

Fighting Medical Misinformation: What Physician Leaders Need to Know

Lola Butcher

The dangerous rise of misinformation and disinformation about health and healthcare undermines the work of physicians and other healthcare workers. Physicians are well-positioned to counter inaccurate information because their patients put a high degree of trust in them. Strategies at the individual and organizational levels are discussed.

KEY WORDS: Medical misinformation; disinformation; vaccines; social media; reliable information.

Peter Hotez, MD, PhD, dean of the National School of Tropical Medicine at Baylor College of Medicine, was accustomed to harassment related to his advocacy and development of vaccines, but his 2021 article in *Nature* turned things up a notch. His article highlighting the damage the public suffered from the anti-vaccine movement triggered an email suggesting that his public execution should be broadcast on television while he received 2,000 doses of “Satan-Vax”; other protestors demanded that he be hanged.

Hotez’s offense: trying to fight inaccurate information about vaccines.

His credentials should make him trustworthy: A professor of pediatrics and molecular virology and microbiology at Baylor College of Medicine, co-director of the Texas Children’s Center for Vaccine Development, Nobel Peace Prize nominee, co-developer of a low-cost COVID-19 vaccine used by millions in India and Indonesia, a career in developing vaccines for neglected parasitic infections prevalent in poor countries, past president of the American Society of Tropical Medicine and Hygiene, founding dean of a tropical medicine school at Texas Medical Center — and the list goes on.

None of that sways the people who consider him a dangerous threat. In his book *The Deadly Rise of Anti-Science: A Scientist’s Warning*, Hotez calculates that 200,000 Americans died from COVID-19 because they refused to be vaccinated, although a vaccine was readily available. “They succumbed to this health disinformation juggernaut despite the pleas of the overwhelming community of physicians and health professionals,” he said in an interview with *Physician Leadership Journal*. “Chief medical officers need to be aware

that this thing is a monster and is not stopping at COVID vaccines. It is affecting the health of patients, but it is also demoralizing healthcare professionals by serving as a major contributor to physician burnout.”

Hotez, who was countering vaccine misinformation long before the COVID-19 pandemic, wants physicians — and everyone else — to know that medical scientists are under attack as part of an anti-science campaign. “Too often it is called ‘misinformation’ or ‘an infodemic,’ like it’s just random junk out there on the internet, but it’s not,” he says. “This is organized. It’s deliberate, it’s predatory, and it’s politically motivated. This is why it’s important to at least get educated about what this is.”

In his book, he explains the who, what, why, and how of healthcare disinformation, but one question leaves him flummoxed: What should physician leaders do about it?

“We have to remember that we’re in a new space and uncharted waters, and the old way of doing business where your Office of Communications will say, ‘Keep your head down and focus on your physician practice’ or ‘Focus on your research and your papers and your grants,’ is not working,” he explains. “Exactly what the new thing is, I think, remains to be invented.”

PHYSICIANS’ UNIQUE POSITION

The vast majority of Americans — 77% — say they have a great deal or a fair amount of confidence in medical scientists to act in the public’s best interests, according to a Pew Research Center survey conducted in October 2023. That means 22% reported “not too much” or “no confidence at all,” which is an increase from 13% in January 2019.

Meanwhile, just 34% of Americans said they had “a great deal” or “quite a lot” of confidence in the medical system, according to a survey by Gallup in June 2023.

By contrast, people overwhelmingly trust their own physicians. A 2023 survey by the Kaiser Family Foundation found that 93% of American adults trust their doctor either “a great deal” or “a fair amount.”

“The everyday patient understands that their doctor has their back,” assures Geeta Nayyar, MD, a rheumatologist, healthcare technologist, and public speaker on the topic of healthcare misinformation.

Most people, however, have very little contact with their personal physician. “Depending on where you are in the country, you can’t get a doctor’s appointment for six to nine months,” Nayyar laments. “But you can easily find someone on social media, and you can easily talk to your hairdresser, your priest, or your neighbor and can get information about your healthcare from all the wrong sources.”

Megan Ranney, MD, MPH, dean of the Yale School of Public Health, became a high-profile advocate for scientific accuracy during the COVID-19 pandemic, but her interest in combating misinformation was initially prompted by her academic research.

“I find that there’s a lot of misinformation or intentionally inaccurate information — disinformation — around both how to prevent firearm injury and about the intentions of people that are doing firearm injury prevention research,” she says.

Humans’ susceptibility to misinformation and disinformation is one reason the U.S. government started regulating food and drugs more than a century ago. “That was because folks were hawking literal snake oil and cough syrup laced with opioids and with cocaine,” Ranney says. “People have always wanted to try to find cures and have had difficulty finding accurate information. What is new is the speed of spread as well as the prevalence of disinformation, thanks in part to social media.”

SOCIAL MEDIA: FIGHT FIRE WITH FIRE?

Social media makes the spread of information — both accurate and inaccurate — fast and easy. Nayyar thinks its role in the proliferation of inaccurate health information is intertwined with America’s longstanding healthcare access problem. Many people have no primary care physician; those who do often have long waits and short visits.

When people head to Facebook or X for healthcare information, they are not looking to be fooled into doing something dangerous, she says. But they quickly encounter a rush of confidence-inspiring “solutions” to the problem they are trying to solve. “And because those messages are so reachable and relatable, it kind of drowns out the science,” Nayyar says. “Oftentimes folks are selling a supplement, a

skincare regimen, you name it, somebody’s selling it to our patients because myth and disinformation flourish in the gap that healthcare leaves open.”

So, should physicians and physician leaders position themselves on the frontlines of social media?

During the pandemic, Ranney used various forms of media — major broadcast networks, print publications, and social media — to spread facts. Since then, she has exited X, formerly known as Twitter, because of its toxicity, but she remains active on LinkedIn, Threads, and, to a lesser extent, Instagram.

“I find social media to be a great place to share truths, to engage in discussion around key health issues, and to be a voice for reason,” she shares. “I don’t think that all physicians need to be on social media, but some of us do. Otherwise, we leave a vacuum that purveyors of mis- and disinformation can step into.”

Physician leaders who don’t want to prioritize social media as a use of their own time can still elevate physician voices. Since taking the top job in Yale’s School of Public Health last year, Ranney has less time for social media than in earlier stages of her career. “But I have junior faculty and staff who are social media natives and who are terrific at this,” she says. “Part of my job as a leader is also to support and mentor them in their social media voices.”

When she began to raise her social media profile, “my chair and my hospital CEO did not censor or stifle my social media voice, but they did offer me common sense tips on how to not create controversy that would hurt my hospital,” Ranney says. “So, physician leaders might think about how to elevate the organic voices that exist within their organizations by providing training or just tacit support for the work that they are doing.”

Hotez weighs public-engagement opportunities by their strengths and weaknesses, and he ranks social media as his lowest priority. Rather, he gives many pediatric and medical grand rounds lectures to educate health professionals, writes opinion pieces for biomedical journals and mainstream press, and writes single-author books.

“I would say going on the cable news channels and local TV is really important so people can see a face — a person — attached to what is being said,” he says. “One of the things that the anti-science disinformation people are trying to do is dehumanize us and portray us as shadowy figures lurking in corners, plotting nefarious things.”

The first step is to develop a good working relationship with your institution’s communications office. Communications professionals can advise on the institution’s tolerance for the risks associated with public engagement and how to tailor effective messages that have the organization’s wholehearted support. “If you are out there in the public domain, eventually you will make a mistake, and you don’t want that to be the first time you meet with your head of Office of Communications,” he warns.

“Once they know you are interested, they will often provide opportunities for you in some of the more rewarding

aspects of public engagement, like local TV and writing opinion pieces, to get you in the swing of things,” Hotez says. “Oftentimes people have the misconception that the first step you do is get out there on social media, and I would say ‘maybe not.’ To be a lone wolf out there on social media is the highest risk for you.”

WHAT IS YOUR ORGANIZATION DOING?

Nayyar, author of *Dead Wrong: Diagnosing and Treating Healthcare’s Misinformation Illness*, wants the healthcare sector — specifically, providers and the organizations they work with — to take responsibility for correcting medical misinformation.

Health systems invest in leaders and strategies to acquire and retain patients, improve patient experience, and build brand awareness, but few invest in engaging their patients so they have accurate information when they need it, Nayyar believes.

“The biggest miss is that we haven’t even realized that should be part of our strategy,” she says. “Too often we have thought ‘I don’t know whose problem that is, but it’s not my problem.’”

Inaccurate health information ultimately becomes the health system’s problem when, for example, anti-vax communication leads to a measles outbreak or emergency rooms filling up with unvaccinated COVID-19 patients. Fighting misinformation requires clinicians working with their colleagues in marketing, information technology, and other areas to develop and execute a strategy that preempts patients from falling for charlatans. “It’s time for healthcare to wake up and realize this is our issue, and it is a team sport,” Nayyar says.

Another issue that needs to be addressed systematically is the intentional proliferation of inaccurate information by physicians. Professional stewardship requires a thoughtful approach by regulatory bodies, licensing and credentialing authorities, and medical societies for physicians who lie, Nayyar warns.

“In the era of mis- and disinformation as a profession, we need to be mindful of colleagues [who] are out there spreading it, and there needs to be repercussions,” Nayyar says. “We need to think about how we as a profession are going to stand up for science and the facts.”

ONE-ON-ONE WITH PATIENTS

In a consensus statement published last year, the American Psychological Association identified features of

misinformation that increase the likelihood that people will believe and spread it.¹ Among them: People are more likely to be fooled by inaccurate information that appeals to emotions such as fear and outrage; misinformation that casts groups they consider to be “others” in a negative light; and inaccurate claims that are frequently repeated, even if they contradict their prior knowledge.

That’s why it’s important to stop misinformation early whenever possible. When he was a practicing pediatrician, Craig Joseph, MD, now the chief medical officer at Nordic Global, addressed vaccine hesitancy with candor and transparency. He remembers a mother who was taken aback when she asked him for a 100% promise that her son would not have any serious side effects from a vaccine.

“My answer was ‘Absolutely not,’” he says. “‘But let me tell you what else I cannot promise you. I cannot promise you that driving home from my office to your house that you won’t get hit by a truck or that when you take Tylenol you won’t have an allergic reaction that you never had before. What I can tell you is that risk versus benefit is not even close.’”

His goal was to inspire a parent’s confidence by being honest. “I think if physicians focus on the idea ‘I’m not just communicating information, I’m also trying to build trust at the same time,’ it is helpful,” he says. “I do that when I tell you that getting a second opinion or a third opinion is completely fine. I would probably do the same, and you’re not hurting my feelings.”

That approach encourages patients and their caregivers to think for themselves and provides guidance on how to do so. Nayyar encourages clinicians to point their patients to specific sources of reliable information.

“Say, ‘I want you to read about your disease, but I don’t want you to go to Google, and I don’t want you to follow miscellaneous people on social media,’” Nayyar says. “You need to get to them before somebody else does.” ■■

REFERENCE

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