With this year’s Forum, the ABIM Foundation seeks to expand upon the conversation it hosted last summer about misinformation. During the 2022 Forum, participants learned more about the scope and impact of misinformation and its effect on trust and explored strategies to mitigate its harms, with a particular focus on the role of the medical profession. Discussions that began at the Forum have borne fruit through the year, both through publications and the development by Forum participants, with ABIM Foundation funding, of a proposal to support the creation of curricula to help physicians better address uncertainty with their patients. Meanwhile, however, medical misinformation continues to circulate through our discourse, fueled by a social media environment that has arguably become even more conducive to enabling it.

At this year’s Forum, participants will dive into the historical root causes that contribute to our current climate of distrust and skepticism of science and expertise, including the influence of American conceptions of freedom, our changing attitudes toward the idea of truth, and the legacy of racism and discrimination. They will also consider the relationship between mistrust and the spread of misinformation, and make a renewed effort to identify strategies that actors across the health care system can employ to reduce misinformation’s impact in a way that acknowledges the context of liberty and freedom concerns.

This paper is intended to provide helpful context for these discussions. It will review important developments in the struggle against misinformation and relevant follow-up activities from the 2022 Forum, and provide an overview of some of the ideas that will be under discussion at this year’s meeting. In addition, we recommend that you review the background paper from the 2022 Forum, which describes medical misinformation, the factors that contribute to it, and efforts to respond to it.

**WHAT’S NEW IN MISINFORMATION**

Since last summer, policymakers and health care organizations have increased their focus on misinformation, expanding on existing initiatives and creating new ones.

**National Academy of Medicine:** At last year’s meeting, participants heard from the leaders of the National Academy of Medicine (NAM) expert advisory committee that had developed a discussion paper on identifying credible sources of health information.\(^1\) They shared information about the forthcoming Phase 2 of this work, in which NAM collaborated with the Council of Medical Specialty Societies (CMSS) and the World Health Organization. Phase 2 focused on a larger group of content producers, exploring how nonprofit entities that are not subject to vetting mechanisms can demonstrate their alignment to the principles and attributes defined in Phase 1, and how those principles and attributes might apply to for-profit entities and individuals. Last October, the committee released an executive summary, which concluded that all health information sources should be held to the three foundational principles of being (1) science-based, (2) objective, and (3) transparent and accountable.\(^2\) In May 2023, the committee published a discussion paper that further outlined how the foundational principles could be applied to for-profits and individuals, and added “inclusive and equitable” as a new principle that is “necessary to ensure that the suggested attributes included with the other three principles do not inadvertently suppress credible information from diverse sources and voices.”\(^3\) NAM also co-sponsored a May 2023 meeting with the Nobel Academy entitled *Truth, Trust and Hope*, which was widely attended both in person and online.

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Coalition for Trust in Health and Science: This new coalition launched in March 2023, inspired in part by discussions at the 2022 Forum. The coalition seeks to provide a “big tent” to unite organizations from across the health care ecosystem, along with organizations concerned with advancing trust and science-based decision-making, in an effort to promote scientific and health literacy, counter misinformation, and improve health outcomes and health equity. More than 50 organizations have joined the coalition, representing the interests of clinicians, hospitals and health systems, public health, scientists, pharmaceutical and device manufacturers, health care communicators, philanthropies and foundations, and others. Among other things, the coalition intends to marshal its members to engage in rapid response when new misinformation arises. “If something emerges tomorrow...every single communication person in every one of those 50 organizations will send that correct information through the ecosystem the same day,” said Reed Tuckson, MD, a prime organizer of the coalition and a featured speaker at the 2022 Forum. The coalition will feature ‘myth-busting’ information on its public-facing website, and will also enable members to contribute to and access a compendium through which they can share information with one another about their activities and accelerate their learning and effectiveness.

The Profession: In September 2022, California enacted a law that expanded the authority of the Medical Board of California to designate as “unprofessional conduct” the spreading of false or misleading medical information by physicians to their own patients. (Kristina Lawson, JD, the president of the state board, was a panelist at the 2022 Forum.) Such a designation could lead to the suspension or revocation of the physician’s license. In January 2023, however, a federal judge found that the statute violated physicians’ due process rights under the US Constitution because its definition of misinformation (“false information that is contradicted by contemporary scientific consensus contrary to the standard of care”) was unconstitutionally vague and could have a chilling effect on physicians’ interactions with patients. A different federal judge had declined to block the law in a separate suit, and its ultimate fate will likely be decided by an appellate court.

Medical boards in other states, including Washington, have continued to seek sanctions against physicians for spreading misinformation. Meanwhile, the purveyors of medical misinformation have continued their efforts. For example, some of the same physicians who promoted—and profited from—the use of ivermectin to prevent and treat COVID-19 are now also baselessly recommending it to prevent and treat the flu and RSV.

ABIM/ABIM FOUNDATION ACTIVITIES

The ABIM Foundation has continued to play an active role in addressing misinformation, both through the development and funding of programs and through publications. Last year’s Forum participants heard from Clara Jimenez Cruz, a Spanish journalist and co-founder of ABIM Foundation grantee Factchequeado, the first effort dedicated to addressing Spanish-language misinformation in the US. In its first year of operation, Factchequeado attracted the attention of leading US media organizations (e.g., New York Times, ProPublica, CNN) and was featured at key journalism events, such as the Media Summit of the Americas and the Global Fact-Checking Summit. In its first six months of operation, it produced more than 150 fact checks and explanatory articles related to health care and public health, and more than 140 were republished by allied organizations. The project leaders have obtained additional support from the Knight Foundation, the Google News Initiative and the International Center for Journalists.

The ABIM Foundation has continued to convene a group of Forum participants who are focused on the relationship between uncertainty and patients’ susceptibility to believing misinformation. The group developed a proposed RFP to solicit proposals to create educational approaches that can assist physicians in accepting uncertainty as a routine part of clinical practice, and help them communicate about uncertainty with their patients and clinical colleagues across the care team. The Gordon and Betty Moore Foundation, the Josiah Macy Jr. Foundation, and the ABIM Foundation have each committed to funding such proposals.

Richard Baron, MD, the president and CEO of the American Board of Internal Medicine and the ABIM Foundation, has published articles with collaborators on the misinformation topic in major journals and spoken about the issue in prominent forums. He co-authored an article on the relationship between mistrust and misinformation, and what we know about building trust with Lisa Simpson, MD, the president and CEO of AcademyHealth.8

Dr. Baron and Carl Coleman, JD, a Seton Hall law professor and moderator at last year’s Forum, wrote about the privilege of self-regulation that the medical profession enjoys, the public expectation that the profession will in turn create and enforce standards, and the increasing interference from political actors in the profession’s ability to do so. They noted recent state statutes in North Dakota and Tennessee that limit the authority of state licensing boards to regulate medical practice—such as preventing boards from limiting prescriptions of ivermectin—and how those fit within a larger movement to challenge expertise and the apparently growing belief among the public that “all facts are political and therefore a matter of opinion.”9 They called for licensing and certifying boards to push back against this mode of thinking and the free license it gives to spread misinformation. “Although there are many gray areas in medicine, some propositions are objectively wrong. For example, when a licensed physician insists that viruses don’t cause disease or that Covid-19 vaccines magnetize people or connect them to cell towers, professional bodies must be able to take action in support of fact- and evidence-based practice.” (This article followed up from a May 2022 perspective by Dr. Baron and Yul Ejnes, MD, which explained the importance of medical certifying boards and licensing authorities protecting the public from physicians who make clearly false statements.10)

Finally, ABIM and other leading medical organizations have formed a coordinating committee that has explored the possibility of launching a campaign to combat the spread of medical misinformation. Other coalition members include the American Board of Medical Specialties (ABMS), the Association of American Medical Colleges (AAMC), the American College of Physicians (ACP), CMSS and the American Medical Association (AMA), among others. As their first joint activity, the committee members have funded messaging research to help determine how medical organizations might best contribute to addressing misinformation.

Related to this effort, the ABIM Foundation is funding Public Good Projects (PGP), a public health nonprofit, to create monthly newsletters for a clinician audience that summarize trending examples of misinformation and provide evidence-based responses. The ABIM Foundation is enabling coalition partners to share these newsletters with their members. PGP CEO Joe Smyser (a speaker at this year’s Forum), Vineet Arora, MD, an academic hospitalist and dean for medical education of the University of Chicago Pritzker School of Medicine and a member of the ABIM Board of Directors, and Dr. Baron presented together on a panel titled “When Doctors Prescribe Misinformation” at SXSW in Austin, Texas this year.

THE CHANGING SOCIAL MEDIA LANDSCAPE

Despite the continuing focus of the health care community on misinformation, changes in social media—which, as noted in last year’s summary, enabled the modern misinformation boom—have often left those fighting misinformation on the defensive. Most prominently, Elon Musk’s acquisition of Twitter led to a purposeful de-emphasis on policing facts. In November 2022, Twitter announced that it would no longer enforce its policy against providing misleading COVID-19 misinformation, which had led to the suspension of more than 11,000 accounts and the removal of nearly 100,000 pieces of content. The change was celebrated as “a win for free speech and medical freedom!” by Simone Gold, MD, the founder of America’s Frontline Doctors, who was convicted for illegally entering the US Capitol building on January 6, 2021.11 The end of the COVID-19 policy was one part of Twitter’s larger shift away from content moderation, which also included the grant of an amnesty to account holders who had been kicked off the platform, the voluntary and involuntary departures of staff responsible for monitoring false statements, and the dissolution of the Trust and Safety Council that advised the company about hate speech, abuse and other issues.12

Although less dramatic than changes at Twitter, other social media companies have recently changed their approach toward misinformation. Across the tech sector, layoffs have included content moderators and others tasked with combating misinformation. According to the New York Times, YouTube reduced its small team of policy experts in charge of handling misinformation from five people to three, two of whom are focused on medical misinformation.13 Meta reduced its efforts to prevent foreign interference and voting misinformation in the period leading up to the 2022 elections, shut down an examination of how lies were amplified in political ads, and banned a team of New York University researchers who were studying misinformation from the site.14

Meanwhile, traditional media outlets are making increasing investments in covering misinformation, medical and otherwise. The Washington Post has hired a fulltime reporter dedicated to medical misinformation, and NPR has created a six-person misinformation team.

A number of ongoing legal challenges also demonstrate the cross-pressures that social media companies are operating under as they consider whether and how to monitor misinformation. One suit, brought in federal court by the attorneys general of Louisiana and Missouri, accuses Biden administration officials in 11 agencies, including the now-retired Dr. Anthony Fauci, of seeking to force social media platforms to silence their critics. Separately, the US Supreme Court is currently considering whether to hear challenges to laws enacted by Florida and Texas that make it harder to police misinformation by barring platforms from removing content based on political points of view.15

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ROOT CAUSES: MISINFORMATION IN CONTEXT

Although this year’s Forum will revisit the topic of misinformation, we will hear new perspectives on how our society arrived at this moment. Lewis Grossman, JD, a professor of law and affiliate professor of history at American University and one of our President’s Lecturers, approaches topics such as the resistance to COVID-19 vaccination and masking—which fueled so much misinformation in recent years—through the lens of Americans’ historical attachment to the concept of therapeutic freedom and individual liberty.

In his recent book “Choose Your Medicine,” Professor Grossman describes how this “freedom of therapeutic choice” movement has pitted citizens/patients against regulators and the medical community, with repeated challenges to physicians’ status as gatekeepers and the science-based authority exercised by regulators. For much of American history, this fight focused on licensing, with advocates for therapeutic freedom viewing state medical licensing laws as the primary threat to their ability to access the unorthodox treatments they preferred from clinicians outside of traditional medicine.

More recently, the movement was fueled by those who wanted to preserve access to alternative drugs that the medical establishment rejected. The 1970s-era fight to legalize Laetrile—an unproven, much-hyped and ultimately ineffective anti-cancer treatment—was a paradigmatic example. More recently, there has been a related movement to obtain access to treatments that are developed as part of orthodox medicine but have not received approval from regulators, such as the fight to obtain early access to unapproved HIV/AIDS drugs in the 1980s and 1990s, and, of course, demands in the COVID-19 era for direct access to unproven and/or ineffective therapies such as hydroxychloroquine and ivermectin.

Those seeking “therapeutic choice” have formed coalitions across typical ideological lines to pursue outcomes such as the legalization of medical marijuana, the elimination of vaccine mandates, or deregulation of alternative medical practice. “Conservatives tend to view these issues as a question of the intrusions of big government, often with a conspiratorial angle. …Conservative approaches often have a religious overlay. …From the left, ever since the days of Roe, there tends to be a focus on bodily autonomy, above all. But that is joined to a similar distrust in establishment solutions,” Grossman said in a 2021 interview.

Professor Grossman views the battles over regulation and the rampant misinformation of the COVID-19 era as entirely in keeping with this history. In his book, he writes that “COVID skepticism..., with its rejection of face masks, its embrace of unproven remedies, and its demonization of Dr. Anthony Fauci, has not been exceptional but rather a reversion to the norm.” He expanded on this continuity in a book lecture: “Many...probably believe that the current deluge of anti-scientific, anti-establishment, and conspiratorial rhetoric around COVID-19 demonstrates that America has gone off the rails. From a historical perspective, however, I would argue that the country has simply returned to its customary state of mind. Throughout most of our history, a wide swath of Americans has not only demanded freedom of therapeutic choice but has done so in large part because they harbor deep, even conspiratorial, suspicions about the medical establishment, scientists, experts, the elite, big business, the government and bureaucrats.”

Indeed, he writes that “the only period in which medical liberty advocacy was a fringe cause with little impact on law and policy was the middle of the twentieth century, a time distinguished by unusually prevalent trust in the medical and scientific establishments, the government, the media, and even big business.” This was the era of the elevation of Jonas Salk to heroic status for the development of the polio vaccine, and high public confidence in medical leaders and even the federal government. (In 1964, 77 percent of respondents said they could trust the federal government to do the right thing nearly always or most of the time.\textsuperscript{19})

Sophia Rosenfeld, PhD, a history professor at the University of Pennsylvania and this year’s other President’s Lecturer, studies the nature of truth in democratic societies and the historical roots of misinformation and disinformation. Professor Rosenfeld’s work explores the other end of the misinformation spectrum: how we define what counts as accurate information in the first place.

In her book “Democracy and Truth: A Short History,” she considers how we define truth, and its relationship with democracy. She argues that how we decide what is true is itself the result of a set of political choices, observing that the word “statistics” first entered the English language in 1823 with the original meaning (in the Oxford English Dictionary) of “Information of use to the state.” Using quantitative metrics to drive policy is something she sees as flowing from 18\textsuperscript{th} century innovations like the US census, mandated in our constitution but offering a new way to understand what is going on in the country and to decide how to address it.

She describes our current time as a “particularly contentious moment for truth.”\textsuperscript{20} However, debates over truth—and the conflict between elite and popular thought that has been a hallmark of the COVID-19 era—are nothing new. “I don’t think we lived in some sort of golden age of truth where everybody agreed about everything and then suddenly we fell off a cliff,” she has said. That being said, our era, with its technological advances, presents additional challenges. “When we have a technology that can spread lies so quickly and so far, and when we have a legal system that has basically let media companies operate without much regulation, there is a kind of open door to falsehood.”\textsuperscript{21}

Similar to Professor Grossman’s analysis of the therapeutic freedom movement’s rejection of the gatekeepers of the medical establishment, Professor Rosenfeld describes the attitudes of those who reject what others see as clear evidence establishing, say, the winner of the 2020 US presidential election (or the efficacy of COVID-19 vaccines). “Many people...have come to see everything that ‘establishment culture’ touts as a fact as actually a matter of opinion, or spin, rejecting in some cases the idea that there are any impartial disinterested sources, methods, or arbiters of truth, or any pure objective information at all.”\textsuperscript{22} In both of their analyses, those with the alternative view of reality radically reject the evidence-based frame that establishment figures offer.

During their President’s Lecture panel, Professors Grossman and Rosenfeld will apply their scholarship to deepen our understanding of the trust issues facing today’s health care system.
MISINFORMATION AND THE BIPOC POPULATION

In addition to the historical debates over truth, science and personal freedom that Professors Grossman and Rosenfeld study, a weighty history of racism and discrimination shapes the impact of misinformation on the care received by members of the BIPOC (Black, Indigenous and People of Color) population in the US. As described in the background paper from the 2020 Forum, the US health care system is marked both by serious disparities in health care outcomes between white patients and patients of color, and by outright prejudice, as in the notorious “Tuskegee Study of Untreated Syphilis in the Negro Male” study that provided sham treatments to about 400 men suffering from syphilis, many of whom died entirely preventable deaths. First Draft, a research group, has argued that the history of discrimination and medical racism, plus a lack of access to health care, may have created “a foundation of doubt and mistrust that allows misinformation about COVID-19 vaccines to flourish on social media.”

As one observer from the National Council on Aging noted, “In the hardest-hit communities, people of color have much more limited access to health care providers and trusted information. The inability to talk one-on-one with a provider can lead people to look for other sources of information that are inaccurate, misleading, and even dangerous. One mistaken belief and/or bad encounter with a provider can have a lasting impact on how entire generations either trust or distrust health professionals.”

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Indeed, experts are concerned about disinformation that exploits “existing forms of discrimination, targeting people based on race, gender and identity,” in the words of DeVan Hankerson Madrigal, the research manager for the Center for Democracy & Technology. Such efforts can include the use of so-called ‘digital blackface,’ in which non-Black people use fake online profiles to impersonate Black people; a prominent example from outside the health care context occurred through the use of such impersonators posting under the #Blaxit hashtag in an attempt to suppress voter turnout for the Democratic Party.

Purveyors of such “racialized disinformation” have preyed on the distrust Black Americans may have in the health care system. A study by First Draft found that anti-vaccine advocates such as Simone Gold and Robert F. Kennedy, Jr. targeted online misinformation to Black people, with Gold alleging that the US government used Black people as test subjects for COVID-19 vaccines and Kennedy claiming that the vaccines were harmful to Black people’s health and drawing comparisons to the syphilis experiment conducted at Tuskegee.

As noted in last year’s background paper, there is evidence that misinformation played a meaningful role in influencing the views of the BIPOC population toward COVID-19 vaccination. UCLA researchers conducted a set of focus groups in late 2020 and early 2021 with participants who were Native American, Black/African American, Filipino, Hispanic and Pacific Islander, to learn more about how people of color were making decisions about COVID-19 vaccination. In their discussions, participants raised concerns about their lack of trust in information sources and expressed
fears about vaccination that were based on misinformation they had encountered about vaccine safety and development (e.g., false claims that the vaccines had overwhelmingly been tested on white patients). Among other things, the researchers recommended engaging community partners to help deliver trustworthy messaging and information about vaccines, and ensuring that information was timely and accessible.  

**MEDICAL MISINFORMATION: HERE TO STAY?**

The flow of misinformation is never-ending. As noted above, there is evidence that the social media industry’s appetite for monitoring misinformation is waning, due to a mix of the herculean nature of the task, economic pressures, ideological misgivings, and pressure from some public officials who criticize some content moderation efforts as crossing the line to censorship. And further technological advances will make it even easier to spread misinformation by, among other things, making it easier to create fake photos, audio and videos that are indistinguishable from reality (“deep fakes”) and to use AI to create fabricated text. 

As the scope of our medical misinformation problem has become clearer, some observers have emphasized something closer to a harm reduction model that limits the damage it causes, rather than seeking to eradicate it. 

As Julia Kish-Doto, PhD, a researcher who specializes in health communication, noted, “Misinformation is not going away and cannot be ignored. [But] not responding to misinformation can have deleterious effects, including mistrust of credible scientific sources.” She argued that the desired response from health professionals should include providing responses that go beyond addressing misinformation to promote trust-building between patients and clinicians. Forum participants will have the opportunity to work together to develop such approaches.

Last year’s background paper provides some examples intended to help manage misinformation’s impact, such as the infodemiology approach pioneered by 2022 Forum presenter David Scales, MD, PhD, assistant professor of medicine at Weill Cornell Medical College. Another presenter from the 2022 Forum, Janice Knudsen, MD, has published an article about the steps that the New York City Department of Health and Mental Hygiene took to combat misinformation about COVID-19 vaccination, including misinformation surveillance.

Others have considered how physicians can address the issues presented by patients who are motivated by a strong commitment to personal liberty, along the lines discussed by Professors Grossman and Rosenfeld. Jerel Ezell, PhD, a professor at the Cornell Center for Health Equity, considered the “culture war” over COVID-19 mitigation measures and argued that a successful response “requires an intimate and nuanced understanding of personal and medical autonomy.” He suggests four steps the medical community can take to address what he calls the ‘medicalization of freedom.’ First, he proposes that clinicians bring conversations about freedom into clinical and public outreach spaces, encouraging discussions of freedom as part of discussing treatments/mitigation options with patients. Second, he recommends seeking to understand the particular causes of a patient’s emphasis on freedom, suggesting

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that the “craving for freedom” stems from a belief that one has been or will be wronged and “is likely most pronounced and resilient when uncertainty is elevated.” Third, clinicians should be “culturally humble” and treat patients’ view of freedom as a social determinant of health that is influenced by their cultural backgrounds. Fourth, he proposes that clinicians should attempt to align the freedom mentality with a humanistic mentality, seeking to persuade patients that embracing COVID-19 mitigation steps are themselves an expression of freedom and support of human rights.31

Medical educators have increasingly focused on misinformation as they prepare physicians-in-training to practice in the current information environment. A number of medical schools have added courses on misinformation since the COVID-19 pandemic, and AAMC and the Centers for Disease Control and Prevention (CDC) provided grants to five academic medical centers to revamp their curricula to teach students how to mitigate misinformation and provide vaccine education.32 One of the grants went to the University of Chicago to support a 10-week elective course that emphasizes the ability to discover misinformation, find better sources of information, and communicate medical facts to patients using empathetic communication strategies that will help build trusting relationships. The course is led by Dr. Arora, who told Medscape that she had an “a-ha moment” that expecting physicians to address misinformation without any training was contributing to burnout.

Another of the AAMC/CDC grantees noted that helping patients who have been persuaded by misinformation is often a multi-visit process that requires physicians to offer respectful and nuanced responses to false claims patients may advance. “Sometimes establishing a relationship and providing effective care is more important” than correcting a patient, according to Kristina Krohn, MD, a hospitalist and misinformation instructor at the University of Minnesota.

Medical students recognize the impact that misinformation has on the health care system they are preparing to join. At the Forum, participants will hear from students who submitted winning essays for a contest sponsored by the American Medical Student Association (AMSA) and the ABIM Foundation. The sponsors asked students to write about an experience where they or someone they know received, shared, or acted upon misinformation in healthcare setting.

CONCLUSION

We look forward to gathering in a shared effort to better understand the causes and impact of misinformation, which FDA Commissioner Dr. Robert Califf has called the leading cause of death in the US today.33 As the spread of misinformation continues unabated in the broader society, the need to create approaches and tools that can help clinicians become trusted messengers for their patients becomes all the more pressing. Participants will have ample time to consider and being developing such approaches at this meeting, and we hope this year and last year’s background papers are helpful to this process.

