WELCOME

Please complete the poll to the right of your screen while we get ready to start.

VIRGINIA TECH™

Messengers, warnings, and trust: Communicating about the vaccine on social media

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INTRODUCTIONS

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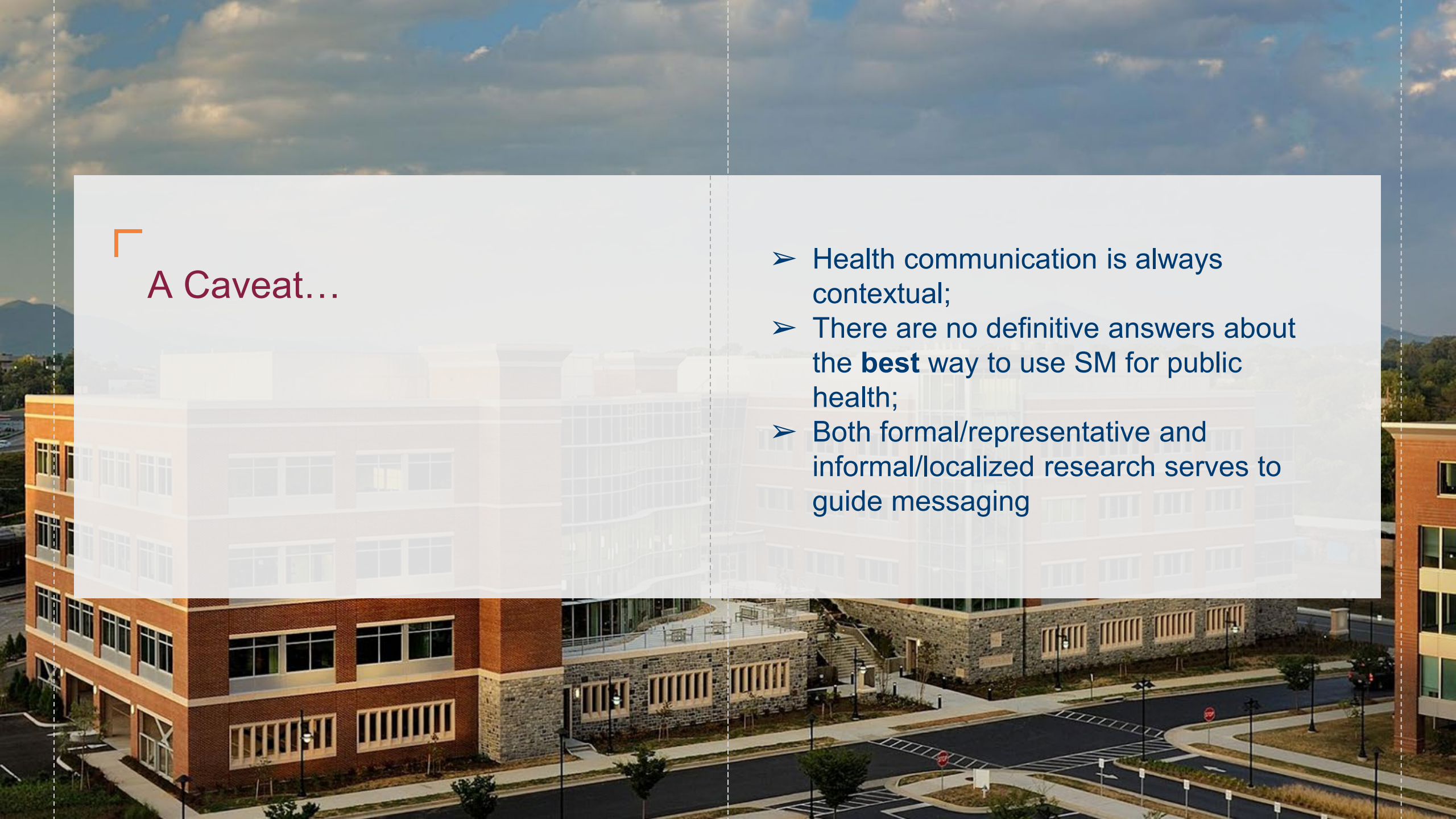


A Caveat…

- Health communication is always contextual;
- There are no definitive answers about the **best** way to use SM for public health;
- Both formal/representative and informal/localized research serves to guide messaging

WHERE ARE WE:

A Review of Literature on Social Media and COVID-19 messaging

Social Media Poll Question

What percentage of Americans say that social media is one of their most influential sources of information about COVID-19?

8%

15%

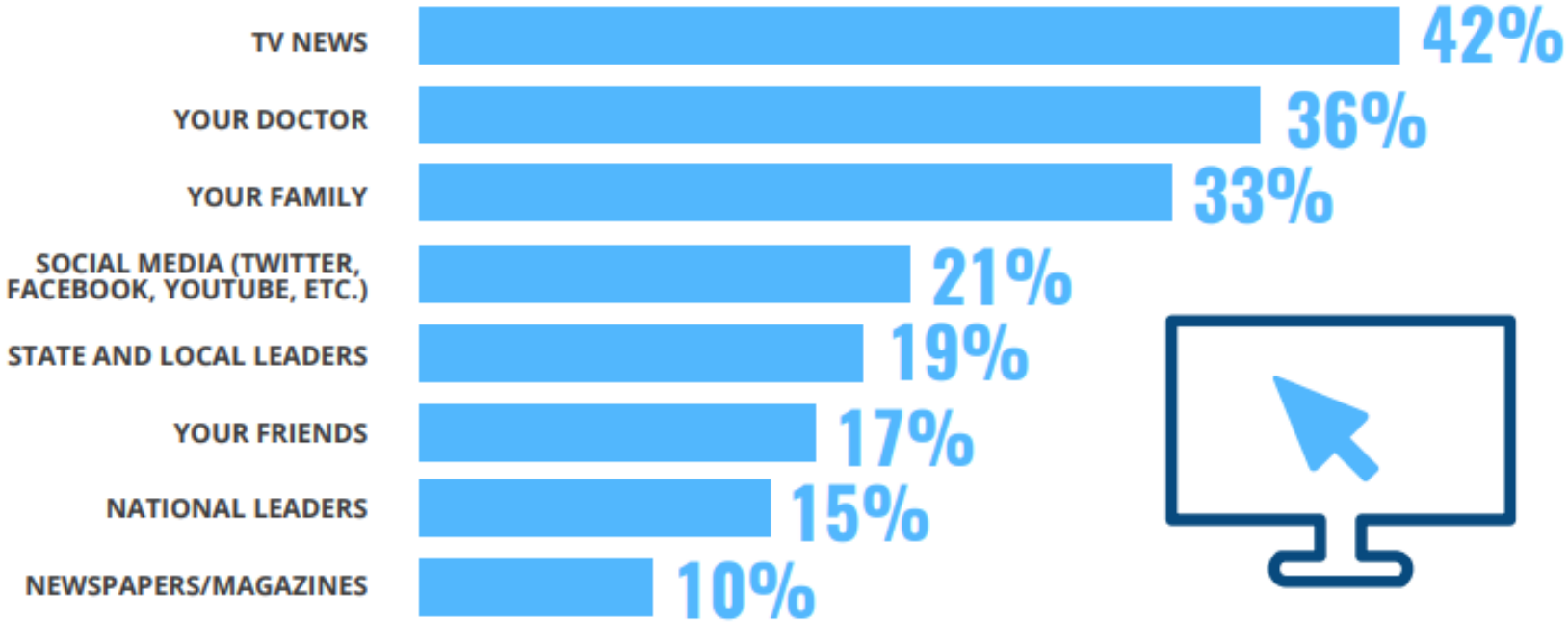
21%

40%

21% Percentage of Americans who say social media is one of their most influential sources of information about COVID-19.

What sources of information most influence you when it comes to COVID-19, masking, social distancing, and the vaccines?

(percentage choosing source as one of two most influential)



Social Media Use and COVID-19 Communication

- Need for rapid information dissemination
  - Traditional communication methods can be slow
- Abundance of discourse about COVID-19 attitudes and behaviors on social media (Arbane et al, 2022; Luo et al., 2021; Yin et al., 2021).
- Correlations between COVID-19 disease incidence and social media/Internet searches (Li et al., 2020).
- Risks of social media use
- Advantageous to pair free open access educational materials with social media networks (see Chan et al., 2020)

Role of Social Media During COVID-19

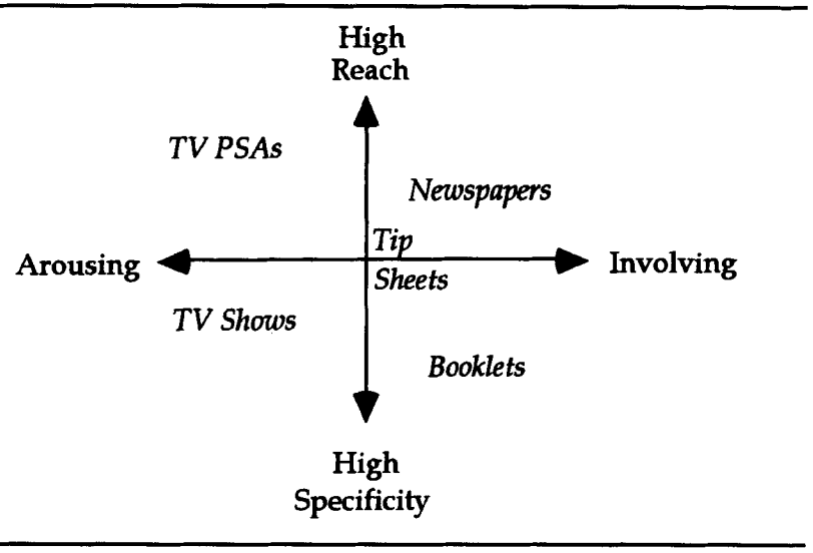
- Major public health themes identified from publications about social media use during COVID-19 (Tsao et al., 2021)
  - Infodemics
  - Public attitudes
  - Mental health
  - Detecting/Predicting Covid-19 cases
  - Government responses
  - Quality of health information

COVID-19 Messaging: Tailoring

- Tailoring: the art of crafting health messages to reflect audience characteristics and their context
  - Understanding the audience
    - Knowledge, perceptions, beliefs, motivations, barriers
  - Audience communication preferences
    - Language, channels, literacy level, social media use
  - Social listening/monitoring
    - Community, norms, environment
  - Create tailored materials
    - Motivations for getting tested/vaccinated
  - Get audience input/feedback
    - Include target audience in design

COVID-19 Messaging: Targeting

- Targeting: the process of selecting the best communication channel for disseminating a message
  - Multiple social media channels are more effective
  - Communication channels beyond social media
    - "Social media couldn't be the only avenue. There are large pockets of our community that have limited access from those channels. We had to create ways to come directly to them." (Dr. Kimberly Lamar, Tennessee Department of Health, Division of Health Disparities Elimination).
  - The Channel Framework

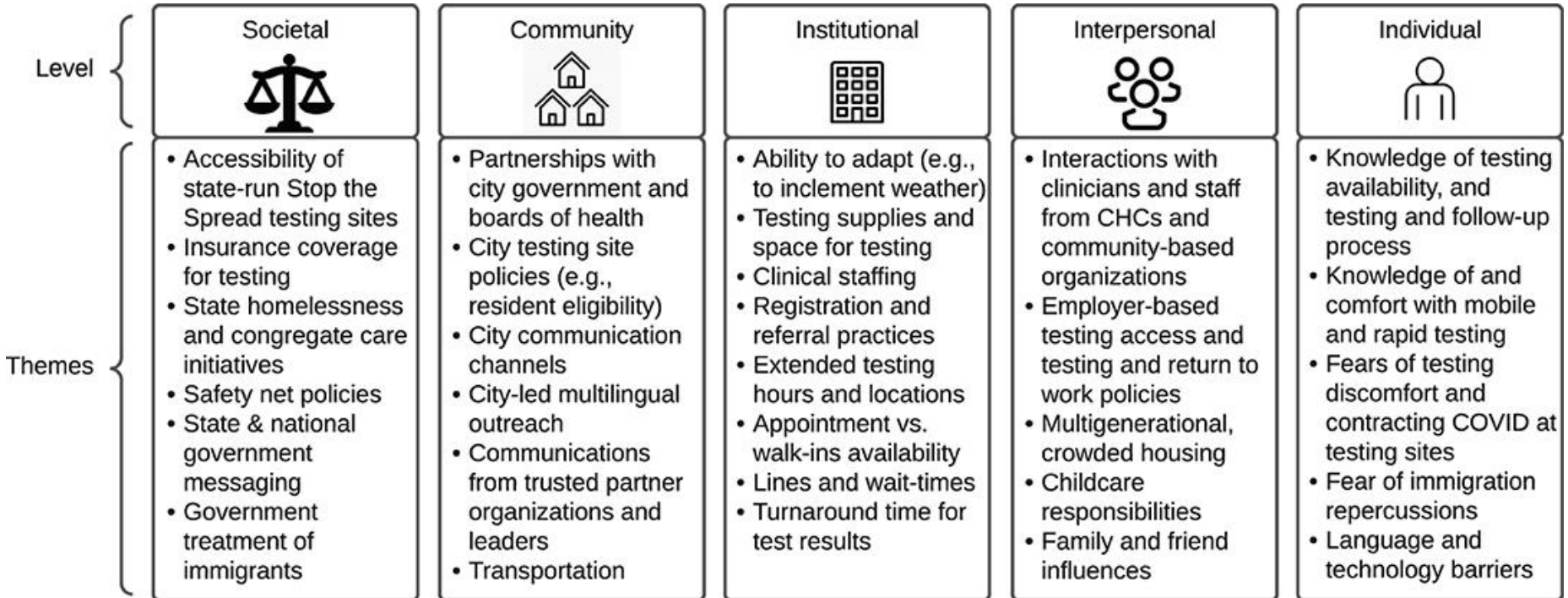


Effective COVID-19 Communication Strategies and Practices (de Beaumont; OECD)

- Focus on benefits of success
- Emphasize that science is clear and settled
- Don’t expect people to follow measures just because it’s good for them
- Do not let politics slip into messaging
- Communicate with timeliness and consistency
- Make communication participatory
- Pre-empt and correct misinformation
- Based interventions on evidence
- Communicate Transparently

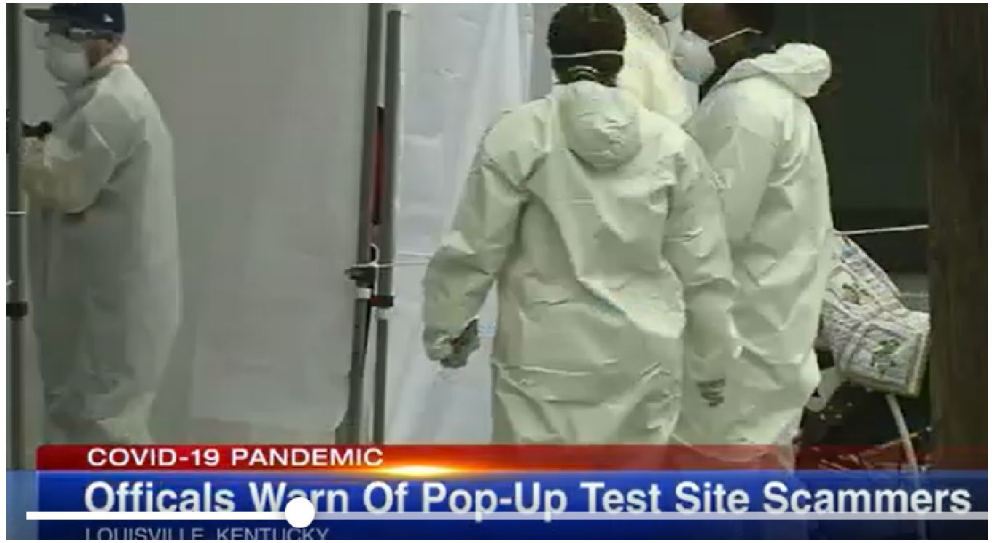
COVID-19 Testing Inequities

- Importance of examining testing barriers for underserved populations
- Community-identified needs may foster tailored strategies to address inequities (see Lee et al., 2002).



Misinformation

- Misinformation:
  - False information shared by people who do not intend to mislead (CDC)
- Methods:
  - Deception
  - False equivalences
  - Favoring simplified messages
  - Amplifying unreliable messages
  - Downplaying risks
  - Mixing content accuracy
  - Impersonal reliable sources
  - Non-verifiable predictions
- Consequences:
  - Confusion
  - Mistrust
  - Skepticism
  - Decreased adherence to health guidelines



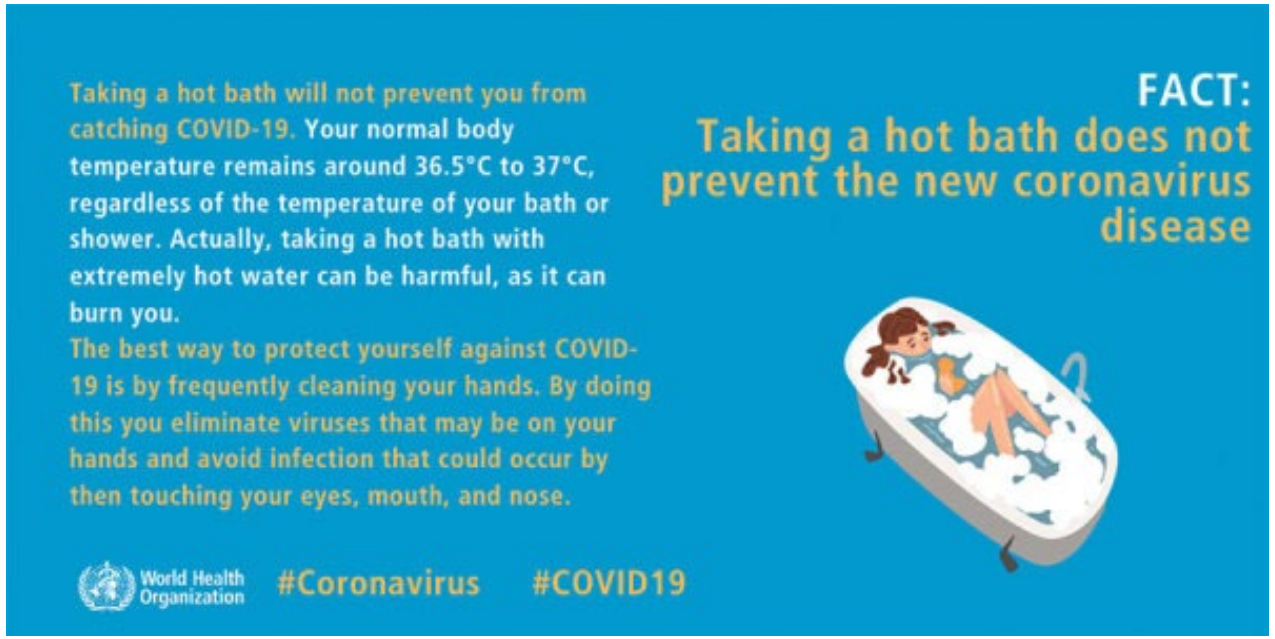
Aghagoli et al. (2020)

Social Media COVID-19 vaccine misinformation

- Types of misinformation about the COVID-19 vaccines (Skafle et al., 2022)
  - Conspiracy Claims
  - Medical Misinformation
  - Vaccine development
- Correlation between trust in social media and vaccine hesitancy

Using Social Media to Address COVID-19 Misinformation

- Social media can be used to help correct misinformation and reduce misperceptions

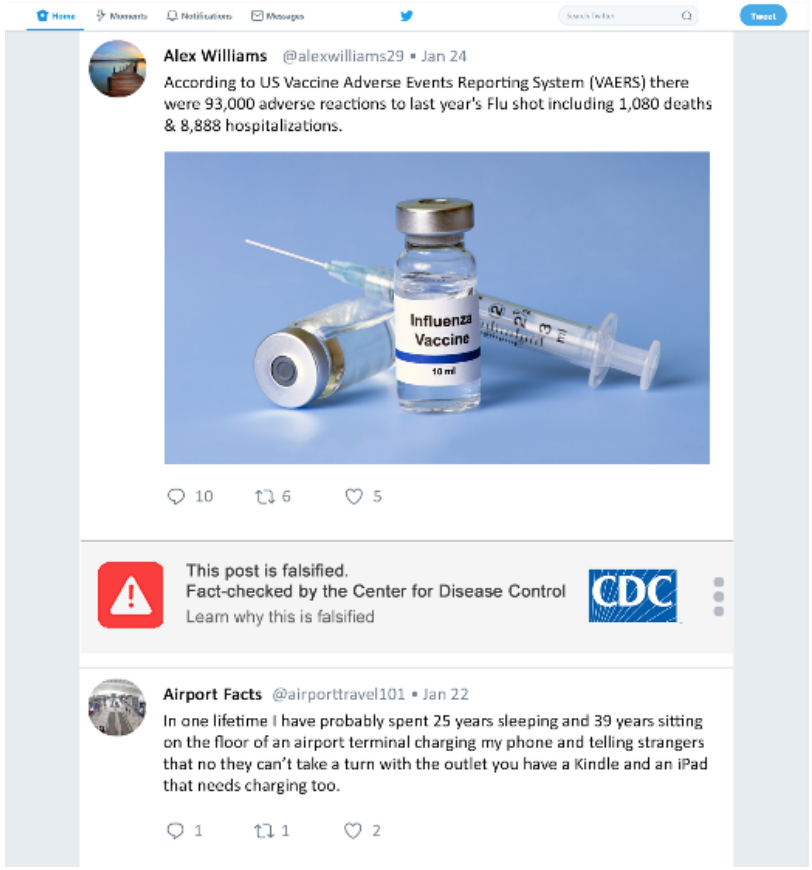


5 Cs of Correction (Schwarz, Newman & Leach, 2016)
Consensus
Corroborating evidence
Consistency
Coherence
Credibility

Misinformation and Fact-Checking (Zhang et al., 2021)

Misinformation Control

Fact-Checking Condition



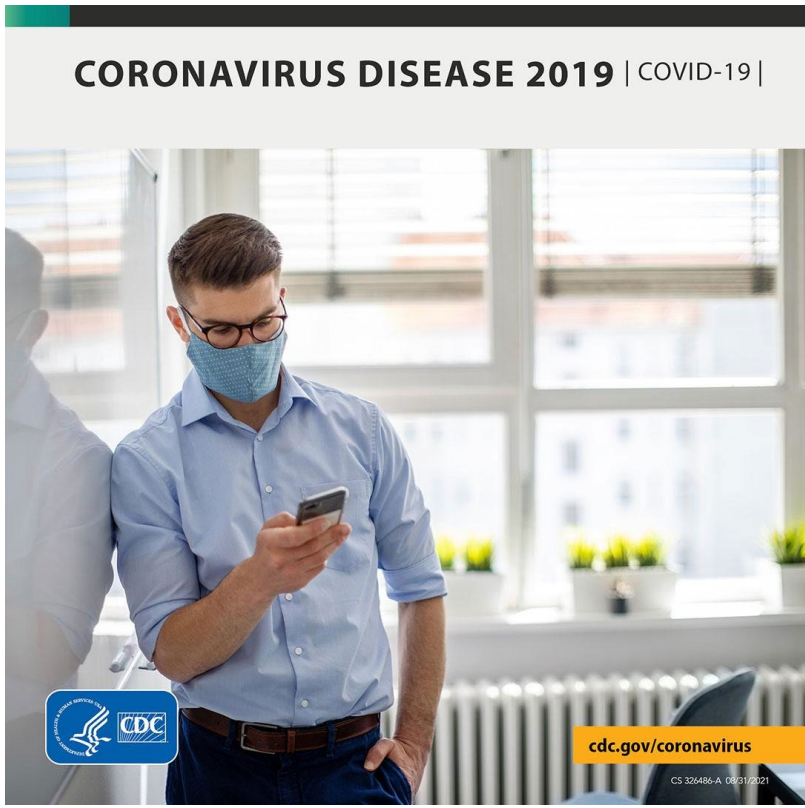
Responsible Social Media Sharing (Chan et al., 2020; Gonzalez-Padilla & Tortolero-Blanco, 2020)

- Disseminate through established platforms and organizations
- Include source information for verification purposes
- Quality over quantity
- Declare conflicts of interest
- Don’t share information that will cause unnecessary panic/anxiety
- Avoid giving medical recommendations not backed by evidence
- Use transparent methods for feedback and peer review

Facebook Sample Messages

Did you know? Payment is no obstacle to getting tested for COVID-19. Even if you're uninsured, you can get tested at no cost at a public health lab. Ask your local health dept. for more info. Even if fully vaccinated, get tested if you have symptoms of COVID-19. If you're unvaccinated, get tested if you have symptoms, have been around someone with COVID-19, or have taken part in mass gathering, travel or other activities that make physical distancing difficult.

Worried about the cost of a #COVID19 test? Tests run by public health labs are 100% covered, regardless of whether you have insurance. Uninsured patients may still be charged fees for associated care, so be sure to ask your local health dept. about getting tested at a public lab where all costs will be covered, including associated care.



Twitter Sample Messages

#DYK? You can get tested for #COVID19 at no cost. Be sure to ask your local health dept. about getting tested at a public lab where all costs will be covered, even if you're uninsured. Find your local health dept here: CDC – Health Department Directories – STLT Gateway

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#DYK? Payment is no obstacle to getting tested for #COVID19. Even if you're uninsured, you can get tested at no cost at a #publichealth lab. Ask your local health dept. for more info & remember, even if you're fully vaccinated, get tested if you have symptoms.

Social Media Interventions

Studies show increased COVID-19 vaccination coverage among children with parents subjected to social media interventions (Di Mauro et al., 2022) .

Please complete the poll to the right of your screen

Which of the following fake COVID-19 vaccine messages do you think survey respondents reported they were mostly likely to reshare on social media:

1. a news message about Bill Gates' plan to embed vaccination status in the skin;
2. a scientific message from the head of Pfizer Research linking the vaccine to female sterilization;
3. a CDC reporting paralysis of over 3,000 people following the vaccine;
4. a link to a video message from Dr. Andrew Kaufmn stating that the pandemic is not real
5. none of the above
6. all of the above

Survey Results…

A

Bill Gates' Plan to use Microneedles to Deliver COVID19 Vaccine and Embed Vaccination Status into the Skin

Margaret Chan (right) Director-General World Health Organization (WHO) with Bill Gates (left) Co-Chair the Bill & Melinda Gates Foundation during a press conference. UN Photo / Jean-Marc Ferr

Like Comment Share

B

Head of Pfizer Research: Covid Vaccine is Female Sterilization

The vaccine contains a **spike protein (see image) called syncytin-1**, vital for the formation of human placenta in women. If the vaccine works so that we form an immune response AGAINST the spike protein, we are also **training the female body to attack syncytin-**

Like Comment Share

C

Coronavirus COVID19

CDC Report – 3150 People Paralyzed After COVID-19 Vaccine "Unable To Perform Normal Daily Activities"

Like Comment Share

D

This pandemic is not a real medical pandemic. There has not been a virus that has been purified or shown to be the cause of an illness. Thus, there is no target for a vaccine and no need for a vaccine.

Like Comment Share

Study Methodology

Survey Objectives

1. Describe the association between readiness to receive the COVID-19 vaccine, trust (trust in science, trust in healthcare, trust in COVID-19 information sources), and demographics factors in residents of the Appalachian Region.

2. Evaluate the impact of a social media misinformation warning post from an individual's most or least trusted health influencer on ratings of accuracy and likelihood of sharing subsequently viewed misinformation related to the COVID-19 vaccine.

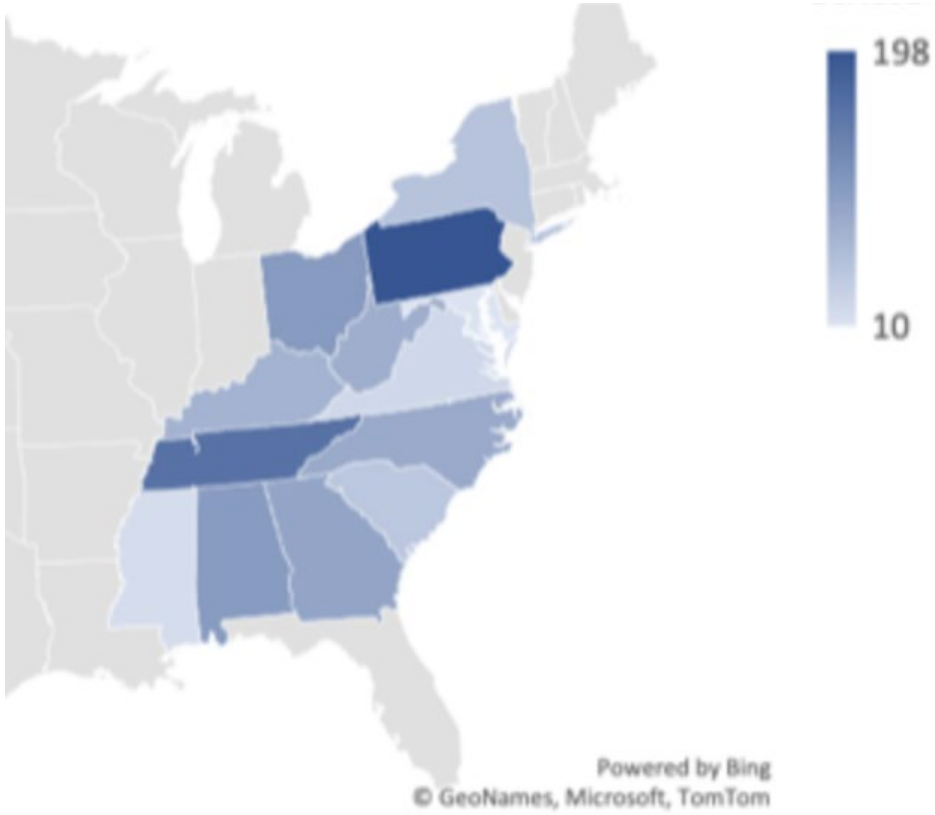
Methodologies

- Cross-sectional survey using Qualtrics Panels
  - February 25 – March 6, 2021
- quota sampling to achieve 50% rural/ 50% non-rural
- Inclusion criteria:
  - resident of Appalachian Region
  - ≥35 years of age
  - regular user of social media
  - had not received COVID-19 vaccine
- Of 2616 panelists responding, n=1048 consented/met inclusion criteria
- Objective 1: Multiple linear regression on vaccine readiness outcome
- Objective 2: Simulated social media misformation warning post using experimental approach

Demographics and Social Media Use

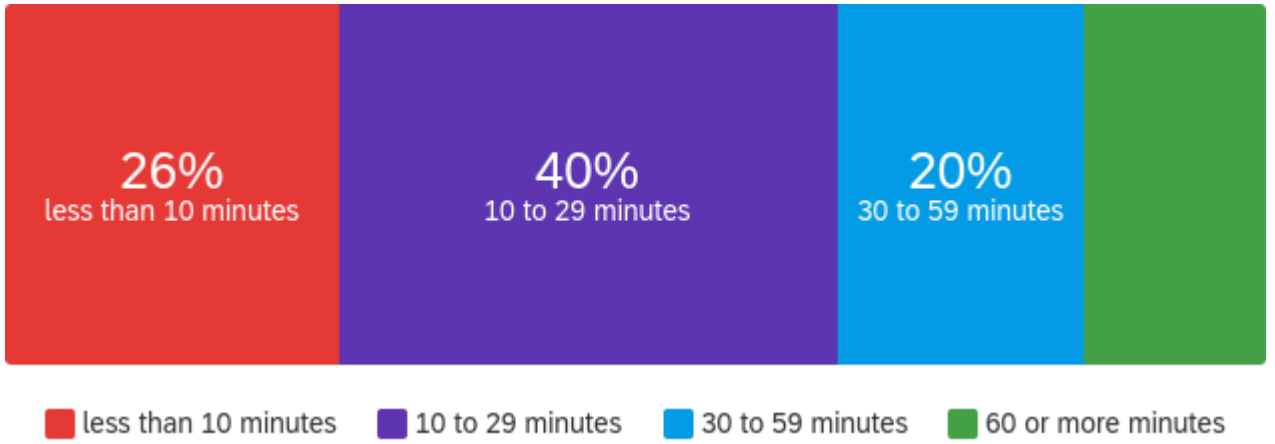
Respondent Demographics

- n=**1048**
- **58% identified as female** (26% male, 9% nonbinary)
- **91.62% white** (3% Black, 3% native, 2% Hispanic or latino)
- **57% made $20-79.99k before taxes** (26.5% made less than $20k before taxes; 16.3% made over $80k
- **74%** reported **voting** in 2020 election (similar to national average for age group)
- 43% (451) Republican; 24.2% (254) Democrat, 24.5% (257) Independent (more Republican than national average)

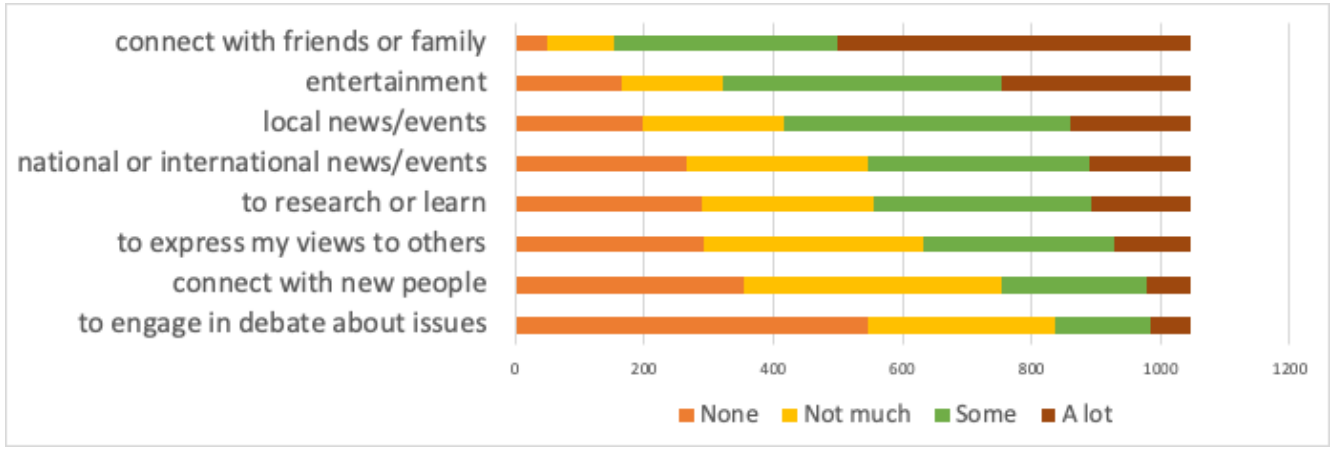


Social Media Use of Respondents

Average reported time spent on social media each time accessed



Extent to which respondents used social media for listed activities



Social Media Use by Platform

	Facebook	Twitter	SnapChat	Instagram	WhatsApp	Reddit	YouTube	TikTok
Never	2%	70%	81%	65%	90%	85%	17%	83%
1 day/wk or less	13%	9%	5%	10%	4%	6%	19%	5%
1-2 days/week	6%	5%	3%	6%	2%	3%	15%	4%
3-4 days/week	8%	4%	3%	5%	1%	3%	13%	3%
5-6 days/week	8%	3%	2%	4%	1%	1%	10%	2%
7 days/week	62%	9%	5%	11%	2%	3%	27%	5%

If aiming to reach adults 35+, you'll find them on Facebook

Quick Review of Findings on Trust & Vaccine Readiness

Trust Matters…

Significant predictors of vaccine readiness were:

- lower age,
- rural residence,
- affiliation with Republican party,
- no personal primary care provider,
- greater concerns about the vaccine, and
- lower trust in science
- distrust in healthcare.=

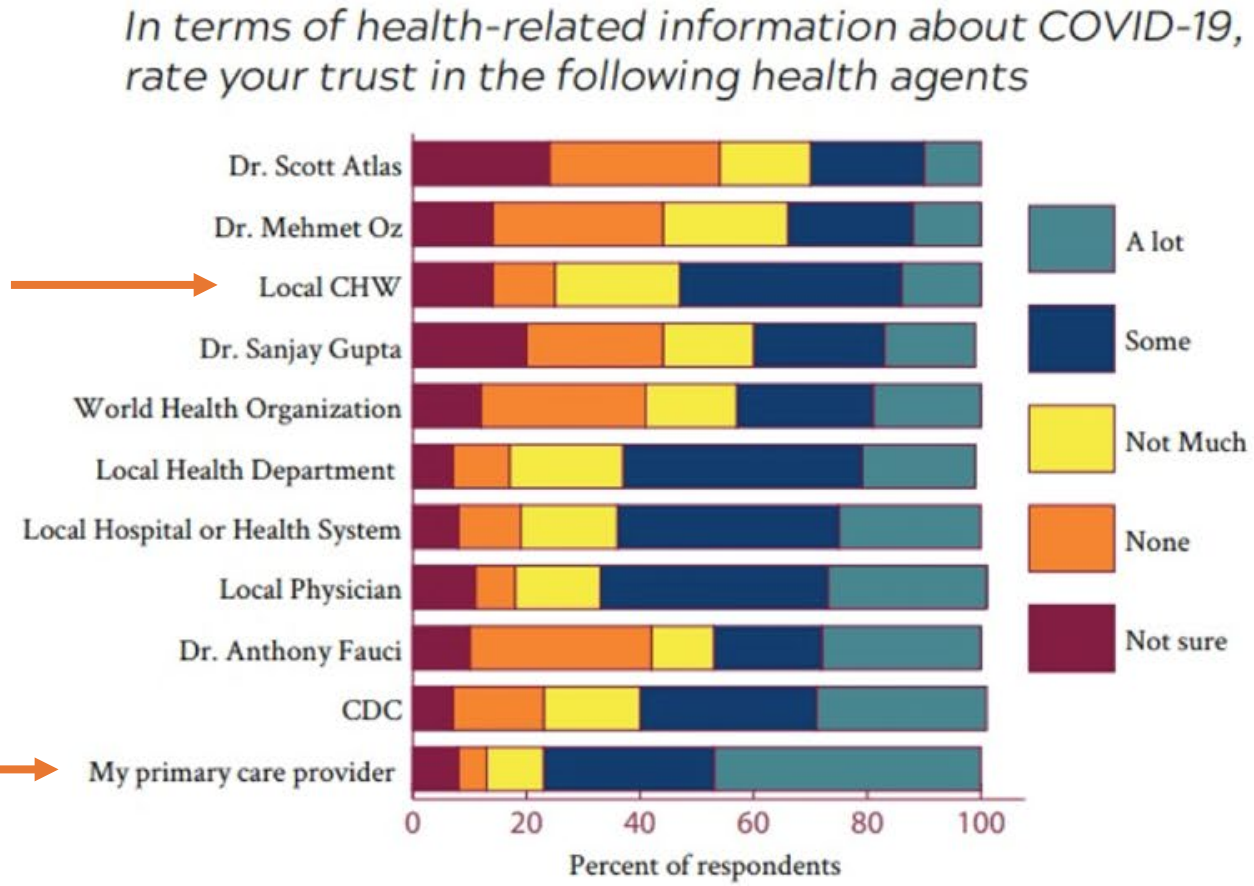
Trusted for health-related information about COVID-19:

MOST Trusted

Primary care provider (33%)
Dr. Anthony Fauci (18%)
CDC (10%)

LEAST Trusted

Dr. Anthony Fauci (24%)
Dr. Sanjay Gupta (15%)
Dr. Scott Atlas (14%)
WHO (12%)



Social Media Warnings

Control posts:

Non-COVID info shared with heading:

Please imagine that [most OR least trusted health agent] has posted the following:

¼ of participants received this message from their selected most trusted agent; ¼ from least

Experimental posts

COVID misinformation shared with heading:

Please imagine that [most OR least trusted health agent] has posted the following:

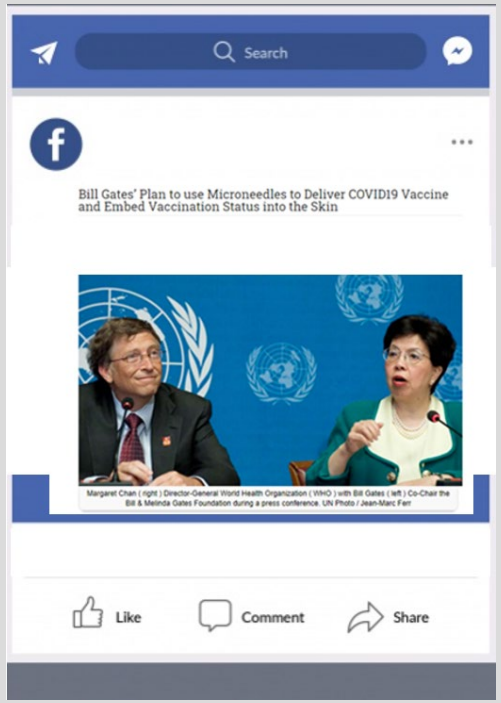
¼ of participants received this message from their selected most trusted agent; ¼ from least

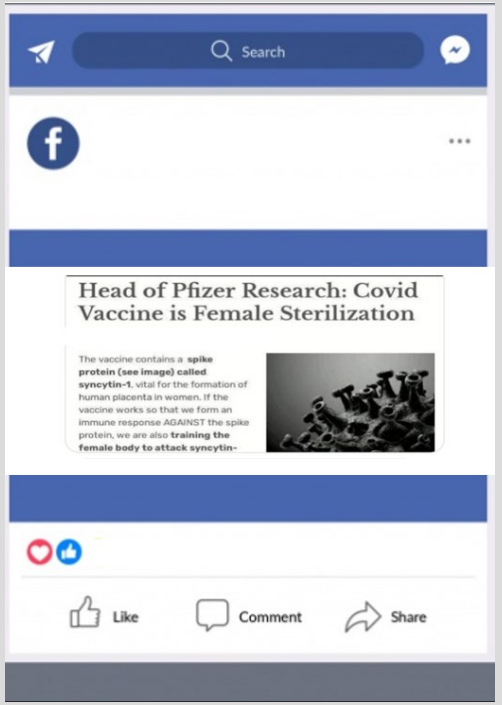
All participants

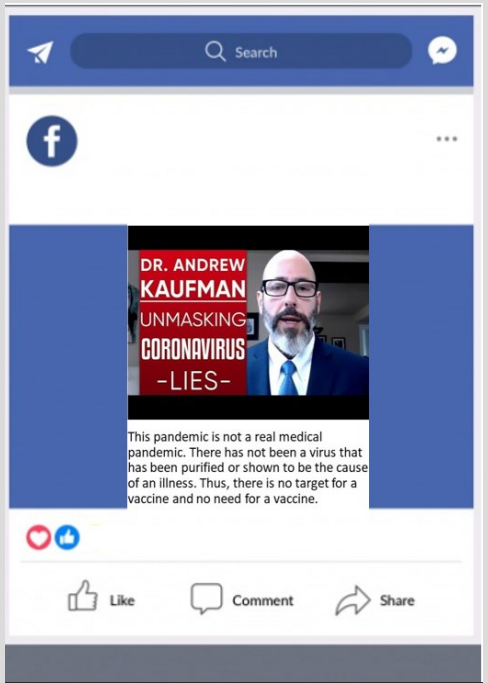
After receiving post about veggies or COVID misfo, participants prompted to:

“Imagine that the next 4 posts appeared in your own social media feed, posted by someone in your network.”

They then ranked **accuracy** and **likelihood of sharing** the post on their own timelines



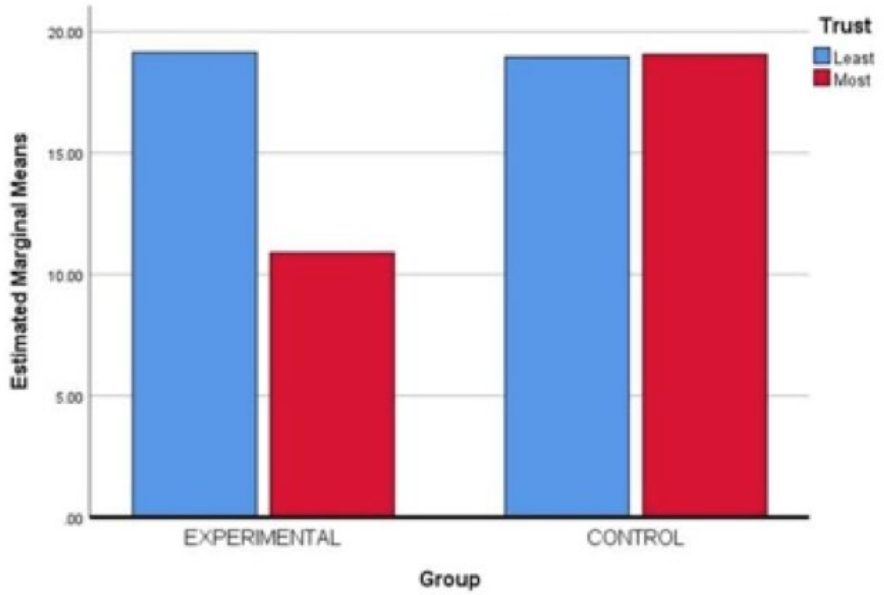




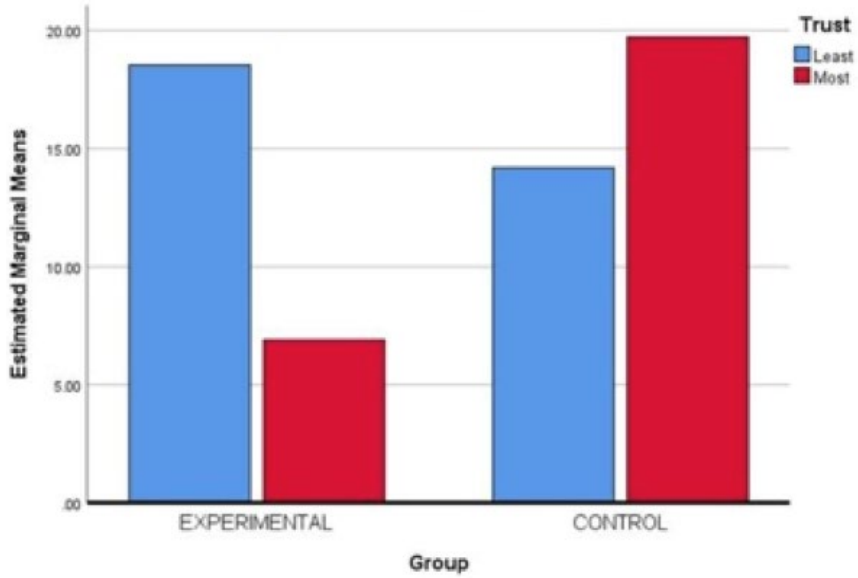
Results

Participants who saw the warning post *from a trusted agent* rated misinformation as less accurate (left chart) and were less likely to share it (right chart).

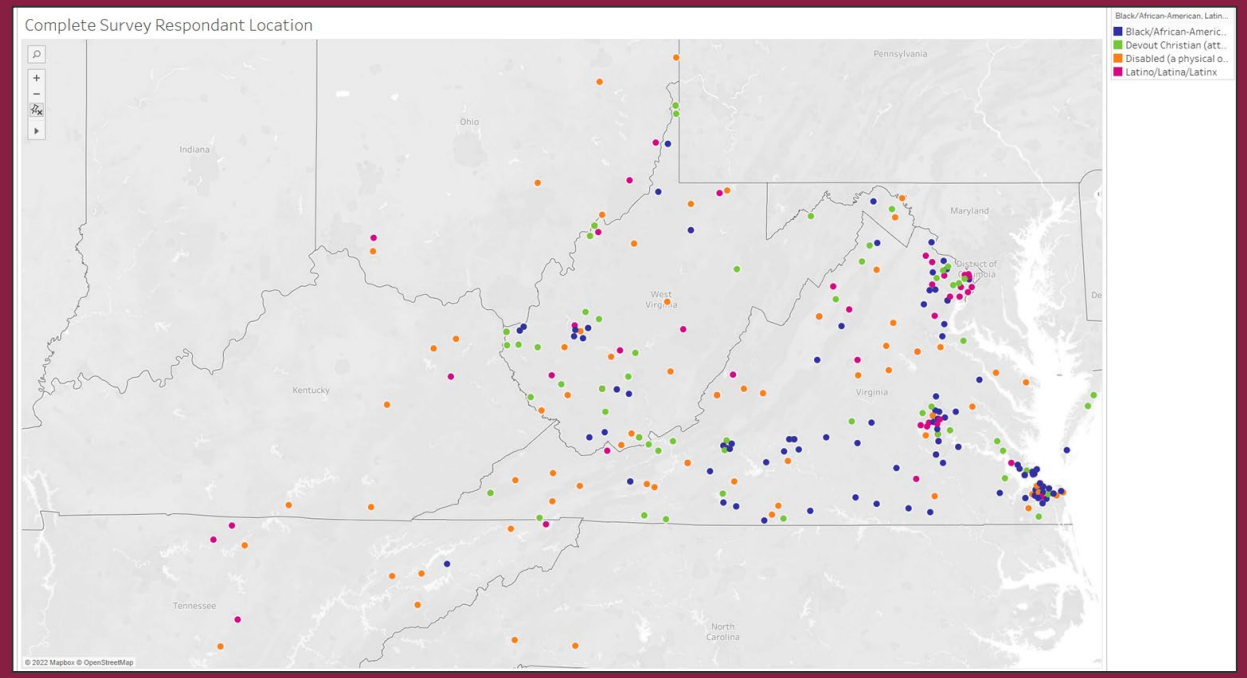
Marginal Means of Accuracy Ratings



Marginal Means of Reshare Ratings



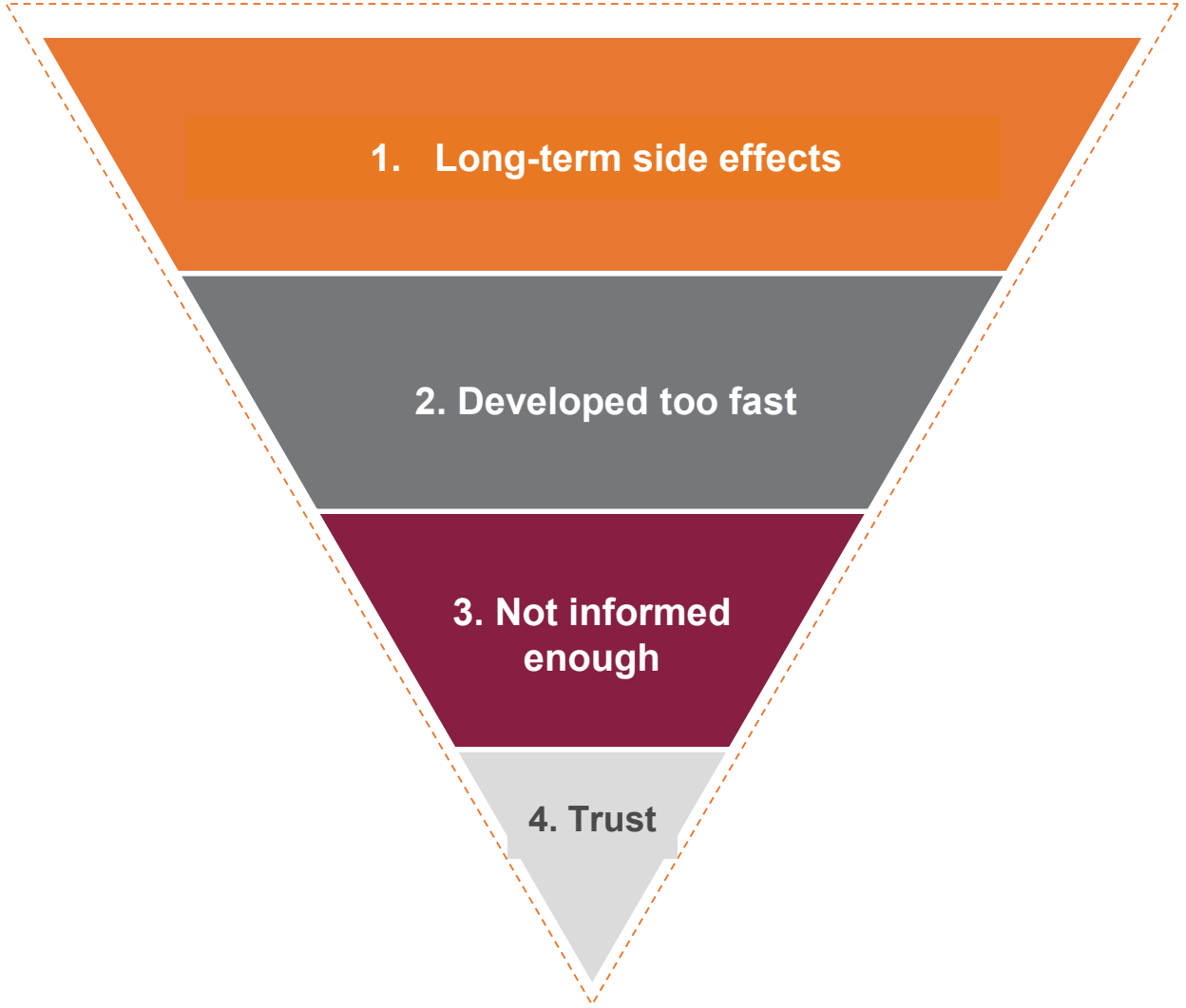
Communications Survey



Methodology

- Descriptive survey on vaccine communication
- Sept 14-Nov 11
- Qualtrics panels
- Eligibility:
  - 18+
  - Virginia and West Virginia (then expanded to central Appalachia)
  - 60/40 rural/nonrural
  - unvaccinated
  - Identify as one of the following subpopulations (as requested by local health department):
    - Black
    - Latin@/x
    - Disabled
    - Christian (attending church once or more monthly)
- 414 participants (100+ from each of above groups)

Key Findings: Top Concerns

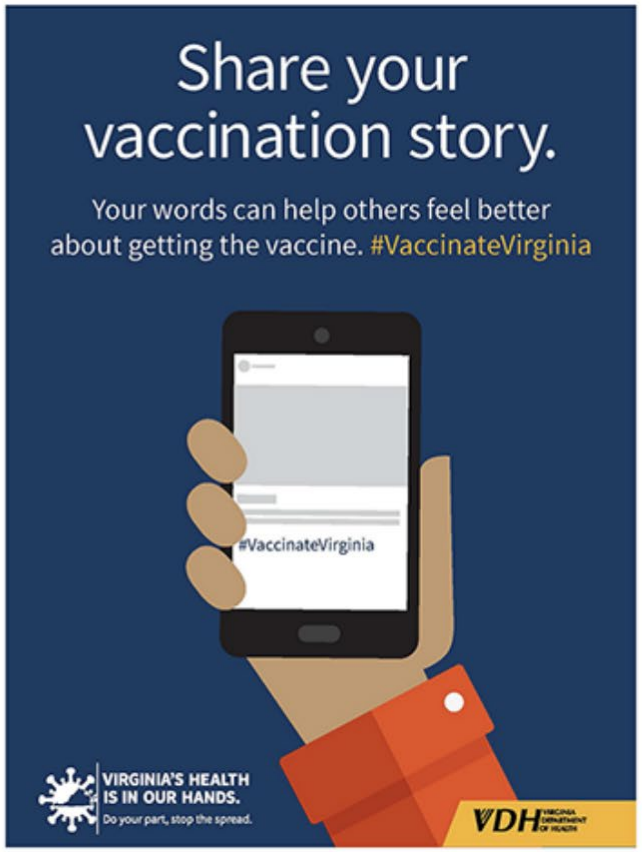


Findings: All Reservations

Do you have any reservations about the vaccine?				
	Black/AA	Latin@	Disabled	Christian
Long-term side effects	42%	47%	56%	65%
I think it was developed too fast	37%	50%	46%	59%
Short-term side effects of the vaccine	34%	32%	36%	40%
I don't feel informed enough to put the vaccine into my body	34%	41%	34%	41%
I don't trust the government and/or scientists who developed the vaccine	30%	35%	32%	47%
I would like to see more information first	23%	27%	28%	29%
I don't think it protects me from COVID-19 infection	24%	30%	20%	26%
I don't think I need it in general	10%	18%	16%	18%
No	30%	23%	14%	12%
I don't think I need it because I already had COVID-19	7%	9%	9%	16%
I don't want to take something unless it's mandatory	11%	7%	9%	8%
I don't believe that there is a COVID-19 virus	8%	7%	9%	8%
I don't know where to access it	1%	4%	5%	2%
I don't think I can afford it	3%	3%	4%	3%
Other	4%	5%	14%	9%
Total	125	100	138	133

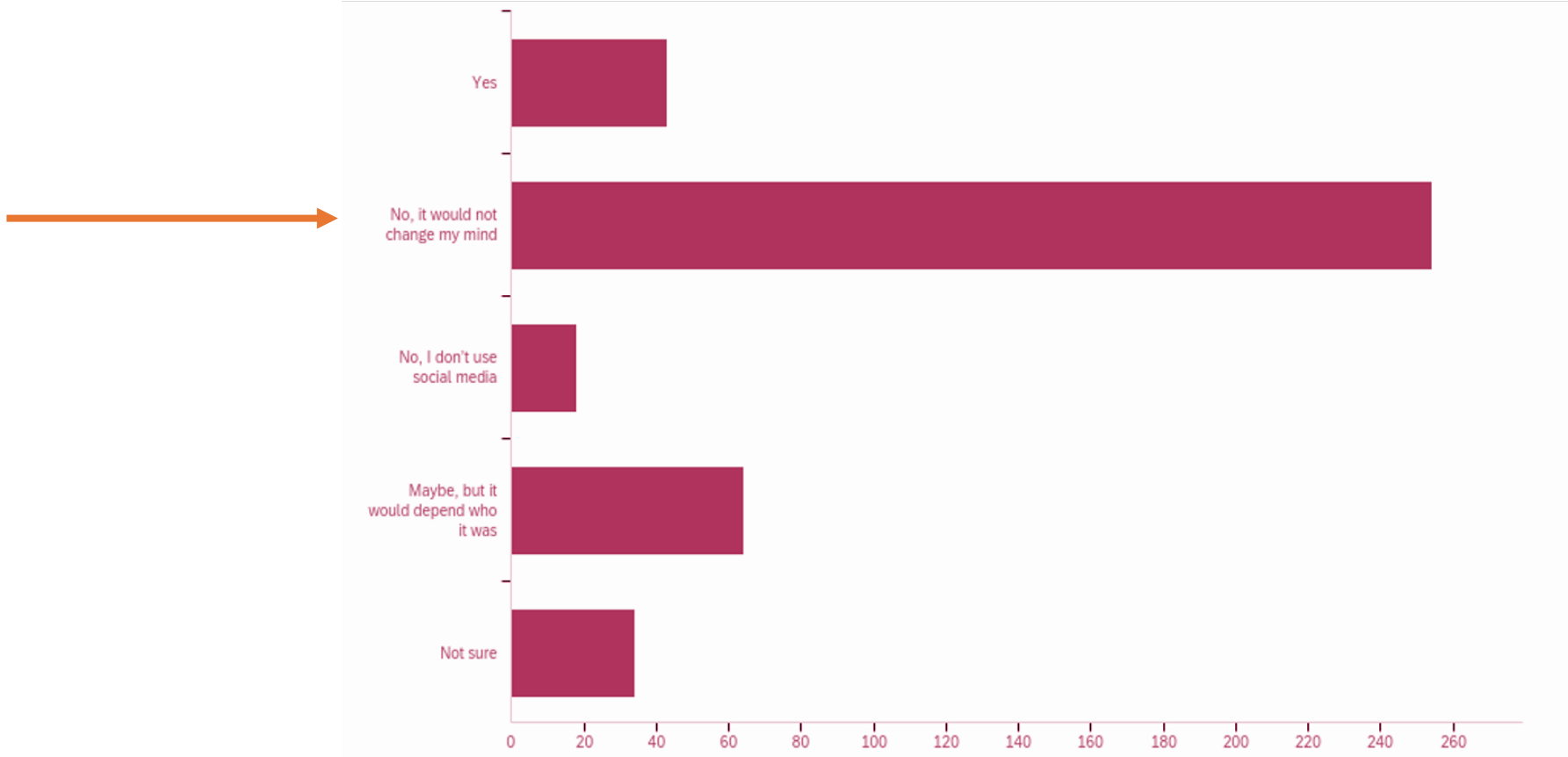
Social Media Question

Participants prompted to review a social media shareable from a state campaign.



Social Media Findings

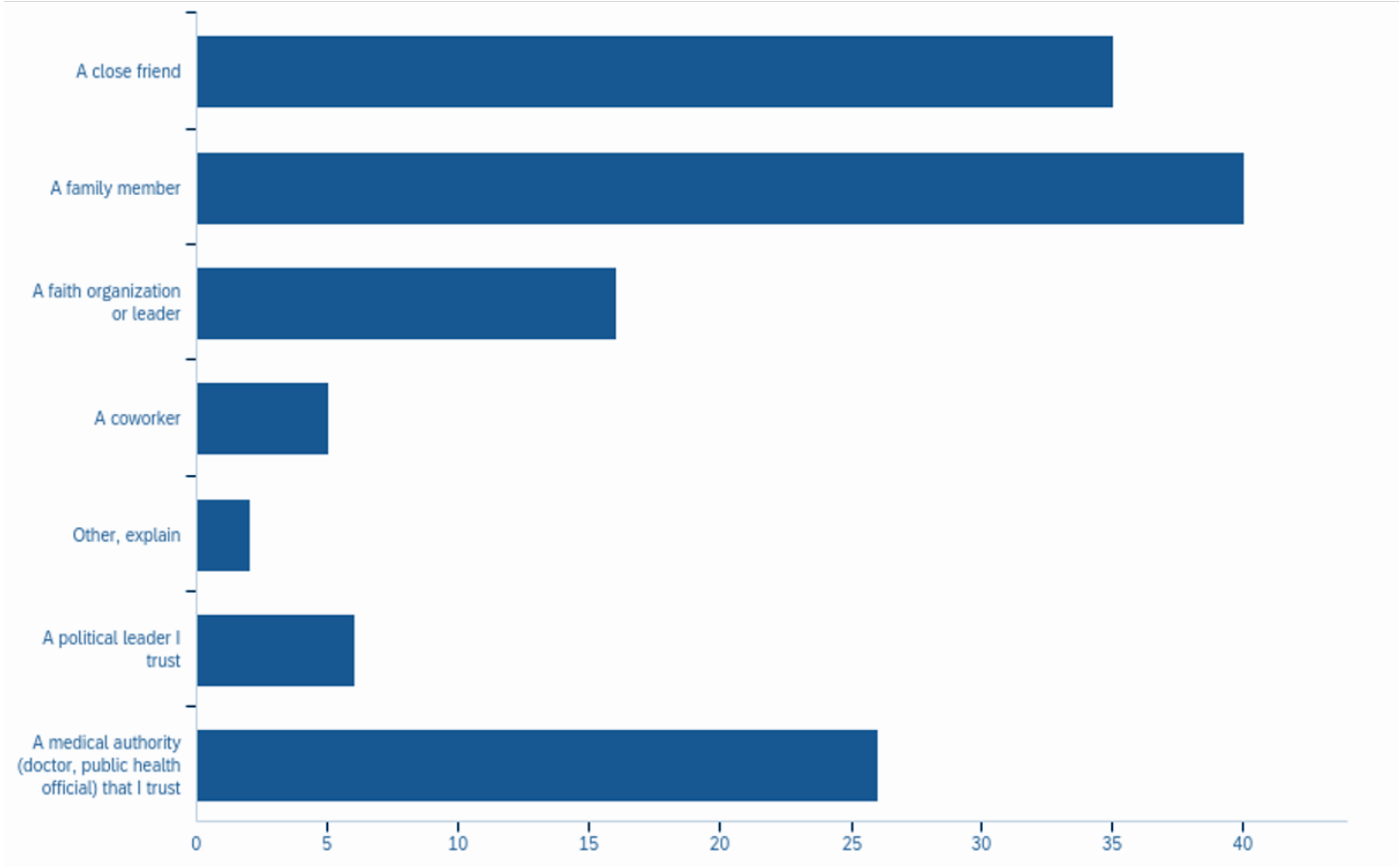
If you saw someone you trust share a positive experience about their vaccination on social media platforms like Facebook or Twitter, would it make you more likely to get the vaccine?



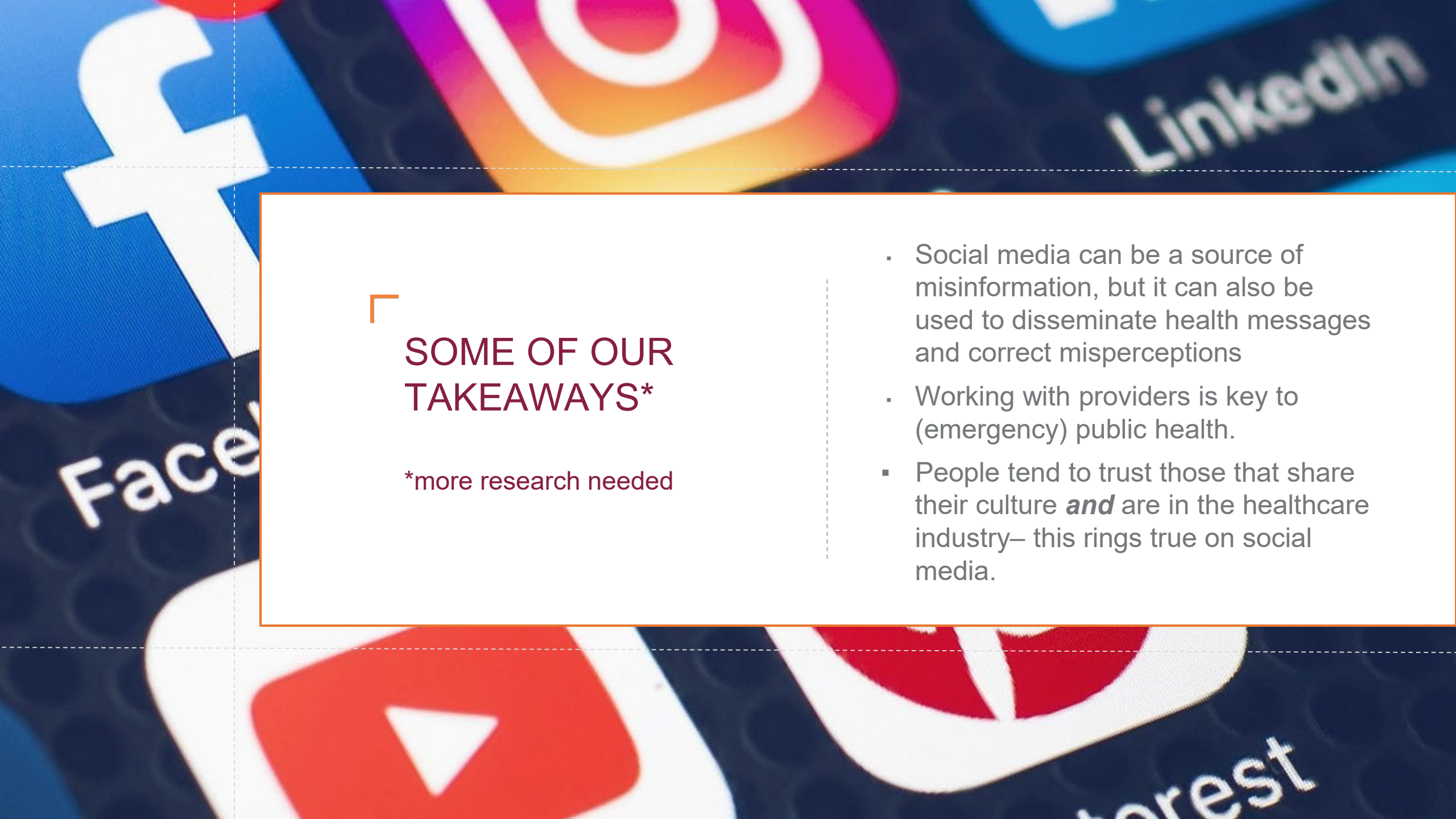
Social Media Messengers

Whose post would convince you?

Asked to 130 participants who answered that it would depend on the source



TAKEAWAYS for community partners



SOME OF OUR TAKEAWAYS*

*more research needed

- Social media can be a source of misinformation, but it can also be used to disseminate health messages and correct misperceptions
- Working with providers is key to (emergency) public health.
- People tend to trust those that share their culture ***and*** are in the healthcare industry– this rings true on social media.

THANK YOU!

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