


# Vaccines in Rural Communities

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## Disclosures

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No industry COI



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## Credentials

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- 2012 MSPH, University of Missouri Department of Family & Community Medicine
- 2015 Missouri Advisory Council on Childhood Immunizations
- 2018 American Academy of Family Physicians Vaccine Science Fellow (how prescient of me!)
- 2019-current Co-Chair of MU Health Care COVID-19 and Influenza Vaccine Committees
- 2021 CME Chair for American Academy of Family Physicians—Vaccine Confidence

Above all, I am a Family Physician practicing full scope in the small mid-Missouri town of Fulton. I grew up in Callaway County and returned to practice there after completing a rural track pipeline program through the University of Missouri School of Medicine. I live and breathe this pandemic alongside you as you care for your communities.



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## Objectives

- Review current status of vaccination in Missouri and Illinois
- Explore vaccine confidence issues in general and in the context of an ongoing pandemic
- Understand effective communication strategies to address vaccine confidence in staff, patients, and our communities
- Identify interventions to improve vaccine uptake in rural areas

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## United States—COVID




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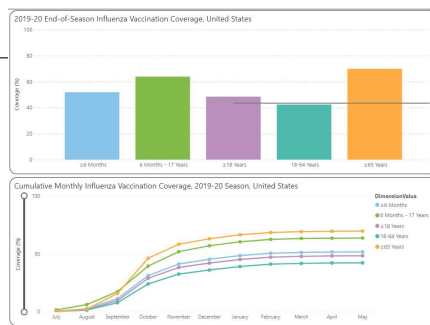
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## United States—Influenza

<https://www.cdc.gov/flu/flu-vaxview/dashboard/vaccination-dashboard.html>




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Illinois—  
Childhood  
Immunizations

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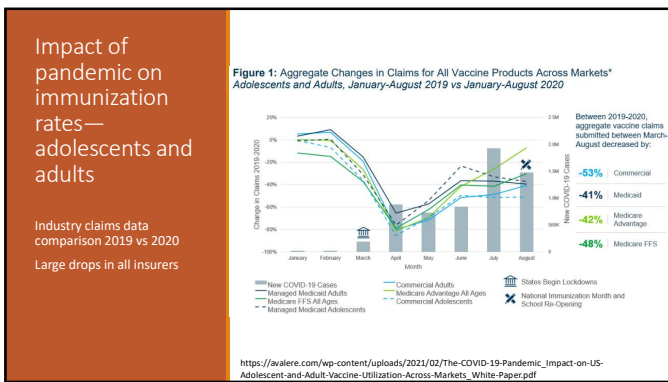
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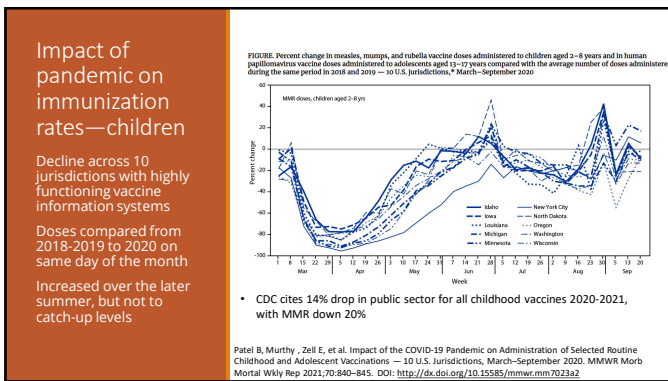
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### Non-vaccination...

...is a threat to gains in public health—after sanitation & clean water, vaccination has had the largest impact on mortality in everyday life!

Factors contributing to non-vaccination are complex:

- Health inequities, including differential access to vaccine information, trusted healthcare professionals, or to the vaccines themselves.
- Personal belief systems that value individual decision-making over group benefits
- Political climate has polarized ideas that previously were non-partisan
- Vaccines are a victim of their own success. Lower risk of serious infectious diseases reduces perceived importance of vaccination.

Epidemiol. Infect. 2020; 118: 1526. <https://doi.org/10.1017/S0950268820001088>

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### Vaccine Confidence

*Vaccine confidence is the trust that parents, patients, or providers have in recommended vaccines; providers who administer vaccines; and processes and policies that lead to vaccine development, licensure, manufacturing, and recommendations for use*



<https://www.hhs.gov/vaccines/featured-priorities/vaccine-confidence/index.html>

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### Vaccine Hesitancy



*Vaccine hesitancy is the delay in acceptance or refusal of vaccines despite availability of vaccine services. Vaccine hesitancy is complex and context specific, varying across time, place and vaccines*

<https://www.npr.org/sections/goatsandsoda/2021/06/22/1007145368/opinion-vaccine-hesitancy-in-the-u-s-is-a-peculiar-privilege>

Betsch, C, Schmid, P, Heinemeier, D et al. (2018) Beyond confidence: Development of a measure assessing the 5C psychological antecedents of vaccination. PLOS ONE 13(12): e0208601. <https://doi.org/10.1371/journal.pone.0208601>

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Moving toward Vaccine Acceptance

The "5 C's" model (adapted by the SAGE working group/WHO)

- Confidence
- Complacency
- Convenience
- Collective response
- Calculation

<https://www.cfp.ca/news/cfpnews/2021/02/23/02-23/media/image2.jpg>

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### Vaccine Hesitancy

Encompasses confidence, plus more:

- Worrier—I'm not sure the vaccine is safe; over-informed about risk
- Apathetic—It is inconvenient to get a shot and I don't feel immediately worried about it
- Late-Adopter—I will get one after I see proof
- Distrust—the government and health systems are corrupt; they have failed me in the past
- Truly Anti-Vaccine—I have beliefs counter to science or illogical risk-benefit assessments

World Health Organization named "Vaccine Hesitancy" as one of the 10 threats to global health in 2019.

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### Vaccine Hesitancy is a continuum

Continuum of Vaccine Acceptance

Image from: <https://www.cfp.ca/news/cfpnews/2021/02/23/02-23/media/image2.jpg>

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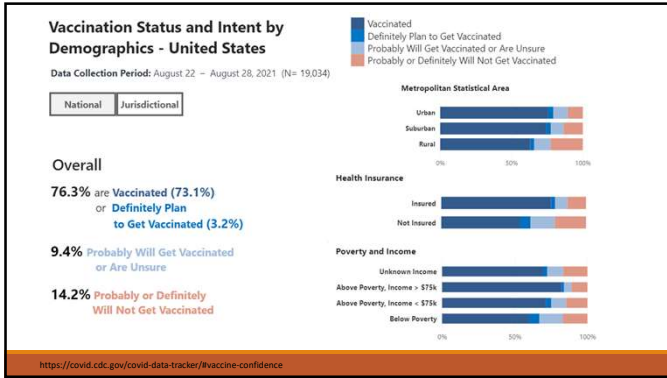
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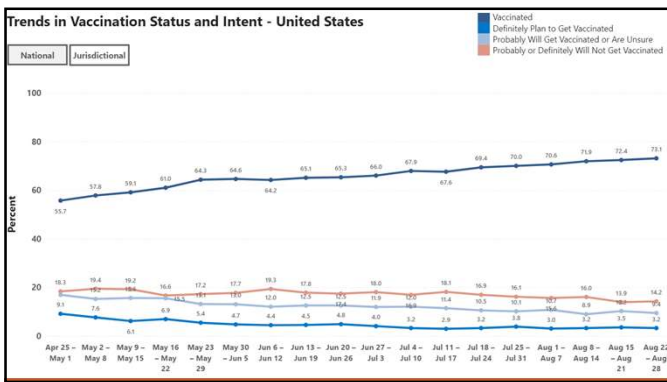
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## Vaccine hesitancy in rural communities

Rural patients are different! We know that already 😊

My experience:

- Many patients simply don't want to be told what to do
- Some believe in bizarre conspiracies and endorse misinformation
- Identity as "not that kind of person," developed attitude before COVID hit rural communities hardest—patients were set against the vaccine before it even existed
- Hyper-focused on "developed too fast"
- The government is out to take some sort of rights away from them...whatever that could mean
- COVID vaccine is different than other vaccines—I don't see a lot of resistance to routine childhood vaccinations in my practice

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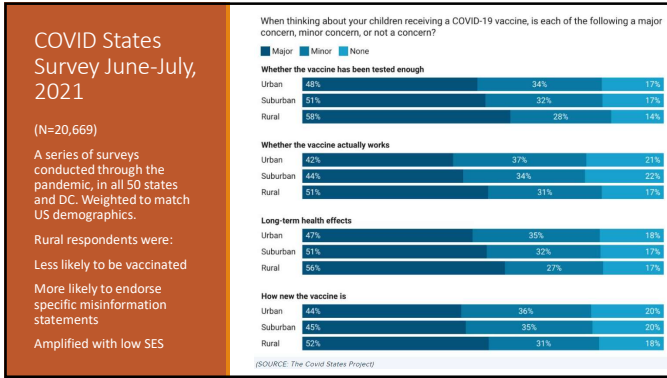
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## Communicating to Healthcare Workers

Vaccines are part of how we keep each other safe

- Commitment to caring for patients. First do no harm!
- Workforce issues—we're tired, understaffed, and running low on reserves...vaccines help keep us all at work (safely)

Healthcare is different

- Expectation that clinics and hospitals are safe for patients who need care
- Tradition of mandating vaccines in the past, including flu, Hep B, MMR, varicella
- We committed to serving others

We are part of something bigger

- Together, we can do hard things!
- Role modeling the safe way out of the pandemic
- Leadership & system-level support for vaccination

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## Communicating to Healthcare Workers

International Scoping Review published April 2021 included 35 studies (N=76,000)

- Included range of healthcare workers
- Average "hesitant" rate 22.5%
- Concerns about vaccine safety #1, followed by efficacy and side effects
- Older age, male, professional degree associated with vaccination
- Younger, lower income workers more likely to be unvaccinated

Mandates do not change hesitancy, although they do change vaccination rates!

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## Communicating to the Community

### Six Ways to Help Build COVID-19 Vaccine Confidence

1. Encourage leaders in your family, community, or organizations to be vaccine champions.
2. Have discussions with your friends and family about vaccination to understand their perspective and encourage their decision to vaccinate.
3. Share messages that promote action through multiple trusted channels.
4. Help educate people about COVID-19 vaccines, including how they were developed and their intense safety monitoring, and how you can talk to others about the vaccines.
5. Learn more about finding credible vaccine information and learn how to respond to misinformation you encounter.
6. Make your decision to get vaccinated visible and celebrate it!



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## Communicating to the Community

Who are “trusted leaders” and what are “trusted channels?”

You know that best for your community and organization!

As Family Physicians, we may be both of these things! We also live where we serve so have insight into how to reach vulnerable populations.

- School board members
- School nurses, principals, coaches
- Church leaders
- Prominent business owners, Chamber of Commerce
- Call together other healthcare organizations

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## Communicating to the Community

Messages about cohesion, working together, and returning to normal

Economics of getting vaccinated

Emphasize personal stories of those who feel comfortable sharing—diversify the images, target specific populations

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Use These Words MORE:	Use These Words LESS:
The benefits of taking it	The consequences of not taking it
Getting the vaccine will keep you safe	Getting the vaccine is the right thing to do
A return to normal	Predictability/certainty
Your family	Your community
Medical experts	Scientists/health experts
Research	Discover/create/invent
Medical researchers	Drug companies
Damage from lockdowns	Inability to travel easily and safety
A transparent, rigorous process	The dollars spent, number of participants
Safety	Security
Pharmaceutical companies	Drug companies
Advanced/groundbreaking	Historic
Vaccination	Injection/inoculation
America's leading experts	The world's leading experts
Skeptical/concerned about the vaccine	Misled/confused about the vaccine

## Communicating to Patients

Start with a STRONG recommendation

- Actually say out loud "I strongly recommend you choose to get the COVID vaccine"

Now, pull out the Motivational Interviewing techniques

- I'd like to understand more about what would make you say "no"
- Can you help me understand why you are concerned about this vaccine?
- I hear you saying you are worried about how quickly it was developed, is there anything else?
- What type of information do you want to know about side effects?
- What would it take for you to move from not getting the shot to getting a vaccine?

We have a superpower in Family Medicine—our rapport and relationship with our patients!

- I'm here for you, just like when I take care of your \_\_\_\_, I want to help keep you and your family safe
- We know that vaccinated people are simply less likely to get sick or die, and that is why I am focused so much on your decision today

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## Communicating to Patients

Use stories to convey your concerns about the person in front of you, as well as the success of vaccination

<https://www.npr.org/templates/story/story.php?storyId=1021397369&ft=nprml&f=1021397369>

A St. Louis public radio piece about vaccine hesitancy in rural Missouri, quote from a mom:

"The ER doctor let me know, in no uncertain terms, that had my daughter been vaccinated, she wouldn't be panting with oxygen to keep her oxygen saturation above 90% and her [heart] rates below 130 [beats per minute]." [Hall wrote in a recent Facebook post](#). "Suddenly, every concern my ill/misinformed mind had about vaccination was replaced with if she had a pulmonary embolism and what major city we would have to travel to."

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## Communicating about vaccines—addressing specific misinformation

Vaccines are ineffective

- Vaccines are the reason for Delta/variant emergence
- Vaccines make it easier to spread COVID
- Vaccines are *making* people sicker if they get COVID
- There is no reason to get vaccinated since breakthrough infections are possible

What to do:

- Disseminate messages about what vaccine effectiveness means, the benefits of vaccination, and that the best way to protect yourself from severe illness, hospitalization, and death from COVID-19 is by getting vaccinated.
- Counter the perception that vaccinated people are at the same risk as unvaccinated—use images/graphs
- Share messages from vaccinated leaders or healthcare workers who had a breakthrough infection and are grateful they didn't get sicker

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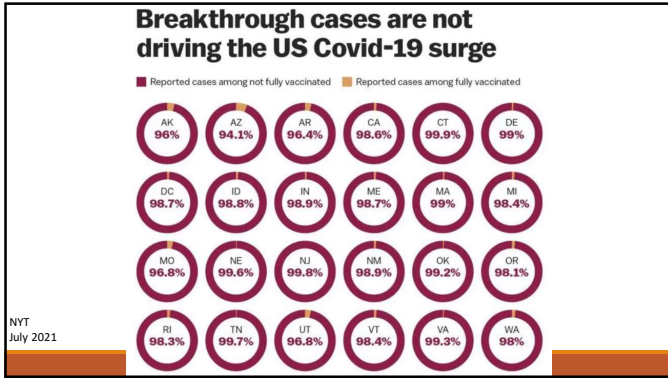
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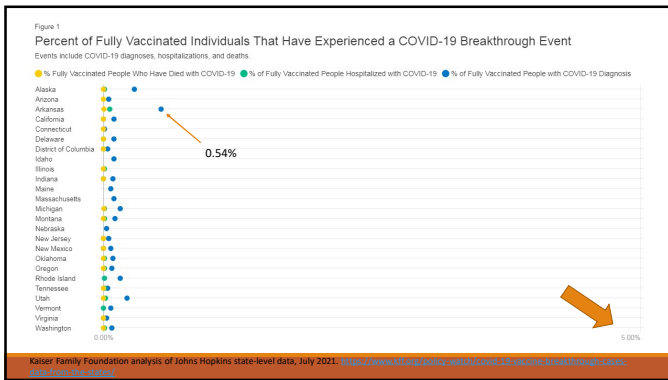
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### Communicating about vaccines— addressing specific misinformation

Vaccine mandates infringe upon peoples' rights

- Employer mandates/required testing
- Vaccine "passports"
- Claims of HIPAA violations
- Value personal choice over safety of group in public settings

What to do:

- Emphasize that getting vaccinated slows down transmission (or masking, or quarantine/time lost at work)
- Work with local policy-makers to promote employer and design quarantine guidelines for schools and businesses
- Promote use of required vaccination and/or testing at events in crowds

**NO SHIRT  
NO SHOES  
NO VAX  
NO SERVICE**

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## Communicating about vaccines— addressing specific misinformation

### Vaccines affect fertility

- Pregnant people were excluded from trials because of known harms/miscarriages
- "Long term" effect of vaccine on fertility
- Male fertility affected

### What to do:

- Spread branded messages from groups with authority on pregnancy (ACOG, AAFP, SMFM, etc) promoting vaccination during pregnancy
- Strongly recommend vaccination at all contacts with postpartum, pregnant or trying-to-conceive patients
- Engage community members to share stories of successful vaccination or experience with COVID illness during pregnancy

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## Communicating about vaccines— addressing specific misinformation

### Ivermectin

- I saw on the internet that this is an effective treatment
- Doctors are hiding the truth about ivermectin
- If it is safe to take it for other conditions, why won't you prescribe it to me for COVID?

### What to do:

- It is tempting to buy into the "kitchen sink" approach for COVID...outpatients are not the place to do that!
- Studies of ivermectin are not only flawed, but some of them are also false/plagiarized
- Emphasize safety and not using veterinary formulations or internet-purchases
- Emphasize known safety and efficacy of vaccine for prevention >> all treatments we have

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## Communicating about vaccines

### Tools and support:

National Rural Health Association

<https://www.ruralhealthweb.org/programs/covid-19-pandemic/covid-19-vaccine-resources>

CDC "Vaccinate with Confidence" Toolkit

<https://www.cdc.gov/vaccines/covid-19/vaccinate-with-confidence.html>

AAFP Vaccine resources (not COVID specific)

<https://www.aafp.org/family-physician/patient-care/prevention-wellness/immunizations-vaccines.html>

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QUESTIONS?

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Thank you for all you do to vaccinate our communities!

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