



KANSAS HEALTH INSTITUTE

Informing Policy. Improving Health.





Ad Astra ECHO[®] Series

Immunizations in Kansas





KANSAS HEALTH INSTITUTE

Informing Policy. Improving Health.

Immunizations for Maternal Health

February 23, 2024



Who We Are



- Nonprofit, nonpartisan educational organization based in Topeka.
- Established in 1995 with a multi-year grant by the Kansas Health Foundation.
- Committed to convening meaningful conversations around tough topics related to health.



Today's Agenda

10:00 Welcome

10:05 Presentation

10:30 Panel Discussion

11:25 Closing Remarks

11:30 Adjourn



Today's Presenter



Tracy Russell, M.L.A.
Executive Director
Nurture KC



About Nurture KC

Mission: To Reduce Infant and Maternal Mortality in Kansas City

Kansas City Healthy Start Initiative



Healthy Start is a federally-granted program designed to reduce infant mortality by utilizing a community health worker model. Our service area includes 6 zip codes in Wyandotte County with the highest rates of infant mortality. Women must be pregnant to enter the program.

- **700** – Program participants each year
- **8** – Community Health Workers
- **1** – Community Health Nurse
- **19** – federal benchmarks we are committed to reaching each year



Mid America Immunization Coalition

Engaging in vaccine education and advocacy in Johnson and Wyandotte Counties in Kansas.

Our Interest in Immunization

- It is the building block to disease prevention and good health. Our constituency are among the most vulnerable families from the Zip codes of Kansas City with the highest rates of infant mortality.
- One of our federal benchmarks is to ensure children are receiving required vaccines.
- Organizationally, we are also focused on maternal vaccination as key to mother and infant wellbeing.

Recommended Vaccines for Pregnant Women

Summary of Maternal Immunization Recommendations



Resources for health care professionals

Vaccines help keep your pregnant patients and their growing families healthy.

Last Updated December 2018

Vaccine*	Indicated During Every Pregnancy	May Be Given During Pregnancy in Certain Populations	Contraindicated During Pregnancy	Can Be Initiated Postpartum or When Breastfeeding or Both
Inactivated influenza	X†,1,2			X‡
Tetanus toxoid, reduced diphtheria toxoid and acellular pertussis (Tdap)	X†,3,4			X‡
Pneumococcal vaccines		X ^{8,5,6}		X ^{8,5,6}
Meningococcal conjugate (MenACWY) and Meningococcal serogroup B		X ^{1,7}		X ^{1,7}
Hepatitis A		X ^{1,8}		X ^{1,8}
Hepatitis B		X ^{#,9,10}		X ^{#,9,10}
Human papillomavirus (HPV)**				X ^{**,11,12}
Measles, mumps, and rubella			X ^{††,13,14}	X ^{††}
Varicella			X ^{††,13,15,16}	X ^{††}

Tdap - Pertussis

- 1 dose of the Tdap vaccine is given between 27-36 weeks gestation.
- Tdap boosts antibodies in the mother which are transferred to the baby.
- **Benefit** – Given during pregnancy, Tdap is 95% effective at preventing infant deaths due to whooping cough (Bill and Melinda Gates Foundation) and 85% effective in preventing pertussis in infants under 2 months old.
- The majority of infant morbidity and mortality due to pertussis occurs from birth to three months old (Source: ACOG). According to the CDC, for infants younger than 1 year who get pertussis, nearly half are hospitalized.
- Symptoms include: apnea, pneumonia
- Infants do not receive the pertussis vaccine until two months with most deaths occurring in the pre-vaccination period.

Pertussis in Kansas

Kansas Maps of Vaccine Preventable Disease in Kansas between 2010 and 2019

WHOOPIING COUGH

A total of 2,967 cases of whooping cough reported and of those cases, 879 were associated with 45 whooping cough outbreaks.



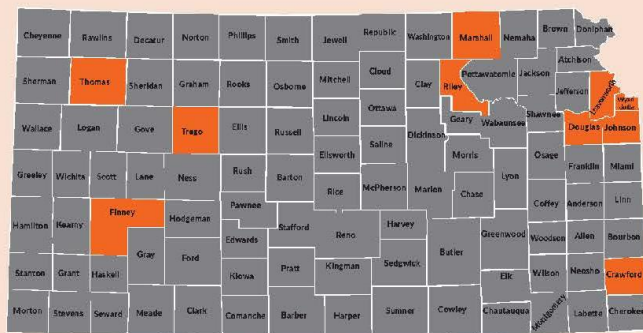
MEASLES

A total of 50 cases of measles reported and of those cases, 43 were associated with 4 measles outbreaks.



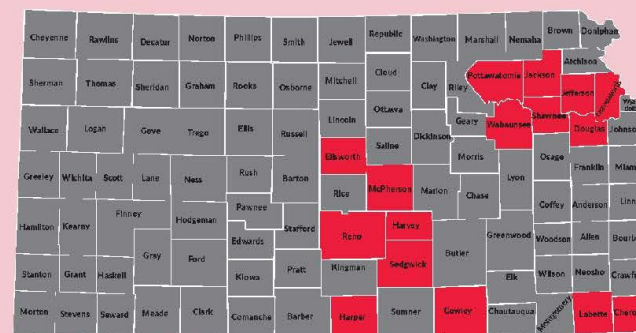
MUMPS

A total of 209 cases of mumps reported and of those cases, 140 were associated with 14 mumps outbreaks.



CHICKEN POX

A total of 2,475 cases of chicken pox reported and of those cases, 206 were associated with 14 chicken pox outbreaks.



Note: KDHE investigation reports related to diseases potentially prevented through required school entry vaccinations are included in the data set. For outbreaks that include out-of-state cases, only Kansas cases are included in the figure. Refer to Appendix A for more details on outbreaks in Kansas of vaccine preventable diseases from 2010-2019.

Source: Kansas Health Institute analysis of KDHE publicly available investigation reports for years 2010-2019 accessed through the KDHE website December 2022 and data provided by KDHE's Bureau of Epidemiology and Public Health Informatics in January 2023.



Influenza

- 1 dose of the flu vaccine given when seasonally appropriate
- **Risk of foregoing vaccine:** According to the CDC, pregnant women are more likely to suffer complications from the flu and more likely to be hospitalized than non-pregnant women of reproductive age.
- **Factors:** changes in immune system, heart and lungs during pregnancy make them more prone to severe disease.
- **Benefits:** Reduces risk of hospitalization by 40%
- Provides baby with protection for several months, which is critically important since babies cannot receive their own flu vaccine until 6 months old.



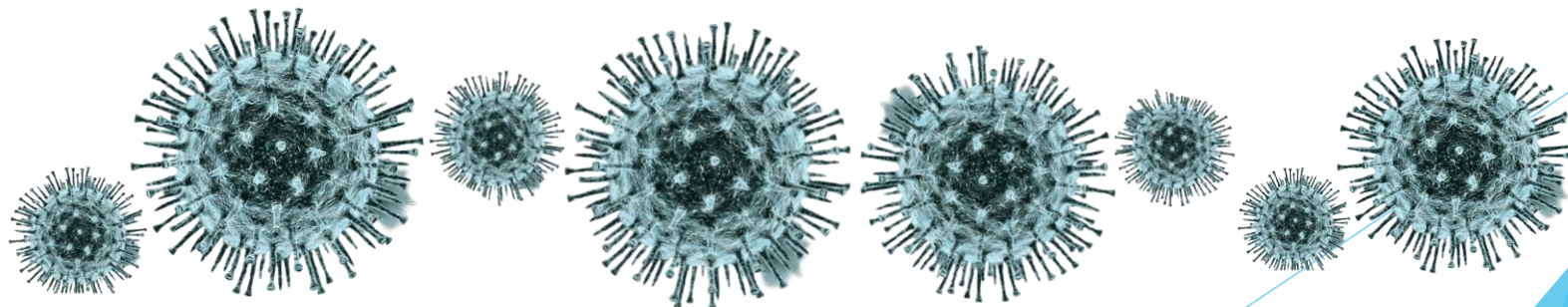
COVID-19

- 2 shot dose if never vaccinated for COVID-19, otherwise one annual booster.
- Risk of foregoing vaccine: As with the flu, pregnant women are more likely to experience complications and more severe symptoms of COVID-19 that may include hospitalization.



RSV

- ▶ 1 dose given at 32-36 weeks gestation between September to January.
- ▶ Benefit – Protects baby from RSV since they cannot receive their own vaccine until 8 months old.



Vaccine Hesitancy in Pregnant Women

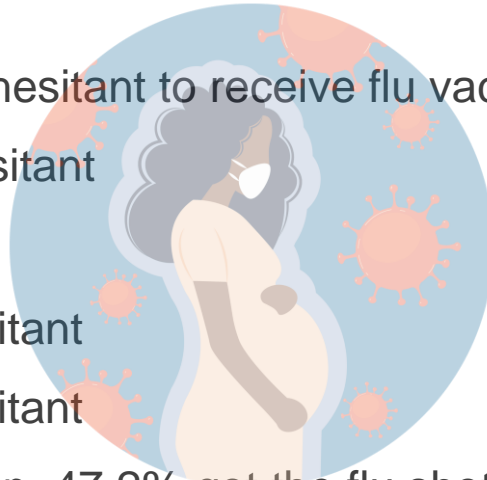
National trends indicate growing hesitation around vaccination during pregnancy (JAMA Network October 18, 2023).

➤ **Flu Vaccine (CDC)**

- 2021-2022: 17% were very hesitant to receive flu vaccine
- 2022-23: 25% were very hesitant

➤ **Tdap (CDC)**

- 2021-22: 15% were very hesitant
- 2022-23: 20% were very hesitant
- During the 2022-23 flu season, 47.2% got the flu shot, a decline of 10% compared to 2019-20
- 55.4% received the Tdap in 2022-23 during pregnancy with a growth in general hesitancy to 43.1%



3 Most Common Reasons for Hesitancy

- 1: Fear of side effects
- 2: Lack of confidence in vaccine safety
- 3: Do not believe there is a high risk of infection during pregnancy and/or do not customarily get vaccines when not pregnant



**It is important to note that hesitancy during pregnancy can change*

The Good News

The Messenger Matters!

- Evidence shows the most positively impactful influence on getting vaccinated during pregnancy is health provider referral and ability to provide the vaccine on site. Even among those with a degree of hesitancy, education by the health provider often results in compliance.
- The most powerful message from providers is the need to protect the baby

Other forms of communication by the provider are also helpful including:

- Vaccine information on provider web site
- Email
- CDC web site
- Pamphlets or brochures
- Placing the information on a provider social media platform is less impactful

(Source: Beyond the Verbal: Pregnant women's Preferences for Receiving Influenza and Tdap Vaccine Information from their Obstetric Care Providers, Mallory Ellinson and Allison Chamberlin, 12 February 2018)

Vaccine Uptake by Race

- ▶ There are clear disparities in health and health care that break along race and vaccination follows this pattern.
- ▶ Black women who are pregnant have the lowest uptake on vaccines. Some of the reasons for this include:
 - Lack of access to care including later entry into prenatal care
 - Mistrust of health care system
 - Systemic racism in health care system
- ▶ The strongest predictor of vaccine compliance is having health insurance.
- ▶ In a National Health Interview Survey, Black women were the least confident in vaccine safety. In the same survey, Black women reported a lower rate of providers recommending or offering vaccines during pregnancy.

Take Aways

- ▶ Providers are key to vaccinations as a trusted source and ability to deliver vaccines on site
- ▶ Vaccine hesitancy is on a continuum and may shift during the pregnancy term
- ▶ Pregnant women often formulate their beliefs in child vaccinations during pregnancy, making this a critical period of education
- ▶ There is much work to do to alleviate vaccine disparities among women of color





Prenatal Infection Prevention Month

February 2024

Prenatal Infection Prevention Month is a worldwide observance to promote awareness of infections transmitted from mother to baby. Prenatal infections are fungal, parasitic, bacterial or viral illnesses that can be passed from a mother to her baby during pregnancy or during the delivery process.¹ According to research, up to 24% of stillbirths in developed countries, like the U.S., result from infection.² Many more babies are born with disabilities, such as hearing loss or birth defects, because of these infections. The good news is that in many cases, prenatal infections can be prevented, and Prenatal Infection Prevention Month places a spotlight on this issue.³

Infection Diagnosed During Pregnancy, Kansas, 2018-2022

Infection	2020	2021	2022
Chlamydia/Gonorrhea ¹	648	433	486
Syphilis ¹	28	30	59
HIV ¹	1	1	1
Hepatitis B ³	48	55	54
Hepatitis C (Infants Born to HCV-Positive Women) ³	36	39	56

1. Bureau of Disease Control and Prevention. *STI/HIV Surveillance Data Request [Unpublished data]*. Kansas Department of Health and Environment; 2022.
2. COVID Pregnancy Surveillance Program, Kansas Department of Health and Environment, 2022.
3. Infectious Disease Epidemiology and Response. *Perinatal Hepatitis Surveillance Program*, Kansas Department of Health and Environment, 2022.

What Can Providers Do?

Reducing preventable maternal and newborn morbidity and mortality requires a collaborative effort among healthcare providers at every level.



Emphasize

routine prenatal screening to evaluate maternal immunity and increase early diagnosis and treatment of prenatal infections.



Educate

and make a strong recommendation that women receive the appropriate adult immunizations before conception and the recommended vaccines during pregnancy. **Evidence shows that strong provider recommendations improve immunization acceptance.**



Utilize

immunization information systems to document vaccinations and use data to inform maternal and child health strategies and program planning.



Share

resources and educate women that prenatal infections can be prevented with healthy pregnancy habits such as practicing good hygiene, receiving prenatal care and immunizations, good nutrition, and taking environmental precautions to avoid dangerous infections.¹



Prenatal Infection Prevention Month

February 2024

Prenatal Infection Patient Resources

Prevent Infections for Baby's Protection Infographic English/Spanish

Virus

- [COVID-19 Vaccines While Pregnant or Breastfeeding \(cdc.gov\)](#)
- [Zika](#)
- [Influenza \(Flu\)](#)
- [Chickenpox](#)
- [Measles/Rubella](#)
- [Cytomegalovirus \(CMV\)](#)
- [Pertussis](#)

Patient talking points to reduce the risk of infections:

- Get [vaccinated](#) against viruses that cause the flu, chickenpox, measles, rubella, pertussis and COVID-19. Talk to your provider about getting vaccinated.
- Wash hands often with soap and water for at least 20 seconds. If soap and water are not available, use hand sanitizer that contains at least 60 percent alcohol.
- Stay away from people who are sick (if possible), and wear a face mask if exposed to people with serious infections like COVID-19.⁴

STI

- [Syphilis](#)
- [Group B Strep](#)
- [Chlamydia](#)
- [Gonorrhea](#)
- [Hepatitis B/Hepatitis C](#)
- [HIV](#)

Patient talking points to reduce the risk of STIs:

- Get tested. Find out if you have an STI and get treated right away.
- Don't have sex. This is the best way to prevent getting an STI.
- If you have sex, have sex with only one person who doesn't have other sex partners. Use a condom if you're not sure if your partner has an STI. Ask your partner to get tested and treated for STIs.
- [Attend all prenatal appointments](#)⁴

Other

- [Bacterial Vaginosis](#)
- [Food Poisoning \(listeria or listeriosis\)](#)
- [Toxoplasmosis](#)
- [Periodontal Disease \(infected gums\)](#)

Patient talking points to reduce the risk of infections from food:

- Cook meat, poultry (chicken, turkey), fish, shellfish and eggs until they're done. Don't eat them if they're undercooked or raw. Heat deli meat and hot dogs before eating.
- Wash all your food before you cook or eat it. Wash all cooking utensils, dishes and your hands after touching raw meat, chicken or fish.⁴

Patient talking points to reduce the risk of other infections:

- Brush and floss your teeth every day. Get regular dental care during pregnancy. Make sure your dentist knows you're pregnant before getting an X-ray.
- Don't change a cat's litter box. Ask someone else to do it.
- Don't touch soil that may have cat poop in it. Wear gloves when you work in the garden.⁴

1. National Association of County and City Health Officials, retrieved from [International Prenatal Infection Prevention Month: The Importance of Maternal Immunization - NACCHO](#); 2018
2. Progeny Health, retrieved from [February is Prenatal Infection Prevention Month \(progenyhealth.com\)](#); 2021
3. Sepsis Alliance, retrieved from <https://www.sepsis.org/news/its-international-prenatal-infection-prevention-month/>; 2021
4. March of Dimes, "Infections"; Session 5: Handout 4, *Becoming a Mom*® Prenatal Education Curriculum; 2021



Prenatal Infection Prevention Month

February 2024

Social Media Messages



Post 1

February is International Prenatal Infection Prevention Month. Prenatal Infections can be passed from mother to baby during pregnancy or birth from mother to baby during pregnancy or birth. Most Prenatal infections are preventable. Learn more at: cdc.gov/pregnancy/infections.html

Post 2

Most Prenatal infections are preventable. Receive early prenatal care and prenatal screening— including for sexually transmitted infections. Learn more at: cdc.gov/pregnancy/infections.html

Post 3

Most Prenatal infections are preventable. Receive immunizations against viruses that cause the flu, chickenpox, measles, rubella, pertussis and COVID-19. Talk to your provider about getting vaccinated. Learn more at: cdc.gov/pregnancy/infections.html

Post 4

Most Prenatal infections are preventable. Practice good hygiene — wash hands often with soap and water for at least 20 seconds. Avoid individuals who are sick. Learn more at: cdc.gov/pregnancy/infections.html

Post 5

Most Prenatal infections are preventable. Practice good nutrition — wash all your food before you cook or eat it. Thoroughly cook all food. Do not consume raw or undercooked meat, poultry, seafood or eggs. Learn more at: cdc.gov/pregnancy/infections.html

Thank You!



Panelists

Building Trust and Addressing Concerns in Maternal Immunization



**Amanda Applegate,
PharmD, BCACP**

*Director of Practice
Development, KPA*



**Sarah Chicchelly,
MPH**

Epidemiologist, KDHE



Rachel DiTeresi, MD

*Obstetrics & Gynecology,
KUMC*



Marcela Metcalf

*Community Health
Worker, Nurture KC*



Acknowledgments



Announcements

Future Sessions

Access to Immunizations for Uninsured Adults

Friday, March 22, 2024, from 10-11:30 a.m.

Immunizations for Adolescents and Young Adults

Friday, May 3, 2024, from 10-11:30 a.m.

For more information, visit [Ad Astra ECHO Series: Immunizations in Kansas](#)





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