



**Center on
Rural Addiction**
UNIVERSITY OF VERMONT

Vaccine facts... and talking points for
people who are vaccine-reluctant

COVID-19 Vaccine Acceptance: People with SUD in Rural Communities

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COVID-19 Vaccine Acceptance: People with SUD in Rural Communities

Part 1: Making the Case

Part 2: The Virus and the Vaccines

Part 3: Communication Skills for Rural Providers When Confronting
Vaccine Hesitancy

PART 1

Making the Case

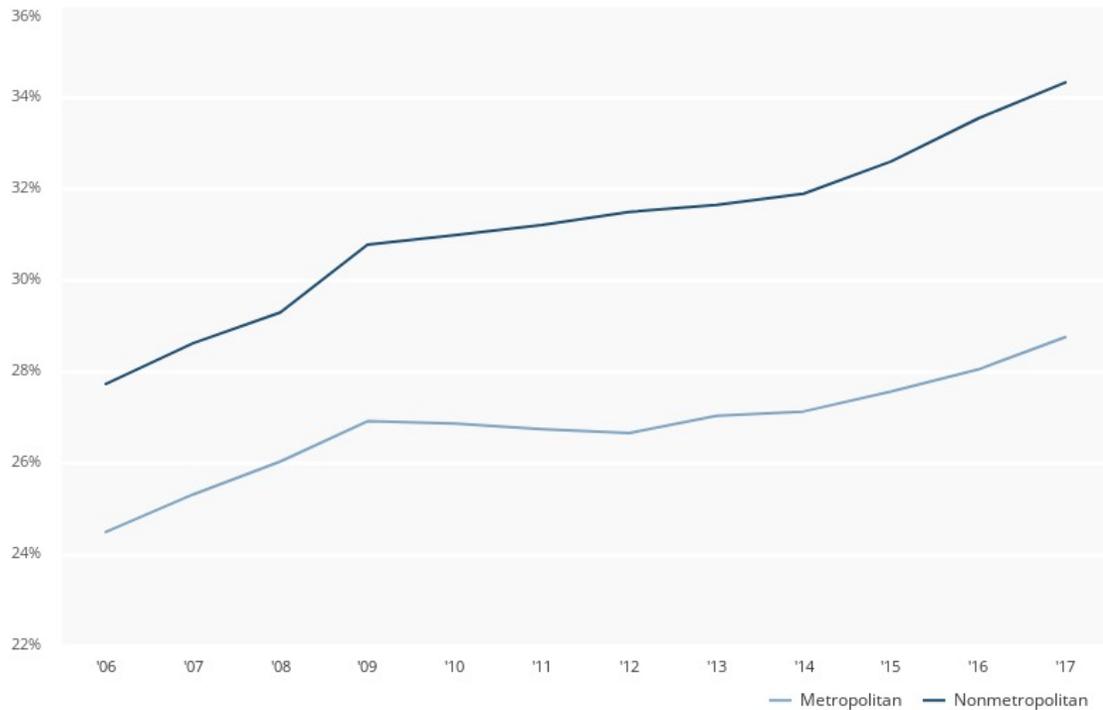


Making the Case: COVID-19 Impact in Rural Communities

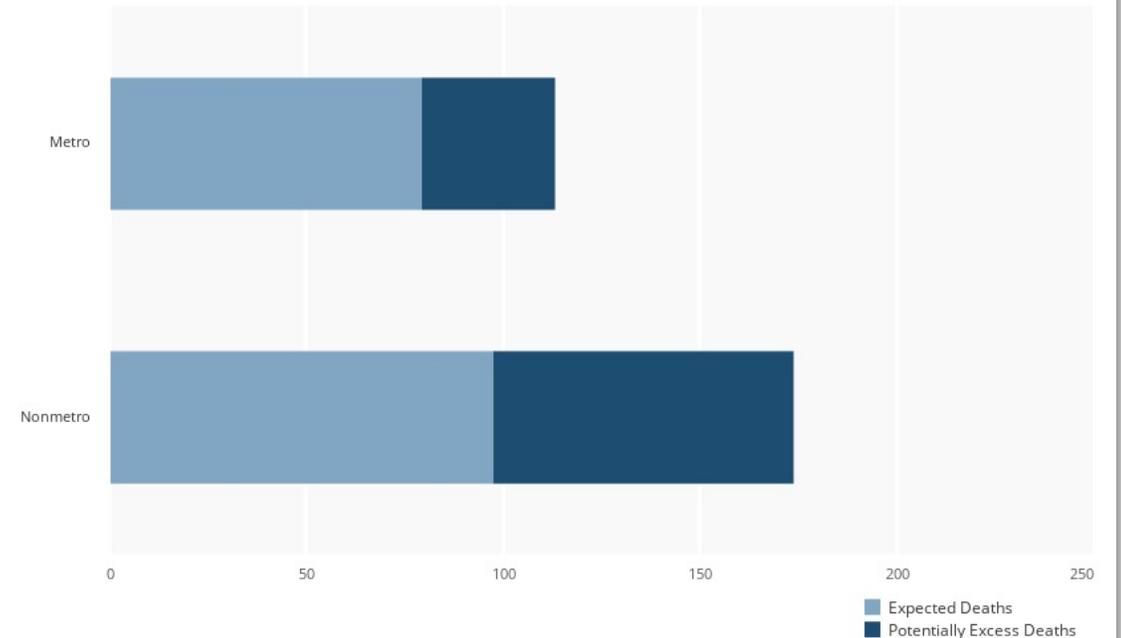
- Rural populations tend to be older, sicker, heavier, poorer, and less vaccinated, with access to medical care challenged by the pandemic. Rural residents have a higher prevalence of pre-existing conditions and comorbidities (e.g. diabetes, heart disease, obesity and smoking).
- All of this puts them at greater risk of complicated COVID-19 illness and death.

Rural residents have a higher prevalence of pre-existing conditions and comorbidities

Obesity Prevalence for Metro and Nonmetro Counties, 2006-2017

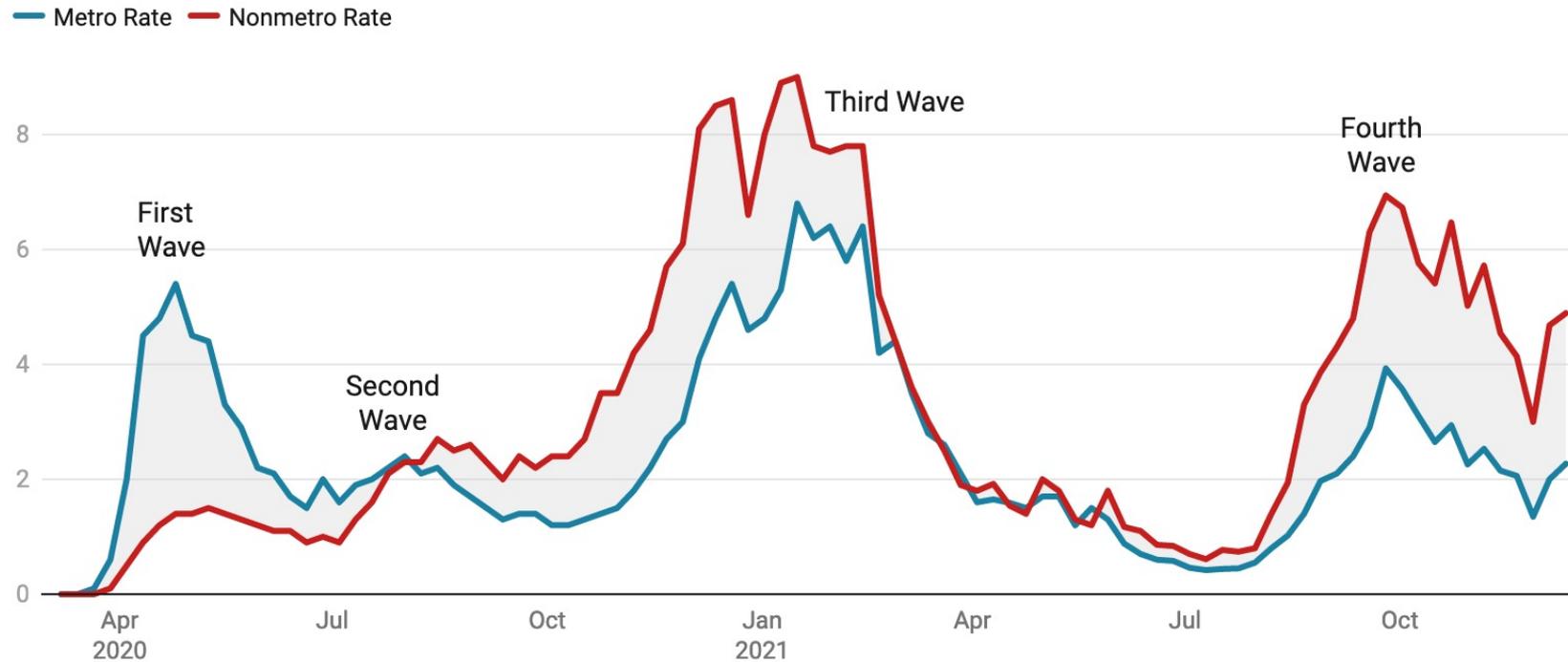


Expected and Excess Deaths per 100,000 from Heart Disease for Metro and Nonmetro Counties, 2015



Metropolitan and Rural Weekly Covid-19 Death Rate

Deaths per 100,000, Sunday through Saturday, March 7, 2020, through December 11, 2021



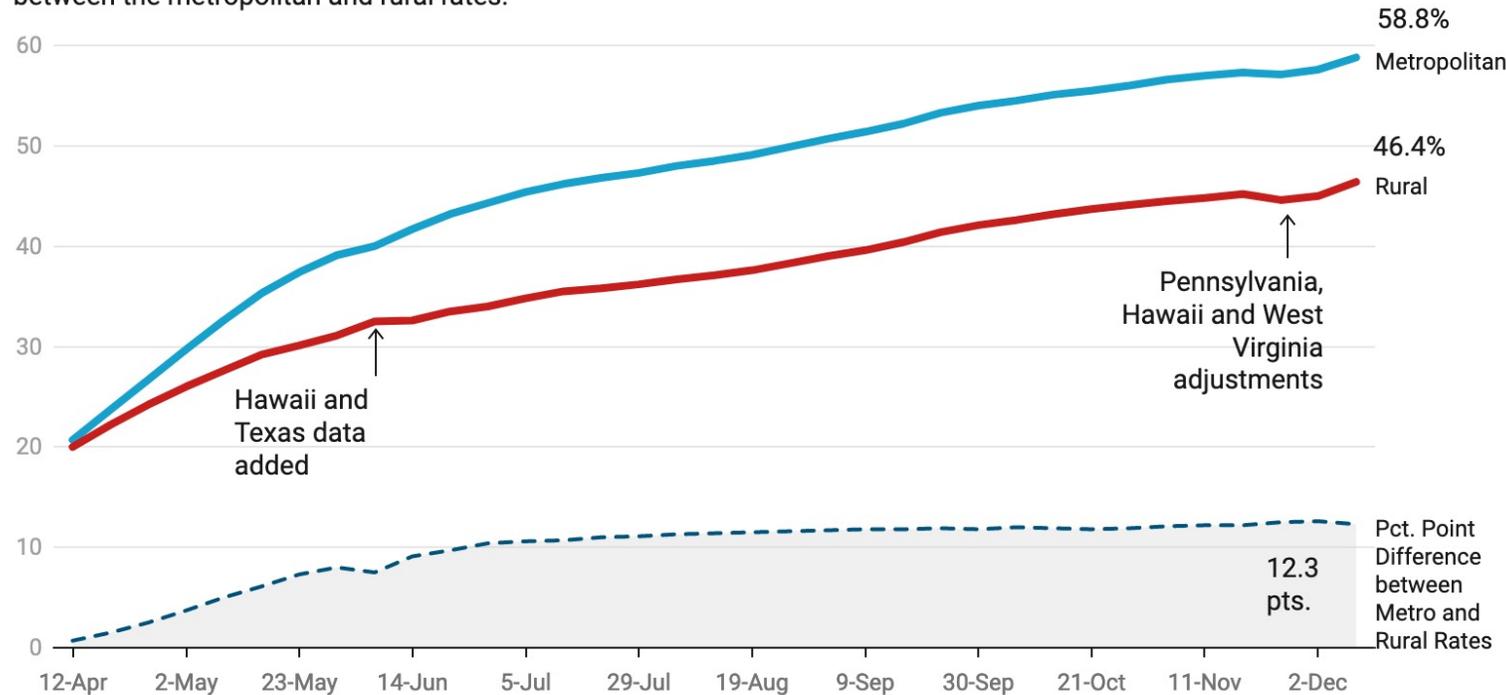
USA Facts data is supplemented with CDC data for Florida, Nebraska, and New Jersey starting in spring/summer 2021.

Chart: Daily Yonder/Tim Marema • Source: [USA Facts and CDC](#) • [Get the data](#) • Created with [Datawrapper](#)

Making the Case: COVID-19 Impact in Rural Communities

Nonmetro/Metro % of Population Completely Vaccinated as of December 9

Nonmetropolitan and metropolitan percentage of total population completely vaccinated, plus the percentage-point difference between the metropolitan and rural rates.



Rural is defined as nonmetropolitan counties, and urban is defined as metropolitan counties, according to the 2013 federal Office of Management and Budget Metropolitan Statistical Area system. The percentages exclude vaccinations that states did not assign to specific counties and exclude populations in counties for which no vaccination data is available. Data for Hawaii, Massachusetts, and Texas is from state departments of health.

Chart: Daily Yonder • Source: [Centers for Disease Control and Prevention Community Profiles](#), [OMB county classifications](#) • [Get the data](#) • Created with [Datawrapper](#)

Making the Case: COVID-19 Impact on **People with SUD**

People with a *diagnosis of a substance use disorder*
at any point in their lifetime were
1.5 times more likely to have COVID-19 than those who did not.

Making the Case: COVID-19 Impact on **People with SUD**

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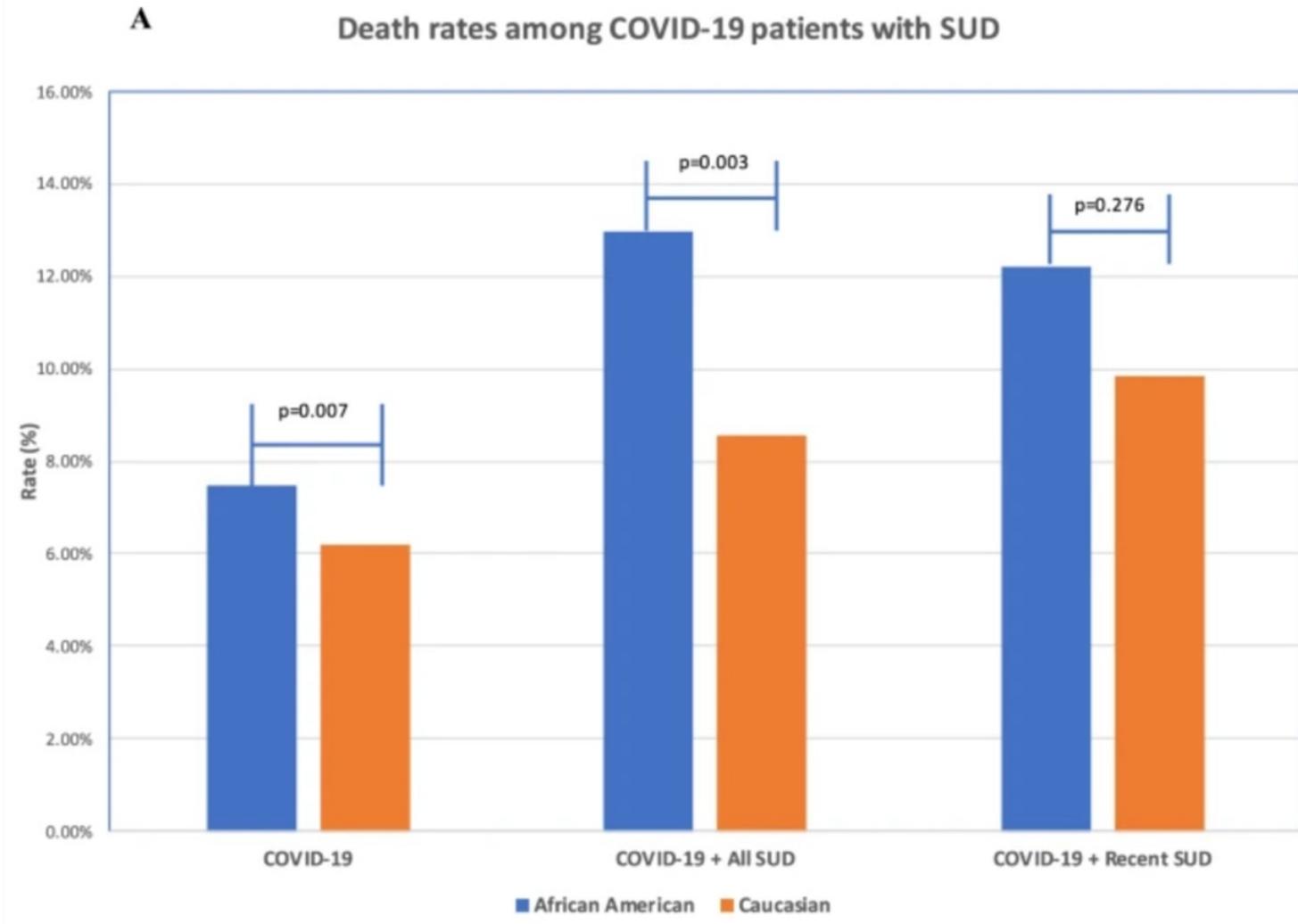
People with such a diagnosis were **more likely** to experience *severe outcomes of COVID-19* than those without, including *hospitalization* (41% versus 30%) and *death* (9.6% versus 6.6%).

The pandemic has caused increases in risky substance use.

- ↑ **number of positive urine drug screens** ordered by health care providers and legal systems
- ↑ positive screens for **fentanyl, cocaine, heroin, and methamphetamine** have all increased from previous years
- ↑ use of **alcohol and cannabis (marijuana)**, especially people with **clinical anxiety and depression** and those experiencing **COVID-19-related stress**

Making the Case: COVID-19 Impact on People with SUD

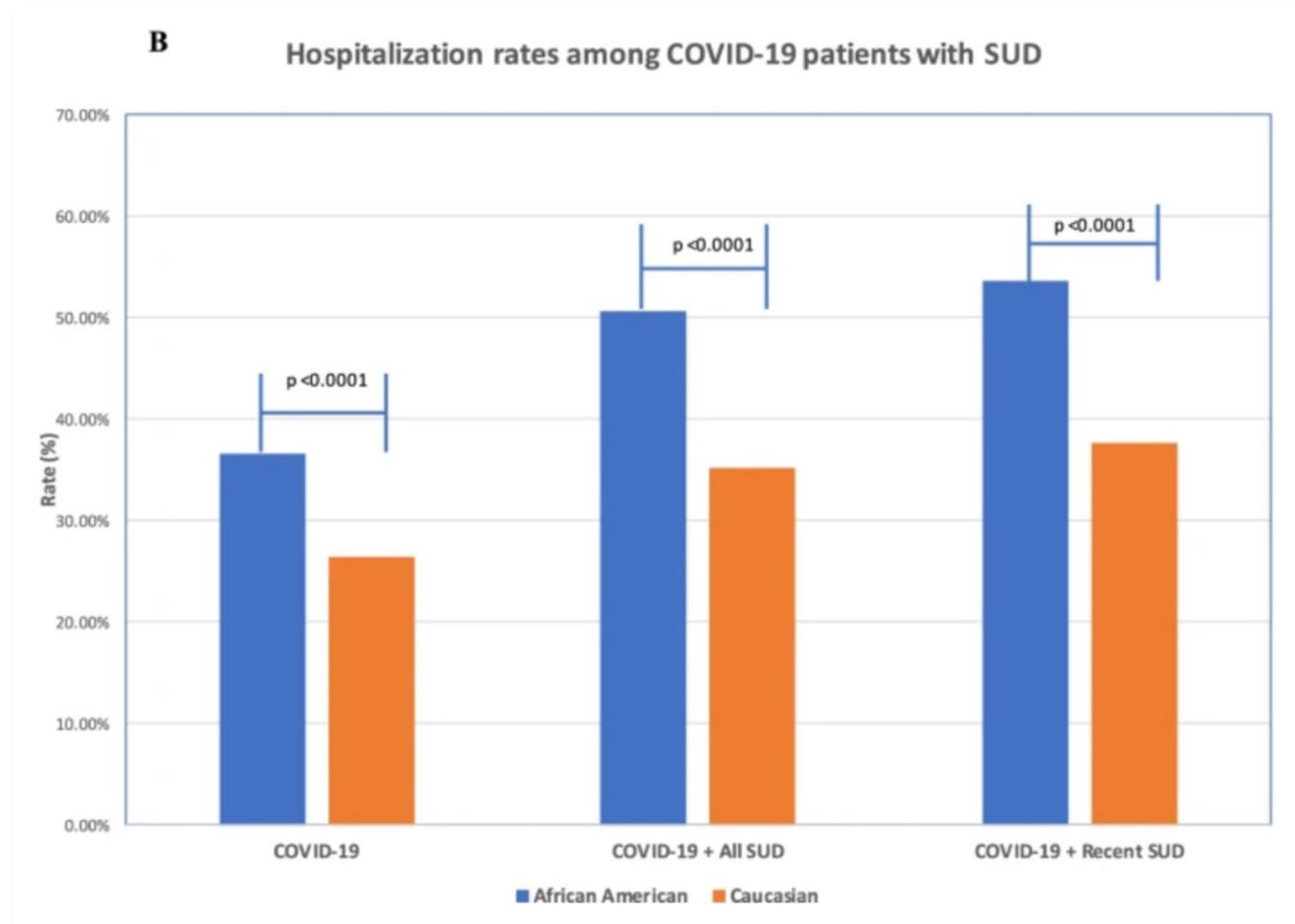
Fig. 3: Outcomes in patients with COVID-19 and SUD.



COVID-19 risk and outcomes in patients with substance use disorders: analyses from electronic health records in the United States; Wang, Kaelber, Xu, Volkow; *Molecular Psychiatry* volume 26, (2021)

Making the Case: COVID-19 Impact on People with SUD

COVID-19 risk and outcomes in patients with substance use disorders: analyses from electronic health records in the United States; Wang, Kaelber, Xu, Volkow; *Molecular Psychiatry* volume 26, (2021)



Causes of increased **COVID-19 morbidity** and **death risk** among *people with SUD*:

- COVID significantly impacts on **lung function**:
 - Complicated by respiratory depressant effects of opioids, benzodiazepines
 - Complicated by effects of tobacco smoking and vaping
- Higher rates of **co-morbidities**
- Compromised **immune systems**
- **Living settings**
- **Social marginalization**
- **Vaccine uptake**

Making the Case: COVID-19 Impact in Rural Communities

- Despite all the publicity the anti-vaccination movement has received in recent years, social scientists who study vaccine refusal say **hardcore anti-vaxxers are a tiny group** and are probably not worth worrying about. For instance, only **2.5 percent of U.S. kindergartners** were exempted from all vaccines, according to 2019 CDC data.
- “We are more interested in targeting people who might be ambivalent to nudge them in the right direction,” says Rupali Limaye, a health communication scientist at the Johns Hopkins Bloomberg School of Public Health.

“Public health moves at the speed of trust”

Making the Case: COVID-19 Impact in Rural Communities

The Kaiser Family Foundation's *COVID-19 Vaccine Monitor* has been tracking Rural America's attitudes towards the pandemic and the vaccines into 2021

- 3 in 10 rural residents continue to say they will either “definitely not” get vaccinated or will only do so if required.



- Republicans, White Evangelical Christians, those without college degrees, and young adults 18-49

- 6 in 10 rural residents:

“it’s a personal choice”

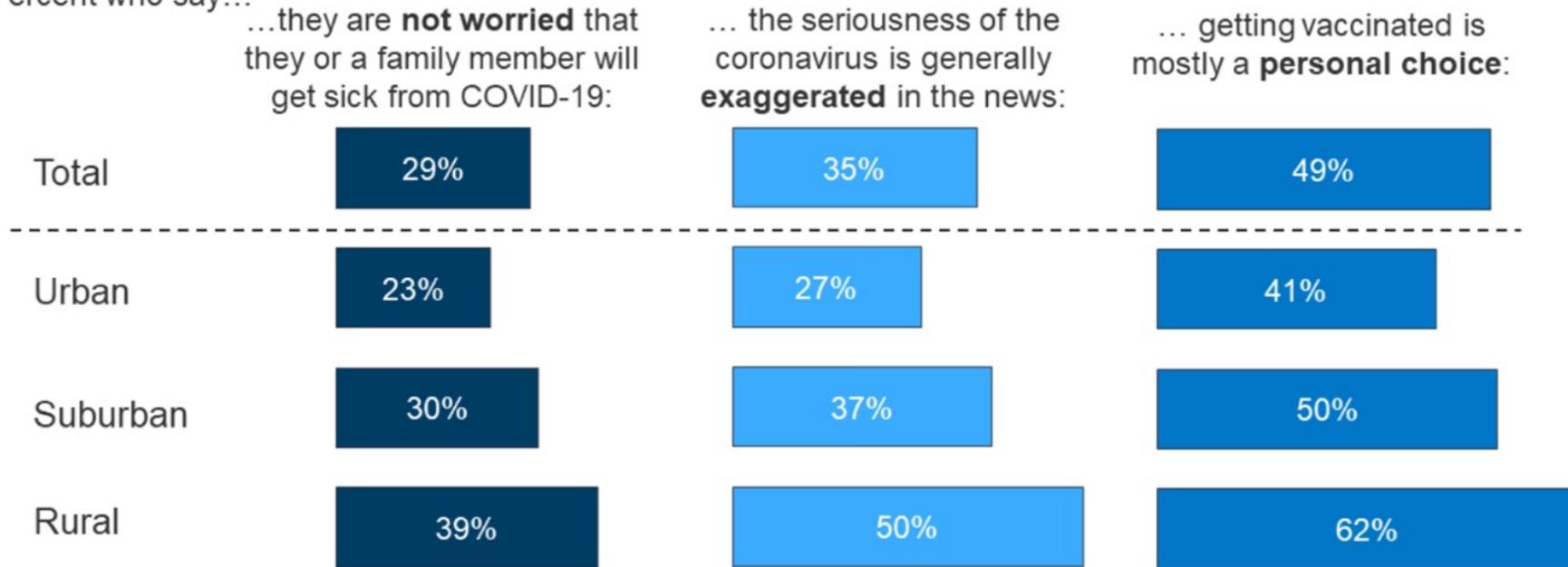


- Rural residents: **less likely** to say they are **worried about themselves** or their family members getting sick from coronavirus or that they **wear a mask** most of the time when they leave their house.

Making the Case: COVID-19 Impact in Rural Communities

Fewer Rural Residents Are Worried About Getting Sick; More Say Severity Is Exaggerated, Getting Vaccinated Is Personal Choice

Percent who say...



SOURCE: KFF COVID-19 Vaccine Monitor (KFF Health Tracking Poll, Nov. 30-Dec. 8, 2020). See topline for full question wording.

**KFF COVID-19
Vaccine Monitor**

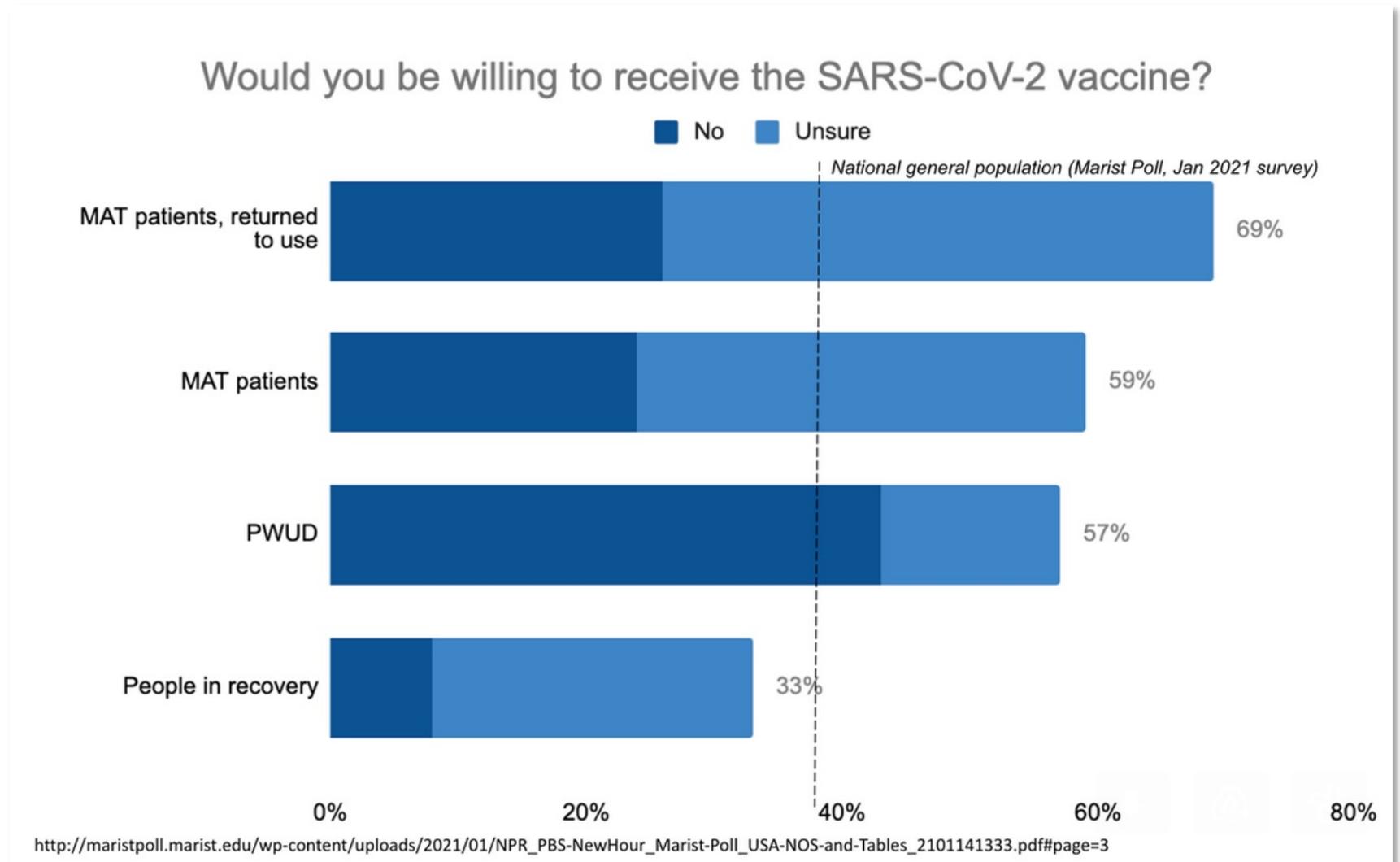


Making the Case: COVID-19 Impact in Rural Communities

A survey of people with **SUD in Central Vermont**
was conducted in early 2021
and *lined up with national trends*

Making the Case: COVID-19 Impact in Rural Communities

A survey of people with SUD in Central Vermont conducted in early 2021 lined up with national trends



Making the Case: COVID-19 Impact in Rural Communities

A survey of people with SUD in Central Vermont conducted in early 2021 lined up with national trends

If you won't or you're unsure, what are the reasons?

	VT SUD Populations	General Population (Carnegie Mellon University)	General Population (Kaiser Family Foundation)
1	Worried about potential side effects	Concerned about side effects	The long term effects of the vaccine are unknown
2	Want to wait and see if it is safe when others get it	Waiting to see if they're safe	You might experience serious side effects
3	Don't know how well it works	Other people need it more than they do	The vaccines are not as safe as they are said to be

<https://www.kff.org/report-section/kff-covid-19-vaccine-monitor-january-2021-vaccine-hesitancy/>
https://www.cmu.edu/delphi-web/surveys/CMU_Topline_Vaccine_Report_20210312.pdf

Making the Case: COVID-19 Impact in Rural Communities

What sources of information do you trust about the vaccine that help you make a decision?

	VT SUD Populations	General Population (Kaiser Family Foundation)
1	Healthcare provider	Healthcare provider
2	Counselor, therapist	Center for Disease Control and Prevention
3	Vermont Department of Health	State or local health department

A survey of people with SUD in Central Vermont conducted in early 2021 lined up with national trends

“Public health moves at the speed of trust”

Making the Case: COVID-19 Impact in Rural Communities

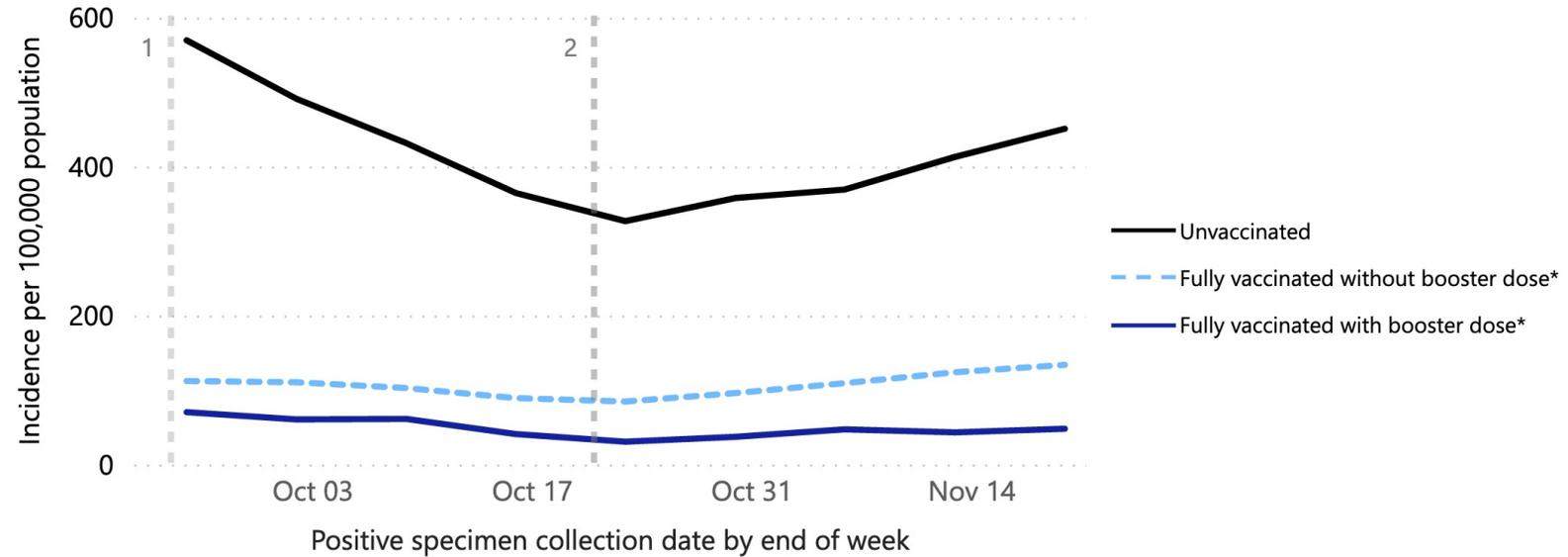
The results of this survey highlighted the need for **focused vaccination access** points for **people with SUD**. Health Departments in many states responded with mobile clinics and “pop-up” co-location at MAT clinics and SSP’s in 2021



Making the Case: COVID-19 Impact in Rural Communities

Rates of COVID-19 Cases by Vaccination Status and Booster Dose*

September 19 - November 20, 2021 (17 U.S. jurisdictions)



In October, unvaccinated persons had:

10X
Risk of Testing Positive for COVID-19

AND

20X
Risk of Dying from COVID-19

compared to fully vaccinated persons with additional or booster doses

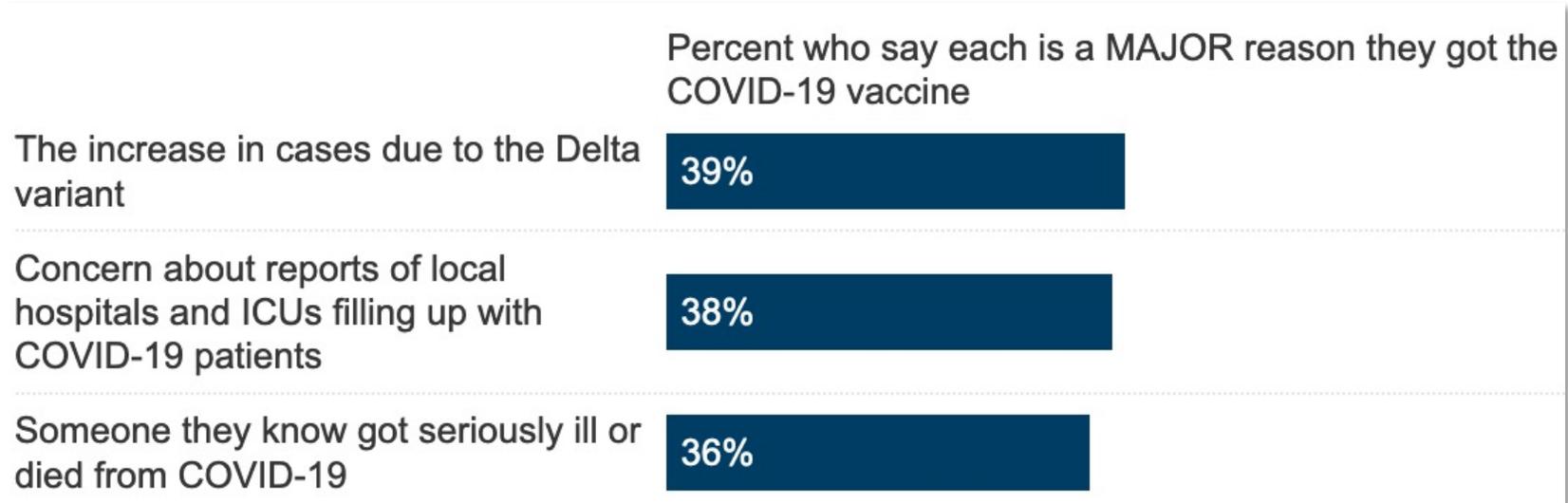
Making the Case: COVID-19 Impact in Rural Communities

An **overwhelming majority** of COVID-19 hospitalizations were among **unvaccinated** or **partially vaccinated** people.



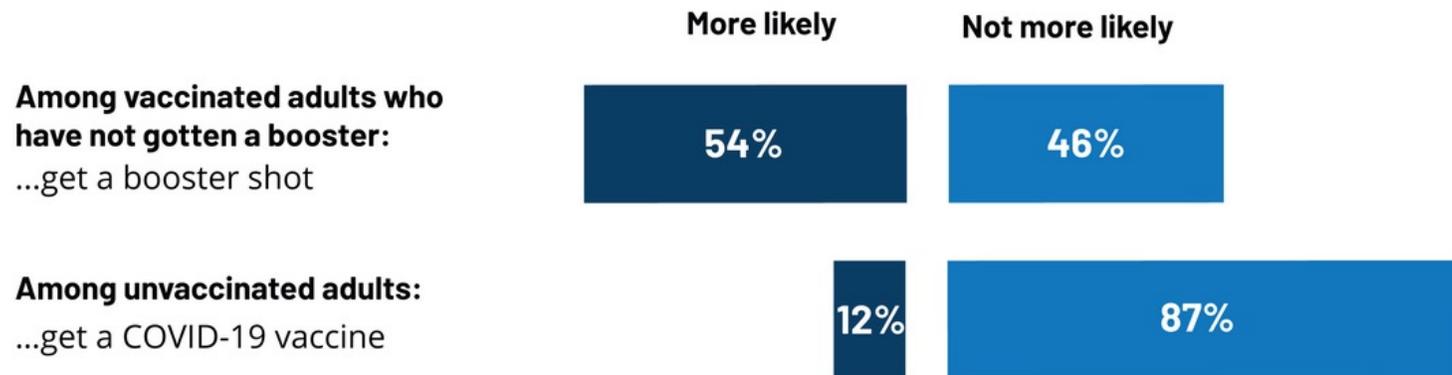
From June to September 2021, **85 percent of hospitalizations related to COVID-19** were among those **not fully vaccinated**

Delta Variant, Increased Hospitalizations, And Personal Connections To Those Who Got Ill Or Died Are Biggest Motivators For Recently Vaccinated



Worries about Omicron Variant Give Momentum to COVID-19 Booster Shots

Does news about the new omicron variant of the coronavirus make you more likely to..., or not?



Booster shots of the Pfizer and Modern vaccines:

- **Highly effective** against Omicron variant, which comprises **99% of all new cases**
- **90% effective** at keeping people *out of the hospital*
- **Less than half** the US population eligible for a vaccine booster has NOT received one

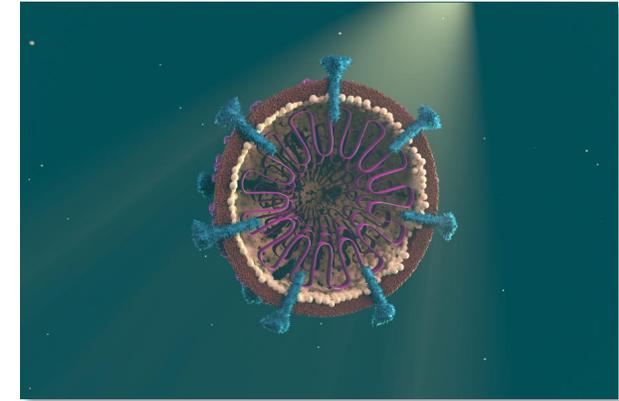
PART 2

Virus and vaccine basics

In our rural environment of clinical practice in SUD and vaccine hesitancy, let's understand the facts

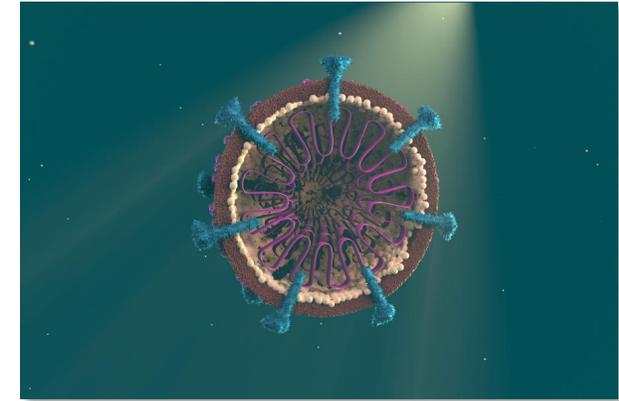


“Public health moves at the speed of trust”



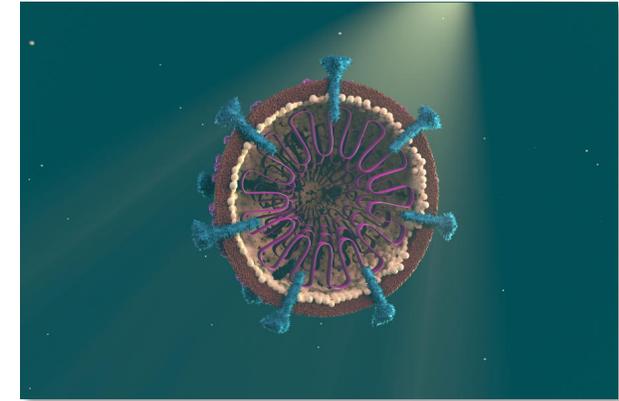
Quick Review about the Virus

- The COVID-19 virus as an infectious agent in the human body: a tiny capsule enclosing an even tinier bit of genetic information that allows it to replicate itself when it enters human cells.
- Primary mechanism of infection AND spread is through **respiratory secretions**.



About Variants of the Virus

- As the virus replicates in our bodies, errors are made and **variants** – or mutations – of the COVID virus develop
- Some weak, some are stronger– easier to spread, more lethal, or even both.
- Names from the Greek alphabet: Alpha, Beta, Gamma, Delta, Epsilon.....and now we're at “O”: Omicron.



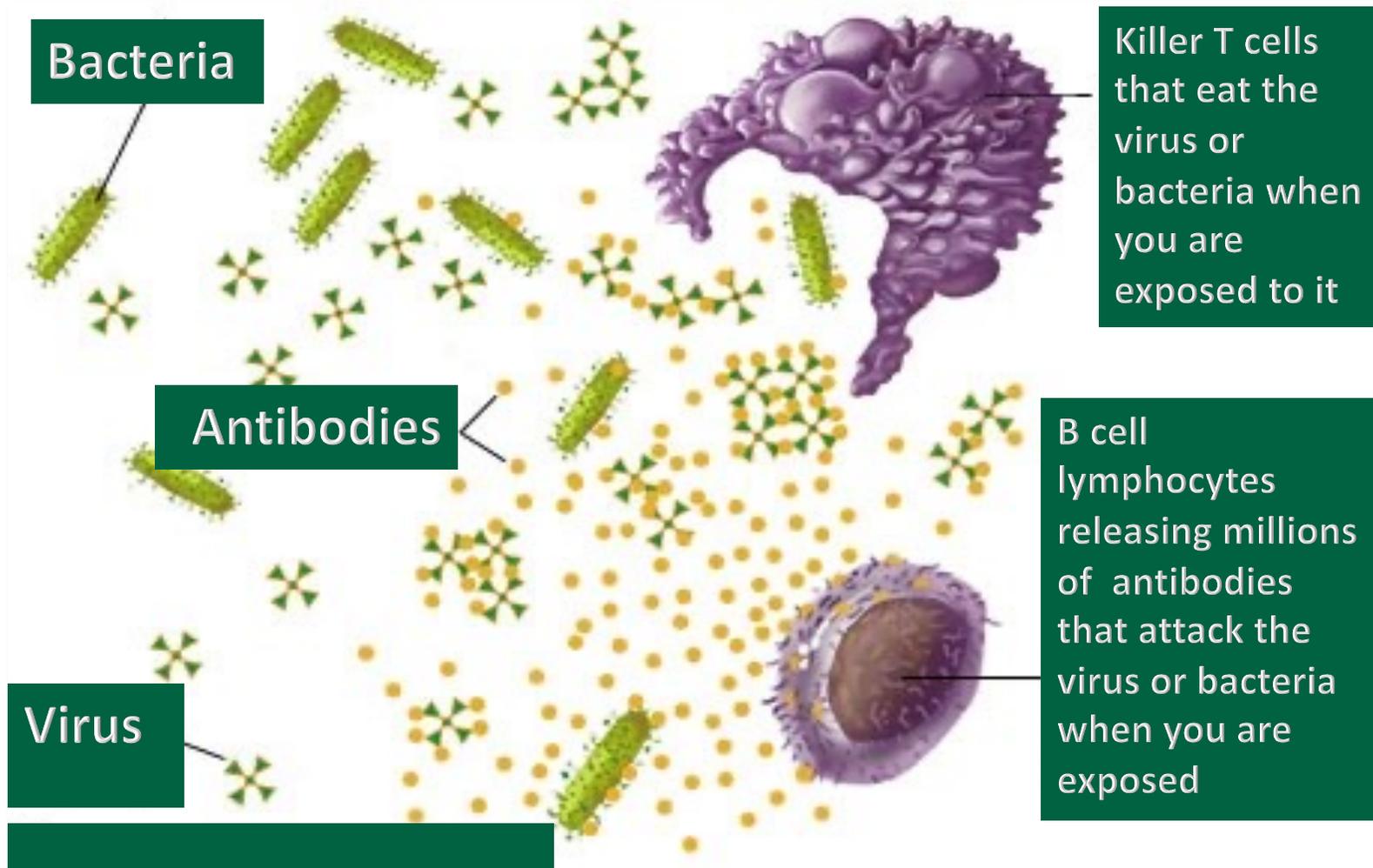
Variants and Containing the Pandemic

- Viral loads and likeliness of hosting the development of variants.
- It is these variants, like the very contagious **delta and omicron** variants, that are racing ahead the rates of vaccination needed
- The pandemic **will not be “contained”** until almost everyone has safely developed some immunity, and that is why **vaccines are critical**
- It has been suggested that the vaccination coverage rate for COVID-19 must reach ~70% to 85% of individuals in the U.S. to achieve “herd immunity” as a country

Principles of Vaccination

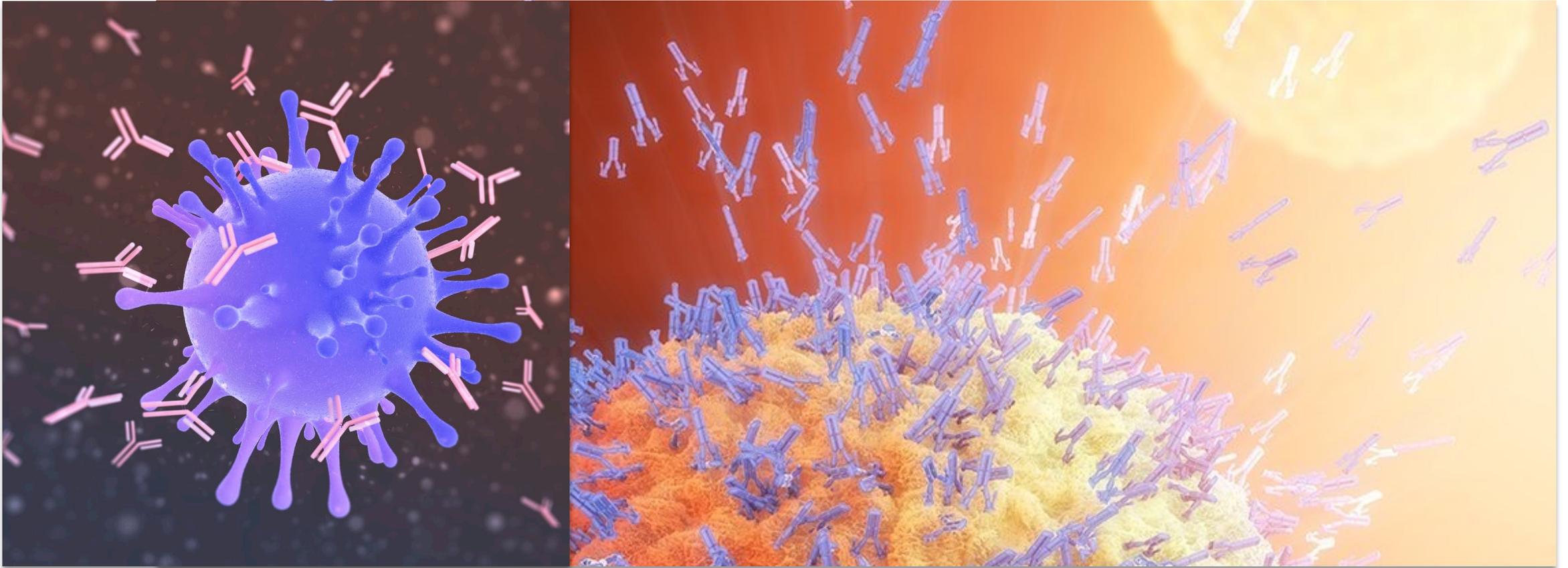
- Our **immune systems respond** during an infection by a virus or bacteria
- Diseases caused by viruses (like COVID-19) or bacteria can make you very sick, cause long term symptoms, or kill you first.
- **Vaccines are a way to prevent serious illness, long term disability, or death.**

Memory Cells and Antibodies Created by Vaccination



Antibodies attacking the COVID-19 virus.

Such illustrations have been mistakenly used and propagandized as “antennas that the vaccine contains for surveillance by the government”



Examples of diseases proven to be preventable with vaccines. How many have you, family, friends been vaccinated against?

Viruses:

- **Measles** Eradicated by vaccination in developed countries
- **Mumps**
- **Rubella (German measles)**
- **Varicella (chickenpox)**
- **Shingles**
- **Smallpox** Eradicated world-wide by vaccination
- **Rabies**
- **Polio** Eradicated by vaccination in developed countries
- **Human papilloma virus (HPV)**
- **Hepatitis A**
- **Hepatitis B**
- **Influenza A, B**
- **Yellow fever**

Bacteria:

- **Diphtheria**
- **Pertussis (whooping cough)**
- **Tetanus**
- **Meningococcus**
- **Hemophilus**
- **Pneumococcus**
- **Typhoid fever**

Vaccines: Then and Now

In the Past: live, weakened, or inactivated forms or fragments of a target virus were used in vaccines

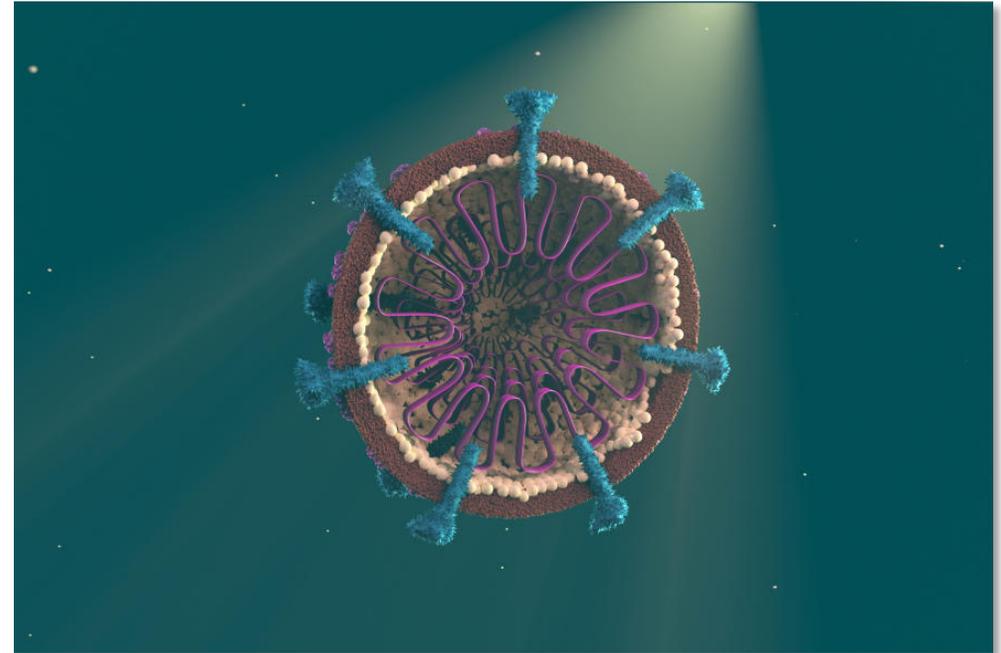
Today: *no actual virus or virus part is* introduced into your body.

The COVID-19 Vaccines

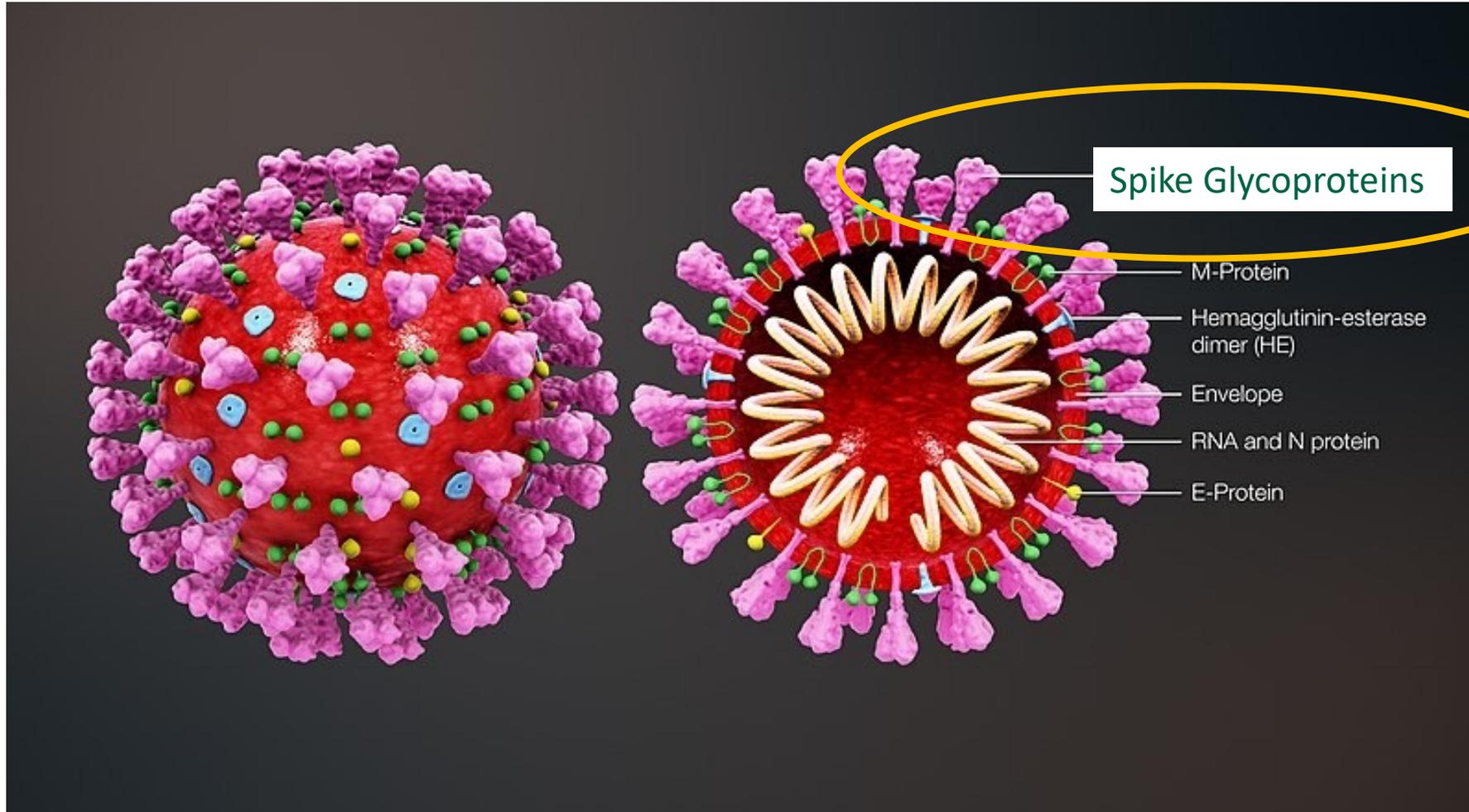
- The new COVID-19 vaccines are engineered genetic material [messenger RNA (mRNA) or a gene] that act as **instruction kits for your own body** to create bits of protein that mimic the COVID-19 virus.
- The vaccine is given in the upper arm muscle. It enters the muscle cells where it instructs the cell machinery to produce the harmless bits of protein that mimic the virus.
- Your body attacks these little bits and develops the “**memory bank**” of killer cells and antibody-producing cells which get re-activated when you are exposed to the COVID-19 virus in the future.
- The vaccine material is broken down into reusable molecules in your body within days of getting the shot.
- Vaccine material is **not** incorporated into your body’s DNA

COVID-19 (SARS-CoV-2) is a new variation of the coronavirus. SARS stands for severe acute respiratory syndrome. But this virus is no stranger!

- For almost **two decades** scientists have been working on groundbreaking vaccines against other coronaviruses
- The COVID-19 pandemic pushed this established field into high gear



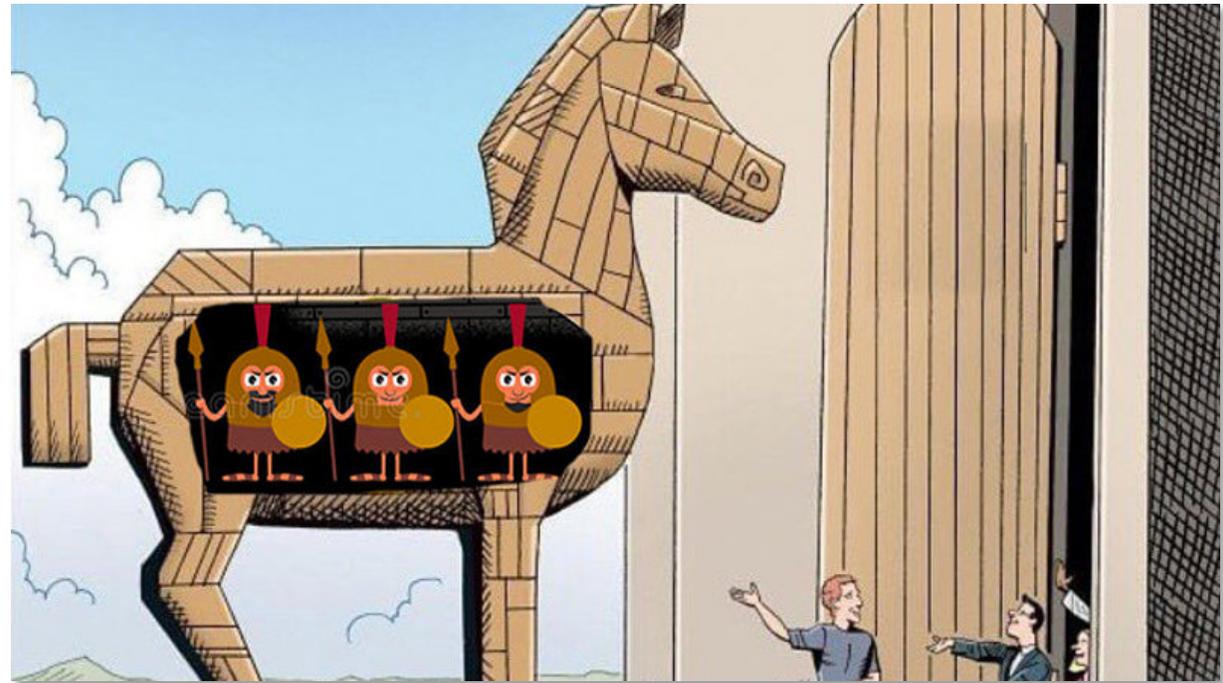
The COVID-19 coronavirus and the “spike protein” on its surface that was chosen by most scientists to be the vaccine’s target.



The COVID-19 vaccine as a “Trojan Horse”

HOW IT WORKS

1. RECEIVE
2. CREATE
3. LEARN
4. REMEMBER & ATTACK!
5. REINFORCE



Can't I skip the vaccine and get monoclonal antibody infusions if I get sick?

Good question. Monoclonal antibody therapy is made in a laboratory from B cells of people who have been infected with COVID-19. Scientists identify the antibodies being manufactured by those B cells and then produce copies (clones) of them to be used in the infusions, which then attack the virus.

The problem is, the B cell donors were infected by the COVID virus variant that was dominant at some point in the past and it's probably not the variant infecting you now.

For example: if the source donor was infected with the **Delta variant** in 2021, it's been shown to be *ineffective* against the **Omicron variant** that you may get in 2022.

How do people know when/where to get the vaccine?

- Everyone 5 years of age and older is **eligible for the vaccine** now in the US.
- **Boosters** are available for all people 12 years of age and older and for children 5-11 with certain conditions....and may be extended further. Vaccination plus a vaccine booster is the way to go in '22.
- Your state's Department of Health website has information on where to get vaccinated. Pharmacies are all offering them, as well as pop-up sites run by the Departments of Health.

www.healthvermont.gov/covid-19/vaccine/getting-covid-19-vaccine

What about the side effects from the vaccine?

- Over 10 billion vaccine doses have been given around the world and serious **side effects are very rare.**
- The CDC reports that among the 0.05% of recipients who reported adverse symptoms after vaccination, headaches were the most common. Another common side effect of any vaccine includes a sore arm.
- Experience with the COVID vaccines to date have demonstrated brief flu-like symptoms after the second vaccine and booster in some people: it is actually a sign that you've got a working immunity to the spike protein!
- **Symptoms like this are brief, manageable, and will go away.** You are on your way to getting immune.

What about severe allergic reactions from the vaccine?

- These cases are **extremely rare**. At risk are people who have had a true immediate allergic reaction to a vaccine or other injection therapy in the past; they should discuss this with their health care provider.
- Standard practice when you get the vaccine is to be observed for signs of a reaction for a period of time afterwards at the clinic site.
- While serious effects are rare, keeping perspective is crucial. When you look at thousands of people dying a day from the virus, you have to balance it.
- **The goal is to get immunity to a bad and deadly disease as soon as possible**

What about getting the vaccine if you're pregnant?

- At this point, getting the vaccine while pregnant is a **personal choice** that should be reviewed with a person's health care team.
- There is **no science-based reason to not get the vaccine**. The vaccine was tested in pregnant women. Pregnant women are currently choosing to get the vaccine rather than risk getting sick.

Kids over 5 are getting the vaccine now with minimal issues

Principles of vaccination: effectiveness and safety

- **Vaccines are safe.** The FDA will not license a vaccine unless it meets standards for *effectiveness* (how well the vaccine works) and *safety*.
- **Vaccines are studied.** To monitor the safety of vaccines after licensure, the FDA and the CDC created the *Vaccine Adverse Event Reporting System* (VAERS).
 - All doctors must report certain side effects of vaccines to VAERS.
 - People can also file reports with VAERS (800-822-7967). Other systems exist to further study vaccine safety concerns if they are identified in VAERS by FDA and CDC.

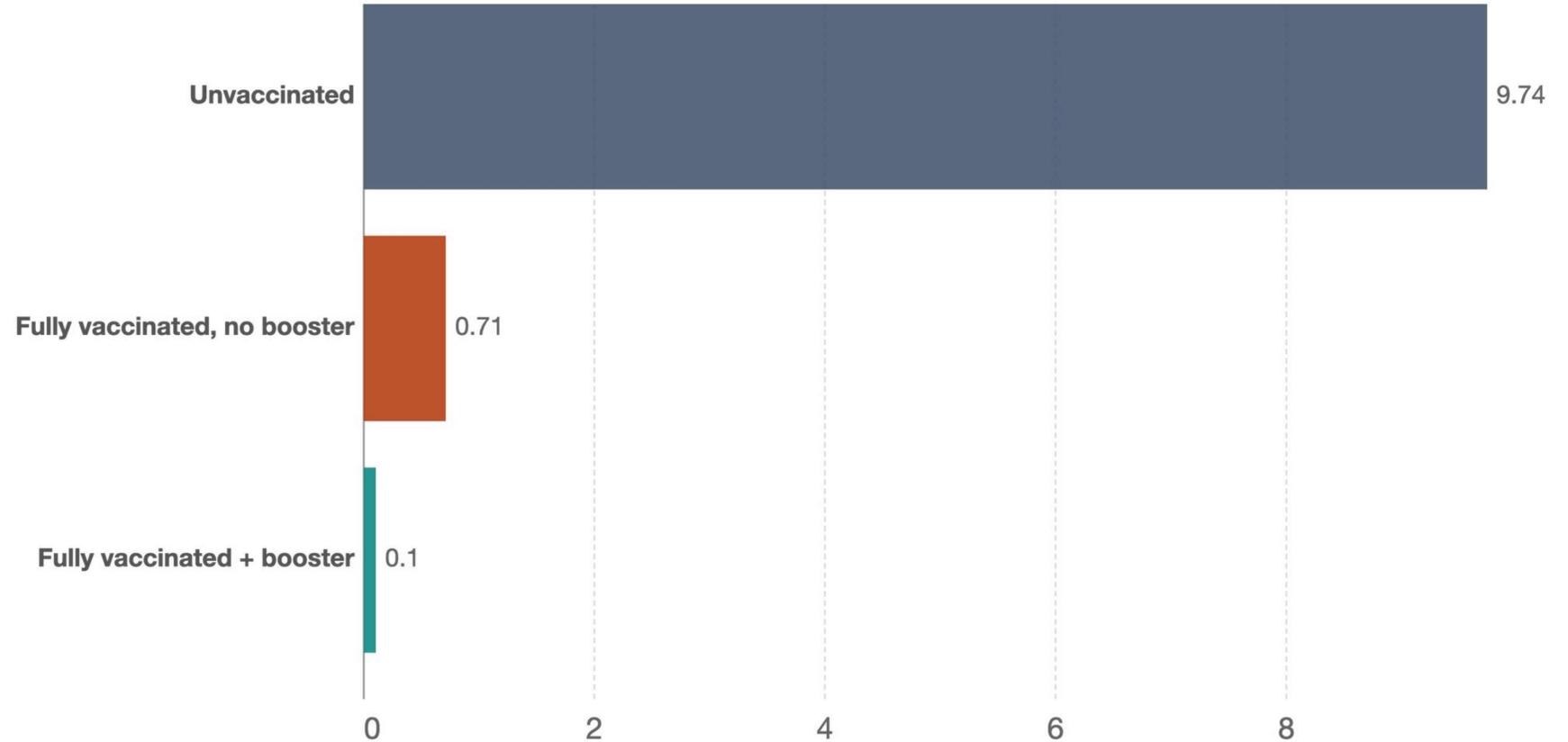
Principles of vaccination: effectiveness and safety

- The COVID-19 vaccines work. Billions have been administered around world.
- There may be mild side effects like achiness where the vaccination is given or headache, but they do not last long. And it is very rare for side effects to be serious.
- **People in rural areas and those with SUD** have a *significantly higher risk* of serious illness and death from COVID-19
- **Unvaccinated people** have a *significantly higher risk* of serious illness and death from COVID-19

Rural people and people with SUD tend to trust their health care teams for guidance on vaccination.

United States: COVID-19 weekly death rate by vaccination status, All ages, Dec 4, 2021

Death rates are calculated as the number of deaths in each group, divided by the total number of people in this group. This is given per 100,000 people.



Source: CDC COVID-19 Response, Epidemiology Task Force

OurWorldInData.org/coronavirus • CC BY

Note: Unvaccinated people have not received any dose. Partially-vaccinated people are excluded. Fully-vaccinated people have received all doses prescribed by the initial vaccination protocol. The mortality rate for the 'All ages' group is age-standardized to account for the different vaccination rates of older and younger people.

PART 3

Communication skills for rural providers talking with patients and clients who are Covid-19 vaccine-reluctant



Leveraging our roles as trusted sources of information about COVID-19 and vaccines for rural people with SUD

*Adapted from VitalTalk COVID-Ready
Communication Playbook*

<https://www.vitaltalk.org/guides/covid-19-communication-skills/>



Communication skills for the COVID vaccine

1. Start with open-ended questions that do not assume vaccine acceptance.

Principle: a soft start into a controversial topic enables engagement.

Communication skills for the COVID vaccine

Patient or client: “I’m not getting the COVID vaccine. No way they’re putting that in me”

Care team member: “What have you been hearing? I’d be interested in how you see the positives and negatives.”

Communication skills for the COVID vaccine

“I don’t know if I can trust everything I read about vaccines.”

“That is a sensible approach. Do you have questions that I could answer?”

Communication skills for the COVID vaccine

2. Acknowledge patient concerns without judging.

Principle: empathy reduces the perception that you approve or disapprove of someone.

Communication skills for the COVID vaccine

“I don’t really know what’s in these vaccines”

“Information is coming from so many places, so having questions is normal. Could you say more about your concern?”

Communication skills for the COVID vaccine

“They made it so fast how can I trust it?”

“You’re right, this seems to have happened so fast. You know, the people who developed the coronavirus vaccine have been working on coronavirus vaccines for almost 20 years. You could say we are really benefitting from all the prior work”

Communication skills for the COVID vaccine

3. Avoid criticizing the patient's information sources; cite your experience and/or point them to high quality sources.

Principle: instead of trying to argue against misinformation, provide high quality information from a positive frame.

Communication skills for the COVID vaccine

“I just don’t trust anything that the government is pushing.”

“Here’s what I can say. Our team that’s working with you looked at the results of the vaccine. This vaccine does really protect people from serious illness and death related to COVID. And we want you to have the benefit of it.”

Communication skills for the COVID vaccine

“You just never know what the side effects will be.”

“Yes, it is true that there have been some side effects. The most common side effects are headaches and some soreness at the injection site. The vaccines were tested on many tens of thousands of people and serious side effects were very rare. Over 500,000 doses have been safely given in Vermont. The vaccine that we have is proven to be safe, and I have taken it.”

Communication skills for the COVID vaccine

“I read on the internet that the risk of COVID is not that high.
Maybe I don’t need it”

“It is true that COVID can affect some people mildly and others severely. In other places hospitals are so full that they cannot do everything they would like to do for patients. Vermont is currently in another upswing in cases. There is a daily report from the Vermont Department of Health that shows the latest numbers that I can share with you.”

Communication skills for the COVID vaccine

4. Show awareness of your status as a messenger, especially for people from underserved groups.

Principle: who you are as a messenger matters, and your awareness of that contributes to your trustworthiness. Use examples of other messengers who resemble your patient.

Communication skills for the COVID vaccine

“I don’t know if I can trust everything I read about vaccines.”

“I realize that the medical system in the United States has not treated everyone fairly in the past. I recognize the injustices that have happened in the past. The rollout of the COVID vaccine was different: it was been tested in people of all different backgrounds, and it is proven to be safe for all. Your health team simply wants to see everyone get protected from this virus.”

Communication skills for the COVID vaccine

“I have heard that you can get COVID from the vaccine.”

“I heard someone say that too, but you know the new vaccines don’t use any parts of the actual COVID-19 virus. The vaccine teaches your own body to use your immune system to fight the virus. Did you see the nurse in the news getting the vaccine? She was trying to teach us all that it is safe.”

Communication skills for the COVID vaccine

5. Link vaccine acceptance to the patient's hopes and goals

Principle: showing how the vaccine is a stepping stone towards a future the patient wants can motivate them.

Knowing the patient or client, as you do, will help you emphasize their hopes and values in your reflections back when they hesitate

Communication skills for the COVID vaccine

“I’m just going to wait. It’s my body”

“Of course, this is your decision. I do think that the vaccine is a step towards a social life with fewer restrictions. You mentioned that you just can’t wait to visit friends and family again like normal. The vaccine will help you and all of us do that sooner.”

Communication skills for the COVID vaccine

“I want some other people to take it first.”

“You mentioned that you want your family to be safe and that they mean the world to you; on the other hand you're not interested in getting the vaccine right now to limit the risk to them. Tell me about that?”

[“Double sided” reflections are useful in motivational interactions]



Communication skills for the COVID vaccine

“I just don’t think I’m going to get COVID. I’m careful.”

“I’m glad you are being careful. That is still important. However, even people who have been careful can get COVID, and COVID can be fatal even for healthy people. And we are learning more and more about the long term effects of COVID on the heart, lungs, brain and other parts of the body.

I want you to be healthy for life. That’s why the vaccine is worth considering.”



Communication skills for the COVID vaccine

“I’m worried the needle will trigger me to want to inject.”

“That’s a real cause for you to be concerned. You know, the vaccine is given into the muscle of the upper arm and will cause some soreness for a day or so.

Would it be helpful to have a friend or loved one with you...someone who you can be talking with and feeling safe”



Communication skills for the COVID vaccine

“I’m worried I’ll have an allergic reaction.”

“Billions of people have been vaccinated now and records are being kept about reactions. They are extremely rare.

But yes, if you have had allergic reactions to vaccines or other injectable therapies in the past, you should talk to a health care provider about this.

Life threatening reactions are extremely rare; getting COVID is NOT rare and can cause death and long term health problems”



Communication skills for the COVID vaccine

“I don’t know how I’ll get it and how much does it cost?”

“We want to help you stay healthy in every way, so we can help you find a convenient place where the vaccine is available.”

“COVID-19 vaccines are provided to all at no cost”

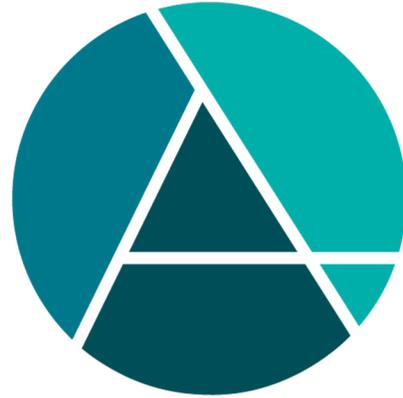


Communication skills for the COVID vaccine

Thanks for all the info, but I will pass on it this time around –

“OK I respect you are not ready just yet – is it ok if I ask you one more question about that decision. What would need to happen to have you change your mind and get the vaccine?”

No one is safe until everyone is safe



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