Kansas
Department of Health and Environment
Division of Public Health

STI Trends and Emergent Issues

2019 Kansas Governor's Public Health Conference

STI Update Learning Objectives

After completing this session, participants will be able to:

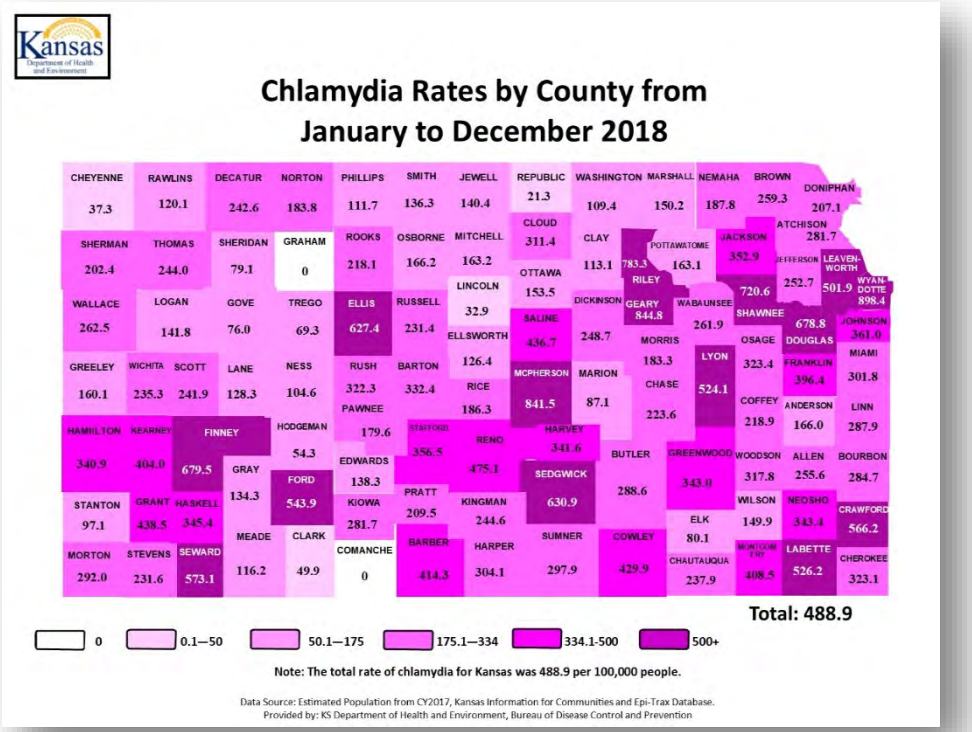
- Describe how the current state of Sexually Transmitted Infections (STIs) in their communities compares with the growing STI concerns observed at the State and National levels.
- Identify areas in their local healthcare systems that would benefit from additional education and support to help prevent congenital syphilis infections.

STIs in Kansas

Chlamydia

- **14,242 Total Cases**
  69% Female, 31% Male
  Largely 15-24yo (68% of Cases)

  10-Year trends reflect a steady increase in case rates by population: 4.9% increase from 2017; 49.1% increase from 2008.



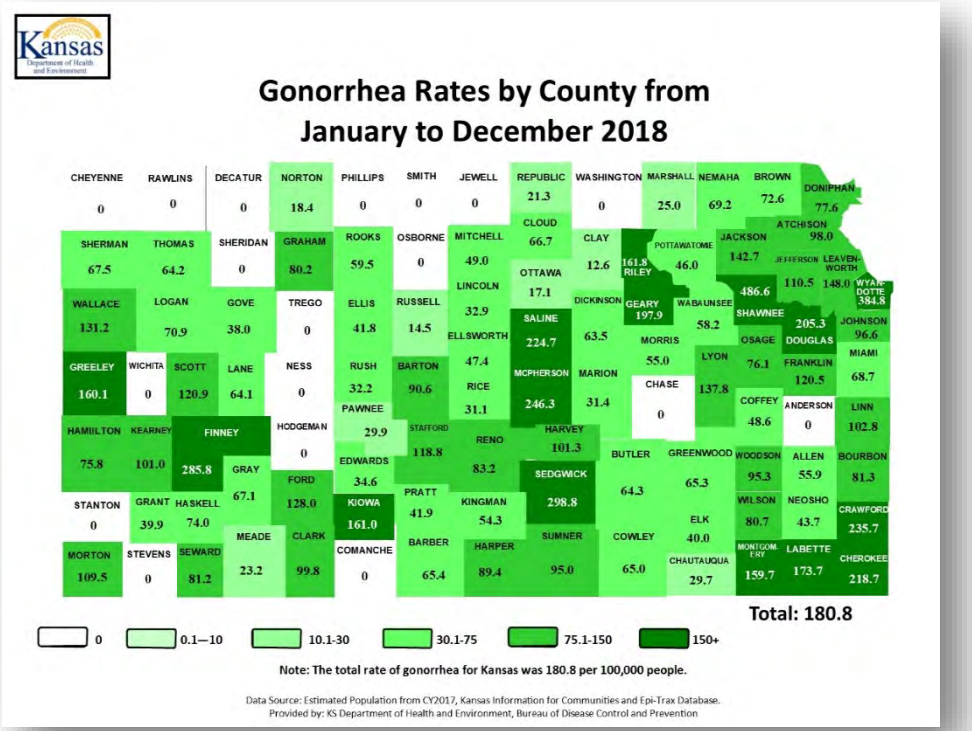
STIs in Kansas

Gonorrhea

- **5,267 Total Cases**
  50% Female, 50% Male
  48% 15-24yo, 41% 25-39yo

10-Year trends reflect a **recent and dramatic increase** in case rates by population:

8.2% increase from 2008 – 2014
114.2% increase from 2015 – 2018.

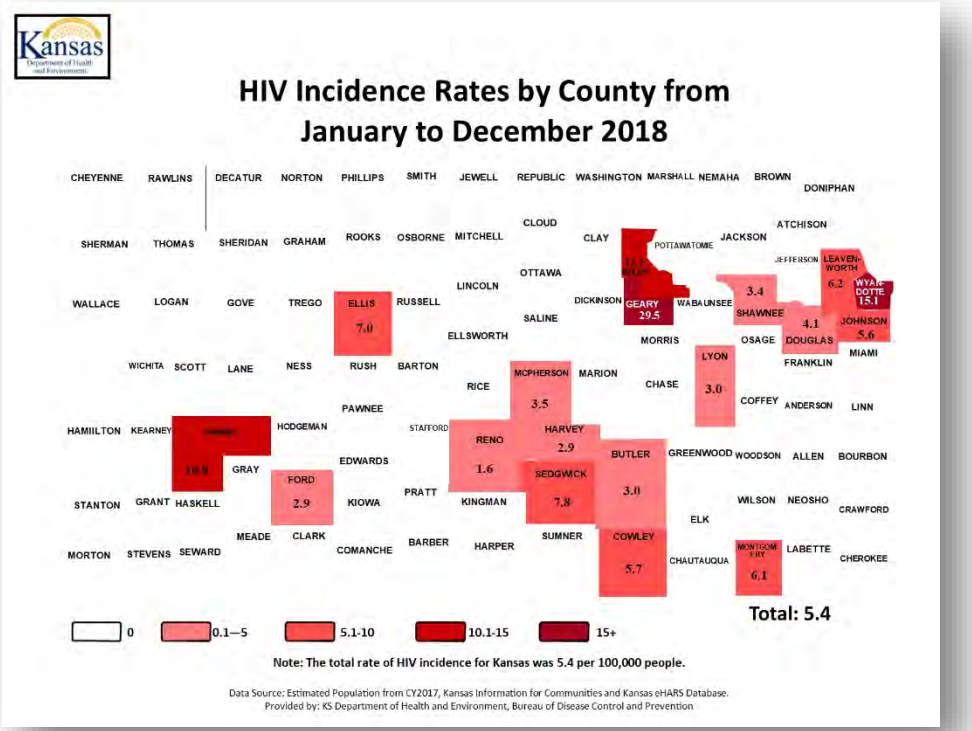


STIs in Kansas

Human Immunodeficiency Virus (HIV)

- **223 New Diagnoses**
  79.8% Male, 17.5% Female, 2.7% Trans
  Largely 25-44yo (53.8% of Cases)
  Mostly MSM (63.7% of Cases)

10-Year trends reflect a steady, if erratic, trend of static case rates by population.

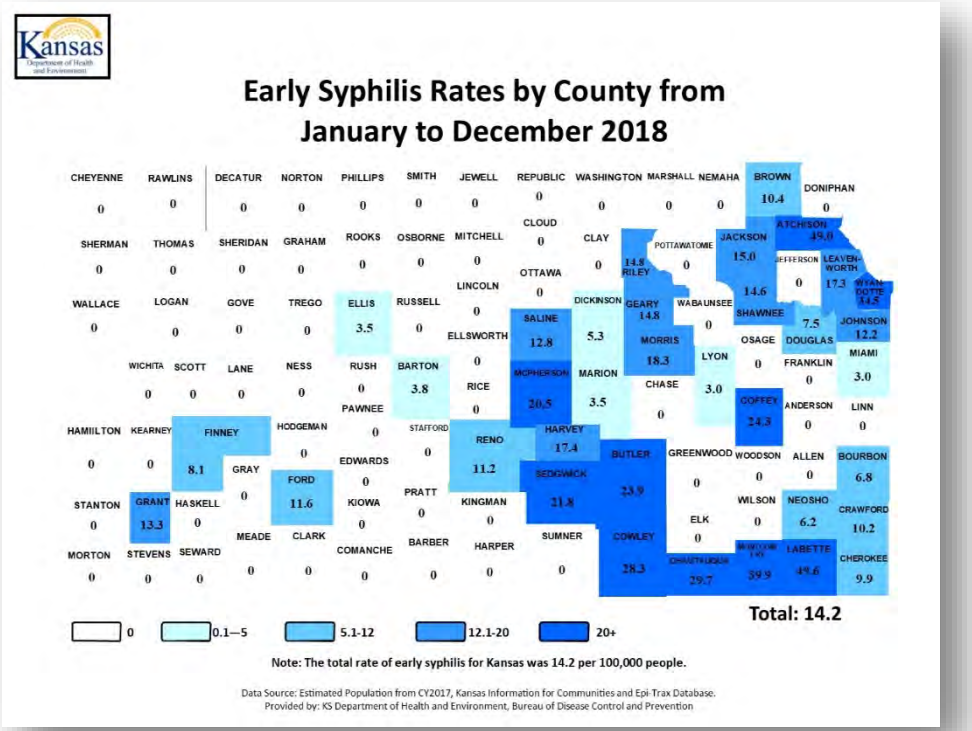


STIs in Kansas

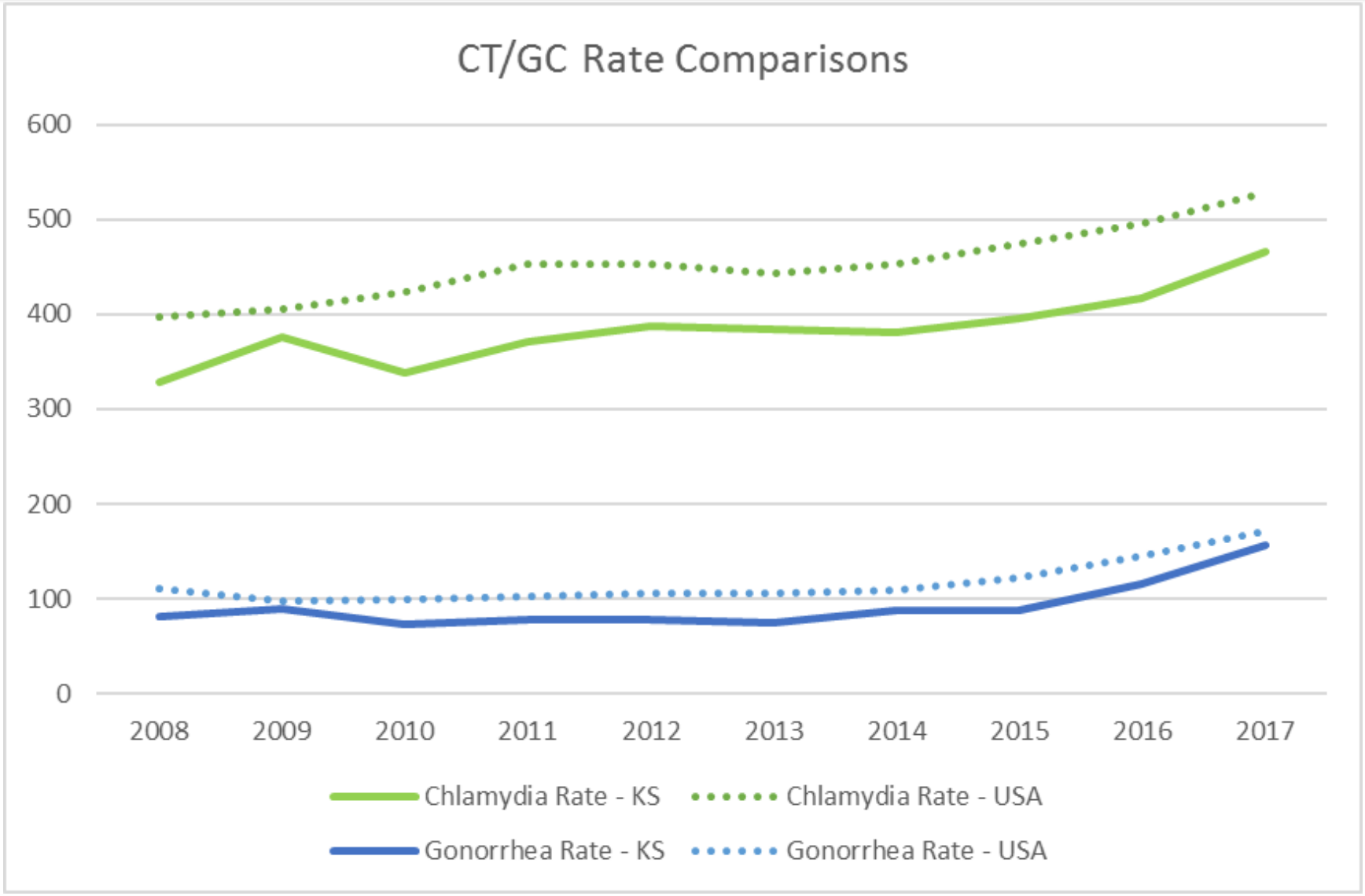
Syphilis (Primary, Secondary, and Early Non-Primary Non-Secondary)

- **415 Total Cases**
  80% Male, 20% Female
  49% 15-29yo, 51% 30+

  10-Year trends reflect a **recent and dramatic increase** in case rates by population:
  - 16.1% decrease from 2008 – 2012
  - 446.2% increase from 2012 – 2018.



National Trends – Chlamydia & Gonorrhea Rates



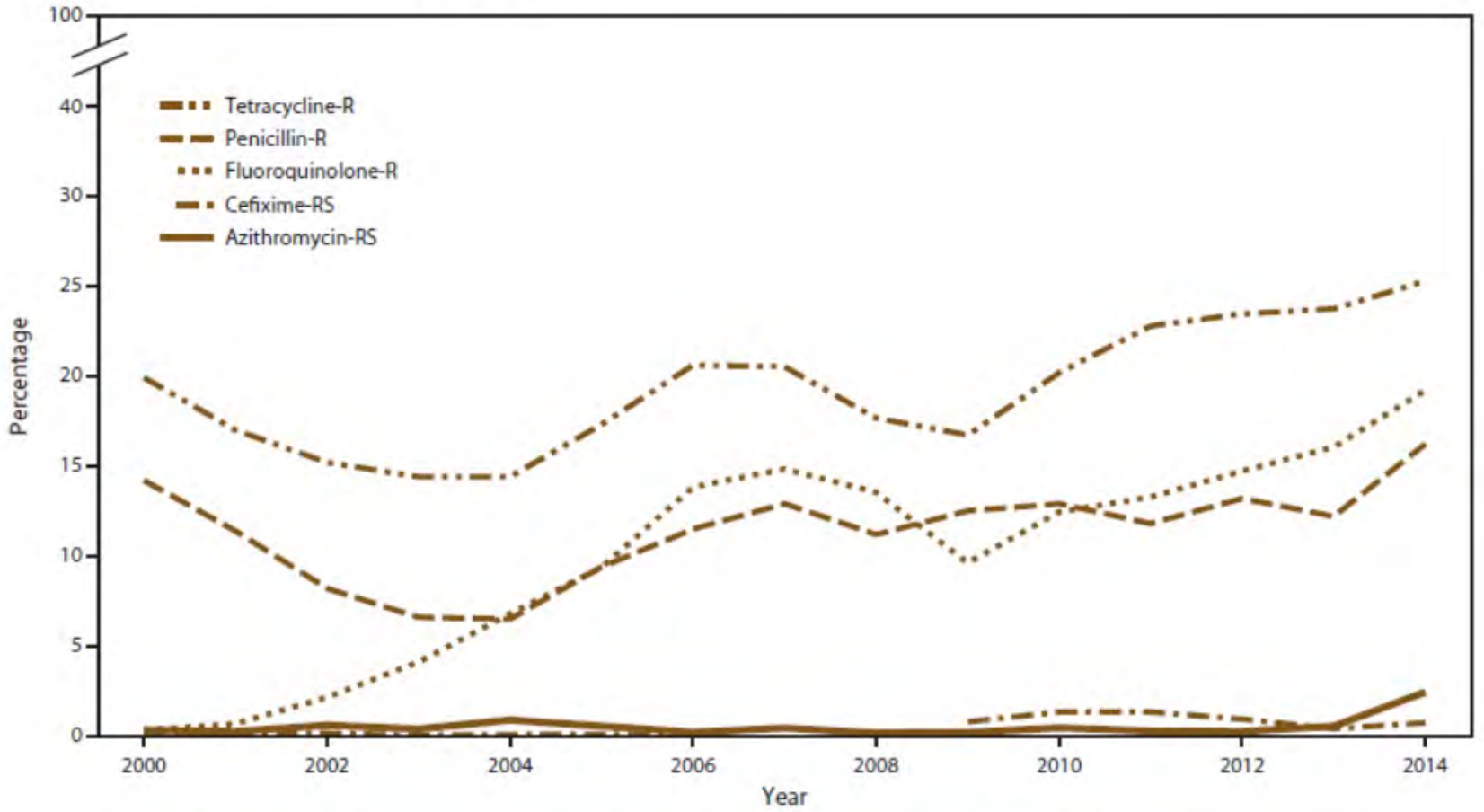
National Trends – Resistant Gonorrhea

Gonorrhea Isolate Surveillance Project (GISP)

- Each month at GISP clinics, up to the first 25 men with gonococcal urethritis are cultured for antimicrobial resistance.
- The CDC analyzes resistance data based on the reported census region and sex of sex partners.

National Trends – Resistant Gonorrhea

FIGURE 2. Prevalence of tetracycline, penicillin, or fluoroquinolone resistance* or reduced cefixime or azithromycin susceptibility,† by year — Gonococcal Isolate Surveillance Project, United States, 2000–2014



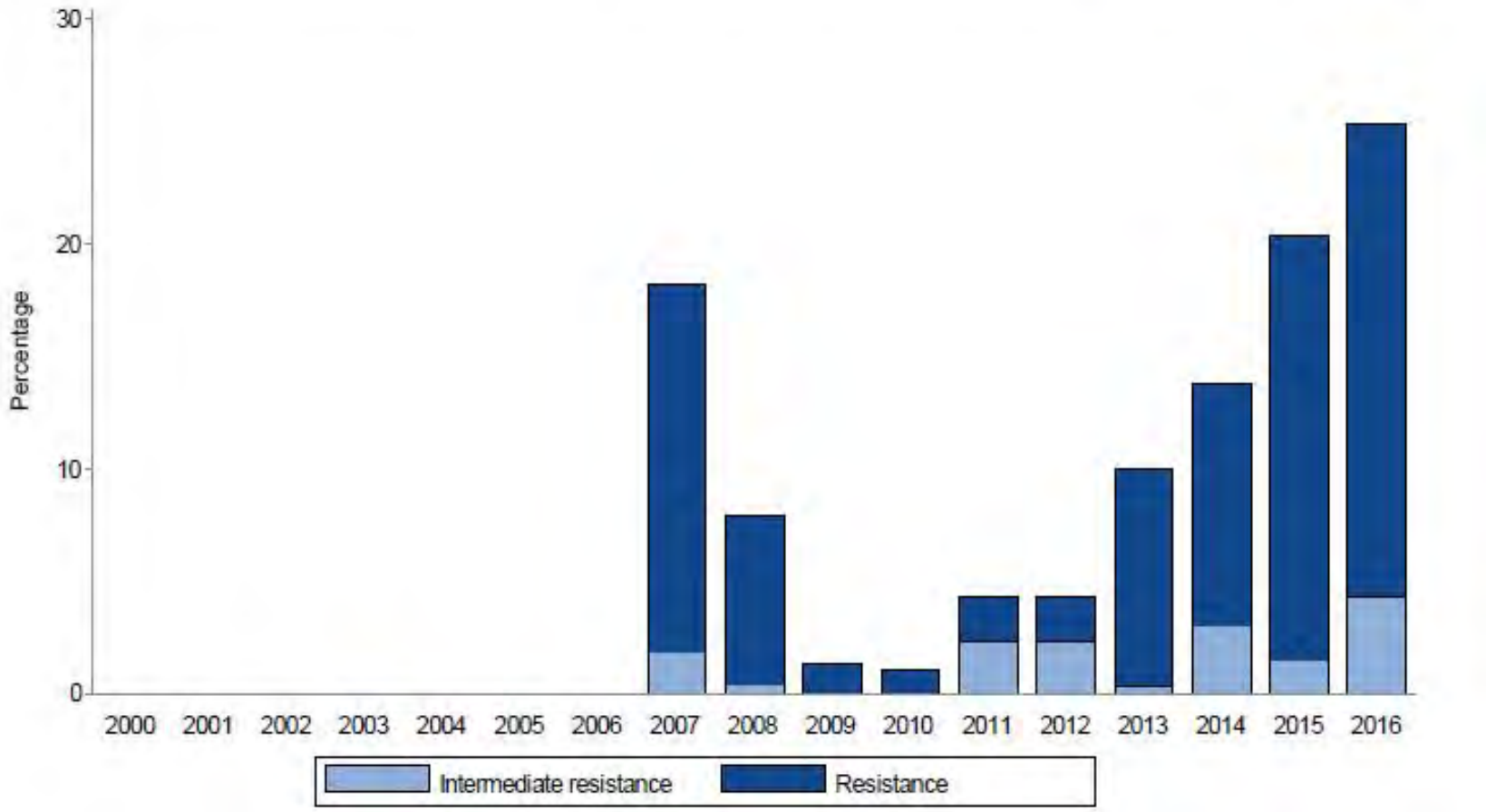
* Fluoroquinolone resistance (R) = ciprofloxacin minimum inhibitory concentration (MIC) =1.0 μg/mL; penicillin-R = MIC =2.0 μg/mL or ß-lactamase positive; tetracycline-R = MIC =2.0 μg/mL.

† Azithromycin reduced susceptibility (RS) = MIC =1.0 μg/mL (2000–2004); =2.0 μg/mL (2005–2014); cefixime-RS = MIC =0.25 μg/mL. Cefixime susceptibility was not tested in 2007 and 2008.

National Trends – Resistant Gonorrhea

Kansas City, Missouri

Figure I. Percentage of GISP Isolates with Intermediate Resistance or Resistance to Ciprofloxacin, 2000-2016



National Trends – Ending the HIV Epidemic

Ending the HIV Epidemic: Four Strategic Pillars

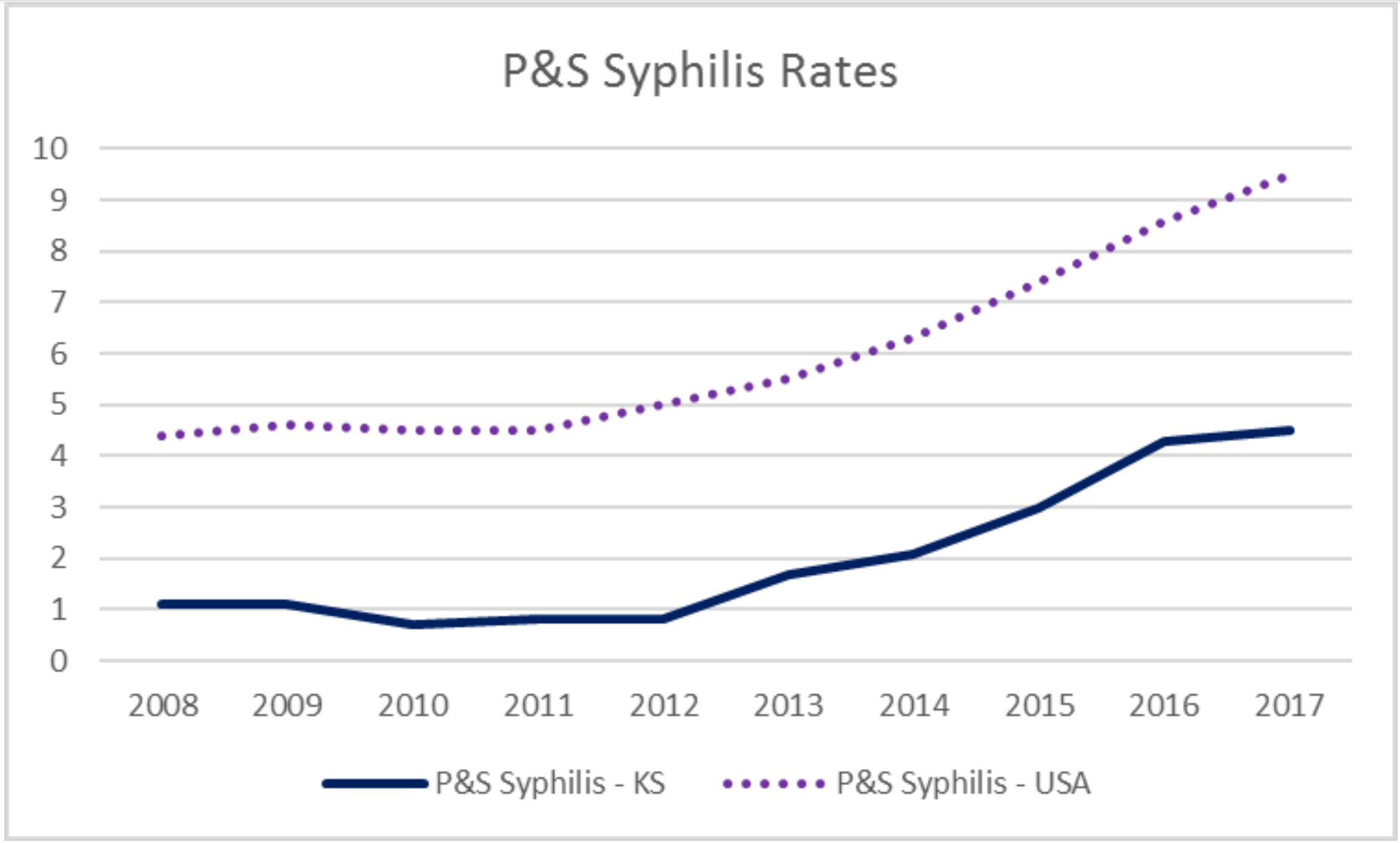
Diagnose all people with HIV as early as possible after infection.

Treat the infection rapidly and effectively to achieve sustained viral suppression.

Protect people at risk for HIV using proven interventions, including (PrEP).

Respond rapidly to detect and respond to growing HIV clusters and prevent new HIV infections

National Trends – Syphilis



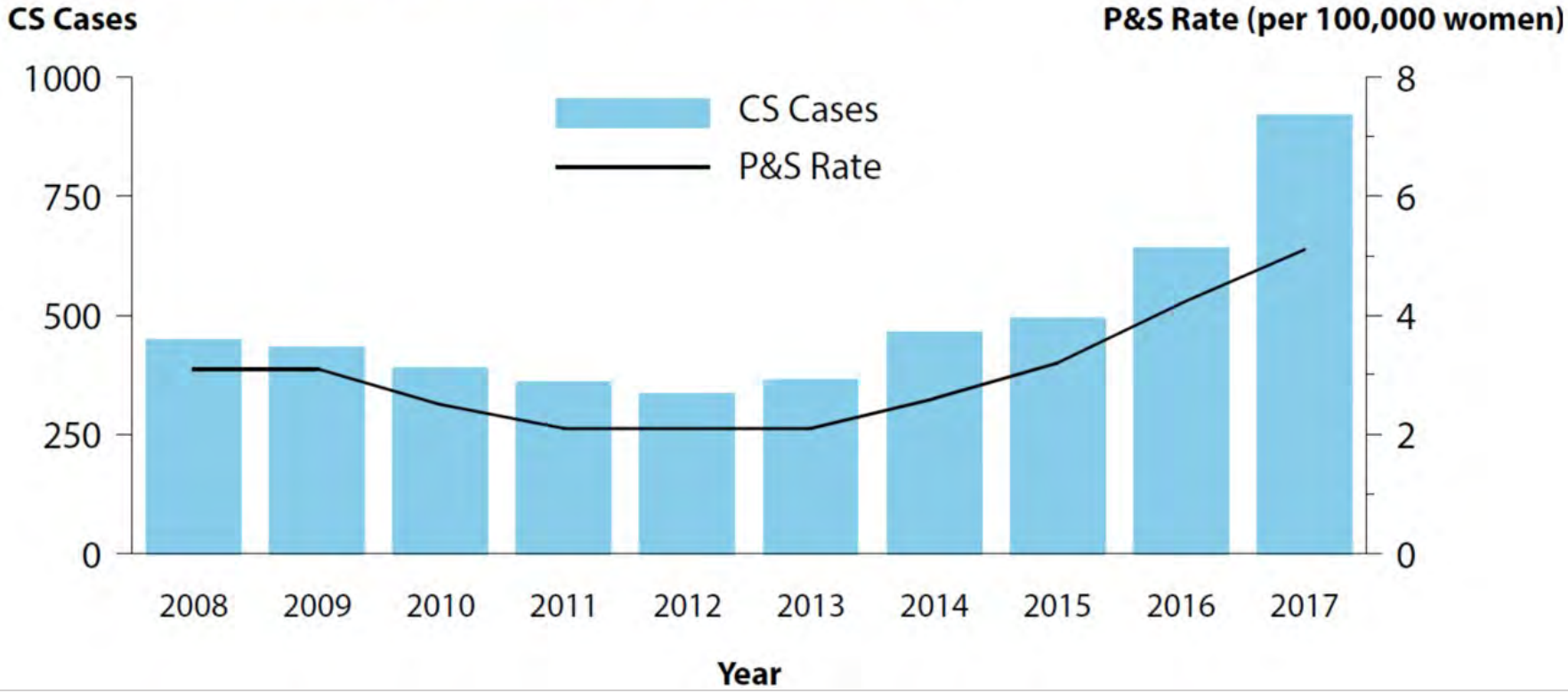
National Trends – Congenital Syphilis

The Return of an Old Enemy

- After decreasing during 2008–2012, the rate of reported congenital syphilis has subsequently increased each year since 2012.
- In 2017, there were a total of 918 reported cases of congenital syphilis, including 64 syphilitic stillbirths and 13 infant deaths, and the national rate was 23.3 cases per 100,000 live births.

National Trends – Congenital Syphilis

Congenital Syphilis — Reported Cases by Year of Birth and Rates of Reported Cases of Primary and Secondary Syphilis Among Women Aged 15–44 Years, United States, 2008–2017



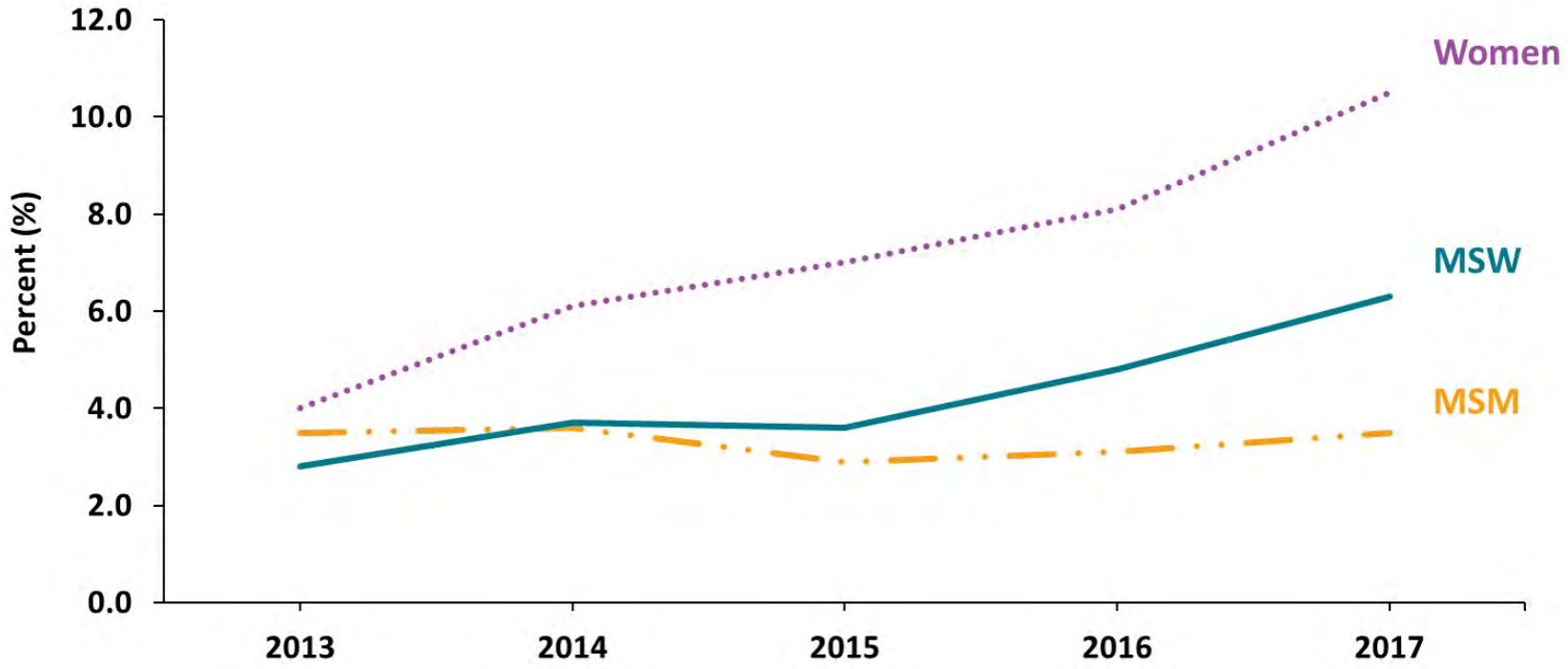
National Trends – Congenital Syphilis

Missed Opportunities for Prevention

- Nationally, 25% of CS cases are due to a **lack of prenatal care**. But even among those receiving some prenatal care, the detection and treatment of maternal syphilis often occurs too late to prevent CS.
- Of women who gave birth to an infant with CS, 42% were not tested in time to be treated to prevent CS.

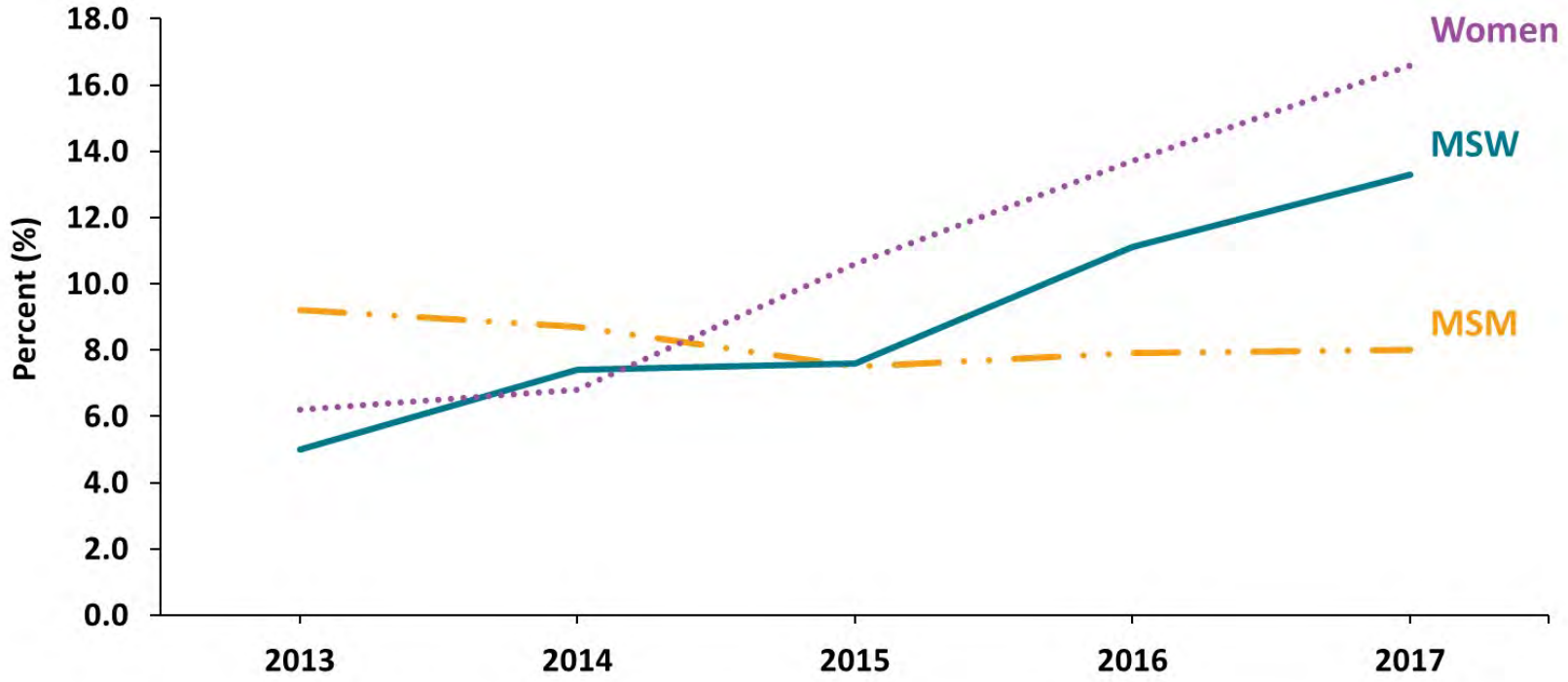
National Trends – Increased Syphilis Risk Factors

Reported Injection Drug Use* Among Reported Primary and Secondary Syphilis Cases by Sex and Sexual Behavior, United States, 2013–2017



National Trends – Increased Syphilis Risk Factors

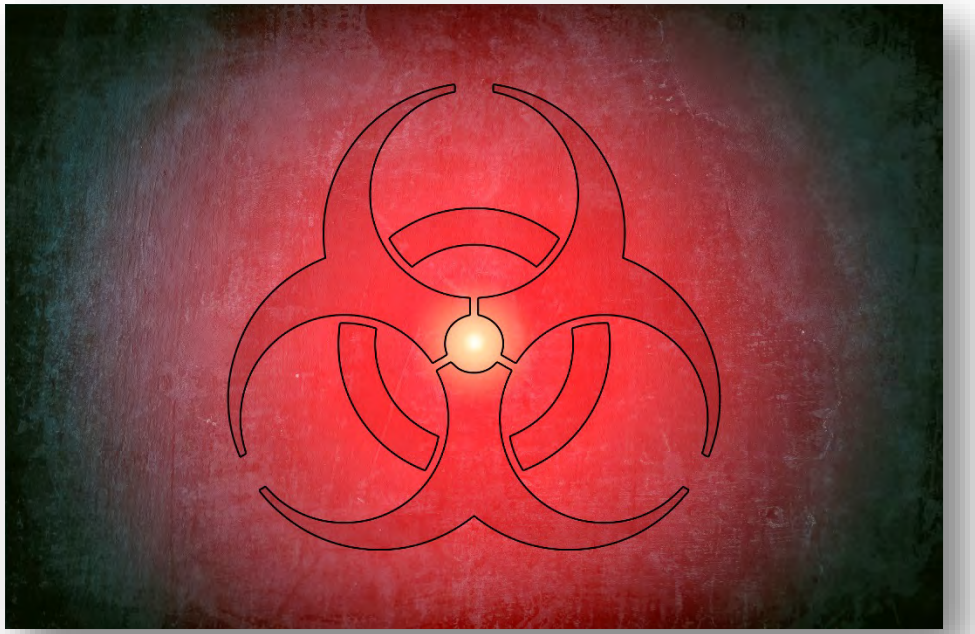
Reported Methamphetamine Use* Among Reported Primary and Secondary Syphilis Cases by Sex and Sexual Behavior, United States, 2013–2017



STI Outbreak Response

Kansas STI/HIV Outbreaks during 2018

- There were **three localized increases** in case morbidity during CY2018, two of which resulted in the activation of an Outbreak Response.
- Staffing challenges and limited resources within the Disease Intervention Program has led to a **reduced ability to respond** to such increases, but we are close to regaining this capacity at present.

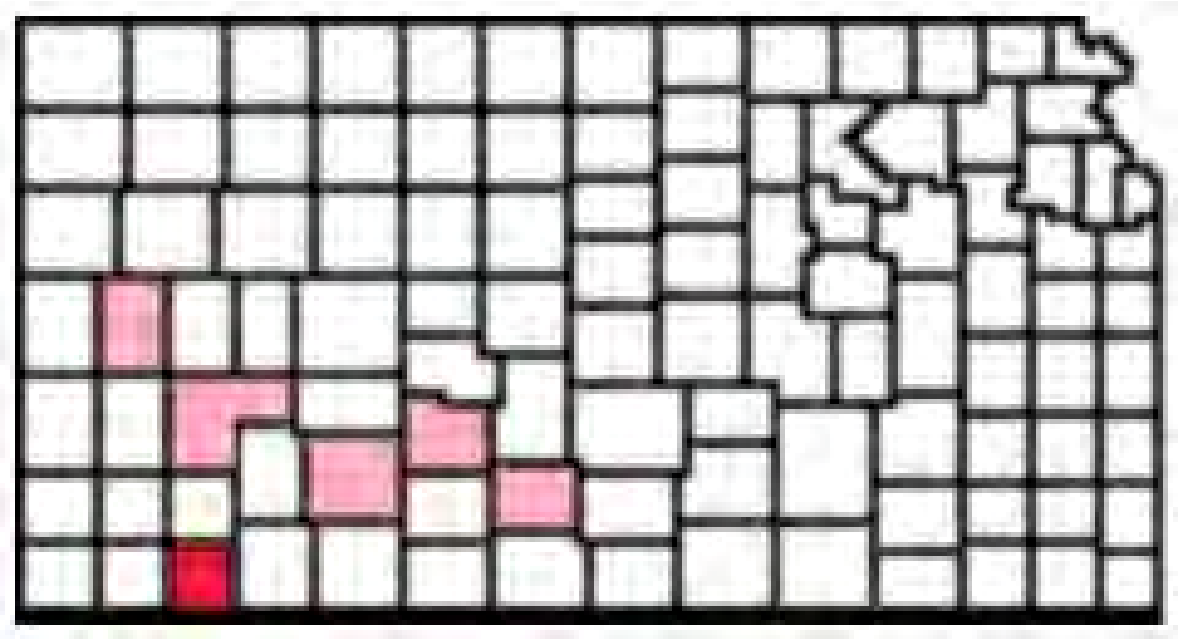


HIV Outbreak Response – Jan/Feb 2018

SW Kansas, Multi-County (Liberal)

- **10 Confirmed Cases** (6 Male, 4 Female);
  90 Contacts (17 Male, 8 Female);
  (54 Partners, 36 Associates).

- **Unusual patient demographic** – Mostly heterosexual exposures; 80% cases involved were between the ages of 17 – 28.

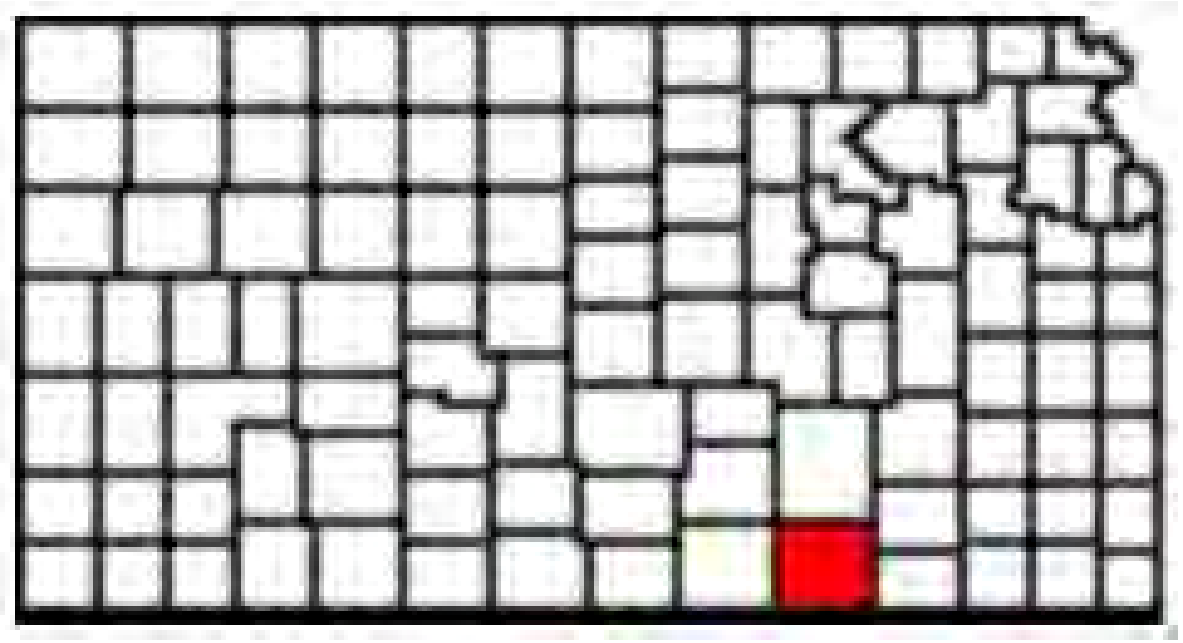


Syphilis Morbidity Cluster – Nov/Dec 2018

Cowley County (Arkansas City, Winfield)

- **7 Confirmed Cases** (2 P, 5 EL);
  (4 Male, 3 Female);
  25 Contacts (17 Male, 8 Female);
  (16 Partners, 9 Associates).

- **Unusual patient demographic** – All patients involved were between the ages of 14 – 20; most were high school students.

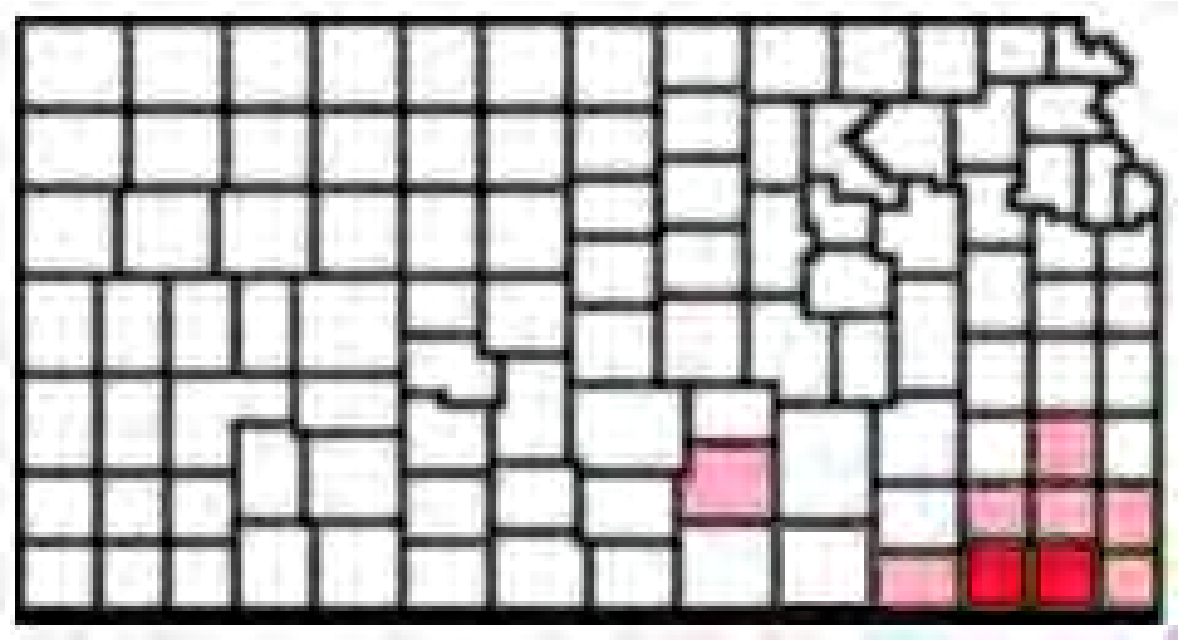


Syphilis Outbreak Response – Oct 2018 to Present

SE Kansas, Multi-County (Independence, Coffeyville, Parsons)

- **36 Confirmed Cases** (6 P, 8 S, 22 EL); (21 Female, 15 Male);
  153 Contacts (85 Male, 68 Female); (117 Partners, 36 Associates).

- **Common Risk Factors** –
  Meth Use: 39% (14) <12 months;
  Most patients involved had been **incarcerated** <12 months.



Syphilis Outbreak Response – Oct 2018 to Present

Historical Context; 2017 Syphilis Outbreak in SE Kansas

- Our investigation has confirmed an historical link to the syphilis outbreak centered on Neosho and Allen counties in 2017.

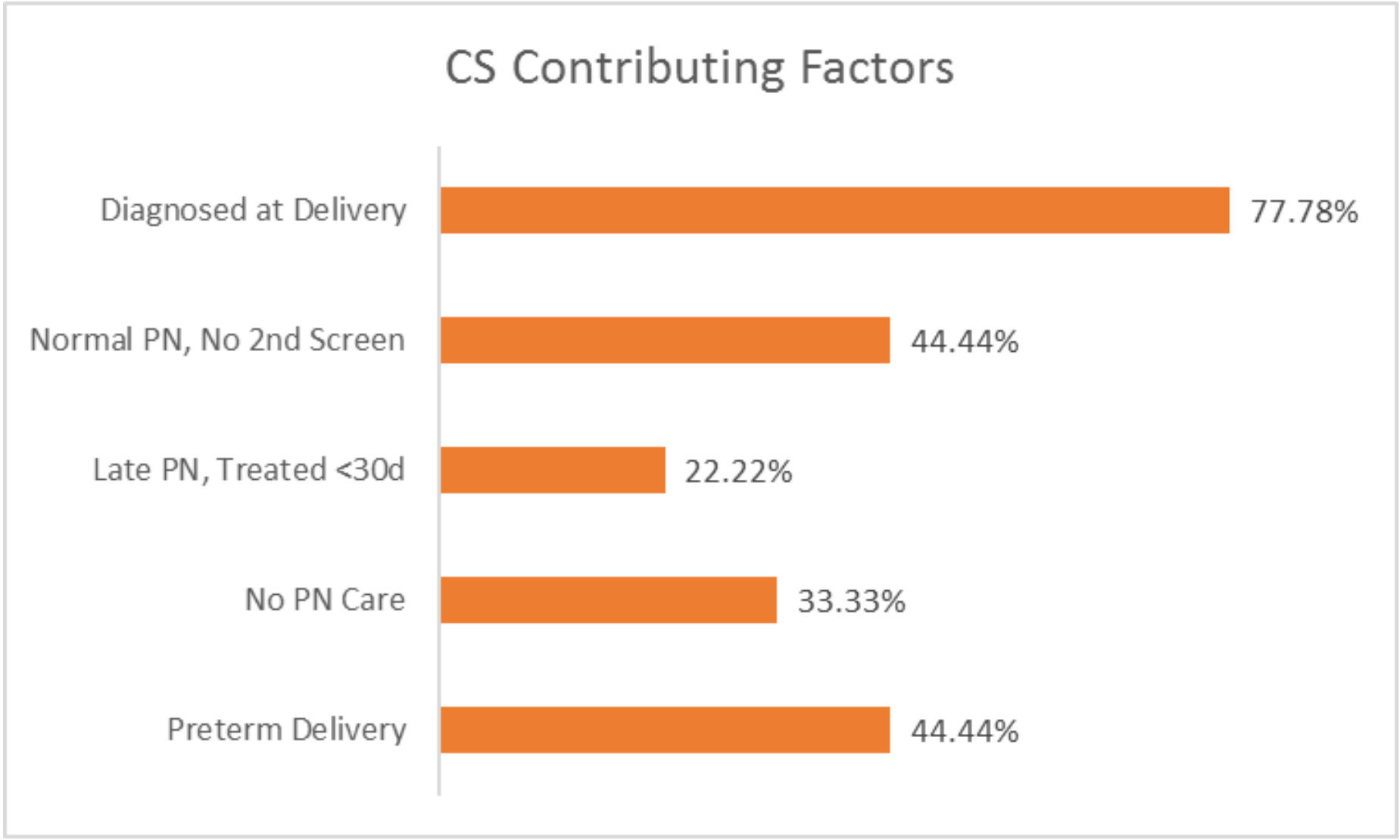
- **4 Cases in 2018 were Contacts in the 2017 Outbreak:**
  - Two tested negative;
  - One could not be located;
  - One refused exam/treatment.

Congenital Syphilis in Kansas

Alarming Increase in CS Cases in 2018

- 2018 saw **more reports of Congenital Syphilis infection than the previous 20 years combined:**
  - 2 Infants with long bone abnormalities;
  - 2 Infants with possible sepsis;
  - 1 Infants with hepatomegaly & rash;
  - 1 Stillbirth;
  - 1 Infant Mortality shortly after birth.

Congenital Syphilis in Kansas – Causative Factors



Preventing Congenital Syphilis in Kansas

Prenatal Screening

- Effective prevention and detection of congenital syphilis depends on the identification of syphilis in pregnant women and, therefore, on the routine serologic screening of pregnant women during the first prenatal visit.
- **All women should be screened** serologically for syphilis early in pregnancy.

Preventing Congenital Syphilis in Kansas

Prenatal Screening

- In populations in which receipt of prenatal care is not optimal, RPR test screening should be performed at the time pregnancy is confirmed.
- KSA 65-153f requires that all pregnant women are screened for syphilis and HBV **within 14 days** of the diagnosis of pregnancy (provided that consent is given to conduct the screening).

Preventing Congenital Syphilis in Kansas

Updated Guidelines for Syphilis Screening in Pregnancy

- Pregnant women should be screened **three times** during their pregnancy:
  - First Prenatal visit;
  - 28-32 weeks gestation;
  - At delivery.

- Any woman who has a fetal death after 20 weeks' gestation should be tested for syphilis.

Preventing Congenital Syphilis in Kansas

Labor and Delivery Screening

- No mother or neonate should leave the hospital without maternal serologic status having been documented **at least once during pregnancy**, and if the mother is considered high risk, documented at delivery.

Preventing Syphilis in Kansas

What Providers Can Do to Prevent Syphilis:

Talk.

Test.

Treat.

Helpful Responses to STIs in Kansas

What Providers and Local Health Departments Can Do:

Raise awareness of STIs and promote CEU/education to stay up-to-date.

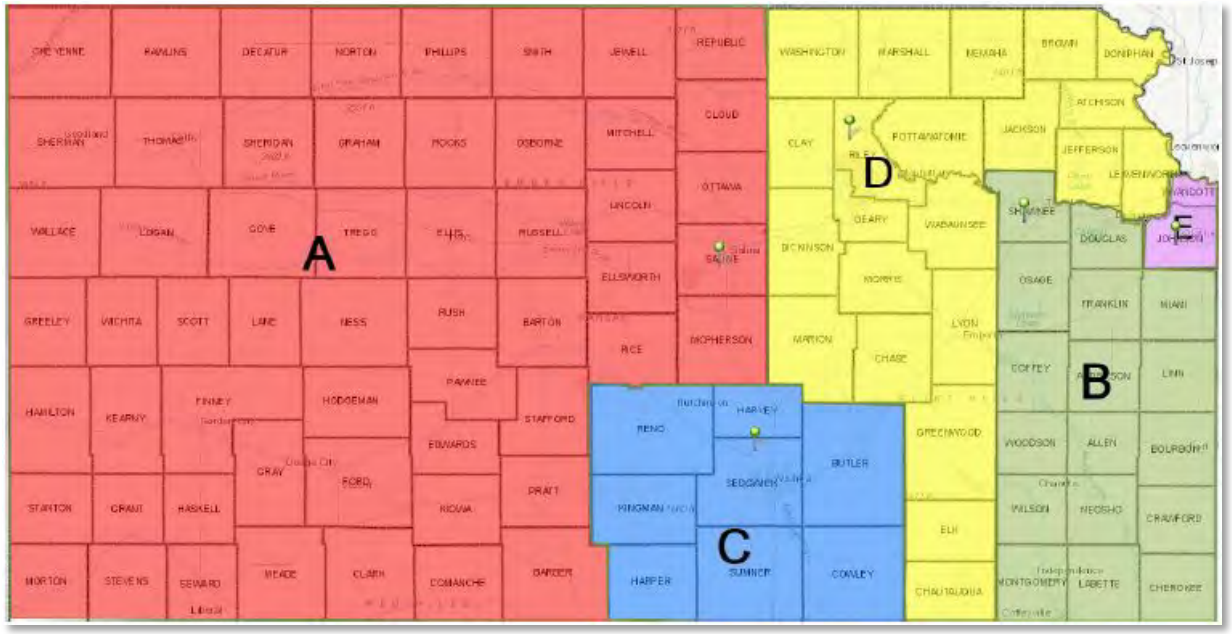
Reduce stigma by maintaining a safe and affirming clinical setting.

Test and treat STIs according to current CDC Guidelines.

Address barriers to early and adequate prenatal care for vulnerable women in your community.

Additional STI/HIV Resources

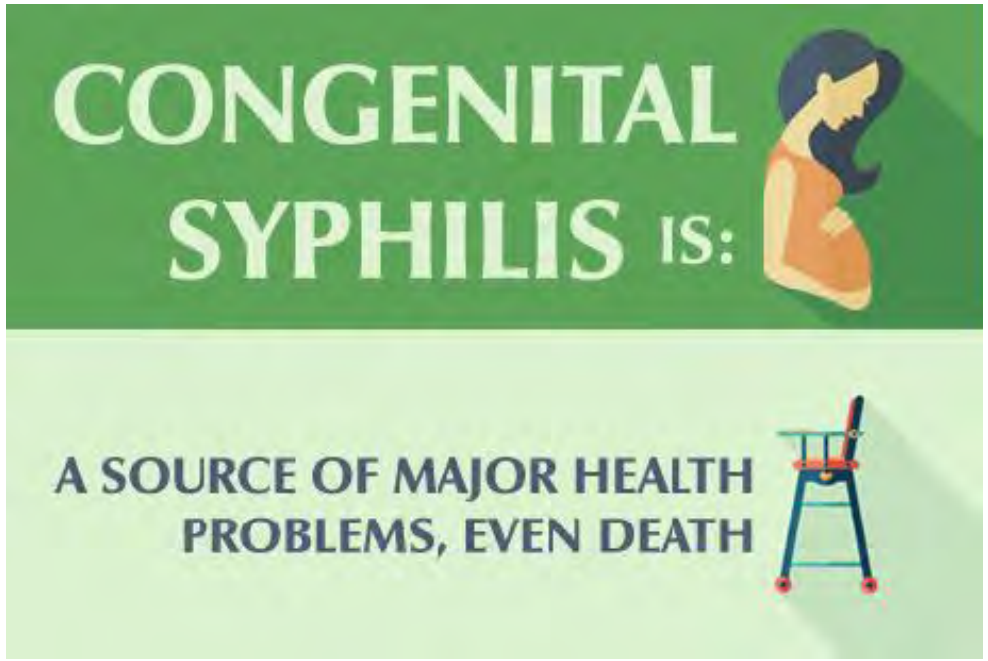
Handouts in the GPHC App:



- **DIS Assignment Area Map:** Always available on our website; www.kdheks.gov/sti_hiv.
- **Congenital Syphilis Fact Sheet:** Written for an audience of patients and pregnant women; provides information through accessible language.

Additional STI/HIV Resources

Other Resources Available:



- **2015 STD Treatment Guidelines (CDC):**
  Mobile App;
  Website/PDF;
  Limited Print Copies.

- **National STD Curriculum:**
  Free web-based CNE/CME courses from an STD Prevention Training Center funded by CDC and the University of Washington; available at www.std.uw.edu.

STI Trends and Emergent Issues

Thank you/Questions