Division of Public Health
Curtis State Office Building
1000 SW Jackson St., Suite 300
Topeka, KS 66612-1368

Kansas Department of Health and Environment

Phone: 785-296-1086
www.kdheks.gov

Lee A. Norman, M.D., Secretary

Laura Kelly, Governor

November 30, 2020

To: Kansas Prenatal, Perinatal, and Pediatric Health Care Providers

RE: Updated Syphilis Screening Recommendations for Pregnant Women in Kansas

Background

Syphilis is an important risk factor for adverse pregnancy outcomes. The consequences of untreated maternal infection can include fetal and infant death, preterm birth, and congenital infection in a proportion of surviving infants, resulting in both physical and mental developmental disabilities. Asymptomatic infections can occur in both mothers and infants, so thorough examination and screening practices are the most important factors of effective congenital syphilis prevention.

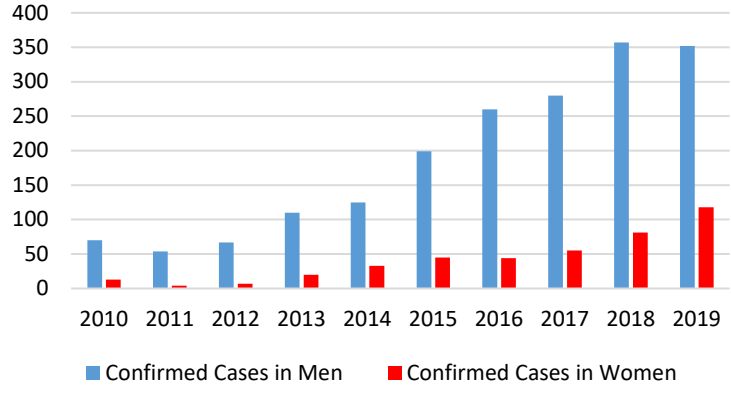
In October 2019, in response to a dramatic increase of early syphilis among women and congenital syphilis (CS) cases in Kansas, the Kansas Department of Health and Environment (KDHE), in consultation with the Centers for Disease Control and Prevention (CDC), issued a recommendation to screen all pregnant women for syphilis at three time points [first prenatal visit, 28-32 weeks gestation, and at delivery]. Several additional recommendations have been issued such as ensuring that syphilis screening had been done before discharging a woman after delivery, and testing any woman delivering a stillborn fetus at 20 weeks gestation or further for syphilis at the time of delivery.

Current syphilis screening recommendations from CDC and the United States Preventative Services Task Force (USPSTF) can appear to contradict KDHE's messaging at first glance, but these recommendations are supported by these organizations within the context of the individual patient's risk factors and the local epidemiology of syphilis. However, due to the stigmatized nature of the risk factors associated with CS, and the fact that the risk level of the patient's sexual partners may not be fully known, crucial risk factors are likely underreported to healthcare providers. Therefore, KDHE does not advise that screening practices be informed entirely on patient risk factors and is alerting providers to the following epidemiologic context of syphilis in Kansas.

Epidemiology of Syphilis in Kansas

Since 2010, the total number of syphilis infections reported in Kansas has more than tripled (Figure 1), and the most drastic increases have been observed among women, particularly women of reproductive age (ages 15-44). During 2019, the incidence of early (infectious) syphilis among women overall was 8.1 cases per 100,000 persons, compared to a case rate of 20.4 among women of reproductive age. Over the past decade, nearly 95% of early syphilis infections reported in females were among women of reproductive age, while this subpopulation only

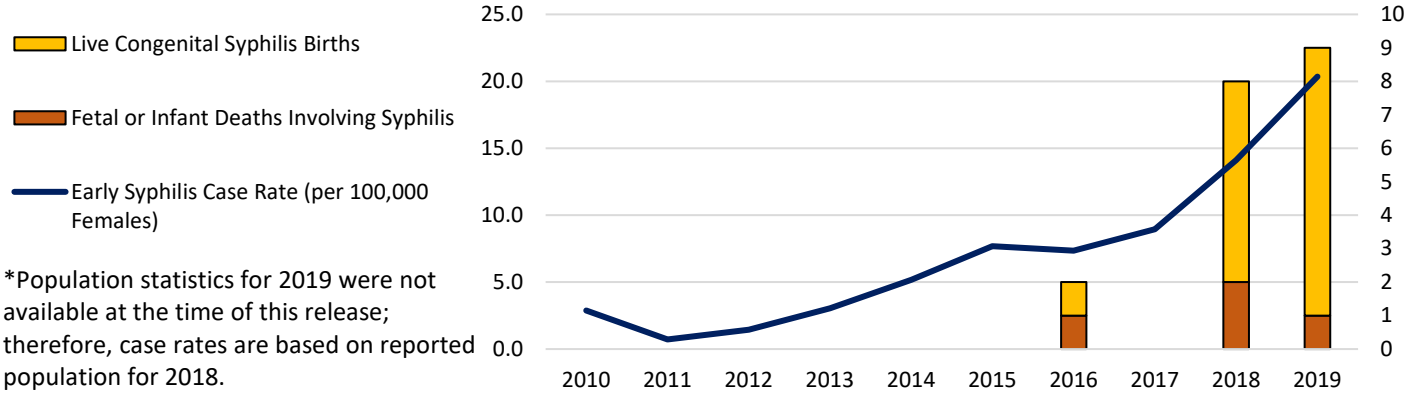
Figure 1. Early (Infectious) Syphilis Cases, Kansas, 2010-2019



represents 41% of the total female population of Kansas. Unsurprisingly, the rates of infection among young women is strongly correlated with incidence of congenital infection (Figure 2). Subsequently, cases of CS continue to be reported in Kansas with eight in 2018, nine in 2019, and six already reported during the first half (Jan-Jun) of 2020.

Four of the 19 (21%) CS cases reported during the previous decade were associated with stillbirth or infant death (Figure 2), but the full extent of this problem is likely underreported. A review of medical claims data conducted by CDC[1] showed that less than 10% of women with a reported stillbirth had evidence of recommended syphilis screening in their records. There is no screening data currently available to describe how frequently maternal testing for syphilis has been performed following reported stillbirths in Kansas, but KDHE will be conducting further evaluations of screening and reporting data to gather more information on potential screening gaps in Kansas.

Figure 2. Early Syphilis Rates Among Females of Reproductive Age (15-44) and Congenital Syphilis Cases, Kansas, 2010-2019*



Contributing Factors of Congenital Syphilis Cases

Although many cases of congenital syphilis occur among infants whose mothers were receiving prenatal care, late or limited prenatal care is the most common factor associated with congenital syphilis in Kansas. Roughly half (52%) of the 23 CS cases reported since 2018 involved mothers who either received no prenatal care or whose first prenatal care visit occurred too late in the pregnancy to adequately diagnose and treat the infection before delivery.

Three of the 9 (33%) CS cases reported during 2019 involved mothers who would not have been diagnosed through 28-week rescreening alone, having received a negative screening test in the third trimester (as recommended), but later diagnosed with early syphilis. One of these mothers was re-infected during her pregnancy after receiving recommended treatment earlier in the pregnancy, and two were either infected after this second screening or had incubating infections during the time that their screenings were conducted. During 2010-2018 we found no documented instances in which a negative screening test in the third trimester was followed by diagnosis at delivery. While this indicates that more providers are now conducting the additional screening recommended in the third trimester, it also highlights the importance of additional screening at delivery.

Updated Screening Recommendations

Based on these findings we believe women across the state are at significant risk of acquiring syphilis before or during pregnancy. Furthermore, the data related to recent cases of congenital syphilis and early syphilis in women of reproductive age reinforce our observations that screening only once during pregnancy is insufficient to prevent CS and

[1] Patel CG, Huppert JS, Tao G. Provider Adherence to Syphilis Testing Recommendations for Women Delivering a Stillbirth. *Sex Transm Dis*. 2017;44(11):685-690.

support the importance of screening pregnant women at three time points. Therefore, KDHE and partner organizations strongly support the following updated recommendations:

- Screen ALL pregnant women for syphilis at least twice, as follows:
    - First prenatal visit
    - Beginning of the third trimester (28 weeks' gestation). Screening as close as possible to this time during pregnancy is crucial to identifying infection while enough time remains to prevent CS by ensuring an appropriate duration of therapy for both mother and child prior to delivery.
    - Additional syphilis testing is indicated for pregnant women with signs of primary or secondary syphilis and for women with sexual partners that were recently diagnosed with any sexually transmitted disease (STD).
- Screening at delivery is also recommended for MOST pregnant women, including:
    - Women who do not have a documented syphilis screening test result during the third trimester, regardless of the presence or absence of any known risk factors for syphilis.
    - Women with one or more of the following risk factors:
        - No or inconsistent prenatal care
        - Any STD diagnosis during the past year
        - Illicit drug use
        - Incarceration in the past year
        - Currently experiencing homelessness or unstable housing
        - Multiple sexual partners
        - Reports transactional sex
        - **A sexual partner with risk factors**: STD in the past year, multiple sexual partners, current illicit drug use, or recent incarceration or homelessness.
    - Even in the absence of any of the above risk factors, clinicians always have discretion in deciding to screen for syphilis at time of delivery.
    - **Labor and Delivery centers are strongly encouraged to establish routine syphilis screening for all mothers** delivering at their facility. This determination should be made with consideration of the following:
        - Current syphilis surveillance data published by KDHE for the counties located in the facility's service area;
        - Prevalence of *Risk Factors* (listed above) among the populations frequently served by the facility;
        - Prevalence of mothers presenting to Labor and Delivery with poor or no verified history of prenatal care;
        - Local data for health disparities within the counties located in the facility's service area, such as:
            - SocioNeeds Index listed at kansashealthmatters.org;
            - Portion of Families Living Below Poverty Level listed at kansashealthmatters.org;
            - Adequacy of Prenatal Care data listed at marchofdimes.org.
- Do not discharge a mother or newborn infant to home after delivery without a documented or provider-verified maternal syphilis test result from the third trimester or delivery. Verbal reports from mothers of syphilis screenings performed are not an acceptable substitute.
- Any woman delivering a stillbirth after 20 weeks gestation should be screened for syphilis.

Additional Recommendations for Preventing Congenital Syphilis

- Become familiar with KDHE syphilis screening guidelines and protocols.

- Review how to recognize, diagnose, and treat all stages of syphilis including CS. Free online CME for syphilis and other STDs is available through the National STD Curriculum, https://www.std.uw.edu. Consider contacting your local infectious disease specialist if you suspect a case of CS, neurosyphilis or ocular syphilis.
- Obtain a complete sexual history that includes the discussion of risk factors such as drug use, multiple sex partners, infections with other STDs, and prior syphilis infection.
- Conduct an HIV test along with the initial syphilis screen at the first prenatal visit. HIV testing should be repeated if syphilis or another STD is diagnosed later in pregnancy.
- Make sure to test and treat sex partners of patients who test positive. Obtain partner information from patients and encourage them to work with the KDHE Disease Intervention Program to facilitate the notification and referral of exposed partners.
- Pregnant women with syphilis must always be treated with a penicillin regimen appropriate for their stage of infection. Pregnant women with a penicillin allergy must undergo a penicillin desensitization protocol. The STD Treatment Guidelines published by CDC (https://www.cdc.gov/std/tg2015/syphilis-pregnancy.htm) contain additional recommendations for pregnant women.
- Report confirmed or suspected cases of congenital syphilis (including syphilitic stillbirths) within 24 hours to KDHE at 877-427-7317.

These recommendations will be re-evaluated again in 2022.

Lee A. Norman, MD
Secretary, Kansas Department of Health and Environment

Charles Gibbs, MD, FACOG
Chair, Kansas Section of the American College of Obstetricians and Gynecologists

Kristie Clark, MD, FAAP
President, Kansas Chapter, American Academy of Pediatrics

Jamie Harrington, DNP, APRN, CNM, FNP-BC
President, Kansas Affiliate of the American College of Nurse Midwives

Chad Johanning, MD, FAAFP
President, Kansas Academy of Family Physicians

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Joint Recommendations for Syphilis Screening in Pregnant Women in Kansas, 2020

Endorsed by the Kansas Department of Health and Environment, the Kansas Section of the American College of Obstetricians and Gynecologists, the Kansas Chapter of the American Academy of Pediatrics, the Kansas Affiliate of the American College of Nurse Midwives, and the Kansas Academy of Family Physicians.

Screen All Pregnant Women for Syphilis THREE TIMES During Pregnancy

First Prenatal Visit	Beginning of Third Trimester (28 Weeks)	Labor & Delivery
Recommendation: Screen all pregnant women for syphilis as soon as possible after pregnancy has been confirmed.	**Recommendation:** Screen all pregnant women for syphilis at 28 weeks gestational age.	**Recommendation:** Labor and Delivery centers are strongly encouraged to establish routine syphilis screening for all mothers delivering at their facility. At a minimum, screening for syphilis at delivery should be conducted for all pregnant women who did not received a third trimester screen, or for whom there are any personal or epidemiologic risk factors (below).
Reason for update: N/A – this is a long-running and routine practice for prenatal care. Additionally, Kansas statute requires that a syphilis test be conducted (with consent) for all pregnant women "within 14 days after diagnosis of pregnancy is made." [K.S.A. 65-153f]	**Reason for update:** Screening as close as possible to this time during pregnancy is crucial to identifying infection while enough time remains to prevent congenital syphilis (CS) by ensuring an appropriate duration of therapy for both mother and child more than 30 days prior to delivery. Previous recommendations allowing a window of 28-32 weeks have not guaranteed adequate treatment prior to delivery; 22% of CS cases reported since 2018 involved mothers who were diagnosed before delivery, but whose treatment was not initiated in time to prevent CS.	**Reason for update:** Three of the 9 (33%) CS cases reported during 2019 involved mothers who would not have been diagnosed through 28-week rescreening alone, having received a negative screening test in the third trimester (as recommended), but later diagnosed with early syphilis. **Kansas is an Area of Increased Prevalence.** Kansas ranked 15th in the nation for CS cases when adjusted for population in 2018, despite ranking much lower for syphilis infections among adults.

Any woman delivering a stillbirth after 20 weeks gestation should be screened for syphilis.

<u>Maternal Risk Factors Associated with Congenital Syphilis:</u>

- No or inconsistent prenatal care
- Any STD diagnosis during the past year
- Illicit drug use
- Incarceration in the past year
- Currently experiencing homelessness or unstable housing
- Multiple sexual partners
- Reports transactional sex
- **A sexual partner with risk factors**: STD in the past year, multiple sexual partners, current illicit drug use, or recent incarceration or homelessness.