Responding to Mis/Disinformation Related to Scientific Content

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Agenda

1:30 – 2:00	Introduction to Emergency Risk Communication
2:00 – 2:30	Government Capabilities for ERC
2:30 – 2:45	*Break*
2:45 – 3:00	Inoculation: comms tool for health misinformation
3:00 – 3:30	Vaccine Misinfo Prebunking Study
3:30 – 3:45	*Break*
3:45 – 4:00	Scenario-based Nominal Group Technique
4:00 – 5:00	NGT: Drafting Challenges & Solutions

Funding Acknowledgement

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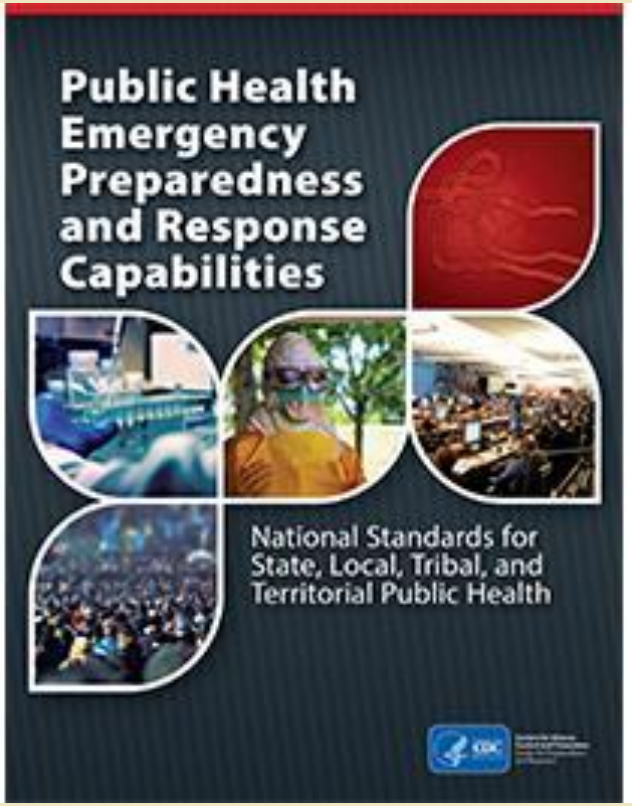
Introduction to Emergency Risk Communication

What is emergency risk communication?

Emergency risk communication (ERC) is the dynamic, interactive process of sharing information strategically and effectively about issues of high concern, to help people make informed decisions and understand risks.

What capabilities? 15 PHEP Capabilities

1. Community Preparedness
2. Community Recovery
3. Emergency Operations Coordination
4. **Emergency Public Information and Warning**
5. Fatality Management
6. Information Sharing
7. Mass Care
8. Medical Countermeasure Dispensing
9. Medical Materiel Management Distribution
10. Medical Surge
11. Non-Pharmaceutical Interventions
12. Public Health Laboratory Testing
13. Public Health Surveillance and Epidemiology
14. Responder Safety
15. Volunteer Management



Updated January 2019

What does successful emergency risk communication look like?

Image Source: cdc.gov

The government perspective

"A key indicator of success…do you still have a job at the end of the crisis?
or …
does your health department director still have a job at the end of the crisis?"

The practitioner's perspective

"…efficient communication means saved lives! Saved properties …. Saved economy!"

brittanica.com

The citizen's perspective

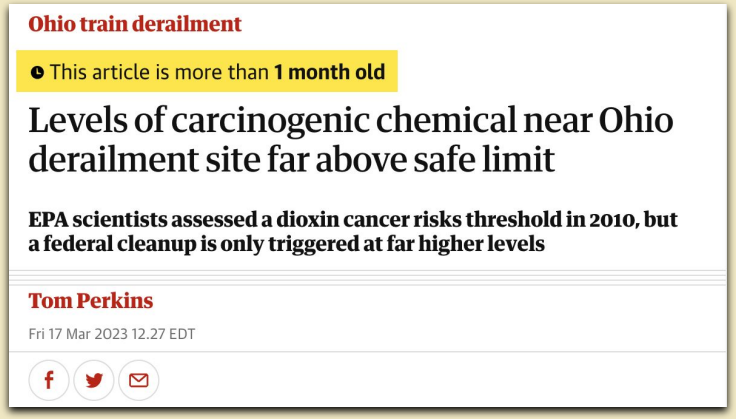
"Did the information received helped me face the emergency based on my risk and my needs?"

Case Study: East Palestine Train Derailment

Case Study: East Palestine Train Derailment

- On February 3rd, 2023, a freight train carrying toxic chemicals, including vinyl chloride and butyl acrylate, derailed and caught fire in the town of East Palestine, Ohio
- Responders conducted a controlled burn of vinyl chloride to prevent an explosion, creating dioxins
- There were no injuries, but half of the 5,000 residents of East Palestine had to evacuate for days due to the dioxins released
- Residents raised concerns about dioxin exposure and safety and called for long-term monitoring

Media Response



Federal Government ERC - Feb 16th, 2023

Citizen's Response - March 3rd, 2023

Group Discussion

1. What are the challenges of emergency risk communication (ERC) in this information environment?

2. What tools are needed to conduct better ERC after an emergency?

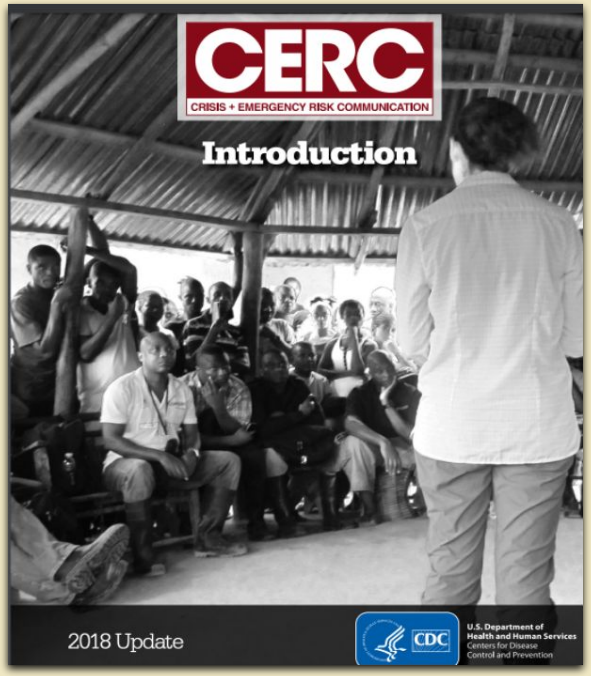
Government Capabilities for Emergency Risk Communication

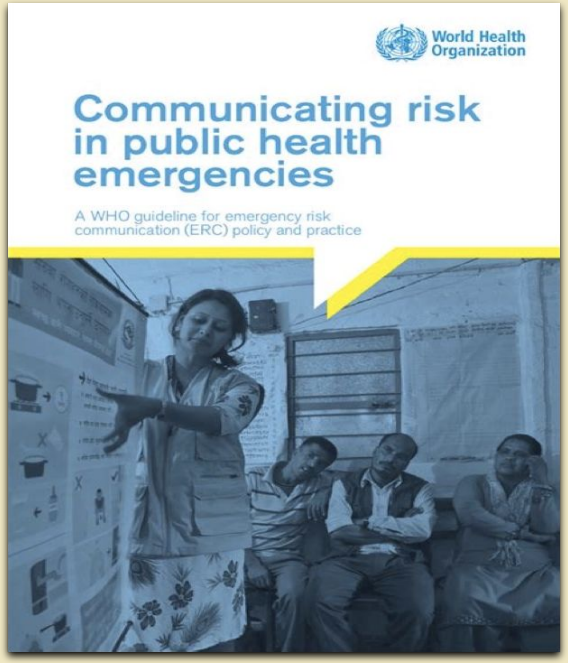
Study Background

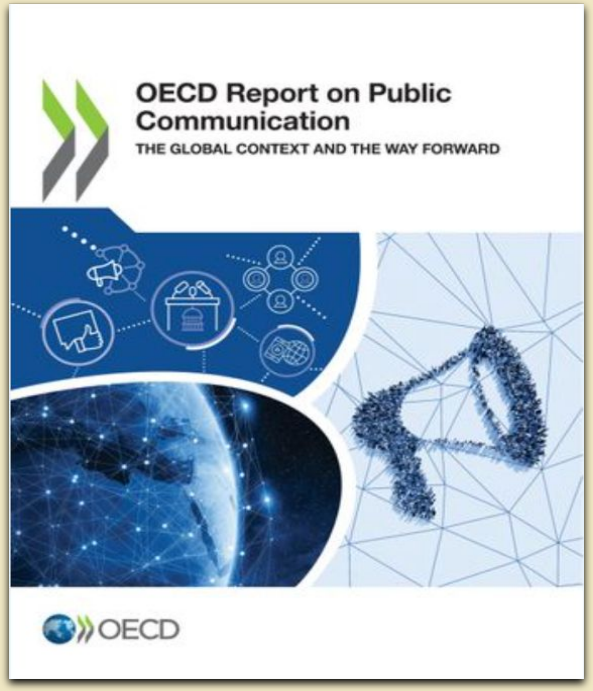
IRIS Academic Research Group

01	Research Question	What are the challenges and potential solutions to conducting effective public health ERC?
02	Methods	Semi-structured interviews and thematic analysis, using both an inductive and deductive approach
03	Study Sample	27 current and former government officials from 19 countries

Guiding Principles







Best Practices for ERC

CDC CERC	WHO ERC	OECD Principles
• TIMELINESS • ACCURACY • CONSISTENCY • INTEGRITY • HONESTY • EMPATHY	• TIMELINESS • TRANSPARENCY • EASY TO UNDERSTAND (CLARITY) • ACKNOWLEDGE UNCERTAINTY • SELF EFFICACY	• TRANSPARENCY • INTEGRITY • ACCOUNTABILITY • PARTICIPATION • STRONGER DEMOCRACY • REGAIN CITIZENS TRUST IN PUBLIC INSTITUTIONS • MORE INCLUSIVE GROWTH

Interviews

- UK
- Italy
- USA
- Malta
- Serbia
- Croatia
- Macedonia
- Nigeria
- Qatar
- Japan
- France
- Indonesia
- Norway
- Germany
- Brazil
- Israel
- Armenia
- Sweden
- San Marino

Principles of Effective ERC

1. Timeliness
2. Transparency
3. Coordination
4. Consistency
5. Accountability
6. Independence from Politics
7. Responsiveness
8. Equity
9. Trustworthiness

For each of the principles, we will highlight an example of the data collected through the interviews and provide recommendations based on our findings.

Principle #1 - Timeliness

"...even right now [two years after the start of the crisis], we're still not doing a good job of telling people: 'this is what we know now, and that it's going to change again tomorrow.'"

- ***Interviewee from the United States***

Principle #1 - Timeliness

- ✓ Develop government communication strategies focused on leading the narrative.
- ✓ Acknowledge the level of scientific certainty and the likelihood it will change over time.
- ✓ Improve the speed of the decision-making process in public health.
- ✓ Improve the speed of the government-level clearance process for public messaging
- ✓ Communicate at regular intervals.

Principle #2 - Transparency

"It looks like we're trying to avoid the question. We are (only) answering the question that we hope they'd [the public] ask."

- ***Interviewee from the United States***

Principle #2 - Transparency

- ✓ Embrace transparency despite the potential economic, social, and political consequences.
- ✓ Communicate the decision-making process and the interpretation of science that supports public recommendations.
- ✓ Develop internal government processes for intra-agency transparency.
- ✓ Inform the public of how social listening is performed.

Principle #3 - Coordination

"[Government needs to know] … who is going to communicate what (i.e., surveillance data, logistical information, overall situation), what role they have (sometimes technical and sometimes political role) and what level of responsibility"

- ***Interviewee from Brazil***

Principle #3 - Coordination

- ✓ Create permanent task forces that integrate expertise in public communication.
- ✓ Create a centralized internet presence with plans to keep the information up to date.
- ✓ Prioritize the role of the government agency that is geographically and culturally closest to the affected population.
- ✓ Coordinate different branches of government as they communicate information.

Principle #4 - Consistency

"If we don't take down outdated information, that fuels misinformation because people that really want to misuse information that's on the internet can literally say that the health authority is inconsistent in communicating."

- ***Interviewee working at the WHO***

Principle #4 - Consistency

- ✓ Develop processes to update web pages dedicated to FAQs.
- ✓ Customize FAQs to the needs of different audiences.
- ✓ Translate scientific information into plain language prior to delivering it to politicians.
- ✓ Set expectations for spokespersons and political figures to personally follow the behaviors they publicly recommend.

Principle #5 - Accountability

"There is no level of error allowed in my line of work. You know, if I say something wrong on TV, I'm accountable for that… But the person who is spreading the misinformation or disinformation on social media is not accountable…"

- ***Interviewee from Serbia***

Principle #5 - Accountability

- ✓ Communicate the decision-making processes behind public recommendations.
- ✓ Acknowledge mistakes as they occur.
- ✓ Discern *a priori* the ERC responsibilities of different government agencies.
- ✓ Develop evaluation processes for ERC.
- ✓ Address inequities to prep for future crises.

Discussion Questions

1. Are there any of the principles above that particularly resonated with you?
2. Were there any principles or recommendations that surprised you?

Principle #6 - Political Independence

"leadership has become more of a performance artist that has undercut the trust in government institutions .... so, it's very difficult for anyone who represents a government to overcome that sort of bias."

- ***Interviewee from Germany***

Principle #6 - Political Independence

- ✓ Separate scientific communication from the political discourse regarding implementation of specific policies.
- ✓ Engage with media outlets across the political spectrum.
- ✓ Avoid the use of entertainment venues (i.e., TV talk-shows) to announce new policies and the forthcoming of policy changes.

Principle #7 - Responsiveness

"...when the government emphasizes a singular issue, it can inadvertently undermine itself... [listening] is how those who derail people actually get this misinformation out because they do that... better than those of us who are trying to do the right thing."

- ***Interviewee from Nigeria***

Principle #7 - Responsiveness

- ✓ Acknowledge the priorities of the audience.
- ✓ Develop networks of community leaders, organizations, and professional figures that can support government communication efforts.
- ✓ Partner with private companies (i.e., social media companies) to enhance communication efforts.

Principle #8 - Equity

"It has to be a huge systemic effort through all health programs during peacetime to make sure that they get the services they need and they get connected to the health system better. So when the emergency hits, you have a shot."

- ***Interviewee working at the WHO***

Principle #8 - Equity

- ✓ Engage with communities before a crisis to learn their informational needs/priorities.
- ✓ Develop communication strategies that account for linguistic diversity, internet access, and culture.
- ✓ Build partnerships with local leaders.
- ✓ Develop educational campaigns to enhance digital literacy and the public's ability to discern misinformation.

Principle #9 - Trustworthiness

"I think it's really important for a system as a whole to gain trust beforehand, because during the crisis you have to start paying... It's like a bank account. And, the minute the crisis hits, it's like the central banks, they are now distributing money..."

- ***Interviewee from Sweden***

Principle #9 - Trustworthiness

- ✓ Develop strategies to establish trust at different levels ahead of a crisis.
- ✓ Create opportunities to build relationships between different branches of government and entities before and during a crisis.
- ✓ Validate people's feelings and concerns.

Case Study: East Palestine Train Derailment

Turn and Talk to a Partner:

1. Which of the principles do you think are most important for effective ERC during the response to the train derailment?
2. How could government risk communicators use these principles during their ERC to the public in response to the train derailment?

BREAK

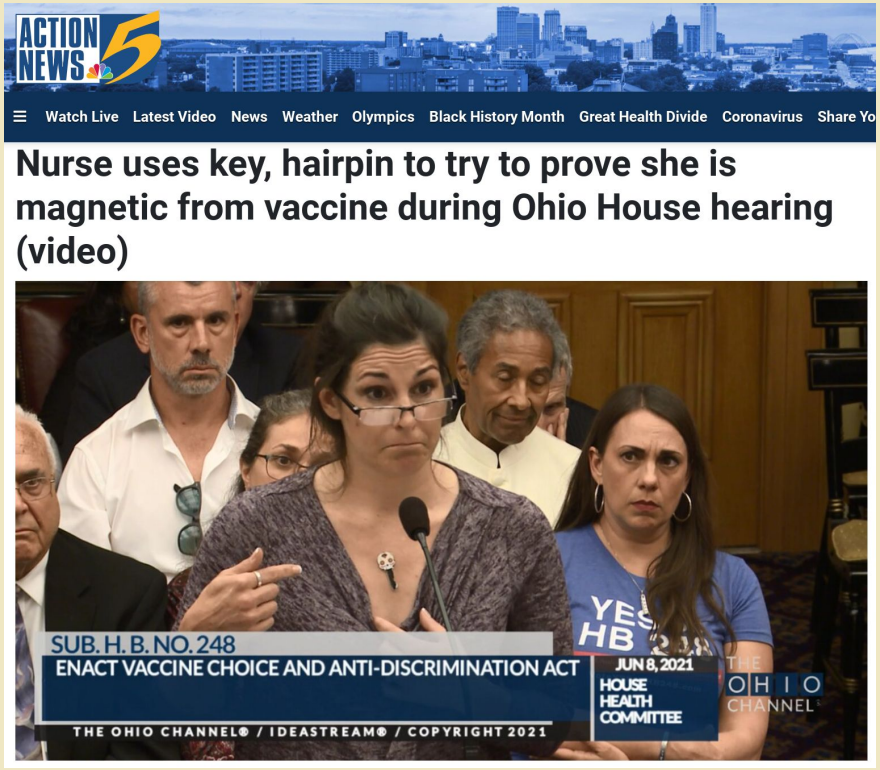
…see you in 15!

Inoculating Against Mis/Disinformation

Identify what you want to inoculate against: misleading health narratives

A few approaches:

- manual social media coding
- data analytics software to mine keywords and trends
- academic codebooks of narratives and rhetorical techniques



This **claim** is part of a persistent **narrative** that "vaccines cause injury"

Existing codebooks of misinformation narratives

Int J Environ Res Public Health. 2021 Jul; 18(14): 7556.
Published online 2021 Jul 15. doi: 10.3390/ijerph18147556
PMCID: PMC8304769
PMID: 34300005

Int J Environ Res Publ

Development of a Codebook of Online Anti-Vaccination Rhetoric to Manage COVID-19 Vaccine Misinformation

Brian Hughes,[1,2,*] Cynthia Miller-Idriss,[1,2] Rachael Piltch-Loeb,[3] Beth Goldberg,[4] Kesa White,[1] Meili Criezis,[1] and Elena Savoia[5]

How we coded COVID-19 Vaccine Misinformation

Sources

EN only

Data collected
Oct 1 - Dec 31 2020

Coding Approach

Narrative ("what")

+

Strategy ("how")

=

Viral Misinformation

Vaccine Injury

Evoke Panic

Activity: Identify misleading health narratives

Step 1:

*Write a misleading health **claim** you've seen in your community*

Step 2:

*Write a misleading health **narrative** based on that claim*

Step 3: share with your neighbor and discuss where you've seen each narrative

What is inoculation?

Communication technique to cultivate “mental antibodies”

How does it work?

Much like medical inoculations build physiological resistance against future illnesses, “Psychological Inoculation” seeks to build psychological resistance against malicious future persuasion attempts.

Inoculation messages have 3 sequential parts:

Warning

An alert that there are impending "attacks" to manipulate you

Peremptory Refutation

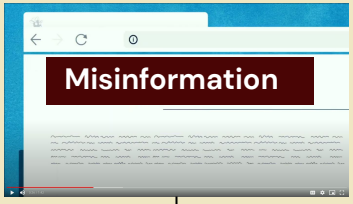
Counter-arguments to equip you to refute a manipulative message

Microdose

(delivered within refutation)

See weakened example(s) of attack to recognize it in future

Inoculation messages "prebunk" misinformation exposure



Far before

- Inoculation
- Information Literacy curricula

Right before

- Nudges (accuracy primes)

While encountering

- Nutrition labels
- Fact checks
- Redirect to authoritative sources

After encountering

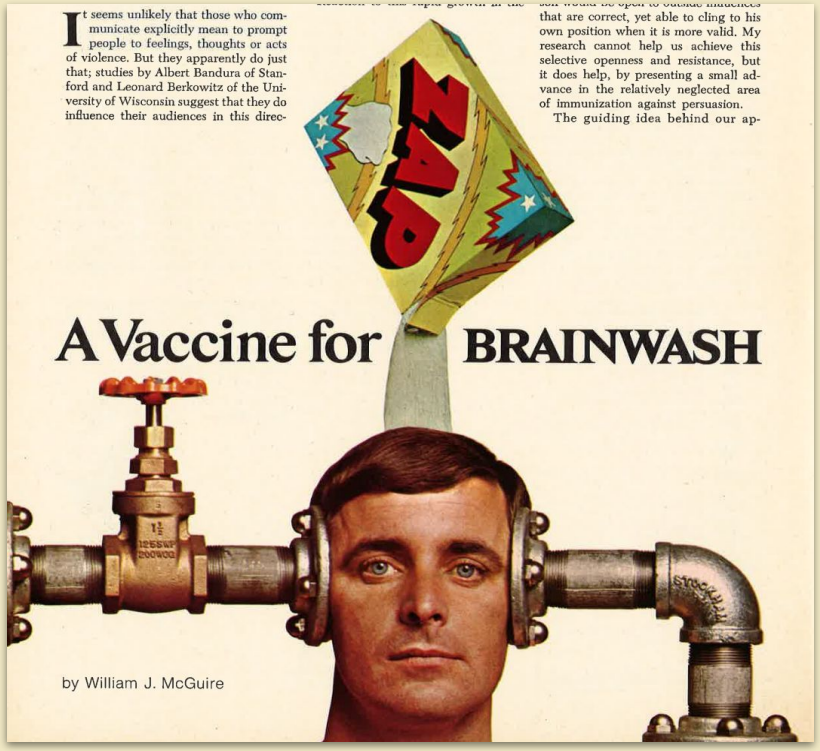
- Post-exposure notifications
- Deradicalization tactics

Why apply Inoculation to Misinformation?

- **Large body of literature** from 1960s from a range of disciplines
- Can be **nonpartisan** - address meta-narratives or rhetorical techniques
- **Not paternalistic** or PSA - it is framed as self-defense
- **No pre-existing knowledge** or skill required; it is an educational "boost"

Resistance to Persuasion
Inoculation Theory

William J. McGuire (1969)
Image credit: Sander van der Linden



Jigsaw & academic partners have published 3 inoculation studies to prebunk common misinformation narratives and techniques

Common Misinformation Techniques

Vaccine Misinformation Narratives

White & Male Supremacist Narratives

Vaccine Misinformation Prebunking Study

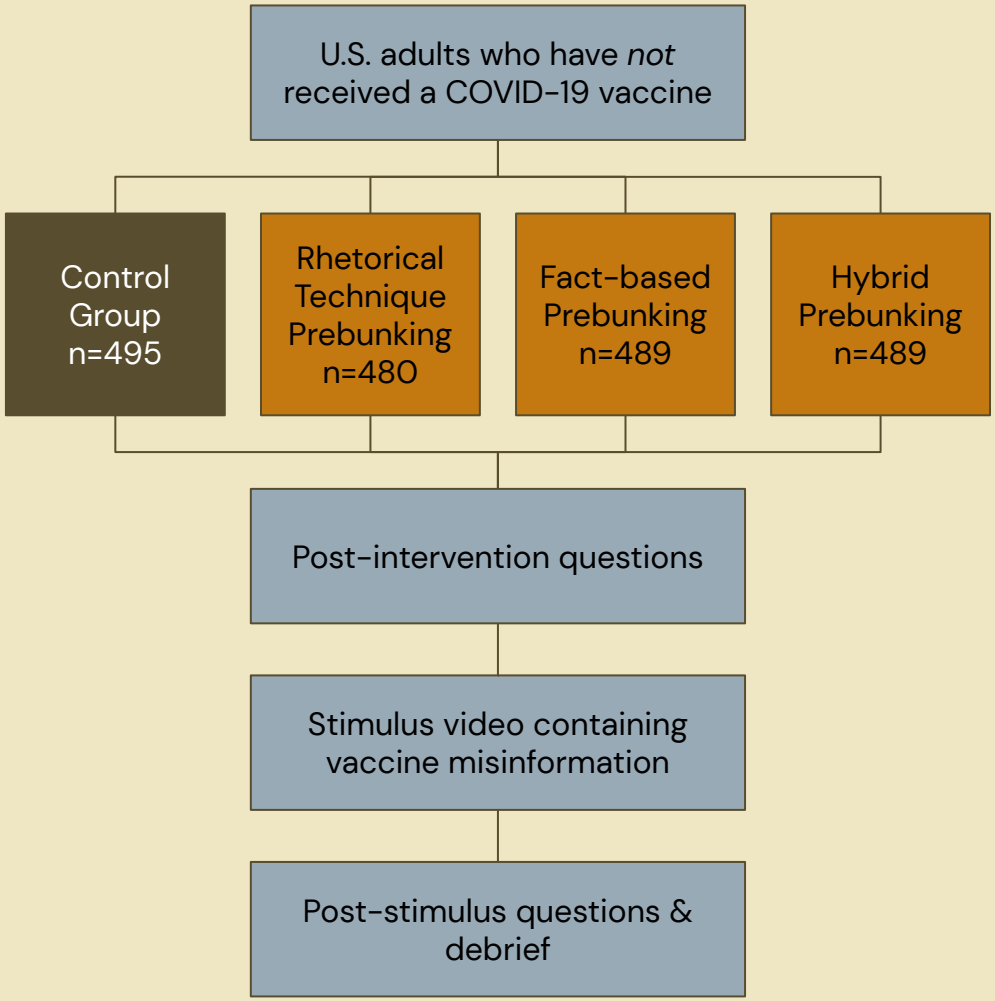
Study Design

GOAL:

Cultivate resilience against the misleading narrative that "Vaccines cause injury".

STUDY DATES:

May 24 - June 11, 2021

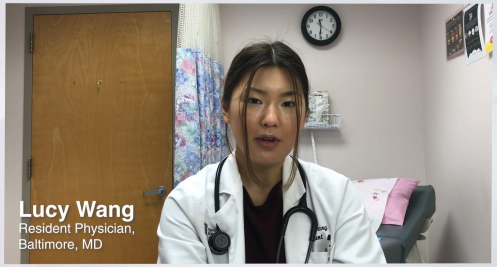


Inoculation Video Treatments

RHETORICAL TECHNIQUE-BASED

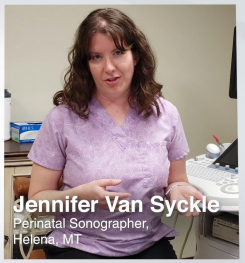
Identify the technique of emotional manipulation via hyperbolic language, scary music, and grotesque images

FACT-BASED



Rebut false claims about prevalence of vaccine injuries with accurate statistics

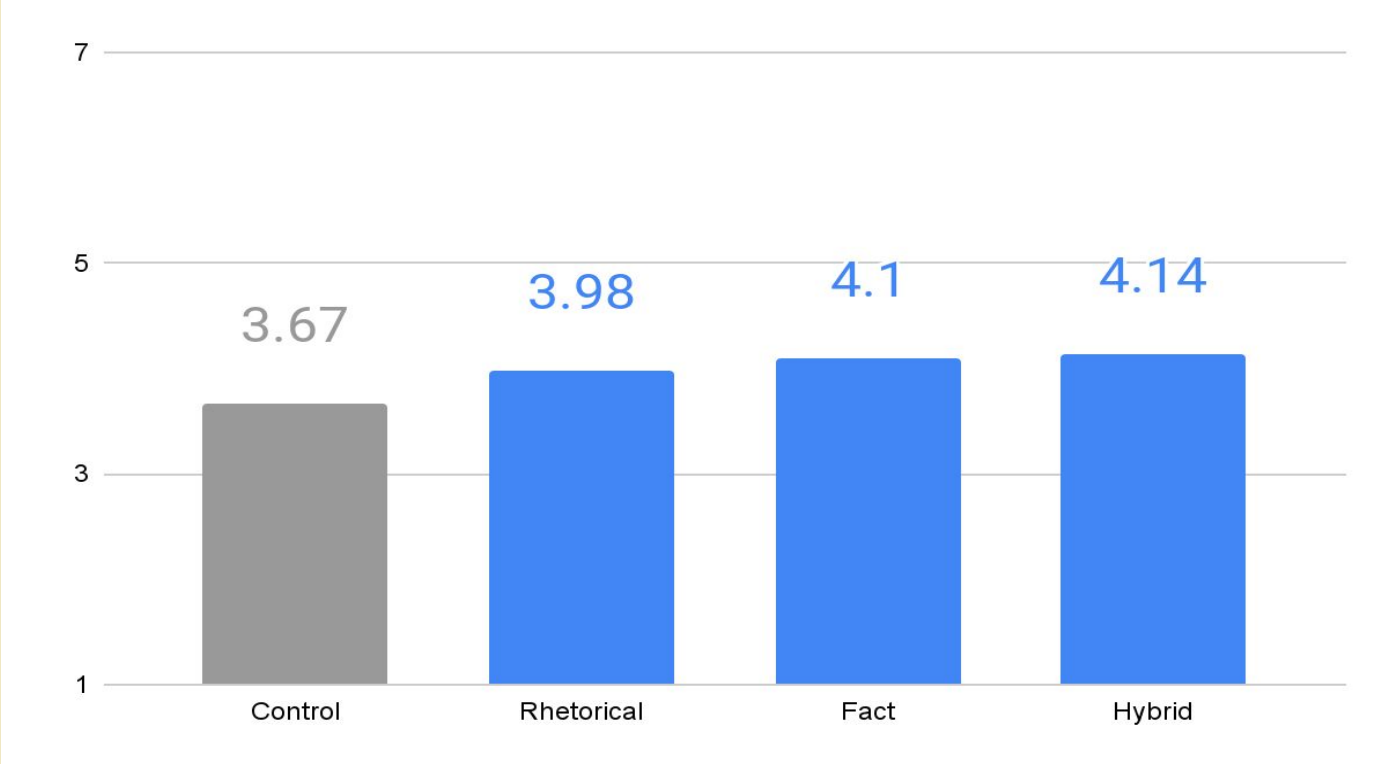
HYBRID



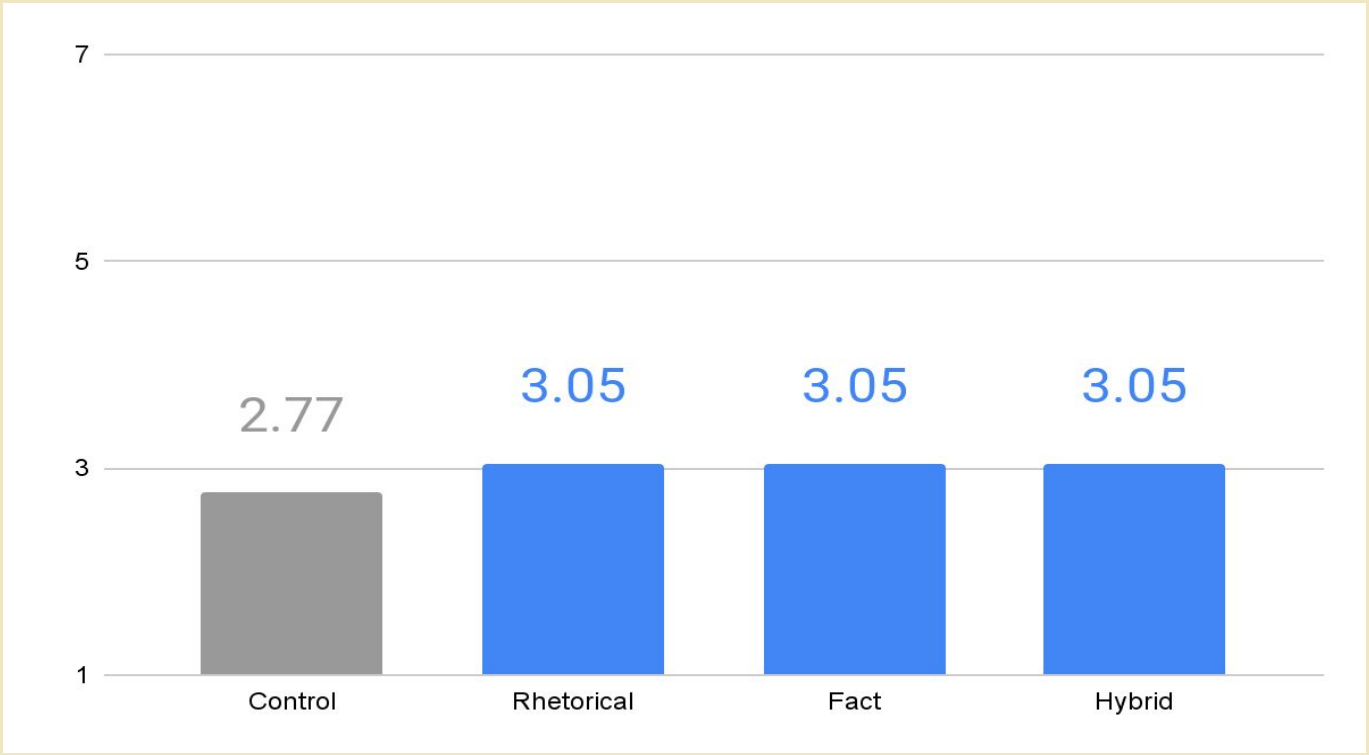
Counter-arguments to both emotional manipulation and false claims

Video Type	Purpose	Example of Video Script
Narrative & Rhetoric Inoculation	Inoculate viewers against vaccine misinformation strategies, such as manipulation, scapegoating, or conspiratorial reasoning	Sometimes, people trying to change your mind this way will show pictures of needles, crying babies, or extreme close-ups of viruses. Sometimes, they'll make videos with sounds that are scientifically proven to provoke a feeling of unease in humans. Strange, but true!
Factual Rebuttal Inoculation	Counter false information about science and safety about vaccines	Sometimes, these people talk about "vaccine injury." Actual injuries related to vaccines are extremely rare. Only two out of every one million people who received vaccine results even claimed to have been injured. Of those claims, about a third turned out not to be actual injuries related to vaccines.
Hybrid	Combine fact-based information and inoculation against misinformation strategies	Sometimes, these people talk about "vaccine injury." Actual injuries related to vaccines are so rare, you are nearly twice as likely to be struck by lightning. Actual injuries related to vaccines are extremely rare. You are 769 times more likely to die from COVID than to experience any vaccine injury. Sometimes, people trying to change your mind this way will show pictures of needles, crying babies, or extreme close-ups of viruses. Sometimes, they'll make videos with sounds that are scientifically proven to provoke a feeling of unease in humans. Strange, but true!

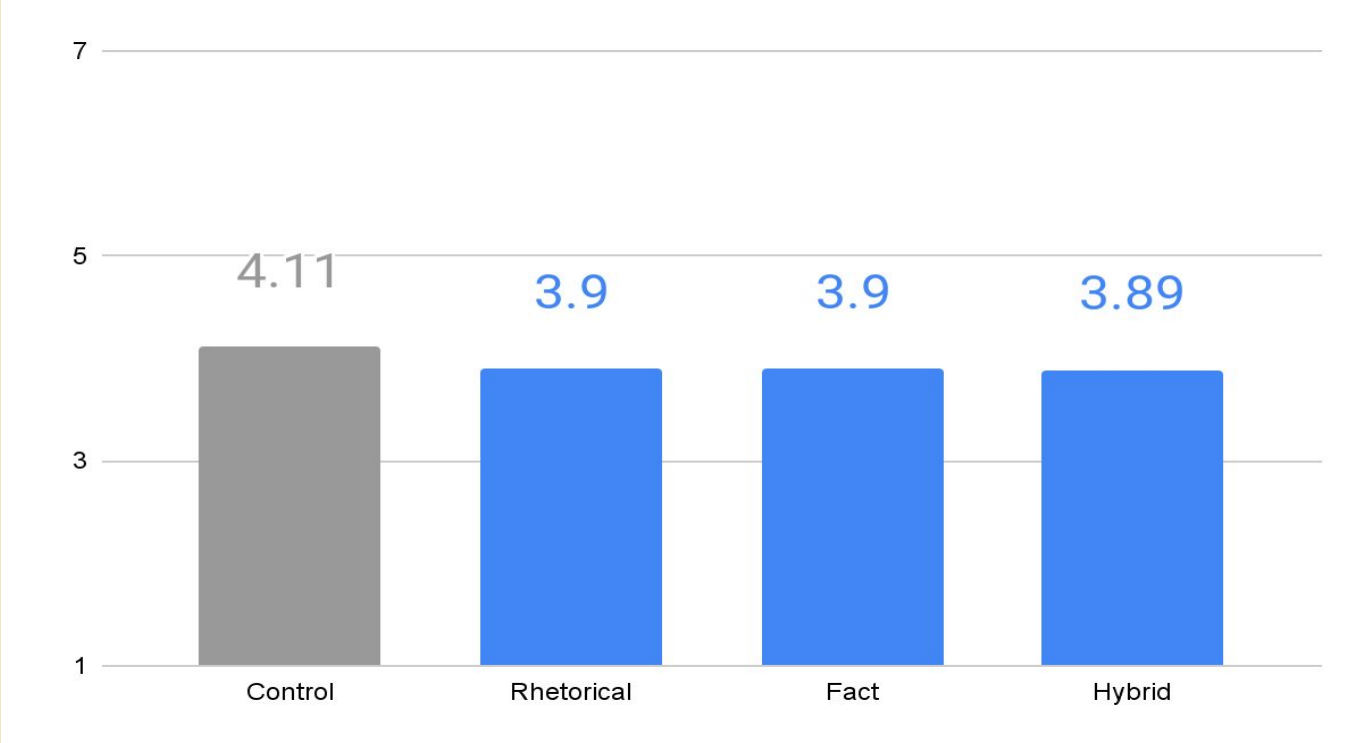
Prebunked groups showed greater discernment of misinformation techniques



Prebunked groups were more willing to get the COVID-19 vaccine



Prebunked groups reported lower levels of support/intent to share vaccine misinformation



Conclusions

People who viewed a 30 second inoculation video demonstrated greater resistance to false vaccine information compared with those who watched a control video:

- ⤴️ better at identifying manipulative techniques in misinformation
- ⤵️ less willing to share false vaccine information
- ⤴️ more willing to receive the COVID-19 vaccine

Current Work: Youtube Brand Lift Study

- Over 100,000 viewers of either videos or control
- Implemented in Fall 2022

Youtube Brand Lift Study: Results

- Video viewers **more likely** to be able to identify a vaccine misinformation strategy *(t = 3.65, p < .001)*
- Video was more effective at increasing accuracy of **younger respondents'** answers *(p = .010)*
- **Reduction in vaccine fears** among respondents who watched the video compared to respondents who were not shown the video *(t = 2.57, p = 0.01).*
- **Decrease** in the proportion of viewers who said they would **definitely not get a vaccine** *(t = 1.96, p = .050).*

BREAK

…see you in 15!

Scenario-Based Nominal Group Technique (SB-NGT)

What is SB-NGT?

- SB-NGT is a data collection methodology
- The benefits of using SB-NGT include:
  - ✓ The training necessary to successfully collect data is minimal.
  - ✓ The technique works well with diverse groups of participants.
  - ✓ The scenario can be easily adjusted to be relevant in any environment.

What does SB-NGT require?

Participants:

- 7-9 experts per group/table
- 1 Facilitator per group/table
- 1 Recorder per group/table

1st Round: Challenges

2nd Round: Solutions & Message Development

SB-NGT: Drafting Challenges and Solutions

Please remember the scenario is fictional

Scenario Background

- In spring 2022, Mpox (monkeypox) cases were reported in countries where the disease was not endemic as well as in several endemic countries – this is the first time mpox cases have been reported in such a wide geographic area
- Recent data shows that infections have been seen disproportionately in men who have sex with men (MSM)
- The U.S. CDC, state, and local health departments are monitoring cases locally to the best of their ability.
- Attention is focused on promoting testing among MSM due to the high rates of infection in this population

Scenario: An Influx of Information

- Several new rumors are swirling online regarding the Mpox outbreak that appears to be having a greater impact on MSM:
- Some of these rumors include new claims like:
  - A new strain of the virus was engineered by governments to target the LGBTQ community
  - Mpox can only be contracted by MSM
  - Mpox is spreading silently among women and children who are being overlooked by the current response
  - Mpox is a sexually transmitted disease
- Advocates have raised concerns that the current focus on the LGBTQ community is leading to stigma

The Challenge

- Public health officials must decide what, if any, **new guidance** should be created to **protect against Mpox**, and how to communicate regarding the disproportionate rates of infection seen among MSM.

- Public health officials must also consider how to address the **growing sentiments on and offline** that for a variety of reasons do not trust the numbers or government to respond.

SB-NGT 1st Round: Challenges

Step 1: 10 minutes of silent thinking about the challenges presented by the scenario

Step 2: 10 minutes to share with your table, have a note taker

Step 3: 10 minutes to discuss challenges

Step 4: 5 minutes to identify and rank the top three challenges at your table

SB-NGT 1st Round: Report Out

- How to reach MSM without furthering stigma and blame
- Balancing distinction between close contact and transmitted through sex
- Nomenclature of “monkeypox”
- Political climate around LGBTQ+ communities and public health
- Reaching the target audience on social media
- Difficulty crafting messages targeted to a group around people’s personal identity and relationships, and an identity that people may not want to disclose
- Challenge of operating within the context of COVID-19
- Prioritizing limited quantities of vaccines (N=2)
- Working with a burnt out public health workforce

SB-NGT 2nd Round: Solutions

Step 1: 10 minutes of silent thinking about the challenges presented by the scenario

Step 2: 10 minutes to share with your table, have a note taker

Step 3: 10 minutes to discuss solutions

Step 4: 5 minutes to identify and rank the top three solutions at your table

SB-NGT 2nd Round: Report Out

- Normalize testing
- Keep facts simple/sanitized, but accompany with individual outreach to agencies that served the impacted community
- Engage directly with people to hear their concerns
- Make information easily accessible
- Tap into and leverage the trusted partners and organizations
- Get as much input into our messaging as possible (e.g., testing messages, focus groups, using appropriate information channels, addressing common misinformation tropes)
- Tailor messaging to the political climate
- Educate on the broader ways of transmission in more mainstream locations
- Distinguish messaging that is designed for the general population vs. the LGBTQ/MSM population

Inoculation messages have 3 sequential parts:

Warning

An alert that there are impending "attacks" to manipulate you

Peremptory Refutation

Counter-arguments to equip you to refute a manipulative message

Microdose

(delivered within refutation)

See weakened example(s) of attack to recognize it in future

Final Round: Inoculation Messages

- **Think of one challenge** that your table discussed.
- **Identify a narrative** within that challenge

*Write **the narrative** on a sticky note*

- Where have you seen that narrative?

*Write that example as your **microdose***

Final Round: Inoculation Messages

- Who are you trying to help avoid that narrative?

  *Write a **warning** to alert them to manipulative messages*

- What is misleading about that narrative?

  *Write a **refutation** that helps them counter-argue against both inaccuracies and misleading narratives*

Final Round: Report Out

Summary

1. Effective risk communication is a learned skill and requires government investment before an emergency.
2. Inoculation is a communication tool to respond to mis- and disinformation.
3. Applying best practice principles for ERC can increase public understanding and responsiveness to public health messaging.

Keep in touch!

Email us!

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