Congenital Syphilis in California

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Kern County Congenital Syphilis Elimination Summit

California Department of PublicHealth

Outline

The Situation

The Response

Resources

The Situation

A refresher on **syphilis**…

Sexually transmitted infection reported for public health data monitoring

Untreated infection may lead to severe, long-term health problems

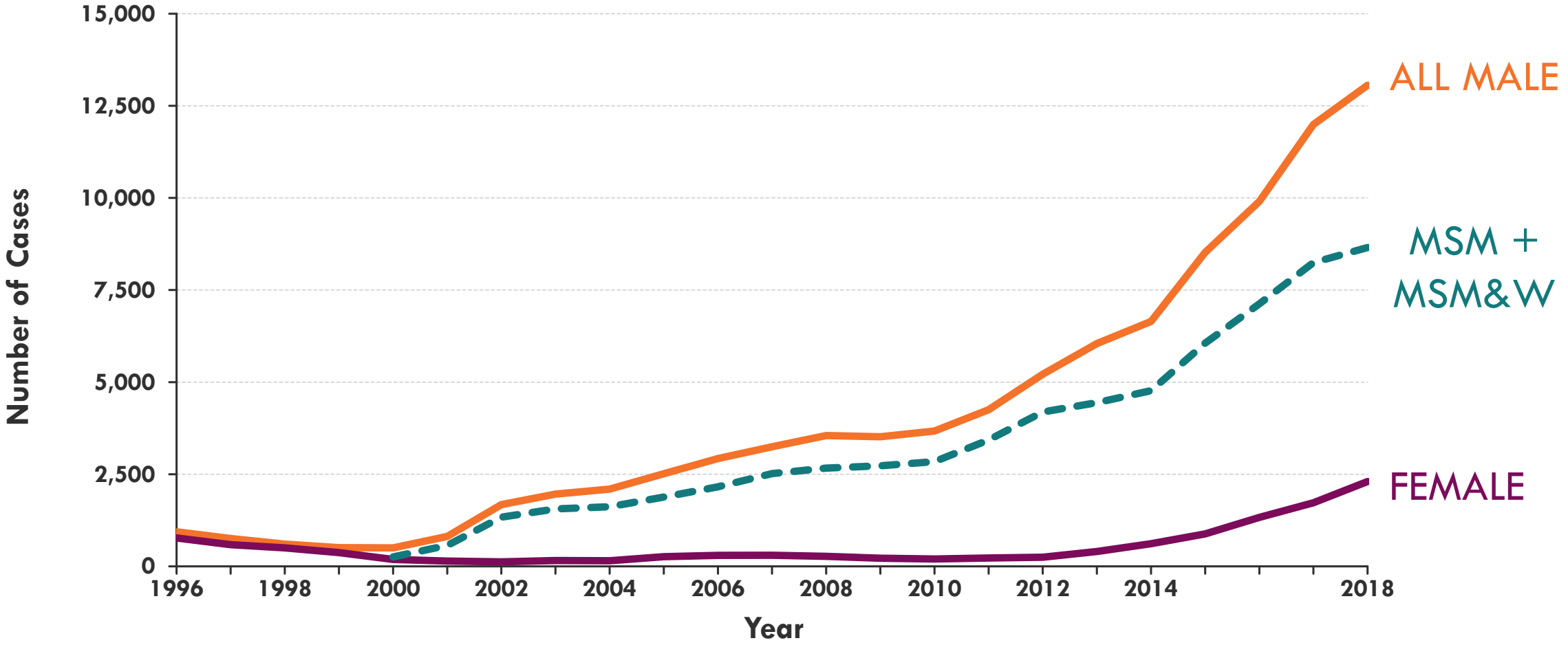
Detected by a blood test – a positive test requires second confirmatory test

Congenital syphilis (CS)

- Transmitted from mother to child during pregnancy, regardless of the stage of disease
- Can cause severe illness in babies, including premature birth, birth defects, blindness, hearing loss and even death
- Preventable with timely diagnosis and treatment of syphilis in pregnant women

Prevention of CS is an urgent priority for California

Early Syphilis*, Cases by Gender
California, 1996–2018

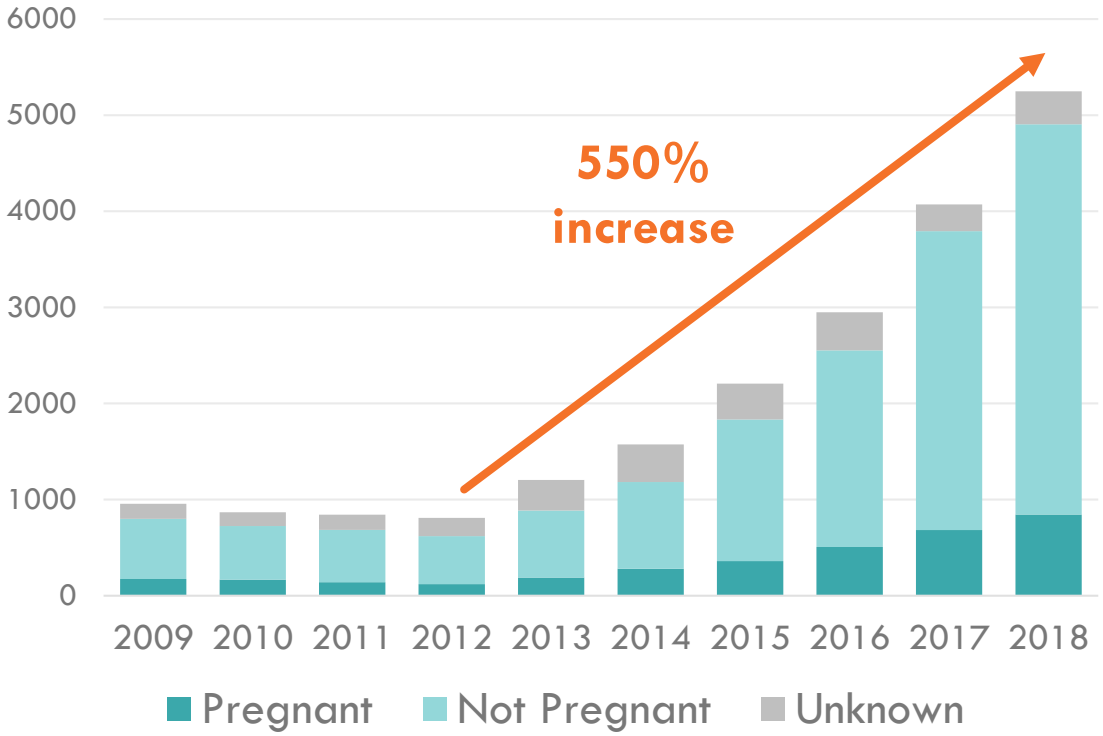


* Includes primary, secondary, and early non-primary non-secondary syphilis.

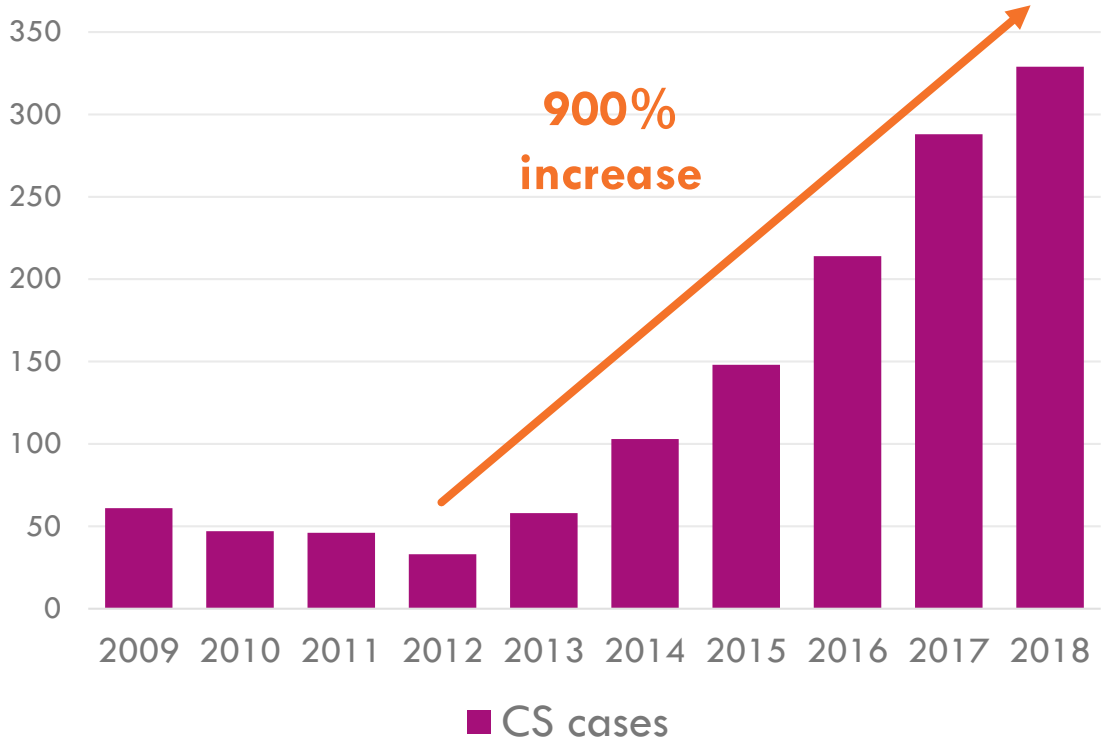
Rev. 7/2019

Syphilis in females and infants has been **increasing** in California since 2012

Female syphilis cases (all stages)



Congenital syphilis cases



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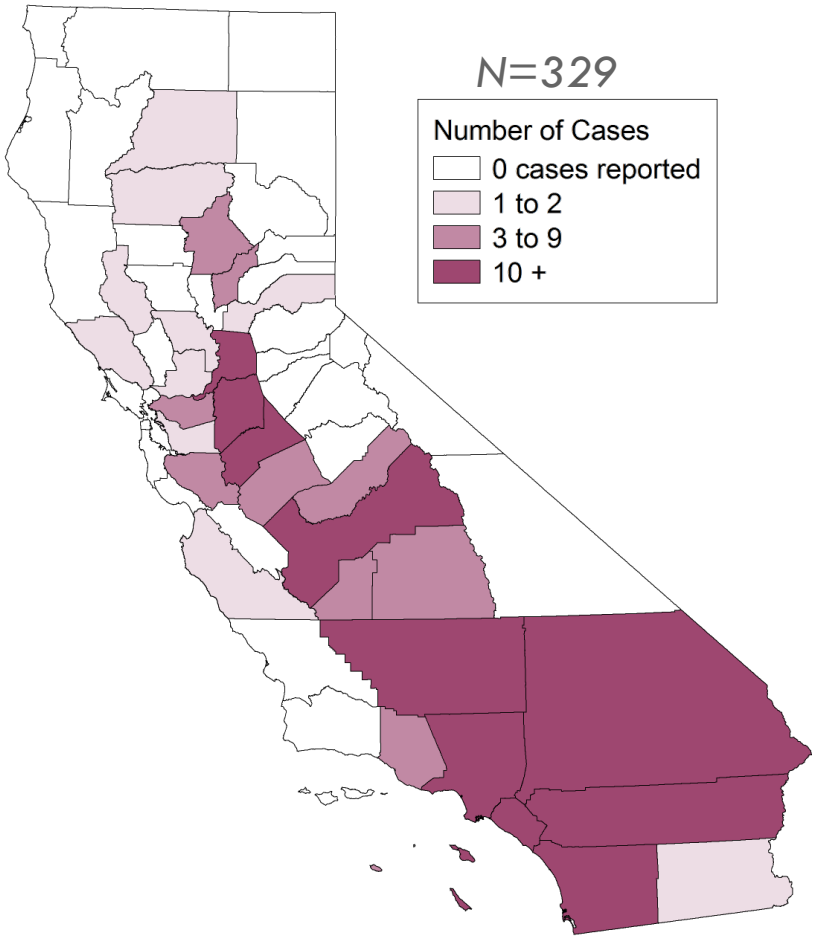
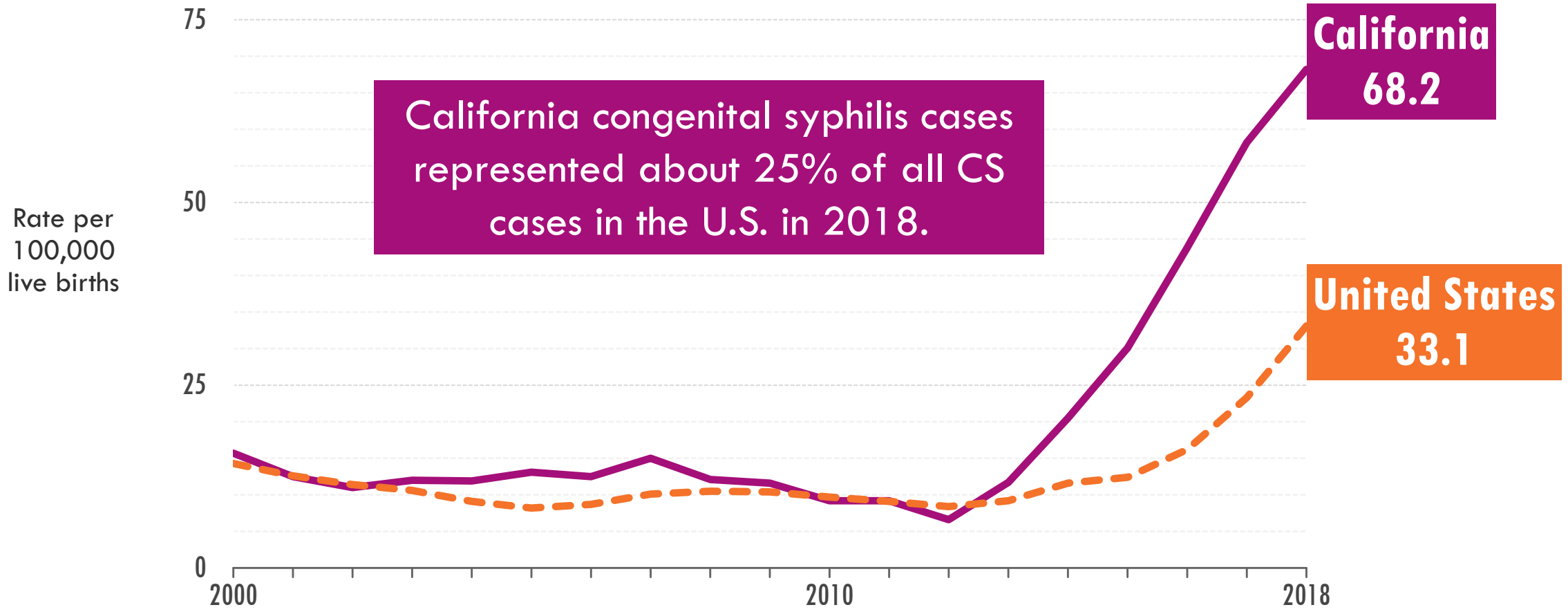
The highest congenital syphilis morbidity counties in California are in **Central** and **Southern** regions of the state.



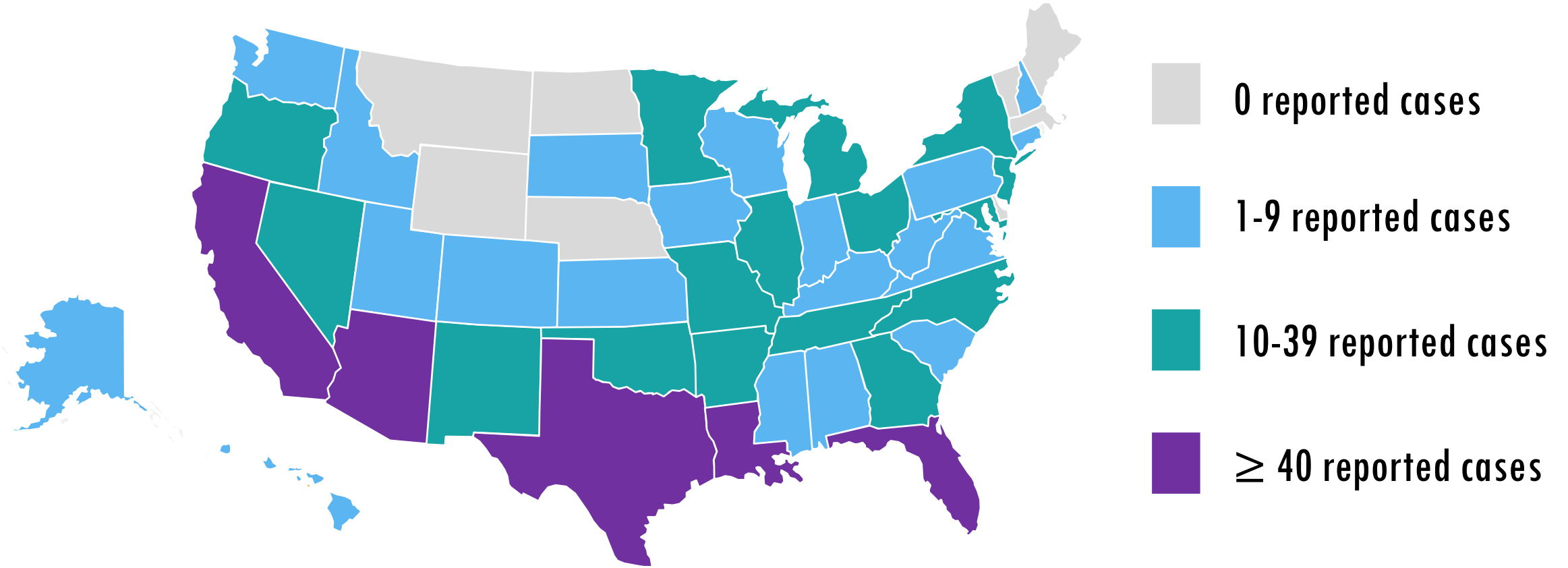
In 2018, 10 (out of 58) counties in California reported ≥10 congenital syphilis cases.

The rate of CS is increasing at a greater pace in California than in the U.S. as a whole.



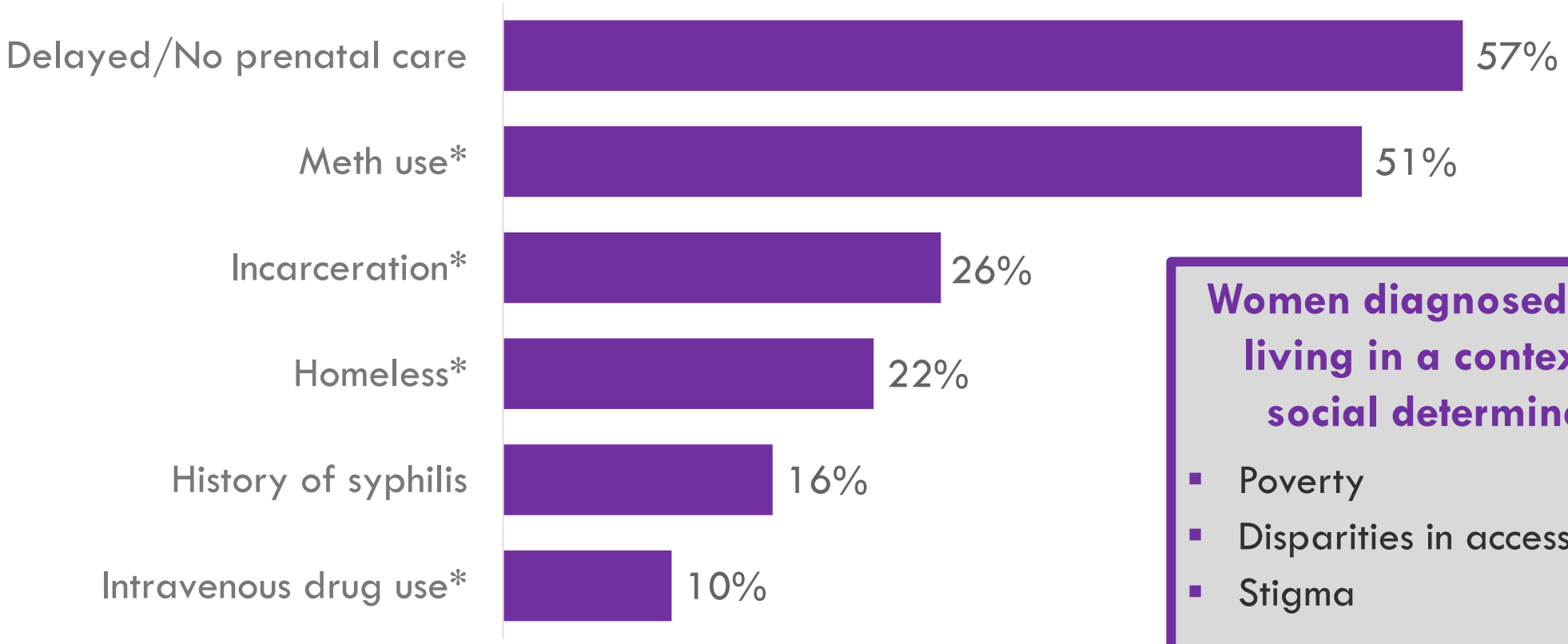
Data Source: CA Department of Public Health, STD Surveillance, 2017

Forty-one U.S. states reported at least 1 congenital syphilis case in 2018.



Data Source: Centers for Disease Control and Prevention, STD Surveillance 2018

Maternal **Risk Factors** reported by mothers of CS infants, California Project Area, 2018



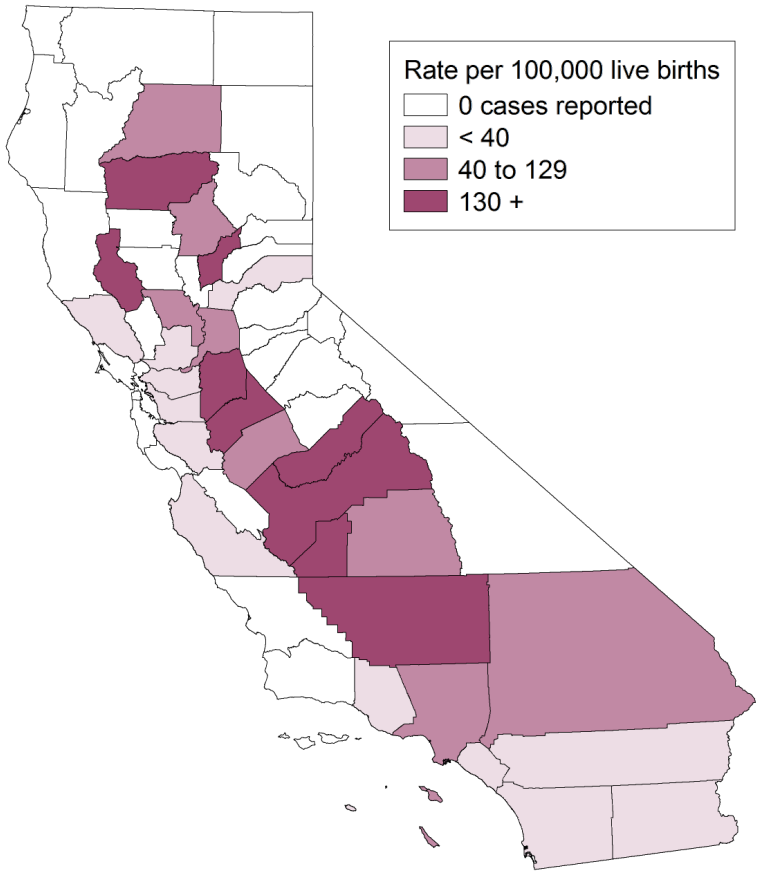
Women diagnosed with syphilis are living in a context with complex social determinants of health:

- Poverty
- Disparities in access to care
- Stigma

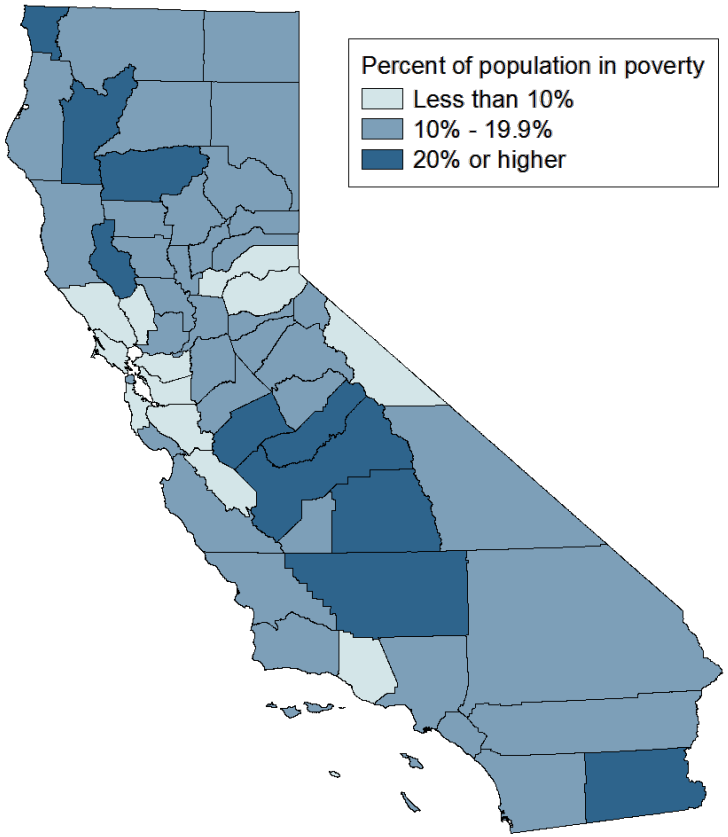
Source: 2018 CPA surveillance data as of 11/1/19 (n=275 first bar, n=146 all subsequent bars limited to interviewed cases); * Additional data obtained from CS Quality Assurance case reviews

Congenital Syphilis Incidence & Percent Population Living in Poverty by County, California, 2018

Congenital Syphilis Rates



Population in Poverty



Note: Rates are based on very small numbers of cases.

Source: U.S. Census Bureau, Small Area Income and Poverty Estimates, 2017.

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Congenital syphilis can be prevented.

Pre-pregnancy

- Screening/diagnosis/ treatment
- Timely partner services
- Accessible highly effective contraception

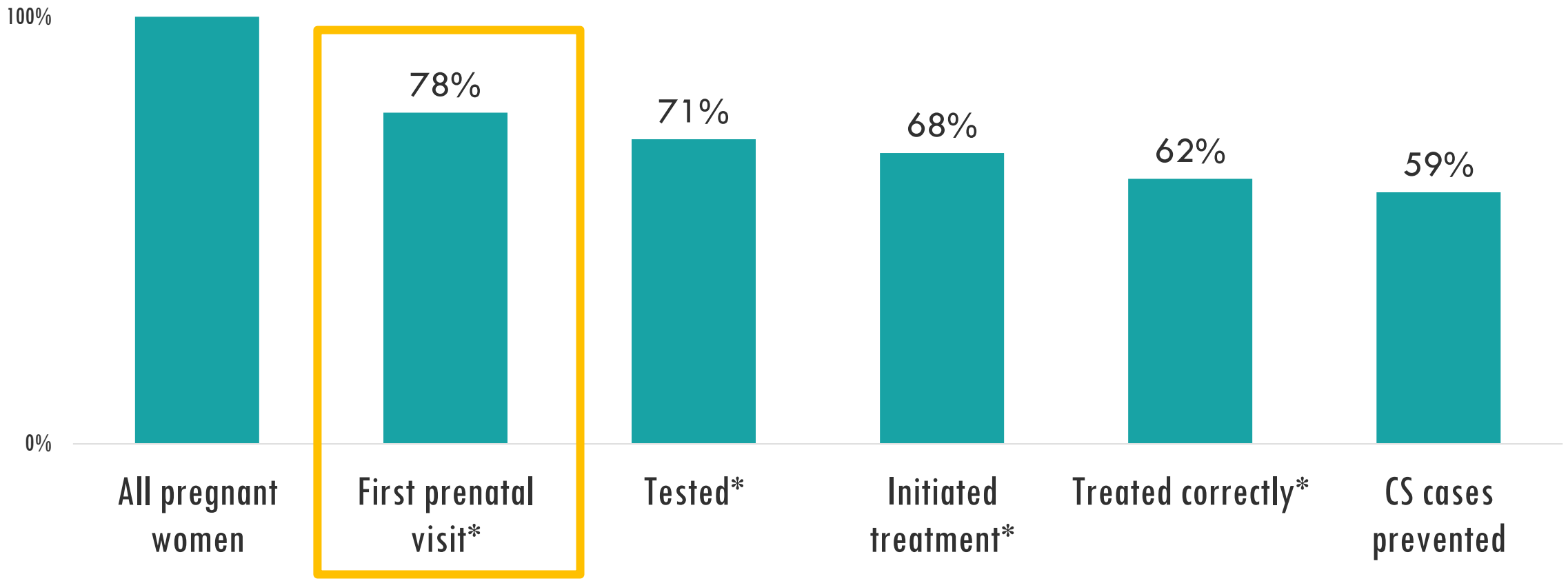
During pregnancy

- Linkage to prenatal care
- Screening/diagnosis
- Timely treatment appropriate for stage
- Timely partner services
- Case management
- Prevent and detect new infection

Birth

- Evaluation and treatment of baby

Biggest gap in CS prevention is prenatal care initiation



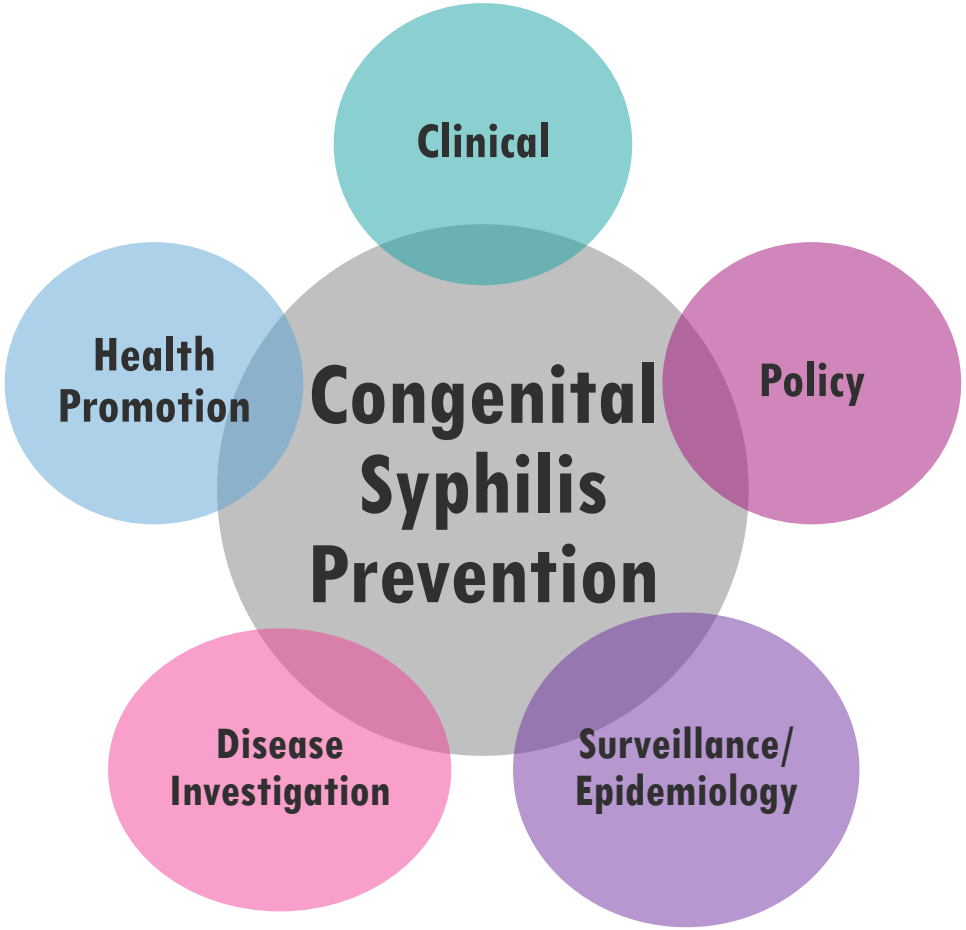
* ≥30 days prior to delivery

Source: 2017-2018 CPA surveillance data, n=1078

The Response

California Department of PublicHealth

Congenital syphilis prevention is truly cross-cutting.



Partners

- Maternal, Child & Adolescent Health
- CA Prevention Training Center
- Family planning programs
- HIV programs
- Community-based organizations who work with people experiencing homelessness and people who use drugs
- Community health centers/FQHCs
- Many more…

Congenital Syphilis Prevention Initiatives at the State Level

Guidelines, resources, best practices, training, TA, mentoring

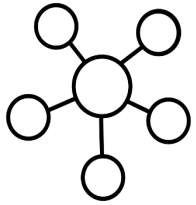
Surveillance & monitoring data to inform program

Collaborations/partnerships at the state & local level

Expanded screening guidance – populations, frequency, settings

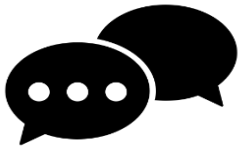
Assess barriers to syphilis treatment

CS quality assurance reviews & data feedback to LHJs



Outbreak/cluster response

Congenital Syphilis Prevention Initiatives at the Local Level



Interview and partner services

Case management for pregnant women with syphilis & their infants

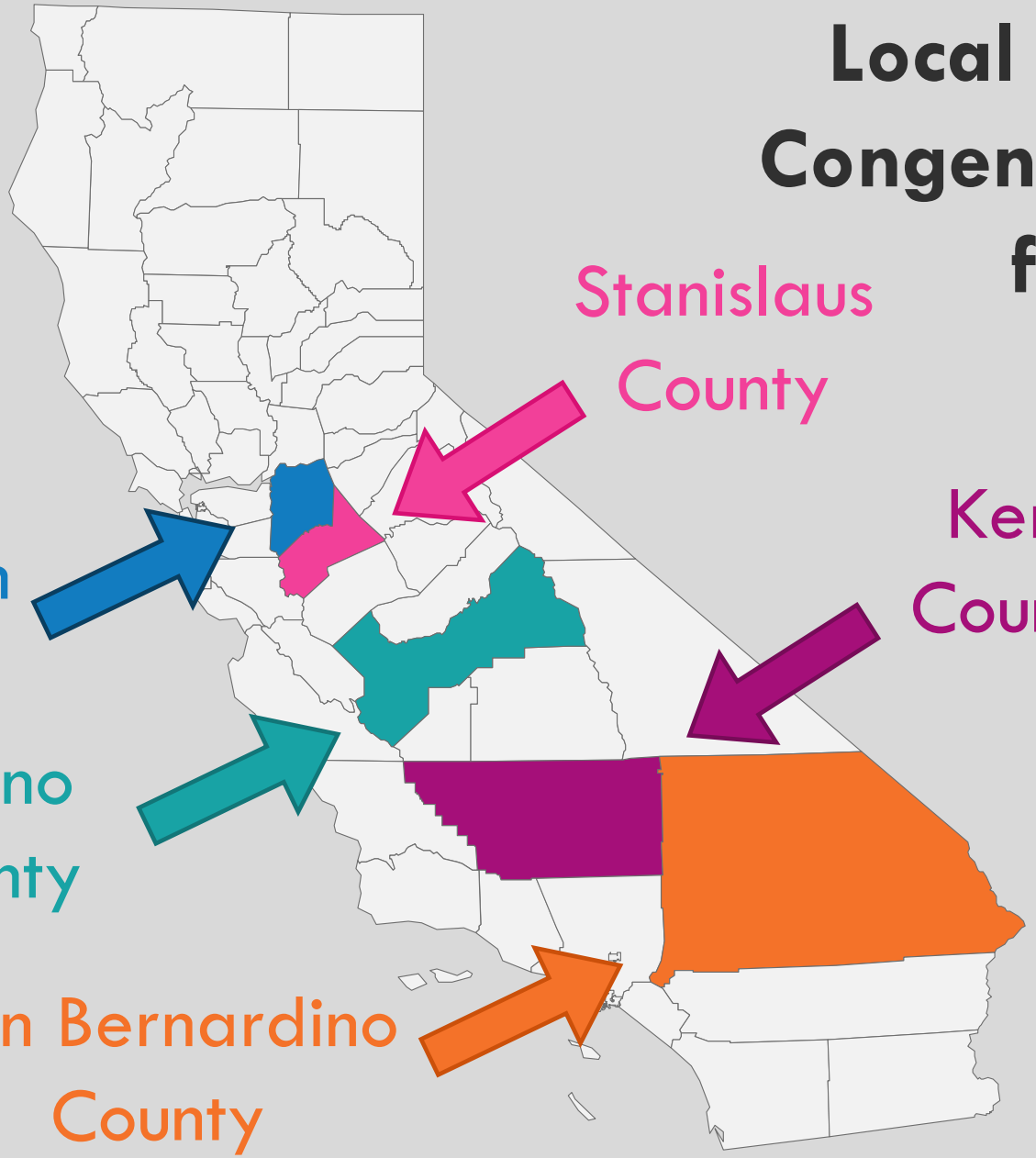
Ensuring treatment: delivery programs, field-delivered therapy, referrals to public health

Health care provider engagement

Data monitoring

Collaborations with stakeholders

Local Health Jurisdiction Congenital Syphilis Funding for 2019-2023



Local Congenital Syphilis Scope of Work

Conduct case management for pregnant women with syphilis and their infants

Conduct CS morbidity & mortality review boards

- Implement quality improvement events on health department syphilis response
- Organize a joint STD-MCAH meeting
- Facilitate a community of practice

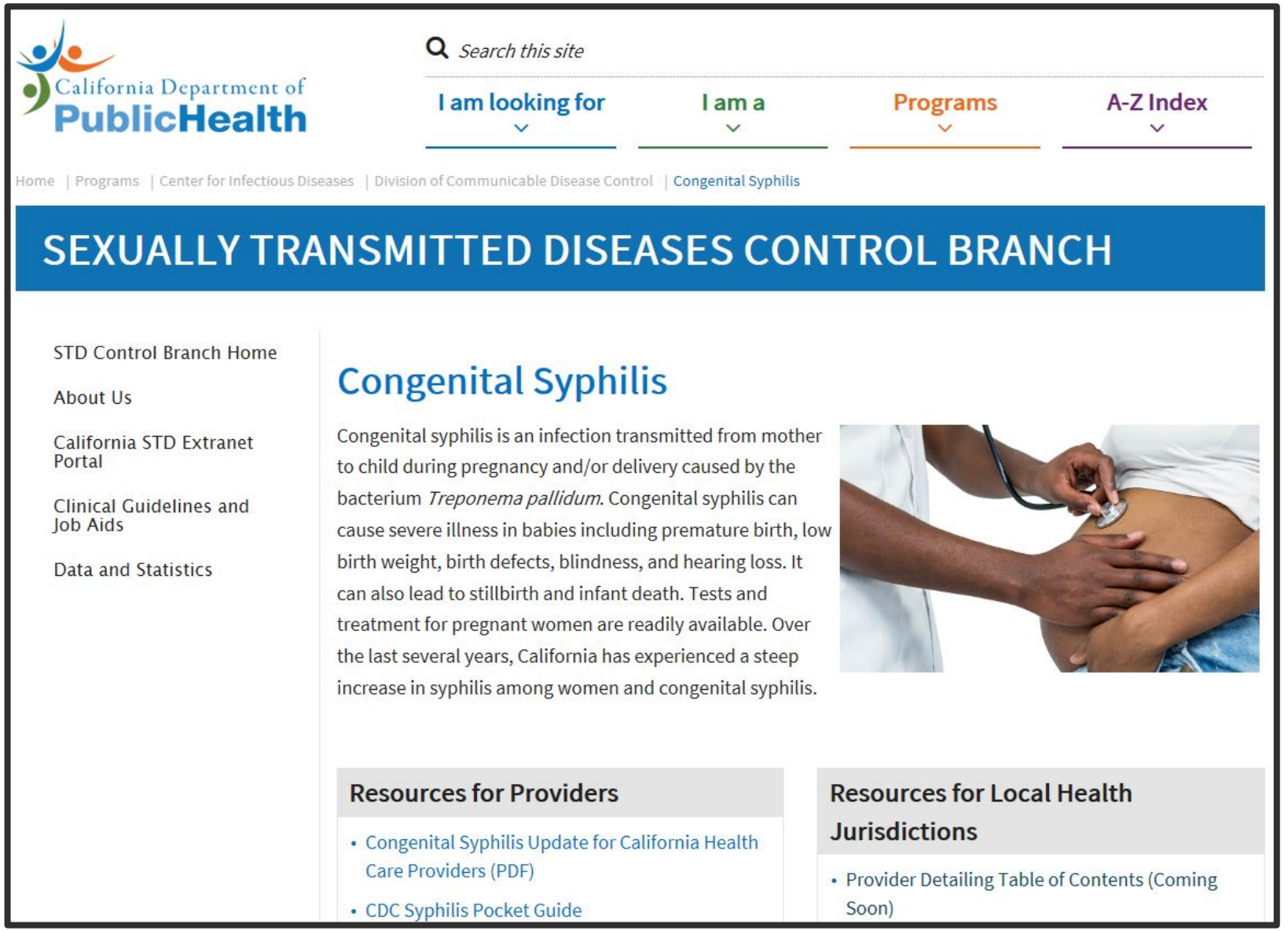
Engage with health care providers

Implement & evaluate syphilis screening in jails

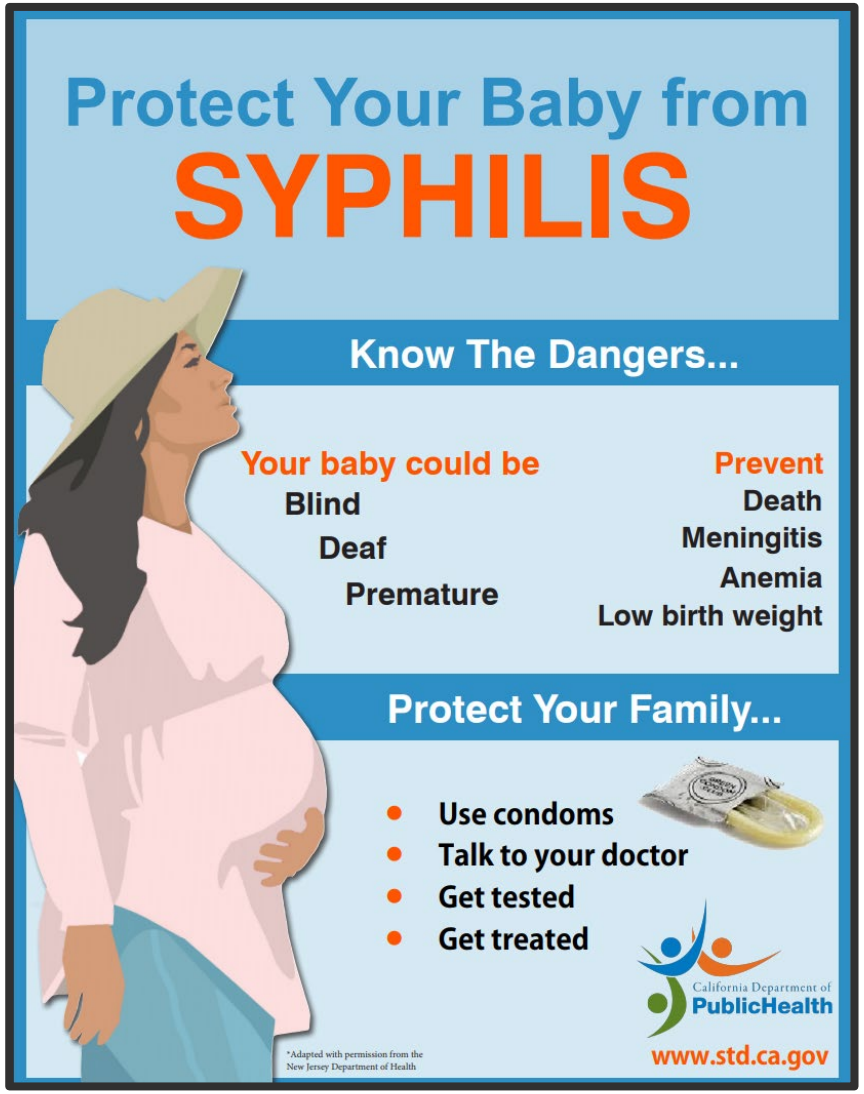
Resources

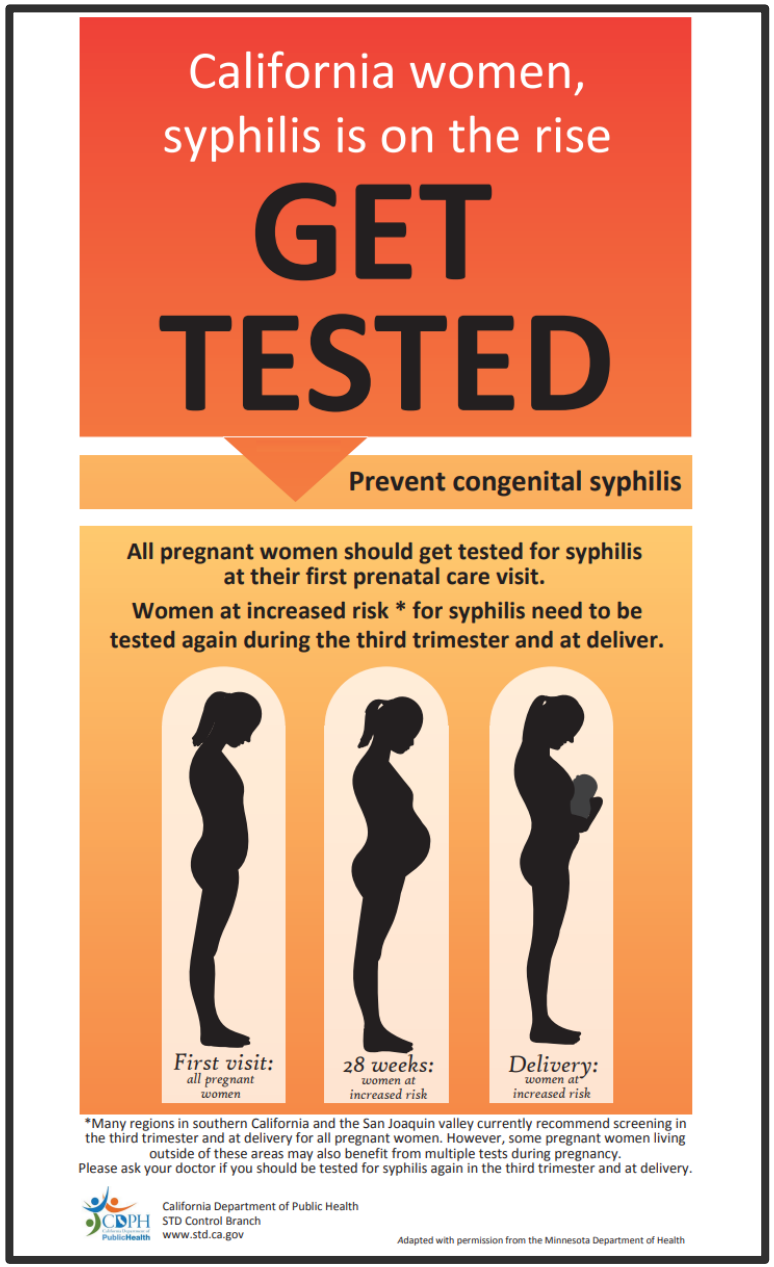
California Department of PublicHealth

Online resources @ STD.ca.gov



For Patients and the Public





Update for Health Care Providers

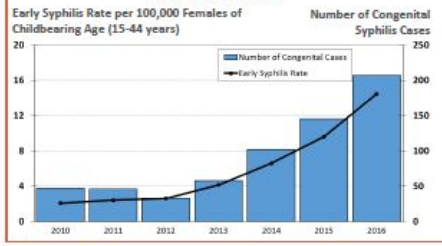
Concerning Increases in Syphilis in Women and Congenital Syphilis:
An Update for California Health Care Providers

The Problem: Increasing Congenital Syphilis in California

California has had a concerning increase in syphilis among women. **This has been accompanied by an over 500% increase in congenital syphilis cases from 2012 to 2016.** In 2016, most female early syphilis cases and congenital syphilis cases in California were reported from the Central Valley; however, other regions in California are increasingly affected.[1] Most women who gave birth to babies with congenital syphilis received prenatal care late in pregnancy or not at all.

This increase in numbers of congenital syphilis cases in California is an important public health problem requiring immediate attention from medical providers caring for pregnant women and women of reproductive age.

Female Syphilis Rate and Congenital Syphilis Cases, California, 2010-2016



Congenital Syphilis in Infants < 1 Year of Age, Number of Cases by County, California, 2016

What Is Congenital Syphilis?

Congenital syphilis occurs when syphilis is transmitted from an infected mother to her fetus during pregnancy. It is a potentially devastating disease that can cause severe illness in babies including premature birth, low birth weight, birth defects, blindness and hearing loss. It can also lead to stillbirth and infant death.[2]

Congenital Syphilis Can Be Prevented!

Congenital syphilis can be prevented with early detection and timely and effective treatment of syphilis in pregnant women and women who could become pregnant. Preconception and interconception care should include screening for HIV and sexually transmitted diseases (STDs), including syphilis, in women at risk, in addition to access to highly effective contraception.

Prenatal Screening: It's the Law!

All pregnant women should receive routine prenatal care which includes syphilis testing. **In California, it is required by law that pregnant women get tested for syphilis at their first prenatal visit.**[3]

Syphilis testing should be repeated during the third trimester (28-32 weeks gestational age) and at delivery in women who are at high risk for syphilis or live in areas with high rates of syphilis,[4] particularly among females. Some high-morbidity counties in California are recommending routine third trimester screening for all pregnant women. Routine risk assessment should be conducted throughout pregnancy to assess the risk factors highlighted in the box on page 2; this should inform the need for additional testing.

Infants should not be discharged from the hospital unless the syphilis serologic status of the mother has been determined at least once during pregnancy and, for at-risk women, again at delivery. Any woman who delivers a stillborn infant should be tested for syphilis.[4]

1. California Department of Public Health (CDPH) Sexually Transmitted Diseases Control Branch data page https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/STD-Data.aspx
2. Centers for Disease Control and Prevention Congenital Syphilis Fact Sheet https://www.cdc.gov/std/syphilis/stdfact-congenital-syphilis.htm
3. California State Code http://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=HSC&division=105.&title=&part=3.&chapter=2.&article=
4. Centers for Disease Control and Prevention 2015 Treatment Guidelines for Syphilis in Pregnancy http://www.cdc.gov/std/tg2015/syphilis-pregnancy.htm.

Updated 10.19.2017

Women Who Would Benefit from Additional Syphilis Testing in the Third Trimester (28-32 Weeks) and at Delivery Include Those Who:

- Have signs and symptoms of syphilis infection.
- Live in areas with high rates of syphilis, particularly among females.
- Were diagnosed with an STD during pregnancy.
- Receive late or limited prenatal care.
- Did not get tested in the first or second trimester.
- Have partners that may have other partners, or partners with male partners.
- Have history of incarceration.
- Are involved with substance use or exchange sex for money, housing, or other resources.

Common Mistakes

Not reporting syphilis cases to local health departments within 24 hours.

Not strictly adhering to treatment guidelines for pregnant women with syphilis.

Not properly conducting routine risk assessment throughout pregnancy to determine need for additional testing.

Diagnosing Syphilis

Syphilis is diagnosed by reviewing patient history, taking a sexual risk assessment, conducting a physical exam, and obtaining blood tests. Making the diagnosis of syphilis requires interpretation of both treponemal and non-treponemal serology tests results.[5]

Syphilis Treatment

Treatment for a pregnant woman is based on the stage of her infection. To prevent adverse pregnancy outcomes, physicians should treat patients as soon as possible.[6] Treating a pregnant woman infected with syphilis also treats her fetus.[7]

Treatment for Early Syphilis (determined to *be less than one year's duration*)
Benzathine penicillin G 2.4 million units by intramuscular injection in a single dose*

OR

Treatment for Late Latent Syphilis or Unknown Duration
Benzathine penicillin G 2.4 million units by intramuscular injection every 7 days for 3 weeks (7.2 million units total)

**Some specialists recommend a second dose of Benzathine penicillin G 2.4 MU IM administered 1 week after initial dose in pregnant women with early syphilis.*

In pregnancy, penicillin is the only recommended therapy. Pregnant women with penicillin allergies should be desensitized and treated with penicillin.[6] There are no alternatives.

For pregnant women, benzathine penicillin doses for treatment of late latent syphilis should be administered at 7-day intervals; if a dose is missed or late, the entire series must be restarted.

Infants born to women who had syphilis during pregnancy require close evaluation and treatment per the CDC STD Treatment Guidelines.[6]

Partner Treatment and the Role of Local Health Departments

Because sex with an untreated partner can cause re-infection, it is especially important to ensure that the partner(s) receive treatment and to inform pregnant women about the risk to their infants if they have sex with an untreated partner. Local health departments are key collaborators in the prevention of congenital syphilis, and can assist with partner treatment.

California law requires that all syphilis infections be reported to the local health department where the patient resides within 24 hours of diagnosis. Guidance on reporting and links to local health department contact information are available here: *https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/CMR-CA-How-to-Report.pdf*

Resources For Health Care Providers

Centers for Disease Control and Prevention, 2015 STD Treatment Guidelines: Syphilis During Pregnancy *(https://www.cdc.gov/std/tg2015/syphilis-pregnancy.htm)* and Congenital Syphilis *(https://www.cdc.gov/std/tg2015/congenital.htm)*.

For clinical questions, enter your consult online at the STD Clinical Consultation Network *(https://www.stdccn.org/)*

CA STD Screening and Treatment in Pregnancy

California STD/HIV Screening Recommendations in Pregnancy 2017

First prenatal visit

- HIV
- Syphilis
- Chlamydia[1]
- Gonorrhea[1]
- Hepatitis B surface antigen (HBsAg)
- Hepatitis C antibody if risk[2]
- Type-specific HSV serology can be considered if high risk[3]
- Pap test if age ≥ 21 years and indicated by national guidelines[4]

Third trimester

- HIV if high risk[5]
- Syphilis if living in an area with high syphilis prevalence or high risk[6] (test in early third trimester at 28-32 weeks)
- Chlamydia if age <25 years, positive test earlier in pregnancy, or high risk[1]
- Gonorrhea if positive test earlier in pregnancy or high risk[1]

During labor & delivery

- HIV rapid testing if HIV status undocumented
- Syphilis (stat RPR) if no prior prenatal care
- Syphilis if living in an area with high syphilis prevalence or high risk[6]
- HBsAg on admission if no prior screening or if high risk[7]

California STD Treatment Recommendations in Pregnancy 2017

These treatment regimens reflect recent updates in the 2015 CDC STD Treatment Guidelines and are specific to PREGNANT WOMEN. Non-pregnant women and men may have different recommended regimens. See CDC 2015 STD Treatment Guidelines (www.cdc.gov/std/treatment) for comprehensive recommendations. Call the local health department for assistance with management of pregnant women with syphilis and confidential notification of sexual partners of patients with syphilis, gonorrhea, chlamydia, or HIV infection. For STD clinical management consultation, submit your question online to the STD Clinical Consultation Network at www.stdccn.org.

DISEASE	RECOMMENDED REGIMENS	DOSE / ROUTE	ALTERNATIVE REGIMENS: To be used if medical contraindication to recommended regimen
CHLAMYDIA (CT) [1]	Azithromycin	1 g po once	Amoxicillin 500 mg po tid x 7 d **or** Erythromycin base 500 mg po qid x 7 d **or** Erythromycin base 250 mg po qid x 14 d **or** Erythromycin ethylsuccinate 800 mg po qid x 7 d **or** Erythromycin ethylsuccinate 400 mg po qid x 14 d
GONORRHEA (GC) [1,2,3]	*Dual therapy with:* Ceftriaxone **PLUS** Azithromycin	250 mg IM once 1 g po once	Cefixime [4] 400 mg po **PLUS** Azithromycin 1 g po If cephalosporin allergy or IgE mediated penicillin allergy, consult with specialist, see footnotes. [1]
CERVICITIS [5,6,7]	Azithromycin	1 g po once	
PELVIC INFLAMMATORY DISEASE [5,8]	Clindamycin **PLUS** Gentamicin	900 mg IV q 8 hours 2 mg/kg IM or IV loading dose followed by 1.5 mg/kg IM or IV q 8 hours Discontinue parenteral therapy 24 hours after patient improves clinically and continue with oral clindamycin 450 mg po qid for a total of 14 d	
SYPHILIS [9,10] Primary, Secondary, Early Latent [11]	Benzathine penicillin G	2.4 million units IM once	NONE
Late Latent and Unknown Duration	Benzathine penicillin G	7.2 million units, administered as 3 doses of 2.4 million units IM each, at 1-week intervals	NONE
Neurosyphilis and Ocular Syphilis [12]	Aqueous crystalline penicillin G	18-24 million units daily, administered as 3-4 million units IV q 4 hours x 10-14 d	Procaine penicillin G 2.4 million units IM qd for 10-14 d **PLUS** Probenecid 500 mg po qid for 10-14 d

Thank you

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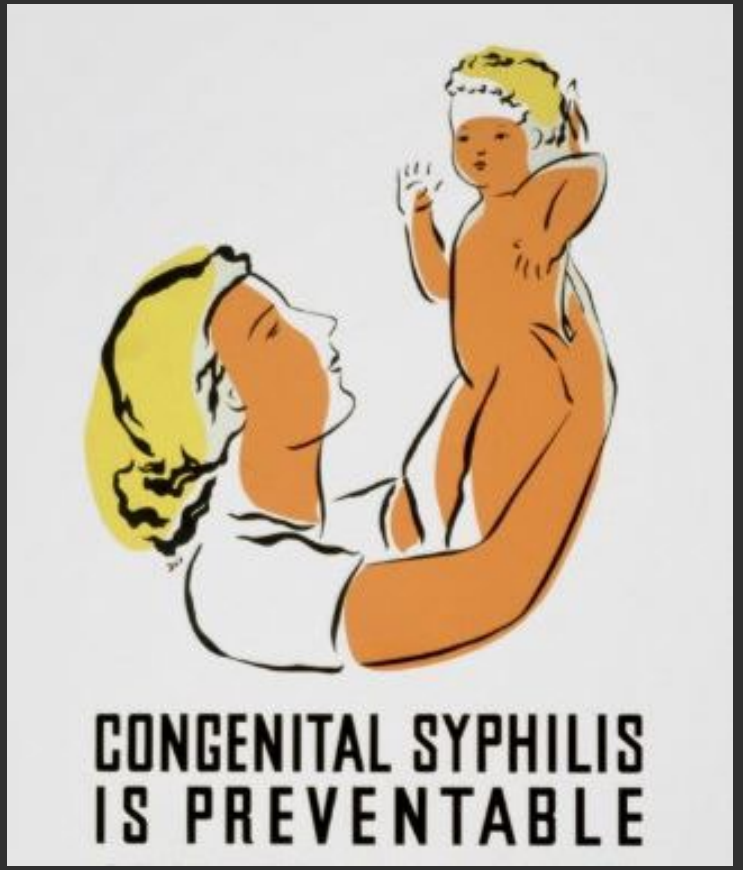

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