# National Center for HIV, Viral Hepatitis, STD, and TB Prevention Division of STD Prevention



# Syphilis in the US: The Current State of the Epidemic and How It Is Being Addressed

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**April 16, 2024** 

#### **Disclosures**

#### None

The findings and conclusions in this presentation are those of the presenter and do not necessarily represent the official position of the Centers for Disease Control and Prevention or the U.S. Department of Health and Human Services.



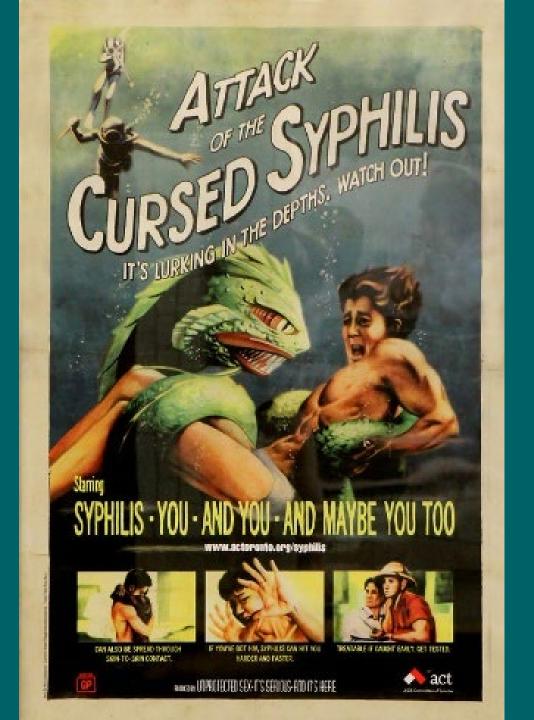
## Language Disclaimer

- Race and ethnicity are social rather than biological constructs.
- Any differences due to race and ethnicity described here should not be interpreted as due to a biological cause, but rather are a result of systemic inequities and disparities linked to race and ethnicity.
- Pregnant person and birthing parent are used throughout to denote persons who are or have been pregnant.
- Where "maternal" is used as an adjective, it should be understood to denote features of the birthing parent, agnostic to gender, gender identity, parenting intention, and parenting identity.



#### Roadmap

- By the Numbers
- Prevention
- The Federal Response to Syphilis

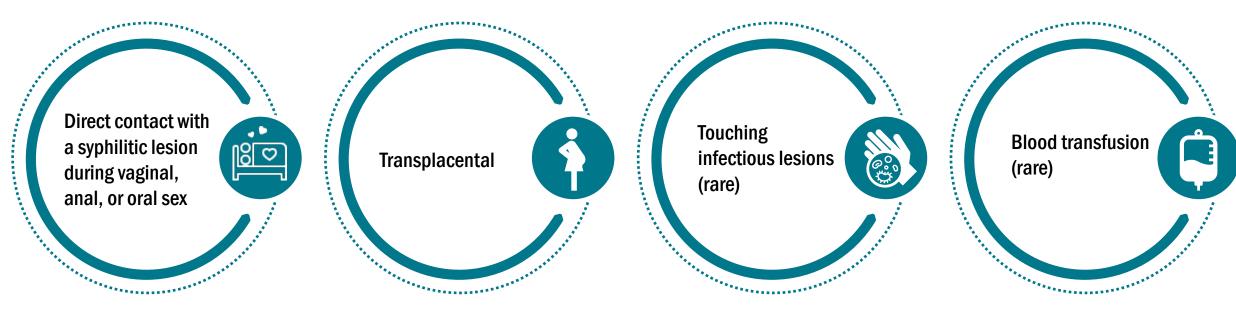


#### WHAT IS SYPHILIS?

#### **BACKGROUND**

Syphilis is a sexually transmitted infection (STI) caused by the spirochete bacterium *Treponema pallidum*. It can lead to serious health problems without treatment.

#### Syphilis can be transmitted by:



#### **COMPLICATIONS OF UNTREATED SYPHILIS**

#### **BACKGROUND**



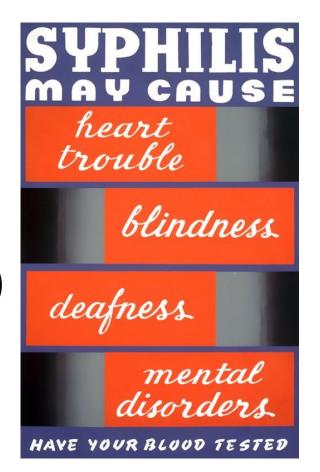
- Neurosyphilis/ocular syphilis/otosyphilis
  - Stroke
  - Meningitis
  - Blindness
  - Hearing loss



- Congenital syphilis (transplacental transmission)
  - Stillbirth
  - Neonatal sepsis



Increased HIV acquisition/transmission



# CONGENTIAL SYPHILIS CAN BE PREVENTED BACKGROUND

#### Congenital syphilis can be prevented by:

Diagnosing and treating syphilis prior to pregnancy

A CILLER

Diagnosing and treating syphilis more than 30 days before delivery

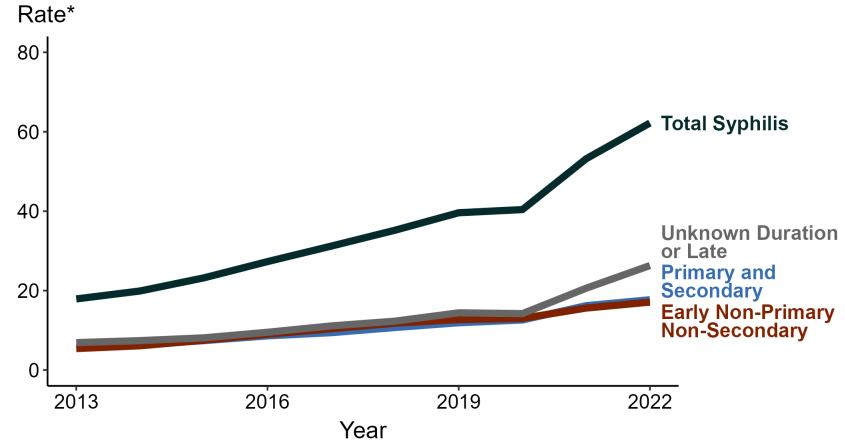


# **By The Numbers** All figures can be found in CDC's 2022 STI Surveillance Report.

#### **SYPHILIS TRENDS**

**SURVEILLANCE OVERVIEW** 

Syphilis rates are increasing across the United States. In 2022, there were 207,255 total cases of syphilis.





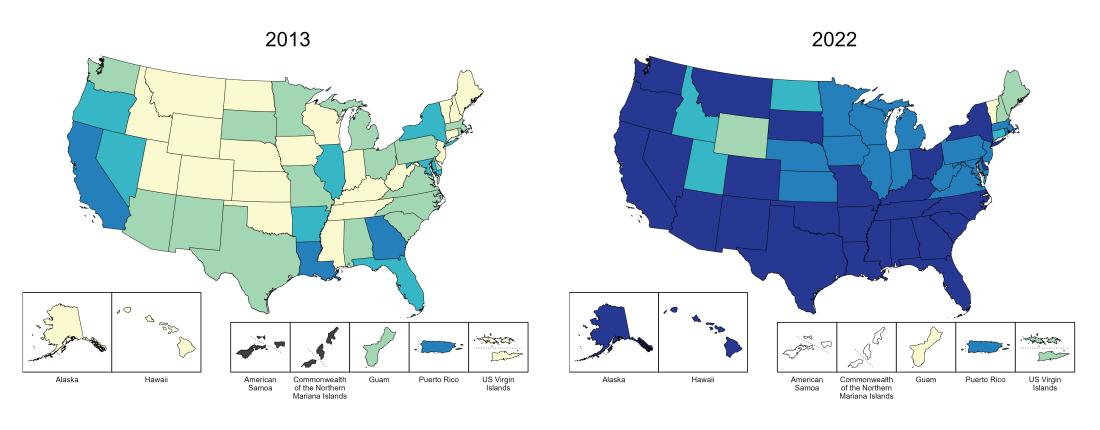
NOTE: Includes all stages of syphilis and congenital syphilis

\*Per 100,000

#### PRIMARY AND SECONDARY SYPHILIS

**SURVEILLANCE OVERVIEW** 

The primary and secondary syphilis rate (the most infectious stages) increased by 222% from 2013 to 2022.



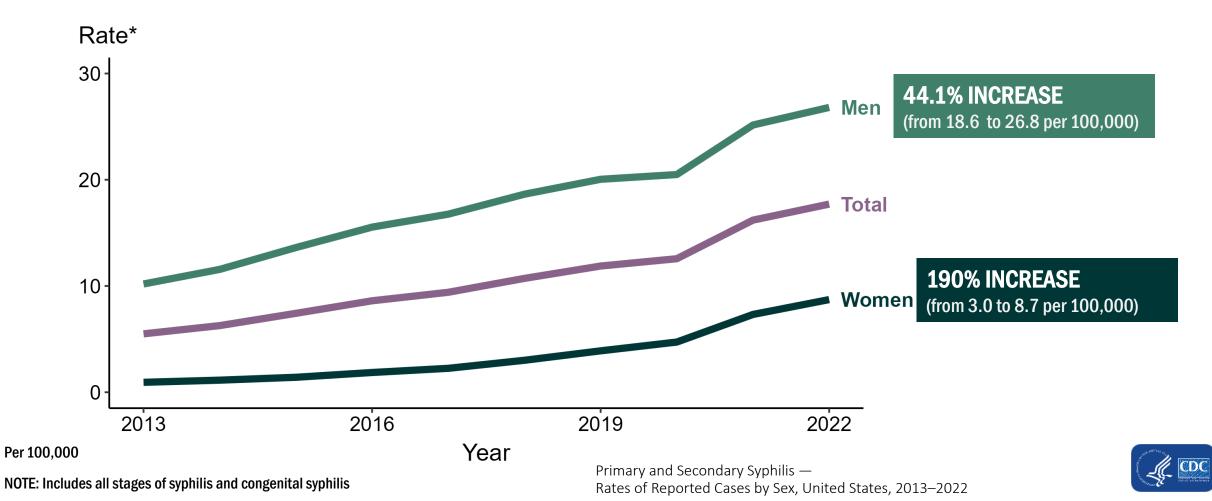




#### PRIMARY AND SECONDARY SYPHILIS CASES BY SEX

**SURVEILLANCE OVERVIEW** 

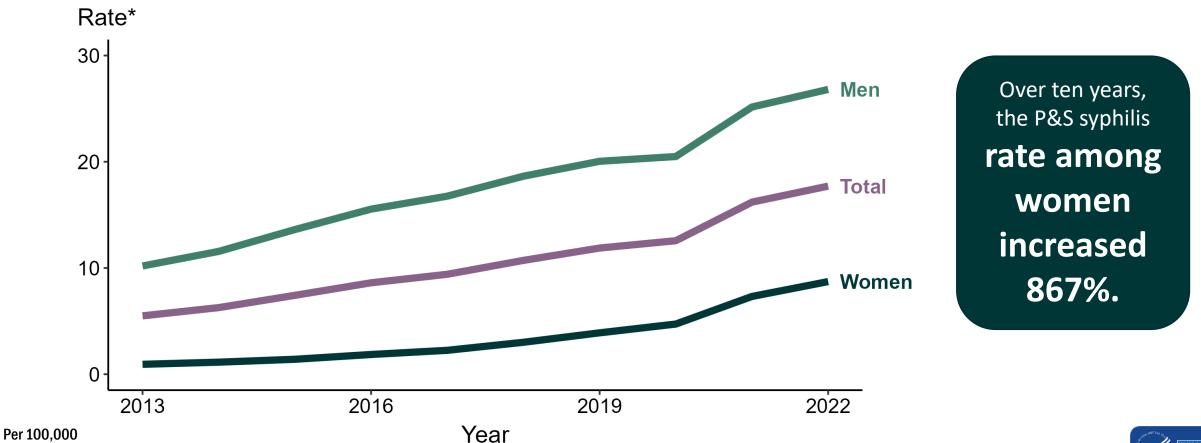
From 2021-2022, the rate of reported primary and secondary syphilis among women increased 3 times more than the rate among men.



#### PRIMARY AND SECONDARY SYPHILIS CASES BY SEX

**SURVEILLANCE OVERVIEW** 

From 2021-2022, the rate of reported primary and secondary syphilis among women increased 3 times more than the rate among men.

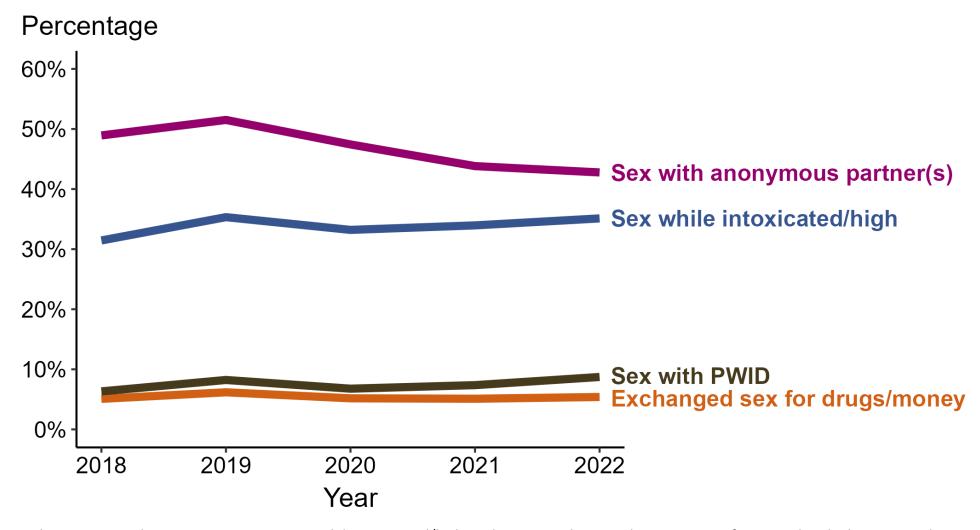


NOTE: Includes all stages of syphilis and congenital syphilis

Primary and Secondary Syphilis — Rates of Reported Cases by Sex, United States, 2013–2022

#### PRIMARY AND SECONDARY SYPHILIS CASES BY SEXUAL BEHAVIORS\*

**SURVEILLANCE OVERVIEW** 

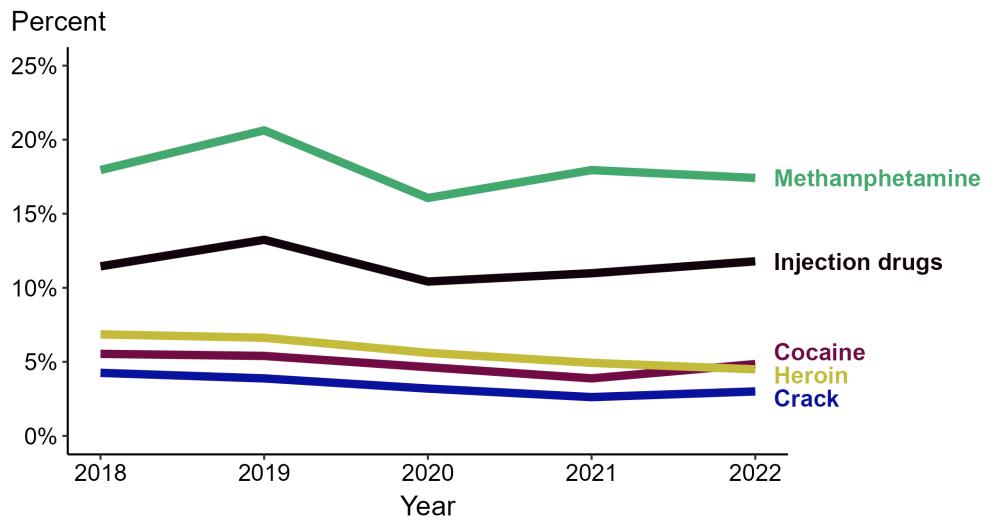


<sup>\*</sup> Proportion reporting sex with PWID, sex with anonymous partners, sex while intoxicated/high on drugs, or exchanging drugs or money for sex within the last 12 months calculated among cases with known data (cases with missing or unknown responses were excluded from the denominator).



#### PRIMARY AND SECONDARY SYPHILIS CASES AMONG WOMEN BY SUBSTANCE USED\*

**SURVEILLANCE OVERVIEW** 



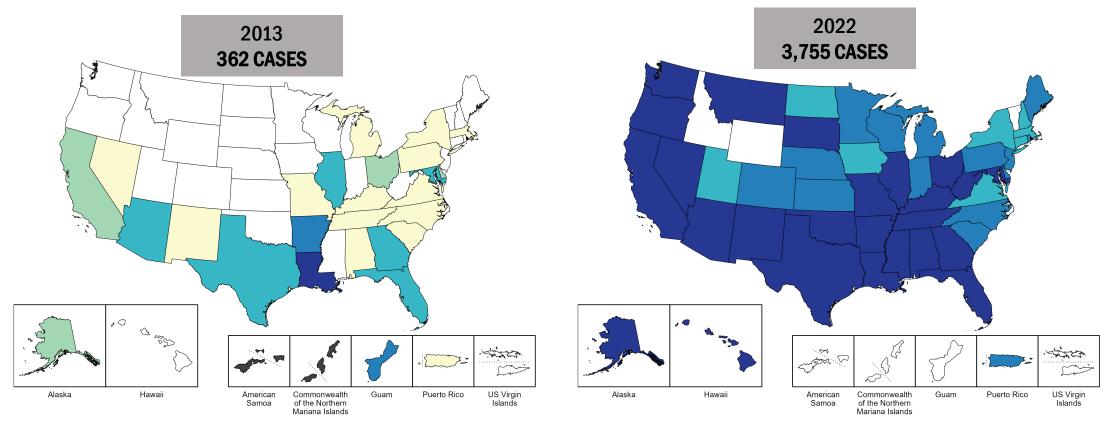
<sup>\*</sup> Proportion reporting injection drug use, methamphetamine use, heroin use, crack use, or cocaine use within the last 12 months calculated among cases with known data (cases with missing or unknown responses were excluded from the denominator).



#### **CONGENITAL SYPHILIS RATES BY JURISDICTION**

**SURVEILLANCE OVERVIEW** 

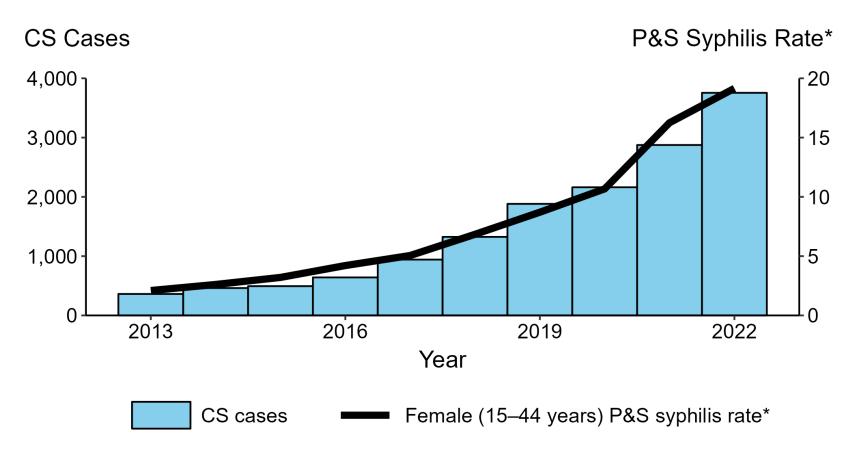
#### Congenital Syphilis cases increased by 937% from 2013 to 2022.

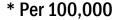




# CONGENITAL SYPHILIS INCREASES WITH PRIMARY AND SECONDARY FEMALE CASES SURVEILLANCE OVERVIEW

Congenital syphilis cases have increased over the last decade alongside primary and secondary syphilis cases among females.

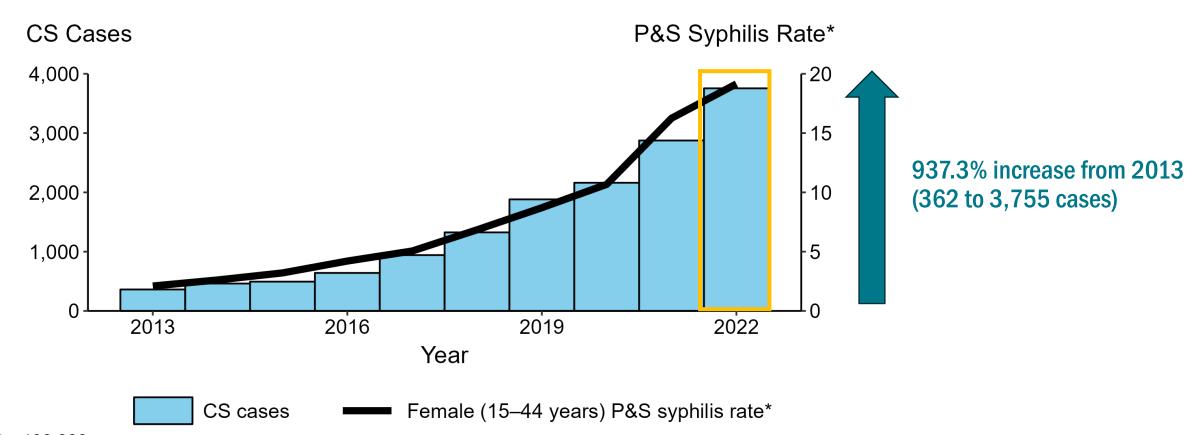






**SURVEILLANCE OVERVIEW** 

In 2022, there were a total of 3,755 cases of congenital syphilis reported.

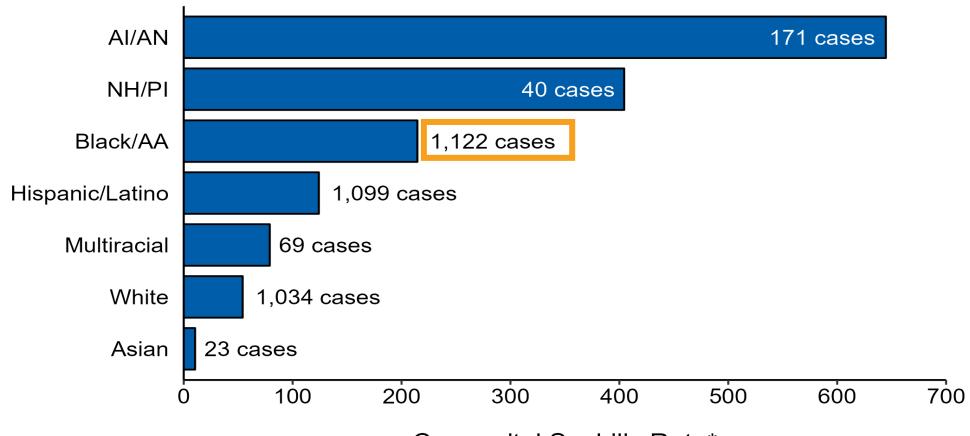


- \* Per 100,000
- ACRONYMS: CS = Congenital syphilis; P&S Syphilis = Primary and secondary syphilis



BY THE NUMBERS: SURVEILLANCE OVERVIEW

The highest number of reported cases in 2022 was among birthing people who were non-Hispanic Black or African American.



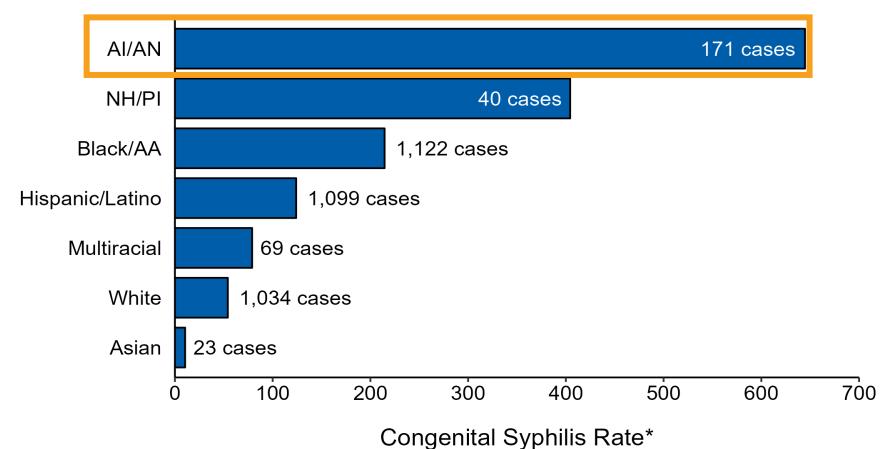


Congenital Syphilis Rate\*



BY THE NUMBERS: SURVEILLANCE OVERVIEW

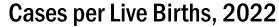
The highest rates of congenital syphilis in 2022 were among birthing people who were non-Hispanic American Indian or Alaska Native.

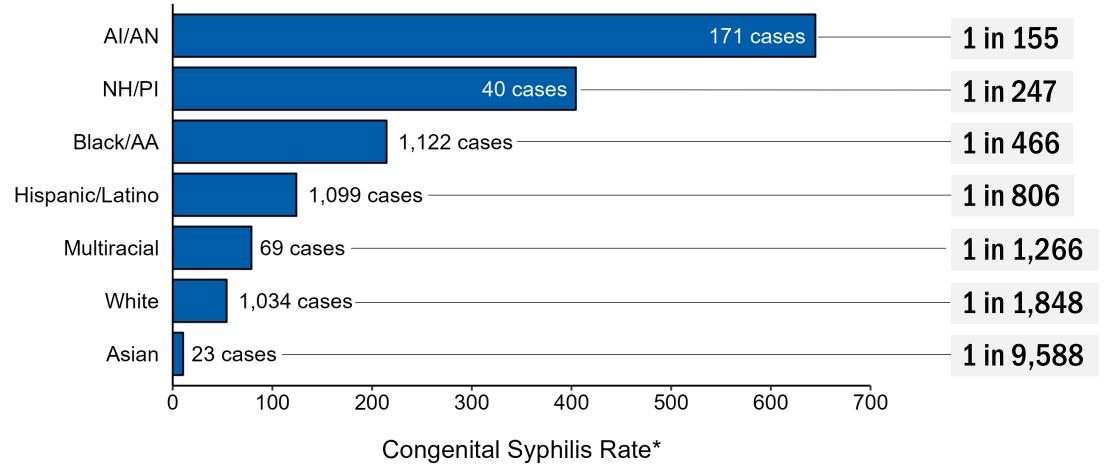






#### BY THE NUMBERS: SURVEILLANCE OVERVIEW





<sup>\*</sup>Per 100,000 live births

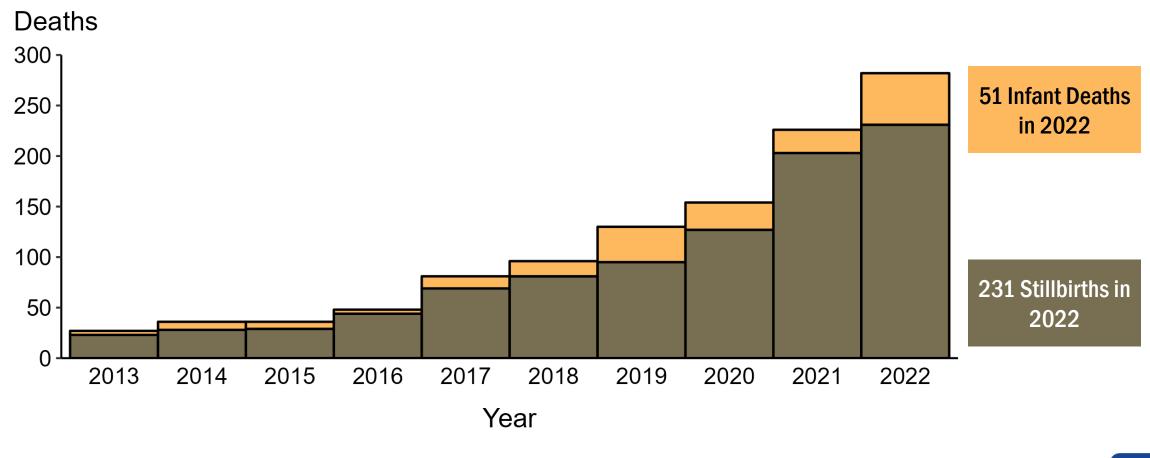


#### CONGENITAL SYPHILIS REPORTED STILLBIRTHS AND INFANT DEATHS, 2013 - 2022

Infant death

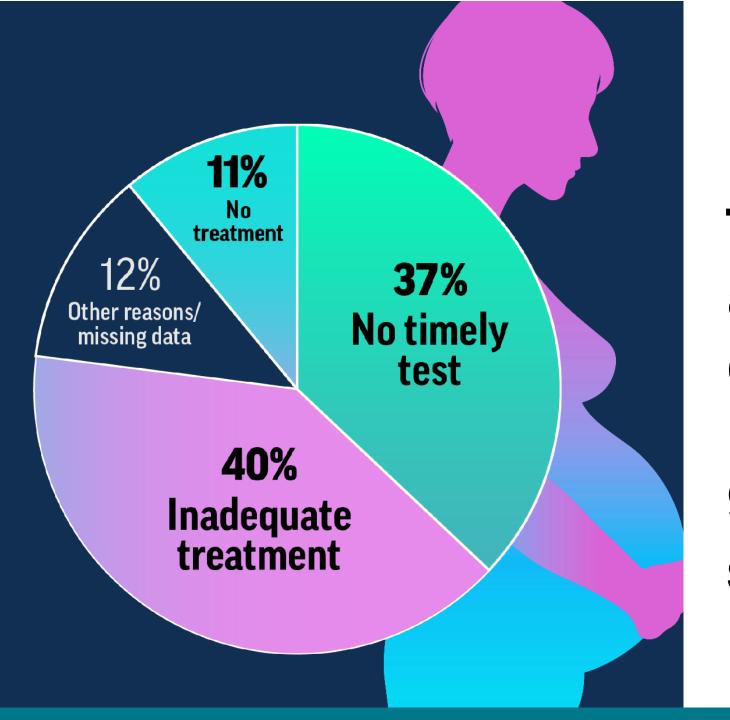
**SURVEILLANCE OVERVIEW** 

In 2022, there were 282 congenital syphilis-related losses, a 24.8% increase from 2021.



Stillbirth



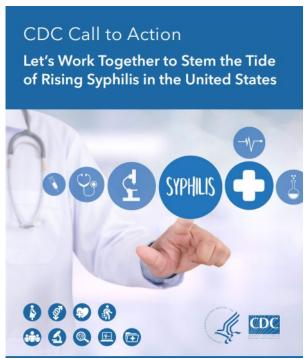


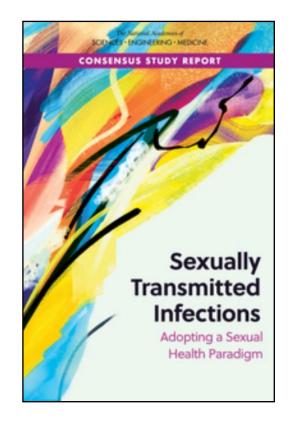
**Timely syphilis testing** and treatment during pregnancy could have prevented almost 90% of congenital syphilis cases.

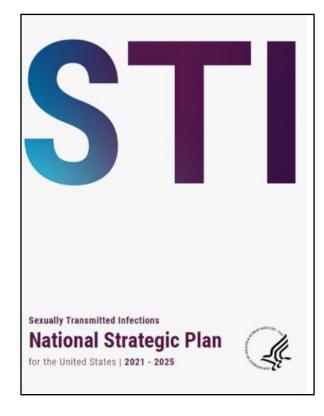
# The Federal Response to Syphilis

### Calls to Action









DISEASES | ACCESS TO CARE | PUBLIC HEALTH | MATERNAL HEALTH | CLINICS | SYSTEMS OF CARE

## Babies With Syphilis: A Catastrophic Failure Of The US Health Care System 10.1377/forefront.20210915.7

#### <u>eandro Mena</u>



**Health Care** 

Babies Are Dying of Syphilis. It's 100% Preventable.

PI PROPUBLICA

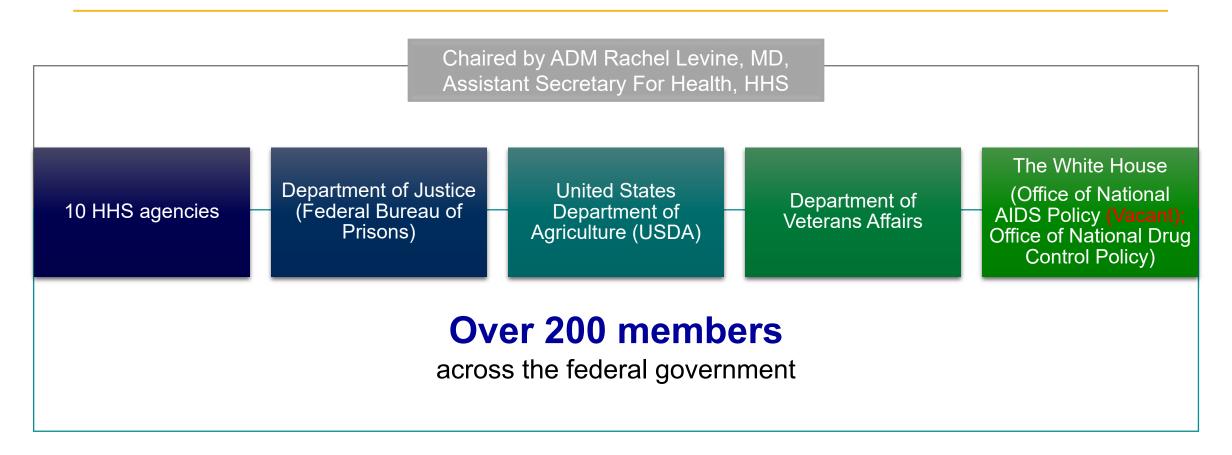


# National Syphilis and Congenital Syphilis Syndemic (NSCSS) Federal Task Force

Goal: Reduce rates of primary and secondary syphilis and congenital syphilis and reduce syphilis health disparities in the United States. Specifically, avert five percent of congenital syphilis cases by September 2024.

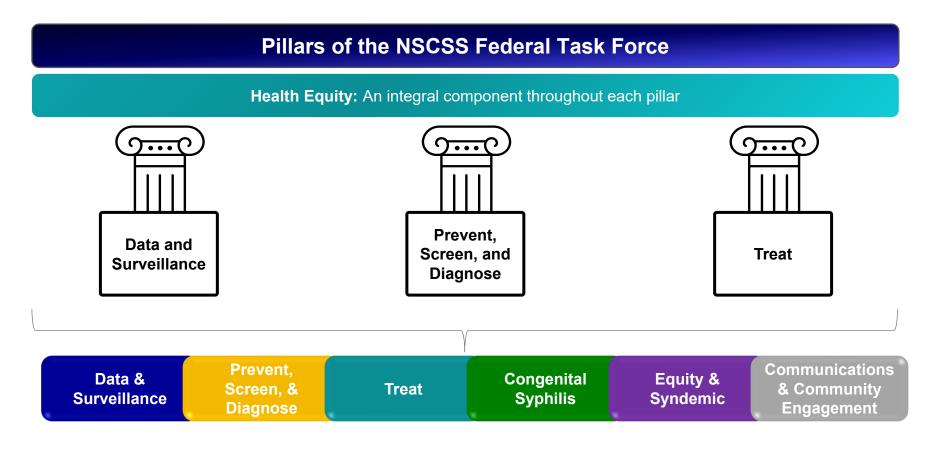


#### **NSCSS Federal Task Force Members**





#### **NSCSS Federal Task Force Framework**



6 subcommittees that drive the work of the three pillars



#### **NSCSS Federal Task Force Subcommittees**

**Data and Surveillance** 

**Co-Chairs: CDC and IHS** 

**Prevent, Screen, and Diagnose** 

**Co-Chairs: CDC and HRSA** 

**Treat** 

**Co-Chairs: CDC and FDA** 

**Congenital Syphilis** 

**Co-Chairs: CDC and OASH (OWH)** 

**Equity and Syndemic** 

**Co-Chairs: IHS and OASH (OIDP)** 

**Communications and Community** 

**Engagement** 

Co-Chairs: ASPA and OASH



#### **NSCSS Federal Task Force Key Priorities**



Identify priority areas of focus



Recommend programmatic, policy, and procedural actions for federal agencies



Increase community engagement and public awareness



#### **NSCSS Federal Task Force Operational Functions**

- →Convene regular meetings to support information sharing to align strategies, share best practices, and coordinate resources
- →Assess opportunities to leverage existing resources to address syphilis and congenital syphilis in identified priority communities
- →Identify additional agencies that have a role to play in addressing the syndemic of syphilis and congenital syphilis
- →Share progress and updates of NSCSS at least on a quarterly basis



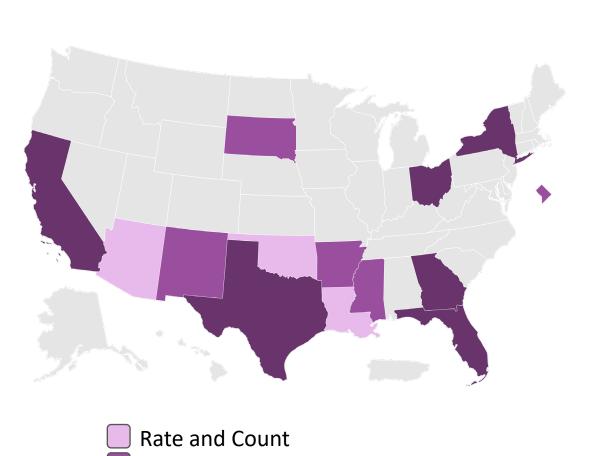
#### **NSCSS 14 Priority Jurisdictions**

Areas were identified according to their rank of reported case counts or reported case rates.

Nationwide, these jurisdictions account for 57.1% of P&S syphilis cases, and 73.7% of CS cases.

#### These priority jurisdictions represent:

- Over 65% of P&S syphilis cases and over 70% of CS cases among Non-Hispanic American Indian/Alaska Natives individuals
- Over 50% of P&S syphilis cases and over 65% of CS cases among Non-Hispanic Black or African American individuals
- Over 70% of P&S syphilis cases and over 85% of CS cases among Hispanic or Latino individuals (any race)



Rate only

Count only

# National Syphilis & Congenital Syphilis Syndemic Task Force

#### **Priority Populations**

Gay, bisexual, and other men who have sex with men

Populations of transgender and other gender minorities

Pregnant persons and partners of pregnant persons

People living with HIV

Justice-involved people

People who use substances

Racial and ethnic minority populations

Organizations that provide direct services to priority populations



# Tackling the Syphilis Epidemic: Actions Taken (July 2023 – December 2023)

Timeline	Actions
Jul 2023	✓ HRSA and IHS issued letters to grantees and providers with informational resources
Oct 2023	<ul> <li>✓ CDC published draft guidelines for doxycycline use among certain groups</li> <li>✓ IHS announced a new national clinical strategic initiative and released STI Treatment Guidance</li> </ul>
Dec 2023	✓ HHS generated heatmaps for priority jurisdictions overlaying syphilis cases with available resources



# Recent and Future Actions to Combat Syphilis Epidemic (January 2024 Onwards)

Timeline	Actions
Jan 2024	<ul> <li>✓ FDA announced the availability of Extencilline® to address Bicillin L-A® shortages</li> <li>✓ HHS held two Equity workshops focused on American Indian and Alaska Native tribes and the other focused on national efforts to improve syphilis outcomes</li> </ul>
Feb 2024	<ul> <li>✓ NIH will host a workshop on the expansion of syphilis treatment with NIH researchers</li> <li>✓ Additional workshops will be held on syphilis prevention, treatment, and other related issues</li> <li>✓ HHS and CDC will co-host a provider roundtable on Congenital Syphilis Prevention</li> </ul>
Mar 2024 onwards	<ul> <li>✓ Ongoing plans include meetings with priority areas, collaboration with medical societies, and leveraging funding flexibilities</li> <li>✓ Strategically plan to leverage funding flexibilities for grant programs to enhance use of grant funds, including staff time, for STI counseling, testing, and treatment services</li> </ul>



#### **Strategic Action Plan for Syphilis Intervention**

Thematic Area	Actions
Provider Education and Training	<ul> <li>Raise provider awareness and provide training on diagnostic and treatment guidelines for primary and secondary syphilis and congenital syphilis</li> <li>Address treatment shortages and explore solutions to ensure adequate availability</li> <li>Tackle challenges associated with the cost of Extencilline</li> </ul>
Public Awareness	Enhance public awareness initiatives to address the gaps identified
Information Sharing of Best Practices	<ul> <li>Implement best practices shared by jurisdictions, including leveraging existing funding mechanisms for STI workforce expansion</li> <li>Utilize funds for STI-related initiatives to effectively address the identified issues</li> </ul>

# **Major Successes to Date**

Conduct
briefings with
external partners
for collaboration
opportunities

Support a temporary import of Extencilline to address Bicillin® L-A shortage



Convene
workshops to
address disparities
and focus on
research
strategies



Work with agencies to issue funding flexibility letters to grantees for syphilis care





# **Next Steps**



Continue to raise awareness about syphilis and improve training among the healthcare workforce



Issue point of care considerations



Develop a healthcare provider campaign



Continue to strengthen external partnerships to address CS

**Expected Summer 2024:** Doxycycline as PEP for syphilis guidance

# Stopping Syphilis and Preventing Congenital Syphilis

ADDRESSING SYPHILIS AND CONGENITAL SYPHILIS COLLECTIVELY

01

Congenital syphilis has significant public health implications.

Babies are dying and facing lifelong impacts.

The cost of managing CS is more than screening and treating someone during pregnancy.

02

It is a reflection of inadequate health care services across the country and health inequities.



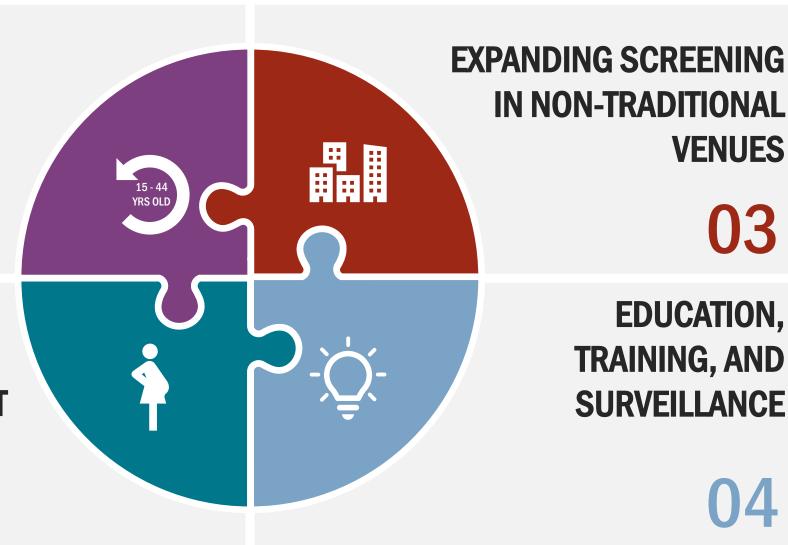
ADDRESSING SYPHILIS AND CONGENITAL SYPHILIS

SCREENING AND TREATING SEXUALLY ACTIVE PEOPLE

01

SCREENING AND TREATING PEOPLE WHO ARE PREGNANT

02



ADDRESSING SYPHILIS AND CONGENITAL SYPHILIS

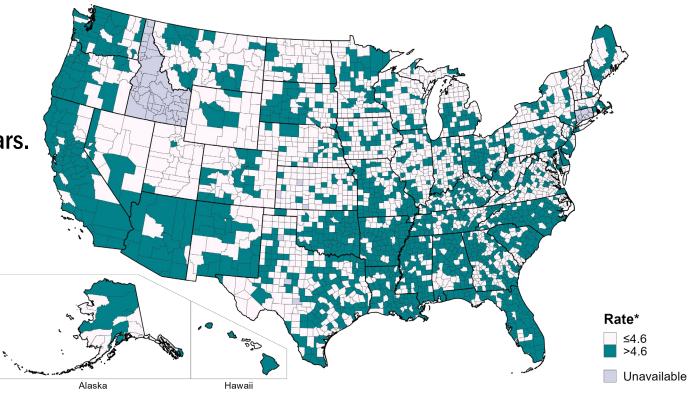
#### **SCREENING AND TREATING OF SEXUALLY ACTIVE PEOPLE**

If the person is sexually active, they should get tested for syphilis.

Screen all sexually active people ages 15-44
for syphilis in counties where primary and
secondary syphilis rate is above
4.6/100,000 among females aged 15-44 years.
\*This includes 76% of the U.S. population.\*

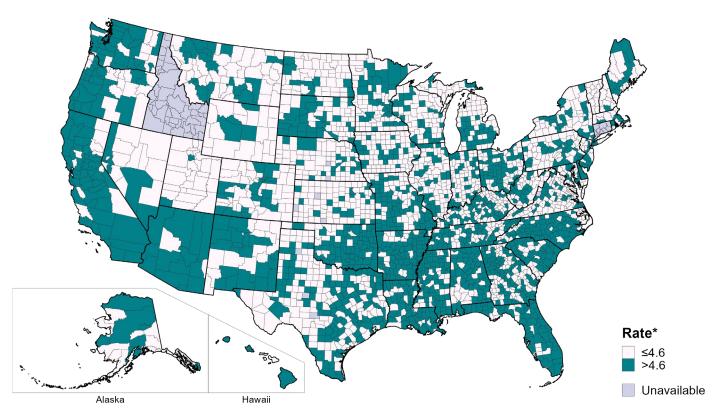
2. Screen people with increased risk of syphilis exposure.

3. Take comprehensive social and sexual health histories. For information on how to do this: check out NCSD's Webinar.



# CURRENT STRATEGIES AND RECOMMENDATIONS ADDRESSING SYPHILIS AND CONGENITAL SYPHILIS

# WHAT'S YOUR COUNTY RATE?





**Scan the QR Code Below to find out** your county rate

- Per 100,000
- NOTE: The Healthy People 2030 target for the rate of primary and secondary syphilis in women aged 15–44 years is 4.6 per 100,000.



ADDRESSING SYPHILIS AND CONGENITAL SYPHILIS

#### **SCREENING AND TREATING PEOPLE WHO ARE PREGNANT**

All pregnant people should be tested for syphilis early in pregnancy.

- 1. First prenatal visit Consider screening and treatment at the time of pregnancy confirmation if follow-up is difficult.
- 2. **28 weeks and at delivery** for people with increased risk of syphilis exposure, partners with increased risk of exposure, or who live in a high morbidity area per the prior metric.
  - Prior STIs
  - Recent incarceration
  - Substance use
  - Housing instability
  - Transactional sex
- All people delivering a stillborn infant.
- 4. **Prioritize treating people who are pregnant** with benzathine penicillin G as needed.
- 5. Test and treat the partners of people who are pregnant.



#### ADDRESSING SYPHILIS AND CONGENITAL SYPHILIS

#### **Check for local changes in screening guidelines**



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Indian Health Service Rockville MD 20857

Karen Shelton, MD

State Health Commissioner

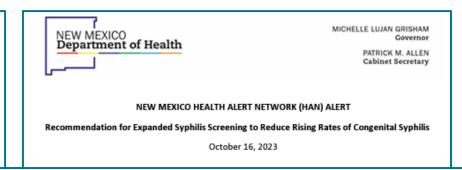
JULY 19, 2023

Dear Tribal Leader and Urban Indian Organization Leader:

I am writing to provide you with information regarding the syphilis epidemic affecting American Indian and Alaska Native (AI/AN) communities. American Indian and Alaska Native people have the highest rates of syphilis and congenital syphilis of any group in the country. Some congenital syphilis cases have resulted in stillbirths or death shortly after birth. The Indian Health Service (IHS) is committed to reducing the prevalence of syphilis in AI/AN communities and I ask for your assistance in helping us achieve this goal.

To address the syphilis epidemic, IHS Chief Medical Officer, Dr. Loretta Christ recommended the following guidelines and resources for all IHS, Tribal, and Ut Organizations:

- Annual syphilis testing for persons aged 13 to 64 to eliminate syphilis early case recognition.
- Turn on the annual Electronic Health Record reminder at all sites to for two years or until incidence rates decrease locally to baseline.
- Three-point syphilis testing for all pregnant people at the first prenata of the third trimester, and delivery.
- Adoption of a sexually transmitted infection (STI)/human immunode virus (HIV)/Viral hepatitis testing bundle at all sites to screen broadly
  - Syphilis screening test with reflex rapid plasma reagin (RPR) and pallidum particle agglutination (TPPA).
  - HIV serology (with documentation of consent if required in the jurisdiction).
  - Screening for gonorrhea and chlamydia at three sites: Urine, Pha
  - Screening for hepatitis B and C.
  - Pregnancy test.
- Adoption of "Express STI Testing." Express STI services refer to triag testing without needing a full clinical exam.
  - Research shows that express STI services increase clinic capacity time to treatment
  - Find the Express Testing Guide and Toolkit on the Indian Countsite: Sample Toolkit for Express STI Resources Indian Country



#### UPDATED SYPHILIS GUIDELINES



#### COMMONWEALTH of VIRGINIA

Department of Health P O BOX 2448 RICHMOND, VA 23218

TTY 7-1-1 OR 1-800-828-1120

**Updated Syphilis Guidelines** 

November 28, 2023



### **BICILLIN SHORTAGE**

ADDRESSING CONGENITAL SYPHILIS

Bicillin L-A® Shortage impacts care for persons with syphilis.

Pfizer alerts doctor shortage of antibior prioritize drug for p

The New York Times

# Antibiotic Shortage Could Worsen Syphilis Epidemic

Syphilis arce into next year, Pfizer warns.

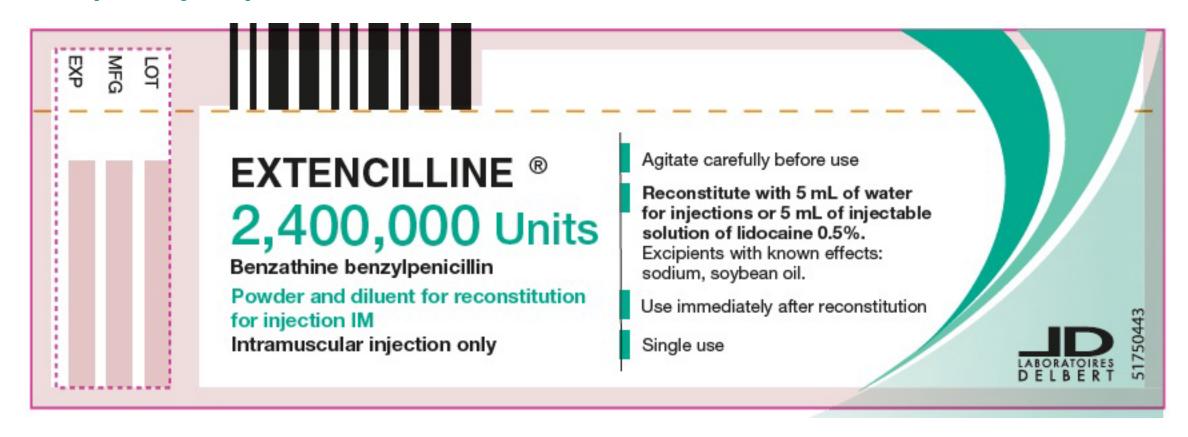
FDA to Import Penicillin From France to Address Syphilis Drug Shortage

January 16, 2024

To address the ongoing U.S. shortages of Bicillin L-A, a temporarily approved French manufacturer Laboratoire Extencilline, (benzathine benzylpenicillin) a drug not ap US syphilis cases are rising, and STD clinics warn they're struggling to find crucial antibiotic



### **Temporary Importation: Extencilline**

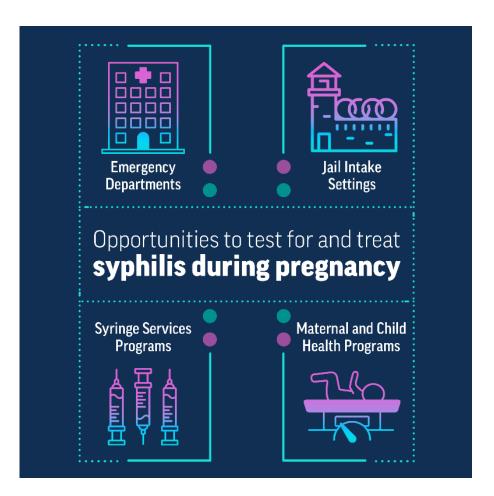


# CURRENT STRATEGIES AND RECOMMENDATIONS ADDRESSING SYPHILIS AND CONGENITAL SYPHILIS

#### **EXPANDING SCREENING IN NON-TRADITIONAL VENUES**

Any healthcare encounter during pregnancy is an opportunity to prevent congenital syphilis!

- Implement routine screening wherever people seek and receive care services
  - Jail Intake
  - Emergency Departments and Urgent Care Centers
  - Syringe Services Programs
  - Homeless Shelters
  - MCH Programs/Birthing Centers/Midwifery Services/Doula Care Services
- 2. Implement rapid syphilis tests when lost to follow-up is a concern



ADDRESSING SYPHILIS AND CONGENITAL SYPHILIS

#### **EDUCATION, TRAINING, AND SURVEILLANCE**

Talk about Syphilis! Talk about healthy sex and healthy pregnancies!

- 1. Active syphilis and congenital syphilis surveillance in all 59 jurisdictions to identify trends and missed opportunities
- 2. **Educate and train clinicians** to screen, diagnose, and treat persons with syphilis
- 3. **Educate people who are pregnant** about the risk to their pregnancy and baby if syphilis is left untreated
- 4. **Educate the general public** about the rise in syphilis and the importance of getting tested and treated



# CURRENT STRATEGIES AND RECOMMENDATIONS ADDRESSING SYPHILIS AND CONGENITAL SYPHILIS COLLECTIVELY

# Embed syphilis education and awareness into your pre-existing programs and best practices!

- Educate and equip local community health workers and doulas with syphilis information so they can share with community members and advocate for testing and treatment.
- Integrate syphilis screening and treatment services into health programs.
- Leverage social media platforms to promote syphilis awareness and prompt people to get tested.
- Conduct outreach and set-up mobile clinics to offer onsite testing and treatment to those who can't access routine health services.
- Include syphilis materials in toolkits geared towards clinicians and the public.



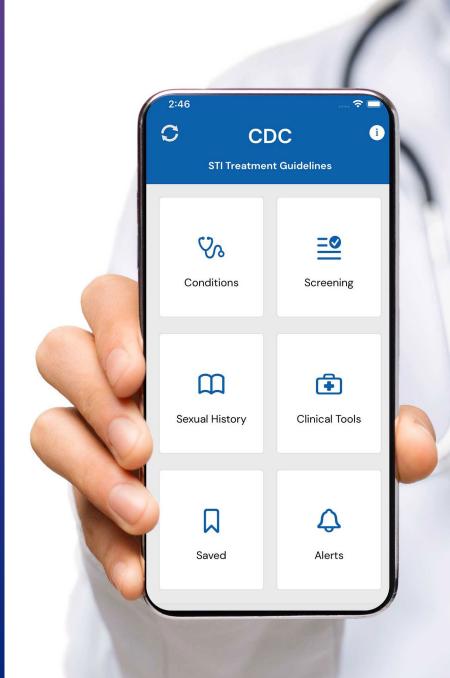


# The Updated 2021 STI Treatment Guidelines App Is Now Available

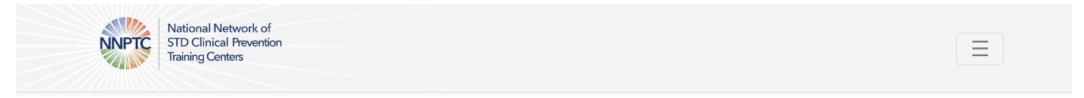
Get treatment regimens FAST

Download CDC's free app for iPhone and Android devices

www.cdc.gov/std



# National Network of STD Clinical Prevention Training Centers



# National STD Curriculum

SELF STUDY



QUICK REFERENCE



QUESTION BANK

THE MOST RECENT CDC STD
TREATMENT GUIDELINES INTEGRATED
INTO A FREE, UP-TO-DATE,
FDUCATIONAL WEBSITE FREE CE.

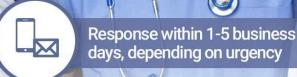
**EXPLORE THE CURRICULUM** ▶

CLINICIANS, Got a Tough STD Question?

GET FREE EXPERT STD CLINICAL CONSULTATION AT YOUR FINGERTIPS



National STD experts review



GO )

\*THIS SERVICE IS FOR CLINICAL PROVIDERS, INQUIRIES FROM THE GENERAL PUBLIC WILL NOT BE ANSWERED



National Network of STD Clinical Prevention Training Centers

# Thank you!

kmiele@cdc.gov Neelam.Gazarian@hhs.gov STI@hhs.gov

ADDRESSING SYPHILIS CONGENITAL SYPHILIS COLLECTIVELY



#### **COLORADO**

Field delivered
 medication to patients
 and their partners at
 their home

#### **SAN FRANCISCO**

 Team Lily offers wrap around services for people who are pregnant and experiencing homelessness, substance use disorders, intimate partner violence, incarceration, and/or mental illness.

#### FLORIDA AND CALIFORNIA

 Expanded routine opt-out syphilis testing in emergency departments



ADDRESSING SYPHILIS AND CONGENITAL SYPHILIS COLLECTIVELY



#### **NORTH CAROLINA**

 NC DHHS is focusing on implementing rapid syphilis testing among reproductive aged women in Family Planning/Maternal and Child Health Clinics, Community Health Centers, and Syringe Exchange Sites across the state.

#### **BALTIMORE**

Baltimore City Health
 Department's Family
 Planning Program is offering
 onsite Family Planning
 Services and STD services at
 a substance abuse treatment
 program.

#### **PHILADELPHIA**

• The STD Program collaborates with community partners, including the syringe service harm reduction program "Prevention Point" and medical clinics serving vulnerable populations. **Disease Intervention Specialists visit Prevention** Point's syringe exchange program bi-monthly during "Women's Night Out" to provide STI and HIV screening, educational resources, test results, condoms, and partner services.



#### ADDRESSING SYPHILIS AND CONGENITAL SYPHILIS COLLECTIVELY





January 2024

RE: Using Title V Flexibilities to Support Congenital Syphilis Prevention

Dear Title V Maternal and Child Health Colleagues:

I am writing with an important update about rising cases of congenital syphilis and HRSA's efforts to partner with you to address this trend.

As you may know, syphilis during pregnancy can cause adverse maternal and neonatal outcomes, including stillbirth, miscarriage, infant death, and congenital anomalies. A recent <u>Vital Sians</u> report from the Centers for Disease Control and Prevention (CDC) noted that congenital syphilis cases in the United States have increased more than 10-fold since 2012. **Roughly 90% of these cases are** *preventable* with timely testing and treatment. In almost 40% of cases, mothers received no prenatal care during pregnancy.

We recognize the response to this public health challenge requires innovative ideas and new collaborations. We want to be very clear that states have the flexibility to expend Title V Maternal and Child Health (MCH) Service Block Grant funds to support efforts to help assist families regarding testing, diagnosis and treatment of syphilis for pregnant women in your jurisdiction.

Title V MCH Services Block Grant programs do not need to seek prior approval to use Title V funds for these efforts if expenditures are otherwise in accordance with state/jurisdiction fiscal policies and the MCH block grant statute.

To address the increase of congenital syphilis, state Title V programs can:

- Engage with your State Sexually Transmitted Infection (STI) and Ryan White HIV/AIDS programs on efforts to address rising rates of syphilis (e.g., provider education, testing and treatment programs, and public awareness campaigns).
- 2) Partner with organizations that provide care to pregnant women (maternal health programs, hospitals, jails, syringe services programs) to make testing more accessible, expedite treatment, enhance case-tracking, and link people with necessary services. Consider purchasing testing kits for local health departments.
- 3) Collaborate with community programs that care for those who have medical, economic, or social vulnerabilities to reduce structural barriers to syphilis care. Racial and ethnic disparities in congenital syphilis rates reflect the need to make testing and treatment more accessible to all MCH populations.
- Provide epidemiological support for surveillance of syphilis and congenital syphilis cases.
- Share key messages with clinicians, family planning providers, home visitors, and other members of the perinatal workforce, such as the need to

Utilize Title V Funds to support families in getting tested, treated, and educated on syphilis and congenital syphilis!

Link to access document

