FREEDOM FOUNDATION OF MINNESOTA

# MINNESOTA'S **VACCINATION PROBLEM**

ARE WE SCARING OURSELVES TO DEATH?



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#### Introduction

April 12 almost became a national holiday. On that day in 1955, virologist Jonas Salk announced that his polio vaccine was a success. All across the nation, there were celebrations and plans made to honor Salk.

Jonas Salk's polio vaccine effectively ended one of the worst outbreaks in our nation's history and the "most frightening public health problem of the postwar era." Polio was killing and paralyzing more children in the United States "than any other communicable disease" and Dr. Salk invented the vaccine that allayed the fears of millions of American parents. President Eisenhower presented Dr. Salk with a presidential medal designating him "a benefactor of mankind." Along with his presidential citation, Congress awarded him the first Congressional Medal for Distinguished Civilian Service. Overnight, he became an international hero because of this lifesaving vaccine.

Two years and 100 million doses later, the polio epidemic was virtually eradicated in the United States. This American phenomenon would soon go global, as nations around the world scrambled to obtain this "modern medical miracle" for their children. Polio was effectively a disease of the past.

Nearly six decades later, scientists and physicians who develop new vaccinations are often disparaged by anti-vaccine alarmists who spread discredited or outdated information on vaccine safety. Some vaccine experts have even been forced to curtail their public appearances out of fear for their safety. Instead of receiving prestigious awards from lawmakers, medical professionals working in the field of vaccines and immunization have sometimes become subjects of congressional and state legislative inquiries.

There is a growing epidemic in America—an epidemic of fear borne of misinformation and junk science.

Americans live in an era that rapidly embraces technological advances in nearly every other scientific field of discovery except, perhaps, the most important one: medical science. According to some estimates, "in certain parts of the US, vaccination rates have dropped so low that occurrences of some children's diseases are approaching pre-vaccine levels for the first time ever." Once eradicated childhood diseases are making a deadly comeback and their occurrence tends to be in areas populated by unvaccinated children. According to a recent Kaiser Permanente report, "the number of reported pertussis cases jumped from 1,000 in 1976 to 26,000 in 2004." Pertussis (or whopping cough) has made a devastating comeback in the United States, affecting unvaccinated children who, according to health officials, are 23 times more likely than those vaccinated to contract this sometimes fatal bacterial infection. In 2010, California public health officials declared whopping cough an "epidemic" which some called the worst outbreak in 60 years. Nearly 9,000 cases were reported to public health officials and 10 deaths were attributed to the comeback of the disease. After waging

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an intensive public health campaign, last year California public health officials reported zero fatalities of pertussis..

Why are parents eschewing scientific evidence to the contrary and allowing their children to go unvaccinated?

Some parents raise concerns with their pediatricians about the Centers for Disease Control (CDC) suggested schedule of immunizations. The perceived rapid succession of immunizations that begins at birth frightens some parents who are con-

cerned that their children's developing immune system will be "overwhelmed" by the recommended number of inoculations. This grassroots parental movement to alter the CDC recommended vaccination schedule has caught fire in recent years as it has spread via the internet and social media by parents seeking information on vaccine safety.

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Parents who go online to research the safety and efficacy of inoculations will also encounter myriad myths, half-

truths and outright lies about vaccination safety. It has been nearly two decades now since Hollywood and television personalities with the help of a since-discredited British physician began scaring parents into bypassing immunizations altogether—especially the measles, mumps, and rubella (MMR) vaccine—by spreading misinformation about a perceived link between autism and vaccines. What began as the autism movement's campaign against a vaccination preservative has morphed into a vicious and destructive campaign against vaccines, scientists conducting vaccine research as well as the pharmaceutical firms themselves. While scientists continue to search for the true cause of autism, millions of American parents continue to endanger public health by foregoing their child's inoculations based upon their misplaced fear of vaccinations.

The myths surrounding the safety and public health importance of childhood immunizations have contributed to the disturbing number of parents refusing to vaccinate their children that some pediatricians are now refusing to treat families whose children have not been inoculated. According to a recent article in the *Wall Street Journal*, "a recent survey of 909 Midwestern pediatricians found that 21% reported discharging families" for vaccine refusal.

Ironically, some pediatricians believe the enduring appeal of the anti-vaccine movement is actually due to the success of vaccines in America. Children born in the latter half of the 20th century now comprise the vast majority of American parents. Most of these post-Baby Boom parents grew up in a world where they would never see or hear of a child with smallpox, polio, pertussis or any of the other once fatal but now eradicated deadly childhood illnesses. But that fact is changing due primarily to the increasing number of parents who refuse to inoculate their children. And, pediatricians are now sounding the warning that these once eradicated diseases are making a comeback in the United States, endangering not only those non-vaccinated children but also the lives of those children and adults who are unable to receive vaccinations due to a medical condition.

The anti-vaccination movement is nothing new. Despite the availability of a highly effective vaccine for small pox, England enacted the Compulsory Vaccination Act of 1853. After this dramatic government intervention, "many people still refused to take it, and thousands died unnecessarily." Many scientists cite this as the birth of the anti-vaccine movement, comprised of people who spread their message via mass distribution of misleading pamphlets. These anti-vaccine zealots were so effective in stoking pulic fear that immunization rates in England plunged to less than 20 percent. As scientists predicted, smallpox once again became widespread throughout England, killing nearly 1,500 people in 1893, despite four decades in which an effective

vaccine was not only available but "compulsory." Ireland and Scotland, by contrast, "didn't have any anti-vaccine movement and had very high immunization rates and very little incidence of smallpox disease and death" according to Dr. Paul Offit, who has meticulously documented the history of the anti-vaccine movement. He believes by sharing the dramatic history of the anti-vaccine movements throughout time, we will educate families about the misinformation that stoked their fears of vaccinations and thus be able to educate these families about what he calls "the virus of fear."

The Freedom Foundation of Minnesota shares this mission with Dr. Offit: Spreading the truth about vaccines with our fellow citizens. We believe that providing factual information about the danger surrounding the declining rates of childhood immunization in Minnesota as well as the safety and efficacy of available vaccines will help parents and policymakers make the best decisions for the health of all children.

#### **Minnesota Law and Exemptions**

Minnesota Statute 121A.15 states that "no person over two months old may be allowed to enroll or remain enrolled in any elementary or secondary school or child care facility in this state" without proof from a physician or public clinic that they have received immunization against a variety of diseases, including pertussis, hepatitis B, polio, mumps, and measles (after 12 months). In some cases, it is acceptable for a child to have merely begun an immunization schedule for certain diseases.<sup>1</sup>

However, Minnesota's immunization laws also includes broad exemptions that put it at odds with most other states and have contributed to Minnesota's less-than-stellar vaccination compliance rates. For example, immunization is not required in

# "...THE MINNESOTA IMMUNIZATION LAW ALSO INCLUDES BROAD EXEMPTIONS THAT PUT IT AT ODDS WITH MOST OTHER STATES..."

cases where it conflicts with a parents' religious or "conscientiously held beliefs." Minnesota is in the minority, though not alone in allowing "philosophical exemptions" from immunization; in fact, the number of states allowing these exemptions has

grown from 15 to 20 in the last decade.

Schools are required to report each year to the Minnesota Department of Education the number of students who have not been immunized as generally required, as well as the number who have received an exemption.

Until September 2010 when state law changed, parents were required only to provide their own signature as proof to their child's school that their child has had chicken pox. A health care provider must now sign a form pertaining to chicken pox, though again exemptions are made for "children whose parents are conscientiously opposed to immunization."

According to the National Vaccine Information Center, which advocates broad immunization exemptions, Minnesota is one of 17 states with "medical, religious, and philosophical" exemptions in state law.<sup>4</sup> The U.S. Department of Health and Human Services (HHS) says "all States offer medical exemptions (individuals who are immuno-compromised, have allergic reactions to vaccine constituents, have moderate or severe illness, etc.)<sup>5</sup> In addition, data from the Centers for Disease Control and Prevention (CDC) show Minnesota is just one of 14 states with all categories of exemptions (temporary and permanent medical condition, religious, and philosophical).<sup>6</sup>

#### **Problems with Broad Exemptions**

The U.S. Department of Health and Human Services underscores the importance of school-age children receiving all recommended vaccines: "They protect the teachers, parent volunteers, visiting grandparents, and everyone else who enters the classroom or provides services to the school. The blanket of protection provided by rubella ('German measles') vaccination is especially important for women who are pregnant. Rubella can cause serious effects on the developing fetus, including deafness, blindness, heart disease, brain damage, or other serious problems, including miscarriage."

Controversy surrounding immunization, particularly the discredited claim that the MMR vaccine (measles, mumps and rubella) is linked to autism, has led some states to loosen vaccine standards and allow broad non-medical exemptions.

These non-medical exemption policies have very real consequences.

"THESE NON-MEDICAL EXEMPTION POLICIES HAVE VERY REAL CONSEQUENCES."

In 2006, the Journal of the American Medical Association published a study on the effects of nonmedical exemptions to school immunization requirements. Researchers found that broad non-medical exemptions result in markedly higher rates of exemption: "Exemption rates for states that allowed only religious exemptions remained at about 1% between 1991 and 2004; however, in states that allowed exemptions for personal beliefs, the mean exemption rate increased from 0.99% to 2.54%. The study found associations between increased pertussis incidence and state policies that allowed personal belief exemptions or easily-obtained exemptions in general."

The Pediatric Infectious Diseases Society (PIDS), an organization that opposes broad vaccine exemptions, says there is a double standard in states' treatment of vaccines compared to other public safety and public health issues:

"Some states allow for exemption based on the secular personal beliefs of the parents. However, states do not allow religious or

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personal belief exemption from other laws or regulations designed to protect children. For example, parents cannot be exempted from placing infants in car seats simply because they do not 'believe' in them ... Whether or not children should be vaccinated before childcare or school entry ought not be

a matter of 'belief'. Rather, it should be a matter of public policy based on the best available scientific evidence, and in this case the science is definitive: vaccines are safe and they save lives."

According to the American Academy of Pediatrics, "a child who has skipped 1 or more vaccines has 22 times the risk of contracting measles compared to his immunized peers."

#### **Minnesota's Growing Problem**

Results of Minnesota's troublingly low immunization rates have been on display with recent news reports of a statewide measles outbreak in 2011 that included nearly two dozen confirmed cases. Hennepin County reported 20 confirmed cases, while Dakota County added another two. 14 children were hospitalized, including one toddler who spent months in intensive care. 10

The Minnesota Department of Health (MDH) responded to this most recent measles outbreak by updating vaccination recom-

mendations to include a first dose at 1 year and the next one 4 weeks later.<sup>11</sup>

As of mid-October 2011, there were 212 measles cases reported in the United States, the largest number of measles cases since 1996. The State of Minnesota alone accounted for approximately 10 percent of those cases. The concentration is due in part to low vaccination rates for MMR among Minnesota's East African immigrant population. According to the Infectious Diseases Society of America, "[researchers of] the largest outbreak of measles in the United States this year (22 cases in Minnesota) noted that the incident case and eight of the other 21 people affected were of Somali descent, a population in which local vaccination rates for MMR dropped from 84% in 2007 to 57% in 2009."

Minnesota is not alone in its challenges with low vaccination rates and the emergence of diseases once thought to be all but eradicated. California, for example, reported 9,146 cases of whooping cough in 2010, including 10 infant deaths. That was the greatest number of cases reported in California since 1947, and the highest incidence of whooping cough since 1958.<sup>14</sup>

#### **Minnesota Statistics**

According to state reports to the CDC, more than 4,109 kindergartners received religious/philosophical exemptions for the 2010-2011 school year. There were a total of 69,712 children enrolled in public or private kindergarten for the school year, meaning 5.9 percent claimed the exemption. Including students who received medical exemptions, the number rises to 6.5 percent.

While some public health advocates have adopted the "Every Child By Two" mantra for MMR immunization, there are a sur-

prising number of 5 and 6-year-olds in Minnesota who have not received the MMR vaccine. 1,249 public and private schools offered kindergarten in 2010-2011. 289 of those schools reported MMR II (measles, mumps, rubella) dose coverage below 90 percent, and 108 reported coverage below 80 percent.<sup>15</sup>

According to the Minnesota Department of Health, as of January 2011, only 58.1 percent of Minnesota children age 24-35 months had received the full vaccine series. For individual vaccines in that age group, 1+MMR (85.7%) had the highest statewide coverage rate while 4+ DTaP (diphtheria, tetanus, and pertussis) was the lowest (74.3%).

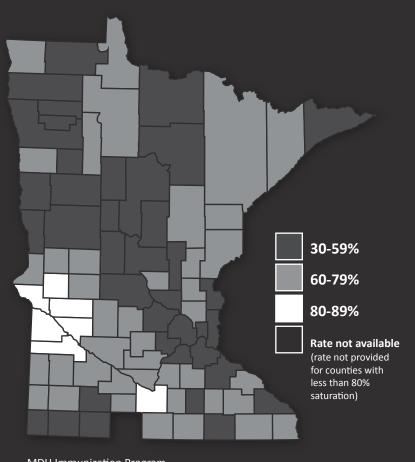
Dangerously low vaccine series coverage is not limited to any geographic region of the state. In fact, only six counties achieved 80%+ coverage, while 42 counties reported rates between 60-79%, 37 counties had compliance rates between 30-59%, and one had a coverage rate under 30%. <sup>16</sup>

#### **Minnesota Lags Behind**

According to a recent review by the Associated Press, Minnesota's 6.5% vaccination exemption rate one is of the highest reported in the nation. Minnesota is one of eight states in which more than 1 in 20 public school children's parents are seeking exemptions from some shots. Data suggest that nationwide, those seeking exemptions are often middle-class, college-educated, and white, though there are often a mix of views and philosophies that likely contribute to their skeptical views on immunization.

Minnesota has done little in recent years to bring about higher immunization rates for currently "required" vaccinations, or to require vaccinations against additional diseases. For example, Percent of children age 24-35 months up to date with series of the following recommended vacines: 4+ DTAP, 3+ polio, 1+ MMR, Completed Hib, 3+ HepB, 1+ varicella, and Completed Prevnar.

Source: Minnesota Department of Health



**MDH Immunization Program** 

while many states have recently adopted Hepatitis A childhood vaccination mandates, Minnesota has not.<sup>17</sup>

And while Minnesota lawmakers have debated numerous bills related to immunization in recent years, little progress has been made in achieving higher immunization rates.

#### **Recent Actions by the Minnesota Legislature**

In recent years, Minnesota legislators have introduced a considerable number of bills related to immunization. The proposed laws have originated from both sides of the aisle and from varying political perspectives. While most proposals were not successful, others have been passed and signed into law, including two specific bills in the 85<sup>th</sup> legislative session in 2009-2010. During that session, a key bill (HF 53/SF 53) was passed and signed into law, permitting pharmacists to administer the influenza vaccine to eligible Minnesotans aged 10 and older. Another law passed during the same session that gave the commissioner of health authority to modify drug label requirements to ensure optimum output in an emergency situation.

Regarding vaccine labeling, another trend has been making its way through the State Capitol for the past few years. During 2011 and 2012, a bill that would require new labeling requirements for vaccines containing DNA reemerged. A push for mercury-free vaccines was also a focus in previous sessions, though the two primary bills addressing the issue never reached the governor's desk.

Recent legislation intended to improve data collection, require influenza vaccines in child care facilities, and require a written waiver for higher education students to opt-out have all failed to reach the governor's desk.

#### **Recommendations for Policymakers**

- Avoid specific labeling requirements that add unnecessary regulations that further delay production and distribution of life-saving vaccines.
- Tighten immunization exemption standards, particularly related to broad philosophical exemptions, for children in Minnesota K-12 schools, child care facilities receiving public subsidies and higher education campuses.
- Continue to conduct targeted educational outreach on the importance and safety of vaccines to vulnerable communities with low immunization rates.
- Create a governor's task force on immunization, comprised of public, private, and nonprofit sector representatives to develop strategies and recommendations to achieve greater immunization coverage among Minnesota children.
- The Minnesota Department of Education should make current data and statistics on vaccination and exemption rates in Minnesota schools readily available to the general public. District-specific data should be added to the Education Department's website. Legislators and County Human Service Officers should be briefed on the county by county statistics and their support should be enlisted in the public drive to inoculate more children.

#### **Conclusion**

We've seen what happens when misinformation rules the day and lives are put at risk. The reemergence of previously eradicated diseases is tragic; that this happens at a time when safe and effective vaccines are readily available is scandalous. We cannot afford to turn a blind eye to the problem, nor can we continue on the path that got us here.

Low immunization rates present a serious public health threat to all Minnesotans, especially young children. This issue is too important to be subjected to political gamesmanship and blind partisanship. State policymakers must set aside partisan interests and enact policies that promote public health without infringing on individual liberties.

Public officials have a critical role to play in helping combat misinformation by ensuring that parents are informed of the safety and effectiveness of vaccines and the dangers of forgoing them. In addition, it is time for lawmakers to revisit the exceptionally broad vaccine exemptions included in state law, which invite public health risks into our schools and child care centers.

Finally, policymakers must work collaboratively with private health care providers, the vaccine industry, nonprofit organizations, and other key interests that have a stake in solving this problem and the expertise to do so. Widespread, accurate information of the safety and effectiveness of immunizations is the best medicine and a standard that Minnesota should strive to achieve.

#### **Vaccination Exemptions for School Children (By State)**

State	Medical		Religious	Philosophical
Jiate	Temporary	Permanent	Religious	Filliosopilical
Alabama		✓	<b>√</b>	
Alaska		✓	✓	
Arizona	✓	✓		✓
Arkansas	✓		✓	✓
California	✓	✓		✓
Colorado	√	✓	✓	√
Connecticut		✓	✓	
Delaware	✓	✓	✓	
District of Columbia	✓	✓	✓	
Florida	✓	✓	✓	
Georgia	✓		✓	
Hawaii	✓	✓	✓	
Idaho	✓	✓	✓	✓
Illinois		✓	✓	
Indiana	✓	✓	✓	
Iowa	✓	✓	✓	
Kansas	✓		✓	
Kentucky	✓	✓	✓	
Louisiana	√	✓	✓	✓
Maine	✓		✓	✓
Maryland	✓	✓	✓	
Massachusetts	✓	✓	✓	
Michigan	√	✓	✓	✓
Minnesota	√	✓	✓	✓
Mississippi	✓	✓		
Missouri	✓	✓	✓	
Montana	✓	✓	✓	
Nebraska	✓	✓	✓	
Nevada	✓	✓	✓	
New Hampshire	✓		✓	
New Jersey	✓	✓	✓	
New Mexico	✓	✓	√	✓
New York State	✓	✓	✓	
North Carolina	✓	✓	✓	
North Dakota		✓	✓	✓
Ohio	✓	✓	✓	✓

State	Me	Medical		Philosophical		
	Temporary	Permanent	Religious			
Oklahoma	✓	✓	✓	✓		
Oregon	✓	✓	✓			
Pennsylvania	✓	✓	✓	✓		
Rhode Island	✓	✓	✓			
South Carolina	✓	✓	✓			
South Dakota		✓	✓			
Tennessee	✓	✓	✓			
Texas	✓	✓	✓	✓		
Utah	✓	✓	✓	✓		
Vermont	✓	✓	✓	✓		
Virginia	✓	✓	✓			
Washington	✓	✓	✓	✓		
West Virginia	✓	✓				
Wisconsin	√	✓	✓	✓		
Wyoming	✓	✓	✓			

Source: Centers for Disease Control and Prevention

#### **Immunization Resources**

#### Immunization Laws (Minnesota Department of Health)

http://www.health.state.mn.us/divs/idepc/immunize/laws/index.html

## U.S. Vaccination Coverage Reported via National Immunization Survey (CDC)

http://www.cdc.gov/vaccines/stats-surv/nis/default.htm#chart

#### Minnesota Immunization Information Connection (MIIC)

http://www.health.state.mn.us/divs/idepc/immunize/registry/index.html

### Immunization Information Systems (IIS), via Centers for Disease Control and Prevention

http://www.cdc.gov/vaccines/programs/iis/

#### (Endnotes)

- 1 https://www.revisor.mn.gov/statutes/?id=121a.15
- 2 http://www.health.state.mn.us/divs/idepc/immunize/laws/exemption.html
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- 5 http://www.hhs.gov/nvpo/law.htm#13.
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- 12 http://www.idmeeting.org/omk.php?pid=1747&sid=S201110280831583PK WHD&pr=1817
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- 14 http://www.cdph.ca.gov/programs/immunize/Documents/PertussisReport2011-11-10.pdf
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- 17 http://www.immunize.org/laws/hepa.asp

The Freedom Foundation of Minnesota is an independent, non-profit educational and research organization that actively advocates the principles of individual freedom, personal responsibility, economic freedom, and limited government.

By focusing on some of the most difficult public policy issues facing Minnesota, we seek to foster greater understanding of the principles of a free society among leaders in government, the media, and the citizenry. Founded in 2006, we hope to create a better and more vibrant future for every Minnesotan by helping shape sound public policy. We tackle issues important to every Minnesotan and provide real-time, proven research and policy alternatives to help further the debate.

As an independent, non-profit 501(c)(3) organization, the Freedom Foundation of Minnesota does not accept any government grants or funding. Instead, we are proud to earn the trust and support of generous individuals, foundations, and corporations.

