

Unsurprisingly, the Children of Anti-Vaxxers Are the Biggest Victims of Measles Outbreaks

By [Elissa Strauss](#)



This mom is doing right by her baby, and everyone else.

In 2000, the Centers for Disease Control and Prevention [declared](#) that measles had finally been eliminated in the United States. It was a triumph—but it didn't last. By 2014 there were 677 reported cases of the disease, the [highest rate in 20 years](#). In 2015, there were 189 reported cases—low compared to 2014, but still outrageous considering there were zero cases 15 years earlier.

Scientists [attribute](#) the unfortunate rise in measles and other infectious diseases to the growing number of parents who forgo or delay vaccinations for their children. People who abstain from vaccinations endanger the general population by weakening herd immunity, in which a highly immunized population protects against the spread of a disease. When less than 96 percent of a population is vaccinated, measles is more likely to spread to people who can't be vaccinated for

health reasons and to people who don't develop full immunity even after being vaccinated. This means that we should all be frightened by the anti-vaxxer movement, even those of us who do vaccinate our children. But [a new study funded by the National Institutes of Health](#) indicates that the biggest victims of the anti-vaccine movement are the children of anti-vaxxers.

Researchers at Emory University and John Hopkins Bloomberg School of Health reviewed all studies on vaccinations and two infectious diseases, measles and pertussis (also known as whooping cough), published over the last 15 years in order to figure out the connection between vaccine delay, refusal, and exemption and recent outbreaks of measles. They found that those who don't get the measles vaccine are far more likely to get and spread the measles than those who got it—and that the vast majority of the unvaccinated people who got measles were unvaccinated by choice.

Of the 970 measles cases with detailed vaccination data, 574 cases were unvaccinated despite being vaccine eligible and 405 (70.6%) of these had nonmedical exemptions (eg, exemptions for religious or philosophical reasons, as opposed to medical contraindications; 41.8% of total).

The findings for pertussis, or whooping cough, were a little more complicated. The researchers found that “the 5 largest statewide epidemics had substantial proportions (range, 24%-45%) of unvaccinated or undervaccinated individuals.” However, there also were several pertussis outbreaks in highly vaccinated areas, which, they say, indicates waning herd immunity. The researchers conclude that the phenomenon of vaccine refusal, as opposed to medical exemption, has led to an overall increased risk of both diseases, especially for the unvaccinated.

Although the rise of measles and whooping cough are alarming to all reasonable parents, anti-vaxxers might not be as concerned, thanks to their belief [that](#) so-called “[natural immunity](#)” is superior to vaccinations. According to this theory, children who [come into contact with a disease](#) when they are young will develop an immunity to it on their own, and will end up healthier overall for not having been subjected to the vaccine. (Anti-vaxxers conveniently ignore the fact that vaccines pose virtually no health risk to most individuals, which means that avoiding them doesn't confer any benefit.) Historical data roundly refute the idea that natural immunity works as a public health strategy. For a 1986 [study](#), scientists looked at the prevalence of natural immunity to measles, rubella and mumps in the pre-vaccination era. They analyzed the health records of 1700 unvaccinated Spanish children and found that, among 6- and 7-year-olds, “only 12% of the children showed antibodies against the three diseases and 18.7% exhibited triple susceptibility.” By comparison, the measles vaccine, is 93 percent effective at preventing measles with one dose, and, with two doses, 97 percent effective.

People who choose not to vaccinate their children are mostly hurting their children. Refusing vaccines increases your child's odds of getting sick, and in all likelihood they won't develop “natural immunity.” The new study ought to convince parents that vaccinating their kids is the only healthy choice, unless medically contraindicated. But considering that anti-vaxxers are typically impervious to facts, it's likely that they'll ignore the new evidence, and their children will continue to pay the price.