

I-VAC

ILLINOIS VACCINATES
AGAINST COVID-19

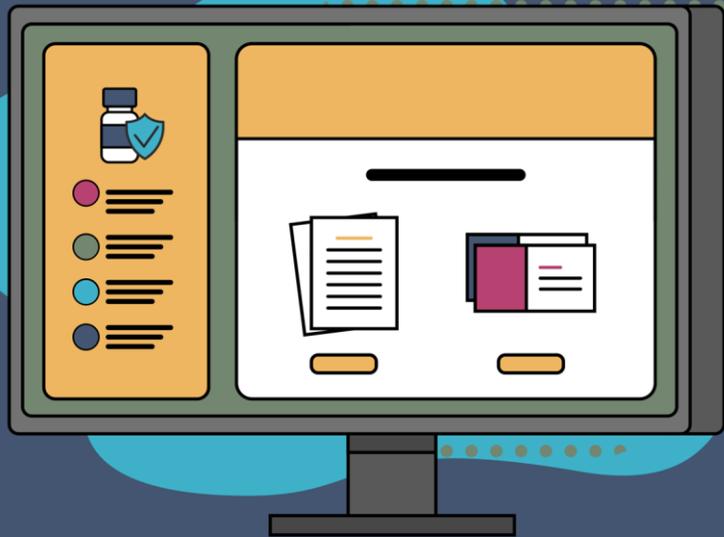


COVID-19 Vaccines for Pregnant Persons & Children

Dr. Edward Linn

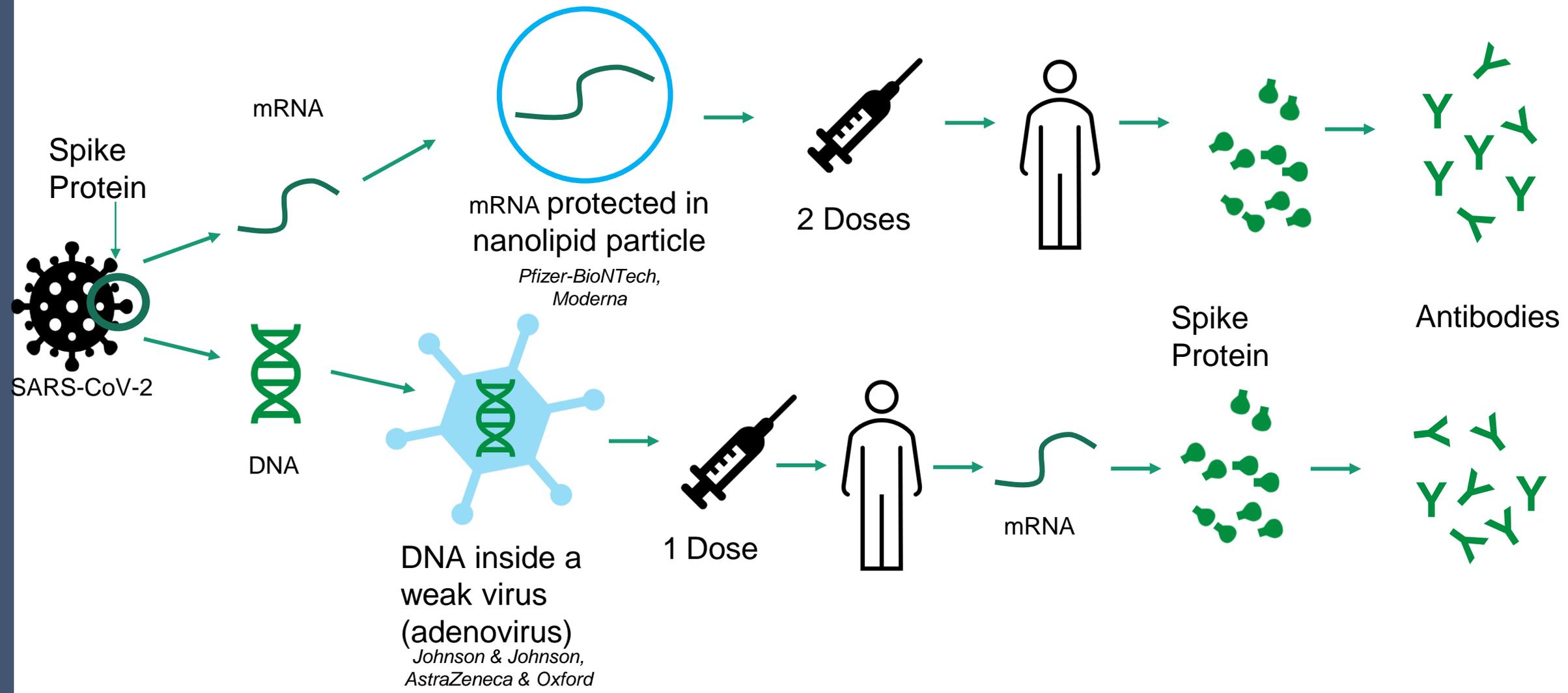


OBJECTIVES



- Summarize current COVID-19 vaccine coverage in 5–17-year-olds.
- Outline current recommendations for COVID-19 vaccines in pregnant populations and 5–17-year-olds.
- Synthesize data to dispel myths about vaccination in pregnant and lactating populations
- Highlight information for having conversations with vaccine-hesitant populations.

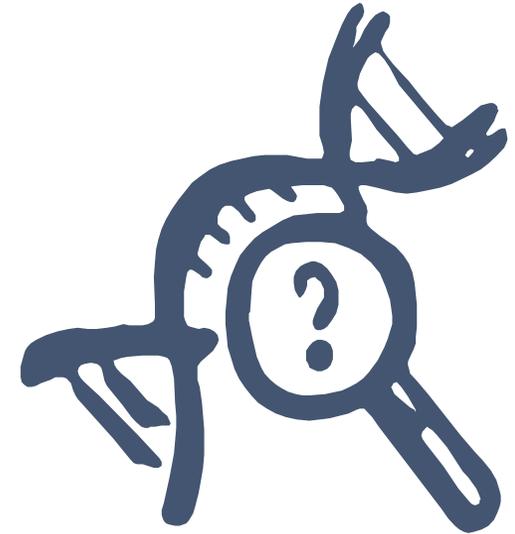
How COVID-19 Vaccines Work





Facts about COVID-19 Vaccines

- COVID-19 vaccines do not change or interact with DNA in any way.
 - They cannot get into the nucleus where DNA is stored.
- The vaccine delivers instructions to cells for the body to start building protection against the virus that causes COVID-19.





Facts about COVID-19 Vaccines

No steps were skipped in studying these vaccines.

- Some happened at the same time.
- Widespread use of mRNA vaccines is new, [the technology](#) isn't.





Facts about COVID-19 Vaccines

- No long-term side effects have been observed.
 - Typically last 2-3 days
 - Generally less severe in children
- Side effects from vaccines mostly happen within 6 weeks of receiving a vaccine.
- There is currently no evidence that COVID-19 vaccines cause fertility problems.





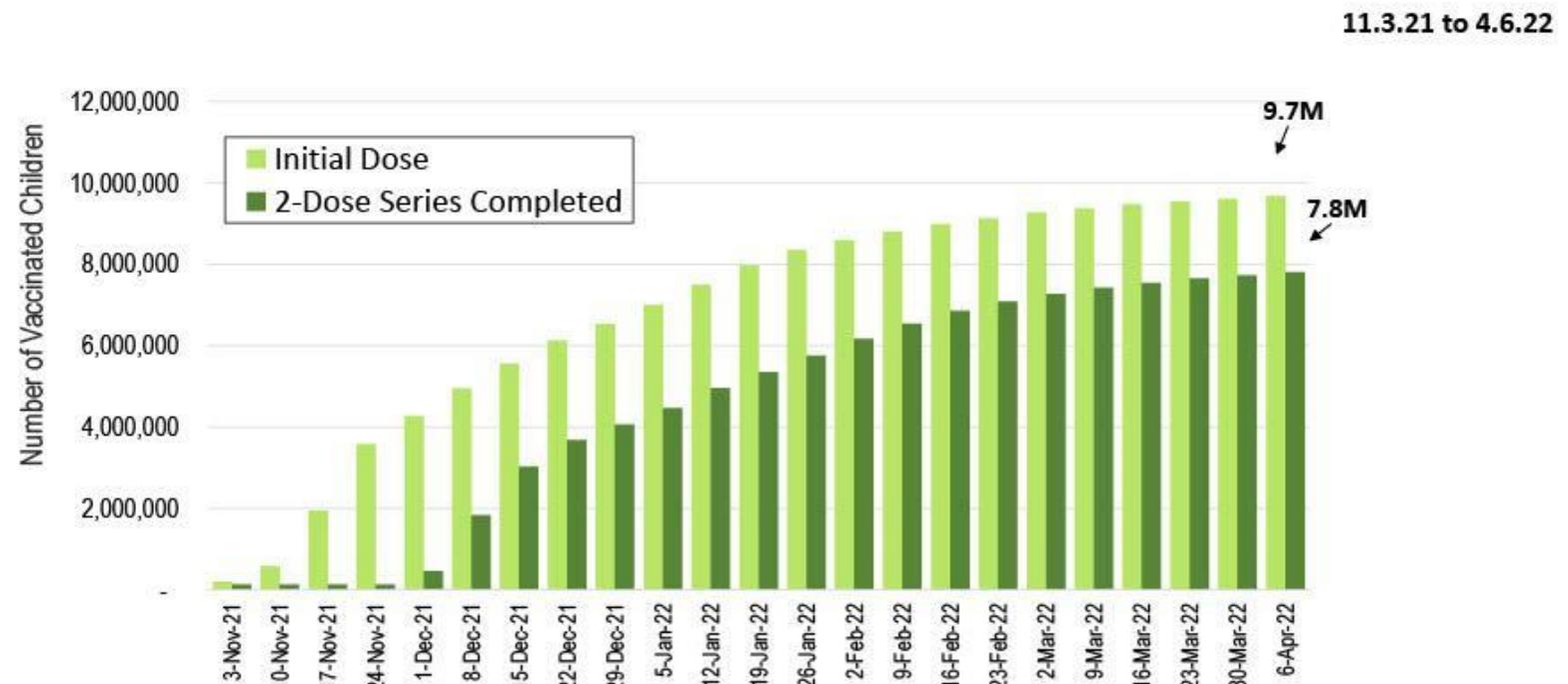
COVID-19 in Children in the US

- COVID-19–associated hospitalization rates among children and adolescents aged 0–17 years increased rapidly in late December 2021, **especially among children aged 0–4 years who are not yet eligible for vaccination.**
- Throughout Delta and Omicron surges, hospitalization rates were lower among fully vaccinated adolescents aged 12–17 years than among unvaccinated adolescents.



Status of COVID-19 Vaccinations for US Children

Cumulative Number of US COVID-19 Vaccine Recipients Ages 5-11



Source: AAP analysis of data series titled "COVID -19 Vaccinations in the United States, Jurisdiction". CDC COVID -19 Data Tracker (URL: <https://data.cdc.gov/Vaccinations/COVID-19-Vaccinations-in-the-United-States-Jurisdiction>). Note: Age information was provided with Idaho data since 1.25.2022. Inclusion of this information added 31K initial-dose recipients to the 5-11 age group nationally as of 2.2.2022. Check state web sites for additional or more recent information.

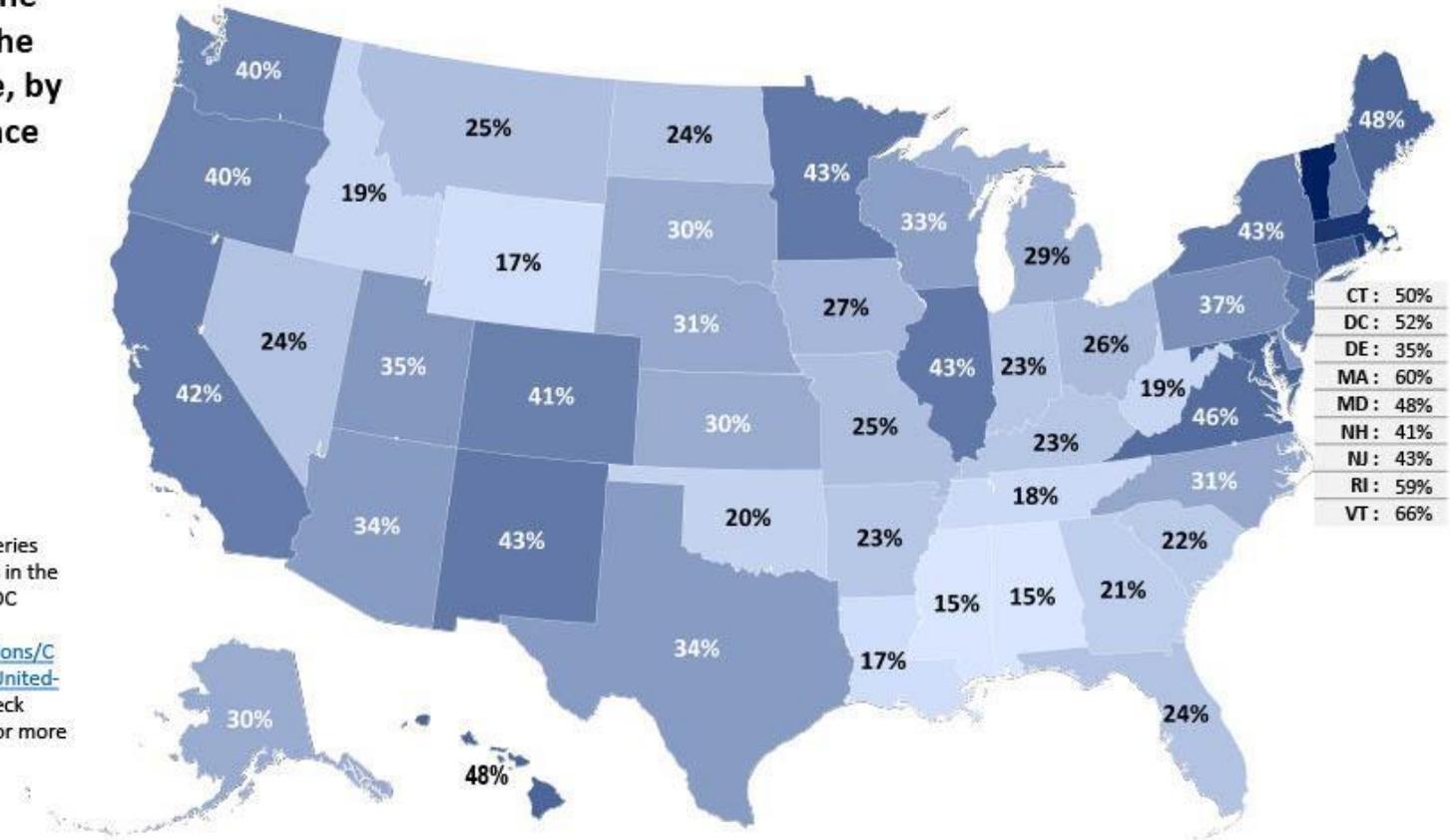




Status of COVID-19 Vaccinations for US Children

Proportion of Eligible US Children Ages 5-11 Who Received the Initial Dose of the COVID-19 Vaccine, by State of Residence

Received Initial Dose as of 4.6.22
15% 66%



Source: AAP analysis of data series titled "COVID -19 Vaccinations in the United States, Jurisdiction". CDC COVID -19 Data Tracker (URL: <https://data.cdc.gov/Vaccinations/COVID-19-Vaccinations-in-the-United-States-Jurisdiction>). Check state web sites for additional or more recent information.



Status of COVID-19 Vaccinations for Children in IL

• Number of 5–11-year-olds fully vaccinated:	1,010,640
• Percentage of 5–11-year-olds in Illinois fully vaccinated:	35.47%
• Percentage of 12–17-year-olds in Illinois fully vaccinated:	62.05%





Pediatric Vaccines – Looking Ahead

Pfizer:

- The trial in children 6 months through 4 years of age is ongoing, involves:
 - 2 years to under 5 years and
 - 6 months to under 2 years
- Two 3- μ g doses 21 days apart
- Studying a third dose given two months after second dose
- Efficacy not yet shared

Moderna:

- The Phase 2/3 KidCOVE study involved children:
 - 6 months to under 2 years and
 - 2 years to under 6 years
- Two 25- μ g doses 28 days apart
- The mRNA vaccine produced a “robust neutralizing antibody response”
- Efficacy against infection ranged from about 38%-44%

NO SAFETY CONCERNS IDENTIFIED



COVID-19 and Pregnancy in the US

Pregnant women with COVID-19 January 22, 2020 - April 11, 2022

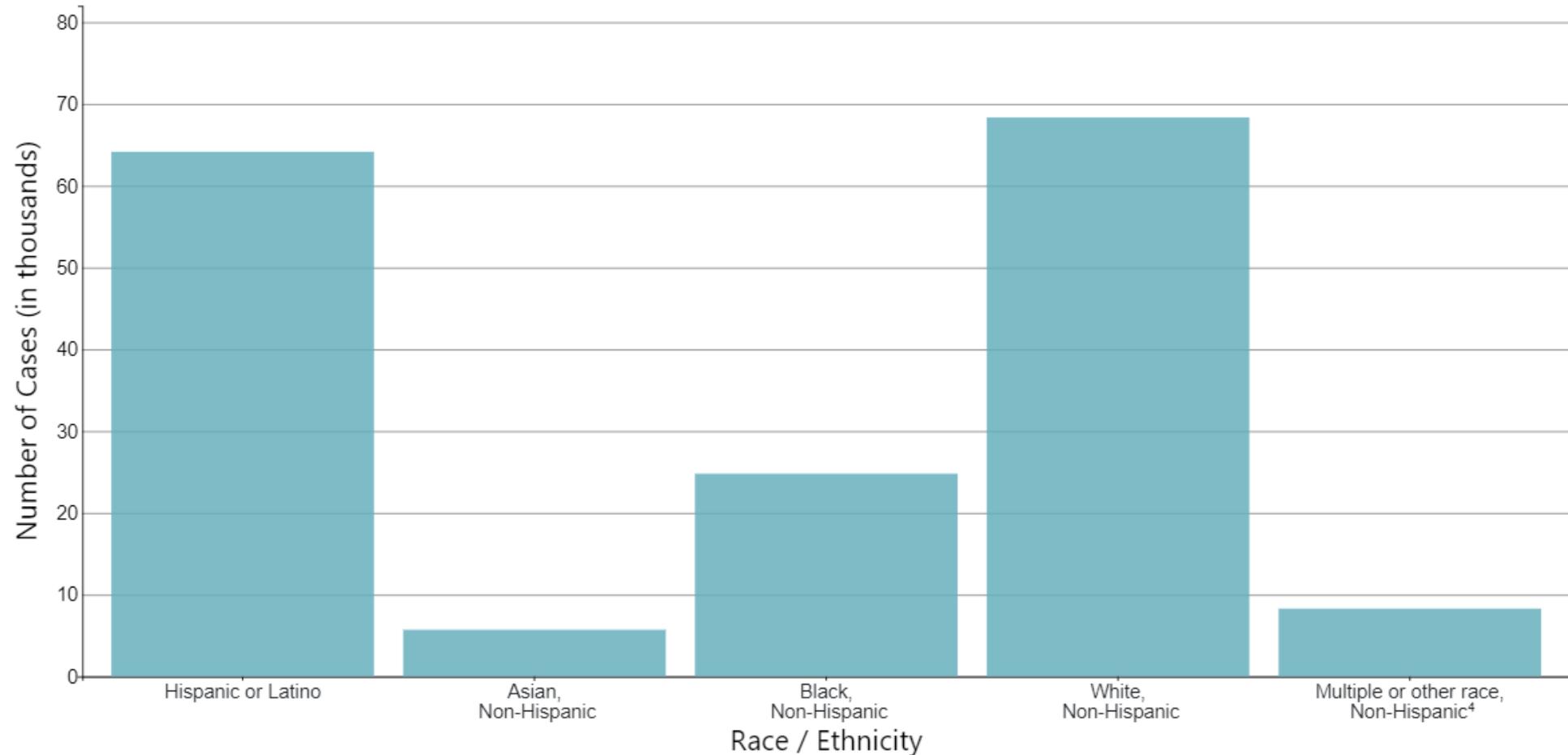
- 198,598 cases
- 31,959 hospitalizations
- 287 deaths
- 721 admitted to the ICU
- 145 Required Invasive Ventilation
- 48 Required ECMO



COVID-19 and Pregnancy in the US

Pregnant Women with COVID-19 by Race/Ethnicity, United States, January 22, 2020 - April 11, 2022

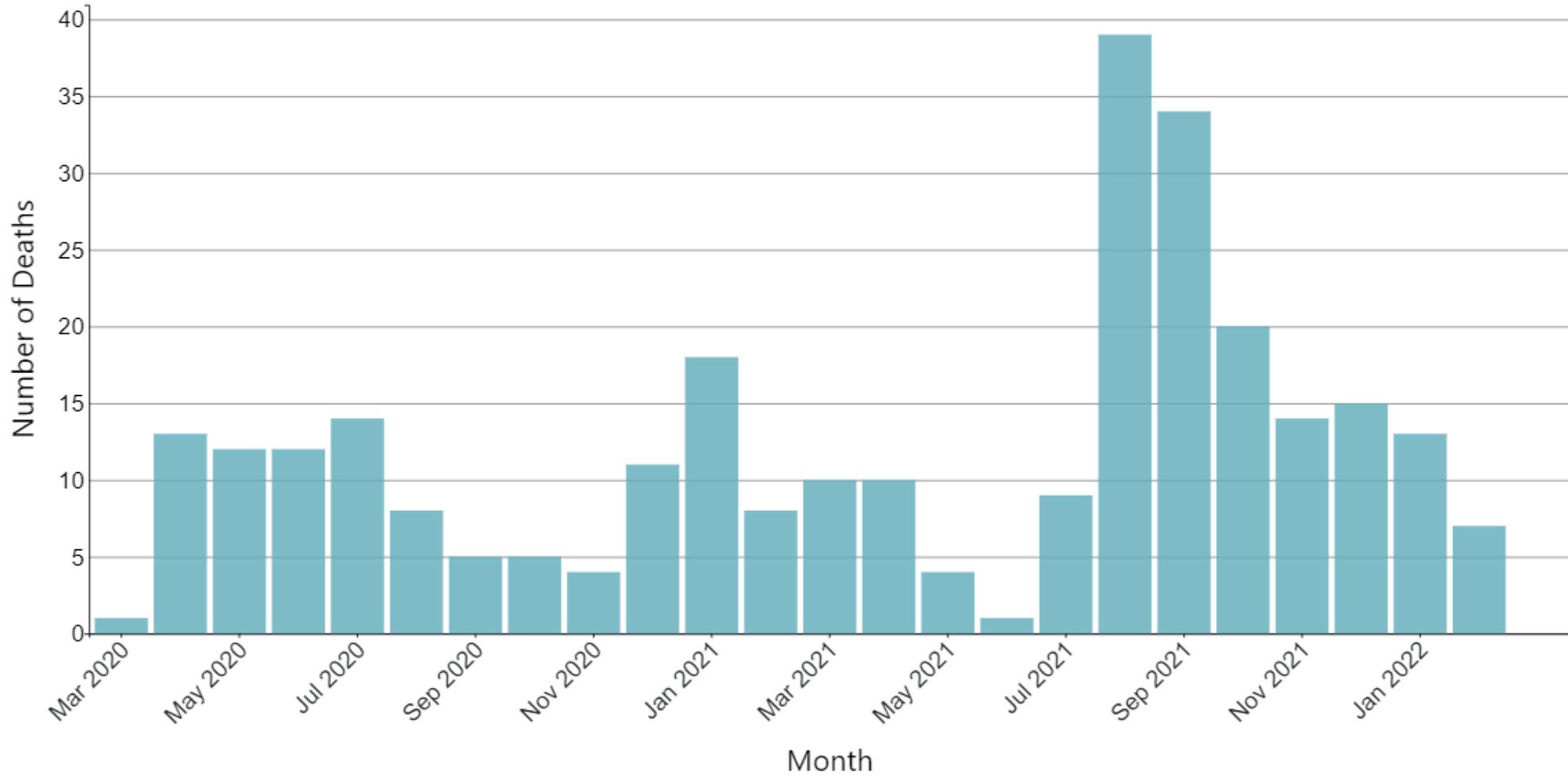
Data were collected from 198,598 women, but race/ethnicity was only available for 171,270 (86.2%) women.





COVID-19 and Pregnancy in the US

Deaths* among Pregnant Women with COVID-19 by Month**





COVID-19 and Pregnancy: What the Data Show

JAMA: Association of SARS-CoV-2 Infection With Serious Maternal Morbidity and Mortality From Obstetric Complications. (2.7.2022)

- In this retrospective cohort study: 14,104 patients
- A composite outcome of maternal death or serious morbidity related to hypertensive disorders of pregnancy, postpartum hemorrhage, or infection other than SARS-CoV-2 occurred significantly more frequently in individuals with SARS-CoV-2 infection compared with individuals without SARS-CoV-2 infection (13.4% vs 9.2%, respectively).

CDC: COVID-19 Vaccination for Pregnant People to Prevent Serious Illness, Deaths, and Adverse Pregnancy Outcomes from COVID-19. (9.29.21)

- Compared with non-pregnant symptomatic people, symptomatic pregnant people have more than a two-fold increased risk of requiring ICU admission, invasive ventilation, and ECMO, and a 70% increased risk of death.



COVID-19 and Still Birth: What Studies Show

- MDPI: [Stillbirth after COVID-19 in Unvaccinated Mothers Can Result from SARS-CoV-2 Placentitis, Placental Insufficiency, and Hypoxic](#). (2.15.2022)
- Arch Pathol Lab Med: [Placental Tissue Destruction and Insufficiency from COVID-19 Causes Stillbirth and Neonatal Death](#). (2.10.2022)
- Stillbirth after COVID-19 in Unvaccinated Mothers Can Result from SARS-CoV-2 Placentitis, Placental Insufficiency, and Hypoxic Ischemic Fetal Demise, Not Direct Fetal Infection: Potential Role of Maternal Vaccination in Pregnancy
- MMWR on September 16, 2020, reported an increased stillbirth rate of 3.2% among pregnant patients with symptomatic and asymptomatic SARS-CoV-2 infection.
- MMWR on November 19, 2021, found that the adjusted risk of stillbirth in patients with a COVID-19 diagnosis documented at delivery hospitalization was 4 times higher than the risk in patients without COVID-19 infection.
- In addition, case series of patients with COVID-19 who experienced stillbirth had evidence of fibrin deposition and trophoblast necrosis on placental pathology.



COVID-19 Vaccine Safety in Pregnant and Lactating Persons

Systematic review of the safety, immunogenicity, and effectiveness of COVID-19 vaccines in pregnant and lactating individuals and their infants Int J Gynaecol Obstet: 1.2022

Conclusion: COVID-19 vaccination in pregnant and lactating individuals is immunogenic, does not cause significant vaccine-related adverse events or obstetrical and neonatal outcomes, and is effective in preventing COVID-19 disease.



COVID-19 Vaccine Safety in Pregnant and Lactating Persons

Jan 2022 MMWR Report: In a retrospective cohort of >40,000 pregnant women, COVID-19 vaccination during pregnancy was not associated with preterm birth or small-for-gestational-age at birth overall, stratified by trimester of vaccination, or number of vaccine doses received during pregnancy, compared with unvaccinated pregnant women.

Implications for public health practice: Data supports the safety of COVID-19 vaccination during pregnancy. CDC recommends COVID-19 vaccination for women who are pregnant, recently pregnant, who are trying to become pregnant now, or who might become pregnant in the future.



COVID-19 Vaccine and Birth Outcomes

2022 Published Study

- Cohort of 24,288 eligible newborns (16,697 were exposed in the first and second trimesters) to maternal vaccination
- Median follow-up after birth was 126 days
- No substantial differences were observed in preterm birth rates between exposed and unexposed newborns or SGA
- No significant differences were observed in the incidence of all-cause neonatal hospitalizations, post-neonatal hospitalizations after birth, congenital anomalies, or infant mortality over the study period



COVID-19 Vaccine and Infant Health

- **Completion of a 2-dose primary mRNA COVID-19 vaccination series during pregnancy was associated with reduced risk for COVID-19–associated hospitalization among infants aged <6 months, and protection was higher among infants whose mothers were vaccinated later in pregnancy**
- Among 176 infants aged <6 months hospitalized with COVID-19, 148 (84%) were born to mothers who were not vaccinated during pregnancy.
- Overall, these findings indicate that maternal vaccination during pregnancy might help protect against COVID-19 hospitalization among infants aged <6 months.



Vaccinating During Pregnancy

- A JAMA study suggests that vaccinating women against SARS-CoV-2 in mid to late pregnancy could provide their infants some protection against COVID-19 through six months of age.
- Compared to infants born to mothers who had COVID-19 during pregnancy, infants born to vaccinated mothers were much more likely to have antibodies against the virus.



COVID-19 Vaccination and Reproductive Considerations

- Pregnant women were not included in the initial clinical trials of the vaccines submitted to the FDA.
- Subsequently, the mRNA vaccines have been extensively studied and demonstrated to be safe for pregnant and lactating women.
- Multiple studies have demonstrated that mRNA vaccines are as immunologically active and effective in preventing infection in pregnant women compared to non-pregnant women.
- Studies have demonstrated passive transfer of antibodies to the fetus in utero and in breast milk.
- **Reminder: There is currently no evidence that any vaccines, including COVID-19 vaccines, cause fertility problems in women or men.**



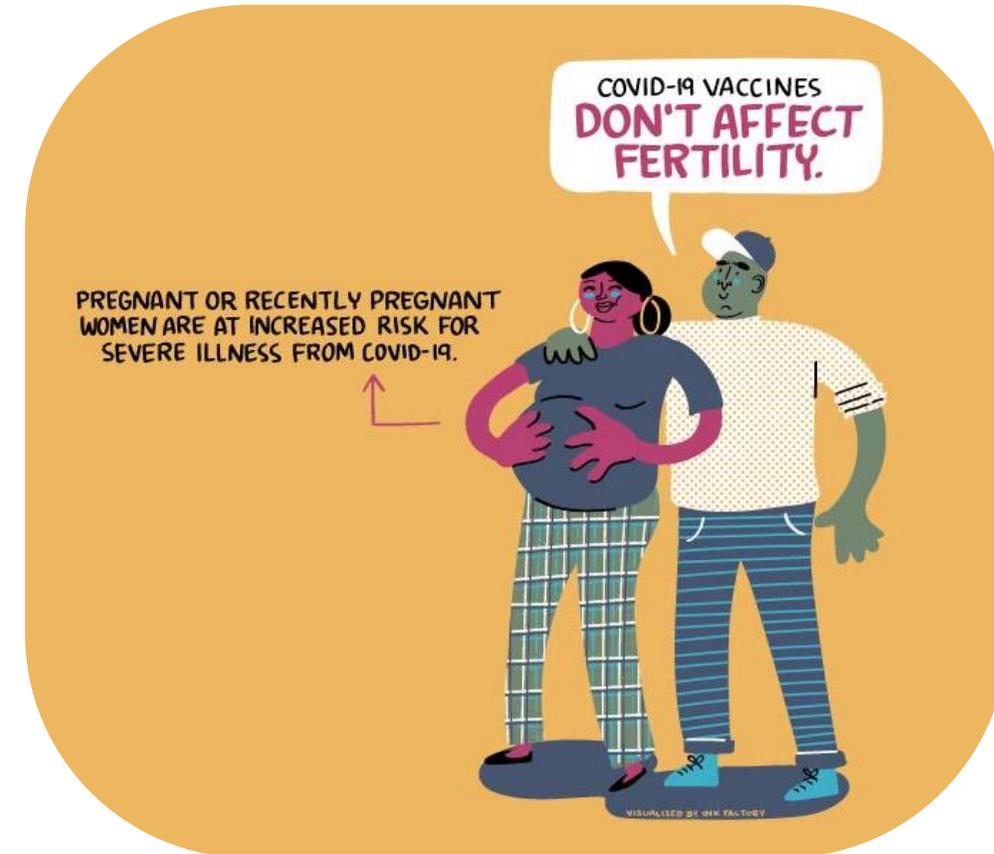
Vaccination and Infertility

- Claims linking COVID-19 vaccines to infertility are unfounded and have no scientific evidence supporting them.
- Given the mechanism of action and the safety profile of the mRNA vaccines in non-pregnant individuals, COVID-19 mRNA vaccines are not a cause of infertility.
- Adenovirus vector vaccines (Janssen) cannot replicate following administration and cannot alter the DNA of a vaccine recipient and is also not a cause of infertility (Evans, 2021, Morris 2021).
- [2022 study on vaccination and fertility](#) - Male COVID-19 infection may be associated with a short-term decline in fertility and that COVID-19 vaccination **does not impair fertility in either partner**.



COVID-19 Vaccines and Pregnant Persons

- Most pregnant people are unaware the CDC recommends vaccines during pregnancy.
- Pregnant people receive misinformation from many sources — including from the medical community. The voice of providers remains important, as well as the voice of friends and family.
- The majority of unvaccinated pregnant people do not plan to get vaccinated during their pregnancy.
- The most important factor pregnant people consider when deciding whether to get vaccinated is the health and safety of their baby.

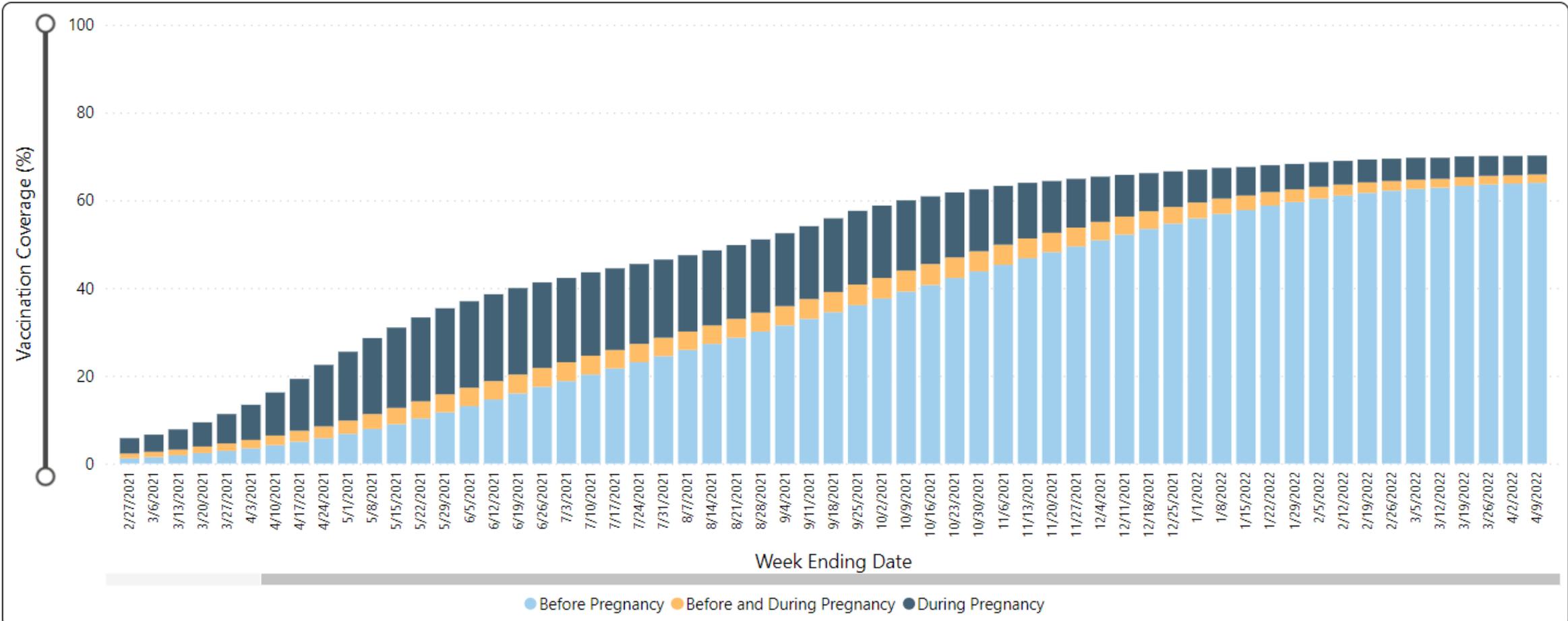




**Figure 1: Percent of Pregnant People Ages 18–49 Years Fully Vaccinated with COVID-19 Vaccine Before and During Pregnancy, by Timing of Vaccination and Week Ending Date — Vaccine Safety Datalink,* United States
December 14, 2020 – April 9, 2022**

Figure 1

Figure 2



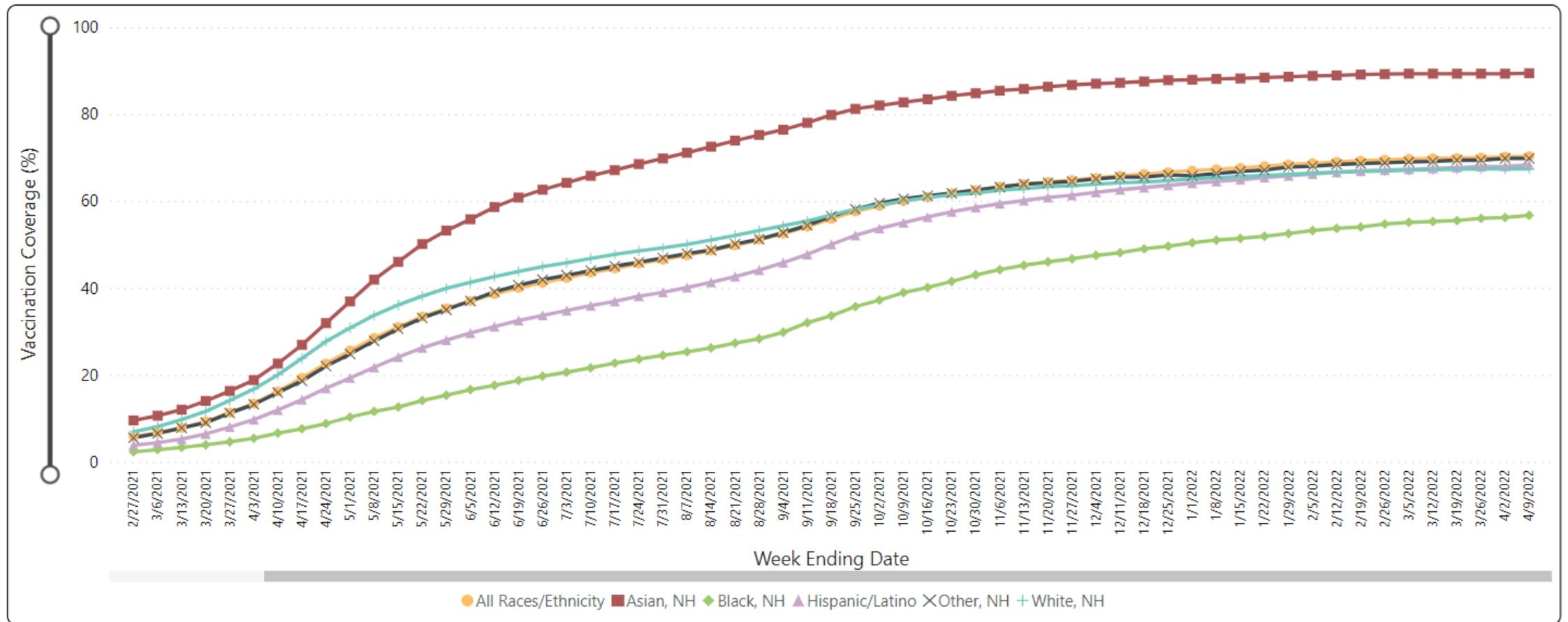
*Vaccine Safety Datalink is a collaboration between CDC's Immunization Safety Office and nine integrated health care organizations in seven U.S. states. Eight sites provide data, and one additional site provides subject matter expertise. For more information please visit <https://vaccine-safety.org/>



**Figure 2: Percent of Pregnant People Ages 18–49 Years Fully Vaccinated with COVID-19 Vaccine Before or During Pregnancy Overall, by Race/Ethnicity, and Week Ending Date — Vaccine Safety Datalink,* United States
December 14, 2020 – April 9, 2022**

Figure 1

Figure 2





COVID-19 Vaccines for Pregnant and Lactating Persons

What you need to know:

- People who are pregnant or recently pregnant are more likely to get severely ill with COVID-19 compared with people who are not pregnant.
- **COVID-19 vaccination is recommended for people who are pregnant, breastfeeding, trying to get pregnant now, or might become pregnant in the future.**
- People who are pregnant should receive a COVID-19 vaccine booster shot.
- Evidence about the safety and effectiveness of COVID-19 vaccination during pregnancy has been significant and continues to grow.
 - These data suggest that the benefits of receiving a COVID-19 vaccine outweigh any known or potential risks of vaccination during pregnancy.
- The American College of Obstetricians and Gynecologists (ACOG) recommends that all eligible persons aged 12 years and older, **including pregnant and lactating individuals**, receive a COVID-19 vaccine or vaccine series.



“Up to Date” with COVID-19 Vaccines

Additional Dose

For people who are immunocompromised. This helps improve their immune system’s response to the vaccines doses they have already gotten.

Boosters

For people who have been vaccinated, but protection against the virus has decreased over time (this is common in other vaccines like Tdap).

Omicron: reduced vaccine effectiveness

- A COVID-19 vaccine booster dose restores vaccine effectiveness against infection to 75%.
- COVID-19 vaccination decreases the risk of severe disease, hospitalization, and death from COVID-19.
- CDC strongly encourages COVID-19 vaccination for everyone 5+ and boosters for everyone 12+



Why Vaccinate?

- Lower chances of infection
- Much lower chances of being hospitalized or dying
- Engage in all activities
- Avoid multisystem inflammatory syndrome & long-term symptoms
- Individuals from Native, Black, and Hispanic communities are still 3 times more likely to be hospitalized.



After Delta became the most common variant,* fully vaccinated people had reduced risk[†] of...

INFECTION	HOSPITALIZATION	DEATH
5X	>10X	>10X

Vaccination offers strong protection against COVID-19

* June 20-July 17, 2021
† Compared with people not fully vaccinated

 bit.ly/MMWR91021 



Why Vaccinate?

- COVID-19 is here to stay
- People can get COVID-19 over and over.
- You can still get sick (even after being vaccinated)
- Vaccines protect you like a seat belt
 - Doesn't stop a crash
 - Doesn't mean you can't die
 - But makes it much less likely





Addressing Concerns

- Lead with empathy
- Ask why they are hesitant
- Listen
- Counter any misinformation
- Address fears about side effects
- Show your vaccination pride
- Share your own vaccination story





Addressing Concerns

- If a client explains mistrust in the medical community as a factor in their decision to get vaccinated, do not dismiss these concerns.
 - Know who is a trusted information source for that person.
 - Tailor your message
- Use [motivational interviewing](#) to understand their concerns.
 - Answer any questions you can, and provide sources for more information for what you can't (i.e. the CDC website).
- Be aware of the language you are using – ensure it is anti-biased, inclusive language.

PUEDA PARECER QUE CADA VEZ QUE ABRE SU CELULAR, VE ALGO DIFERENTE SOBRE LAS VACUNAS CONTRA COVID-19



AQUELLOS QUE DIFUNDEN AFIRMACIONES Y CONSPIRACIONES CIENTÍFICAMENTE REFUTADAS LO HAN ESTADO HACIENDO DURANTE AÑOS, Y MUCHOS QUIEREN QUE USTED COMPRE SUS PRODUCTOS.

LAS VACUNAS CONTRA COVID ESTÁN Y CONTINUÁN SIENDO BIEN PROBADAS

LAS VACUNAS SON UNO DE LOS ÉXITOS CIENTÍFICOS MÁS IMPORTANTES DE LA HISTORIA DE LA HUMANIDAD.

LAS VACUNAS CONTRA COVID-19 NO CAMBIAN NI INTERACTÚAN CON EL ADN DE NINGUNA MANERA.

ENTREGAN INSTRUCCIONES

A LAS CÉLULAS PARA CONSTRUIR

PROTECCIÓN



LA MAYORÍA SON A CORTO PLAZO Y NO SON PELIGROSOS

LAS VACUNAS CONTRA COVID-19 SE DESARROLLARON USANDO ENSAYOS CLÍNICOS.

SUELEN DURAR DE 1 A 2 DÍAS

EFECTOS SECUNDARIOS

ALGUNAS PERSONAS RECIBIERON VACUNAS

ALGUNAS RECIBIERON PLACEBOS DE AGUA SALADA ESTÉRIL SIN VACUNA.

DOLOR EN EL LUGAR DE LA INYECCIÓN, DOLORES CORPORALES, DOLORES DE CABEZA O FIEBRE.

POR LO GENERAL, OCURREN DENTRO DE 6 SEMANAS Y SE HAN ESTUDIADO DURANTE MÁS TIEMPO.

LA VACUNA CONTRA COVID-19 NO PUEDE Y NO LE DARÁ COVID-19.

EL CRONOGRAMA PARA EL DESARROLLO NO SE APRESURÓ.

MÁS DE 11 MILLONES DE NIÑOS YA HAN SIDO VACUNADOS.

LAS VACUNAS CONTRA COVID-19 REDUCEN LAS MUERTES Y LAS ENFERMEDADES GRAVES.

LA DOSIS PARA NIÑOS ES 1/3 DE LA DOSIS PARA ADULTOS.

LA DOSIFICACIÓN SE BASA EN LA EDAD Y EL SISTEMA INMUNOLÓGICO. NO SE BASA EN EL PESO.

PIENSE EN LAS VACUNAS COMO EL ENTRENADOR PERSONAL DE SU SISTEMA INMUNOLÓGICO.

ENSEÑAN A NUESTRO SISTEMA INMUNOLÓGICO A CREAR ANTICUERPOS.

ESTAR VACUNADO AYUDA A PROTEGER A LAS PERSONAS QUE AMA Y A SU COMUNIDAD

¡NO SE OMITIERON PASOS!

ALGUNOS PASOS OCURRIERON ALL MISMO TIEMPO.

LAS MUJERES EMBARAZADAS O RECIÉN EMBARAZADAS TIENEN UN MAYOR RIESGO DE CONTRAER UNA ENFERMEDAD GRAVE POR COVID-19.

LOS MÉDICOS NO TIENEN MOTIVOS OCULTOS CUANDO RECOMIENDAN VACUNARSE

LAS VACUNAS COVID-19 NO AFECTAN LA FERTILIDAD.





THANK YOU

- More information AND outreach materials on I-VAC's website: illinoisvaccinates.com
- Contact facts@ilvaccinates.com

