The spread of false and misleading health information has increased substantially in recent years. During the COVID-19 pandemic, for example, misinformation contributed to the use of unproven treatments, nonadherence to mitigation measures, and high levels of vaccine hesitancy. A study based on counterfactual simulation modeling suggested that higher immunization rates could have prevented nearly half of COVID-19–related deaths in the US between January 1, 2021, and April 30, 2022.¹

Many factors have contributed to the spread of medical misinformation and to a broader degradation of the epistemic environment: declining trust in institutions, splintering of the media ecosystem, deepening political polarization, and worsening economic inequality.² These secular trends have eroded the traditional processes through which society arrives at a common understanding of truth. But the speed and reach of misinformation has been greatly intensified by social media, which more than 70% of adults in the US report ever having used, and which, through its influence on media and politics, ultimately affects almost everyone.³

Social media platforms are sometimes referred to as the new town square, online spaces where people can connect with one another, share their views, and debate issues of importance. In many respects, however, social media is ill positioned to foster the types of conversations needed for healthy public discourse and an informed society. The business model of most platforms relies on advertising and the selling of consumer data, not on promoting individual or communal well-being. Social media tends to reward moral outrage at the expense of nuance and can heighten affective polarization and confirmation bias. The sheer volume of information shared, often without relevant context, can make it difficult for people to know what to focus on and how to separate fact from falsehood.⁴

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Although social media is understood as democratizing public discourse, a surprisingly small number of individuals can dominate a conversation: according to a 2021 analysis, only 12 accounts, known as the “disinformation dozen,” were responsible for 65% of antivaccine information on Twitter, Facebook, and Instagram.⁴ Disinformation is a subset of misinformation that is deliberately deceptive and is usually organized and designed to advance a specific agenda. Efforts to curtail misinformation and disinformation are often met with concerns about restricting free speech, alleged to be violating if not the letter of the First Amendment, then its spirit. As private entities, social media platforms have wide latitude to enforce terms of use policies.

What can be done? The ABIM Foundation dedicated its 2022 Forum to identifying paths toward mitigating the harmful effects of misinformation. Several themes and proposals emerged, including algorithmic adjustment, misinformation research and surveillance, and medical professional training and community engagement.

Algorithmic Adjustment

Algorithms used by social media platforms often promote extreme and sensational content with the goal of sustaining user engagement; as a result, even individuals who do not actively seek out misleading information are routinely exposed to it. Redesigning algorithms to reduce the visibility of misinformation and elevate high-quality information presents an opportunity to improve the information ecosystem. Determining what qualifies as misinformation is a major challenge, and both the scientific community and the general public must engage in continued discussions about the threshold at which a claim should be defined as such. However, in many cases, the material disseminated is clearly false and pernicious; these instances should serve as the initial focus of efforts to reduce the salience of misinformation. A complementary approach involves promoting high-quality information, which may improve adherence to public health guidance. Recently, the National Academy of Medicine partnered with YouTube, which reaches more than 2 billion users per month, to develop foundational principles to inform how social media platforms can identify and elevate credible health sources by focusing on those that are science based, objective, transparent, and accountable.⁵

Misinformation Research and Surveillance

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characterize how it spreads and to mitigate its health and social consequences, which likely vary by platform, country, and demographic group. Recent studies have identified some interventions—such as exposing individuals to cross-attitudinal news outlets and prompting them to think about accuracy—that may reduce political polarization and intention to share misleading content, but a comprehensive research agenda is required to address the scope of the problem. The Mercury Project, launched in 2021 by the Social Science Research Council, represents one promising effort. In the coming years, the organization plans to fund a global consortium of researchers to examine the causal effects of misinformation and potential interventions and facilitate sharing of research and policy among relevant stakeholders.

A robust evidence base could allow for the development of a misinformation surveillance and response system. Such a system might be modeled on those designed to respond to emerging infectious diseases. It would observe in real-time deviations from routine levels of misinformation, describe how false claims spread through social networks, identify misinformation “super-spreaders,” and deploy evidence-based methods for neutralizing misleading health messages.

Training Medical Professionals and Engaging Communities

Physicians and nurses remain among the most trusted professionals in the US, making them uniquely positioned to counteract misinformation within their communities. However, clinicians receive little training in effective communication methods and other techniques for addressing false claims, either online or in person. Some health systems are starting to offer relevant training. Duke University, for example, has developed a program to educate clinicians on how to address medical misinformation, which emphasizes proactive engagement, empathic listening, and elicitation of patients’ values, concerns, and lived experiences. Other institutions, such as Massachusetts General Hospital, have introduced regular virtual town halls to answer questions from patients and families and serve as a resource for the local community. Ongoing engagement of this sort may build the trust needed to “prebunk” medical myths and could preemptively educate people about common misinformation techniques.

In addition, if the public is to trust physicians, it must have faith that the profession is not spreading misinformation. Recently, the Federation of State Medical Boards issued a statement declaring that physicians who knowingly spread demonstrably false information risk suspension or revocation of their medical licenses, and several boards, including the American Board of Internal Medicine, have supported this position. However, many state legislatures are considering or have passed laws prohibiting licensing boards from taking disciplinary action against physicians who spread misinformation or prescribe unproven treatments.

Conclusions

Medical misinformation contributes to a substantial health toll in the US and around the world, and both the harms it causes and the challenge of confronting it have been exacerbated by social media. Mitigating the effects of misinformation requires a multifaceted approach that includes partnerships among clinicians, public health officials, technologists, patient groups, and community leaders. Moving forward will require sustained attention and considerable effort, but the rewards of progress are a shared understanding of what is true and what is not, strengthening the foundation of healthy people and a healthy society.

ARTICLE INFORMATION

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