

Title: Congenital Syphilis in Chicago: An Analysis of Recent Cases

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Congenital Syphilis in Chicago: An Analysis of Recent Cases

Objective: Congenital syphilis (CS) occurs during pregnancy when maternal infection is not adequately treated in a timely manner. It can result in miscarriage, stillbirth, and multiple complications in the newborn including death. Since congenital syphilis is preventable, each case represents a public health “missed opportunity”. The incidence of congenital syphilis in the United States has been rising yearly since 2012. The purpose of this study is to analyze all congenital syphilis cases in Chicago from 2015 to 2019 using multiple data sources in order to determine in each case why the disease was not averted. This must be done in order to target resources appropriately and impact future cases.

Methods: All probable congenital syphilis cases reported to the Chicago Department of Public Health (CDPH) from January 1, 2015 through December 31, 2019 were reviewed. Both quantitative and qualitative data were collected from multiple sources. Missed opportunities for preventing CS were determined for each case and classified as either patient, provider, or system factors. Data on causes were collected, summarized, and divided by year to look for trends over time.

Results: There were 65 CS cases in the five years, with a majority occurring in non-Hispanic Black women in their 20s from communities with high levels of economic hardship. There was a steady decline in cases over time, from 24 in 2015 to 8 in 2019. Of these cases, 41 (63.1%) were attributed to patient factors, the most common being a lack of prenatal care in 27 (41.5% of all cases). Provider factors were responsible 17 (26.1%) of cases, including both testing and treatment errors. Systems factors were responsible for 7 (10.8%). Numbers were too small to make statements about changes in type of factor over time.

Discussion: The incidence of CS cases in Chicago has decreased over the past 5 years, but there are marked disparities by both race and community. Lack of prenatal care is the single most common cause of CS, but provider errors and systems factors are responsible for a significant portion as well. In order to impact this disease, resources need to be focused on engaging at-risk communities in prenatal care as well as increasing education to providers and streamlining referral systems when necessary to effect treatment. A multi-level approach is necessary to eliminate CS in Chicago.

Introduction

Syphilis was the first disease recognized as a sexually transmitted infection (STI) and is the most common congenital infection in the world (1). It is caused by *Treponema pallidum*, a spiral-shaped bacterium, and its manifestations range from a painless ulcer or rash in early infection to a latent phase with no symptoms, and rarely to multiorgan disease and death (2). Diagnosis of syphilis is difficult because the organism cannot be grown or observed except with very specialized laboratory techniques. As such, its diagnosis and staging depend on the analysis of a complex algorithm of tests. In recent years, in order to decrease the cost of testing for syphilis in high volume settings, a new system of testing known as the “reverse algorithm” was developed. This change in method of diagnosis has led to an increase in the already existing confusion about how to diagnose the different stages of syphilis (3). Syphilis’ peak in the 1990s in the United States (US) was attributed to the crack/cocaine epidemic and resultant unsafe and transactional sex. Over the next decade, through increasing awareness and widespread testing and treatment, levels of syphilis fell to a nadir around 2011, but have been increasing annually ever since. Part of the current increase in syphilis rates is felt to be secondary to the opioid epidemic, cuts in local STI programs, the emergence of dating apps, and the use of pre-exposure prophylaxis (PrEP), especially among men who have sex with men (MSMs). Currently in the US, Los Angeles County has the highest number of syphilis cases, with Cook County in second place, fueled primarily by the city of Chicago.

In non-pregnant individuals, early stages of syphilis are treated with either a penicillin injection or oral medications, with latent infections requiring three injections, each seven to ten days apart. Treatment options for syphilis in pregnancy are more restricted, and are limited to penicillin injection even in early stages. In pregnancy, for latent disease treatment, the three

injections cannot be given more than seven days apart. If they are spaced out by eight days or more, the entire series needs to be started over. Pregnant women with syphilis who are penicillin-allergic must undergo desensitization in order to be properly treated, a procedure which involves being given small but increasingly larger amounts of penicillin in an intensive care unit (ICU) under direct supervision by an allergist.

Congenital syphilis (CS) is spread from mother to fetus. Syphilis at any stage can be vertically transmitted, and this can occur at any point in the pregnancy (4). It results in an increased rate of preterm delivery and a number of manifestations in the fetus, with 40% either dying *in utero* or shortly after birth, and many surviving with an array of issues including cognitive delay and birth defects such as blindness and bone anomalies (5). The diagnosis of CS is often difficult to make. Since most laboratories do not perform darkfield microscopy, special stains, or polymerase chain reaction—studies necessary for confirmation of syphilis—all cases followed by the Chicago Department of Public Health (CDPH) are “probable cases” based on the CDC definition (see figure 1). According to the CDC, in cases where the mother was inadequately treated, started treatment within 30 days of delivery, or did not demonstrate a four-fold decline in her syphilis titers by delivery, the newborn must have a lumbar puncture to evaluate the cerebrospinal fluid (CSF). If the CSF is positive for the syphilis test, shows an elevated white blood cell count, or an increase in protein, a diagnosis of CS is made. An elevated CSF protein level is very non-specific, however, and has been criticized as a criterion for the establishment of CS (6). If determined to be a probable CS case, the newborn must be treated. This requires a prolonged course of intravenous penicillin, usually in a tertiary care center in the ICU.

In order to prevent congenital syphilis, it is vital to decrease rates of syphilis in pregnant women. This can be done through regular testing and treatment of all adults. Furthermore, syphilis should be aggressively diagnosed and treated in pregnancy. The CDC recommends that all women have a syphilis test at their first prenatal visit, regardless of their risk. Women at high risk, or in high prevalence geographic areas, should be retested in the third trimester. This test should be done before 32 weeks estimated gestational age so that, if diagnosed in the third trimester, the woman can be adequately treated more than 30 days before delivery and avoid a case of CS. This same group of women should be retested when they present to a hospital for delivery (7). Illinois law 410 ILCS 320/1 mandates both testing at the start and third trimester of pregnancy for all women regardless of risk (8).

CS rates in the US have typically paralleled rates of primary and secondary syphilis. They also nadired in 2011, and have similarly demonstrated increases ever since. In 2014 the Centers for Disease Control and Prevention (CDC) announced that CS rates were the highest they had been since 2001, and numbers have continued to increase, with 1306 CS cases reported in the US last year (9). By comparison, there were only 66 babies born with HIV infection (10). There are enormous racial and ethnic disparities in both syphilis and CS rates, and these are only worsening with time. The rate of CS is ten times greater in Black and three times greater in Latin Americans (LA) than in White populations (11). There are geographic disparities as well, with the largest increases occurring in the South and West regions of the country. Each case of CS is preventable, and it has in fact been eliminated in Cuba, Thailand, Armenia, Belarus, and the Republic of Moldova (4). As a preventable disease, it represents a sentinel event which requires an analysis of “missed opportunities”. This is especially important because of the disparities in its prevalence.

Syphilis and CS cases in all 50 states are reported to the National Notifiable Disease Surveillance System (NNDSS). Reports on women with syphilis are de-identified and include pregnancy status, but no information on the baby or prenatal care. Reports on babies born with CS do include this information, but are not linked to the maternal report. Thus, the specifics of individual cases cannot be understood, and are just assumed from aggregate data. In 21.8% of CS cases in 2014, the mother received no prenatal care (11). As a disease that is both difficult to diagnose and treat, there must be additional factors that are contributing to the continued occurrence of CS. The purpose of this study is to determine the incidence of congenital syphilis in the past five years in Chicago, Illinois and to understand the multiple factors that contributed to each case. The results will be shared with the members of the Congenital Syphilis Elimination Task Force. This can inform how resources should be allocated in order to be most effective in future efforts to eliminate congenital syphilis.

Methods

Data on all probable cases of CS in Chicago from 2015 through 2019 were collected from a variety of sources. The Chicago Department of Public Health (CDPH) receives a weekly list of all women in the city of Chicago who tested positive for syphilis in the previous week. Pregnancy status is ascertained for each of these cases either from an accompanying morbidity report or by contacting the provider who ordered the test if that information is missing. A disease intervention specialist (DIS) reaches out to all new cases to provide linkage to care, appropriate referrals, education about syphilis in pregnancy, and obtain information on contacts and risk behaviors through one or several in-person interviews. At the time of delivery, a congenital syphilis report is obtained from the pediatrician or Infection Control Practitioner, and the CDPH CS coordinator determines whether or not the neonate is a probable CS case based on

the CDC definition. In cases that need further adjudication, medical records are abstracted by the CDPH in order to determine CS status. A Congenital Syphilis Case Investigation Report that contains information on testing, treatment, and demographics of the mother is sent to the state health department and the Centers for Disease Control and Prevention (CDC) for all probable cases, and a file is created by the CDPH for each Chicago case that includes this form and any available medical records. All data obtained from the DIS patient interviews as well as meticulous field notes about attempts to contact the woman are put into the Chicago Health Information Management System (CHIMS) electronic database. Further information on select cases was obtained through attendance at quarterly meetings with Fetal Infant Mortality Review (FIMR) HIV/Syphilis, which occur in conjunction with the Illinois Department of Public Health. FIMR review has been used for years to investigate cases of maternal-to-child HIV transmission in Illinois, and has recently been used to track CS cases as well. Its methodology includes electronic health record (EHR) abstraction, maternal interview when possible, and review of CS cases by a multidisciplinary team with a diverse group of stakeholders. Similarly, attendance at weekly Chicago Congenital Syphilis Elimination Task Force meetings at the CDPH provided additional information on select cases. A final list of all probable CS cases from January 1, 2015 through December 31, 2019 was collected from the CDPH. After reviewing all data sources and summarizing all field notes and patient interviews, the reason for transmission was ascertained for each case. An excel spreadsheet was created for each year which included information on basic demographics, testing and treatment dates, syphilis stage, risk behaviors, contact information, obstetric and neonatal outcome, and reason cases were not averted for each individual. The causes, or “missed opportunities”, were then divided into three broad categories, provider factors, systems factors, and patient factors. Provider factors were defined as cases that

occurred because of a failure of the clinician to recommend appropriate testing or treatment, potentially resulting in a CS case. Systems factors were defined as either health care systems issues such as a delay in transfer of care resulting in a potentially avoidable case of CS, or a questionable diagnosis leading to potential inclusion of a case in error. The diagnosis was felt to be questionable when the mother was appropriately treated in a timely manner but the case was determined to be CS because of the non-specific finding of elevated protein in the CSF. Lastly, patient factors were defined as cases that resulted from an inability to engage patients in appropriate levels of prenatal care, treatment, or follow-up. Data were tabulated and summarized for all of the five years together and for each year separately.

Results

The mothers of babies with CS were primarily single, non-Hispanic Black parous women in their 20s who reside in the city's South and West side (see Table 1 and Figure 2). There were two (3.1%) syphilitic stillbirths in the 5-year period, and 10 (15.4%) babies were delivered preterm. Although there were incomplete data on many risk factors, of 24 women with documentation, there were seven (29.2%) who reported being homeless, one (4.2%) reported a history of incarceration, one (4.2%) stated that she traded sex for drugs, and of 45 women asked about substance use, it was reported in 22 (48.9%), of whom 13 reported use of substances other than marijuana. Of the 34 women with information on the number of sexual partners and STIs, 23 (67.6%) reported only one partner, 13 (38.2%) reported no prior STIs and 17 (50.0%) reported only one prior to the diagnosis of syphilis. There were 65 probable cases of CS over the 5-year study period. The annual number of cases steadily decreased from a high of 24 cases in 2015 to 11 cases each in 2016, 2017, and 2018, and a low of only eight cases in 2019 (see Figure 3).

There were many different missed opportunities resulting in CS (see Table 2) and they can be divided into three broad categories, patient factors, provider factors, and system factors. Patient factors include receiving either no or scant prenatal care, late infection (or reinfection) after a negative 3rd trimester test, or loss to follow-up before initiating or completing treatment. Provider factors include both testing and treatment failures. Testing errors included not getting an initial and third trimester test during prenatal care, and not getting a third trimester test at the appropriate time, before 32 weeks estimated gestational age, so that timely treatment could occur before delivery. Treatment errors included providing inadequate treatment and not recognizing and treating reinfection. Inadequate treatment was either from not treating the appropriate stage of syphilis or not recognizing that weekly injections must be given no more than eight days apart in pregnancy. We did not include overtreatment errors in this analysis because they did not result in CS cases, although they occurred and resulted in significant patient discomfort. Lastly, system factors include difficulty in getting penicillin desensitization done for penicillin-allergic women in a timely fashion and possible misclassification of some negative newborns as CS cases on the basis of elevated CSF protein. With small numbers of cases in each missed opportunity category, we could not make any meaningful observations about trends over time (see Figure 4).

Patient factors were responsible for 41 of 65 (63.1%) cases in the 5-year study period, and they were the most common cause. Of total CS cases, no or scant prenatal care was responsible for 27 (41.5%), late infection or reinfection after 3rd trimester testing was responsible for 9 (13.8%), and loss to follow-up before completing therapy was responsible for 5 (7.7%).

Although the numbers are small, the prevalence of no prenatal care among women with CS babies has been increasing in the past three years, while losses to follow-up have been decreasing over the same time period (see Figure 5).

Provider factors were responsible for 17 of 65 (26.2%) CS cases in the 5-year study period. Of these 17 cases, testing error was responsible for 7 (41.2%) and treatment error for 10 (58.8%). The most common provider errors were incorrectly spacing weekly penicillin injections in 6 (9.2%), performing the 3rd trimester test after 32 weeks EGA in 5 (7.7%), and undertreating the stage of syphilis in 3 (4.6%) women. Although the numbers are too small to make conclusions about trends over time, there were no cases secondary to missed tests or unrecognized reinfection in the past three years (see Figure 5).

Systems factors were responsible for 7 of 65 (10.8%) of cases. There were four (57.1%) newborns classified as probable CS cases despite adequate treatment in their mothers only because of elevated protein in the cerebrospinal fluid (CSF). Three (42.9%) of the cases were in babies whose mothers gave a history of penicillin allergy. Such women need to be penicillin desensitized in order to treat syphilis effectively in pregnancy, typically done by an allergy specialist in an ICU. In all three cases there were delays in getting the patient referred to a tertiary care setting where this procedure could be done, resulting in failure to have adequate treatment initiated more than 30 days before delivery. Although the numbers are small, issues in obtaining timely desensitization seems to be an increasingly important cause of CS in the past three years (see Figure 6).

Discussion

Despite national increases of congenital syphilis since 2012, rates have progressively decreased in the past 5 years in Chicago. This good news is tempered by the fact that racial and geographic disparities in this illness remain large, with the majority of cases occurring in Black women living in the city's most economically disadvantaged areas.

Many CS cases can be attributed to patient-related factors such as lack of prenatal care, loss to follow-up before initiating or completing therapy, and infection or reinfection after the third trimester screen. A review of all CS cases in the US in 2016 demonstrated that 75% of potential cases are averted through aggressive management in the prenatal period (12). In other studies of US cases, rates of no prenatal care range from 11 to 22% (11,13), much lower than the 41.5 % rate described in this study. The reasons for these patient-related factors are multiple, and relate to issues of trust, poverty, and structural racism. Mistrust of health care providers may stem from historic issues such as the Tuskegee syphilis study, and current issues such as fear of Child Protective Services involvement if women admit to substance use, housing insecurity, or transactional sex while pregnant (14). Poverty and lack of insurance have always been associated with STIs because of lack of routine screening and treatment (15). Lastly, the high concentration of syphilis and other STIs in communities of color is felt to be secondary to structural issues, including segregation and the disruption of families and communities caused by high rates of unemployment, and incarceration (16). The high prevalence of no prenatal care seen in this study may be explained in part by Chicago's status as the fourth most segregated city in the country (17). This is exemplified by the fact that CS cases in Chicago are primarily in areas of economic hardship. These are the same communities in Chicago that are both predominantly African American and have high rates of incarceration.

Targeted outreach to overburdened populations may help increase enrollment in prenatal care. Chicago launched media campaigns in 2017 and 2018 in high risk neighborhoods (see Figure 8), and CS rates decreased in the next year. Point-of-care testing in which results are available at the same visit, coupled with immediate treatment could lessen loss to follow-up, and it has been associated with decreased CS rates in Mongolia (18). Directly observed therapy

(DOT) with penicillin administered to a woman in her home, as is sometimes done with tuberculosis and HIV medication, could also have an impact. Furthermore, if all syphilis testing done on women of child-bearing age were linked to a pregnancy test, public health departments could redirect all the time currently spent on ascertainment of pregnancy status in women with positive test results to intensive case management for those who are pregnant.

Provider error is responsible for a significant proportion of CS cases. A study in Louisiana reported that 27% of cases were in women who received either the incorrect dose or prolonged spacing of penicillin for treatment, similar to the rate reported in Chicago (13). This study also reported errors in testing pregnant women appropriately. Legislation governing syphilis testing at the first prenatal visit exists in 44 states, and only 17 states, Illinois being one of them, mandate a third trimester test (19,20). These differing laws may be partially responsible for the great geographic disparity in rates of CS. In addition to uniform testing laws, there needs to be intensive provider education on the diagnosis and treatment of this complicated disease. A syphilis hotline to answer providers' questions patterned after the 24-hour Illinois Perinatal Hotline for HIV could decrease the number of cases secondary to provider error.

The issues in obtaining timely penicillin desensitization in this study were not reported elsewhere in the literature, but others have noted difficulties in obtaining penicillin G for infected patients as a systems factor causing delayed treatment (21). As primary care services are increasingly located in the community to facilitate engagement in care, delays in getting more complicated procedures will increase. To avoid such systems issues, structures need to be in place so that providers in the community can quickly refer patients for care that they are unable to provide, similar to the Illinois Perinatal Network that is in place for provision of tertiary obstetric services to pregnant women getting care at community hospitals and clinics.

This study is limited in that the data were collected retrospectively. It was often difficult to determine if patient or provider factors were responsible for fetal infection, and there were limited data on substance use, incarceration, transactional sex, or housing insecurity. A minority of cases had full EHR abstraction. Its strengths are that it spanned five years, and that multiple sources of information were used including both quantitative and qualitative data to ascertain the cause for each CS case. This resulted in a more granular assessment than available by NNDSS data alone.

Eliminating CS will depend on broad efforts to impact the structural racism that is associated with high rates of STIs in communities of color. Outreach efforts targeted at groups of increased risk must be more strongly emphasized. In parallel, immediate action must be taken to eliminate provider and systems factors. This should include universal mandated testing laws, increased provider education on the diagnosis and treatment of syphilis in pregnancy, intensive case management, systems of referral for more complex care, and some of the innovations that were piloted with HIV infection. Further research should incorporate input from at-risk communities and multidisciplinary review of CS cases such as conducted by FIMR in Illinois so that future interventions are appropriate and relevant to the population affected. Only then can we eliminate congenital syphilis in Chicago.

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Figure 1

Centers for Disease Control and Prevention Definition of Probable Congenital Syphilis (CS)

Any infant whose mother had under or inadequately treated syphilis (not appropriate for stage, not a penicillin-based regimen, or not initiated at least 30 days before delivery)

OR

Infant with +VDRL*, RPR*, or equivalent test *AND* one of the following:

Any evidence of CS on physical examination**

Any evidence of CS on X-ray of long bones

Cerebrospinal Fluid (CSF) which is positive for VDRL

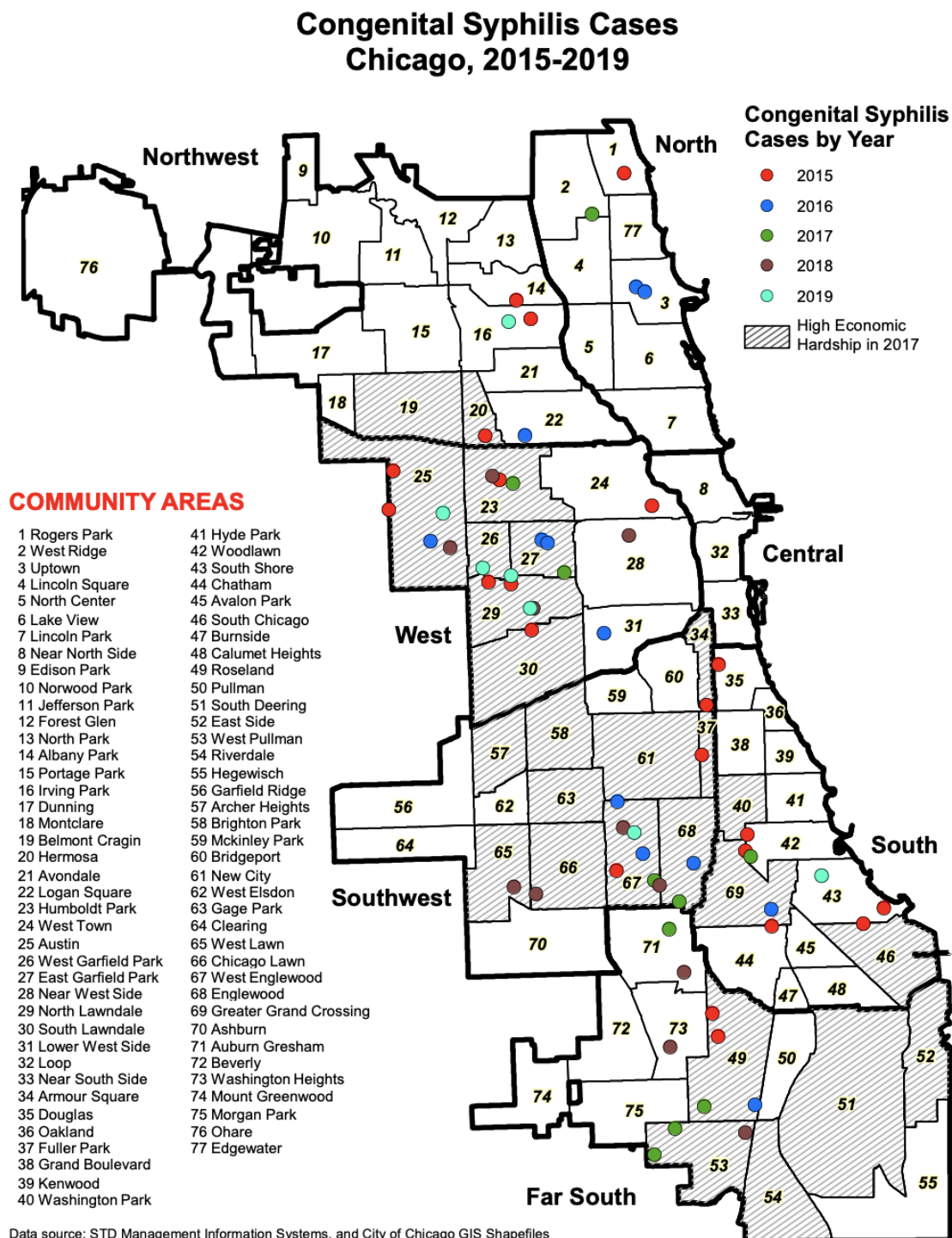
Non-traumatic CSF with elevated white blood cell count or protein without other cause

*VDRL and RPR are both non-specific tests for syphilis

**Including condyloma lata, snuffles, syphilitic rash, hepatosplenomegaly, jaundice/hepatitis, pseudoparalysis, or edema (nephrotic syndrome, malnutrition, or both).

Figure 2

Location of Chicago Congenital Syphilis Cases 2015-2019



Data source: STD Management Information Systems, and City of Chicago GIS Shapefiles
 Note: The economic hardship index utilizes multiple indicators to measure economic conditions of Chicago Community Areas. High hardship index scores indicate worse economic conditions.

TABLE 2
CAUSES OF CONGENITAL SYPHILIS CASES
N=65

PATIENT FACTORS-41(63.1%)

1. No prenatal Care-27(41.5%)
2. (Re)infection after testing-9(13.8%)
3. Loss to follow-up-5(7.7%)

PROVIDER FACTORS-17(26.2%)

1. Testing error -7(10.8%)
 - No initial test-1
 - No 3rd trimester test-1
 - Late 3rd trimester test*-5
2. Treatment error-10 (15.4%)
 - Undertreatment-3
 - Reinfection not recognized/treated-1
 - Incorrect spacing of weekly shots**-6

SYSTEMS FACTORS-7(10.8%)

1. Issues with timely penicillin desensitization -3
2. Possible misclassification-4

*3rd trimester test should be done by 32 weeks estimated gestational age

**in pregnancy, penicillin should be given no more than 8 days after the previous dose

FIGURE 3

CITY OF CHICAGO

CONGENITAL SYPHILIS CASES

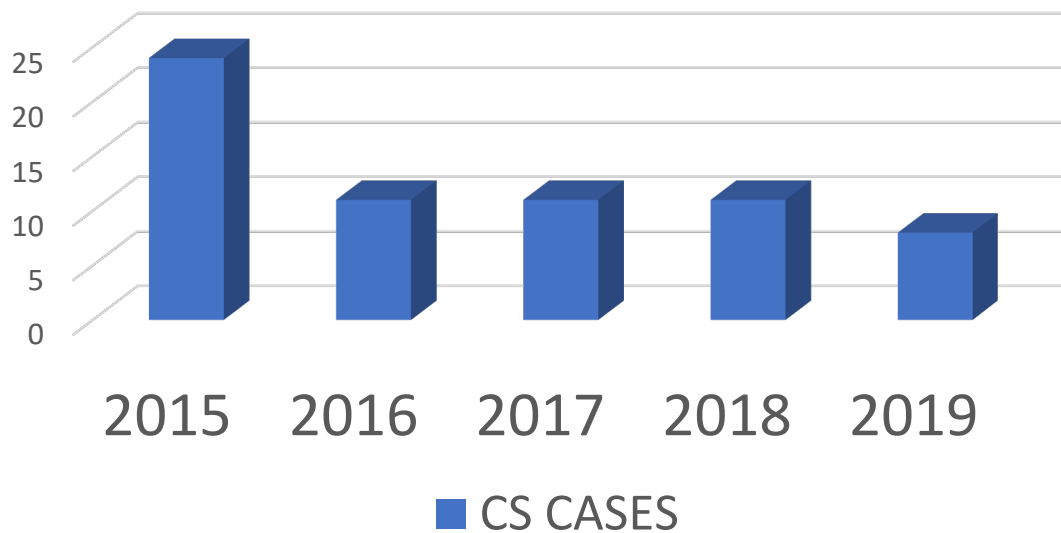


FIGURE 4
CITY OF CHICAGO
CAUSES OF CONGENITAL SYPHILIS

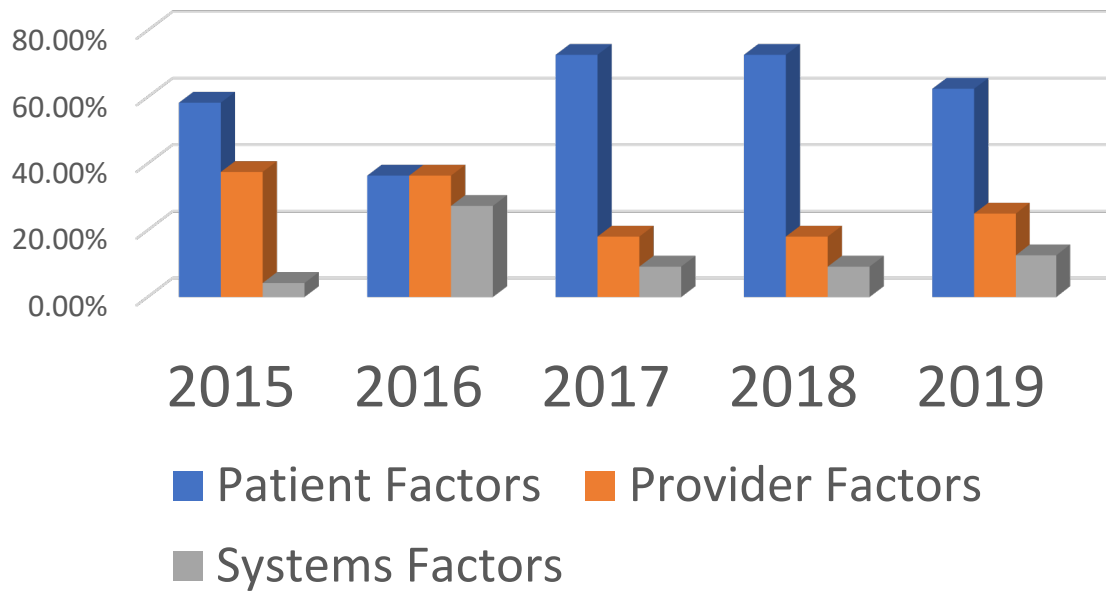


FIGURE 5
CITY OF CHICAGO
CONGENITAL SYPHILIS CASES
PATIENT FACTORS

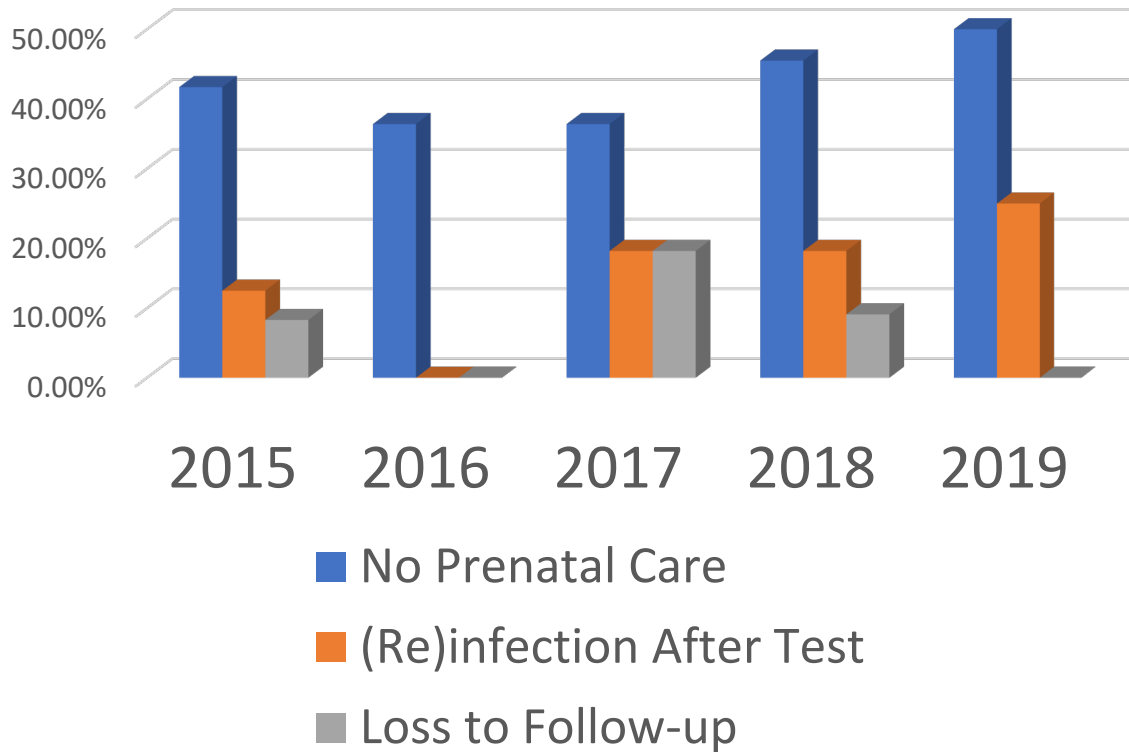


FIGURE 6
CITY OF CHICAGO
CONGENITAL SYPHILIS CASES
PROVIDER FACTORS

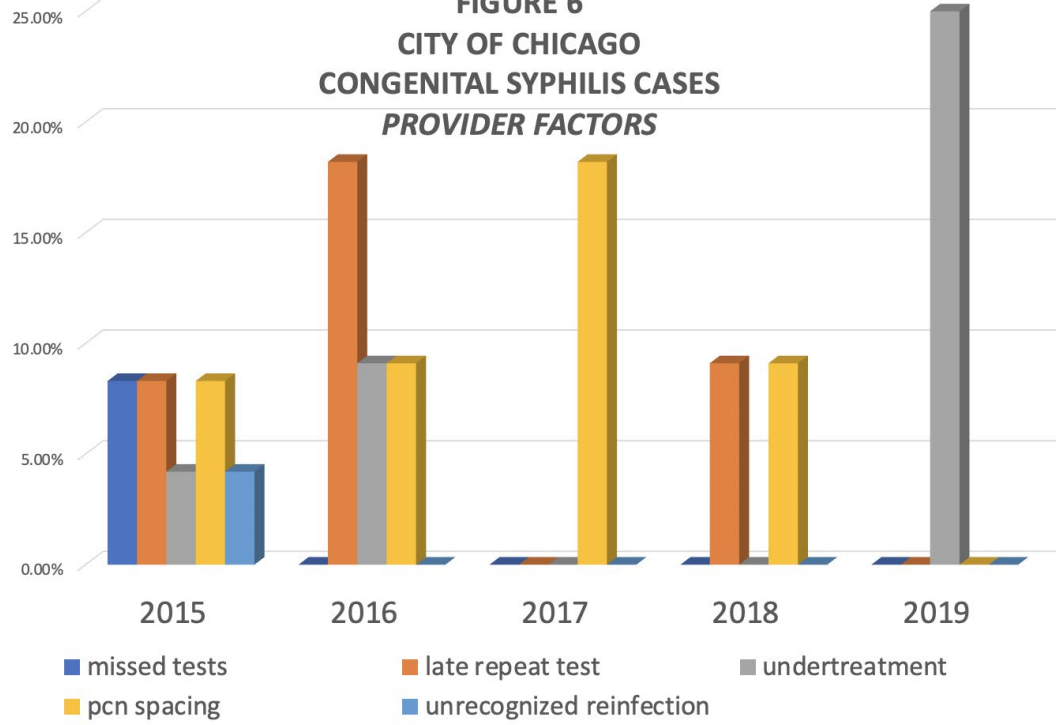


FIGURE 7
CITY OF CHICAGO
CONGENITAL SYPHILIS CASES
SYSTEMS FACTORS

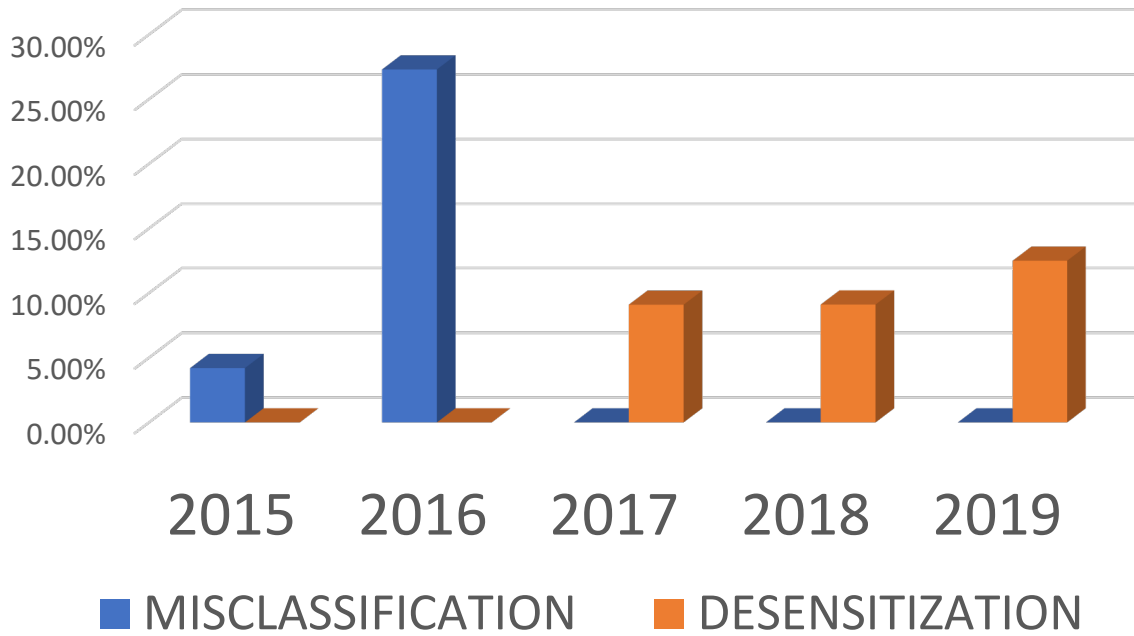


Figure 8
2018 Chicago Media Campaign

Patient Educational Materials

**Know the Facts:
Your Baby Will Thank You!**

You can get syphilis in under 100 hours after sex. If you need the most information, call to your health care provider, call or visit one of the Chicago Department of Public Health STD/HIV Sites.

Englewood STD Syphilis Clinic 4401 S. Cicero Ave., Suite 100 Phone: (773) 488-1000, (773) 488-1001 Hours: Mon-Fri 9:00 AM - 5:00 PM South Loop STD Syphilis Clinic 4401 S. Cicero Ave., Suite 100 Phone: (773) 488-1000, (773) 488-1001 Hours: Mon-Fri 9:00 AM - 5:00 PM West Loop STD Syphilis Clinic 4401 S. Cicero Ave., Suite 100 Phone: (773) 488-1000, (773) 488-1001 Hours: Mon-Fri 9:00 AM - 5:00 PM	Englewood STD Syphilis Clinic 4401 S. Cicero Ave., Suite 100 Phone: (773) 488-1000, (773) 488-1001 Hours: Mon-Fri 9:00 AM - 5:00 PM South Loop STD Syphilis Clinic 4401 S. Cicero Ave., Suite 100 Phone: (773) 488-1000, (773) 488-1001 Hours: Mon-Fri 9:00 AM - 5:00 PM West Loop STD Syphilis Clinic 4401 S. Cicero Ave., Suite 100 Phone: (773) 488-1000, (773) 488-1001 Hours: Mon-Fri 9:00 AM - 5:00 PM
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HEALTHY CHICAGO
Chicago Department of Public Health
www.healthychicagobabies.org

Protecting Your Baby from Congenital Syphilis

GET PRENATAL CARE
to Protect Your Baby from Congenital Syphilis

Call 311 or visit www.healthychicagobabies.org

HEALTHY CHICAGO
Chicago Department of Public Health
www.healthychicagobabies.org

Protect Your Baby from SYPHILIS

Know The Dangers

YOUR BABY COULD BE	PREVENT
Blind	Death
Deaf	Meningitis
Premature	Anemia
	Low birth weight

Protect Your Family

- Talk to your doctor
- Use condoms
- Get tested in 1st & 3rd trimesters
- Get treated

HEALTHY CHICAGO
Chicago Department of Public Health
www.healthychicagobabies.org

Call 311 or visit www.healthychicagobabies.org

**Conozca los hechos:
Su bebé se lo agradecerá!**

Usted puede evitar que su bebé se enferme de sífilis congénita si usted se hace una prueba de sangre antes de tener a su bebé.

Si necesita información, hable con su doctor o personal de salud de la ciudad, o llame o visite uno de los sitios de atención al paciente del Departamento de Salud Pública.

Englewood STD Syphilis Clinic 4401 S. Cicero Ave., Suite 100 Phone: (773) 488-1000, (773) 488-1001 Hours: Mon-Fri 9:00 AM - 5:00 PM South Loop STD Syphilis Clinic 4401 S. Cicero Ave., Suite 100 Phone: (773) 488-1000, (773) 488-1001 Hours: Mon-Fri 9:00 AM - 5:00 PM West Loop STD Syphilis Clinic 4401 S. Cicero Ave., Suite 100 Phone: (773) 488-1000, (773) 488-1001 Hours: Mon-Fri 9:00 AM - 5:00 PM	Englewood STD Syphilis Clinic 4401 S. Cicero Ave., Suite 100 Phone: (773) 488-1000, (773) 488-1001 Hours: Mon-Fri 9:00 AM - 5:00 PM South Loop STD Syphilis Clinic 4401 S. Cicero Ave., Suite 100 Phone: (773) 488-1000, (773) 488-1001 Hours: Mon-Fri 9:00 AM - 5:00 PM West Loop STD Syphilis Clinic 4401 S. Cicero Ave., Suite 100 Phone: (773) 488-1000, (773) 488-1001 Hours: Mon-Fri 9:00 AM - 5:00 PM
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