

### It may appear as though vaccinations are in a state of crisis.

Take measles. Since 2000, the United States has maintained its elimination—defined by the World Health Organization (WHO) as the absence of virus transmission for at least 12 months. But from January through September this year, the country saw 1,249 cases—the highest annual number since 1992. Almost 90% of those patients either didn't get the measles vaccine or had an unknown vaccination status. Due to the outbreaks, the United States almost lost its status as a country that has eliminated measles.

The stakes couldn't be higher. Diseases like measles, polio and chicken pox used to kill thousands of people every year. Currently, the WHO considers vaccine hesitancy to be one of the 10 biggest threats to global health.

Vaccination coverage has become a victim of its own success. As coverage increases and diseases decrease, people have less experience coming in contact with people who have vaccine-preventable diseases. After all, the country's last smallpox outbreak happened in 1949; the last case of polio was in 1979. Many people, simply, don't fear such diseases, measles included.

"For young adults today, vaccination is a matter of faith—these diseases are historic as far as they're concerned," says Paul Offit, MD, Director of the Vaccine Education Center at the Division of Infectious Diseases, Children's Hospital of Philadelphia, Philadelphia, Pennsylvania. "Measles, in particular, is the canary in the coalmine. Because it's the most contagious of vaccine-preventable diseases, it's the one you see come back first when people choose not to vaccinate."

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According to the Centers for Disease Control and Prevention (CDC) vaccination programs today are mostly successful, with almost 95% of kindergarteners in 2019 receiving the measles, mumps and rubella vaccine (MMR). Additionally, between 1994 and 2018, the CDC estimates that more than 900,000 deaths were prevented by vaccinating children. "Most people know vaccination benefits us and our society," says Litjen Tan, PhD, Chief Strategy Officer, Immunization Action Coalition, Chicago, Illinois.

Yet, anti-vaccination sentiment continues to rise, in part because of the proliferation of incorrect information. But it's not so much the small anti-vaccine minority that concerns Tan. It's the large majority of parents who hear the anti-vaccine messaging. "Those parents aren't against vaccines, but they hear the misinformation, and that's the group whose hearts and minds we're trying to maintain," he says.

One major way to build their confidence? Frontline healthcare professionals.

#### **HEALTHY RESISTANCE**

Much of the vaccination success stems from two programs: state-level school-entry vaccination requirements and the federal Vaccines for Children Program, which provides free vaccines to uninsured kids

But it's up to medical assistants and other healthcare professionals to ensure that parents have the vaccine confidence they need going forward, including confidence in the research, development, manufacturing, approval and post-approval surveillance process of vaccines. "When people don't have confidence in the entire journey of vaccines, they have vaccine hesitancy, and that's what we want to avoid," Tan says.

Healthcare workers can bolster that confidence, says Lois M. Ramondetta, MD, Professor at the University of Texas MD Anderson Cancer Center, Department of Gynecologic Oncology and Reproductive Medicine, Houston, Texas. "Medical assistants are often the first people in the room with patients, and they will be looked at as trusted healthcare providers."

First and foremost, healthcare staff should make a presumptive recommendation for vaccination, Tan says. To do so, the provider informs the parent of the vaccines to be administered at that visit and then asks if the parent has any questions.

If the parent does have a question, healthcare workers should resist the urge to interpret that as a sign of resistance. "Don't assume that a question is an attack," Ramondetta says. "Recognize that you and the parents have the same goal: to protect their children. The majority of people who are vaccine-hesitant just need more information and their provider's recommendation."

"Parents also see a lot of anti-vaccine smoke online and want to know if there's any fire with that smoke," Offit notes.

When these conversations take place, building vaccine confidence requires countering any misinformation with facts. For instance, if parents question the correlation between higher vaccine rates and higher autism rates, healthcare workers must point out that correlation is not causation. Dr. Tan says he likes to present a graph showing increasing organic food sales overlaid with another showing increasing autism rates. His point? We don't say that organic apples lead to autism.

Another confidence booster that healthcare workers can highlight is to communicate the lengthy

## BETWEEN 1994 AND 2018, MORE THAN 900,000 DEATHS WERE PREVENTED BY VACCINATING CHILDREN

Source: Centers for Disease Control and Prevention

#### DISTINGUISHING RELIABLE VACCINATION WEBSITES

#### **UNRELIABLE SITES**

- Link to other anti-vaccination sites, creating an echo chamber
- Present anecdotes as if they're scientific fact
- Have financial conflicts of interest, like selling a book or promoting a speaking tour
- Present correlation as causation (e.g., "vaccines cause autism")



#### **RELIABLE SITES**

- Cite peer-reviewed scientific studies
- · Rely on vaccine science and policy
- Don't have financial conflicts of interest and are clear about their funding sources

and rigorous process required to ensure the safety of vaccines before and after they get approved. Healthcare professionals also have to help people distinguish between reliable and unreliable sources of information (see graphic above). In addition, they have to present not just the benefits but also the risks of vaccines, all of which are included in the informed consent forms and vaccine information statements that federal law requires healthcare staff provide vaccine recipients and their parents.

When presenting the risks, healthcare workers must put them in context. With measles, for instance, a serious allergic reaction happens roughly once for every 1 million shots. While parents might prefer that vaccines have absolutely no complications, other medical treatments aren't held to that same standard.

"The biggest risk with getting vaccines is driving to the office to get them," Offit says.

#### RIGHTING THE NARRATIVE

Repeating facts can have an unintentional effect, Tan says. Constantly stating that vaccines don't cause autism can create an inadvertent connection between the two. Even more, though, is that facts alone might not increase immunization confidence.

After all, if just pointing to the facts were enough, the anti-vaccine forces would not have gotten traction. "The biggest challenge with vaccine confidence is not science. We have the science on our side," Tan says. "It's risk communication and risk management."

Healthcare workers should also understand that people base their judgments not just on rational thought but on feelings. "People are motivated by fear more than reason, and they don't fear diseases, so they feel confident they can step back from the vaccines," Offit says.



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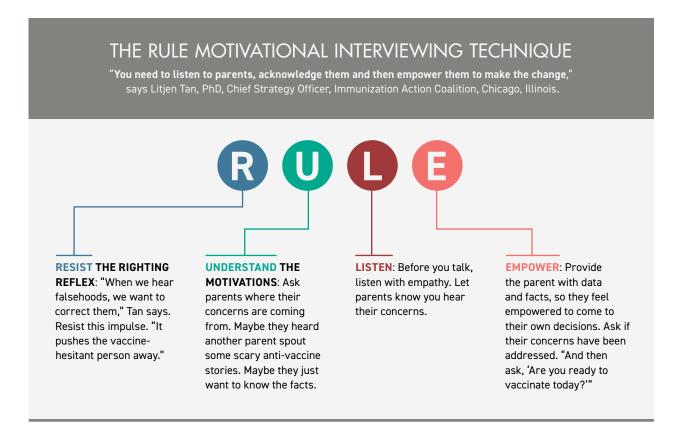
Ultimately, the point isn't to dismiss people's fears. Healthcare workers should follow motivational interviewing techniques (see graphic on page 18) that allow them to elicit and engage with parents' concerns—not shut them down.

For instance, through motivational interviewing, parents might reveal they have omission bias: They would rather take the risk of harm caused by omission (not vaccinating) than the harm caused by an active choice (vaccinating). Listening to parents' motivations and concerns helps shed light on the root cause of the fear.

"Providers have to understand what makes people change their minds," Tan says.

Stories matter. They appeal to people's hearts

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and minds. While healthcare staff should be clear that stories are not scientific data, they can use real experiences to make their case. "Tell a story about a child who was not vaccinated and acquired measles," Offit says. "Tell the story in a compassionate, passionate and compelling way, and make clear that not getting a vaccine is not a risk-free choice."

Storytelling also personalizes the storyteller. It tells parents, "Don't put me in a position where I'm asked to practice substandard care," Offit says.

The conversation can get even more complicated when it involves the HPV vaccine. While the benefit is clear—about 92% of HPV-associated cancers may be prevented with the vaccine, according to the CDC—some parents might express concern about their children getting a vaccine for their adult sexual lives.

Again, healthcare workers should make a presumptive recommendation, Ramondetta says. The HPV vaccine should be bundled with the other two adolescent vaccines: the tetanus, diphtheria, pertussis (Tdap) and the meningococcal vaccines. "Keep the conversation minimal, and ask if the parent has any questions. Don't single out the HPV vaccine," Ramondetta says.

If the parent does bring up sexuality with regard to HPV, don't shy away from the discussion. Explain that the vaccine isn't as effective after someone is sexually active. So it's best to vaccinate children when they're young and their immune response is the strongest in order to protect them from a virus they most likely will be exposed to later.

Still, in any vaccination conversation, healthcare workers might have to make a difficult decision. It might be more successful for them to communicate with several vaccine-hesitant parents than going back and forth fruitlessly with a die-hard vaccine resistor. "You have to make that choice," Tan says.

Ultimately, though, the effort to boost vaccine confidence can't be understated. "You have the ability through your words to help patients and parents reach a level of confidence that allows them to keep kids from suffering," Ramondetta says. "Your words matter."

Want to learn more about vaccine confidence and immunizations? Visit americanmedtech.org/learn to purchase our recent webinar series or register for the immunization certificate program.

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All submitted articles must be original authorship, never published previously, follow APA Style and include 10 assessment questions. Authors who submit an accepted article are eligible for 10 CCP points.

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CASE STUDY:

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> By Eleanor A. Powell, PhD; Ariela Topper, MT (ASCP); Joel E. Mortensen, PhD

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MYCOBACTERIUM TUBERCULOSIS OVERVIEW

By Martha Howard, RMA (AMT), CPT

## CONTINUING EDUCATION