

# Syphilis in Women and Congenital Syphilis

## An Update for Healthcare Providers in Los Angeles County (LAC)

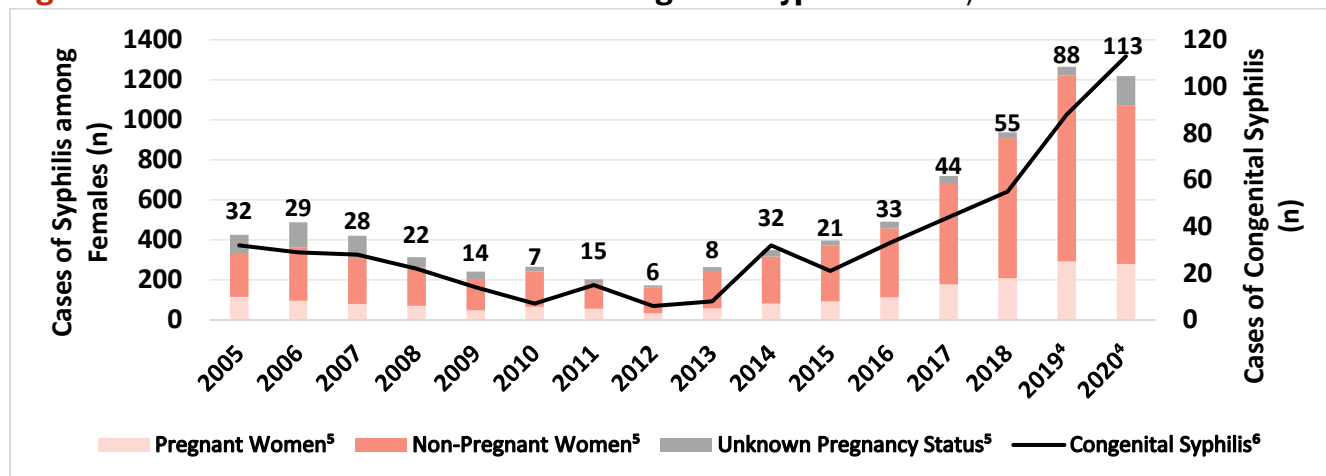
In recent years, LAC has seen an increase in the number of syphilis cases among women. Similar increases have been seen across the U.S. and in other parts of California.<sup>1,2</sup> Health care providers play a critical role in addressing the syphilis epidemic by identifying and treating infected patients, and helping to ensure that sexual partners also receive treatment.



### Congenital Syphilis on the Rise

Increases in female syphilis cases have led to a dramatic increase of congenital syphilis in LAC (Figure 1). Congenital syphilis is a preventable condition that results from untreated syphilis during pregnancy, with potentially severe consequences for infected infants. Congenital syphilis can lead to stillbirth, neonatal death, birth defects involving the nervous system or bones, blindness or deafness, skin lesions and scarring, and other manifestations. Fetal infection can occur during any trimester of pregnancy, and during any stage of syphilis, though transmission to the fetus is most likely in primary, secondary, and early latent syphilis cases. Preventing adverse pregnancy outcomes requires early screening and, if positive, immediate treatment.

**Figure 1. Number of Female and Probable Congenital Syphilis Cases, LAC 2005-2020<sup>3</sup>**



### When should pregnant women be screened for syphilis?

California Law requires that all pregnant women must be screened at their first prenatal visit.<sup>7</sup> LAC Screening Guidelines recommends: **Pregnant women be re-screened for syphilis early in the third trimester (28-32 weeks estimated gestational age) and at delivery.** No newborn should leave the hospital without provider review of maternal serologic status during pregnancy, and preferably, review of maternal status at delivery. Any woman who delivers a stillborn (fetal demise after 20 weeks gestation) should also be evaluated for syphilis.

<sup>1</sup> Centers for Disease Control and Prevention. 2013 Sexually Transmitted Diseases Surveillance: Syphilis. Available from: <http://www.cdc.gov/std/stats13/syphilis.htm>

<sup>2</sup> California Department of Public Health STD Control Branch. Congenital syphilis information for STD Controllers. Available from: [https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/Congenital\\_Syphilis\\_Prevention\\_Guidance\\_CA\\_LHJ.pdf](https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/Congenital_Syphilis_Prevention_Guidance_CA_LHJ.pdf)

<sup>3</sup> 2005-2020 data are from STD Casewatch as of 01/10/2022 and excludes cases from Long Beach and Pasadena

<sup>4</sup> 2019-2020 data are provisional due to reporting delay.

<sup>5</sup> Syphilis among females of childbearing age (ages 15-44) including all cases staged as primary, secondary, early non-primary non-secondary (previously early latent) and unknown duration/late (previously late latent)

<sup>6</sup> Congenital Syphilis includes syphilitic stillbirths

## Which women are considered at higher risk for syphilis during pregnancy?

- Women with no, late or sporadic pre-natal care
- Women with history of substance abuse
- African American and Latina women
- Women whose sex partner may have other partners

Enhanced screening and timely treatment are essential to eradicate congenital syphilis in LAC. Some recent congenital syphilis cases in LAC have occurred in women who tested negative for syphilis early in pregnancy but were infected prior to delivery. Other women tested positive treated but re-infected before delivery, and others not treated at all.

Since more than half of all pregnancies in LAC are unplanned,<sup>8</sup> prevention, detection, and treatment of syphilis in women of reproductive age is important to eliminate congenital syphilis. All women of child-bearing age (15-44 years) should be tested for syphilis at least once. All women listed at higher risk should be tested. In addition, if a female patient is reporting new or multiple sexual partners, or has a partner who has male partners or contacts, they should be tested as well.

## What lab testing and reporting is done for syphilis?

Two types of blood tests are used to diagnose syphilis—non-treponemal and treponemal tests. Both types of tests must be used to confirm a diagnosis. When ordering RPR, please also order a reflex treponemal test.

Test	Function	Examples
Non-treponemal	<ul style="list-style-type: none"> <li>• Target non-specific antibodies that bind to lipoidal antigens released from cells damaged by syphilis or by other conditions</li> <li>• Quantitative results that usually decrease with successful treatment</li> </ul>	<ul style="list-style-type: none"> <li>• VDRL and RPR</li> </ul>
Treponemal	<ul style="list-style-type: none"> <li>• Identify antibodies to <i>T. pallidum</i>, the bacteria that cause syphilis</li> <li>• Results typically remain positive throughout a patient's lifetime</li> </ul>	<ul style="list-style-type: none"> <li>• TP-PA, FTA-ABS, EIA, and CIA assays</li> </ul>

By law, all cases of syphilis must be reported to the Department of Public Health within one working day. For more information, see: <http://publichealth.lacounty.gov/dhsp/ReportCase.htm>

## What is the recommended treatment for syphilis?

Penicillin G is the only known effective antimicrobial for preventing maternal transmission to the fetus. Women should be treated with the penicillin regimen appropriate for their stage of infection at least 30 days prior to delivery. Pregnant women who miss any dose of therapy must repeat the full course of therapy. Pregnant women who have a history of penicillin allergy should be desensitized and treated with penicillin.

The LAC Department of Public Health Division of HIV and STD Programs (DHSP) helps interpret syphilis test results and provides guidance on appropriate and timely treatment. In special circumstances, the DHSP Bicillin Delivery Program can help providers obtain Bicillin for their pregnant patients, please call the Clinical Guidance & Nursing Unit at 213-368-7441 to inquire.

## Where can providers go for more information?

- <https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/STD.aspx>
- <https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Syphilis.aspx>
- <http://www.cdc.gov/std/syphilis/default.htm>
- <http://www.cdc.gov/std/syphilis/syphilis-webinar-slides.pdf> (reverse screening sequence)
- <http://publichealth.lacounty.gov/dhsp/SyphilisInWomen-ActionKit.htm>

<sup>7</sup> California Health and Safety Code 120675-120715

<sup>8</sup> Los Angeles County Department of Public Health, Office of Health Assessment and Epidemiology. Healthy Women, Healthy Children: Preconception Health in LA County. LA Health; March 2010.