

# POLICY *focus*

RECIPES FOR RATIONAL GOVERNMENT

JUNE 2019

## Vaccines and Measles Outbreaks

by Julie Gunlock, Director, Center for Progress and Innovation

---

### Introduction

In June 2019, the Centers for Disease Control and Prevention **announced** that 1,022 cases of measles have been reported in the United States this year, the highest number since 1994. Public health officials are scrambling to contain the disease and educate the public about the importance and safety of vaccines.

The CDC has **tracked the origin of each of these outbreaks** to an unvaccinated individual who travelled outside the United States, contracted the disease, and then returned home infected, spreading the disease among the community.

This has put a spotlight on the anti-vaccine movement in America, which in recent years—with the advent of the Internet, 24-7 news programming, and social media—has grown exponentially.

The origins of the modern anti-vaccine movement can be traced to 1998, when a **British doctor published a fraudulent research study** claiming the Measles, Mumps, and Rubella vaccine (MMR) was linked to Autism Spectrum Disorder. News of this study (which was later retracted), coupled with a growing number of public figures spreading conspiracy theories about vaccines, created anxiety among parents. The result: fewer parents were vaccinating their kids.

This dip in vaccination rates has damaged the nation's "herd immunity," which occurs when a large portion of the population is vaccinated, thereby hampering the diseases' ability to find a host. With measles, herd immunity is only achieved when at least 90-95 percent of the population is vaccinated. Without robust herd immunity, certain individuals who cannot receive vaccinations (e.g. newborns) will be left vulnerable to these dangerous diseases.

### IN THIS ISSUE

- 1 Introduction
- 2 Why We Care
- 2 Measles Outbreaks: A History
- 3 Anti-Vaccine Conspiracies and Regressions in Medicine
- 3 What is Herd Immunity? Why is it Important?
- 4 The MMR Vaccine: Is It Safe?
- 4 How To Encourage Parents to Vaccinate
- 5 Why Have Autism Rates Gone Up?
- 6 What You Can Do

## Why You Should Care

Although measles is preventable by vaccine and was once considered extinct in the U.S., the disease is making a comeback here and remains a major disease worldwide.

- **Certain People Can't be Vaccinated:** Newborns, people with allergies, and the immunocompromised cannot receive certain vaccines, leaving them vulnerable to contracting infectious diseases, like measles.
- **Measles Is A Serious, Deadly Disease:** **According to the CDC**, for every 1,000 Americans who get measles, one or two will die. **According to the WHO**, in 2017, the most recent year for which estimates are available, measles caused more than 100,000 deaths worldwide, mostly in young children.
- **Additional Risks of Exposure:** Measles can cause **encephalitis**, which can lead to swelling around the brain, causing seizures, blindness, deafness, permanent brain damage, and other disabilities.
- **Measles is Extremely Contagious:** Measles is easier to contract than Ebola, tuberculosis or influenza. Measles can linger in the air or on surfaces for up to two hours where an infected person coughed or sneezed. Infected individuals won't show any signs for days, and the early symptoms can easily be dismissed as a simple cold.

Fortunately, Measles is preventable with a safe, effective vaccine. Parents should be encouraged to vaccinate their children in order to protect them and others.

## Measles Outbreaks: A History

In 1912, researchers began measuring the number of measles infections and deaths in the United States. In 1920, 469,924 cases of measles were recorded resulting in 7,575 deaths. Rates of measles infections stayed steady until the first measles vaccine was available in 1963. By 1982, only 1,697 cases of measles were reported in the United States, and by 1999, only 15 measles cases were reported. In 2000, the CDC declared measles to be eliminated in the United States. Since then, reported cases have been inching up.

Measles is a common infection in many developing countries, especially in Asia and Africa. According to the WHO, 7 million measles infections and 89,780 measles related deaths occurred in 2016, and more than 100,000 deaths occurred in 2017.

The current outbreaks in the United States have all occurred because an unvaccinated American travelled to a foreign country, contracted the disease, and then returned home and spread the disease within his or her community.

Considering the problems the United States currently faces at our southern border, it's more important now than ever that vaccine rates in the United States remain high.



### Cases of Measles Per Year

**2000-2007: 63 cases**

**2008: 140 cases**

**2009: 34 cases**

**2010: 35 cases**

**2011: 220 cases**

**2014: 667 cases**

**2015: 194 cases**

**2017: 122 cases**

**2018: 349 cases**

**2019 (to date):**

**1,022 cases**

## Anti-Vaccine Conspiracies and Regressions in Medicine

In 1998, former medical doctor and researcher Andrew Wakefield **published a study in the British medical journal *The Lancet*** that suggested that the MMR vaccine caused children to develop Autism Spectrum Disorder after vaccination.

The study generated hundreds of fevered headlines, which created a worldwide panic about the safety of the MMR vaccine. Immediately following the publication, the medical community began to criticize the study and Wakefield's standards—citing the study's small sample size (only 12 children participated in the study) and problems with the study's design and methodology. Months later, *The Lancet* officially retracted the study, stating that “no causal link was established between MMR vaccine and autism as the data were insufficient.”

But it was too late. The media continued to report on the study leaving parents terrified. This resulted in a precipitous drop in vaccination rates. Importantly, Wakefield had failed to disclose a conflict of interest (the study was funded by lawyers suing pharmaceutical companies that manufactured the MMR vaccine), and he was found guilty of both ethical violations and scientific misrepresentation. Even so, anti-vaccine activists, aided by the media, eager for more scary headlines, continued to cite the Wakefield study as proof of a link between the MMR vaccine and autism.

In 2010, the British General Medical Council (GMC) pulled Wakefield's license to practice medicine. The **GMC found** that he “...acted and irresponsibly...conduct[ed] the study on a basis not approved by the hospital's ethics committee...” and “showed callous disregard for any distress or pain the children [in the study] might suffer.” The Council even found that **Wakefield had purchased blood samples** from children present at his son's birthday party. The GMC ruling stated that Wakefield has “brought the medical profession into disrepute.”

Even today—20 years after this fraud—Wakefield's study is still wrongly cited as scientific proof that the MMR vaccine causes autism.

“  
Even today—20 years after this fraud—Wakefield's study is still wrongly cited as scientific proof that the MMR vaccine causes autism.  
”

## What is Herd Immunity? Why is it Important?

The anti-vaccine community often says, “If your child is vaccinated, then you shouldn't worry about my unvaccinated child.” Yet, there are certain people who cannot receive vaccines: babies under 12 months, people with certain diseases like cancer, and those with certain allergies.

When a large portion of a population is immunized, there are few potential carriers to spread disease, which shields everyone. This is herd immunity. But when vaccination rates decrease, herd immunity becomes less effective and unvaccinated individuals have greater potential to harm others.

By failing to inoculate yourself and your children against infectious diseases—like measles—you are a willing host for these diseases and can pass them on to those who are unable to protect themselves. That's why vaccines matter—for everyone!

## The MMR Vaccine: Is It Safe?

While the science and medical communities agree that vaccines are safe, doubts remain among parents, especially about the MMR vaccine. Yet, studies from both **U.S. government agencies** as well as **international, independent researchers** have found the MMR vaccine to be safe.

- In 2019, **Danish researchers at Statens Serum Institute in Copenhagen** examined 657,461 Danish children born between 1999 and 2010 and found that there's no link between being vaccinated against measles, mumps, and rubella and developing autism.
- A September 2008 study published in *Public Library of Science* (PLOS) reversed an earlier study that claimed to find measles virus RNA in the intestinal tissue of a specific group of autistic children. No link between MMR and autism was found.
- An April 2006 study conducted by the National Institutes of Health and the CDC and published in the *Journal of Autism and Developmental Disorders* assessed data from 351 children with Autism Spectrum Disorder and found no link between MMR vaccination and autism.
- A November 2002 study by the CDC and the Danish Medical Research Council that followed more than 500,000 children over 7 years found no association between MMR vaccination and autism. The results were published in the *New England Journal of Medicine*.

In addition, the American Academy of Pediatrics, the American Medical Association and the Autism Society of America have all denounced any claims that the MMR vaccine causes Autism Spectrum Disorder.

## How To Encourage Parents to Vaccinate

The government shouldn't force parents to vaccinate their kids. Yet the government can and should offer incentives.

Currently 17 states allow parents to opt out of vaccinating their kids before enrolling in public school if they have a "philosophical objection" to vaccines. In other words, it renders the requirement to vaccinate meaningless because it allows parents who are opposed to vaccines, for any or no reason whatsoever, to bypass the rules and enroll their children anyway.

Schools might also consider reforming the "religious exemption" rule by requiring an official statement from a religious organization. The vast majority of major recognized religions encourage vaccination, yet thousands of parents claim to have a religious exemption. This doesn't add up. The sad reality is, the religious exemption is mostly abused by nonreligious, anti-vaccine parents looking to skirt the rules. States should reform the "religious exemption" rule by demanding certification.

Federal and state governments might also consider attaching proof of vaccination to certain welfare programs. Most food assistance programs come with government guidance on how to stay healthy, which is why these programs shouldn't support unhealthy decisions like failing to vaccinate children. Agreeing to protect yourself and the greater community from dangerous

**The government shouldn't force parents to vaccinate their kids. Yet the government can and should offer incentives.**

diseases seems a fair tradeoff to receive government services. In addition, proof of vaccines should be a requirement for any individual entering the country on non-immigrant visas through ports of entry the U.S. controls. (Legal immigrants to the U.S. already face vaccination requirements.)

The CDC should also fund a national information campaign to explain the value of vaccines. This seems a legitimate role of government—especially when disease outbreaks are straining public health resources.

The private sector can also play a role. Private health insurers should impose a surcharge on parents who opt out of vaccines for non-medical reasons. Current federal law may forbid insurers from taking most risk-related factors into account when setting rates, but it does allow them to consider whether an individual smokes—and to impose a surcharge on that individual. Like smoking, choosing not to vaccinate for personal, non-medical reasons is a public health hazard that can result in a huge financial burden. Unless they have a medical contraindication or a verifiable religious objection, parents should always vaccinate their children.

**“ Unless they have a medical contraindication or a verifiable religious objection, parents should always vaccinate their children. ”**

### **Conclusion: Failure to Vaccinate Violates the Social Contract**

Measles is a dangerous infectious disease that can kill or disable those who contract it. Vaccinating against communicable diseases is part of the social contract; in a civil society, no one has the right to harm another person unless in self-defense. By choosing to skip vaccinations, you're putting your fellow man in danger.

---

## **Why Have Autism Rates Gone Up?**

The anti-vaccine community often points to the increase in autism rates since the MMR vaccine was developed in 1963. Yet, the rise in autism rates is linked to other factors that have nothing to do with vaccines.

First, the medical community has simply developed better diagnostic practices. Autism wasn't officially recognized until the 1940s, and it wasn't until 1980 that autism was included in the Diagnostic and Statistical Manual of Mental Disorders (DSM), which is the official handbook used by healthcare professionals as the authoritative guide to the diagnosis of mental disorders. In fact, for many Americans, the movie "Rain Man"—which focused on a man with autism—was the first time they'd ever heard of the condition.

By 2013, the DSM changed "autism" to "Autism Spectrum Disorder," to better characterize the condition as an all-inclusive diagnosis, ranging from mild to severe. The DSM also eliminated other named diagnoses—like Asperger's Disease. Those diagnosed with Asperger's Disease were then given a new designation—Autism Spectrum Disorder.

These factors—not the MMR vaccine—account for the rise in rates of autism.

# What You Can Do

## Get Informed

Learn more about food and nutrition issues. Visit:

- American Academy of Pediatrics Immunization Alliance
- Autism Science Foundation
- Children's Hospital of Philadelphia (CHOP) Vaccine Information Center
- Every Child By Two
- Institute for Vaccine Safety

## Talk to Your Friends

Help your friends and family understand these important issues. Tell them about what's going on and encourage them to join you in getting involved.

## Become a Leader in the Community

Get a group together each month to talk about a political/policy issue (it will be fun!). Write a letter to the editor. Show up at local government meetings and make your opinions known. Go to rallies. Better yet, organize rallies! A few motivated people can change the world.

## Remain Engaged Politically

Too many good citizens see election time as the only time they need to pay attention to politics. We need everyone to pay attention and hold elected officials accountable. Let your Representatives know your opinions. After all, they are supposed to work for you!

# CONNECT WITH IWF! FOLLOW US ON:

## ABOUT INDEPENDENT WOMEN'S FORUM

Independent Women's Forum (IWF) is dedicated to building support for free markets, limited government, and individual responsibility.

IWF, a non-partisan, 501(c)(3) research and educational institution, seeks to combat the too-common presumption that women want and benefit from big government, and build awareness of the ways that women are better served by greater economic freedom. By aggressively seeking earned media, providing easy-to-read, timely publications and commentary, and reaching out to the public, we seek to cultivate support for these important principles and encourage women to join us in working to return the country to limited, Constitutional government.

**We rely on  
the support  
of people  
like you!**

Please visit us  
on our website  
[iwf.org](http://iwf.org) to get more  
information and  
consider making a  
donation to IWF.