

Addressing Vaccine Hesitancy With Values

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As a scientist with epidemiologic training, it has long been clear to me that the benefits of vaccines outweigh the risks, both on the individual and on the societal level. Both of my children are fully immunized on the standard schedule. Many of my friends' children are not. When my 8-year-old was a toddler, I once noted that he was the only child in a playgroup who had received all of his vaccines on time. I felt connected in this group for other reasons; for example, I got helpful advice from other mothers about gently weaning a child at an age when most children have already stopped breastfeeding.

Vaccines can be a difficult topic in such circles. When asked, I recommend that my friends and family talk to their child's doctor or other health care provider about their questions. However, as a parent and a scientist in the field of medical decision-making, I offer my perspective on what I understand about the risks and benefits of different vaccines, the limits of my understanding, and why my husband and I had our children vaccinated without hesitation.

Specifically, I talk about my family's values and how those values have helped determine our decisions to immunize our children. I compare the best estimates of the small risks of vaccines against estimated risks of exposure to a vaccine-preventable disease in an increasingly global world, and the likelihood of complications should such a disease strike an unvaccinated child. I explain how I am willing to accept the very small risks of vaccines because I could never live with myself if my children were injured or killed by a vaccine-preventable disease or if they passed along a virus to someone more vulnerable and I had done nothing to prevent such events. I talk about how I trust recommended schedules more than alternative schedules, because the recommended schedules have more data and expertise behind them. I recount how my husband, who grew up on a commune and received no vaccines until age 12, had measles as a child and feels strongly that our children should be immunized on schedule. I share my feeling that the most beautiful aspect of humanity is when we care about each other and try to protect each other, especially the more vulnerable among us.

The recent spread of measles in the United States, Canada, and elsewhere provoked discussions in many different circles about immunization, choice, and what role policy makers, clinicians, scientists, and the general public can and should play in such critical public health issues. A friend who started getting her 3-year-old caught up on vaccines last fall recently

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wrote a comment on Facebook that made me reflect on the role that respectful communication can play (shared with her permission):

Also, Holly, the respectful factual calm reassurance that you've provided on the vaccine topic was a contributing factor to us starting [child]'s shots. It's such a crazy polarized topic everywhere that it's really hard to have a conversation about it without feeling attacked. Thank you.

The reassurance that my friend mentions was an analogous process to shared decision-making,¹ except that I was a friend who happens to be a scientist rather than her child's pediatrician. My physician colleagues have told similar stories of changing minds over time by calmly discussing what is important to parents and putting the evidence about vaccines in their terms. Trials have suggested that shared decision-making tools such as patient decision aids, tools that explicitly support decision-making by providing balanced information, helping people clarify their values, and guiding them through the decision-making process, can support this. For example, a self-administered paper decision aid about measles-mumps-rubella immunization in New Zealand led to 90% on-time immunization compared with 70% for study participants who received an information booklet.² A Web-based self-administered decision aid about measles-mumps-rubella vaccine in the United Kingdom led to an immunization rate of 100% versus 91% among those who received an information pamphlet, although this was not significantly different from the rate in the control group.³

The key difference between providing information and engaging in shared decision-making is that shared decision-making focuses specifically on helping people sort out what is important to them, their values, in the context of risk-benefit tradeoffs. Trying to convince people of the value of vaccines through facts alone can backfire.⁴ In a study I led last year, my

colleagues and I found that for parents who had previously shown less inclination to have their child immunized against influenza, a promising approach for encouraging intentions to immunize was one that combined facts presented according to best practices in risk communication⁵ with an interactive online display designed to help people visualize the relationship between their values and their options. The display used vertical bars to represent the options of vaccinating or not vaccinating one's child. These bars moved dynamically as study participants used sliders to indicate how much the risks and benefits of vaccinating mattered to them.⁶ This work explicitly tested such a focus on values partly because I saw a gap in the scientific literature but also because my scientific ideas were grounded in my years of experience of interacting with people who have concerns about vaccines.

In recent months, there has been much written about the problem of vaccine-hesitant parents. Columnists have wrung their hands over the apparent futility of providing facts. Journalists have reported the push for school policies that prevent children from being able to bring vaccine-preventable diseases to school in the same way we prevent them from bringing allergens like peanuts or tree nuts. Pediatricians have written reasoned arguments about why they no longer see families who refuse to vaccinate. States and countries are considering or have announced legislation to restrict nonmedical exemptions for immunization requirements. There are strengths and weaknesses to each of these approaches, and they all deserve consideration when seeking ways to address vaccine hesitancy.

Yet, despite the calls for parents to heed scientific evidence about immunization, there has been surprisingly little media attention focused on the scientific evidence

about what works to help parents make informed decisions on this topic. As many clinicians can undoubtedly attest from their years of experience, it's easier to lead someone to a different place when you start by meeting them where they are. Shared decision-making, when health care professionals actively collaborate with patients to understand their concerns, frame the discussion around their values, and help patients see the connection between what is important to them and their available options, is an approach that appears to work. However, these conversations take time, a resource that pediatricians often do not have in abundance. They have other patients to see and may not be adequately reimbursed for long discussions about vaccines stretching over multiple visits. Evidence suggests that a substantial proportion of parents and guardians may need at least some discussion on this topic.⁷ Therefore, when we talk about addressing vaccine hesitancy, we need to highlight the important role that health care professionals play and talk about how we can ensure that those who care for families with young children have the time, training, and tools (eg, up-to-date decision aids appropriate to their local context) to address vaccine hesitancy.

Meanwhile, those of us who speak out in mass media, social media, or who have friends and family with concerns about vaccines can help by having respectful, empathic conversations centered around values. Arguing unproductively about factual misconceptions only serves to further polarize views. It might feel good to rant and rave, but people rarely change their minds because someone called them stupid and wrong.

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