



About This Session

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Panelists



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Agenda

WELCOME

VACCINE HESITANCY, AN INTRODUCTION

COVID-19 VACCINE
MISINFORMATION AND
NARRATIVES

COVID-19 VACCINE UPTAKE AND DEMOGRAPHIC DIFFERENCES

DISCUSSING VACCINE HESITANCY
QUESTIONS

Vaccine Hesitancy, An Introduction

Professor Brian Poole





Vaccine hesitancy

- "Delay in acceptance or refusal of vaccines"
- Applies to all vaccines, not just COVID-19
- Very old phenomenon





Examples of vaccine hesitancy

"Vaccines have terrible side effects including autism or loss of fertility"

"My immune system can handle these infections. I don't need vaccines"

"Vaccines are good, but my kids don't need to be vaccinated against everything. I had this disease and it was fine"

"Vaccines are good, but have you seen how many they expect kids to get at once? I think we should spread them out."





What is NOT vaccine hesitancy

- Legitimate medical reasons
 - Immune deficiency
 - Allergies
 - Certain other medical conditions
- Religious beliefs
 - Most major religions are provaccine

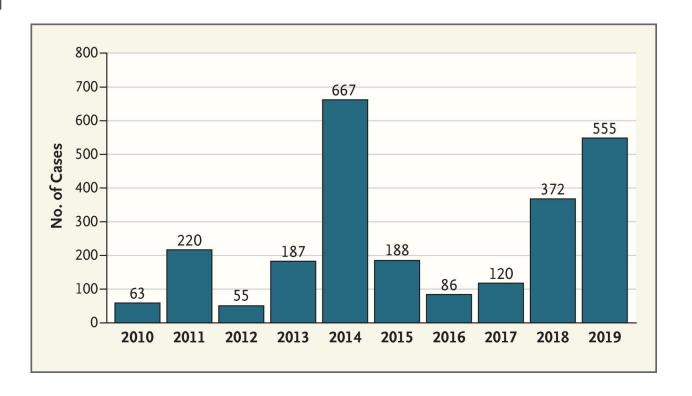
 These people are usually MOST at risk for diseases





Measles as an example

- Measles was eliminated from the US in 2000
- Increasing vaccine hesitancy reduced protection
- Almost lost eliminated status in 2019
- "Herd Immunity" and local vaccination rates



Covid-19 vaccine misinformation & narratives

Kolina Koltai, PhD - Postdoctoral Fellow

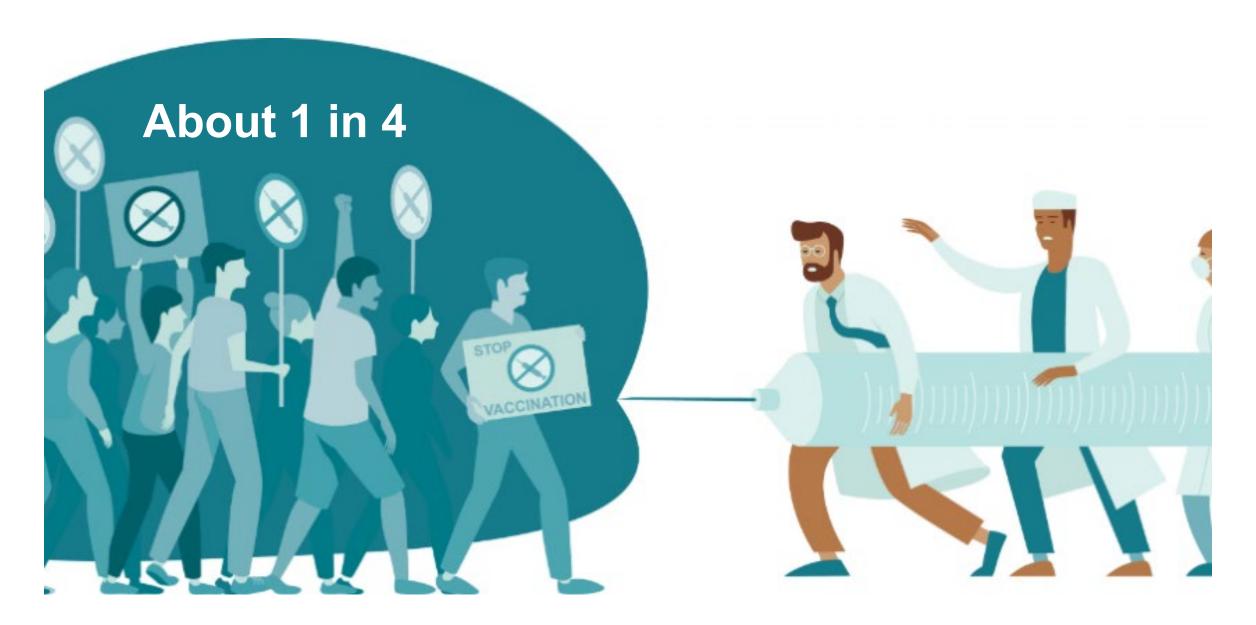




Overview

- > Vaccine hesitancy overview
- > What does vaccine misinformation look like
- > Vaccine misinfo on social media
- > Moving forward





NPR - 1 in 4 - 04/07/21

Monmouth University - 1 in 5 -



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Vaccine Acceptance Continuum

Vaccine Hesitancy

Refuse all vaccines

Refuse but unsure

Accept some, delay, and refuse some

Accept but unsure Accept all vaccines

"I don't trust vaccines at all"

"I'm not sure this is the right choice. I rather not risk

"I don't know. Maybe wait and see" Source: (Violette & Pullagura, 2019)

"Ok, I guess I'll vaccinate"

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"I'm ready"

"Anti-vax" movement pre-COVID

- > Anti-vaccine/vaccine hesitancy is not new
 - Started along with the first vaccine in 1796
- > Growing movement since 1998 retracted paper
- > Major growth after measles outbreak in 2015 in CA
 - Removed all exemptions (except medical)
- > WHO: vaccine hesitancy a top threat to health in 2019
- > 2019: Outbreaks of measles both in US & worldwide



Vaccine Misinformation in COVID era

What's the same

- Anti-vaccine narratives are repurposed from classic narratives
 - MMR vaccine causes autism COVID vaccine causes miscarriages
 - Measles isn't a big deal COVID isn't a big deal
 - "Bill gates is part of a depopulation agenda"

What's different

- Don't have the same years of research (e.g. MMR vs COVID)
- 'Pro-vaccine' people are now 'vaccine hesitant'
- > Vaccines are a consistent topic
- Not just parents making choice

COVID-19 Vaccine Hesitant Narratives



Narratives versus factors

There are a lot of reasons and factors that can affect *why* someone is vaccine hesitant (e.g., personal experience, trust in government, exposure to misinformation, etc.)

Narratives are the overarching ideologies of why you should doubt vaccines

Incidents or examples may vary - but relate to larger narrative

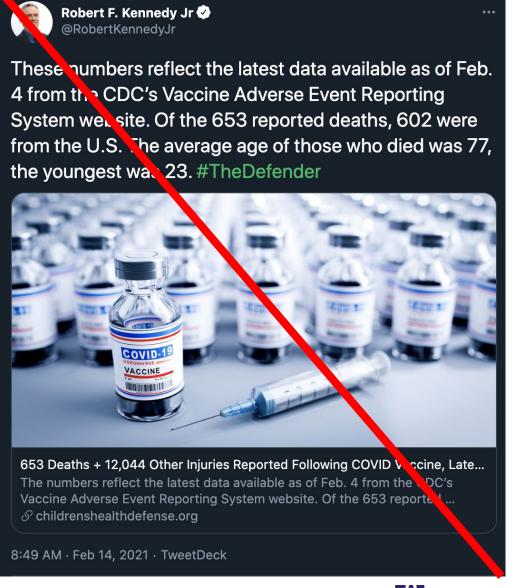
Not everything is "false"



Hesitancy Narratives (1/7)

Safety

- > Posts concerning the safety of vaccines
- May see use of "data" or personal stories
- > Can include posts about the ingredients in vaccines



Hesitancy Narratives (1/7)

The New York Times

The New Hork Times

LIVE See all Coronavirus Updates >

The C.D.C. confirms more cases of a rare blood clot disorder linked to the J.&J. vaccine.

Tracking Viral Misinformation: Latest Updates >

No, other people's Covid vaccines can't disrupt your menstrual cycle.



Hesitancy Narratives (2/7)

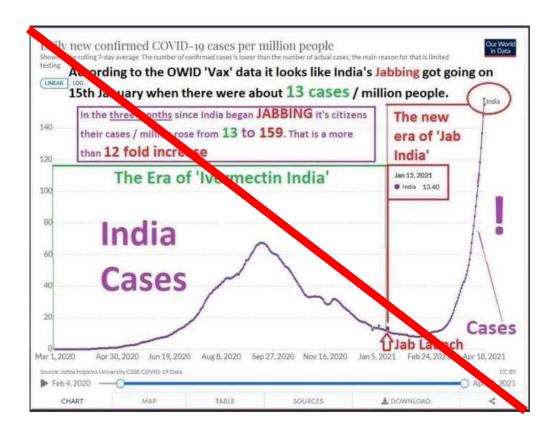
Necessity & efficacy

- Posts concerning the efficacy& necessity of vaccines
- "Vaccines don't protect against covid"
- "Risk of vaccine is higher than risk of covid"





Hesitancy Narratives (2/7)



San Francisco Chronicle

California reveals data on outcomes for breakthrough cases after COVID vaccinations

By Erin Allday · 1 hr ago

⚠ Like

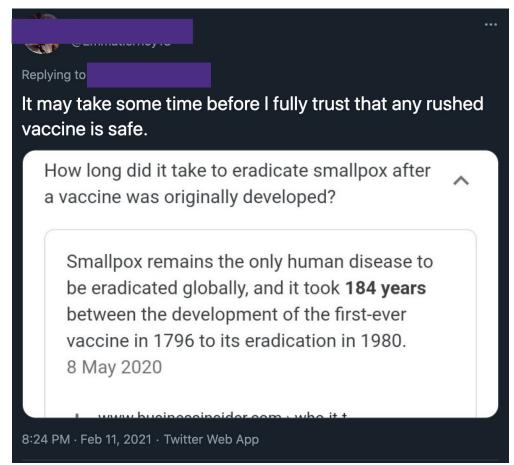
California has reported 3,620 so-called breakthrough cases of coronavirus infections in people who were fully vaccinated since Jan. 1, state public health officials said Wednesday. Of those cases, at least 150 people were hospitalized and at least 20 died.



Hesitancy Narratives (3/7)

Development & distribution

- > Posts related vaccine development
- Includes posts concerned with the testing, who can get vaccinated, and where





Hesitancy Narratives (3/7)

Remember that time our government helped black people first— to get treatment for "bad blood", except they weren't really treating those black people, but actually just watching them die slowly from syphillis for research purposes.

Tuskegee experiment.

Fun times.

4:21 PM · 4/6/21 · Twitter for iPhone

I'm not anti-vax, i'm just anti stupidity, this vaccine is the first of the kind, alters your DNA, has completely bypassed the animal testing phase, & only taken 8 months to develop, when regular vacines take between 5 to 20 years to be deemed safe & effective.

No vacyine for HIV after 40 years of research. No vaccine for the common cold. No vaccine for cancer after 100 years of research. Nothing. A virus mysteriously appears and within a year a vaccine is created and we are all expected to take it. No thanks

12:42 PM · Mar 3, 2021 · Twitter Web App

Hesitancy Narratives (4/7)

Political & economic

- Posts related to the political and economic motives of people involved with vaccines
- Bill Gates, Donald Trump,
 Pharmaceutical companies,
 WHO, CDC

Coincidentally. The Chinese biological laboratory in Wuhan is owned by Glaxosmithkline who owns Pfizer the one who produces the vaccine for the virus that, allegedly staked in the biological laboratory in Wuhan, which was funded by Dr. Fauci who is promoting the vaccine.

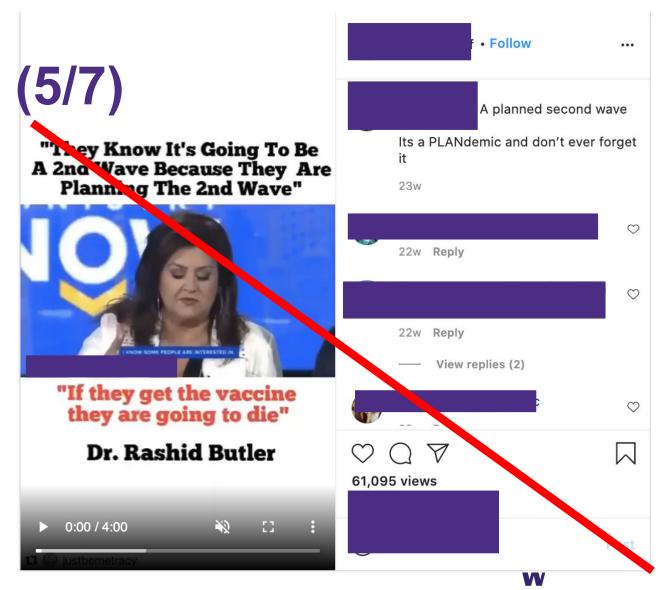


See the latest COVID-19 information on Twitter

Hesitancy Narratives (5/7)

Conspiracy theories

Posts containing wellestablished or novel conspiracy theories involving vaccines.



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Heistancy Narratives (6/7)

Liberty and freedom

- Posts pertaining to concerns about how vaccines may affect civil liberties and personal freedom.
- Included "mandates" and "vaccine passports"

FORCED TO CHOOSE BETWEEN A VACCINE AND YOUR JOB? Your medical freedom. Our mission. TEXT 4FREEDOM TO



Hesitancy Narratives (7/7)

Morality and religion

- Posts containing moral and religious concerns around vaccines
- > "Mark of the beast"
- * "Aborted fetal DNA in vaccines"



You CANNOT have FAITH in God and still take this vaccine. If you take the vaccine that means YOU DO NOT HAVE FAITH IN THE MOST HIGH SIMPLE.



Hesitancy Narratives (7/7)



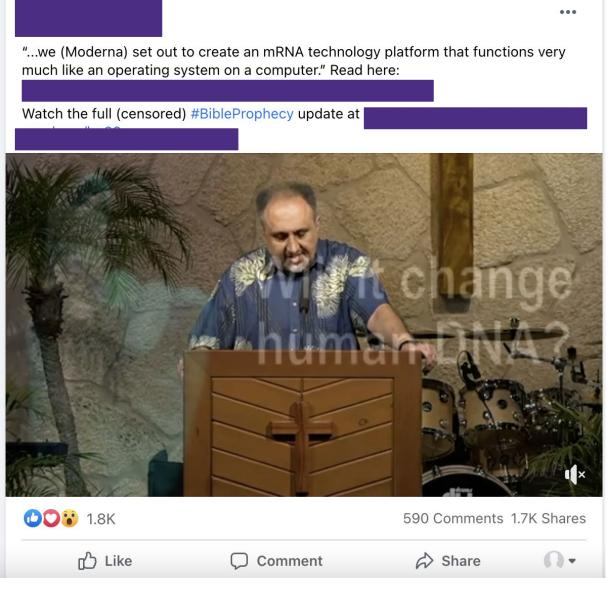




Content can overlap

Narratives overlap

- > Ex. Religious leader promoting the idea that vaccine will change your DNA
- > Content can target different communities





Why does vaccine misinfo spread?

- It's designed to foster an emotional response!
 - We don't share boring articles
- > It's a lot of work to do fact checking
 - It can be difficult to tell what is true or false
- > There is often a lot that is unknown (uncertainty)
 - Think about disasters (like fires) not just COVID
- > There are "bad actors" out there
 - These are grifters/scams, people looking for "clicks", foreign & domestic actors
- > Preference for info that align with our views



Misinformation via science

- > Misinformation can even look trustworthy/scientific
 - Armchair epidemiologists and false experts
 - Healthcare workers (Drs) can be hesitant! (Rising numbers)
 - Graphs and data manipulation
- Misinformation from a Dr. can be the most difficult to address
- Important to remember that science is about consensus: not the rogue scientist

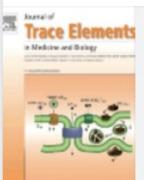
DR. SIMONE GOLD - THE TRUTH ABOUT THE CV19 VACCINE

WATCH



Please tell me my understanding of this study below is wrong.

New study that demonstrates a baby given all CDC scheduled vaccines is 70% over the FDA aluminum safe limit over the first two years of life. Over the first two years of life, a baby spends 70% of it's time over the safe aluminum limit. Somebody please tell me my understanding of this study is wrong.

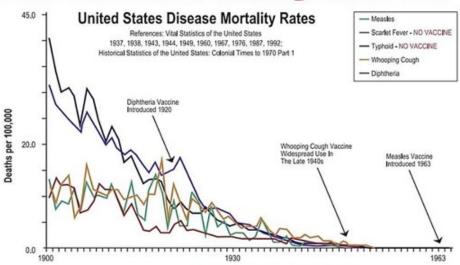


SCIENCEDIRECT.COM

Acute exposure and chronic retention of aluminum in three vaccine schedules and effects of genetic and environmental variation

Like the mechanisms of action as adjuvants, the pharmacodynamics of injected forms of aluminum commonly used in vaccines are not well-characterized, p...

Did Vaccines Really Save Us?



Contrary to popular belief, infectious disease deaths DECREASED 85-90%* BEFORE VACCINES were introduced in the U.S. Diseases WITHOUT VACCINES - including Scarlet Fever, Tuberculosis, Cholera and Typhoid -- followed the SAME trend.

*Trends in the Health of Americans during the 20th Century, Pediatrics





More than just social media

- Social media and fake news sites are not the only contributor
- > Mainstream media & journalists can have poor science communication
- > Anyone can contribute to misinfo spread
- It is a complex, multi-faceted issue that cannot be solved with one, easy solution
- > Can't undo societal factors like trust in pharmaceutical companies or trust in the medical system (especially for communities of color)
- > It is not just an information issue



Thank you

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COVID-19 Vaccine Uptake and Demographic Differences

Nambi Ndugga



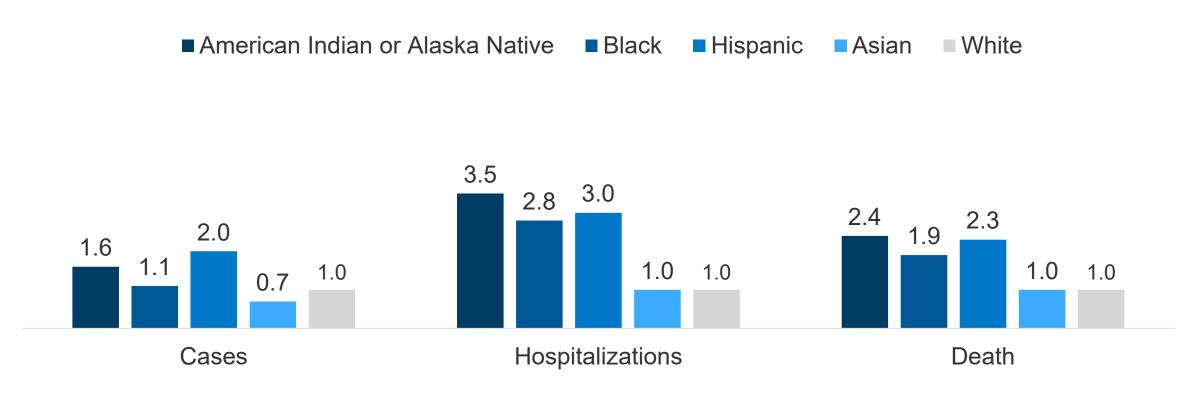
Health disparities are driven by social and economic inequities.

Economic Stability	Neighborhood and Physical Environment	Education	Food	Community, Safety, & Social Context	Health Care System		
Racism and Discrimination							
Employment	Housing	Literacy	Food security	Social integration	Health coverage		
Income Expenses Debt Medical bills Support	Transportation Parks Playgrounds Walkability Zip code/ geography	Language Early childhood education Vocational training Higher education	Access to healthy options	Support systems Community engagement Stress Exposure to violence/trauma Policing/justice policy	Provider & pharmacy availability Access to linguistically and culturally appropriate & respectful care Quality of care		



People of color have had higher rates of infection, hospitalization, and death due to COVID-19.

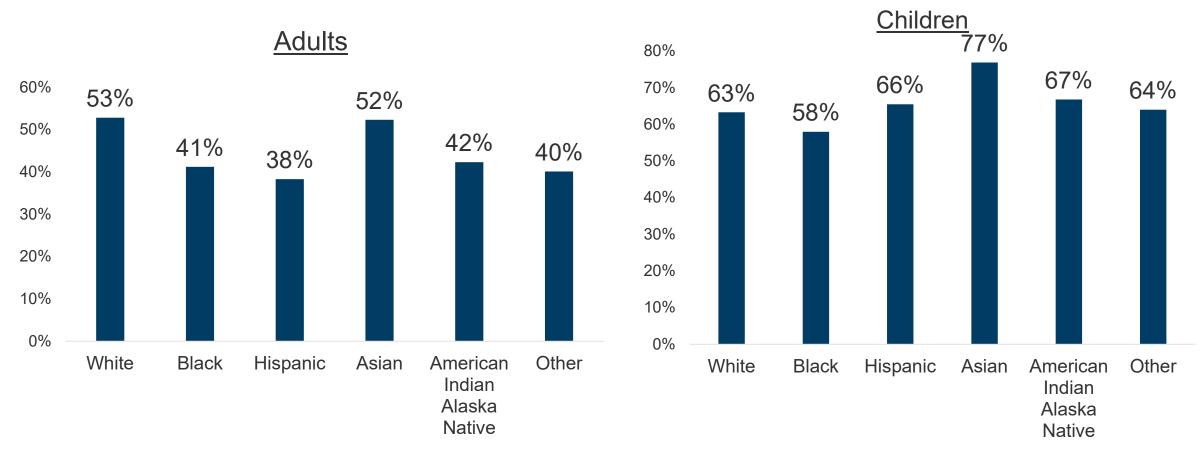
Risk of infection, hospitalization, and death compared to White people in the U.S., adjusted for age:







Influenza Vaccination Rates among Adults and Children by Race and Ethnicity, 2019-2020 Season

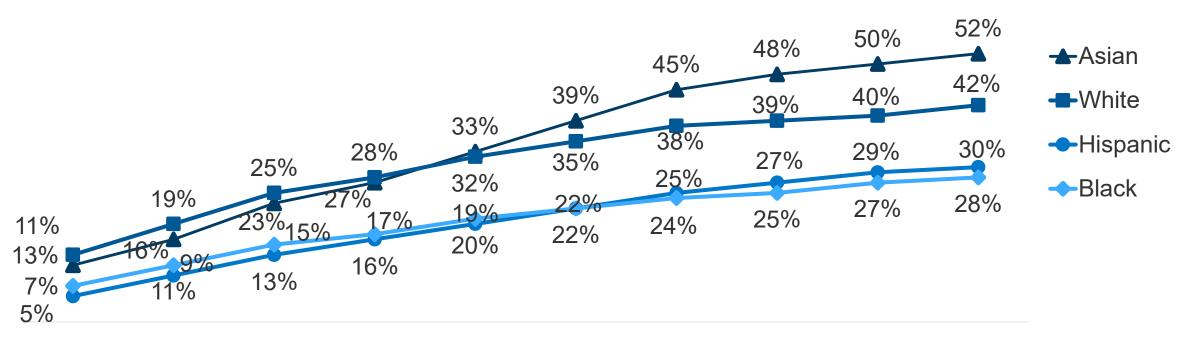


NOTES: Adults are age 18 and older. Children are age 6 months through 17 years. Persons of Hispanic origin may be of any race but are categorized as Hispanic; other groups are non-Hispanic.



SOURCE: CDC, Flu Vaccination Coverage, United States 2019-2020 Season, https://www.cdc.gov/flu/fluvaxview/coverage-1920estimates.htm, accessed 5/19/2021.

COVID-19 has taken a disproportionate toll on people of color, but they are less likely to have received a vaccine so far.

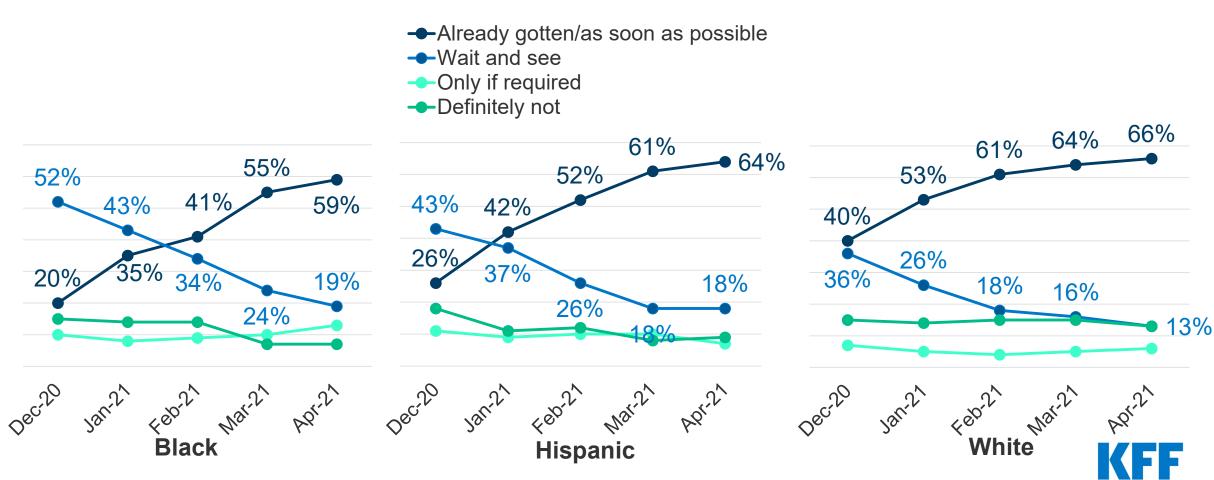


3/1/2021 3/15/2021 3/29/2021 4/5/2021 4/12/2021 4/19/2021 4/26/2021 5/3/2021 5/10/2021 5/17/2021 36 States 39 States 40 States 41 States 43 States 43 States 43 States 42 States 42 States 41 States

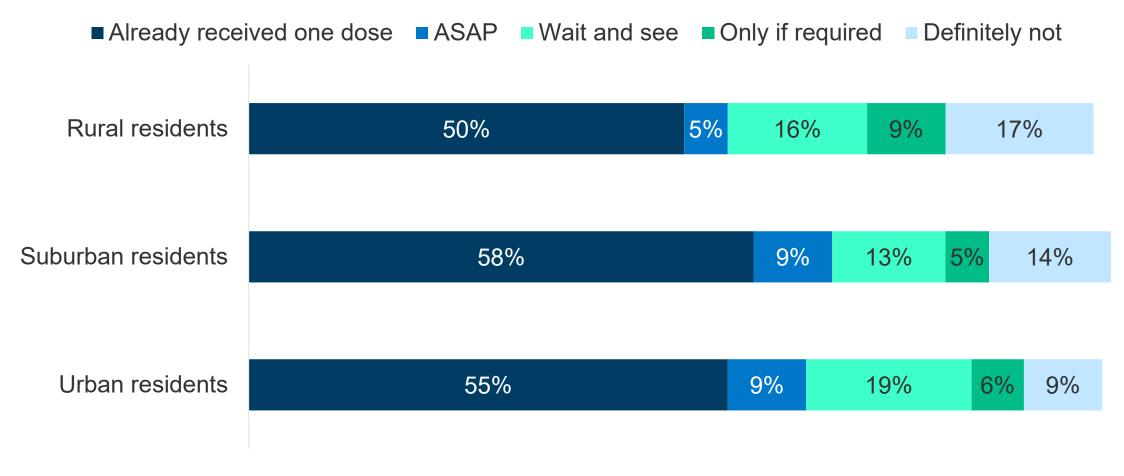


Over half of people report they have gotten a COVID-19 vaccine dose or that they will get one as soon as possible.

Percent who say they will get a COVID-19 vaccine:



Geographic Differences in COVID-19 Vaccine Enthusiasm





Unvaccinated adults have concerns about safety, side-effects, and access.

Percent who say they are very or somewhat concerned about each of the following when it comes to the COVID-19 vaccine:

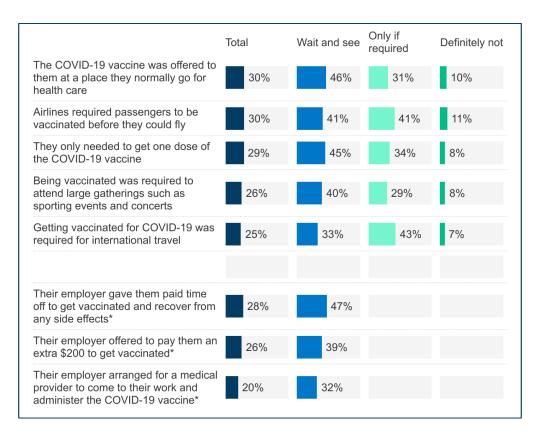
	Hispanic	Black	White
Might experience serious side effects	78%	82%	74%
The COVID-19 vaccines are not as safe as they are said to be	72%	75%	70%
Might need to miss work if the side effects of the vaccine make them feel sick for a day or more	64%	55%	41%
The COVID-19 vaccine may negatively impact their fertility in the future*	58%	56%	42%
Might be required to get vaccine even if they don't want	57%	54%	62%
Might have to pay an out-of-pocket cost to get the COVID-19 vaccine	52%	37%	24%
Won't be able to get the vaccine from a place they trust	49%	42%	23%
May be required to provide a social security number or government issued ID in order to get the COVID-19 vaccine	39%	32%	35%
Might need to take time off work to go and get the COVID vaccine	30%	23%	16%
It will be difficult to travel to a vaccination site	26%	17%	9%



NOTE: Among those who have not been vaccinated for COVID-19. *Item only asked of those ages 18-49. See topline for full question wording. SOURCE: KFF COVID-19 Vaccine Monitor (April 15-29, 2021)

A range of actions are being implemented to address disparities in COVID-19 vaccinations.

Percent who say they would be more likely to get the COVID-19 vaccine if:





What We Have Learned

- Underlying structural inequities have persisted and been exacerbated during the pandemic
- These inequities can be observed in who is being hit hardest by COVID-19 (cases/ deaths) and who is getting vaccinated
- Vaccine enthusiasm has increased over the past few months, with over half of people reporting that they have gotten/will get a COVID-19 vaccine as soon as possible
- Accessibility remains a barrier to accessing COVID-19 vaccines for key populations
- Multipronged approaches that reduce access barriers, fill information needs, and address questions and concerns via trusted messengers will be important for continuing to increase vaccination rates



Discussing Vaccine Hesitancy

Professor Brian Poole





Reasons for vaccine hesitancy

Varied

Usually sincere

Often reinforced by community



What doesn't help

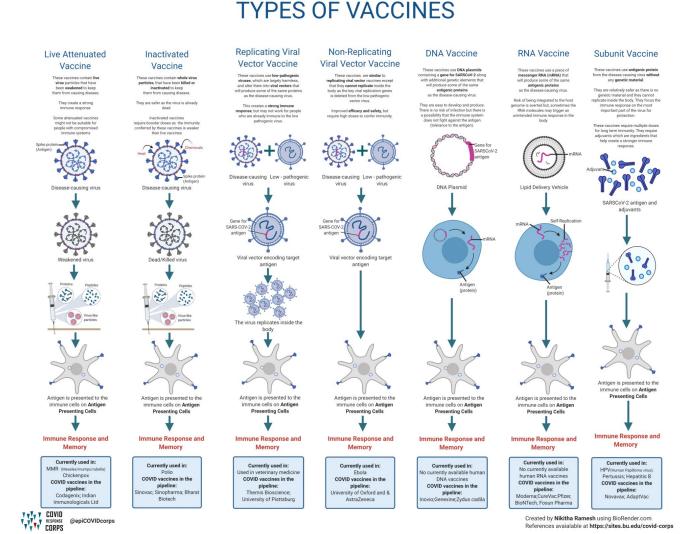
- Debunking vaccine myths
 - Actually increases resistance to vaccines
 - Reinforces negative concepts by focusing on them





Learning about vaccines and diseases helps

- Understanding how the immune system works
- Understanding different types of vaccines
- Learning from trusted sources





Personal experience with diseases helps

- Interviews with people who have dealt with diseases improves vaccine attitudes
- COVID-19 has overall made people more provaccine (at least so far)





Relationships help!

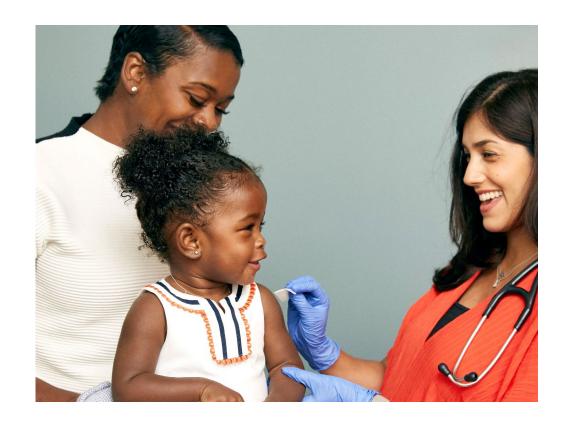
- Understand where the person is coming from
- Be trustworthy and trusted
- Talk about your own experience
- Pop the bubble!





Things to talk about

- Correct factual misinformation
 - "Vaccines do not cause autism: survey of all of Sweden showed no increase"
- Personal experiences
 - "I vaccinated all of my kids and I'm glad I did"
- Emphasize good outcomes
 - Return to normal
 - Eliminating disease from America
 - Protecting people with immune deficiencies



Questions?



Upcoming Webinars and Training Opportunities





Upcoming Webinars

WEBINARS

- Core Drug Endangered Children (DEC) Awareness
 - May 25, 10-11 a.m. PT | 1-2 p.m. ET
- Drug Identification and Trends
 - June 29, 10-11 a.m. PT | 1-2 p.m. ET
- Culture, Identity and Connection for Indigenous Families in non-Indigenous Systems
 - July 1, 10-11 a.m. PT | 1-2 p.m. ET
- Intersection of Drug Endangered Children (DEC) and Human Trafficking
 - July 27, 10-11 a.m. PT | 1-2 p.m. ET
- Understanding the Indian Child Welfare Act (ICWA): Family, Community and Culture
 - Aug. 3, 10-11 a.m. PT | 1-2 p.m. ET
- Children and Families of Tribal Nations: Effective Engagement with Tribes to Secure Best Outcomes
 - Aug. 26, 10-11 a.m. PT | 1-2 p.m. ET
- Intersection of Substance Abuse and Domestic Violence
 - Aug. 31, 10-11 a.m. PT | 1-2 p.m. ET

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Webinars

past session materials and recordings





Sources

Phadke VK, Bednarczyk RA, Salmon DA, Omer SB. Association Between Vaccine Refusal and Vaccine-Preventable Diseases in the United States: A Review of Measles and Pertussis [published correction appears in JAMA. 2016 May 17;315(19):2125] [published correction appears in JAMA. 2016 May 17;315 (19):2125]. *JAMA*. 2016;315(11):1149-1158. doi:10.1001/jama.2016.1353

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