Congenital Syphilis in Los Angeles County

Women and Health Equity Conference

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September 12, 2019
• Inequities in the burden of disease for chlamydia, gonorrhea, syphilis and other STDs by race and Hispanic ethnicity continue to persist in the United States
• These disparities are not explained by individual or population-level behavioral differences; rather they result in large measure from systemic, societal, and cultural barriers to STD diagnoses, treatment and routinely accessible preventive services
• Progress has been made in reducing the magnitude of disparities in some STDs, especially for Blacks, but much more needs to be done to address these issues through individual, group, and structural-level health care interventions
• Continued monitoring of differences across groups in reported case incidence is also critical to the success of these efforts, including a sharpened focus on ascertainment of race and Hispanic ethnicity for persons diagnosed and reported with STDs
Congenital Syphilis (CS)

• Syphilis in an infant exposed during pregnancy
• 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 priority for California

Prevention of CS is an urgent priority for California
STDs are at a record high in the United States

The STATE of STDs in the United States

1.69 million CASES OF CHLAMYDIA
5% increase since 2016

548,678 CASES OF GONORRHEA
17% increase since 2016

98,437 CASES OF SYPHILIS
12% increase since 2016

STDs tighten their grip on the nation’s health as rates increase for a third year

More than 900 Congenital Syphilis Cases in 2017 44% ↑

*Data are preliminary as of April 12, 2018; congenital syphilis data are preliminary as of July 10, 2018
Primary and Secondary Syphilis:
Reported Cases, U.S., 1941–2017*

Primary and Secondary Syphilis Cases have increased 390% since 2001

CDC estimates more than 55,000 people are infected each year

*Data for 2017 are preliminary as of April 12, 2018
Primary and Secondary Syphilis — Rates of Reported Cases by Race, Hispanic Ethnicity, and Sex, United States, 2017 (Source: CDC)
Congenital Syphilis (CS) Cases and Primary and Secondary (P&S) Syphilis Cases Among Females of Reproductive Age, U.S., 2007–2017*

*Data for 2017 are preliminary as of 06/30/2018.
Congenital Syphilis — Rates of Reported Cases by Year of Birth, Race, and Hispanic Ethnicity of Mother
United States, 2008–2017 (Source: CDC)
Thirty-seven U.S. states reported at least 1 congenital syphilis case in 2017.

In 2017, 5 states represented 70% of all congenital syphilis cases in the U.S.

<table>
<thead>
<tr>
<th>State</th>
<th>2012 Cases</th>
<th>2017* Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA</td>
<td>35</td>
<td>281</td>
</tr>
<tr>
<td>TX</td>
<td>78</td>
<td>176</td>
</tr>
<tr>
<td>FL</td>
<td>37</td>
<td>93</td>
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<tr>
<td>LA</td>
<td>33</td>
<td>59</td>
</tr>
<tr>
<td>GA</td>
<td>16</td>
<td>23</td>
</tr>
<tr>
<td>MD</td>
<td>12</td>
<td>20</td>
</tr>
<tr>
<td>AZ</td>
<td>14</td>
<td>30</td>
</tr>
<tr>
<td>IL</td>
<td>23</td>
<td>21</td>
</tr>
<tr>
<td>OH</td>
<td>19</td>
<td>18</td>
</tr>
</tbody>
</table>

U.S. Total | 334 | 918

*Congenital syphilis data are preliminary as of July 2018

![Map showing states by reported cases](image-url)
Early Syphilis*, Cases by Gender; California, 1996–2017

* Includes primary, secondary, and early latent syphilis.
Syphilis in females and infants has been **increasing** in California since 2012

**Female syphilis cases (all stages)**

- 2008: 1000 cases
- 2009: 1500 cases
- 2010: 2000 cases
- 2011: 2500 cases
- 2012: 3000 cases
- 2013: 3500 cases
- 2014: 4000 cases
- 2015: 4500 cases
- 2016: 5000 cases
- 2017: 5500 cases

**Congenital syphilis cases**

- 2008: 50 cases
- 2009: 100 cases
- 2010: 150 cases
- 2011: 200 cases
- 2012: 250 cases
- 2013: 300 cases
- 2014: 350 cases
- 2015: 400 cases
- 2016: 450 cases
- 2017: 500 cases

**Data Source:** CA Department of Public Health, STD Surveillance, 2017
The rate of congenital syphilis is increasing at a greater pace in California.

California congenital syphilis cases represented about 30% of all CS cases in the U.S. in 2017.

Data Source: CA Department of Public Health, STD Surveillance, 2017
The highest congenital syphilis morbidity counties in California are in **Central** and **Southern** regions of the state.

In 2017, 9 (out of 58) counties in California reported \( \geq 10 \) congenital syphilis cases.

Data Source: CA Department of Public Health, STD Surveillance, 2017
Most cases of congenital syphilis were born to Latina mothers
However, the highest rate of congenital syphilis is among **black mothers**

![Bar chart showing congenital syphilis rates by race/ethnicity.](chart.png)
Congenital Syphilis

Number of Cases - LAC 2018-PRELIMINARY

Los Angeles 54
Number of Female Syphilis Cases and Congenital Syphilis Cases, Los Angeles County, 2006-2019

Data are from STD Casewatch as of 06/16/2019 and excludes cases from Long Beach and Pasadena.

2018-2019 data are provisional due to reporting delay. 2019 projections are based on provisional data. As of 06/30/19, 40 congenital syphilis cases have been reported.

Syphilis among females of reproductive age (ages 15-44) including all cases staged as primary, secondary, early latent and late latent.

Congenital Syphilis includes syphilitic stillbirths.

Source: Division of HIV and STD Programs
Figure 1. Rate of Syphilis among Women Ages 15-44 by Race/Ethnicity, LAC, 2012 (n=160) and 2017 (N=640)¹

Total syphilis includes all cases staged as primary, secondary, early latent, late latent and late; data for Native Hawaiians, Pacific Islanders, Native Americans, Alaska Natives, Multiple Race and Other Race are suppressed due to small numbers; 2017 data are provisional due to reporting delay and exclude cases in Long Beach and Pasadena.

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Number of Cases (%)</th>
<th>Number of Cases (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2012</td>
<td>2018</td>
</tr>
<tr>
<td>Latina</td>
<td>86 (50)</td>
<td>485 (52)</td>
</tr>
<tr>
<td>Black/African American</td>
<td>42 (24)</td>
<td>201 (22)</td>
</tr>
<tr>
<td>White</td>
<td>14 (8)</td>
<td>111 (12)</td>
</tr>
<tr>
<td>Asian</td>
<td>18 (10)</td>
<td>44 (5)</td>
</tr>
<tr>
<td>Other/Missing/Unknown</td>
<td>13 (8)</td>
<td>83 (9)</td>
</tr>
<tr>
<td>Total²</td>
<td>173</td>
<td>924</td>
</tr>
</tbody>
</table>

¹Total syphilis includes all cases staged as primary, secondary, early latent, late latent and late; data for Native Hawaiians, Pacific Islanders, Native Americans, Alaska Natives, Multiple Race and Other Race are suppressed due to small numbers; 2017 data are provisional due to reporting delay and exclude cases in Long Beach and Pasadena.
### Characteristics of Women Giving Birth to Babies with Congenital Syphilis, LAC 2018 (n=54) Median Age: 29.2 years (range 16-38)

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latina</td>
<td>62%</td>
</tr>
<tr>
<td>African American</td>
<td>32%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Substance Use (Any)</th>
<th>Percent</th>
</tr>
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<tbody>
<tr>
<td>Methamphetamine</td>
<td>81%</td>
</tr>
<tr>
<td>Cocaine</td>
<td>6 %</td>
</tr>
<tr>
<td>Heroin/opiates</td>
<td>7 %+</td>
</tr>
<tr>
<td>Ecstasy</td>
<td>3 %</td>
</tr>
</tbody>
</table>

| Incarceration           | 26 %    |
| Major mental illness    | 20%     |

Most Women who Give Birth to Babies with Congenital Syphilis Don’t Receive Prenatal Care or are Poorly Engaged with Care

* Excludes persons for whom data were missing. Marijuana not included as substance use. + All heroin users also used meth
LAC Congenital Syphilis Root Case Analysis: 2016-2018 Cases

131 CS Cases in LAC*(2016-2018)
(127 women, 2 twin sets, 1 triplet)

125 LAC Resident Women

51 (41%) Women with Early Prenatal Care
1 born alive then died

74 (59%) Women with Late/No Prenatal Care
(8-2°SY, 15 EL, 51 LL)
6 stillbirths, 3 born alive then died

2 Foreign Nationals (2 LL)
No-PNC, Returned to Mexico after delivery (1)
Late 3rd Trim-PNC, Tx <4 wks. prior delivery (1)

30 Women w PNC 1st Trimester (2-1°SY; 17 EL; 11 LL)
• Inadequate Tx/Interval Tx gap (10)
• Woman became infected between 1st-2nd trimester and delivery, no 3rd trimester screen (11)
• Woman became infected between 3rd trimester and delivery (5)
• Lost to Follow-up (4)

21 Women w PNC in 2nd Trimester (1-1°SY; 6 EL; 14 LL)
• Inadequate Tx/Interval Tx gap (4)
• Woman became infected between 2nd trimester and delivery; no 3rd trimester screen (10)
• Woman became infected between 3rd trimester and delivery (4)
• Lost to Follow-up (2)
• Unable to verify prior syphilis treatment out of USA (1)

1°SY = primary syphilis; 2°SY=secondary syphilis; EL= early latent; LL= late latent

In 2018- 52 of 54 cases were “probable CS”, with 2 “confirmed CS” (stillbirths); 2 Born Alive and later Died
In 2017- 42 of 44 cases were “probable CS”, with 2 “confirmed CS” (stillbirths); 2 Born Alive and later Died
In 2016- 32 of 34 cases were “probable CS”, with 2 “confirmed CS” (stillbirths)

Probable CS is a CDC Surveillance Definition, EL=Early Syphilis, LL=Late Latent Syphilis; Note Born Alive and later died counted as probable
Key Findings of CS Case Reviews

• Almost 50% of the cases were identified by syphilis screening at delivery
• ~ 60% of women receive late (20%) or no prenatal care (40%)
• ~75% of the women had no treatment of syphilis prior to delivery and 20% were inadequately treated
• Most cases occur primarily among Latina (3 out of 5) and African American (1 out of 4) women

Common co-morbidities:
• History of arrest or incarceration
• Experiencing unstable housing or homelessness (10-20%)
• >2/3rds report active SUD during pregnancy, with methamphetamine use most common
• >30% of infants placed into the custody of DCFS due to maternal substance use (70% in 2019)
Key Findings of CS Case Reviews

Clinical Issues:

- High mortality rate (up to 9%)
- Of the 50% cases detected at delivery, often women are discharged prior to their syphilis test results returning
  - Ex: 2 separate CS exposed infants to same woman who remains inadequately treated for late syphilis
  - Some of the women are in/out of LAPD/LASD custody but only there for hours
- Many cases when woman infected or re-infected between first screening and delivery, woman not involved in regular prenatal care
  - Limited impact of third trimester screening
- Delays in Infection Control Personnel calling/notifying the DPH
- Two women in 2018 diagnosed with both HIV+ and syphilis during pregnancy (with one infant perinatally infected with HIV)
# LAC Congenital Syphilis Elimination Goals and Strategies

| All syphilis cases identified and investigated in timely manner to disrupt disease transmission. | • High quality surveillance to identify cases and monitor trends  
• Effective syphilis partner services activities for women and men |
|---|---|
| All pregnant women and women of reproductive age screened and treated for syphilis. | • Community medical providers to screen and treat  
• Accessible, welcoming clinical services for women with co-morbidities |
| All persons at highest risk of syphilis aware of risk and offered education and testing. | • Awareness of rising rates of syphilis among women and community  
• Syphilis education, testing, and referrals in non-clinical settings |
Goal 1: All syphilis cases identified and investigated in timely manner to disrupt disease transmission.

• High quality surveillance activities to identify cases and monitor trends
• Effective syphilis partner services activities for women and men
Goal 2: All pregnant women and women of reproductive age will be appropriately screened and treated for syphilis in LAC.

- Mobilize community medical providers servicing this population to screen and treat
  - Disseminate syphilis screening recommendations through public health detailing and technical assistance
  - Increase collaboration with key medical provider groups (OB, birthing hospitals, Title X, PCPs, ED providers)
• 4 public health detailers conducted a brief syphilis tutorial and assessment at initial visit
• Follow-up sessions conducted with medical providers during an 8-week period
• Medicaid OB and providers in LAC who had diagnosed ≥ 1 a case of syphilis in a woman in 2017 (n=432)
• Key messages
  1. Screen all women of reproductive age
  2. Screen all pregnant women for syphilis during the first trimester or at their initial prenatal visit.
  3. Re-screen pregnant women for syphilis early in the third trimester (28-32 weeks) and at delivery.
Taking a sexual history, syphilis screening, staging and treatment
Goal 2: All pregnant women and women of reproductive age will be appropriately screened and treated for syphilis in LAC.

- Ensure accessible and welcoming clinical services for women with co-morbidities
  - Explore new models of care for clinical services
    - Possibly new perinatal case management services
    - Consider roving OB team model
    - Express STD clinics to increase # patients seen and treated for syphilis

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1. Dominika Seidman, MD, MAS, UCSF. Offering services to pregnant women who are unstably housed or homeless.
Goal 3: All persons at highest risk of syphilis will be aware of the risk and be offered education and testing in non-clinical settings.

- Increase awareness of rising rates of syphilis to women and their community
  - Increase dissemination of STD information and resources
    - Social marketing, reports, website, outreach
    - Community coalitions, established DPH partnerships (ex: CFS)
Goal 3: All persons at highest risk of syphilis will be aware of the risk and be offered education and testing in non-clinical settings.

- Increase syphilis testing in non-clinical settings and field (new organizational partners and targeted DPH field response)
  - Mobilize new organizational partners to support education, testing, and referrals
    - Correctional partners – Rapid syphilis testing in CRDF screening
    - SUD providers and syringe exchange programs
Goal 3: All persons at highest risk of syphilis will be aware of the risk and be offered education and testing in non-clinical settings.

- Develop DPH’s STD and infectious disease field outreach capacity targeted to persons experiencing homelessness
  - Partner with existing homeless medical services
    - Importance of provider with prescribing authority
  - DPH outreach
    - Full complement of DPH interventions and services
      - Syringe, wound care, vaccines, testing
Considerations for Elevating CS Response in CA

- Declaration of CS outbreak
  - Brings media attention, increased leverage for local HO to issue required screenings
- State HO Order
  - Brings media attention, could require jails to conduct screening of all women of reproductive age
- Medi-Cal Policy Letter
  - Provide appropriate reimbursement for 3rd trimester and delivery screening
- Licensing and Certification Policy Letter
  - Clarification of existing regulations
    - Ex: syphilis screening be provided in all SUD programs; hospitals/ED re: SB 1152
- Emergency Regulation
  - Allows DIS to conduct CLIA-waived tests for reportable diseases (rapid syphilis)
  - Expansion of provision of “incidental medical services” to licensed residential facilities to include screening for diseases
Thank you!

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