

We need to do more than ‘trust the science’

BY ALEXANDER JACOBS



For the second year in a row, Minnesotans closed out the calendar while experiencing a devastating surge in COVID cases. The cyclical nature of contagion, cold weather forcing us indoors and waning post-vaccination immunity likely all play a part. The largest contributor to community spread, however, continues to be the segment of Minnesotans who remain unvaccinated. As a medical student, I’ve heard many of my peers and teachers wishing for nothing more this New Year than for unvaccinated Minnesotans to “trust the science.”

Science enables so many of the comforts of modern life: antibiotics, wireless networks, aviation, vaccines. By demanding evidence, reproducibility and falsifiability, science liberates us from the cognitive constraints to which we are often prone. Science deepens our understanding and experience of the world.

So, what’s not to trust? And why do so many Minnesotans continue to resist vaccination? During a pandemic, the motto “trust the science” seems at first glance unobjectionable. Indeed, when it comes to COVID-19 vaccines, study after study demonstrates their efficacy. What can we trust if not medical studies that reproduce similar findings again and again?

From the earliest stages of the pandemic, a significant number of citizens have pushed against government appeals at social distancing and immunization. They have diverse reasons for doing so, from pre-existing vaccine skepticism to fears of government overreach to distrust of the medical establishment stemming from its all-too-recent past as an agent of racist human experimentation. One response

from media, local government and the medical establishment to this vaccine resistance has been the exhortation to “trust the science.” I think this is a mistake.

With vaccine proponents like me claiming the high ground of objectivity, we may fall for the trap of scientific complacency. While the scientific record illustrates the evidentiary baselessness of most vaccine skepticism, I believe a kernel of productive tension is generated by the ceaseless opposition of the so-called “anti-vaxxers.” In their continued questioning of scientific consensus, anti-vaxxers have required those among us who prize evidence to justify the confidence of our judgments.

How many of us in medicine consult the primary literature, rather than the news or social media, for analysis of vaccine efficacy? How many of us can say what “95 percent effective” actually means? I’m sure that many, perhaps most, providers have a solid grasp of these issues. But, in my experience, a concerning number of medical providers and students—and I count myself among them—continue to confuse concepts like absolute and relative risk reduction, to say nothing of the salient distinctions between the various COVID-19 vaccines currently available. This is not an abstract concern; if we lack mastery over the literature, we may find ourselves relying too much on a “trust me” attitude with vaccine-hesitant patients. In this case, “trust the science” smacks of old-fashioned medical paternalism, even sanctimony.

People know when they are being condescended to. Approaching public health with a “trust me” attitude only reinforces vaccine skeptics’ sense that their opinions and autonomy are being disrespected.

While I don’t think it is terribly productive to engage skeptics who are militantly inoculated against scientific evidence—our energies are better deployed elsewhere—surveys show many still-unvaccinated Americans remain open to immunization.

We owe these persuadable patients, neighbors, friends and relatives a more convincing explanation than “trust the science.” Instead, we can engage their questions and fears, regardless of whether they appear warranted. We owe them guidance supported by all available evidence—get vaccinated!—tempered by the humility that we all hold beliefs and fears that appear irrational to others. Appeals to patients’ ties to vulnerable members of their communities, such as elderly relatives, hold more sway, I suspect, than appeals to “trust the science”—especially when the history of science contains plenty of instances of untrustworthy behavior.

I imagine most practitioners intuitively persuade their patients this way. But I fear that repetition of the phrase “trust the science” in our public life—even with life-saving intent—may have the exact opposite effect of its aim. Invoking trust in science or medicine requires that the conditions for trust exist, yet in the United States in 2021, mutual trust is in short supply. In such an environment, when overcoming patients’ distrust of medicine has life-and-death implications, we need to do better than hammer a refrain whose effect is to blunt its audience’s receptiveness to evidence. ■■■

Alexander Jacobs is a second-year medical student, University of Minnesota Medical School.