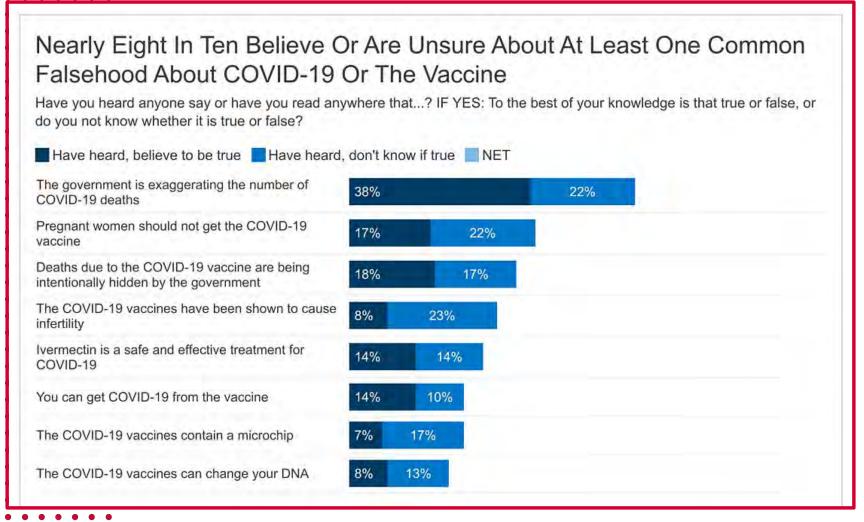


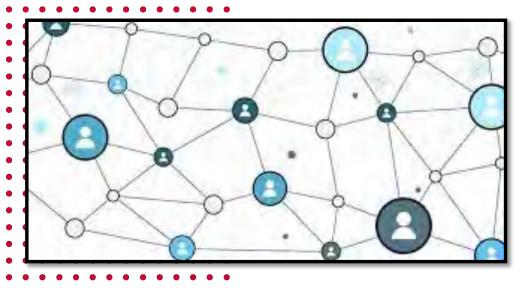
Belief in COVID-19 Misinformation is more common than we think!



78% of people surveyed believe at least one common falsehood about COVID-19



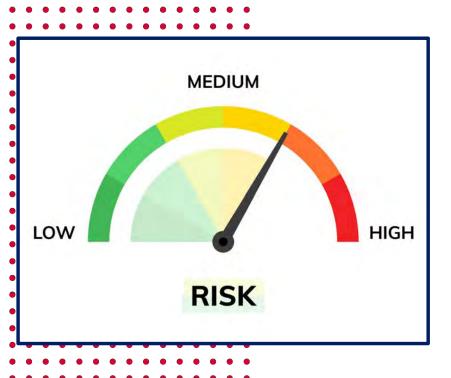
PROBLEM #1- Social media algorithms



- Engagement drives how often you see specific content
 - Someone with anti-science engagement will be shown more antiscience content
- Algorithm driven platforms are designed to keep people on the app
 - Favors sensational viral content
 - Misinformation very often wins over evidence and data



PROBLEM #2 - Poor Risk Assessment



- Humans are inherently bad at assessing risk!
 - -Risk of COVID-19 is perceived as low ("99.999% survival rate")
 - -Risk from vaccine is perceived as high ("they are hiding all the deaths!")
- Nature bias
 - Man made risks perceived worse than natural risks
- Optimistic bias
 - -people think that their own risk is less than that of other people's risk
 - "I am young and healthy"

PROBLEM #3: The Illusory Truth Effect

.@BarackObama: "It's not necessary for people to believe disinformation in order to weaken democratic institutions. You just have to flood a country's public square with enough raw sewage, you just have to raise enough questions[...] that citizens no longer know what to believe."

- The illusory truth effect describes how, when people hear the same false information repeated again and again, they often come to believe it is true.
 - even happens when people initially know that the misinformation is false!
- Social media is the perfect breeding ground for the illusory truth effect

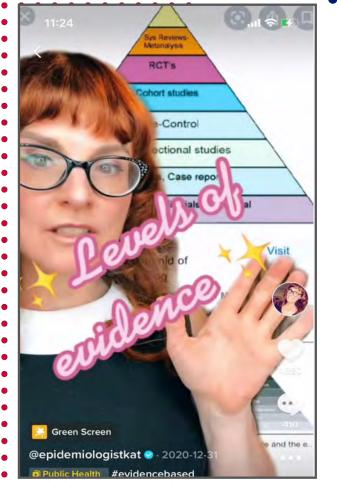


PROBLEM #4– Science Literacy

 Science communication in 2020 with non-scientists had its own host of challenges

Public was vulnerable to a co-epidemic of

misinformation









COVID-19 Vaccine Misinformation

 "Co-epidemic of misinformation" led to distrust of public health recommendations & vaccine hesitancy

Refuse all vaccines

Vaccine hesitancy

Vaccine adopters

- Misinformation about vaccines is causing people to question, delay vaccination, costs lives, and is slowing recovery from the pandemic
- Good science communication builds trust and listens and respond to vaccine hesistant people



Appeals to Fear: "Vaccines are dangerous"

- Algorithm driven platforms
- "Siloing' / echo chambers
- Viral Misinformation

Misinformation is dangerous

Take care before you share





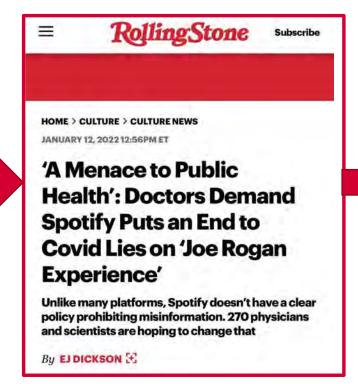


False Balance

When a scientific issue is settled, presenting sources from "both sides" as if the scientific community were split on the issue, is misleading to the public.

An Open Letter to Spotify: A call from the global scientific and medical communities to implement a misinformation policy

On Dec. 31, 2021, the Joe Rogan Experience (JRE), a Spotify-exclusive podcast, uploaded a highly controversial episode featuring guest Dr. Robert Malone (#1757). The episode has been criticized for promoting baseless conspiracy theories and the JRE has a concerning history of broadcasting misinformation, particularly regarding the COVID-19 pandemic. By allowing the propagation of false and societally harmful assertions, Spotify is enabling its hosted media to damage public trust in scientific research and sow doubt in the credibility of data-driven guidance offered by medical professionals. JRE #1757 is not the only transgression to occur on the Spotify platform, but a relevant example of the platform's failure to mitigate the damage it is causing.





Conclusion



- misinformation / disinformation is very prevalent on social media
- There is a need to counter bad information with good evidence
- social media algorithms provide fertile ground for viral misinformation to spread
- "co-epidemic" of misinformation during the pandemic on social media
- Social media has been used to weaponize health information during the pandemic for nefarious intent, profit and agenda setting