PHYSICIANS FOR INFORMED CONSENT

June 12, 2019

To: Assembly Health Committee
State Capitol, Room 6005
Sacramento, CA 95814

Re: SB 276 (Pan) as amended on 5/17/19 – Immunizations: medical exemptions;
Elimination of physicians' right to determine medical exemptions to vaccination for their patients
Position: **OPPOSE**

We at Physicians for Informed Consent (PIC), on behalf of our California members, oppose SB 276 as amended by Pan, as it is both unscientific and unethical.

PIC is a nationally recognized 501(c)(3) nonprofit organization representing hundreds of doctors, as well as scientists and attorneys, whose mission is to safeguard informed consent in vaccination. In addition, our Coalition for Informed Consent consists of over 150 member organizations which represent millions of Americans.

SB 276 is unscientific because:

- **SB 277-mandated vaccines have not yet been proven to be less risky than the diseases they are designed to prevent.**

  For example, the chance of dying from measles is 1 in 10,000, based on U.S. data from the pre-vaccine era. However, the risk of dying or being permanently disabled by the measles, mumps, and rubella (MMR) vaccine has not been proven to be less than 1 in 10,000. This makes mandating the MMR vaccine unscientific and unethical. See attached Measles Disease Information Statement (DIS), Vaccine Risk Statement (VRS), and Immunocompromised Schoolchildren Risk Group Information Statement (RGIS).

  In addition, in 2017, we reported in *The BMJ* that every year an estimated 5,700 U.S. children (approximately 1 in 640) suffer febrile seizures from the first dose of the MMR vaccine—which is five times more than the number of febrile seizures expected from measles. This amounts to 57,000 febrile seizures over the past 10 years due to the MMR vaccine alone. As 5% of children with a history of febrile seizures progress to epilepsy, a debilitating and life-threatening chronic condition, the estimated number of children whose epilepsy is due to the MMR vaccine in the past 10 years is 2,850.[1] Furthermore, the risk of seizure from MMR in siblings of children with a history of febrile seizures is 1 in 252, and the risk of seizure from MMR in children with a personal history of febrile seizures is 1 in 51.[2]

SB 276 is unethical because it:

- **Promotes medical bullying by governmental agents and obstructs parents from being able to protect their children from the potential risk of vaccine injuries (i.e., it violates the principle of informed consent/informed refusal).**
- **Thwarts doctors from being able to protect their patients' health through personalized vaccine recommendations based on infectious disease risks and individualized vaccine-injury risks, and instead promotes an outdated one-size-fits-all governmental vaccine schedule which is not based on new medical discoveries.**
- **Subjects the health of California's children to the mercy of a State Public Health Officer with whom they don't have a patient-doctor relationship.**

Finally, the National Childhood Vaccine Injury Act (NCVIA) of 1986 was created by Congress as a remedy to mounting vaccine injury lawsuits. Since then, it has not been effectively possible to sue vaccine manufacturers or physicians for vaccine injuries and instead the Vaccine Injury Compensation Program (VICP) has cumulatively awarded about $4,000,000,000 for severe vaccine injury cases or deaths—to only a small fraction of the VICP petitioners who apply within the two- or three-year statute of limitations. Consequently, it is mostly families whose children have suffered uncompensated vaccine injuries and the doctors who care for them (including many of PIC's M.D. and D.O. members) who have a heightened awareness of the risks vaccines pose to the health of some American children and the diligence required to provide informed consent in an environment that is effectively immune from the tort system, civil litigation, and publicity.

For these reasons, we oppose SB 276 on both scientific and ethical grounds. See attached PIC's SB 276 Myths vs. Facts: Setting the Record Straight.

We are here to assist you in these highly technical matters and hope you will not allow bad science to violate the ethics of informed consent.

Sincerely,

Shira Miller, M.D.
Founder and President
Physicians for Informed Consent

1 Miller S. Re: The unofficial vaccine educators: are CDC funded non-profits sufficiently independent? *BMJ.* 2017;359:j5104. https://www.bmj.com/content/359/bmj.j5104/rr-13.

2 Vestergaard M, Hviid A, Madsen KM, et al. MMR vaccination and febrile seizures: evaluation of susceptible subgroups and long-term prognosis. *JAMA.* 2004 Jul 21;292(3):351-7. https://www.ncbi.nlm.nih.gov/pubmed/15265850.

Enclosed: PIC's SB 276 Myths vs. Facts: Setting the Record Straight, Measles Disease Information Statement (DIS), Vaccine Risk Statement (VRS), Immunocompromised Schoolchildren Risk Group Information Statement (RGIS)

SB 276 Myths vs. Facts: Setting the Record Straight

PIC Physicians for Informed Consent

Background: SB 277, which passed in 2015 in California, prevents parents from being able to protect their children from vaccine injuries based on their own judgement, and instead only allows physicians to exempt children from one or more vaccines in order to attend private or public school, and only due to medical reasons. Now, SB 276 proposes to prevent physicians from exempting children from one or more vaccines and to only allow a state public health officer to do so based solely on CDC guidelines. The purported necessity for SB 276 is in the myths below; however, the facts negate the myths.[1,2]

Since SB 277, Physicians for Informed Consent, a 501(c)(3) nonprofit organization, has been uniting and educating doctors from across the nation on how to better identify vaccine contraindications, precautions, and adverse events, in order to prevent as many vaccine injuries as possible.[3]

MYTH 1: SB 276 is necessary because there are a few physicians recommending medical exemptions to vaccination which are *possibly* fraudulent.

FACT: The standard of care for recommending a medical exemption was established by SB 277 in 2015 and specifies that a physician recommend medical exemptions to vaccination when his or her medical opinion is such that "immunization is not considered safe," including circumstances related to family medical history. To date, no physician in California has been adjudicated for acting fraudulently when recommending a medical exemption to vaccination.

FACT: Although the Centers for Disease Control & Prevention (CDC) has guidelines on contraindications and precautions to vaccination, these guidelines are not all-inclusive, it can take decades for medical research on vaccine injuries to become a CDC guideline, and medical exemptions are not one-size-fits-all. Furthermore, physicians need to be able to protect their patients from harm based on their own knowledge, experience, research, and judgment in order to complement CDC guidelines.[4]

FACT: Since the National Childhood Vaccine Injury Act of 1986, which indemnifies both vaccine manufacturers and physicians from liability for vaccine injuries, and the creation of the Vaccine Injury Compensation Program, which has awarded about $4 billion in compensation to only one-third of petitioners, it has mostly been those families with a history of vaccine injuries and their physicians who have had a heightened awareness of their risk of suffering more vaccine injuries. This latter explains why less than 1% of children have medical exemptions in California, and why there are a relatively small number of physicians who are responsible for recommending most of those exemptions.[5,6]

MYTH 2: SB 276 is necessary because it is difficult for the Medical Board of California to investigate complaints related to medical exemptions.

FACT: The Medical Board of California has the statutory authority for the issuance and enforcement of subpoenas (Government Code § 11180 et seq. Section 11182) and has indicated that in situations when they are not able to obtain medical records it is because "the Board does not have enough evidence," parents are not complaining about their physician, and parents wish to protect the privacy of their child's medical records. Thus, it may be that it is the medical exemption complaints in these situations that are not valid. In fact, a recent study published by the American Academy of Pediatrics states that, of the health officers and vaccination staff who reviewed California medical exemptions in their jurisdictions, "Most participants reported seeing few or no medical exemptions that they believed were problematic."[7,8]

MYTH 3: SB 276 does not pose a threat to children at-risk of vaccine injuries.

FACT: If SB 276 passes, at-risk children will categorically be denied medical exemptions. For example, one of the risks of the measles, mumps and rubella (MMR) vaccine is seizure, which occurs in about 1 in 640 vaccinated children overall but is elevated to about 1 in 250 in vaccinated siblings of children with a history of febrile seizures (and 5% of those would develop epilepsy). Although the SB 277 standard of care would permit a physician to exempt a family with a history of febrile seizures from the MMR vaccine, the CDC guidelines do not list family history of seizures as a reason for a medical exemption, and that would put many children unnecessarily at risk for injury. As vaccines are a preventive medicine administered to healthy children, the precautionary principle is especially important when recommending them.[9,10]

MYTH 4: Schools with a relatively high number of medical exemptions are a threat to public health.

FACT: The scientific evidence shows that the vaccination status of a child is not a significant risk to other schoolchildren, including immunocompromised schoolchildren. Should a measles outbreak occur, most cases are benign and 99.99% of cases fully recover. In addition, high-dose vitamin A and immune globulin (passive immunization) are available for the treatment of measles upon exposure and there is evidence that the antiviral ribavirin is beneficial in the treatment of measles. As Dr. Alexander Langmuir, director of the epidemiology branch of the Communicable Disease Center (now CDC) for 21 years, explained in his seminal 1962 paper, measles is a "self-limiting infection of short duration, moderate severity, and low fatality," and "...in the United States measles is a disease whose importance is not to be measured by total days disability or number of deaths."[11,12,13,14,15,16]

FACT: Measles mortality declined 98% from 1900 to 1963, before the measles vaccine was introduced, and between 1959 and 1962, there was a 1 in 10,000 (0.01%) chance of dying from measles, not 1 in 1,000, which is the often-publicized misrepresentation of historical data. By comparison, in the modern era, over 23,000 infant deaths occur every year in the U.S. from all causes and the chance of a child dying in his or her first year of life is currently 1 in 170 (0.6%)—which is 60 times the risk of a child dying from measles in 1962, a time period when almost every child had measles by age 15.[17,18,19]

FACT: The death of an infant in the first year of life, infant mortality rate (IMR), is a major indicator of the health of a population, not the number of measles cases nor the medical exemption rate. West Virginia and Mississippi, which only allow state public health officers to approve medical exemptions to vaccination (like SB 276 would do), have about double the IMR of California; meanwhile, Massachusetts and Washington have a lower IMR than California, even while allowing non-medical exemptions. This means that SB 276-like laws are unlikely to improve public health and may worsen it.[20]

Infant mortality rate:

- Massachusetts = 3.7 (1 in 270)
- Washington = 3.9 (1 in 256)
- California = 4.2 in 1000 (1 in 240)
- West Virginia = 7 in 1000 (1 in 140)
- Mississippi = 8.6 in 1000 (1 in 115)

MYTH 5: If pockets of schoolchildren with medical exemptions get vaccinated, measles outbreaks won't occur.

FACT: There are two kinds of measles cases. One kind is caused by measles infection and the other kind is caused by the live-virus MMR vaccine (genotype A). Of the 194 measles virus sequences obtained in the U.S. in 2015, 73 (nearly 40%) were identified as being due to the MMR vaccine.[21]

FACT: Many measles cases occur among populations with high vaccination rates because of vaccine failure and waning vaccine immunity. A 2007 study published in *JAMA* found that by 20 years, 33% of those previously vaccinated with MMR are susceptible to measles infection. In addition, a 2012 study published in *Vaccine* found that "measles outbreaks also occur even among highly vaccinated populations because of primary and secondary vaccine failure, which results in gradually larger pools of susceptible persons and outbreaks once measles is introduced."[22,23]

FACT: There are two kinds of herd immunity. One kind is from natural infection and the other kind is from vaccines. Over 50% of the measles cases in Disneyland in 2015 occurred in adults because herd immunity from the MMR vaccine wanes over time. And currently, about 80% of measles cases in California in 2019 are in adults because herd immunity from the MMR vaccine wanes over time.[24,25]

MYTH 6: SB 276 is widely supported by doctors who are experienced in recognizing and preventing vaccine injuries.

FACT: As physicians are not liable for vaccine injuries (since the National Childhood Vaccine Injury Act of 1986), there is less motivation for most of them to stay up-to-date with the scientific literature related to vaccine adverse events. However, since SB 277, a growing number of physicians with the knowledge, experience, and motivation to recognize and prevent vaccine injuries have stepped up to help meet the needs of families at-risk of vaccine injuries—these physicians strongly oppose SB 276.[26]

FACT: SB 276 is strongly opposed by Physicians for Informed Consent, the Association of American Physicians and Surgeons, and Physicians' Association for Anthroposophic Medicine, which represent thousands of physicians. In addition, at a recent Medical Board of California meeting to address SB 276, on May 28, 2019, directors expressed grave concerns about the bill, indicating that 1) CDC guidelines should not be the standard, and 2) California public health officers should not be the arbiters of medical exemptions.[27,28]

FACT: Governor Gavin Newsom has suggested that he would veto SB 276.[29]

"I'm a parent. I don't want someone that the governor appointed to make a decision for my family… I do legitimately have concerns about a bureaucrat making a decision that is very personal."
— Governor Gavin Newsom

References

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MEASLES

What Parents Need to Know

PHYSICIANS FOR INFORMED CONSENT

Available in Spanish at / Disponible en español en physiciansforinformedconsent.org/measles

1. WHAT IS MEASLES?

Measles is a self-limiting childhood viral infection.

- Measles symptoms include a prodromal (initial) phase of cough, runny nose, eye irritation and fever, followed by a generalized rash on days 4–10 of the illness.[1]
- Measles is contagious during the prodromal phase and for 3-4 days after rash onset.[1]
- Most measles cases are benign and not reported to public health departments.[2]
- Before the measles mass vaccination program was introduced, nearly everyone contracted measles and obtained lifetime immunity by age 15.[1]
- In rare situations, measles can cause brain damage and death.[3,4]

Centers for Disease Control and Prevention (CDC) publishes measles case-fatality rates based on reported cases. However, nearly 90% of measles cases are benign and not reported to the CDC.[2] Calculating case-fatality rates based on reported cases (that constitute only 10% of all cases) results in a case-fatality rate that is 10 times higher than what it actually is in the general population. Data analysis herein is based on total measles cases (both reported and unreported).

2. WHAT ARE THE RISKS?

In the modern era, it is rare to suffer permanent disability or death from measles in the United States. Between 1900 and 1963, the mortality rate of measles dropped from 13.3 per 100,000 to 0.2 per 100,000 in the population, due to advancements in living conditions, nutrition, and health care—a 98% decline (Fig. 1).[2,5] Malnutrition, especially vitamin A deficiency, is a primary cause of about 90,000 measles deaths annually in underdeveloped nations.[6] In the U.S. and other developed countries, 75–92% of hospitalized measles cases are low in vitamin A.[7,8]

Research studies and national tracking of measles have documented the following:

- 1 in 10,000 or 0.01% of measles cases are fatal.[3]
- 3 to 3.5 in 10,000 or 0.03–0.035% of measles cases result in seizure.[9]
- 1 in 20,000 or 0.005% of measles cases result in measles encephalitis.[4]
- 1 in 80,000 or 0.00125% of cases result in permanent disability from measles encephalitis.[4]
- 7 in 1,000 or 0.7% of cases are hospitalized.[10]
- 6 to 22 in 1,000,000 or 0.0006–0.0022% of cases result in subacute sclerosing panencephalitis (SSPE).[11]

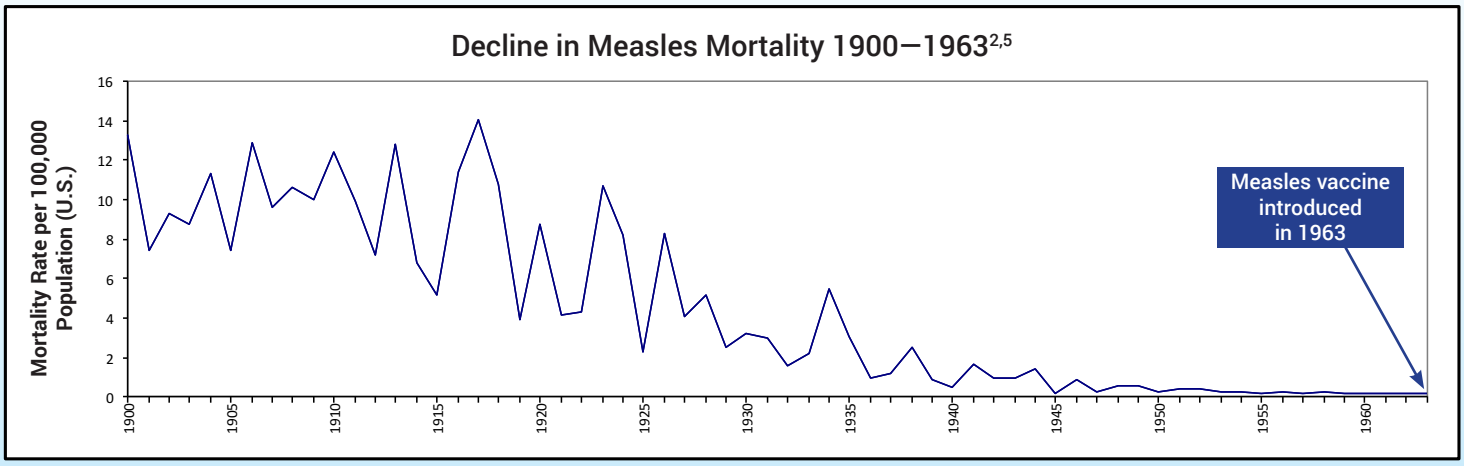

Figure 1: Measles death declined 98% from 1900 to 1963, before the measles vaccine was introduced.

3. WHAT TREATMENTS ARE AVAILABLE FOR MEASLES?

Because measles resolves on its own in almost all cases, usually only supportive treatment is necessary. As such, treatment options include the following:

- Rest
- Hydration
- High-dose vitamin A[12]
- Immune globulin (available for immunocompromised patients, such as those on chemotherapy)[13]

Vitamin A

The World Health Organization (WHO) recommends that serious measles cases be treated with high-dose vitamin A, 50,000–200,000 IU, orally on two consecutive days.[13]

4. ARE THERE ANY BENEFITS FROM GETTING MEASLES?

There are studies that suggest a link between naturally acquired measles infection and a reduced risk of Hodgkin's and non-Hodgkin's lymphomas, as well as a reduced risk of atopic diseases such as hay fever, eczema and asthma.[14-18] In addition, measles infections are associated with a lower risk of mortality from cardiovascular disease in adulthood.[19] Moreover, infants born to mothers who have had naturally acquired measles are protected from measles via maternal immunity longer than infants born to vaccinated mothers.[20]

5. WHAT ABOUT THE VACCINE FOR MEASLES?

The measles vaccine was introduced in the U.S. in 1963 and is now only available as a component of the measles, mumps, and rubella (MMR) vaccine. It has significantly reduced the incidence of measles; however, the vaccine is not capable of preventing all cases of measles, as failures have been reported.[21] The manufacturer's package insert contains information about vaccine ingredients, adverse reactions, and vaccine evaluations. For example, "M-M-R II vaccine has not been evaluated for carcinogenic or mutagenic potential, or potential to impair fertility."[11] Furthermore, the risk of permanent injury and death from the MMR vaccine has not been proven to be less than that of measles (Fig. 2).[22, 23]

Measles Mortality vs. Leading Causes of Death in Children Under Age 10 (per 100,000 Population)[22-25]

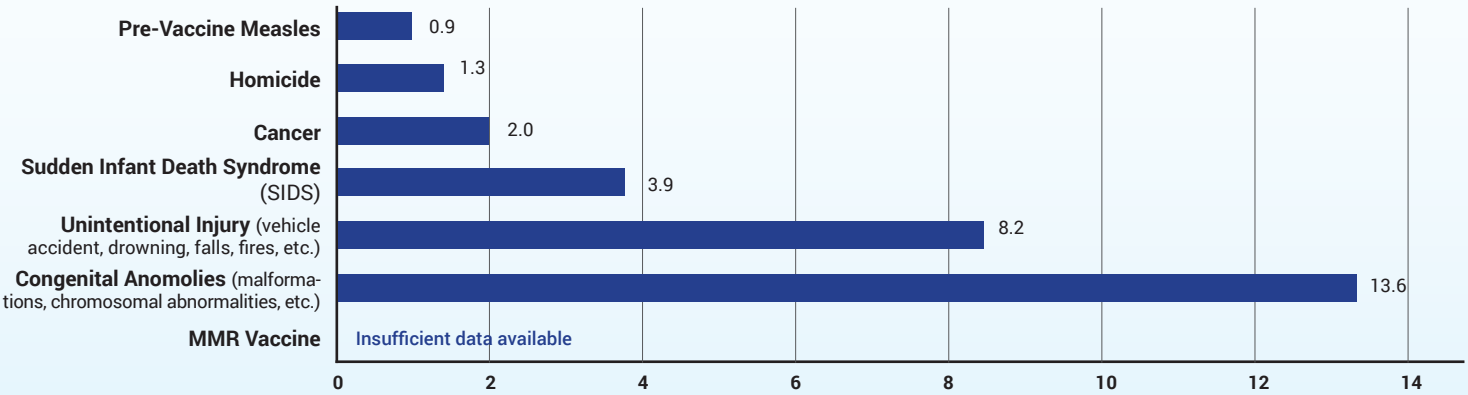

Figure 2: This graph shows the measles death rate before the vaccine was introduced, when measles was a common childhood viral infection, and compares it to the leading causes of death in children under age 10 today. Hence, in the pre-vaccine era, the measles death rate per 100,000 was 0.9 for children under age 10. In 2015, the death rate per 100,000 for homicide was 1.3, followed by cancer (2.0), SIDS (3.9), unintentional injury (8.2), and congenital anomalies (13.6). The rate of death or permanent injury from the MMR vaccine is unknown because the research studies available are not able to measure it with sufficient accuracy.[22, 23]

All references and the Measles Vaccine Risk Statement (VRS) are available at physiciansforinformedconsent.org/measles.

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MMR VACCINE (Measles, Mumps, and Rubella)

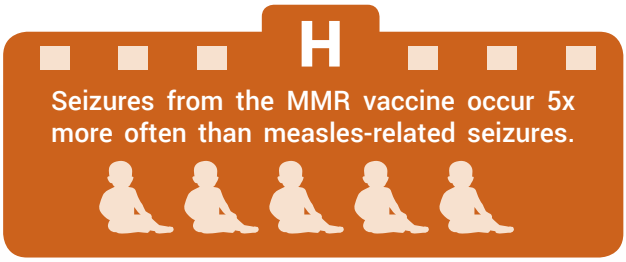
Is It Safer Than Measles?

PHYSICIANS FOR INFORMED CONSENT

Available in Spanish at / Disponible en español en physiciansforinformedconsent.org/measles

1. WHAT ARE SIDE EFFECTS OF THE MMR VACCINE?

Common side effects of the MMR vaccine include fever, mild rash, and swelling of glands in the cheeks or neck.[1] A more serious side effect is seizure, which occurs in about 1 in 640 children vaccinated with MMR[2]—about five times more often than seizure from measles infection.[3]



The Centers for Disease Control and Prevention (CDC) states that serious allergic reactions to the vaccine occur in about one in a million doses.[1] However, other severe side effects include deafness, long-term seizures, coma, lowered consciousness, permanent brain damage, and death.[1] While the CDC states that these side effects are rare, the precise numbers are unknown.[1] Additionally, the manufacturer's package insert states, "M-M-R II vaccine has not been evaluated for carcinogenic or mutagenic potential, or potential to impair fertility."[4]

2. HOW ARE RISKS OF VACCINE SIDE EFFECTS MEASURED?

Methods to measure vaccine risks include surveillance systems, clinical studies, and epidemiological studies.

3. HOW ACCURATE IS SURVEILLANCE OF ADVERSE EVENTS FROM THE MMR VACCINE?

The government tracks reported cases of vaccine side effects through the Vaccine Adverse Event Reporting System (VAERS). Approximately 40 cases of death and permanent injury from the MMR vaccine are reported to VAERS annually.[5] However, VAERS is a passive reporting system—authorities do not actively search for cases and do not actively remind doctors and the public to report cases. These limitations can lead to significant underreporting.[6] The CDC states, "VAERS receives reports for only a small fraction of actual adverse events."[7] Indeed, as few as 1% of serious side effects from medical products are reported to passive surveillance systems,[8] and as few as 1.6% of MMR-related seizures are reported to VAERS.[9] In addition, VAERS reports are not proof that a side effect occurred, as the system is not designed to thoroughly investigate all cases.[10] As a result, VAERS does not provide an accurate count of MMR vaccine side effects.

4. HOW ACCURATE ARE CLINICAL TRIALS OF THE MMR VACCINE?

The CDC states, "Prelicensure trials are relatively small—usually limited to a few thousand subjects—and usually last no longer than a few years. Prelicensure trials usually do not have the ability to detect rare adverse events or adverse events with delayed onset."[6] Since measles is fatal in about 1 in 10,000 cases and results in permanent injury in about 1 in 80,000 cases,[3] a few thousand subjects in clinical trials are not enough to prove that the MMR vaccine causes less death and permanent injury than measles (Fig. 1). In addition, the lack of adequate clinical trials of the MMR vaccine resulted in the manufacturer's package insert data to be reliant on passive surveillance for rates of MMR-related neurological adverse reactions, permanent disability, and death.[4]

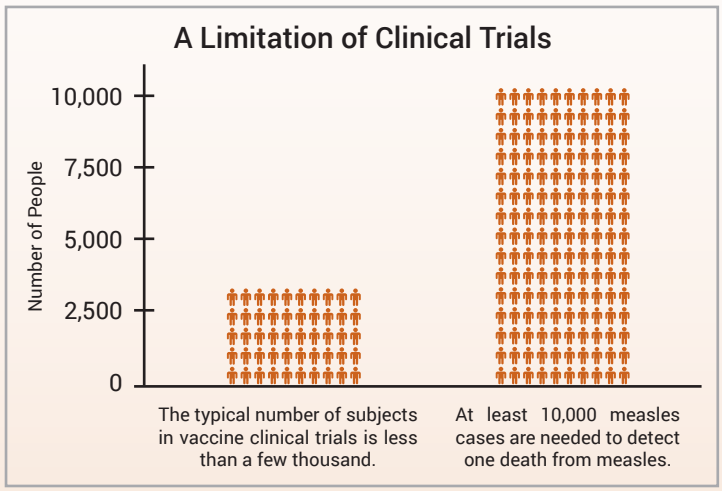


Figure 1: There are not enough subjects in clinical trials to prove that the MMR vaccine poses less risk than measles.

5. HOW ACCURATE ARE EPIDEMIOLOGICAL STUDIES OF THE MMR VACCINE?

Epidemiological studies are hindered by the effects of chance and possible confounders—additional factors that could conceivably affect the groups being studied. For example, there is a well-known 2002 Danish study published in the *New England Journal of Medicine* involving about 537,000 children that looked for an association between the MMR vaccine and certain adverse events.[11] The raw data in the study was adjusted, in an attempt to account for potential confounders, and the study found no association between the MMR vaccine and the adverse events. However, because there is no evidence that the estimated confounders used to adjust the raw data were actually confounders, the study did not rule out the possibility that the MMR vaccine increases the risk of an adverse event that leads to permanent injury by up to 77%. Consequently, the study did not rule out the possibility that such adverse events might occur up to four times more often than death from measles: 1 in 2,400 compared to 1 in 10,000 (Fig. 2 and Table 1). The range of possibilities found in the study, between the adjusted data and the raw data, makes the result inconclusive; even large epidemiological studies are not accurate enough to prove that the MMR vaccine causes less death or permanent injury than measles.

6. IS THE MMR VACCINE SAFER THAN MEASLES?

It has not been proven that the MMR vaccine is safer than measles. The vaccine package insert raises questions about safety testing for cancer, genetic mutations, and impaired fertility. Although VAERS tracks some adverse events, it is too inaccurate to measure against the risk of measles. Clinical trials do not have the ability to detect less common adverse reactions, and epidemiological studies are limited by the effects of chance and possible confounders. Safety studies of the MMR vaccine are particularly lacking in statistical power. A review of more than 60 MMR vaccine studies conducted for the Cochrane Library states, "The design and reporting of safety outcomes in MMR vaccine studies, both pre- and post-marketing, are largely inadequate."[12] Because permanent sequalae (aftereffects) from measles, especially in individuals with normal levels of vitamin A, are so rare,[3] the level of accuracy of the research studies available is insufficient to prove that the vaccine causes less death or permanent injury than measles.

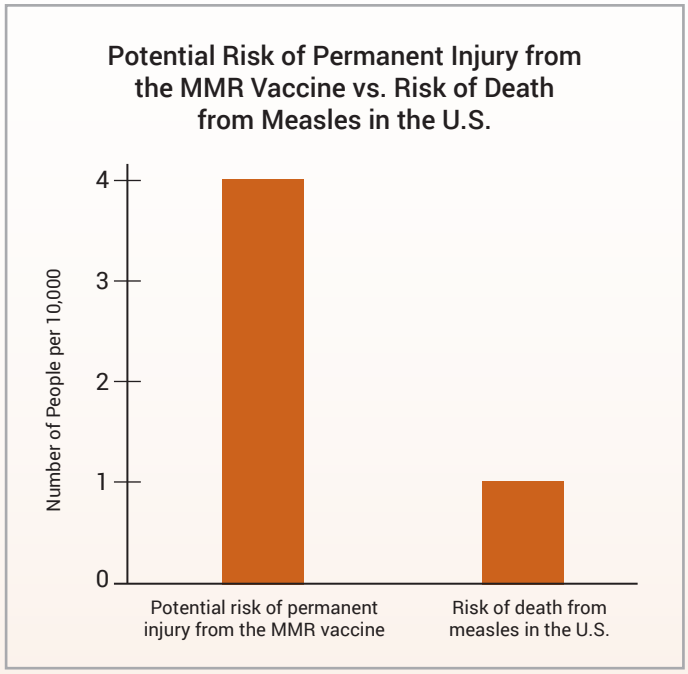


Figure 2: A 2002 Danish study did not rule out the possibility that the MMR vaccine can cause an adverse event leading to permanent injury four times more often than measles can be fatal.

Table 1: Statistical Analysis of an Epidemiological Study with Over Half a Million Children

RR = Relative risk
(risk in group vaccinated with MMR) ÷
(risk in group not vaccinated with MMR)

CI = Confidence interval
(possible range of RR due to effects of chance)

Adjusted RR reported in study
= 0.92 (95% CI, 0.68 to 1.24)

Unaltered RR recorded in study
(263/1,647,504) ÷ (53/482,360)
= 1.45 (95% CI, 1.21 to 1.77)

Potential RR = 1.77
(potential 77% greater risk than unvaccinated group risk)

Unvaccinated group risk recorded in study
= 53 in 97,000

77% of 53 in 97,000
= 1 in 2,400 additional risk in group vaccinated with MMR

All references and the Measles Disease Information Statement (DIS) are available at physiciansforinformedconsent.org/measles.

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Vaccines: What About Immunocompromised Schoolchildren?

PHYSICIANS FOR INFORMED CONSENT

Available in Spanish at / Disponible en español en physiciansforinformedconsent.org/immunocompromised-schoolchildren

1. WHAT DOES IT MEAN TO BE IMMUNOCOMPROMISED?

Immunocompromised children have weakened immune systems that prevent them from optimally fighting infections on their own. Consequently, they may be at increased risk of complications from infectious diseases and require additional precautions and treatments.

2. CAN IMMUNOCOMPROMISED CHILDREN ATTEND SCHOOL?

Severely immunocompromised children are too vulnerable to be in public places and cannot attend school. However, children who are not severely immunocompromised can attend school with the approval of their doctor.

> Severely immunocompromised children cannot attend school because they are too vulnerable to be in public places.

3. CAN IMMUNOCOMPROMISED SCHOOLCHILDREN BE VACCINATED?

Immunocompromised schoolchildren have the option to receive all the vaccines licensed for children in the United States, except for the live virus vaccines (such as vaccines targeting measles, mumps, rubella, or varicella infections).[1] Although vaccination often results in protective levels of antibodies in immunocompromised children,[2-6] clinical vaccine safety trials typically exclude immunocompromised subjects.[7] In addition, vaccines have not been evaluated for their potential to cause cancer, genetic mutations or impaired fertility in the general or immunocompromised population.[8] Due to these limitations, it is not known whether the benefit of vaccinating an immunocompromised child outweighs the risk of vaccine injury to that child.

4. DOES THE VACCINATION STATUS OF OTHER SCHOOLCHILDREN POSE A SIGNIFICANT RISK TO IMMUNO-COMPROMISED SCHOOLCHILDREN?

The vaccination status of other schoolchildren does not pose a significant risk to immuno-compromised schoolchildren for the following reasons (Table 1):

- Some vaccines cannot prevent the spread of the bacteria or viruses they target.
- Not all infectious diseases are contagious.
- Some infectious diseases are not spread in schools.
- Some infectious diseases rarely cause complications in immunocompromised schoolchildren.
- Immune globulin (plasma containing antibodies) is available for immunocompromised children exposed to certain infectious diseases.

Immunocompromised schoolchildren are not put at significant risk by the vaccination status of other schoolchildren.

Table 1: Why the Vaccination Status of Other Schoolchildren Is Not a Significant Risk to Immunocompromised Schoolchildren

Some vaccines cannot prevent the spread of the bacteria or viruses they target.

Children vaccinated with the diphtheria, tetanus, and pertussis (whooping cough) vaccine (DTaP) or the inactivated polio vaccine (IPV) can still be infected with diphtheria-causing bacteria, pertussis bacteria, or poliovirus and spread them to others, even with mild or no symptoms of their own.[9-11] The influenza vaccines (TIV and LAIV) have not been observed to significantly reduce the spread of influenza.[12,13]

Not all infectious diseases are contagious.

Tetanus is not a communicable disease; that is, it cannot spread from person to person under any circumstances.[14]

Some infectious diseases are not spread in schools.

Hepatitis B is not spread by kissing, hugging, holding hands, coughing, sneezing, or sharing eating utensils,[15] and the main routes of hepatitis B transmission (sexual contact, injection drug use, or being born to an infected mother)[16] do not occur in school. Human papillomavirus (HPV) is sexually transmitted and is therefore not spread in school.[17] *Haemophilus influenzae* type b (Hib) is spread among children younger than school age, mostly of ages 3 and younger.[18]

Some infectious diseases rarely cause complications in immunocompromised schoolchildren.

Fatal cases of mumps are very rare in schoolchildren (1 mumps death per 100,000 mumps cases),[19] and immunocompromised children have been observed to recover just as well from mumps as the general population.[20] The greatest risks of pertussis and rubella are to infants and unborn babies, and being immunocompromised has not been observed to be a significant risk factor for complications of pertussis or rubella in schoolchildren.[21]

Immune globulin (plasma containing antibodies) is available for immunocompromised children exposed to certain infectious diseases.

Immune globulin (IG) is available for the prevention of severe symptoms in immunocompromised children exposed to measles or rubella (IG does not provide protection for fetuses of expectant mothers infected with rubella).[22,23] Varicella-zoster immune globulin (VIG) is available for the prevention of severe symptoms in immunocompromised children exposed to varicella (chickenpox).[24] Hepatitis B immune globulin (HBIG) and tetanus immune globulin (TIG) are also available for immunocompromised children.[1]

All references are available at physiciansforinformedconsent.org/immunocompromised-schoolchildren.

These statements are intended for informational purposes only and should not be construed as personal medical advice.

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