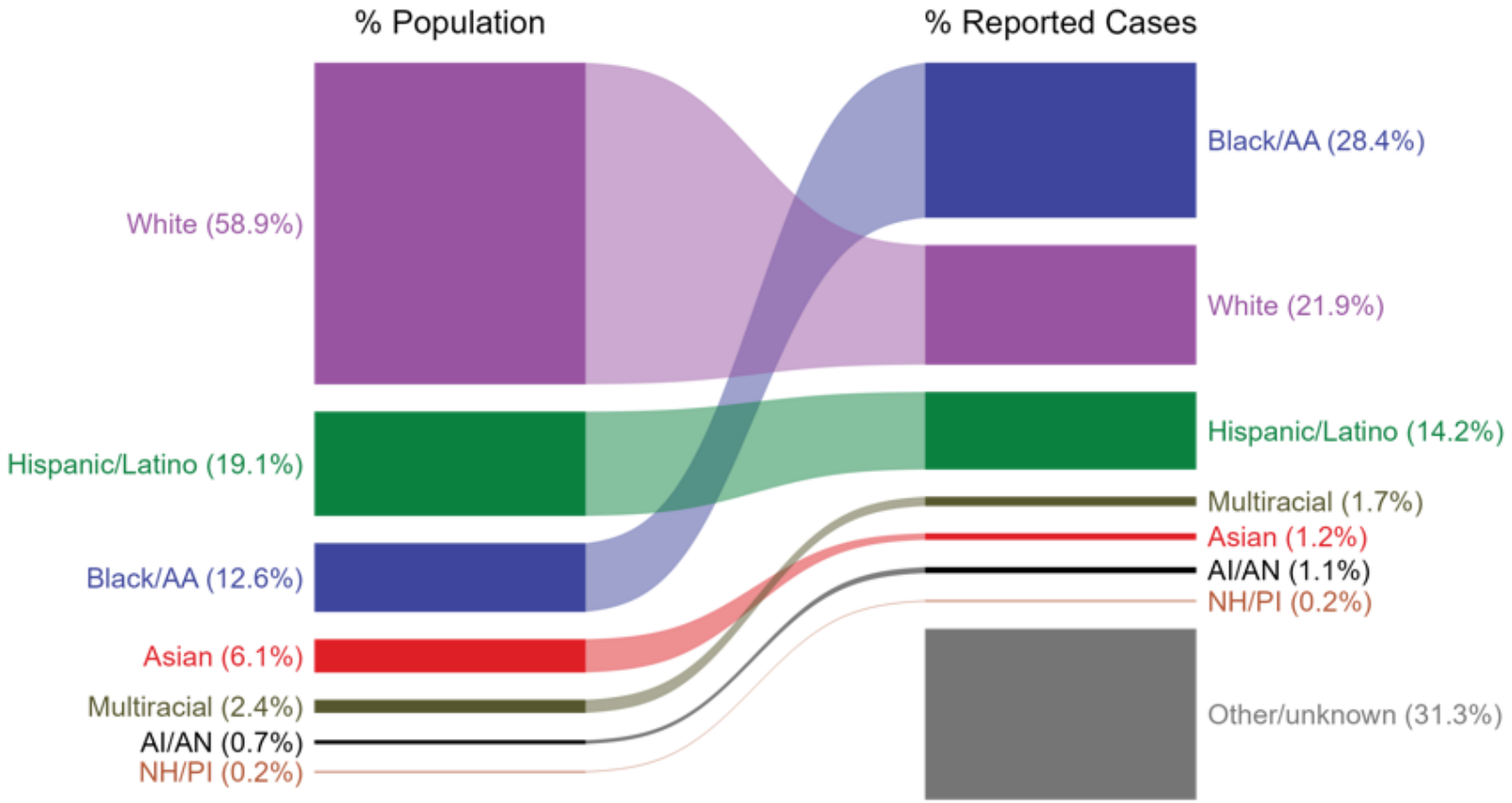
Chlamydia — Total Population and Reported Cases by Race/Hispanic Ethnicity, United States, 2022



* Per 100,000

NOTE: In 2022, a total of 515,552 chlamydia cases (31.3%) had missing, unknown, or other race and were not reported to be of Hispanic ethnicity. These cases are included in the "other/unknown" category.

ACRONYMS: AI/AN = American Indian or Alaska Native; Black/AA = Black or African American; NH/PI = Native Hawaiian or other Pacific Islander

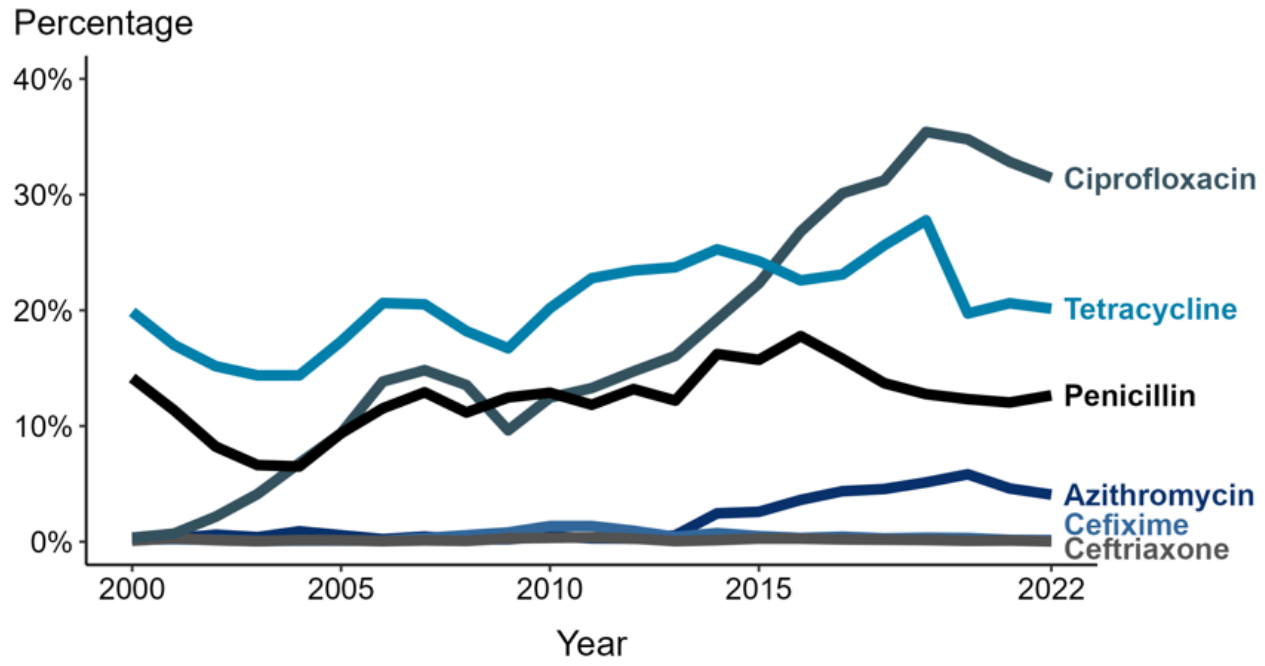
Disparities in 2022

- **50%** of reported cases of STIs were among **adolescents and young adults aged 15–24 years.**
- **31%** of all cases of chlamydia, gonorrhea, and syphilis were among **non-Hispanic Black or African American persons**, even though they made up only approximately 12.6% of the US population.
- **MSM** are disproportionally impacted by STDs, including gonorrhea and syphilis.
- **36% of MSM with syphilis** also had **HIV**.

"These disparities are unlikely explained by differences in sexual behavior and rather reflect differential access to quality sexual health care, as well as differences in sexual network characteristics."

National Overview of STIs, 2022 (cdc.gov)

Neisseria gonorrhoeae — Prevalence of Tetracycline, Penicillin, or Ciprofloxacin Resistance* or Elevated Cefixime, Ceftriaxone, or Azithromycin Minimum Inhibitory Concentrations (MICs)†, by Year — Gonococcal Isolate Surveillance Project (GISP), 2000–2022



* Resistance: Ciprofloxacin: MIC ≥ 1.0 µg/mL; Penicillin: MIC ≥ 2.0 µg/mL or Beta-lactamase positive; Tetracycline: MIC ≥ 2.0 µg/mL

† Elevated MICs: Azithromycin: MIC ≥ 1.0 µg/mL (2000–2004); ≥ 2.0 µg/mL (2005–2022); Ceftriaxone: MIC ≥ 0.125 µg/mL; Cefixime: MIC ≥ 0.25 µg/mL

NOTE: Cefixime susceptibility was not tested in 2007 and 2008.

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- Half of all infections in 2022 were estimated to be resistant or have elevated minimum inhibitory concentrations (MICs) to at least one antibiotic.
- Almost all circulating strains in the United States remain susceptible to ceftriaxone, the primary recommended treatment for uncomplicated gonorrhea.

THIS IS AN OFFICIAL NH DHHS HEALTH ALERT

Distributed by the NH Health Alert Network
DHHS.Health.Alert@dhhs.nh.gov
January 27, 2023, 1430 EDT (2:30 PM EDT)
NH-HAN 202301271

NH DIVISION OF Public Health Services
Department of Health and Human Services

Gonorrhea with Resistance or Reduced Susceptibility to Multiple Antibiotics Identified in Massachusetts

- Based on gonococcal isolates collected through sentinel surveillance in the Gonococcal Isolate Surveillance Project (GISP), about half of all infections were estimated to be resistant or have elevated minimum inhibitory concentrations (MICs) to at least one antibiotic in 2021.
- However, almost all circulating strains in the United States remain susceptible to ceftriaxone, the primary recommended treatment for uncomplicated gonorrhea.

Let’s talk about sex…..

- **A sexual history should be taken as part of routine health care,** as well as when there are symptoms or physical exam findings suggestive of STIs.
- A sexual history allows you to provide high-quality patient care by appropriately assessing and screening individuals for a broad range of sexual health concerns.
- It is an opportunity to educate patients, normalize behaviors, and discuss harm reduction.

A GUIDE TO
Taking a Sexual History

Centers for Disease Control and Prevention
National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention

The Five "P"s

To further guide your dialogue with your patient, the 5 "Ps" may be a useful way to help you remember the major aspects of a sexual history.

1. Partners
2. Practices
3. Protection from STIs
4. Past History of STIs
5. Pregnancy Intention

[A Guide to Taking a Sexual History (cdc.gov)]

USPSTF Screening Recommendations for Gonorrhea and Chlamydia

Recommendation Summary

Population	Recommendation	Grade
Sexually active women, including pregnant persons	The USPSTF recommends screening for chlamydia in all sexually active women 24 years or younger and in women 25 years or older who are at increased risk for infection.	B
Sexually active women, including pregnant persons	The USPSTF recommends screening for gonorrhea in all sexually active women 24 years or younger and in women 25 years or older who are at increased risk for infection.	B
Sexually active men	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for chlamydia and gonorrhea in men.	I

- A previous or coexisting STI
- A new or more than 1 sex partner
- A sex partner having sex with other partners at the same time
- A sex partner with an STI
- Inconsistent condom use when not in a mutually monogamous relationship
- A history of exchanging sex for money or drugs
- A history of incarceration

Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

Sexually Transmitted Infections Treatment Guidelines, 2021

Screening Recommendations and Considerations Referenced in Treatment Guidelines and Original Sources

By Disease | By Population

- **Women**
- **Pregnant women**
- **MSW**
- **MSM**
- **Transgender**
- **PLWH**

STI Screening Recommendations (cdc.gov)

Men Who Have Sex with Men

Chlamydia	• At least annually for sexually active MSM at sites of contact (urethra, rectum) regardless of condom use[2] • Every 3 to 6 months if at increased risk (i.e., MSM on PrEP, with HIV infection, or if they or their sex partners have multiple partners)[2]
Gonorrhea	• At least annually for sexually active MSM at sites of contact (urethra, rectum, pharynx) regardless of condom use[2] • Every 3 to 6 months if at increased risk[2]

Chlamydia and Gonorrhea Diagnostics

- Nucleic acid amplification testing (NAAT) is the ‘gold standard’
- Vaginal or cervical swabs or first-void urine
  - Patient-collected vaginal swab specimens are equivalent in sensitivity and specificity to those collected by a clinician
  - Sensitivity and specificity from urine sample are comparable to cervical and urethral samples for detection of chlamydia in women
- Can also be used for vaginal, oropharyngeal, rectal, urethral, and conjunctival specimen.
- Test ALL sites of exposure!

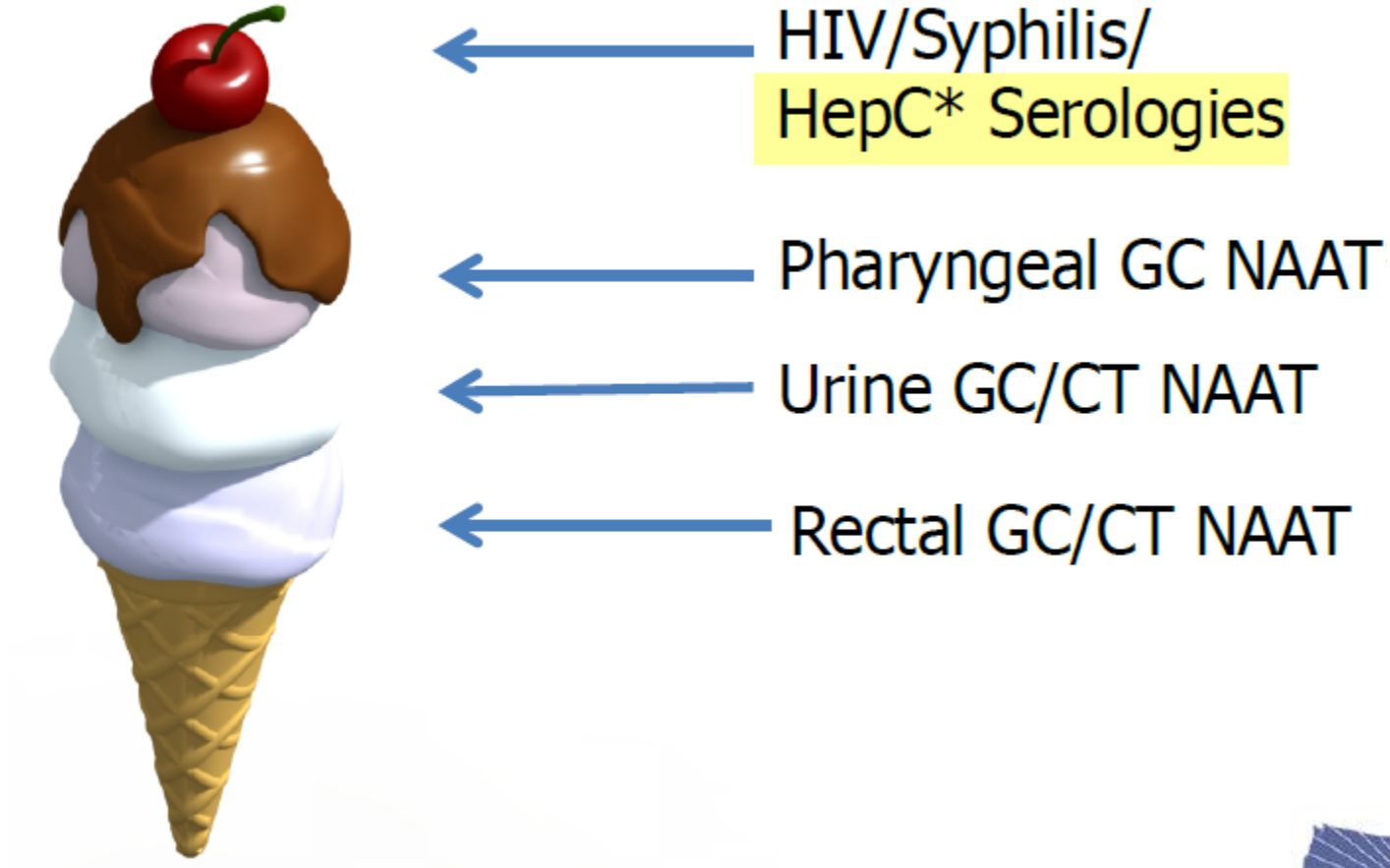
Cook et al. Ann Intern Med. 2005.

Missed Opportunities

- Extragenital gonorrhea and chlamydia were common among MSM attending STI clinic and more than **70% of extragenital GC infections and 85% of extragenital CT infections** were associated with **negative urethral tests** at the same visit and would not have been detected with urethral screening alone.
- Of those (with HIV) diagnosed with an STI who had multisite testing, **96% were positive only at an extragenital site**.

Patton. Extragenital CG and Chl testing among MSM. CID. 2014.
Geba. Extragenital screening in people with HIV. OFID. 2022.

MSM ‘Triple Dip’



National Network of
STD Clinical Prevention
Training Centers

Specimen Collection

Chlamydia Treatment

Recommended Regimens for Chlamydial Infection

Doxycycline 100 mg orally 2 times/day for 7 days

Alternative Regimens

Azithromycin 1 g orally in a single dose

OR

Levofloxacin 500 mg orally once daily for 7 days

- Persons should abstain from sexual intercourse for 7 days after treatment.
- Partners (within 60 days of dx) should be tested and treated.
- Persons who receive a diagnosis of chlamydia should be tested for HIV, gonorrhea, and syphilis.

Chlamydial Infections - STI Treatment Guidelines (cdc.gov)

LGV (Lymphogranuloma venereum)

- Caused by *C. trachomatis* serovars L1-3
- Most commonly causes tender unilateral inguinal lymphadenopathy, with or without genial ulcer
- Rectal infection can cause a syndrome mimicking IBD with proctocolitis leading to chronic colorectal fistulas and strictures
- Diagnosis is made based on compatible clinical syndrome PLUS positive *C. trachomatis* NAAT on rectal swab
- Treatment is **Doxycycline 100mg PO BID x 21 days**

Gonorrhea Treatment

Recommended Regimen for Uncomplicated Gonococcal Infection of the Cervix, Urethra, or Rectum Among Adults and Adolescents

Ceftriaxone 500 mg* IM in a single dose for persons weighing <150 kg

If chlamydial infection has not been excluded, treat for chlamydia with doxycycline 100 mg orally 2 times/day for 7 days.

* For persons weighing ≥150 kg, 1 g ceftriaxone should be administered.

- Test of cure is recommended 7-14 days after treatment for pharyngeal infection
- Symptoms that persist after treatment should be evaluated by culture for *N. gonorrhoeae* (with or without simultaneous NAAT) and antimicrobial susceptibility.

Gonococcal Infections Among Adolescents and Adults - STI Treatment Guidelines (cdc.gov)

Gonorrhea Treatment

Alternative Regimens

If cephalosporin allergy:

Gentamicin 240 mg IM in a single dose

PLUS

Azithromycin 2 g orally in a single dose

If ceftriaxone administration is not available or not feasible:

Cefixime 800 mg* orally in a single dose

* If chlamydial infection has not been excluded, providers should treat for chlamydia with doxycycline 100 mg orally 2 times/day for 7 days.

Follow up for Chlamydia and Gonorrhea

- Test of cure is not advised for non-pregnant persons.
- Repeat testing should be done 3 months after treatment given risk for re-infection.

*Pregnant women with chlamydial infection should have a test of cure 3-4 wk after treatment.

Summary

- STIs are on the rise
- Take a detailed sexual history
- Test all sites of exposure
- Treat per 2021 CDC guidelines

+

[STI Treatment Guidelines (cdc.gov)]

[Addressing STIs: Ask. Test. Treat. Repeat. - YouTube]

Centers for Disease Control and Prevention
MMWR
Morbidity and Mortality Weekly Report
Recommendations and Reports / Vol. 70 / No. 4
July 23, 2021

Sexually Transmitted Infections Treatment Guidelines, 2021

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Sexually Transmitted Infections Treatment Guidelines, 2021