

Issue At A Glance:

Confronting Health Misinformation

The spread of health misinformation led to an infodemic during the COVID-19 pandemic due to the spread of inaccurate or misleading health information. This brief provides an overview of the former U.S. Surgeon General's advisory on health misinformation, the COVID-19 infodemic, and methods for identifying health misinformation or disinformation.

Introduction

The vast reach of the internet, pervasive social media, and 24/7 news platforms have placed a wealth of knowledge at our fingertips; with just a few clicks, extensive information on nearly any topic becomes accessible.¹ However, not all information available online is entirely reliable or accurate.

Misinformation about health and diseases can have severe consequences, particularly if it is widespread and believed.¹ The spread of health misinformation became a major issue during the COVID-19 pandemic, leading to an infodemic, and continues to spread widely across the internet.^{2,3} The spread of health misinformation in emergencies is often fueled by easy access to online content. Research found that misleading health related content on social media during pandemics and crises can lead to mental, social, political, and economic distress.⁴

This brief provides an overview of the former U.S. Surgeon General's advisory on health misinformation, the COVID-19 infodemic, and methods for identifying health misinformation or disinformation.

Terms and Definitions

- Misinformation** Refers to false or misleading information without the intent to mislead.^{5,6}
- Disinformation** Refers to false or deceptive information that is deliberately intended to mislead or deceive.^{6,7}
- Infodemic** Refers to an overwhelming amount of information, both accurate and inaccurate, that makes it difficult for people to identify reliable sources.⁵

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Surgeon General's Advisory on Health Misinformation

Misinformation refers to false or inaccurate information that is based on fabricated content, manipulated content, or information presented with false context.^{5,8} Furthermore, the rise of artificial intelligence (AI) has introduced new forms of misinformation, known as synthetic media. Synthetic media involves AI driven creation, manipulation, or alteration of data and multimedia to mislead or distort meaning. It raises concerns about amplifying fake news, spreading misinformation, and automating creative jobs.⁸

Therefore, on August 2, 2024, the former U.S. Surgeon General, Dr. Vivek Murthy, issued an advisory on confronting health misinformation and efforts to building a healthy information environment. Information is essential for keeping people safe, especially during pandemics, but it can also create confusion. As research uncovers new evidence, scientific understanding of disease evolves, often resulting in updates to public health recommendations. Without clear and well explained communication, many people find it difficult to know what to believe, which sources to trust, and how to adjust to changing guidelines.³

To combat health misinformation, the advisory calls for a whole society approach, involving individuals, educators, health professionals, journalists, researchers, technology platforms, and governments. It recommends various actions, such as improving the quality of health information, enhancing health literacy, and implementing policy changes on technology platforms to slow the spread of misinformation. The advisory highlights the importance of clear and contextual communication to help people determine what to believe, which sources to trust, and how to adapt to shifting guidelines.³

The COVID-19 Infodemic

The COVID-19 pandemic is the first in history where technology and social media were widely used to keep people informed, connected, and safe.

However, these same tools have fueled an infodemic which undermined global efforts and hindered pandemic control measures.⁹ The World Health Organization (WHO) defines an infodemic as an overwhelming amount of information, including false or misleading content, often during a disease outbreak.¹⁰ Currently, the WHO is working to advance infodemiology by developing sustainable tools for health authorities and communities to combat the effects of infodemics. By enhancing digital skills and promoting health and digital literacy, the WHO aims to build resilience to misinformation and provide innovative access to reliable health information.¹¹



Identifying Health Misinformation or Disinformation

Health and disease misinformation can have serious consequences, particularly when widely spread and accepted. It can show up anywhere across various platforms, including social media, websites, TV, and even in-person conversations. Tackling misinformation requires a comprehensive approach, addressing it in the media, online environments, medical education, and in communities.¹

Understand how to recognize and prevent the spread of misinformation

Often misinformation is shared unintentionally, aiming to inform others without realizing it is false. Social media, blogs, and group chats expose individuals to various sources, but not all are reliable.³ It is important to identify credible sources that provide the latest official, evidence-based health or scientific facts before sharing.⁶ Taking the following steps when encountering political, health related, or other information can help ensure it is based on facts:

- **Check the source:** Always verify the credibility of website or organization presenting the information. Reliable sources include federal and state government websites, recognized medical or public health organizations, research institutes, peer reviewed journals, and universities.¹²
- **Verify the author's credibility:** If the story comes from an unfamiliar website or organization, research the author to assess their credibility. Consider factors such as the author's expertise on the subject, their relevant education or training, and their motivations in sharing the information.¹²
- **Evaluate the evidence:** Health claims should be supported by peer-reviewed studies, clinical trials, or substantial evidence. Misinformation often lacks citations or references to credible scientific work. Be wary of information that only presents one side or omits counterevidence or conflicts of interest.¹³
- **Favor neutrality:** Misinformation and disinformation often use alarming or overly emotional language to provoke strong reactions or fear.¹⁴ Extreme viewpoints may indicate a political agenda or attempts to marginalize others. Stick to neutral sources that present facts without judgement.¹²
- **Check for bias:** Understand the potential biases of the source. Use a media bias chart to understand a news outlet's political leanings, as this can influence their reporting, sources, and presentation of information.¹² Some organizations or individuals may have specific political viewpoints that influence the information they share.¹⁵
- **Examine the date or time period:** Health guidelines and research evolve over time. Check the date of publication as older information may no longer be relevant, accurate or applicable. Furthermore, some misinformation uses outdated or manipulated timelines to imply correlations or causations that are inaccurate.¹⁶

Conclusion

The spread of health misinformation can lead to harmful public health outcomes, such as vaccine hesitancy, use of unproven treatments, and mistrust in medical professionals.³ Research has shown that health misinformation and disinformation result in unnecessary hospital and clinic visits, billions of dollars in additional healthcare cost, avoidable illnesses, and preventable deaths.¹ There is still much to be done, and everyone has a role to play. Before posting or sharing content, it is important to verify the accuracy of the information and assess the reliability of the original source. If uncertain, it is best not to share.³ In order to protect public health, it is crucial to combat misinformation and disinformation by prioritizing reliable sources and promoting informed decision-making.

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Did you know?

Research shows that nearly 54% of U.S. adults get their news from social media, such as X (formerly known as Twitter), Facebook, and TikTok.^{17,18}



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