The Health Risks of Misinformation

MAY 19, 2022

Katrine Wallace, PhD

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

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

Source: KFF Vaccine Monitor October 14-21, 2021
PROBLEM #1 – Social media algorithms

• Engagement drives how often you see specific content
  • Someone with anti-science engagement will be shown more anti-science 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

• 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

• 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 hesitant people
Appeals to Fear: “Vaccines are dangerous”

- Algorithm driven platforms
- “Siloing’ / echo chambers
- Viral Misinformation

SOURCES: United Nations Verified Initiative, TikTok, GoFundMe
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.

SOURCES: Spotify Open Letter 1/11/2022, Rolling Stone 1/12/2022, WTTW Chicago 1/31/2022, CNN New Day 1/14/2022
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