



Medical Misinformation: Strategies to Address the Information Mess



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Definitions

- What is an **Infodemic**?
 - The WHO defines this term as “too much information including false or misleading information during a disease outbreak”
 - Significant risk to public health
 - Causes confusion and risk-taking behaviors that can harm health.
 - Leads to mistrust in health authorities and undermines the public health response.
 - This can fill information voids and amplify harmful messages.



https://www.who.int/health-topics/infodemic#tab=tab_1

More Definitions

- Prebunking -prophylactically warning people about misinformation
- Debunking – The action of addressing and correcting misinformation
- Psychological inoculation- “vaccinating” people against misinformation



How bad is it?

- Kaiser Family Foundation found in November 2021 78% of adults saying they have heard at least one of eight different false statements about COVID-19 and that they believe it to be true or are unsure if it is true or false.
- Johns Hopkins estimated that misinformation has stopped between 2 million and 12 million people from being vaccinated.
- Johns Hopkins University Center for Health Security found that falsehoods are spreading so rapidly that they are “impossible to counter in real time through official channels”.
 - On Twitter false news is 70% more likely to be shared than true news
- Disinformation is a profitable business
 - The “Disinformation Dozen”



JAMA Health Forum. 2022;3(4):e221587. doi:10.1001/jamahealthforum.2022.1587

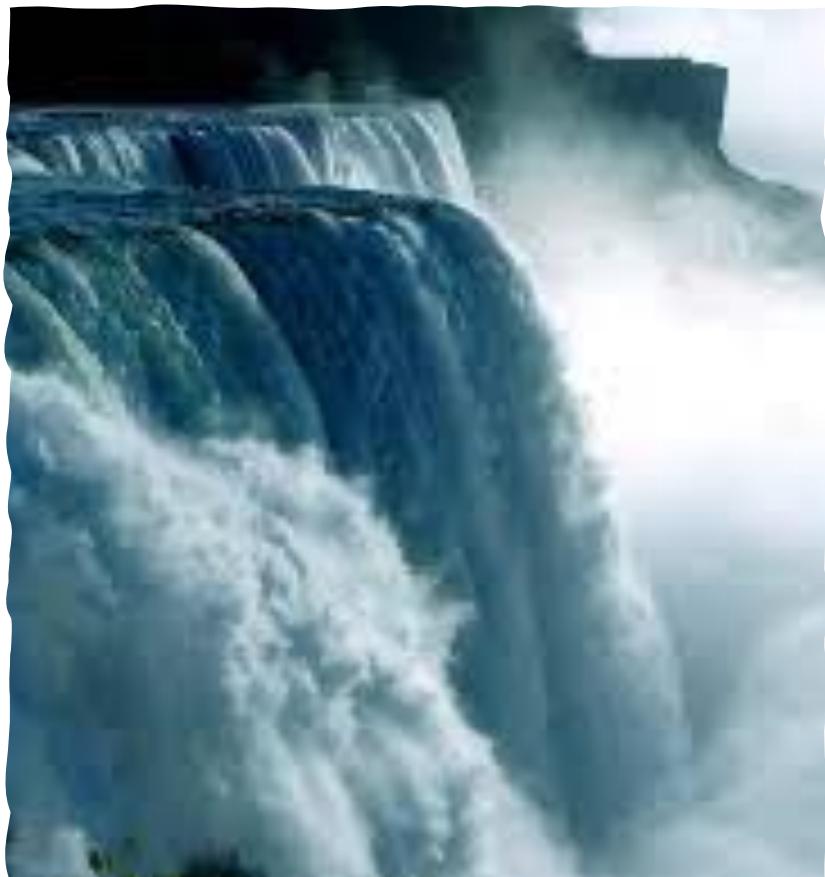
<https://www.kff.org/coronavirus-covid-19/poll-finding/kff-covid-19-vaccine-monitor-media-and-misinformation/>

https://www.centerforhealthsecurity.org/our-work/pubs_archive/pubs-pdfs/2021/20211020-misinformation-disinformation-cost.pdf

https://www.centerforhealthsecurity.org/our-work/pubs_archive/pubs-pdfs/2021/210322-misinformation.pdf

van der Linden, S. Misinformation: susceptibility, spread, and interventions to immunize the public. *Nat Med* **28**, 460–467 (2022). <https://doi.org/10.1038/s41591-022-01713-6>

Strategies used to Spread Misinformation



- Repeat it often
 - Repeat it often: “The more a claim is repeated, the more familiar it becomes and the easier it is to process.”
 - Irrelevant of its plausibility
- “provokes a strong emotional reaction—even if reflexive and poorly thought through—tends to be amplified via social media.”
- Mix true and false information
 - Or just Misleading, “A Healthy doctor died two weeks after getting a COVID-19 vaccine”
- Using fake experts
- Spreadability: People share information that is **“Interesting if True”**

Susceptibility

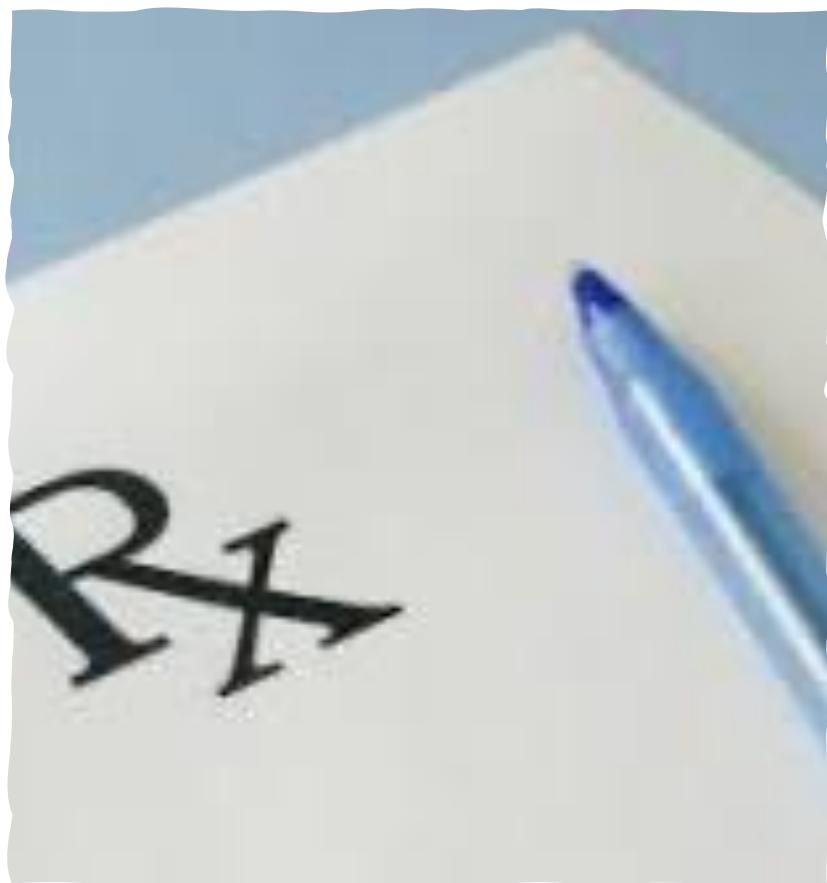
- Repeat exposure
- Micro targeting on Social Media
- Echo chambers
- Greater numeracy skills and cognitive/analytic thinking styles decrease susceptibility
 - If you **prime** people to be more analytical/consider accuracy, you can also decrease their susceptibility.
- Motivated reasoning: a person starts their reasoning with a predetermined goal
 - Alignment with their affinity group
 - In this case, priming is not helpful
- **GOOD News:** exposure does not equal being “infected” with misinformation
- **Challenge:** Sometimes our information is scientifically updated, and this presents a challenge for diagnosing misinformation and promoting trustworthiness

What Can We DO?

- Dr. Joshua M. Sharfstein discusses 3 major categories of responses to Misinformation
 1. Direct response
 2. Prevention
 3. Public Health Communication



Direct Response: The “Therapeutic treatment” of Debunking



- Post exposure
- Will be influenced by
 - The quality of the debunking
 - The amount of time that has passed
 - Prior beliefs and ideologies
- Correction backfiring risk
 - Small
 - Should not deter you from Debunking

4 Steps to Debunking Misinformation

- Leading with facts
 - Simple, sticky, expert sources
- Warning about myths (**only once, so as not to repeat them**)
- Exposing techniques of manipulation
 - How and why the myth is false
- Concluding with the facts again.
 - Provide a credible alternative explanation



Do's and Don'ts for Debunking misinformation



- **Don't** lead with the Myth “You might have heard this myth and let me do a myth bust”
 - Limited time, may only remember the misinformation
- After sharing the facts, **Do** share the causes of the misinformation if you know it
 - “This is why you are hearing this misinformation, but it’s not true”
- **Don't** just label the information as false or incorrect, people need to know “why”
- **Do** utilize your relationships with patients, families and colleagues. Providers and nurses continue to be trusted sources of information.
- **Do** put your quarter in and **have the conversation!**
 - Changing minds over time (smoking)
 - “If you bring it up, they’re going to think about it”

Prevention: Psychological Inoculation

- The Vaccine
 - Forewarning about Misinformation
 - Motivational threat: A desire to defend oneself against manipulation and misinformation
 - Recognize that we are all vulnerable to the persuasions of misinformation
 - Discussing the Tactics that misinformation spreaders use
 - Manipulating people's emotions, fear tactics
- Generation of “Cognitive Antibodies”
- Increased immunity to future misinformation (Cross-protection)
- Post inoculation talk (spread the vaccine)
- “Protection” wears over time and “booster” inoculations are needed



Misinformation about COVID-19 Booster Shots



- It's not needed / "Optional"
- Should wait for the "Updated" vaccine, don't get the booster now
- The COVID-19 infection is now like a "cold"
 - Hospitalizations
 - Long COVID



Thank you