

Senate HELP Committee

Vaccines Save Lives: What Is Driving Preventable Disease Outbreaks?

March 5, 2019

10:00 AM, 430 Dirksen

Purpose

The purpose of this hearing was to discuss the importance of vaccines and how they can prevent the spread of diseases like measles.

Members Present

Chairman Alexander, Ranking Member Murray, Senators Isakson, Baldwin, Paul, Warren, Roberts, Kaine, Cassidy, Hassan, Smith and Casey

Witnesses

Mr. John Wiesman, DrPH, MPH, Secretary of Health, Washington State Department of Health

Mr. Saad Omer, MBBS, MPH, PhD, William H. Foege Professor of Global Health Professor of Epidemiology & Pediatrics, Emory University

Mr. Jonathan McCullers, MD, Professor and Chair, Department of Pediatrics, University of Tennessee Health Science Center, Pediatrician-in-Chief, Le Bonheur Children's Hospital

Mr. John Boyle, President and CEO, Immune Deficiency Foundation

Mr. Ethan Lindenberger, Student, Norwalk High School

Opening Statements

Chairman Alexander said that it was not that long ago that children were scared of getting polio. Following the introduction of the vaccine, polio was eliminated from every country in the world except three. Many diseases have been eliminated thanks to vaccines. It is a remarkable demonstration of what modern medicine can accomplish. In 2000, measles was declared eliminated by the CDC. And yet, there continue to be outbreaks of this preventable disease because there are pockets in the United States that have low vaccination rates. Vaccines are safe. They save lives. Herd immunity is central to the effectiveness of vaccines. Because some people cannot be vaccinated, they rely on the fact that others are. Certain areas with low vaccination rates are thus vulnerable to outbreaks. Vaccines are approved by the FDA and meet the gold standard of safety. Countless studies have shown that vaccines are safe. Conspiracy theorists who claim that vaccines are not safe are prying on the fears of parents.

Ranking Member Murray said that this hearing could not be more timely. Washington State is unfortunately dealing with an outbreak of a disease that was declared eliminated in 2000. The measles vaccine is safe, effective, and saves lives. Before the vaccine was introduced, millions of people caught measles, thousands were hospitalized and hundreds died, mostly small children. Measles is one of the most contagious diseases in the world. That is why vaccination is so important. And maintaining herd immunity is critical to protect those who cannot be vaccinated, like newborn babies. The crisis in Washington and other states is a threat to public health and a drain on resources. Washington State has spent over \$1 million already addressing the measles outbreak. There must be research

into vaccine education and communication strategies to improve the way people are taught about vaccination and to prevent the spread of misinformation. The US must approach public health challenges like this from a global perspective. Diseases do not stop at borders.

Testimony

Mr. Wiesman said that vaccines are safe, effective and the best protection there is against several dangerous diseases. They have saved millions of lives and are critical to public health. The science is clear that vaccines do not cause autism, but autism still must be better understood. In Washington State, all recommended vaccines are provided to all children under the age of 19 free of charge. As of yesterday, Washington's measles outbreak had 71 cases. Managing the outbreak is a staff and time intensive activity that disrupts people's lives. There must be sustained and sufficient government funding to increase education and combat outbreaks. There are three things that Congress should do. First, provide sustained, predictable and increased federal funding. Congress should support the Prevention and Public Health Fund. Second, Washington's response to this outbreak was helped greatly by the Pandemic and All Hazards Preparedness Act (PAHPA). Congress should move quickly to reauthorize the law. Third, the 317 Immunization Program has been flat funded for 10 years. Congress should increase funding for this program. Fourth, there must be federal leadership for a national vaccine campaign spearheaded by the CDC in partnership with states. Finally, Congress should raise the CDC budget by 22 percent by FY 2022. This will immediately bolster prevention services and save lives.

Mr. Omer said that elimination of measles transmission in the US was a significant public health success. However, the size and frequency of recent outbreaks is very concerning. There has not been a national level outbreak because the laws in place work. Requiring students to be vaccinated before attending school is helpful. Medical societies have also been very prominent in vaccine advocacy. More than half of measles cases have been in unvaccinated patients, and 70 percent of those who were unvaccinated had refused the vaccine. There are steps the federal government can take. First, the federal government can consider making vaccine cost reimbursements. Physicians are the most trusted source of vaccine information, but they lose money when they spend time counseling patients because those costs are not reimbursed. Second, the federal government should invest in high quality vaccine communication and acceptance research. Third, they should prioritize vaccine safety research.

Mr. McCullers said that the childhood vaccination program in the United States is one of the greatest public health programs in history. Measles is a highly contagious and dangerous disease. There is no specific treatment for measles, so vaccination is the only way to effectively combat the disease. Unfortunately, the issues of vaccine opposition and hesitancy are impeding the ability to ensure public health. There is clustering of unvaccinated individuals in certain areas, due primarily to vaccine refusal. The measles vaccine is very safe. The side effects are limited, and dwarfed by the dangers of contracting the disease. The rate of parents claiming non-medical exemptions is about 2.5 times as high

in states that allow philosophical as well as religious refusal. Misinformation passed around on social media is also a contributor.

Mr. Boyle said that primary immunodeficiency (PI) disorders are a serious condition caused by genetic defects. These individuals are immune compromised, and are particularly susceptible to infections and communicable diseases. They depend on the community immunity provided by others being vaccinated. If people stop vaccinating, community immunity will fail, putting the lives of people with PI at risk.

Mr. Lindenberg said that his mother is an anti-vaccination advocate. He went most of his life without being vaccinated. As he approached high school, he began to question his mother's views. Information is the most important issue in preventing disease outbreaks. Too many people interact with misinformation online. The people who promote this misinformation know that what they are saying is incorrect, but they spread it for their own selfish gain.

Questions and Answers

Chairman Alexander asked Mr. McCullers what he says to parents who are hesitant about vaccines. **Mr. McCullers** said that he recognizes the concerns of parents. The paper that initially claimed there was a link between vaccines and autism was fraudulent, and he explains that to parents. **Chairman Alexander** asked the witnesses if there is any evidence that vaccines cause autism. **All the witnesses** said no. **Chairman Alexander** asked what role state vaccine exemptions play in outbreaks. **Mr. Wiesman** said that exemptions should be very difficult to get.

Ranking Member Murray asked how initiatives like Vax NW have helped build confidence in vaccines. **Mr. Wiesman** said programs like that are important. Establishing a trusted source for health information can make a big difference. **Ranking Member Murray** asked why some parents are hesitant to vaccinate. **Mr. Omer** said that it is critical to educate parents early. Often, parents make the decision whether or not to vaccinate before the baby is born. Too often, parents see that a disease is rare – because of vaccines – and take that as evidence that they do not need to vaccinate.

Sen. Isakson asked what new developments are coming from vaccines. **Mr. Omer** said that there is research happening into maternal vaccination where pregnant women can be vaccinated and pass that along to the unborn baby. **Sen. Isakson** asked how much researchers and doctors rely on the CDC. **Mr. Omer** said a lot. The CDC is a national treasure.

Sen. Baldwin said that Congress must prioritize public education surrounding vaccine safety. She asked what role state health departments play in public education, and what Congress can do to support them. **Mr. Wiesman** said that state and local health departments are the leaders in their communities on this issue. Preventing outbreaks takes a coordinated effort. But states are struggling to keep up with the demand for resources. Congress can invest in research on how to communicate about vaccines most effectively. A national public health information campaign would also help. **Mr. Omer** said that Congress can continue to support CDC and prioritize vaccine safety research. **Sen. Baldwin** asked why it is important for Congress to continue to support vaccine research for common illnesses like the flu. **Mr. Boyle** said that people with PI

are susceptible to common diseases and often get worse effects. Anything to make vaccines more convenient to get would be helpful.

Sen. Paul said that government should not mandate vaccination. It is wrong to say that there are no risks at all to vaccines. No informed consent is required when parents vaccinate their children. Proponents of mandated vaccination claim that parents who refuse to vaccinate their children risk spreading disease to the immune-compromised community, but there does not seem to be enough evidence of this. Force is not consistent with American values of liberty. The benefits of vaccines greatly outweigh the risks, but persuasion, not force, is the way to go.

Sen. Warren asked what impact the introduction of the hepatitis A vaccine had on rates of the disease in the US. **Mr. McCullers** said there has been a more than a fifty-fold decrease in the disease. **Sen. Warren** asked what Congress can do to make sure local public health officials have the resources they need. **Mr. Wiesman** said that Congress can fund the local public health fund and increase the budget of the CDC. **Sen. Warren** asked how the cost of prevention compares to the cost of treatment. **Mr. Wiesman** said every dollar spent on prevention saves ten dollars on treatment.

Sen. Roberts said that the importance of vaccinating young people cannot be overstated. But seniors are also at increased risk of serious effects of preventable diseases. He asked what procedural barriers exist to seniors having proper access to vaccines. **Mr. Omer** said that the elderly are one of the highest risk groups for complications from illnesses like the flu. More can be done to communicate the importance of vaccines to the elderly and to let them know what resources are available to them.

Sen. Kaine asked what more Congress can do to make sure there is an adequate supply of vaccines. **Mr. Wiesman** said the government needs to continue investing in vaccine research that allows them to be produced more quickly. **Mr. Omer** said that developing a vaccine is not sufficient; there needs to be a stable supply. Investments in the vaccine pipeline are necessary. **Mr. McCullers** said for-profit companies often create the vaccines. Having a standard federal buy will encourage them to produce more.

Sen. Cassidy said that it is important to note that the government does not mandate vaccination. Rather, in most cases, the requirement is that you cannot enter school if you are not vaccinated. Choosing not to be vaccinated is not a victimless crime if you expose others to the diseases you might be carrying. He asked how exemptions affect disease rates. **Mr. McCullers** said that generally speaking, states that allow only medical exemptions have the lowest rates of preventable diseases. States that allow religious exemptions have more, and states that allow philosophical exemptions have the most.

Sen. Hassan asked why pregnant women are vaccinated at such low rates, and how those numbers can be improved. **Mr. Omer** said that few women are outright against vaccination. Most who don't get vaccinated while pregnant just need to be educated and persuaded. Pregnant women are motivated to protect their babies from harm. More research could be done on how to effectively communicate to pregnant women. **Sen. Hassan** asked what the most common reason is that parents don't vaccinate their kids. **Mr. McCullers** said there is not one reason anymore,

but a lot of minor concerns. Doctors need to respect parents' concerns and work to give them the best information.

Sen. Smith asked how the federal government can be a good partner to state departments of health. **Mr. Wiesman** said that the CDC is a tremendous resource to states. **Sen. Smith** asked what makes community outreach programs successful. **Mr. Wiesman** said that outreach teams need to be diverse and look like the communities they serve. It is also important to engage with existing community groups like religious organizations. **Mr. Boyle** said that including personal stories in messaging is also important.

Sen. Casey asked how health officials can better reach out to parents on the importance of vaccines. **Mr. Lindenberger** said that personal stories are more effective than data alone. Stories of people affected by preventable diseases, and the dangerous complications of diseases like measles, should be included. **Sen. Casey** asked what kind of symptoms are typical of preventable diseases. **Mr. McCullers** said that most vaccine-preventable diseases have serious effects, including death.