

# Updates on Influenza, Congenital Syphilis, Hepatitis B, and More

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Kern County Perinatal Symposium

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# Influenza Update

CDC estimates that, from October 1, 2018 through March 2, 2019, there have been:

22.8 million to 26.3 million  
flu **illnesses**



289,000 to 347,000  
flu **hospitalizations**



18,900 to 31,200  
flu **deaths**



\*These estimates are preliminary and based on data from CDC's weekly influenza surveillance reports summarizing key influenza activity indicators.

# People at High Risk of Developing Flu-Related Complications

- Children <5 years of age, especially children <2 years of age
- Adults 65 years of age and older
- Pregnant women (and women up to two weeks postpartum)
- Residents of nursing homes and other long-term care facilities
- American Indians and Alaska Natives

Results of CDC's 2016-2017 Internet panel survey of pregnant women

# Half of pregnant women protect themselves and their babies against flu. Time to bump it up!

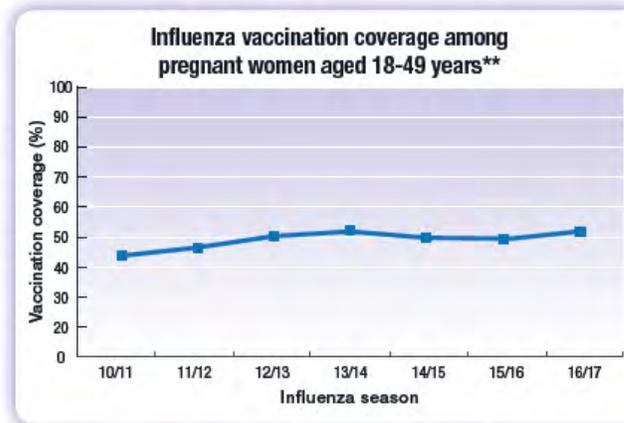


**With only half of pregnant moms getting their flu shot, too many remain unprotected.**

Flu shots help protect pregnant women and their babies from potentially serious flu illness during and after pregnancy.

During the 2016-2017 flu season, an estimated 50%\* of pregnant women in the U.S. protected themselves and their babies from flu by getting a flu shot. While this is a significant improvement since the years before the 2009 pandemic, about half of pregnant women and their babies, still remain unprotected from influenza.

**We can do better.** All pregnant women need flu shots to protect themselves and their babies.



***If you're pregnant, a flu shot:***

- is recommended at any time during your pregnancy
- can reduce your risk of getting sick from flu
- can protect your baby from flu for several months after birth

***Pregnant women also need a whooping cough (Tdap) shot. Talk to your doctor.***

**Get vaccinated to protect yourself and your baby.**

[www.cdc.gov/flu/protect/vaccine/pregnant.htm](http://www.cdc.gov/flu/protect/vaccine/pregnant.htm)



# Health Officer Order

- [www.KernPublicHealth.com](http://www.KernPublicHealth.com)
- Professional Resources
- Health Care Worker Influenza Vaccination/Masking
- FAQs also available



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MATTHEW CONSTANTINE  
DIRECTOR

## Health Officer Order

### Mandatory Influenza Vaccination or Masking of Kern County Health Care Workers During Influenza Season **UPDATE**

September 24, 2018

Dear Kern County Health Care Provider:

In order to lower the risk of transmission of influenza to patients in health care facilities within our county, I am issuing this Health Officer Order to mandate that all health care facilities implement a program requiring its health care workers to receive an annual influenza vaccination prior to the influenza season; or if they decline, to wear a respiratory mask for the duration of the influenza season while working within the health care facility.

#### Background

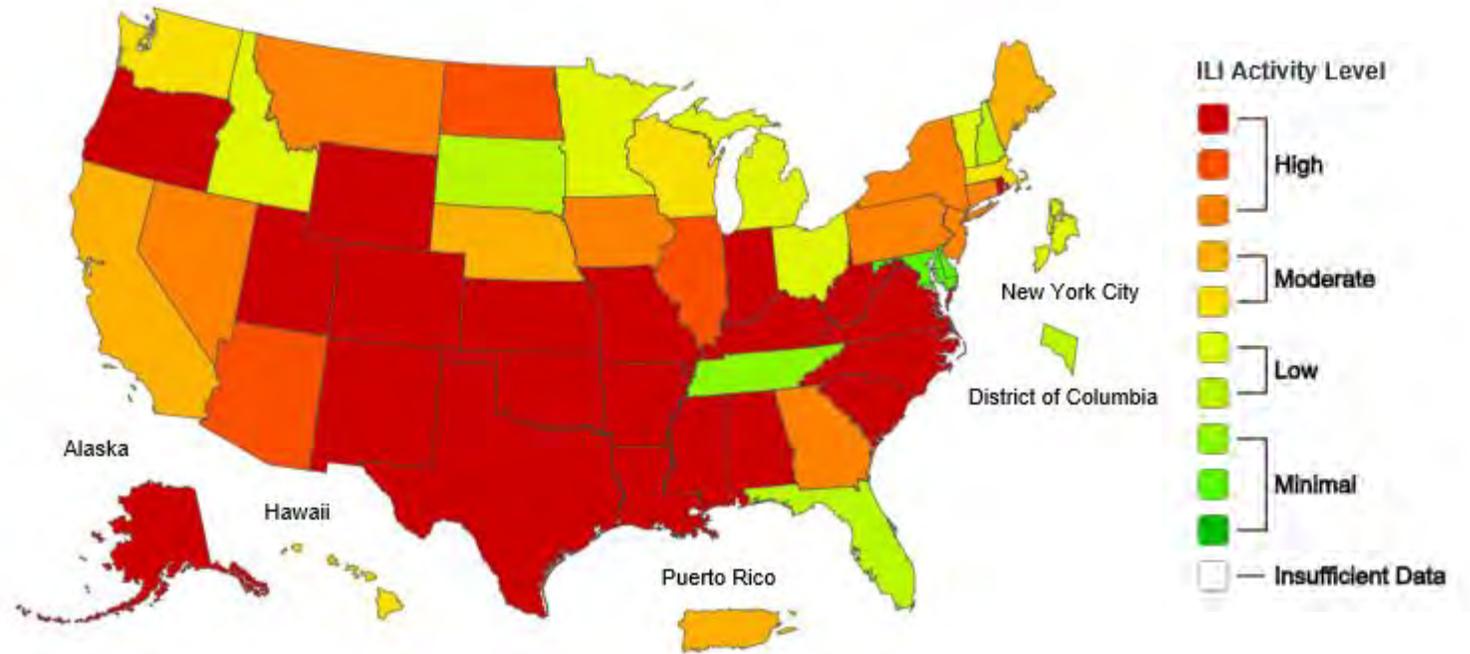
Kern County acute care facilities with mandatory influenza vaccination or masking policies have seen vaccination coverage increase by an average 29% since the 2013-2014 influenza season, while acute care facilities without a mandatory influenza vaccination or masking policy have seen an increase of only 4%. Persons infected with influenza can be contagious before the onset of symptoms so staying home when ill is not sufficient to prevent spread of this infection. Health care workers are at higher risk for contracting influenza than the general population and health care workers are likely to come in contact with persons at high risk for complications of influenza such as young children, pregnant women, elderly, persons with weakened immune systems, and persons with chronic health conditions. Influenza vaccination of health care workers protects patients, reduces employee absenteeism during the influenza season, and results in financial savings to our community and health care system.

State law requires general acute care hospitals and certain employers offer influenza vaccination to employees. If employees decline vaccination, they are required to sign a declination statement in lieu of vaccination. (California Health & Safety Code, §1288.7, subd. (a); 8 California Code of Regulation, §5199, subd. (c)(6)(D) and (h)(10)). This order is in addition to existing state law.

#### ORDER

Pursuant to my authority under California Health and Safety Code §120175, for the purpose of limiting the spread of influenza, I hereby order every health care facility within the County of Kern to implement a program requiring health care workers receive an annual influenza vaccination for the current season prior to the start of the influenza season. Health care workers who decline to receive the annual influenza vaccination must wear a respiratory mask for the duration of the influenza season while working within the health care facility. Verifiable documentation that annual influenza vaccination was received outside the health care facility (e.g. pharmacy) is acceptable. This order is effective today, August 6, 2018, is ongoing, and applies to each influenza season unless the order is rescinded or modified.

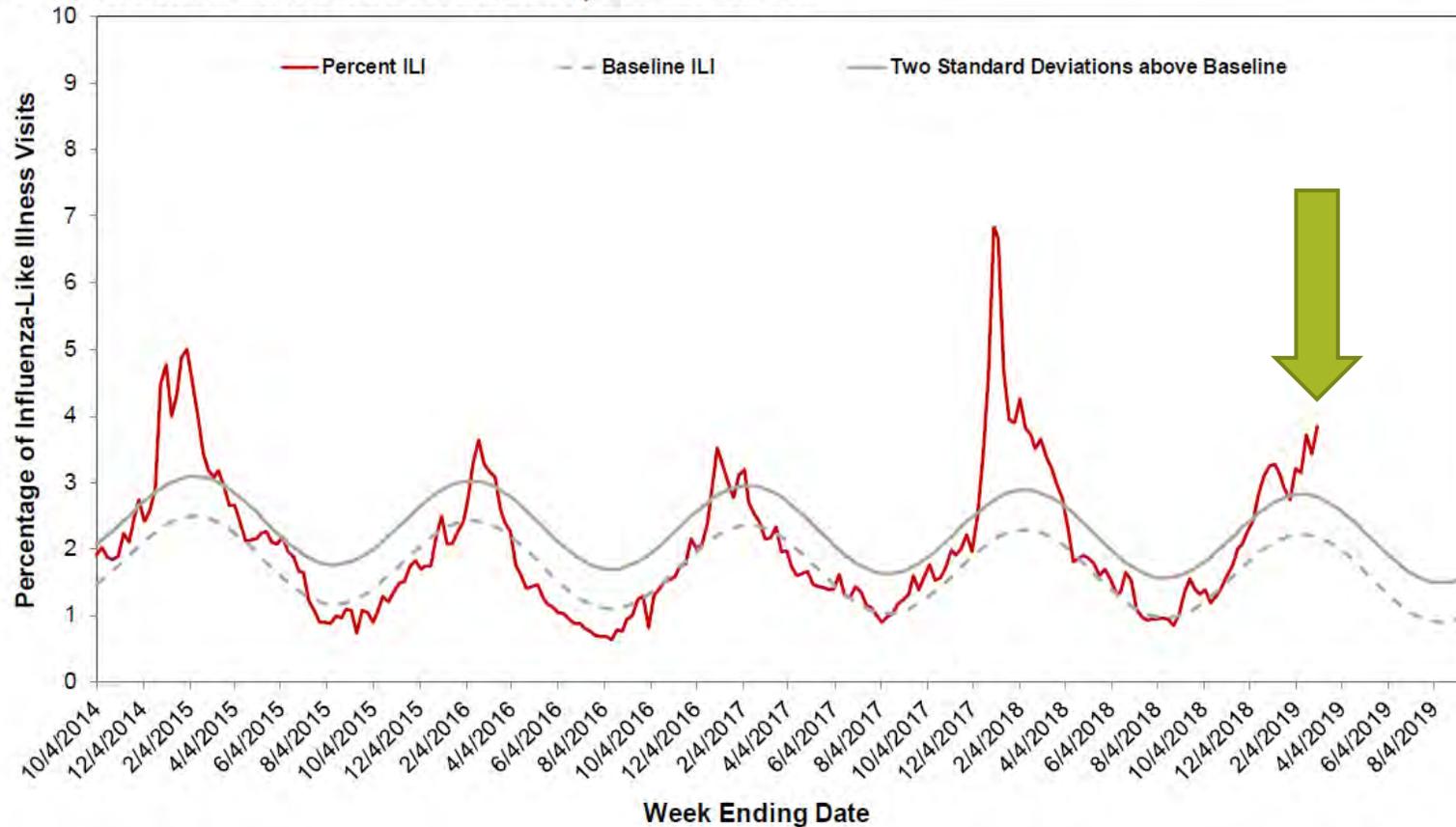
# Statewide and National Flu Activity Remains High



As of 3/2/19

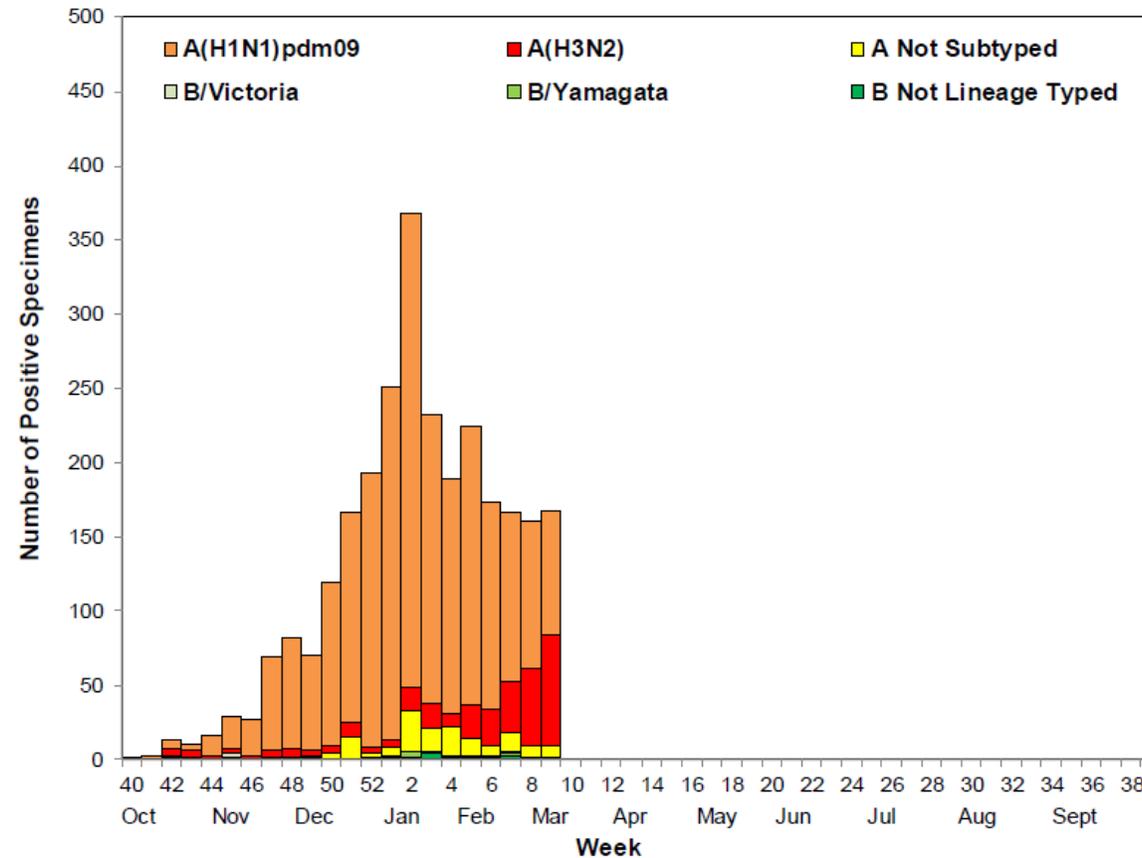
# Statewide Influenza-like Illness Still on the Rise

Figure 1. Percentage of Influenza-like Illness Visits Among Patients Seen by California Sentinel Providers, 2014–2019



# Flu Subtypes

Figure 9. Number of Influenza Detections by Type and Subtype Detected in the Respiratory Laboratory Network, 2017–2019



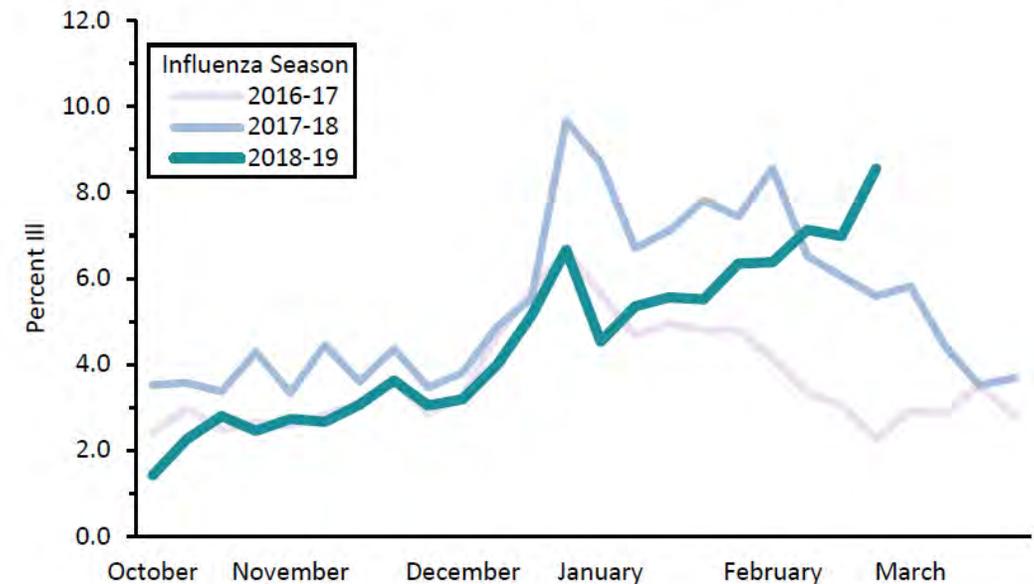
# 2018-2019 Influenza Season in Kern County

- 7 fatalities
- 19 ICU admissions
  - 6 children <5 years of age
    - 3 infants <6 months (too young to vaccinate)

Protect yourself and your baby  
**by getting your flu shot!**



Proportion of Kern County Emergency Department Visits Reporting Fever and Influenza-like Illness by Influenza Season



**The single best way to protect your children from flu is to get them vaccinated each year.**

**-U.S. Centers for Disease Control and Prevention**

# Congenital Syphilis

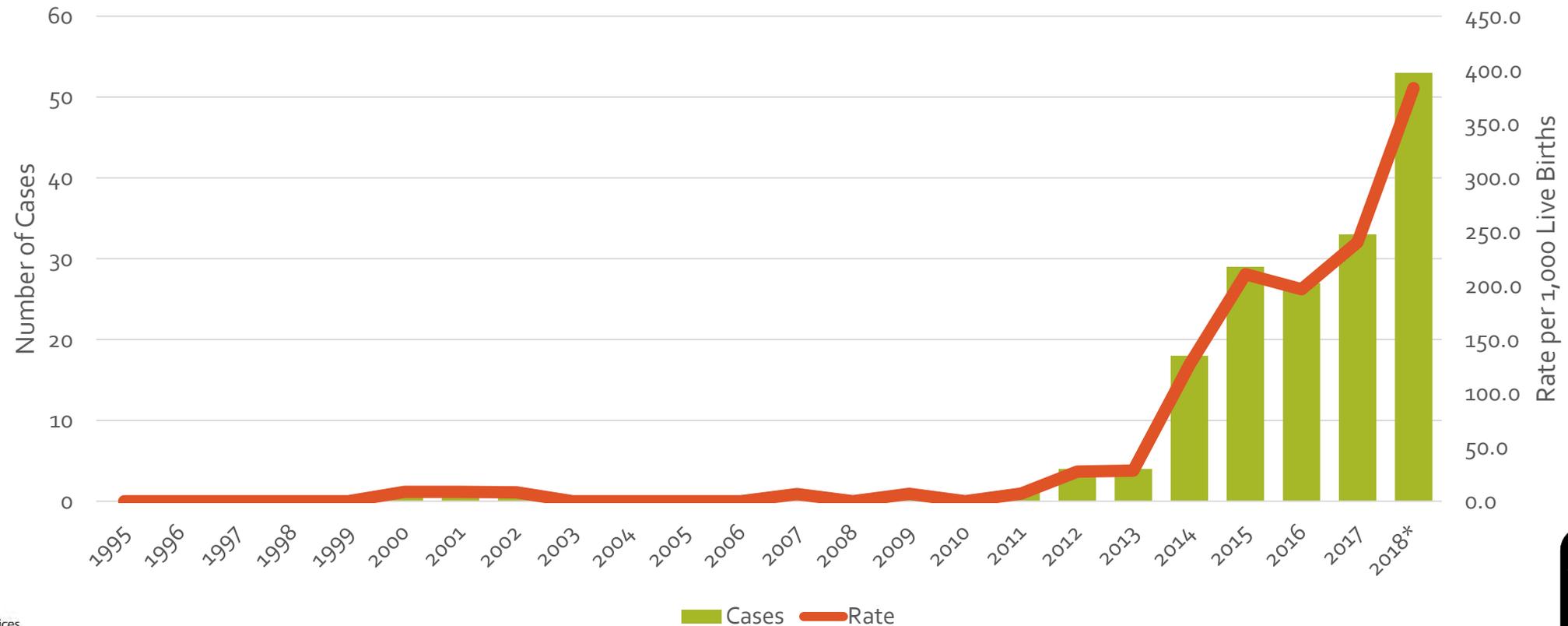
**Syphilis**  
**A Silent Killer**  
 Protect your baby • Get tested

KERN COUNTY  
 Public Health Services  
 DEPARTMENT

**321-3000**



Kern County



# Prenatal Evaluation

- Test ALL pregnant women for syphilis
  - First Prenatal Visit
  - Early 3<sup>rd</sup> Trimester
  - Delivery

## REGARDLESS of Syphilis Hx or Completed Tx

- Treat all syphilis+ women
  - Treatment: Bicillin 2.4 mu IM
    - No alternate regimens: Bicillin only
    - Desensitize if true penicillin allergy
  - Doses: 1 (Early Syphilis) or 3 (Latent or Unknown Stage)
  - Interval: 1 week
    - EXACTLY 7 days for pregnant women



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HEALTH OFFICER

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## HEALTH ALERT

### Ongoing Increase in Syphilis in Women Calls for Testing All Pregnant Women in the First Trimester, Third Trimester, and at Delivery

Date: May 18, 2016

**Situation:** Kern County is experiencing an increase in heterosexual transmission of syphilis, syphilis in women, and congenital syphilis. In 2015, 62% of primary and secondary syphilis cases reported only heterosexual contact. Syphilis in women has increased dramatically, and now accounts for 28% of all reported primary and secondary syphilis in the county. In 2015, 28 infants were reported with congenital syphilis, compared to 18 infants in 2014 and 4 infants diagnosed in 2013.

**The Health Officer is designating Kern County as an area with high syphilis morbidity.**

Such a designation calls for all clinicians to follow best practices and guidelines established by the U.S. Centers for Disease Control and Prevention (CDC), the California Department of Public Health (CDPH), and the U.S. Preventative Services Task Force (USPSTF). These guidelines recommend screening for syphilis **THREE** times during all pregnancies:

- First trimester (or initial prenatal visit)
- Early in third trimester
- At delivery

Additionally, the Health Officer recommends that any pregnant woman presenting at an urgent care center or emergency room be screened for syphilis if her syphilis status is unknown, regardless of the reason for visit.

**Background:** Reported cases of primary and secondary syphilis have increased dramatically in the past ten years, particularly among females. While syphilis has historically been transmitted among men who have sex with men, Kern County (and much of the Central Valley) has seen a dramatic increase in heterosexual transmission. Female primary and secondary syphilis cases increased from 3 cases in 2005 to 44 cases in 2015. The rate among females in Kern County is more than 5 times higher than the stage average. Congenital syphilis (CS) cases have increased exponentially in Kern County over the past three years. In 2014, Kern County had a higher CS rate than any other county in California (2015 comparisons are not yet available). The 28 CS cases in 2015 include five fetal demises and one perinatal death.

# Delivery Evaluation

- Do NOT discharge baby until mother's serologic status is known
- Test all infants of syphilis+ mothers
- Even infants born to mothers with adequate, timely treatment may show signs or symptoms of congenital syphilis

The Health Department is your resource

- (661) 321-3000
- (661) 868-4055 (ask for Public Health Staff on call)

# Indicators for Congenital Syphilis Treatment

- Positive darkfield results or PCR testing of lesions/body fluid
- Mother is inadequately treated for syphilis (or no documentation of treatment)
- Mother's treatment did not start 30 days prior to delivery
- Infant's titer is 4-fold higher than mother's titer
- Infant has physical signs of congenital syphilis
  - Nonimmune hydrops, jaundice, hepatosplenomegaly, rhinitis, skin rash
- Abnormal laboratory result
  - CSF, VDRL, cell count, protein
  - CBC, differential, platelet count
  - Abnormal long bone X-rays, chest X-rays, LFTs, neuroimaging, ophthalmologic or auditory brain stem response

# Congenital Syphilis Treatment

- Aqueous crystalline penicillin G 100,000-150,000 units/kg/day x 10 days OR
- Procaine penicillin G 50,000 units/kg/dose IM in a single daily dose for 10 days OR
- Benzathine penicillin G 50,000 units/kg/dose IM in single dose
  - ONLY if there are no findings during the full infant evaluation

Use caution when recommending IM x 10 days. Some infants may not return

It is FAR easier to treat the infant before discharge than to find the infant and readmit for treatment

# Congenital Syphilis Follow Up

- Repeat RPR every 2-3 months until nonreactive
  - Expect nonreactive by 6 months
  - If infant nonreactive at delivery, retest at 3 months to rule out incubating congenital syphilis at delivery
- If RPR does not become nonreactive, additional treatment may be needed
  - Consult with specialist
- Infants with initial abnormal CSF results, should have repeat LP every 6 months until normal

# Late Congenital Syphilis

- Diagnosed after age 2
- Gummatous ulcers involving nose, septum, hard palate
- Periosteal lesions (saber shins)
- Bossing of frontal and parietal bones
- Hutchinson incisors, mulberry molars, perioral fissures (rhagades), mal-development of maxilla “bulldog” facies
- Interstitial keratitis (blindness), eighth nerve deafness, juvenile paresis and tabes
- **Involve pediatric infectious disease specialist**

# Other Considerations

- Infants older than  $\geq 1$  month of age when diagnosed with syphilis need to be assessed for both congenital and acquired syphilis
  - Review maternal medical records
  - Consult with Child Protective Services
- Consider evaluating siblings of infants with congenital syphilis
  - Confirm mother's syphilis status with previous pregnancies

# Prenatal Tdap

- ACOG and CDC recommend Tdap during 3<sup>rd</sup> trimester of EACH pregnancy
  - Ideally 27-36 weeks gestation
- Maternal antibody transfer can help protect infants until old enough to receive vaccination at 2 months
- Women who do not receive during pregnancy and have never received Tdap should be vaccinated postpartum
- Family/caregivers should receive at Tdap if not vaccinated
  - Recommended once in adult life
  - Ideally 2 weeks before close contact

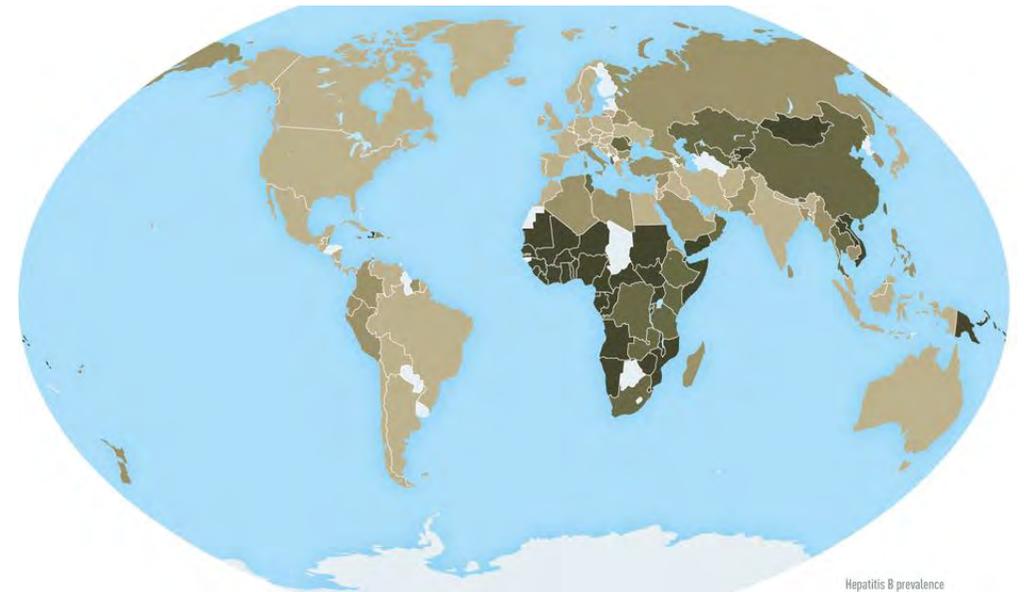


# Kern Prenatal Tdap Provider Survey

- Most providers recommended vaccination 3<sup>rd</sup> trimester
  - 12 weeks, 25 weeks, 26 weeks, and postpartum also reported
- 23% of responding private providers stock Tdap onsite
  - 100% of responding clinic groups stocked onsite
- Most common reason for not stocking: “inadequate reimbursement”
  - Need example of claim being rejected or not fully reimbursed
- Half of referring providers did not document referral
  - 36% do not confirm receipt of vaccine
  - 27% relied on self-report of receipt
- 84% of providers documented when patients refuse Tdap, but <50% document reason for declination

# Perinatal Hepatitis B

- Hepatitis B continues to be endemic in parts of the world
- Testing for Hepatitis B during pregnancy is required by law (Health and Safety Code Section 125085)
- Women and infants should NOT be discharged from hospital until Hepatitis B status is known (documented)



# Perinatal Hepatitis B

- Report all pregnant women with Hepatitis B to Health Department
  - We verify pregnancy status of all women reported with positive HBsAg
- Health Department provides education, support for partner testing and vaccination
- Health Department alerts sent to expected delivery hospital



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DIRECTOR

## DELIVERY ALERT

### PERINATAL HEPATITIS B PREVENTION PROGRAM

The following patient is due to deliver at your hospital soon. She has been identified as a Hepatitis B Surface Antigen Positive (HBsAg) mother. Upon delivery of her infant please **fax this completed form to Kern County Department of Public Health at (661) 868-0261.**

Patient Name: \_\_\_\_\_

DOB: \_\_\_\_\_

EDC: \_\_\_\_\_

OB Physician: \_\_\_\_\_

Hospital: \_\_\_\_\_ Name of Person Completing Form: \_\_\_\_\_

Date of Delivery: \_\_\_\_\_ Time of Delivery: \_\_\_\_\_

Sex of infant(s): \_\_\_\_\_ Infant Name (if known): \_\_\_\_\_

Date Hepatitis B vaccine given: \_\_\_\_\_ Time Given: \_\_\_\_\_

Date HBIG given: \_\_\_\_\_ Time Given: \_\_\_\_\_

Per CDC and AAP guidelines:

Infants (including infants weighing < 2000 gms) born to HBsAg positive mothers **MUST** receive HBIG and Hepatitis B dose 1 within 12 hours of birth.

Thank you for helping prevent the spread of Hepatitis B Disease.

# Vaccination and Immune Globulin Recommendations

	Hepatitis B Vaccine		Hepatitis B Immune Globulin (HBIG)	
	< 2,000 g	> 2,000 g	< 2,000 g	> 2,000 g
Unknown	< 12 hours		< 12 hours	< 7 days (if mom is determined to be HBsAg+)
HBsAg-	> 1 month or upon hospital discharge	< 24 hours	Not indicated	
HBsAg+	< 12 hours		< 12 hours	

- For mothers with unknown status, blood should be drawn at admission
- For HBsAg+ mothers, documentation of HBIG and Hepatitis B vaccine administration should be faxed to the Health Department
- Document vaccination in immunization record

# Perinatal Hepatitis B Infant Follow Up

- Ensure infant receives all three doses of Hepatitis B vaccine
- Perform post-vaccination serologic testing
  - HBsAg and anti-HBs 1-2 months after completion of vaccination schedule (not before 9 months)
  - Ideally, test between 9-12 months
  - Testing 13-18 months may have false negative anti-HBs results
- If necessary revaccinate non-immune infants
- Ensure HBsAg+ infants receive medical follow-up
  - Report cases to Health Department
- Hepatitis B is NOT a contraindication to breastfeeding

# Some Other Statistics

	Kern	Compared to State	State Ranking	Healthy People 2020 Goal	
Infant Mortality	6.8	48% above average	51/57	< 6.0	Not Met
Low Birth Weight	7.3%	7% above average	46/52	< 7.8%	Met
Births to Adolescents	35.3	100% above average	48/52	None established	
Early Prenatal Care	76.8%	8% below average	30/56	> 77.9%	Not Met
Adequate Prenatal Care	71.8%	8% below average	43/56	> 77.6%	Not Met
Early Breastfeeding	89.5%	5% below average	50/56	> 81.9%	Met

- Worse than state average for all indicators
- Some indicators are improving
- Always room for improvement

# Thank you!

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