

Relevant Articles and Reports

[Why We Must Rebuild Trust in Science](#)

This article shares some of the ways the biomedical research sector has made great accomplishments during the COVID-19 pandemic and the dire need to continue these trends in rapid scientific discovery and innovation as we face multiple intersecting challenges in public health. A foundational and essential element to improving the human condition is trust. The article explains that a "scientific endeavor that is not trusted by the public cannot adequately contribute to society and will be diminished as a result." COVID-19 presented an example in which the public's general trust in scientists and evidence was muddied with conflicting guidance from various messengers, complicating the deployment of reputable vaccines. This article emphasizes that scientists and society must work together to create a path forward that builds trusting relationships in and across these communities to ensure solutions that protect lives and enrich health in all forms.

[Building Trust for Engagement of Minorities in Human Subjects Research: Is the Glass Half Full, Half Empty, or the Wrong Size?](#)

This editorial summarizes and builds on the aftermath of the *Tuskegee Study of Untreated Syphilis in the Negro Male* to share progress on the formal oversight and protection of human research subjects, especially historically marginalized or vulnerable populations (e.g., the Belmont Report). Despite the historical shift, neglect in oversight has persisted with various groups in other research pursuits. However, seeing the "glass is half full" has grown into a popular mindset as the results of mandated ethics training and increasing engagement with communities grow positive. Others have adopted the outlook that the "glass is half empty" since more work needs to be done other than simply including racial and ethnic minorities in research. In addition to these two perspectives, seeing the glass as being the "wrong size" has also been proposed as continuously changing demographics have required researchers to create innovative and effective strategies to recruit and retain research participants. This piece adds research to reflect on these different perspectives and challenges presented for the future.

[Building a "Deep Fund of Good Will": Reframing Research Engagement](#)

Abstract: "*Background*—The engagement of underrepresented populations in health research has been an ongoing challenge. Yet, the participation of these groups is recognized as key to health equity. *Methods*—Semi-structured interviews with 31 experienced investigators successful in the recruitment of underrepresented minorities were analyzed with reference to the concept of social capital to determine: 1) if it is actually in use by successful researchers although, yet unidentified as such; and 2) if the rubric could shed light on new directions especially for those who find it difficult to systematically implement community-engaged recruitment methods. *Results*—Findings indicate that some aspects of the concept of social capital are being used successfully, but that there are also substantial barriers to its full implementation. *Conclusion*—A lack of enforceable trust and associated institutional support for researchers is a detriment to research engagement. Efforts to remedy this would benefit large research projects, including clinical trials."

[Science at Warp Speed: Medical Research, Publication, and Translation During the COVID-19 Pandemic](#)

Abstract: "In response to the COVID-19 pandemic, there has been a rapid growth in research focused on developing vaccines and therapies. In this context, the need for speed is taken for granted, and the scientific process has adapted to accommodate this. On the surface, attempts to speed up the research enterprise appear to be a good thing. It is, however, important to consider what, if anything, might be lost when biomedical innovation is sped up. In this article we use the case of a study recently retracted from the *Lancet* to illustrate the potential risks and harms associated with speeding up science. We then argue

that, with appropriate governance mechanisms in place (and adequately resourced), it should be quite possible to both speed up science and remain attentive to scientific quality and integrity.”

[Speed Versus Efficacy: Quantifying Potential Tradeoffs in COVID-19 Vaccine Deployment](#)

This report briefly discusses the early development and of two COVID-19 vaccines, Pfizer-BioNTech and Moderna. While there are benefits to having multiple types of vaccines authorized for public use, the authors outline critical questions and considerations for the Food and Drug Administration to encourage the efficacy of different vaccines. To quantify the speed-versus-efficacy tradeoff in vaccine deployment, the report compares the vaccine performance of a 2-dose vaccination series versus a 1-dose vaccine.

[Scientific integrity, trust in science, and independence of research](#)

This piece provides a glimpse of growing feelings of distrust in scientific evidence prior to COVID-19 in countries such as the United States, Finland, and the United Kingdom. In particular, political decision-makers have shown distrust or disregard for scientific expertise. The author shares examples of how academic and political actors can have a significant influence on a research project, potentially harming its integrity. Making changes to research operations and funding priorities could promote respect, credibility, and, ultimately, trust with key stakeholders.

[Whistleblower testimony and Facebook Papers trigger lawmaker calls for regulation](#)

This news article summarizes some of the latest criticism the social media platform Facebook has received on its neglect to prevent the spread of hate speech and misinformation on its platform. Internal documents describing this neglect, including how Facebook software algorithms have fueled increased polarization, were disclosed by Frances Haugen, an American data engineer, and scientist, and former Facebook employee. These charges have come at a time when organizations and people are calling for updated regulation for the technology industry to monitor and take action on harmful content, and not be immune from prosecution when that content shows up on their platforms.

[Identifying Credible Sources of Health Information in Social Media: Principles and Attributes](#)

Abstract: “Social media is widely used as a source of health information for the general public. The potential for information shared through social media to influence health outcomes necessitates action by social media platforms to enhance access and exposure to high-quality, science-based information. This paper summarizes the work of an independent advisory group convened by the National Academy of Medicine that deliberated and gathered information to develop a set of initial principles and attributes that could inform platforms’ identification and possible elevation of credible sources of health information. Using these principles and attributes as a framework, the authors discuss the likelihood of credibility among major categories and types of nonprofit and government organizations that share health information through social media. The authors also emphasize the need for parallel strategies in addition to source evaluation, including assessment of content, as well as important ethical considerations such as the protection of free speech and individual autonomy. The paper also stresses that, in order to be considered credible themselves, social media platforms should share data with behavioral and public health researchers to understand the effects of such policies on both online and offline behaviors.”

[From “Infodemics” to Health Promotion: A Novel Framework for the Role of Social Media in Public Health](#)

Abstract: “Despite the ubiquity of health-related communications via social media, no consensus has emerged on whether this medium, on balance, jeopardizes or promotes public health. During the COVID-19 pandemic, social media has been described as the source of a toxic “infodemic” or a valuable tool for public health. No conceptual model exists for examining the roles that social media can play with respect

to population health. We present a novel framework to guide the investigation and assessment of the effects of social media on public health: the SPHERE (Social media and Public Health Epidemic and REsponse) continuum. This model illustrates the functions of social media across the epidemic–response continuum, ranging across contagion, vector, surveillance, inoculant, disease control, and treatment. We also describe attributes of the communications, diseases and pathogens, and hosts that influence whether certain functions dominate over others. Finally, we describe a comprehensive set of outcomes relevant to the evaluation of the effects of social media on the public’s health.”