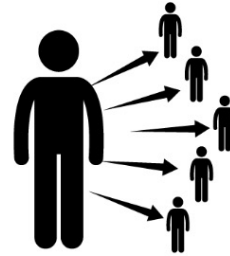
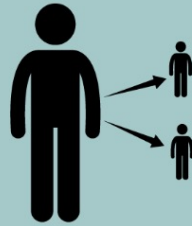


ORIGINAL COVID-19 STRAIN

DELTA VARIANT

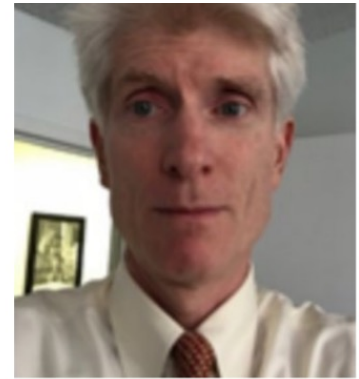


Delta spreads more easily. It infects more people and spreads faster than other variants of the virus that causes COVID-19.

What's the Deal with Delta

Plus: Full authorization, boosters, and more

Wednesday, August 25, 2021 @ 1 pm ET



Bob Burns, MPA
Director



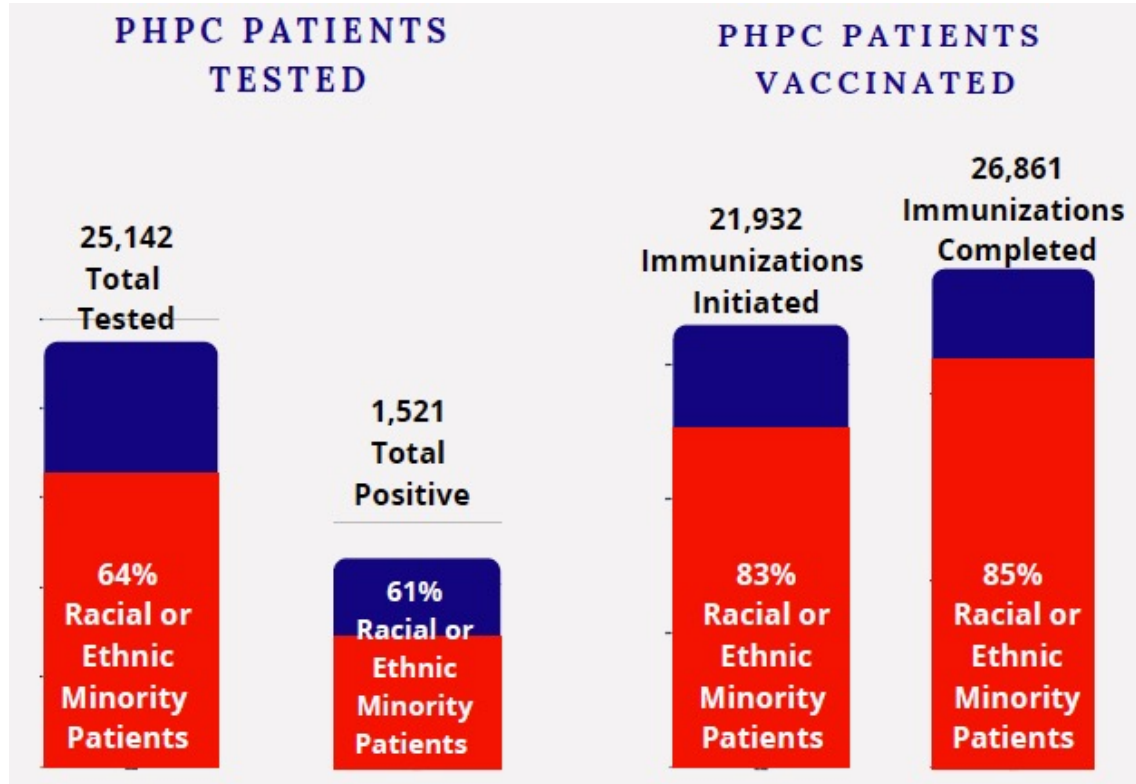
Dr. Jose Leon, MD, MPH
Chief Medical Officer

What's the Deal with Delta?

1. COVID-19 by the Numbers
2. Better Know the Delta Variant
3. COVID-19 Vaccine Boosters
4. FDA Approval of Pfizer Vaccine
5. COVID-19 Vaccine for Youth

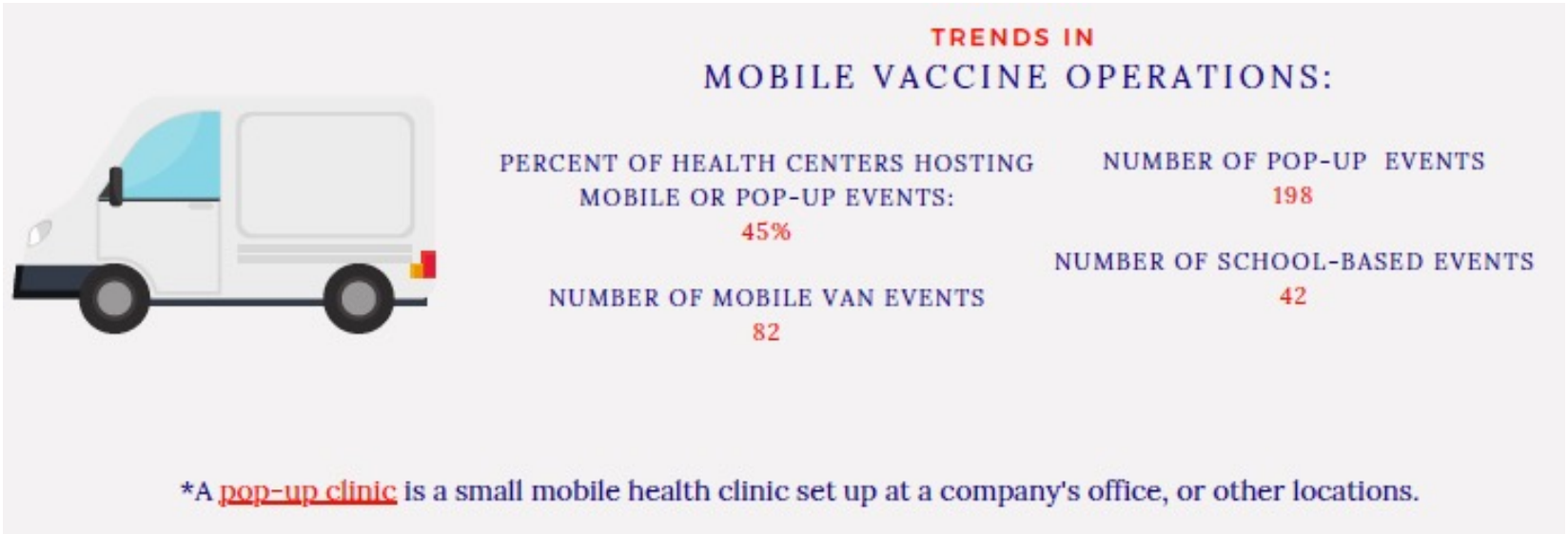


Public Housing Primary Care (PHPC) COVID-19 by the Numbers as of 07/16/2021



Source: <https://nchph.org/dashboard/>

PHPC Mobile Vaccine Trends



<https://nchph.org/dashboard/>



E protein

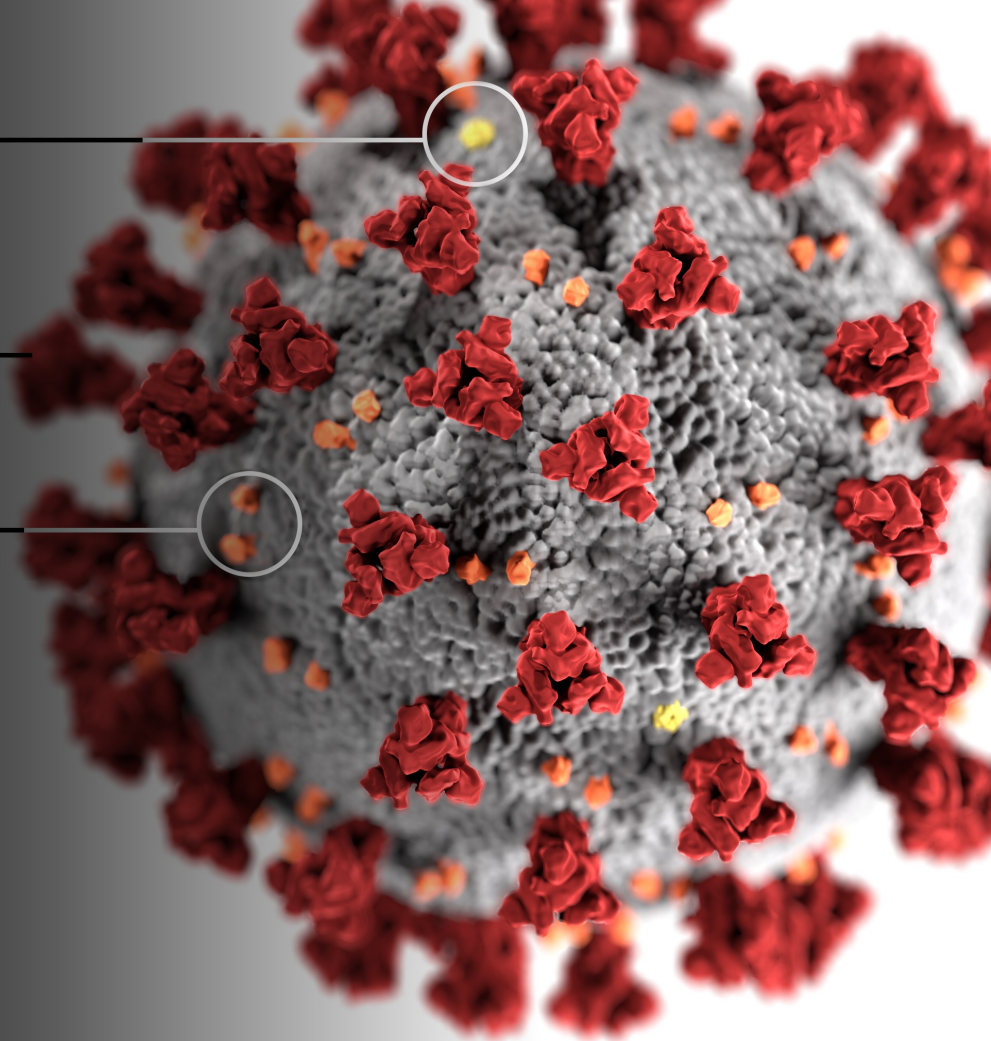
S protein

M protein

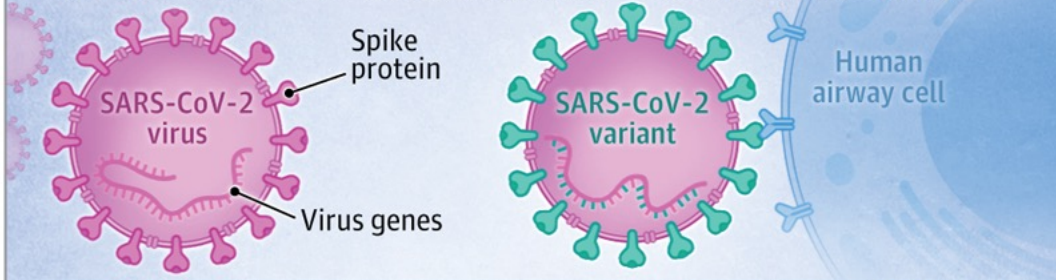
COVID-19

Variants

COVID-19



SARS-CoV-2 variants occur with new mutations in the virus genetic code. Some of these can affect virus function. Mutations in the spike protein, used to bind to human cells, can make it easier for the virus to infect a person or spread more quickly.



Other mutations may cause a change in the virus, making it more resistant to antibodies that fight SARS-CoV-2.



Current SARS-CoV-2 variants of concern

Alpha (B.1.1.7)

- Spreads 50% more quickly than the original virus
- May cause more severe COVID-19 disease
- Current antibody treatments are effective

Beta (B.1.351)

Gamma (P.1)

- Spread less quickly than Alpha variant
- Current antibody treatments are less effective

Delta (B.1.617.2)

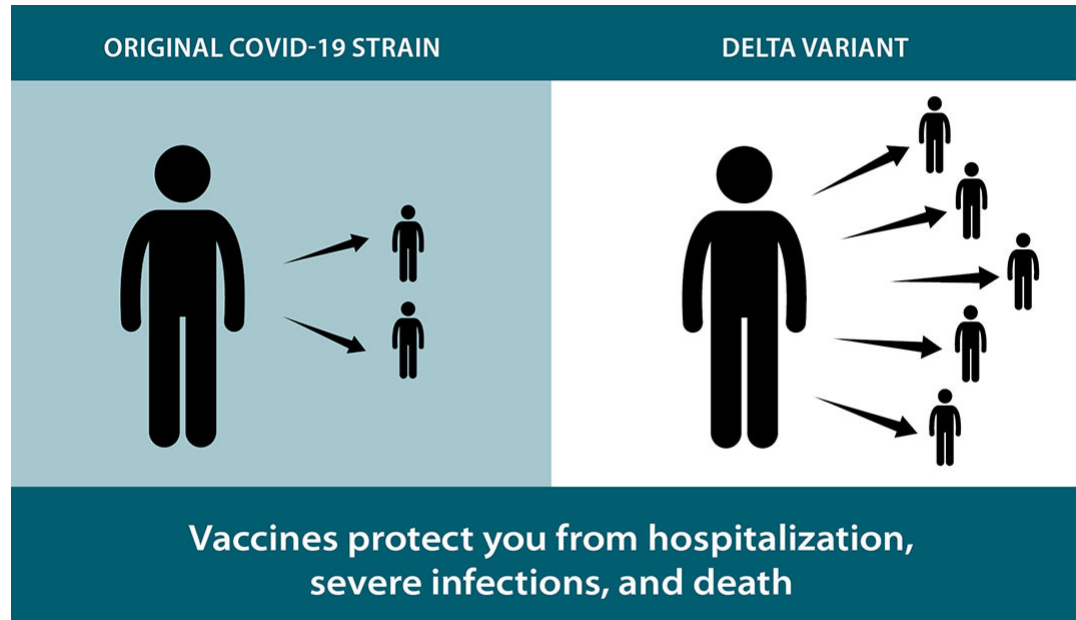
- Spreads 100% more quickly than the original virus
- Not known if it causes more severe COVID-19 disease
- Current antibody treatments are slightly less effective



Vaccination is safe and remains the best way to prevent severe disease and limit spread of SARS-CoV-2.

Delta Variant: What We Know About the Science

- The Delta variant is more contagious than previous strains – it may cause more than **2x** infections



Delta Variant and People Who Are Vaccinated

- People who are vaccinated can get **breakthrough infections** of Delta variant and may be contagious.
- People who are vaccinated are much **less likely to get infected** and transmit the virus than people who are unvaccinated.

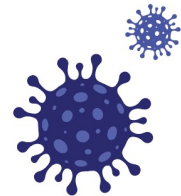


Delta Variant and People Who Are Unvaccinated

- Data suggest the Delta variant might cause **more severe illness than previous strains** in people who are unvaccinated.
- People who are unvaccinated are at greatest risk for **severe infection, hospitalization, and death**.
- People who are unvaccinated appear to be **infectious for a longer period** than people who are vaccinated.
- The **highest spread** of cases and severe outcomes is happening in places with low vaccination rates and among people who are unvaccinated.



<https://www.cdc.gov/coronavirus/2019-ncov/variants/delta-variant.html>



Delta Variant: What Can We Do?

- **Getting vaccinated** against COVID-19 prevents severe illness, hospitalization, and death. It also helps **reduce the spread of the virus** in communities.
- In areas of substantial or high transmission, everyone should **wear a mask in public indoor settings** to help prevent the spread of Delta variant and protect others.



Delta Variant: What Should Schools Do?

- CDC recommends **universal indoor masking** for all teachers, staff, students, and visitors to K-12 schools, **regardless of their vaccination status**.
- Children should **return to full-time in-person learning** in the fall with **layered prevention strategies** in place.

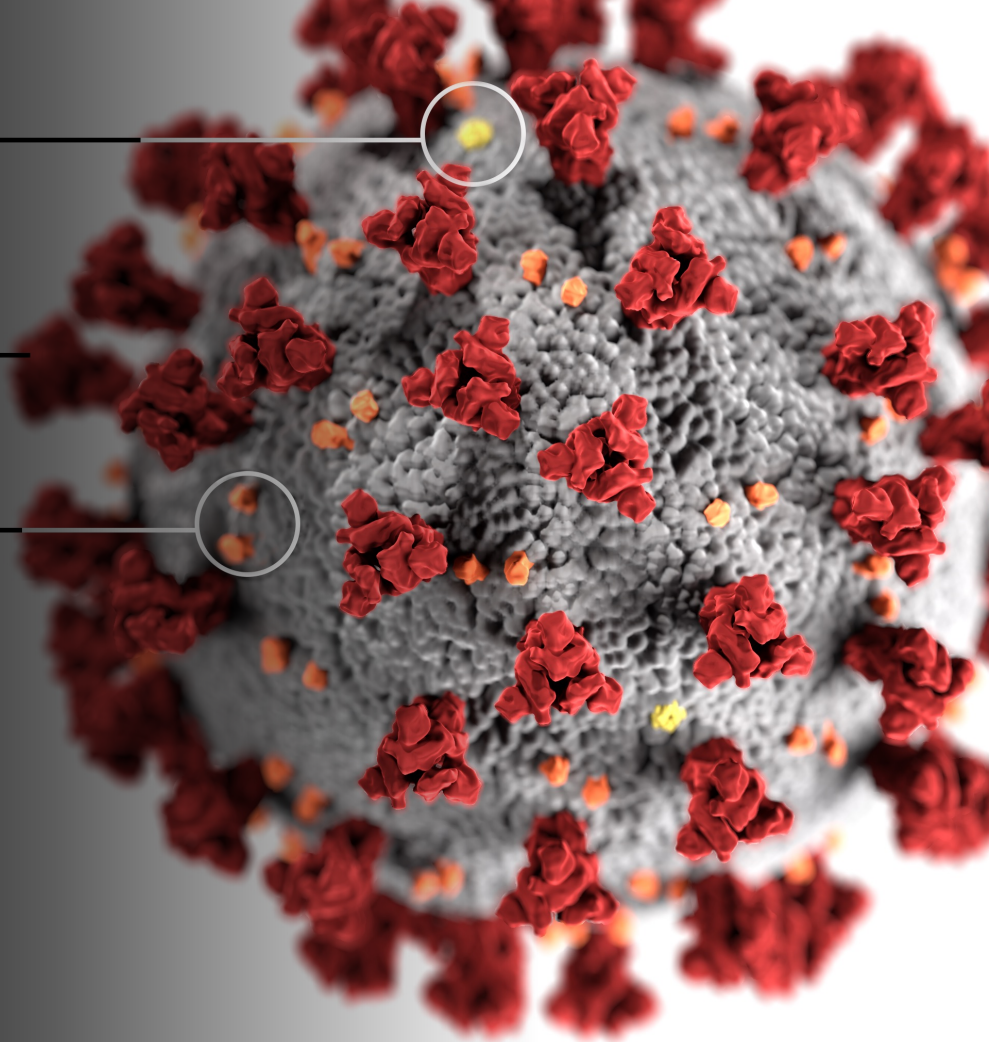




E protein

S protein

M protein



COVID-19

Booster

COVID-19

FDA: Emergency Use Authorization (EUA) Amendment

- **August 12, 2021:** FDA Authorizes Additional Vaccine Dose for Certain Immunocompromised Individuals*
 - Other fully vaccinated individuals do not need an additional dose right now
 - Amendment applies to:
 - **Pfizer-BioNTech** COVID-19 vaccine (BNT162b2) (≥12 years old)
 - **Moderna** COVID-19 vaccine (mRNA-1273) (≥18 years old)
- Due to insufficient data, the EUA amendment for an additional dose does not apply to Janssen COVID-19 vaccine or to individuals who received Janssen COVID-19 as a primary series. CDC and FDA are actively engaged to ensure that immunocompromised recipients of Janssen COVID-19 vaccine have optimal vaccine protection

*<https://www.fda.gov/news-events/press-announcements/coronavirus-covid-19-update-fda-authorizes-additional-vaccine-dose-certain-immunocompromised>

Population: Immunocompromised People

People with medical conditions or people receiving treatments that are associated with moderate to severe immune compromise.¹

- Active or recent treatment for solid tumor and hematologic malignancies
- Receipt of solid-organ or recent hematopoietic stem cell transplants
- Severe primary immunodeficiency
- Advanced or untreated HIV infection
- Active treatment with high-dose corticosteroids, alkylating agents, antimetabolites, tumor-necrosis (TNF) blockers, and other biologic agents that are immunosuppressive or immunomodulatory

1. Additional information about the level of immune suppression associated with a range of medical conditions and treatments can be found in [general best practices for vaccination of people with altered immunocompetence](#), the CDC Yellow Book, and the Infectious Diseases Society of America policy statement, 2013.

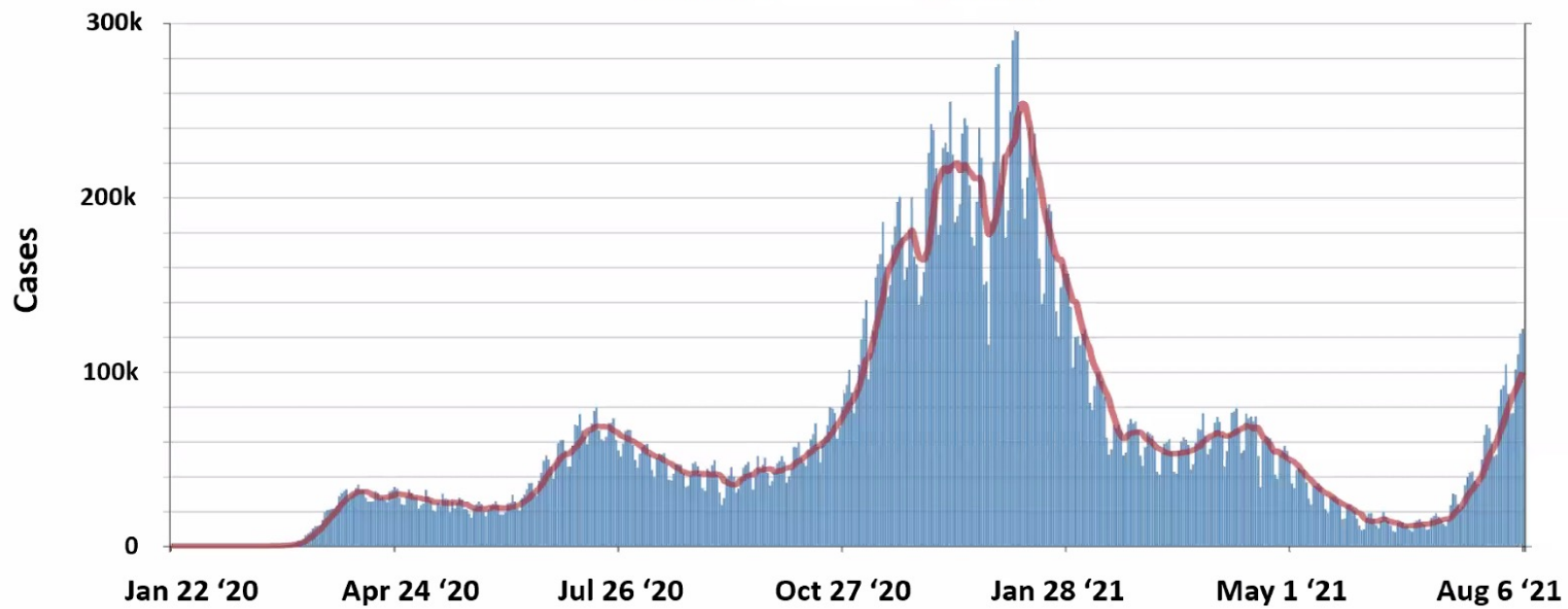
Intervention: An Additional Dose of mRNA COVID-19 Vaccine

- An additional dose of
 - **Pfizer-BioNTech** COVID-19 vaccine (BNT162b2) (≥ 12 years old)
 - **Moderna** COVID-19 vaccine (mRNA-1273) (≥ 18 years old)after an initial 2-dose primary series of mRNA COVID-19 vaccine, in immunocompromised people
- Attempts should be made to match the additional dose type to the mRNA primary series, however if that is not feasible, a **heterologous additional dose is permitted**
- The additional dose of mRNA COVID-19 vaccine should be administered **at least 28 days** after completion of the primary mRNA COVID-19 vaccine series

Daily Trends in Number of COVID-19 Cases in the US

January 22, 2020 – Aug 9, 2021

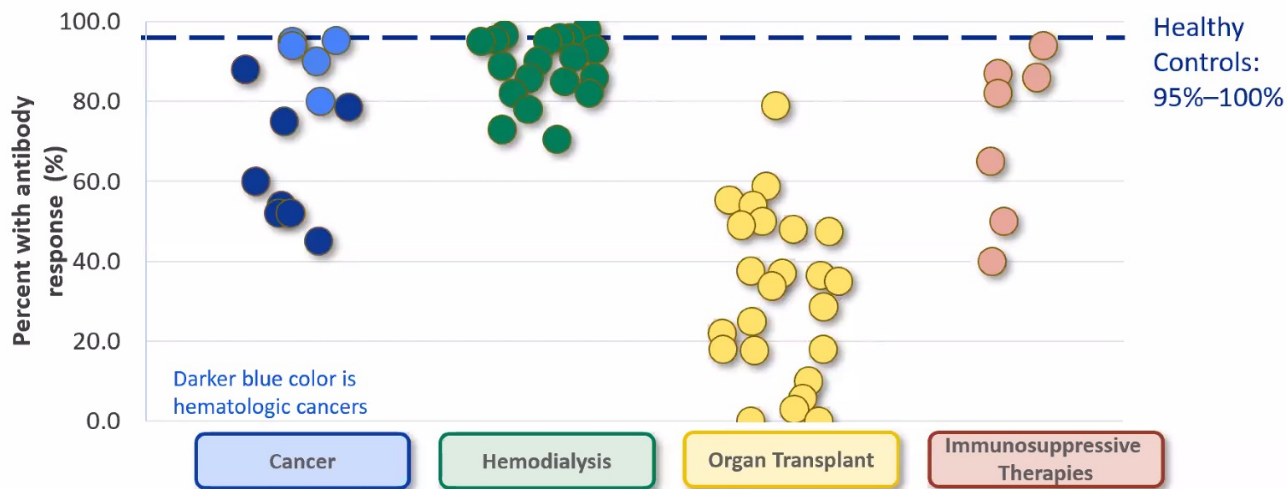
Cases Total 35,665,877



https://covid.cdc.gov/covid-data-tracker/#trends_dailytrendscases

Aug 9 2021

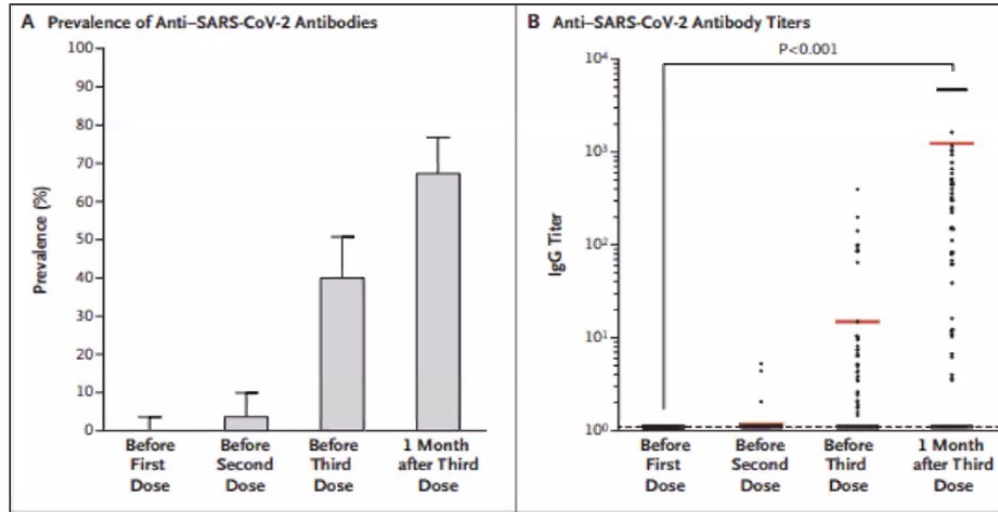
Percent of subjects with antibody response after two mRNA COVID-19 vaccine doses by immunocompromising condition and study (n=63)



- Studies that compared response after 1st and 2nd dose demonstrated less robust response after dose 1
- Antibody measurement and threshold levels vary by study protocol

See reference slide at end

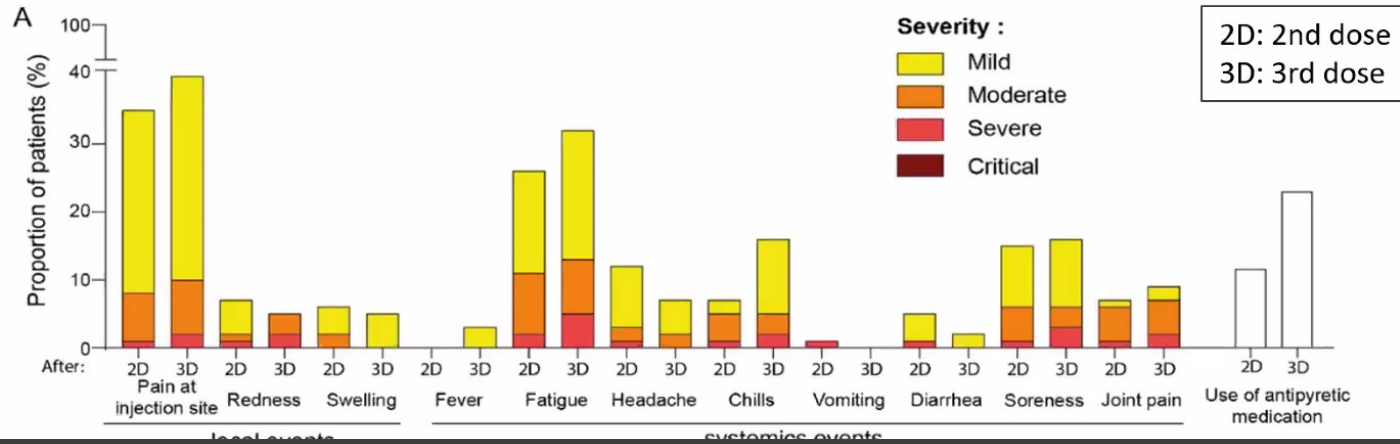
Benefits and Harms:



- The proportion of the group who are seropositive increase after each dose: **40%** post dose 2 and **68%** post dose 3
- Average antibody titers increased after each dose
- No serious adverse events were reported after administration of the 3rd dose, and no acute rejection episodes occurred (n=99 Solid Organ Transplant Patients)

Harms:

- No patients developed critical side effects which required hospitalization
- Symptoms reported were consistent with previous doses and the intensity of the symptoms was mostly mild or moderate



Benefits and Harms:

Summary of the Available Evidence

Benefits:

- Emerging experimental and observational data in adults suggest that an additional mRNA COVID-19 vaccine dose in immunocompromised people enhances antibody response and increases the proportion who respond to COVID-19 vaccine
- No efficacy or effectiveness studies of COVID-19 prevention following a 3rd dose

Harms:

- In small studies of an additional dose of mRNA vaccine
 - No serious adverse events were observed
 - Reactogenicity of the 3rd dose of mRNA vaccine was similar to prior doses
- mRNA COVID-19 vaccines are associated with rare but serious adverse events, including anaphylaxis as well as myocarditis and pericarditis in young adults. The impact of immunocompromising conditions on these rare events is unknown.

ACIP Vote – Interim Recommendation

An additional dose of Pfizer-BioNTech COVID-19 vaccine (≥12 years) or Moderna COVID-19 vaccine (≥18 years) is recommended following a primary series in immunocompromised people*



Moderately and severely immunocompromised people*

- Active treatment for solid tumor and hematologic malignancies
- Receipt of solid-organ transplant and taking immunosuppressive therapy
- Receipt of CAR-T-cell or hematopoietic stem cell transplant (within 2 years of transplantation or taking immunosuppression therapy)
- Moderate or severe primary immunodeficiency (e.g., DiGeorge, Wiskott-Aldrich syndromes)
- Advanced or untreated HIV infection
- Active treatment with high-dose corticosteroids (i.e., ≥ 20 mg prednisone or equivalent per day), alkylating agents, antimetabolites, transplant-related immunosuppressive drugs, cancer chemotherapeutic agents classified as severely immunosuppressive, TNF blockers, and other biologic agents that are immunosuppressive or immunomodulatory

*ACIP General Best Practice Guidelines for Immunization; CDC Yellow Book; 2013 IDSA Clinical Practice Guideline for

Importance of infection prevention measures

- Immunocompromised people (including those who receive an additional mRNA dose) should be counseled about the potential for reduced immune response to COVID-19 vaccination and need to follow prevention measures*
 - Wear a mask
 - Stay 6 feet apart from others they don't live with
 - Avoid crowds and poorly ventilated indoor spaces until advised otherwise by their healthcare provider
- Close contacts of immunocompromised people should be strongly encouraged to be vaccinated against COVID-19



E protein

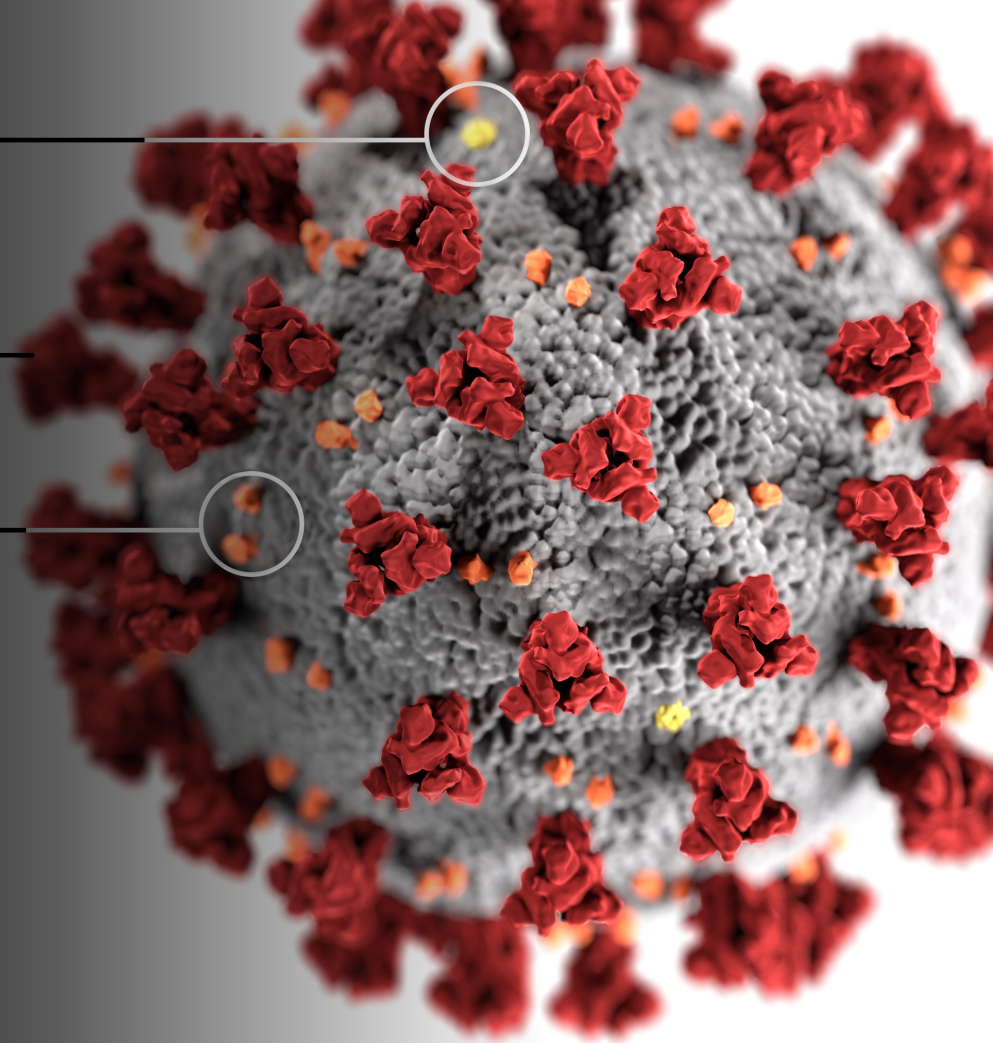
S protein

M protein

COVID-19

FDA Approval of
Pfizer Vaccine

COVID-19



FDA approves Pfizer-BioNTech COVID-19 Vaccine, as first vaccine for the prevention of COVID-19 in people 16 and older.

- On August 23, 2021, the FDA approved the first COVID-19 vaccine. The vaccine has been known as the Pfizer-BioNTech COVID-19 Vaccine, and will now be marketed as Comirnaty, for the prevention of COVID-19 disease in individuals 16 years of age and older. The vaccine also continues to be available under emergency use authorization, including for individuals 12 through 15 years of age and for the administration of a third dose in certain immunocompromised individuals. For all information about Comirnaty, please refer to its [product page](#) and [frequently asked questions](#).



E protein

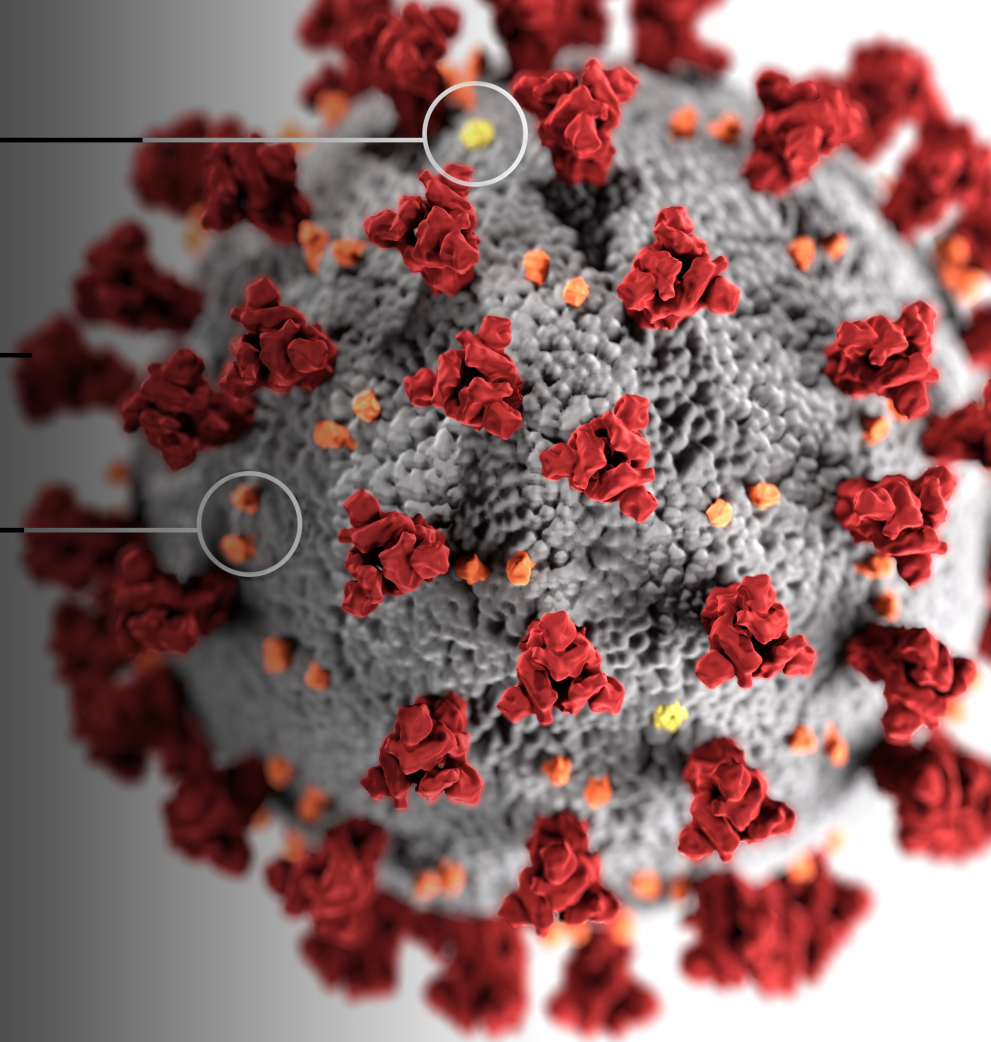
S protein

M protein

COVID-19

Vaccine for Youth

COVID-19





Rommel Calderwood
Office of Field Policy and
Management

Queries & Asks

Moderators



Jason Amirhadji
Office of Public and Indian
Housing

Join us NEXT Wednesday, September 1 @ 1pm ET: Jab It Up with the Little Jab Book!



Looking for tips and tools to boost youth vaccination in your community?

Join the CDC for the launch of their Little Jab Book, with vaccination strategies and promising practices for children, students, and young adults