

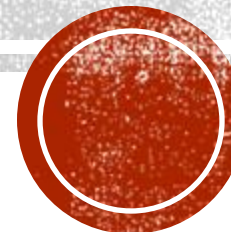


ALARMING SHIFT IN STI

Danucha “Danny” Brikshavana, MPH

IDPH Sexually Transmitted Infections Section

April, 2023



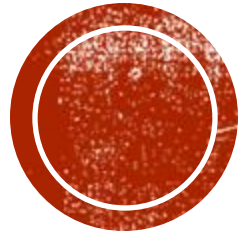
DISCLOSURES

- **Presenter has no financial interest to disclose.**
- **This continuing education activity is managed by the St. Louis STI/HIV Prevention Training Center and accredited by Missouri State Medical Association (MSMA) in cooperation with the Chicago Department of Public Health.**

OBJECTIVES

By the end of this presentation, you will be able to:

- Recognize the reportable STIs
- Identify the current STI trends in Illinois
- Recall common treatment for reportable STIs



STI TRENDS:

NATIONAL AND ILLINOIS STI STATISTICS

STDS VS STIS

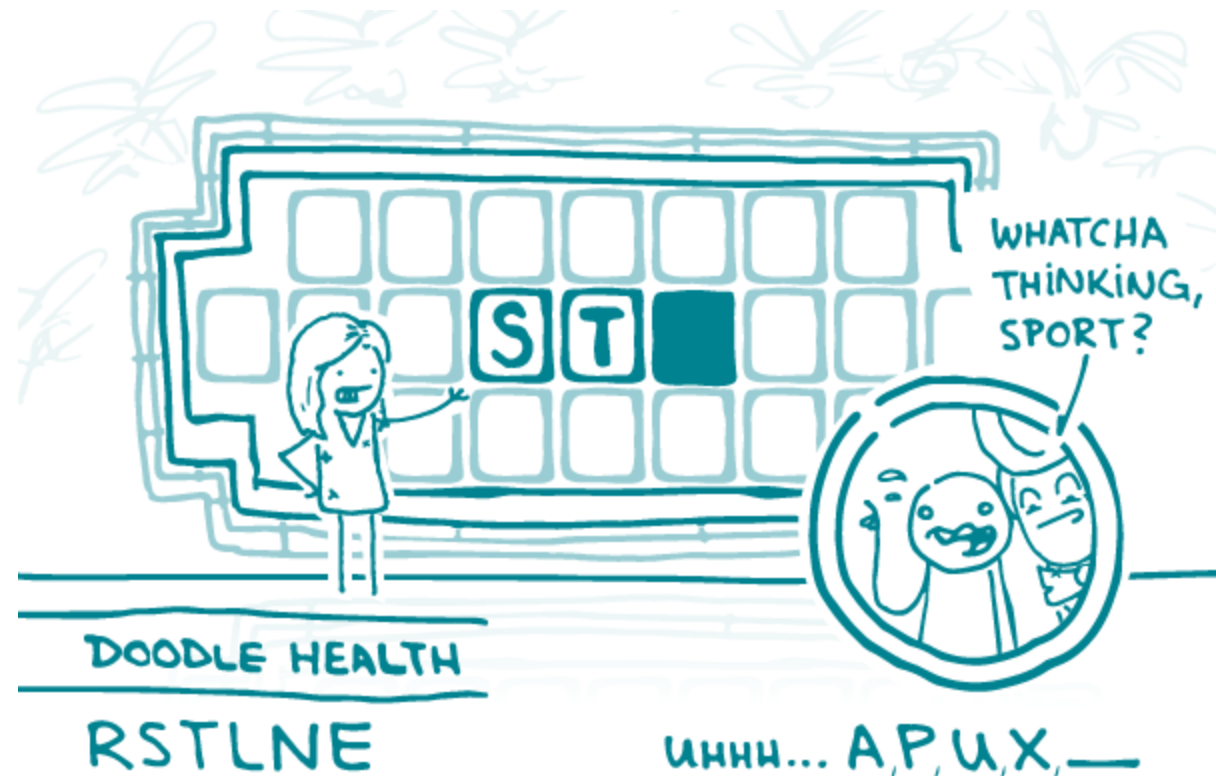
- **STDs vs STIs**

- **STDs**

- Most common used term for the collection of medical infections that are transmitted through sexual contact
 - Can sometimes carry a stigma

- **STIs**

- Not everybody who is infected, experience any signs or symptoms or have their infection develop into a disease
 - Because of this, STI is more acceptable and will be used interchangeably in this presentation.



THE
STATE OF STDs
IN THE
UNITED STATES,
2021

STDs continue to forge ahead, hitting the nation hard.



1.6 million
CASES OF CHLAMYDIA
3.8% decrease since 2017



710,151
CASES OF GONORRHEA
28% increase since 2017



176,713
CASES OF SYPHILIS
74% increase since 2017



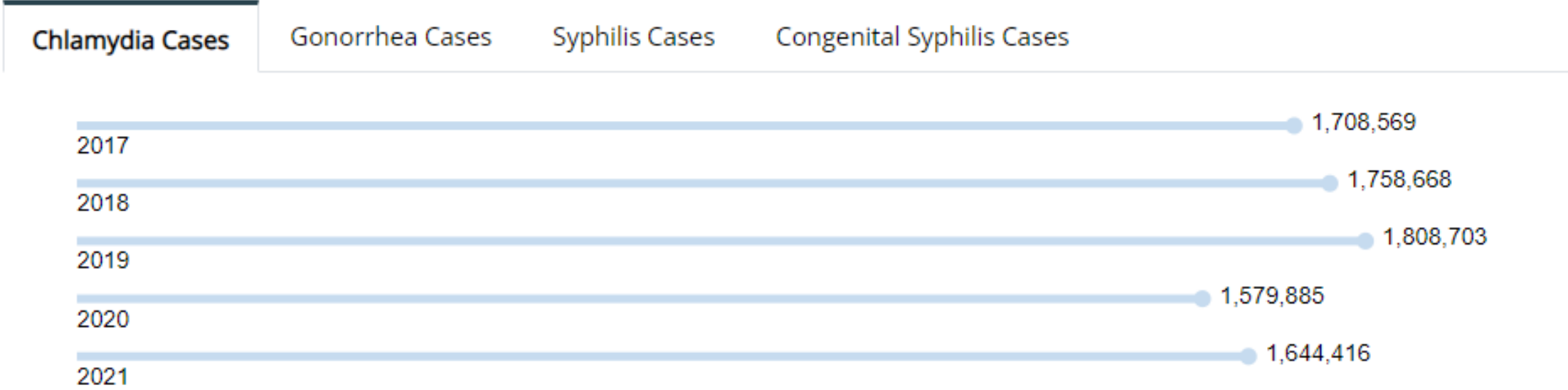
2,855
CASES OF SYPHILIS
AMONG NEWBORNS
203% increase since 2017

LEARN MORE AT: www.cdc.gov/std/

ANYONE WHO HAS SEX COULD GET AN STD, BUT SOME GROUPS ARE MORE AFFECTED

- **YOUNG PEOPLE AGED 15-24**
- **GAY & BISEXUAL MEN**
- **PREGNANT PEOPLE**
- **RACIAL & ETHNIC MINORITY GROUPS**

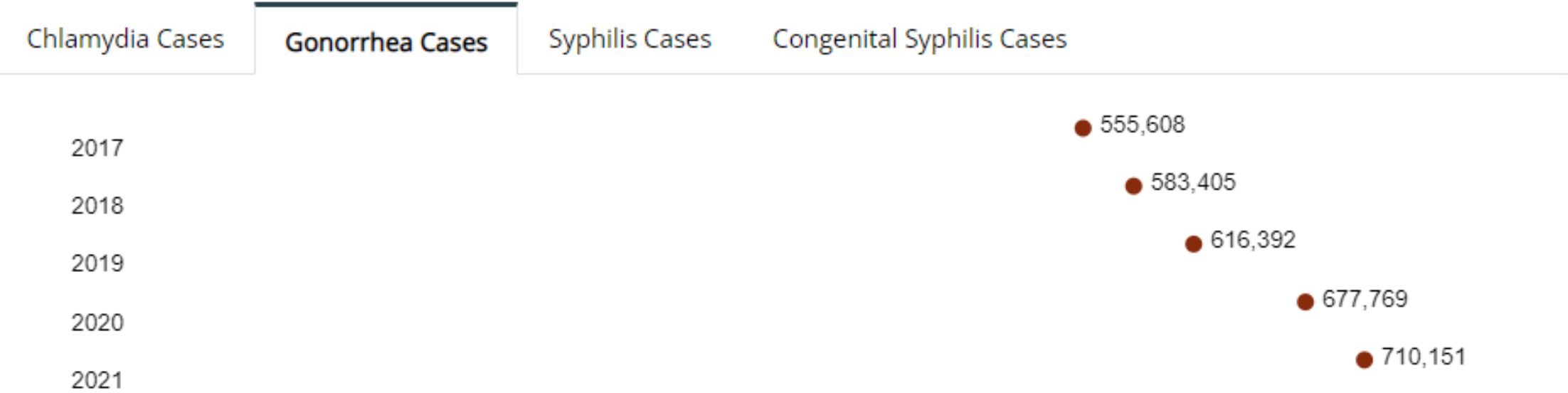
NATIONAL SURVEILLANCE: CHLAMYDIA



Source: CDC Sexually Transmitted Disease Surveillance, 2021



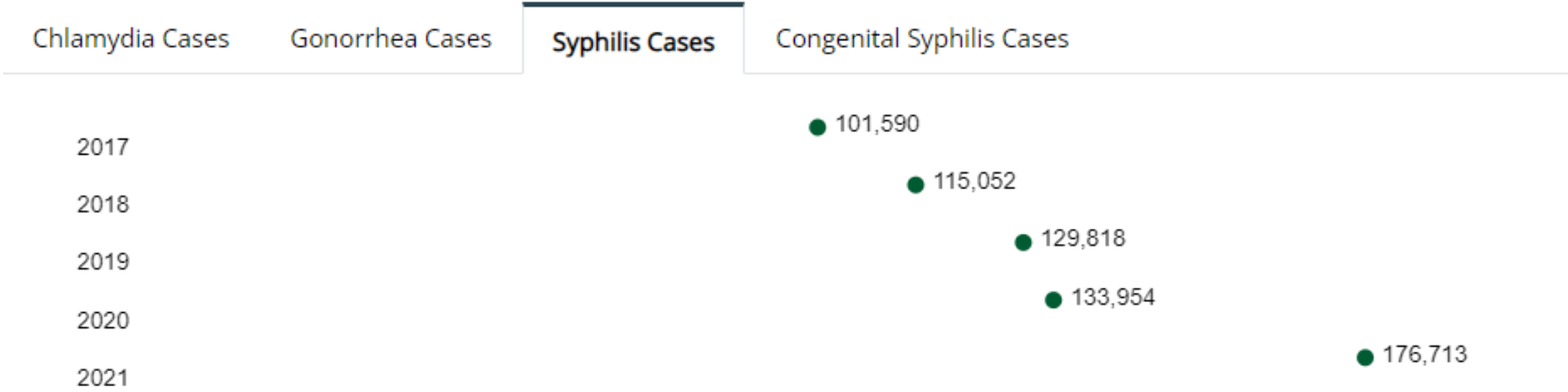
NATIONAL SURVEILLANCE: GONORRHEA



Source: CDC Sexually Transmitted Disease Surveillance, 2021



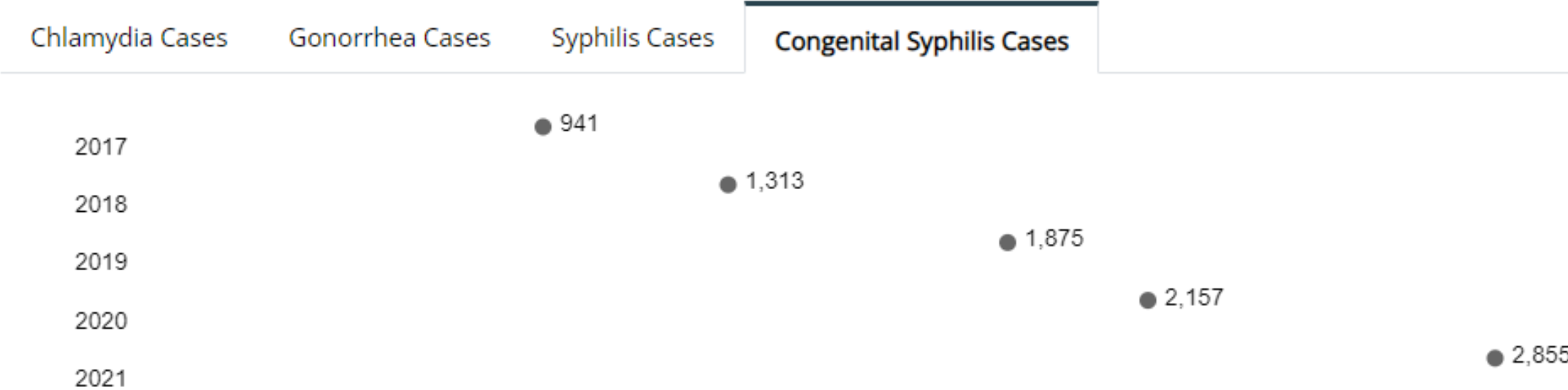
NATIONAL SURVEILLANCE: SYPHILIS



Source: CDC Sexually Transmitted Disease Surveillance, 2021



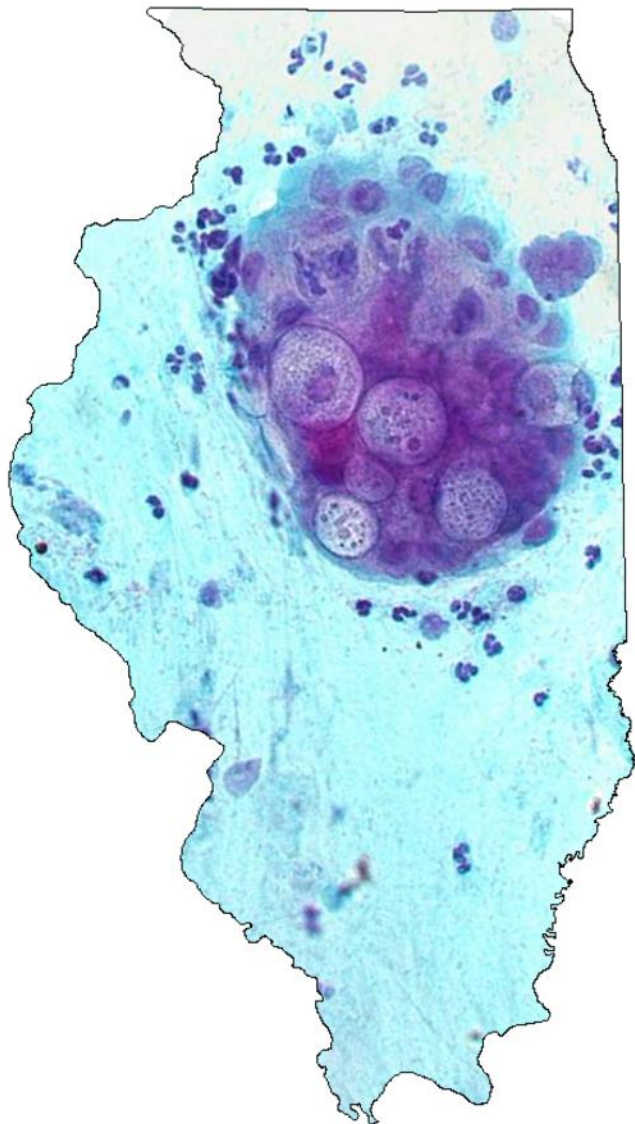
NATIONAL SURVEILLANCE: CONGENITAL SYPHILIS



Source: CDC Sexually Transmitted Disease Surveillance, 2021



ILLINOIS STI STATISTICS: CHLAMYDIA



2021 CDC National Data

Total Illinois:

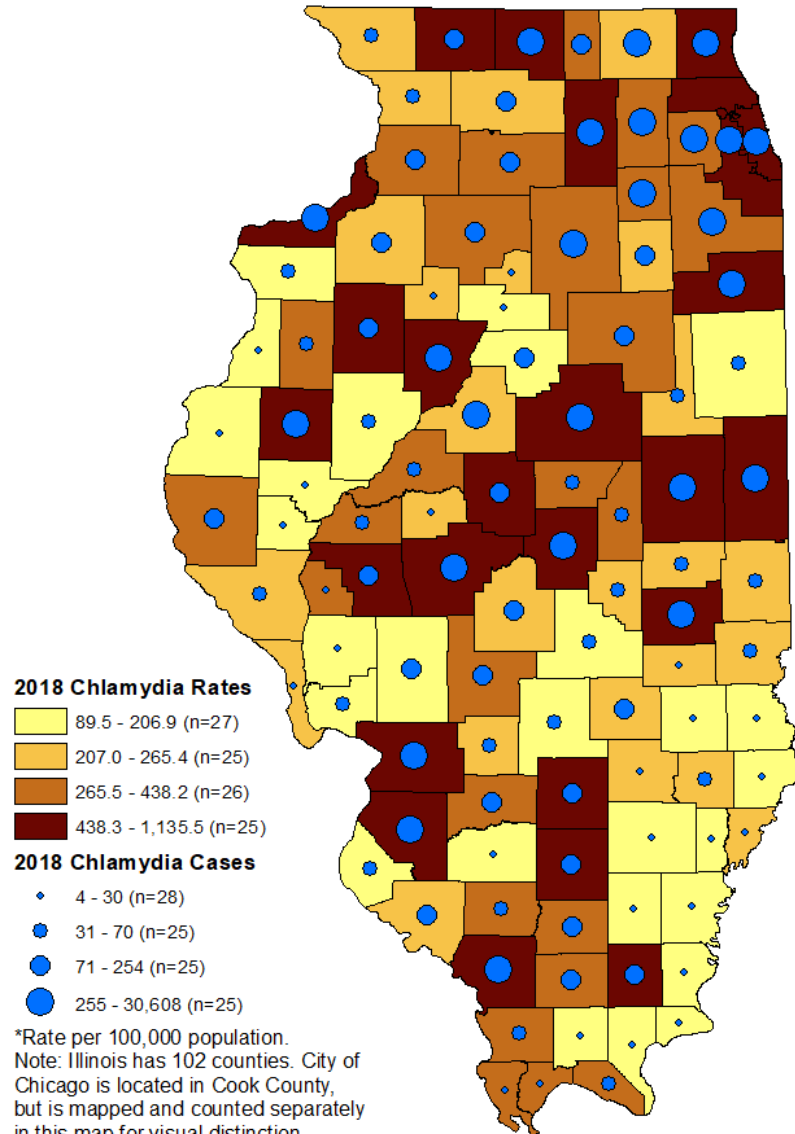
- Ranked **11th** in chlamydia infections by rate per 100,000 population
 - Illinois 566.9 (U.S. 495.5)
- Ranked **5th** by overall case count

2021 Illinois Data

Chlamydia:

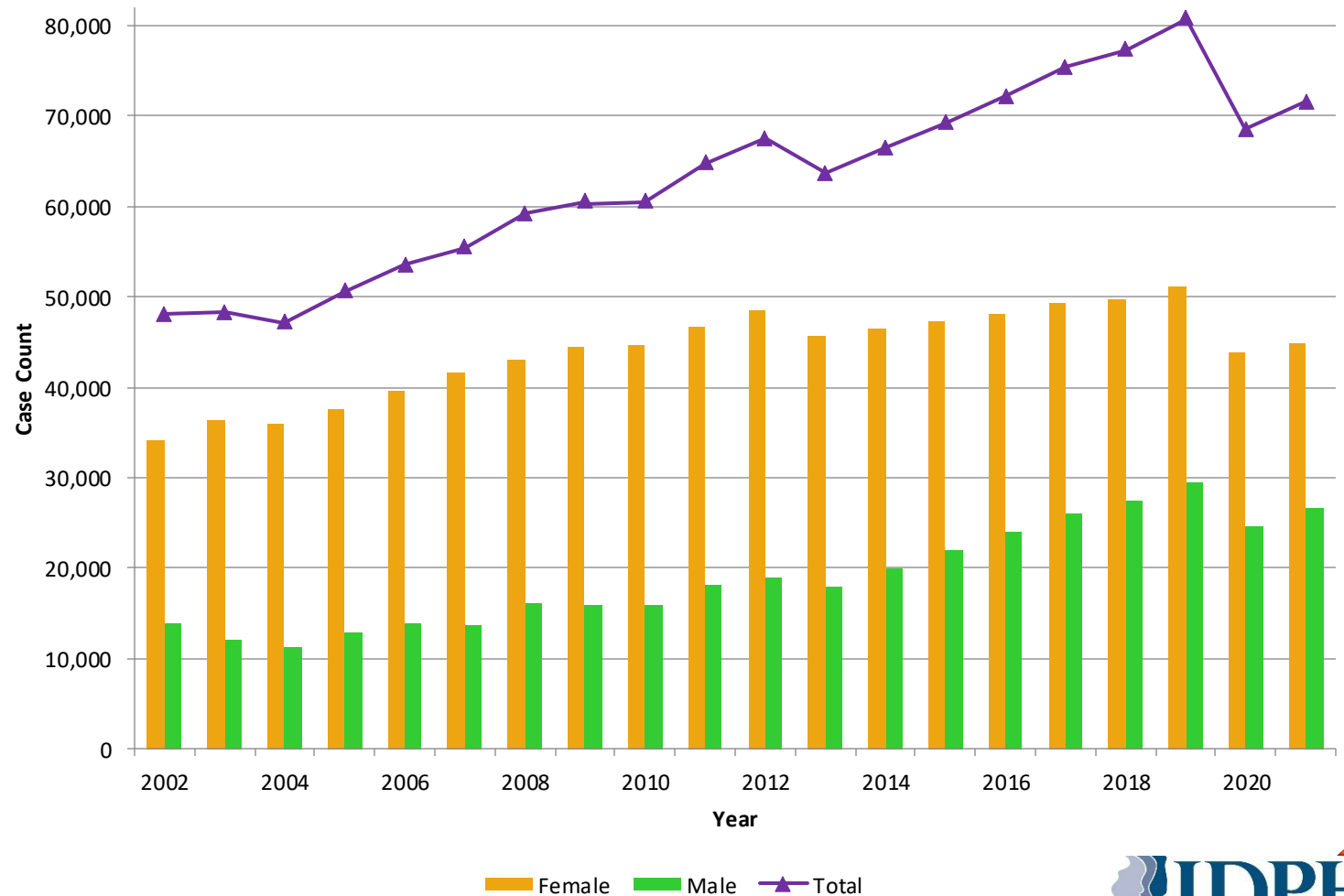
- 71,836 total cases
- **+4.5%** increase from 2020
 - 2019: 81,012 cases
 - 2020: 68,716 cases (**-15.1%** from 2019)
- Chicago reported **38.1%** of cases

ILLINOIS STI STATISTICS: CHLAMYDIA



*Rate per 100,000 population.
 Note: Illinois has 102 counties. City of Chicago is located in Cook County, but is mapped and counted separately in this map for visual distinction (therefore sum of n=103).
 Source: IDPH STD Section

Illinois Reported Chlamydia Cases by Sex, 2002-2021



ILLINOIS STI STATISTICS: GONORRHEA



2021 CDC National Data

Total Illinois:

- Ranked **15th** in gonorrhea infections by rate per 100,000 population
 - Illinois 240.3 (U.S. 214.0)
- Ranked **6th** by overall case count

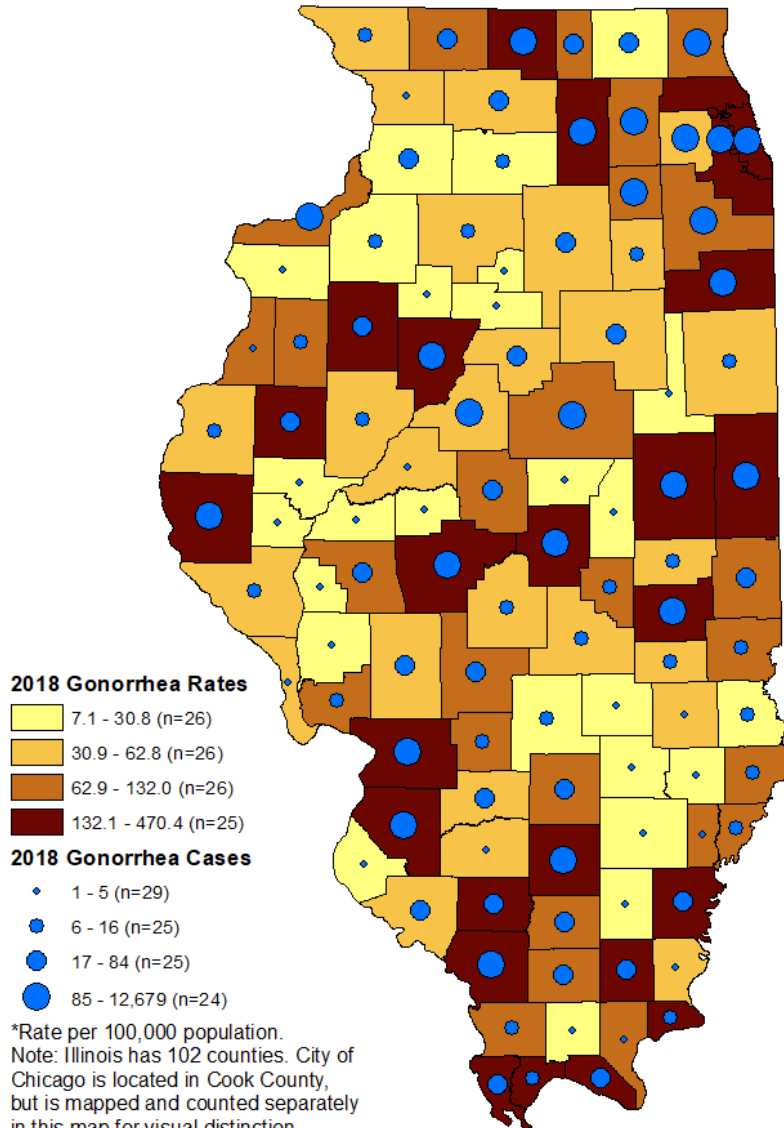
2021 Illinois Data

Gonorrhea:

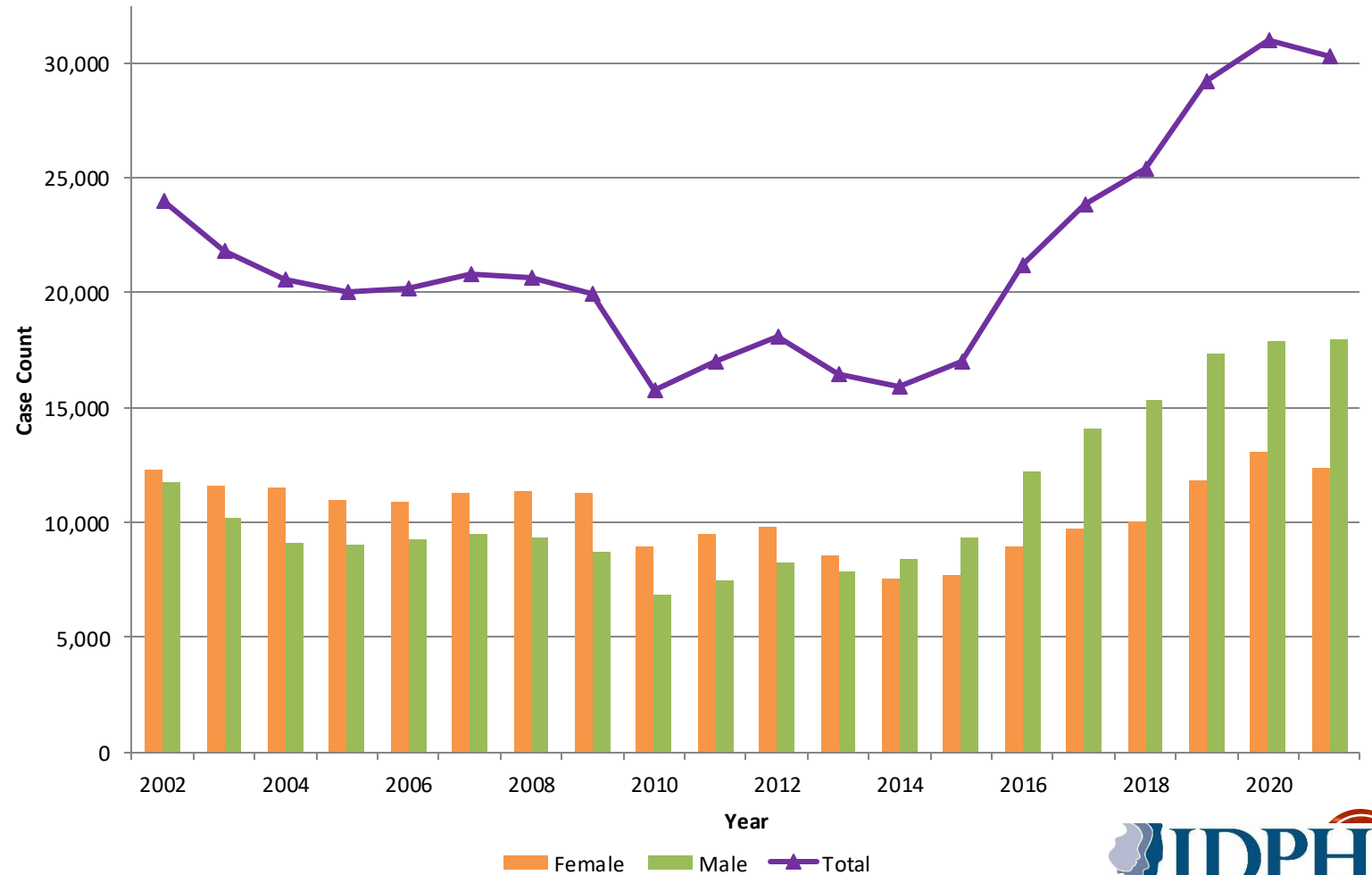
- 30,454 total cases
- **-1.9%** decrease from 2020
 - 2019: 29,272 cases
 - 2020: 31,055 cases (**+6%** from 2019)
- Chicago reported **44.2%** of cases

ILLINOIS STI STATISTICS: GONORRHEA

Illinois Reported Gonorrhea Cases by Sex, 2002-2021



*Rate per 100,000 population.
 Note: Illinois has 102 counties. City of Chicago is located in Cook County, but is mapped and counted separately in this map for visual distinction (therefore sum of n=103).
 Source: IDPH STD Section



ILLINOIS STI STATISTICS: PRIMARY & SECONDARY SYPHILIS



2021 CDC National Data

Total Illinois:

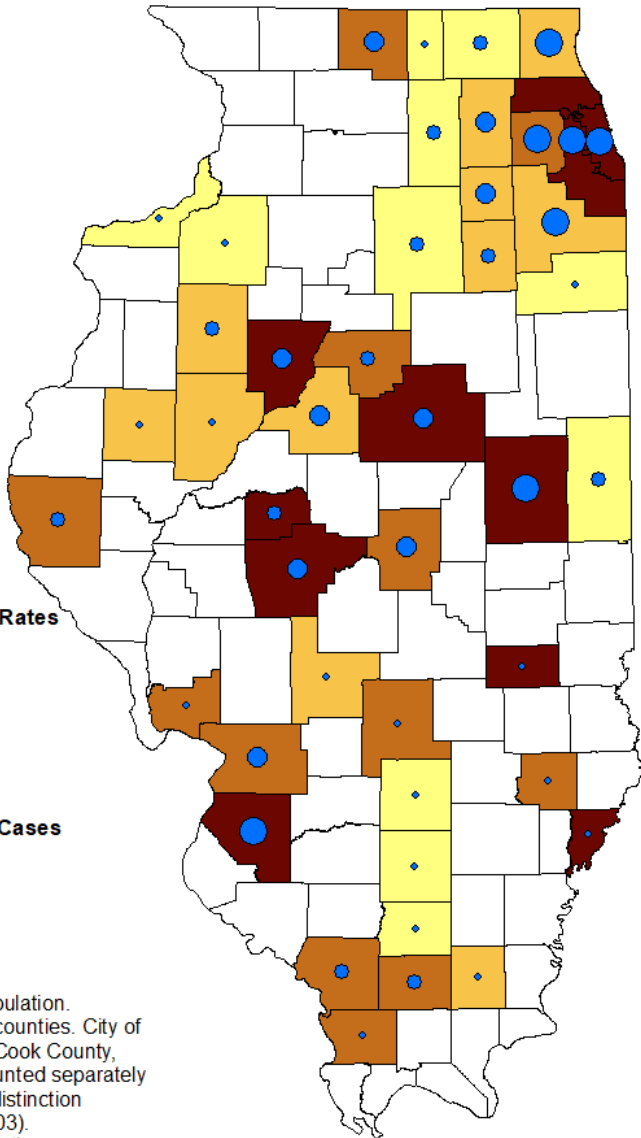
- Ranked **29th** in P&S syphilis infections by rate per 100,000 population
 - Illinois 11.7 (U.S. 16.2)
- Ranked **10th** by overall case count

2021 Illinois Data

Primary & Secondary Syphilis:

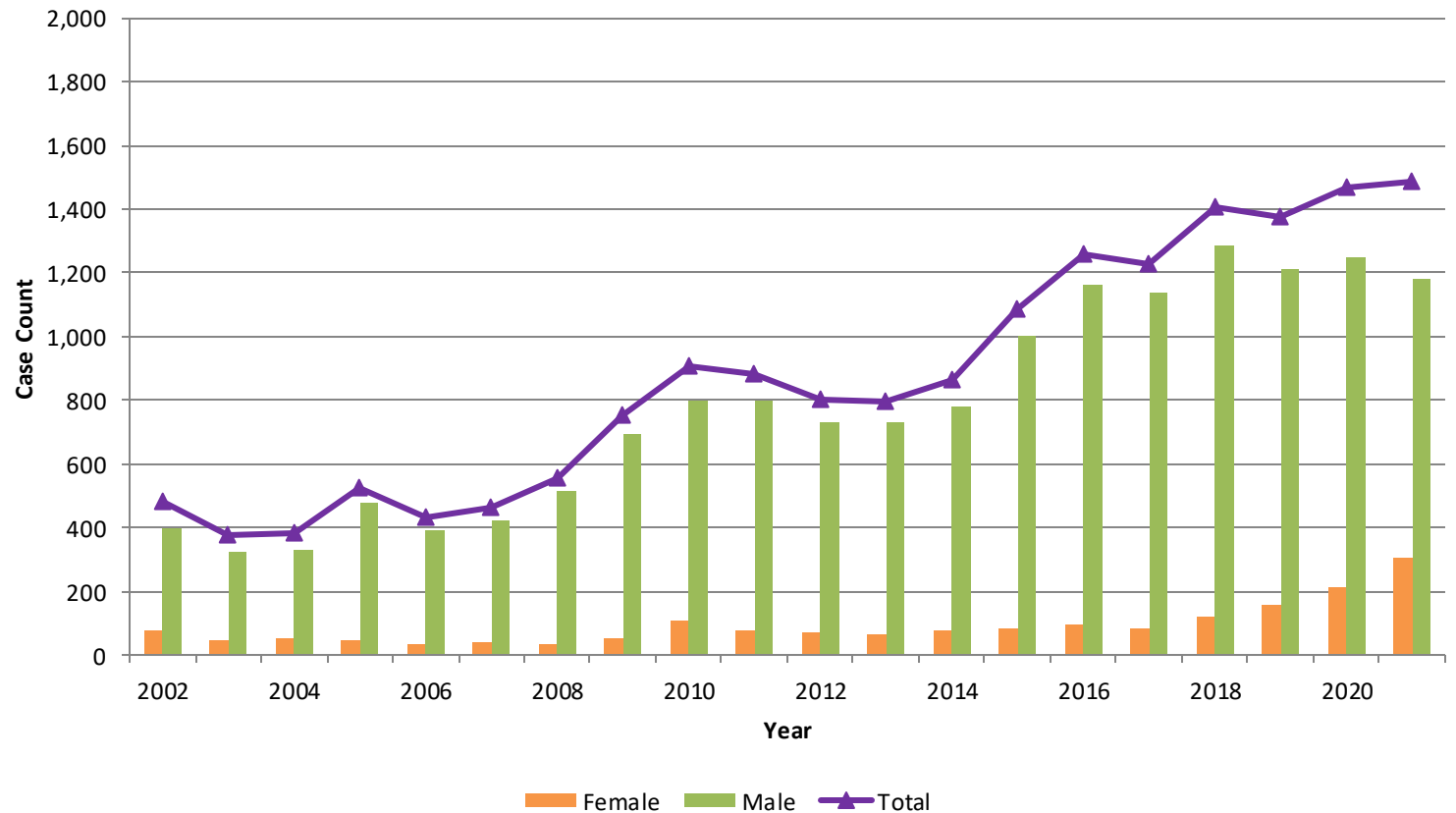
- 1,485 total cases
- **+1.2%** increase from 2020
 - 2019: 1,364 cases
 - 2020: 1,467 cases (**+7.6%** from 2019)
- Chicago reported **53.4%** of cases

ILLINOIS STI STATISTICS: P&S SYPHILIS



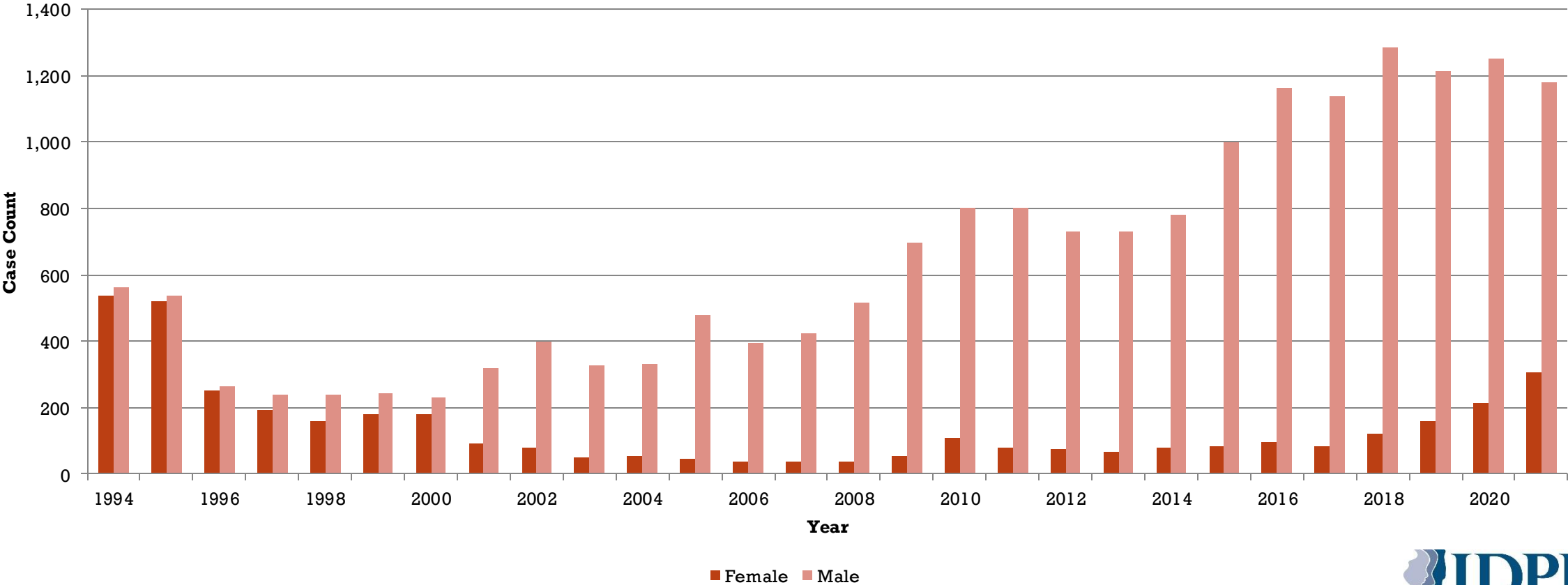
*Rate per 100,000 population.
 Note: Illinois has 102 counties. City of Chicago is located in Cook County, but is mapped and counted separately in this map for visual distinction (therefore sum of n=103).
 Source: IDPH STD Section

Illinois Reported Primary and Secondary Syphilis Cases by Sex, 2002-2021



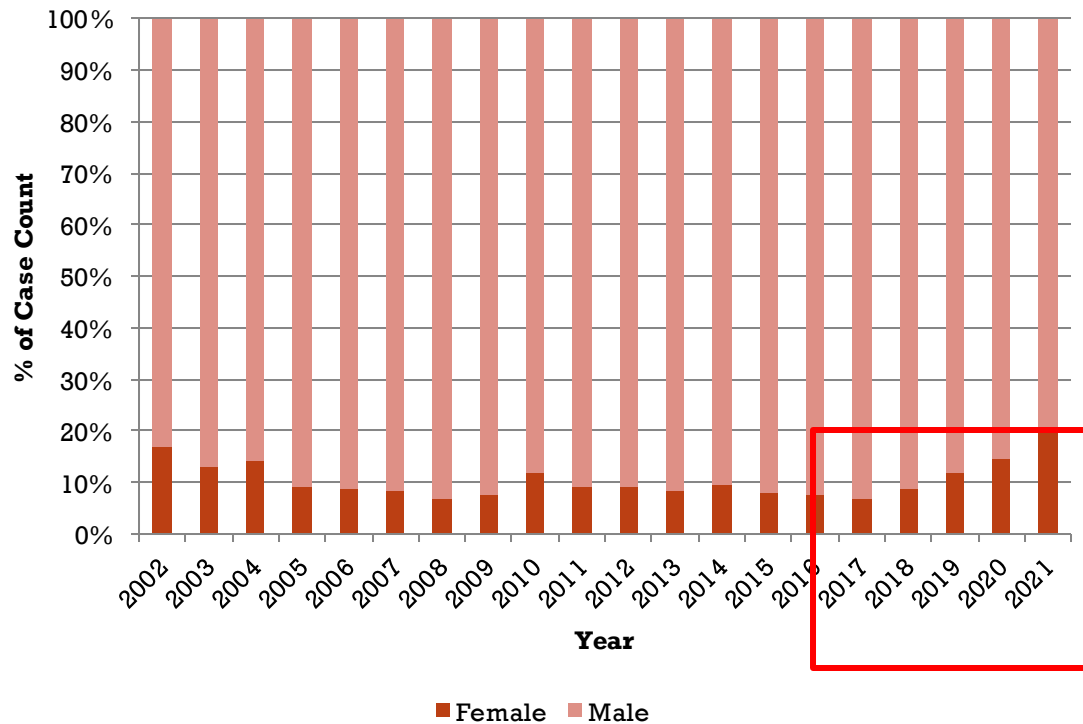
P&S CASES SHIFTED FOCUS POPULATION

Illinois Reported Primary and Secondary Syphilis Cases by Sex, 1994-2021

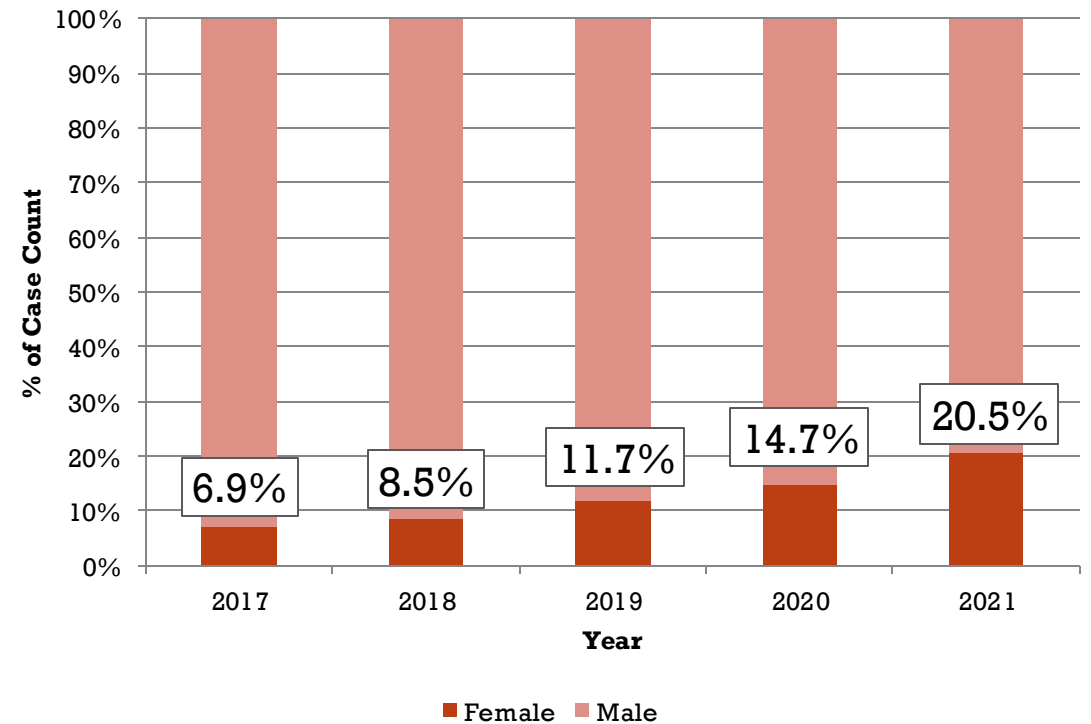


PROPORTION OF P&S CASES BY SEX

Illinois Reported Primary and Secondary Syphilis Cases by Sex, 2002-2021

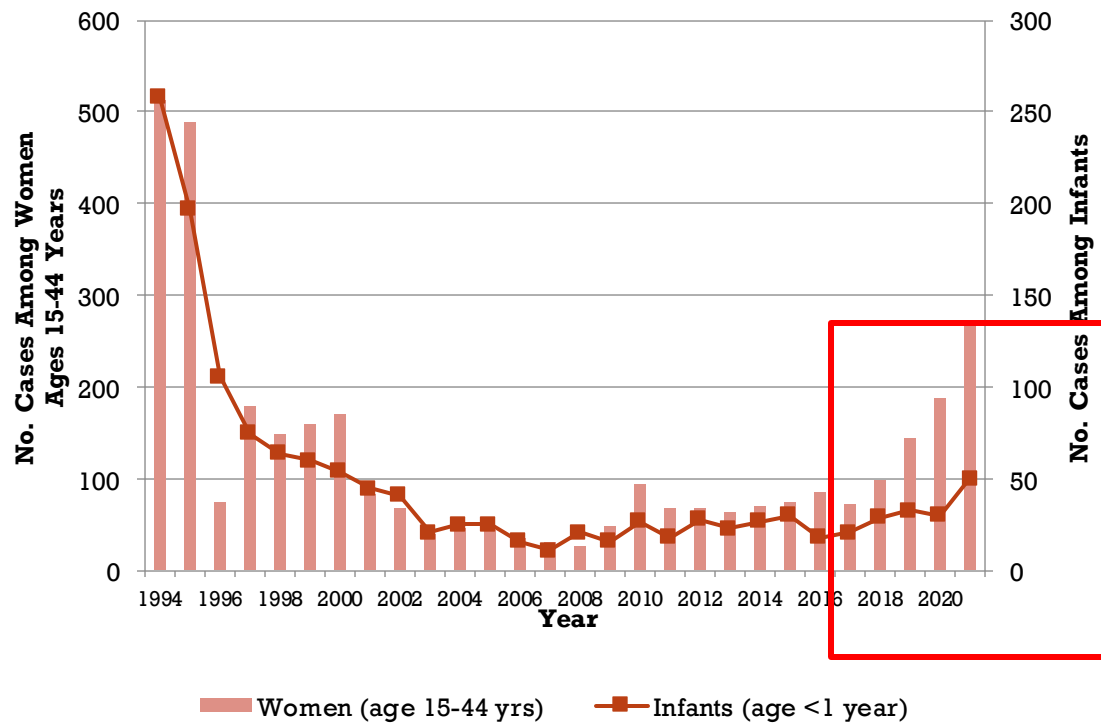


Illinois Reported Primary and Secondary Syphilis Cases by Sex, 2017-2021

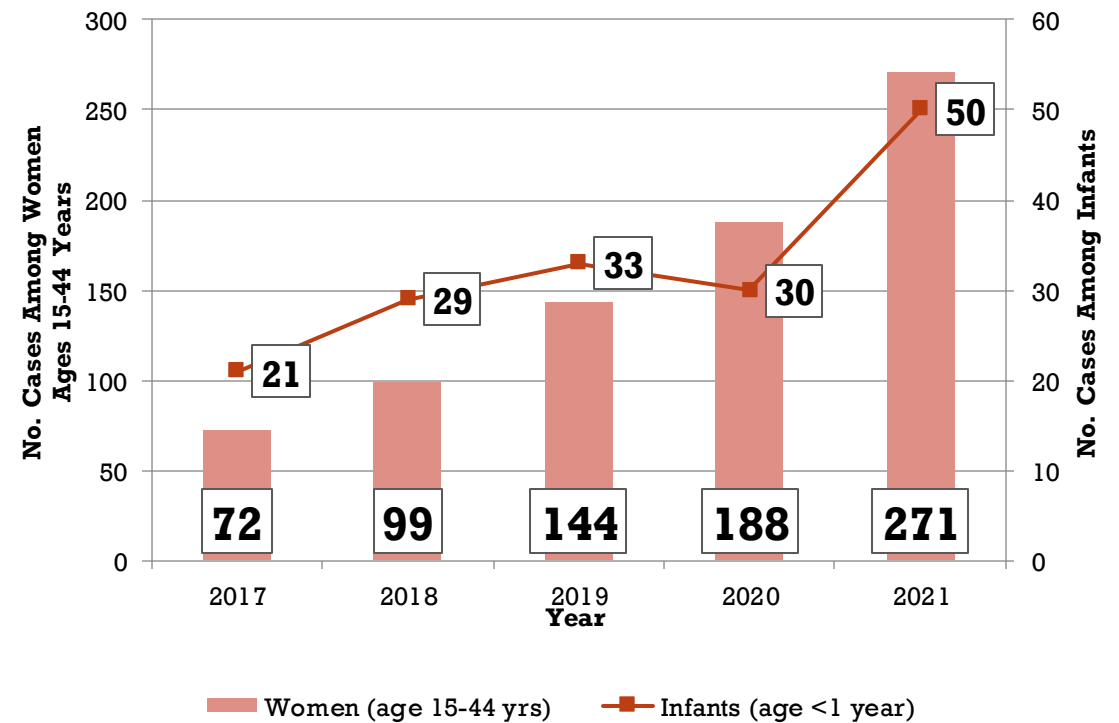


P&S AMONG WOMEN ON THE RISE

Illinois Reported Primary and Secondary Syphilis Cases Among Women Ages 15-44 Years and Congenital Cases, 1994-2021



Illinois Reported Primary and Secondary Syphilis Cases Among Women Ages 15-44 Years and Congenital Cases, 2017-2021



STI SUMMARY

Chlamydia
(Ct)

Gonorrhea
(Ng)

- The majority of Ct/Ng cases are among adolescents and young adults
 - Behavioral/biological
- African Americans are disproportionately affected
- There are people who do not have signs/symptoms (Females > Males)
- If left untreated, and especially for those with re-infections are more likely to have more adverse complications

STI SUMMARY

Syphilis

- Primarily affecting males; specifically among gay, bisexual, and other same gendered loving men
- Rises in syphilis in Illinois also indicates an increase among women (and congenital syphilis cases)
- High syphilis and HIV co-infection morbidity. In Illinois, **32%** of P&S syphilis (in 2020) were co-infected with HIV. Compared to **3.0%** in 2021 (2.5% in 2020) of all Ct cases and **7.3%** in 2021 (6.6% in 2020) of all Ng cases in 2020.
- African Americans are disproportionately affected

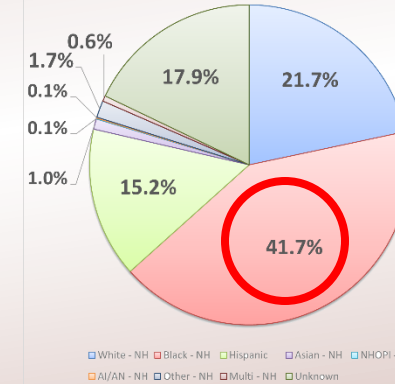
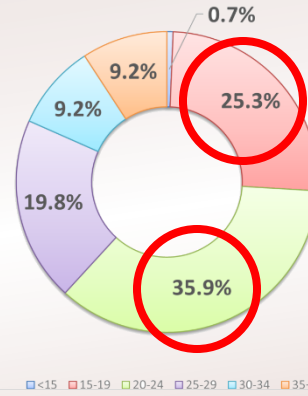
By Sex

By Age Group

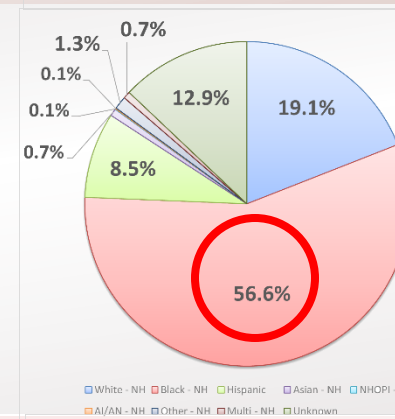
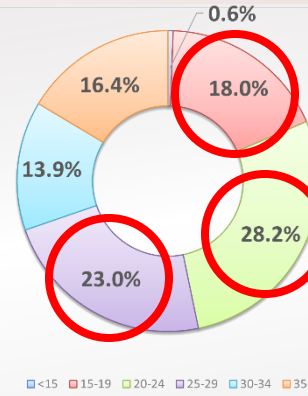
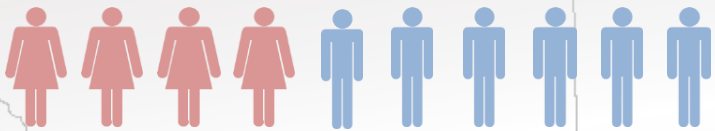
By Race/Ethnicity

Illinois (2020)

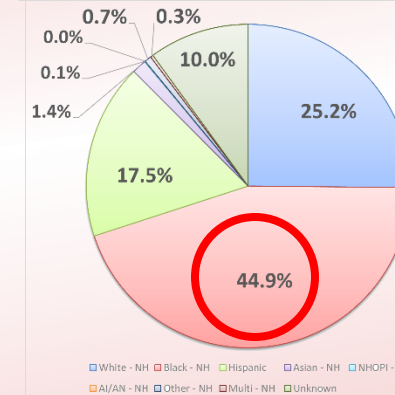
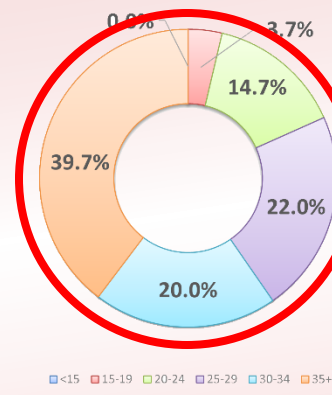
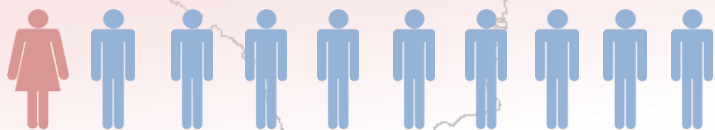
Chlamydia

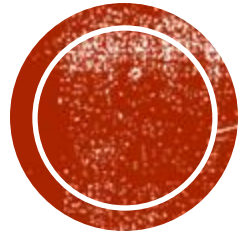


Gonorrhea



P&S Syphilis





STI TREATMENT



CHLAMYDIA TREATMENT

2021 CDC Recommendation

PREFERRED TREATMENT

- **Doxycycline 100mg orally twice a day for 7 days**
 - Doxy may be more effective for rectal CT infections

- *Alternative Regimen*
 - *Azithromycin 1g orally in a single dose*
 - If azithromycin is used because of adherence issues they should be tested within three months to make sure the infection is eradicated
 - OR
 - *Levofloxacin 500mg orally once daily for 7 days*

GONORRHEA TREATMENT

2021 CDC Recommendation

PREFERRED TREATMENT

- 500 mg Ceftriaxone IM single dose for persons weighing <150kg
 - *If chlamydia infection has not been excluded, treat for chlamydia as well (see previous slide)
 - 1g Ceftriaxone IM single dose for persons weighing >150kg.
- *Alternative Regimens (if Ceftriaxone is not available):*
 - Gentamicin 240mg IM in a single dose PLUS Azithromycin 2g orally in a single dose.
 - OR
 - Cefixime* 800mg orally in a single dose

CT/NG TREATMENT CONT.

- Please note that if a person has a penicillin allergy and cephalosporins are not indicated, CDC guide indicates to treat Gonorrhea with Gemifloxacin or Gentamycin and refer to an infectious disease physician
 - Further assistance can be found at the current CDC STD treatment guidelines or by contacting the IDPH STI section.

After Treatment Guidance:

- Refrain from alcohol/sex for at least 7 days after the completion of medication to prevent possible re-acquisition of infection
- Dual therapy is recommended because Ng has been able to develop resistance to antibiotics used to treat it historically
- Re-infection rates for Ct and Ng are high and treating partners is very important
 - EPT or expedited partner therapy should be used when possible and can be incorporated into medical standing orders

SYPHILIS TREATMENT

2021 CDC Recommendation

- **Early Syphilis (Primary, Secondary, Early Non-Primary Non-Secondary < 1 yr. Duration)**
 - Benzathine penicillin G 2.4 million units IM in a single dose
 - Penicillin allergy
 - Doxycycline 100 mg orally BID x 14 days if penicillin allergy
- **Late or Unknown Duration***
 - Benzathine penicillin G 7.2 million units total, administered as three doses of 2.4 million units IM each at 1-week intervals
 - Penicillin allergy
 - Doxycycline 100 mg orally BID x 28 days if penicillin allergy

NOTE: Persons with HIV infection who have any of the above syphilis stages should be treated similarly to those without HIV (see Syphilis Among Persons with HIV Infection in the 2021 CDC Treatment Guidelines)

SYPHILIS TREATMENT CONT.

2021 CDC Recommendation cont.

- **Pregnancy (allergic to penicillin)**
 - De-sensitize and treat with penicillin at exactly seven-day intervals if late latent. If this is not done, treatment must start over
 - Missed doses >9 days between doses are not acceptable for pregnant women receiving therapy for late latent syphilis
 - An optimal interval between doses is 7 days for pregnant women
 - If a pregnant woman does not return for the next dose on day 7, every effort should be made to contact her and link her to immediate treatment within 2 days to avoid retreatment
 - Pregnant women who miss a dose of therapy should repeat the full course of therapy.

NOTE: Persons with HIV infection who have any of the above syphilis stages should be treated similarly to those without HIV (see Syphilis Among Persons with HIV Infection in the 2021 CDC Treatment Guidelines)



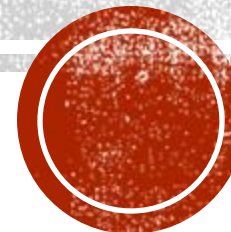
THANK YOU

Special Thanks to:

Heather Daugherty
STI Training and Development Coordinator

Nora Kelly
STI Information Systems Administrator

Rey Grant
CDC Public Health Advisor





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