



Michigan Measles Situational Update

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What is Measles?

- ◆ Highly contagious virus
- ◆ Begins with high fever, may be as high as 103°F –105°F
- ◆ Followed by:
 - Cough
 - Runny nose
 - Red watery eyes (conjunctivitis)
- ◆ Measles rash develops on the face/head and spreads to the rest of the body

How is Measles Spread?

- ◆ Measles is spread from person to person
 - Airborne transmission from coughing and sneezing
- ◆ Measles virus can remain airborne for up to two hours in a room
- ◆ Measles is communicable before and after rash onset before people are aware they have measles

Complications of Measles

- ◆ Brain infection with permanent damage
- ◆ Ear infection with permanent hearing loss
- ◆ Brain degeneration (long term)
- ◆ Pneumonia
- ◆ 1-2/1,000 people who get measles die

Vaccination

- ◆ Vaccine 97%-98% effective at preventing measles disease after 2 doses of vaccine.
- ◆ All children should receive 2 doses of MMR vaccine
 - Dose 1: 12-15 months of age
 - Dose 2: 4-6 years of age
- ◆ Persons born before 1957 are considered immune due to widespread measles prior to vaccine licensure
- ◆ All other adults should receive 1 dose of MMR vaccine, unless otherwise indicated for 2 doses

Measles in US

- ◆ Prior to vaccine program in 1963:
 - 3-4 million people/year got measles annually
 - 4,000 developed brain infection
 - 400-500 deaths
- ◆ With vaccine program, measles declared eradicated in US in 2000

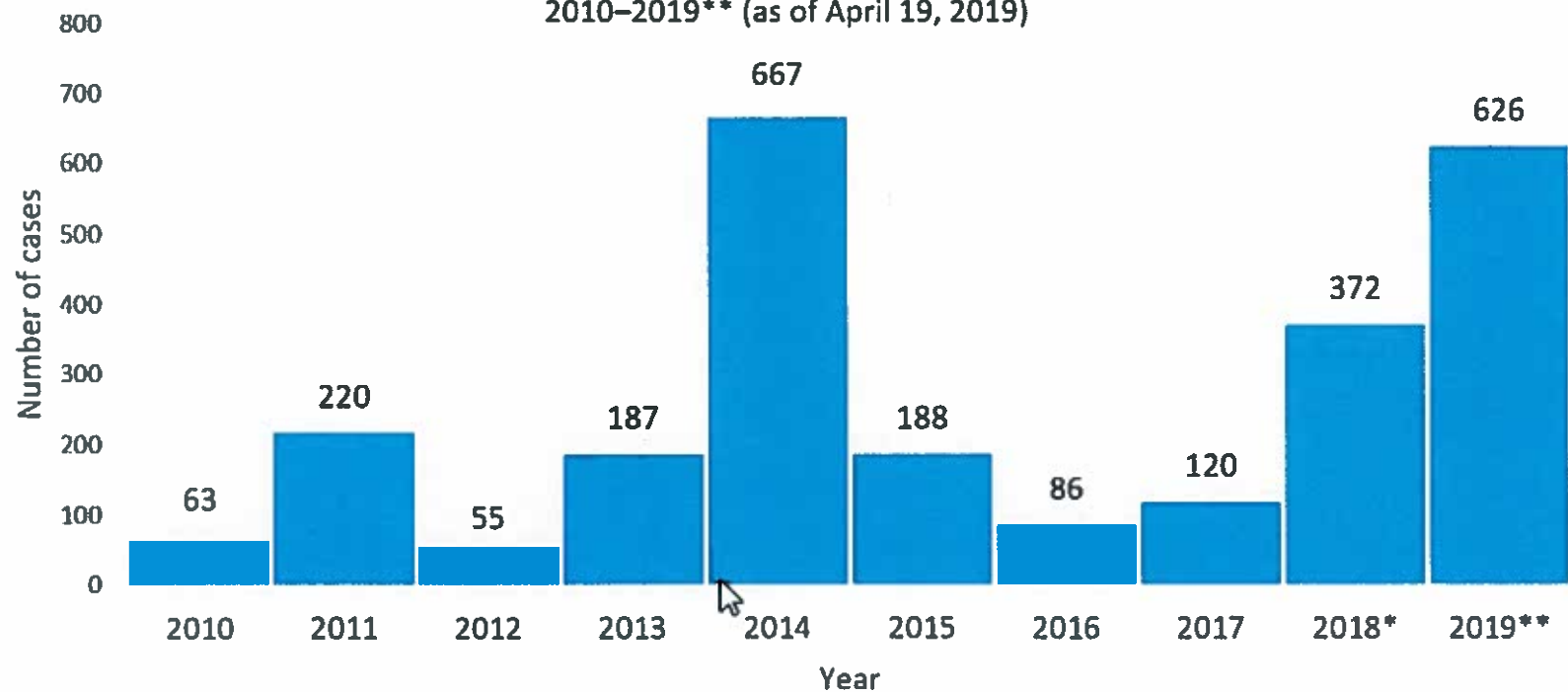
Measles Internationally

- ◆ Measles in Europe tripled from 2017 to 2018 to nearly 83,000 cases and 72 deaths
- ◆ Massive outbreaks in other parts of the world
- ◆ In 2016 the World Health Organization declared the Americas free of endemic measles
 - South America is now experiencing widespread measles in Venezuela and Brazil and therefore is no longer considered eliminated

Measles in Recent US History

NUMBER OF MEASLES CASES REPORTED BY YEAR

2010–2019** (as of April 19, 2019)



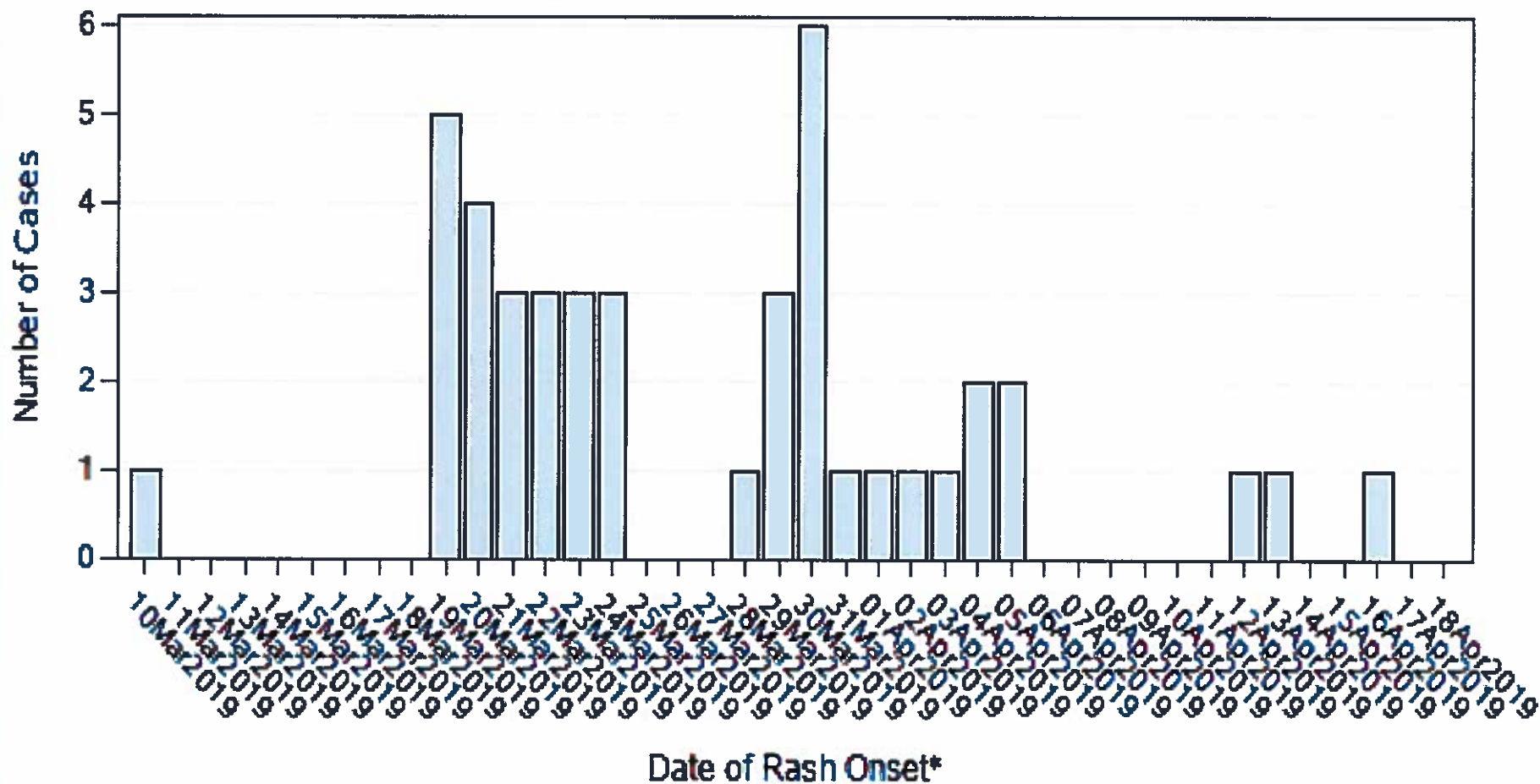
A Look at Measles in Michigan

- ◆ 43 total cases so far in 2019
- ◆ Most number of cases in MI since 1991
- ◆ Initial exposure from individual traveling from New York City
- ◆ 21 additional cases resulted from direct exposures to initial case
- ◆ Ongoing cases are being reported

Measles Case Demographics

- ◆ Minimum age: 7 months
- ◆ Maximum age: 63 years
- ◆ Median age: 29 years
- ◆ 72% of the cases are male
- ◆ 6 cases received 2 doses of MMR vaccine
- ◆ 13 cases unimmunized
- ◆ 18 cases with unknown vaccination status
 - Mostly adults with no record of vaccine history

Confirmed Measles Cases by Date of Rash Onset Michigan Measles Outbreak, March-April 2019



*According to recorded MDSS rash onset date.
MDSS data as of 18 APR 2019 1300

Control Efforts in Michigan

- ◆ Investigation of every suspect, probable, or confirmed case
 - Obtain clinical specimens for lab confirmation
 - Investigate all potential travel by individual during infectious period
 - Determine individuals exposed during infectious period
 - Offer vaccination to all those exposed who do not have documented immunity (vaccine or disease)
- ◆ Over 2,600 doses of MMR vaccine administered so far

Michigan Vaccine Rates for MMR Vaccine

	1+ MMR		2+ MMR		
	15-18 months	19-35 months	6 years of age	7 years of age	11-19 years of age
Oakland	76.4	84.5	83.6	85.0	89.5
Detroit	59.1	78.8	88.1	88.4	87.9
Genesee	71.7	82.7	87.7	89.2	92.2
Livingston	81.3	85.4	84.5	86.0	89.8
Macomb	74.7	82.6	85.7	87.9	89.5
Washtenaw	78.9	85.4	83.0	83.8	88.0
Wayne	73.0	83.3	86.7	88.2	88.8
STATEWIDE	75.2	84.7	85.6	86.7	85.5

MMR Coverage Statewide and Southeast Michigan Counties,
Michigan Care Improvement Registry data as of March 23, 2019.

*MCIR numerator and denominator were used for coverage estimates; known denominator inflation in the adolescent MCIR population may impact adolescent coverage estimates.

Moving Forward

- ◆ Increased surveillance for any suspect measles cases
- ◆ Test all suspect cases
- ◆ Continue to promote immunizations and vaccinate all susceptible individuals
- ◆ For current information regarding the measles outbreak refer to:

www.michigan.gov/measlesoutbreak





Thank you for your time and interest in this very important topic.

MEASLES

What Parents Need to Know



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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 pan-encephalitis (SSPE).¹¹

Decline in Measles Mortality 1900–1963^{2,5}

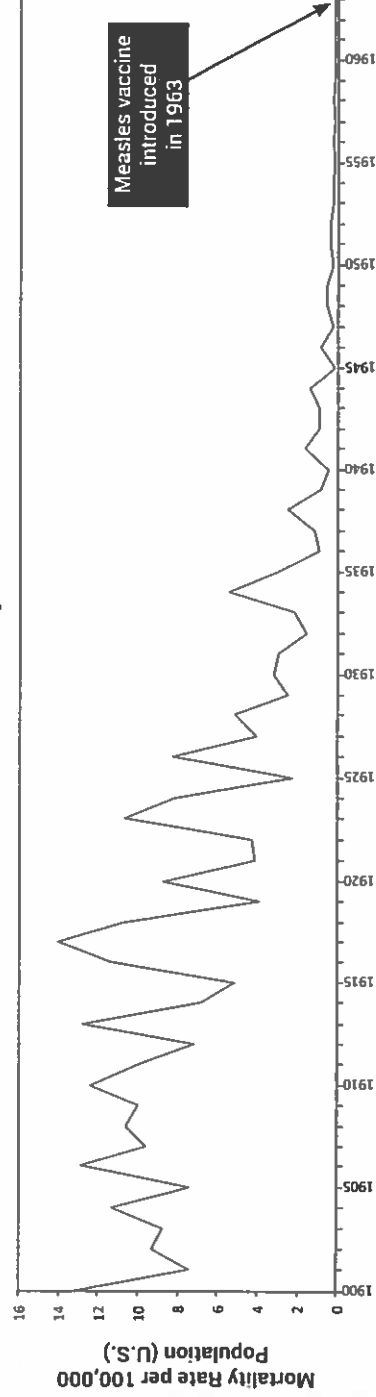


Figure 1: Measles death declined 98% from 1900 to 1963, before the measles vaccine was introduced.



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 A¹²
- 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



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."²¹ 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

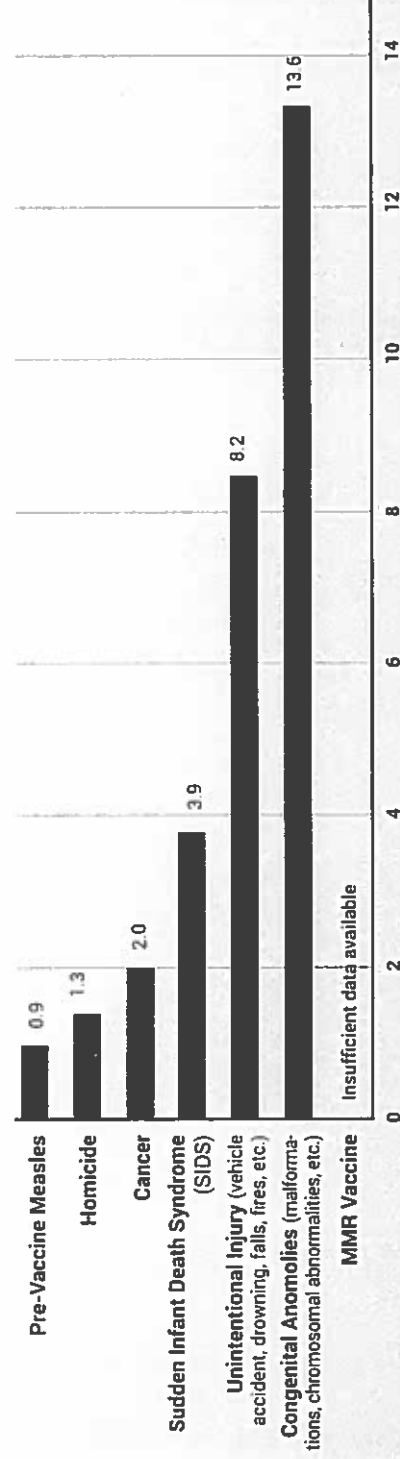


Figure 2: This graph shows the measles death rate before the vaccine was introduced, when measles was a common childhood viral infection, and compares it to the leading causes of death in children under age 10 today. Hence, in the pre-vaccine era, the measles death rate per 100,000 was 0.9 for children 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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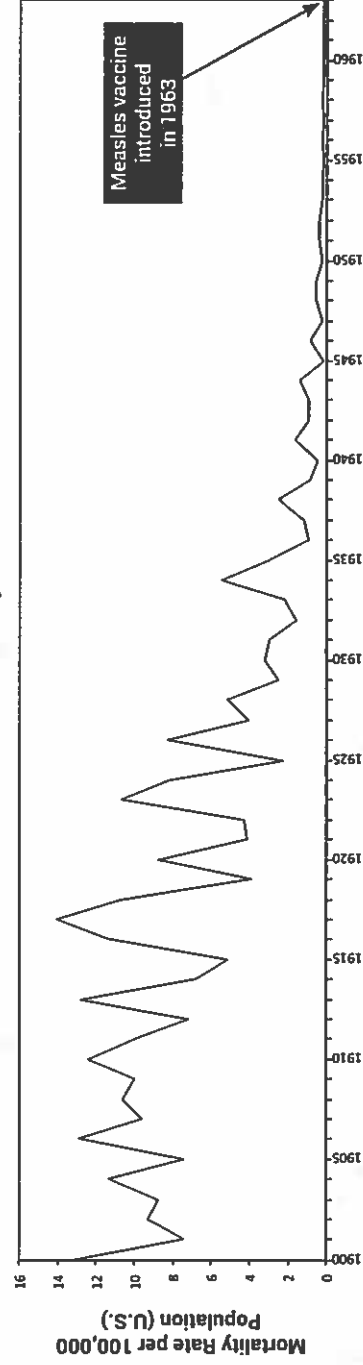


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5. WHAT ABOUT THE VACCINE FOR MEASLES?

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



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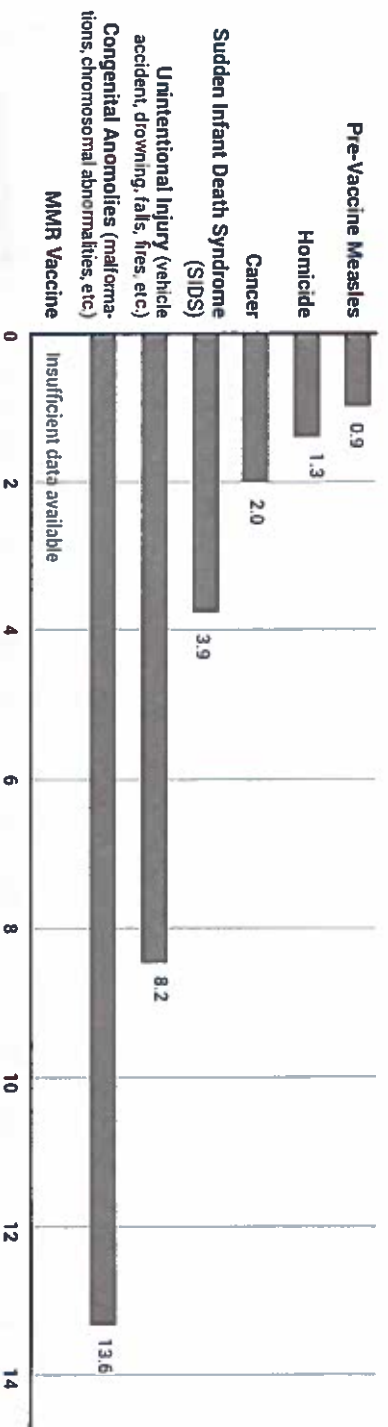


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MMR VACCINE

(Measles, Mumps, and Rubella)



Is It Safer Than Measles?

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 MMR²—about five times more often than seizure from measles infection.³

H

Seizures from the MMR vaccine occur 5x more often than measles-related seizures.

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

No safety studies for:

Cancer

Genetic mutations

Impaired fertility



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."¹⁶ 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

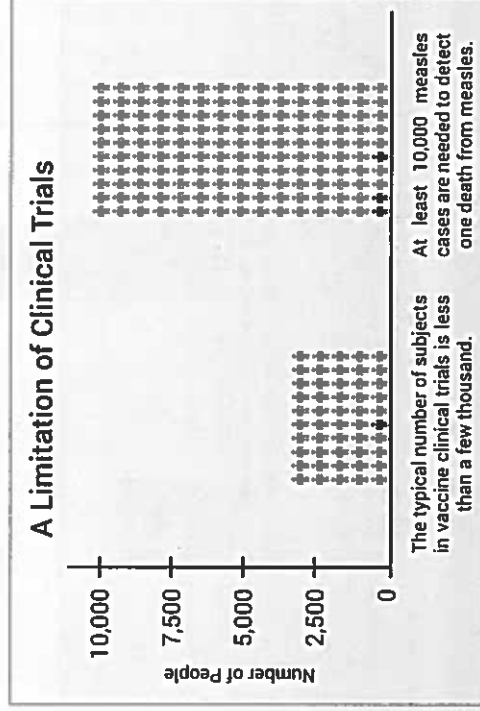


Figure 1: There are not enough subjects in clinical trials to prove that the MMR vaccine poses less risk than measles.



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

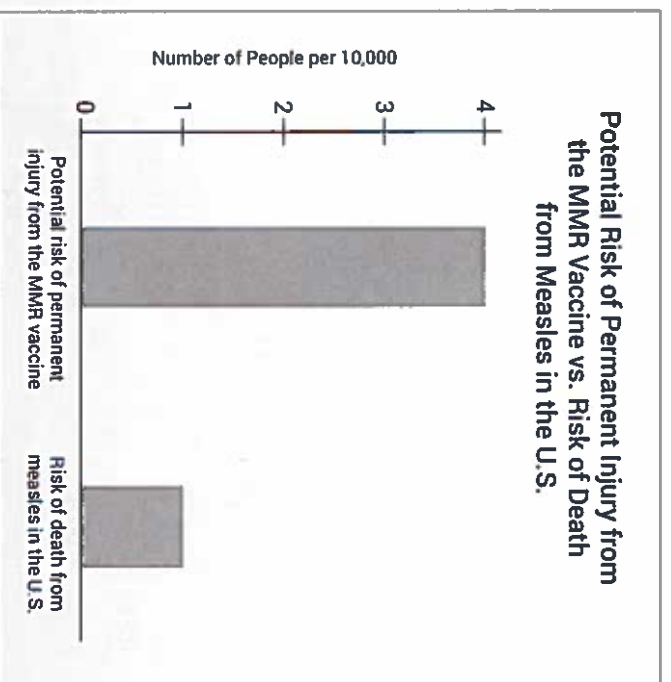


Figure 2: A 2002 Danish study did not rule out the possibility that the MMR vaccine can cause an adverse event leading to permanent injury four times more often than measles can be fatal.

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

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

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6. IS THE MMR VACCINE SAFER THAN MEASLES?

accurate enough to prove that the MMR vaccine causes less death or permanent injury 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 sequelae (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.



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)

Unadjusted 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

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What do you actually know about vaccines?

32 Questions to Test Your Knowledge

1. Can you name 5 vaccine ingredients?
2. What is MRC-5?
3. What is WI-38?
4. What is vaccine court?
5. What is the National Vaccine Injury Compensation Program?
6. What is the 1986 National Childhood Vaccine Injury Act?
7. How has the CDC schedule changed since 1986?
8. How much money has been paid out by vaccine injury court?
9. How many doses of vaccines are in the CDC schedule between birth and age 18?
10. Do vaccines contain DNA from aborted fetal cell lines? If so, which vaccines?
11. Do any vaccines contain dog, monkey, pig, or human DNA?
12. What is an adjuvant?
13. What is an antigen?
14. Which arms of the immune system do vaccines stimulate?
15. Which arms of the immune system do natural diseases stimulate?
16. What is transverse myelitis?
17. What is encephalopathy?
18. What is the rate of autism in 2018? What was it in 2000? What was it in 1980?
19. What is glyphosate? Is it in vaccines?
20. If your child is injured, who will take physical, emotional and financial responsibility?
21. What was the Supreme Courts statement on vaccines in 2011?
22. Can you find a study showing vaccinated vs. unvaccinated health outcomes?
23. Can you find a safety study proving it is safe to inject multiple vaccines?
24. Do vaccines shed?
25. Which vaccines can shed for up to 6 weeks?
26. Which vaccines are live virus vaccines?
27. What is the Vaccine Injury Compensation Program (VICP)?
28. What is SV40?
29. What is MTHFR and how does it affect the body's response to vaccines?
30. What is an acceptable amount of aluminum to be ingested per day versus the aluminum content in the Hep B shot given at birth, 2 months, and then again at 4 months?
31. Can someone who was vaccinated for pertussis still spread pertussis after being exposed to it? If so, for how long?
32. What is the death rate from measles in the past 10 years in the U.S. compared to the death rate from the MMR vaccine in the past 10 years?

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Herd immunity myth- Dr. Russell Blaylock MD.

In the original description of herd immunity, the protection to the population at large occurred only if 68% of a population contracted the infections naturally, and therefore, could not contract or transmit the disease. The reason for this is that naturally-acquired immunity lasts for a lifetime. The vaccine proponents quickly latched onto this concept and applied it to vaccine-induced immunity. But, vaccine-induced immunity lasts from 2 to 10 years at most, and then vaccines only stimulate the T1 arm, or humoral immunity, unlike the natural infection that also stimulates T2 cellular immunity). Boosters were then suggested for most vaccines due to this waning immunity.

The vaccine-induced herd immunity myth can be proven quite simply. Originally, we were taught that all childhood vaccines lasted a lifetime. This thinking existed for over 70 years. It was not until relatively recently that it was discovered that most of these vaccines lost their effectiveness 2 to 10 years after being given. What this means is that at least half the population, that is the baby boomers, have had no vaccine-induced immunity against any of these diseases for which they had been vaccinated very early in life. Therefore, at least 50% or more of the population has been unprotected for decades.

If we listen to present-day wisdom, we are all at risk of resurgent massive epidemics should the vaccination rate fall below 95%. Yet, we have all lived for at least 30 to 40 years with 50% or less of the population having vaccine protection. That is, herd immunity has not existed in this country for many decades and no resurgent epidemics have occurred. Vaccine-induced herd immunity is a lie used to frighten doctors, public-health officials, other medical personnel, and the public into accepting vaccinations.

When we examine the scientific literature, we find that for many of the vaccines protective immunity was 30 to 40%, meaning that 70% to 60% of the public has been without vaccine protection. Again, this would mean that with a 30% to 40% vaccine-effectiveness rate combined with the fact that most people lost their immune protection within 2 to 10 years of being vaccinated, most of us were without the magical 95% number needed for herd immunity.

Without the mantra of herd immunity, these public-health officials would not be able to justify forced mass vaccinations. I usually give the physicians who question my statement that herd immunity is a myth a simple example. When I was a medical student almost 40 years ago, it was taught that the tetanus vaccine would last a lifetime. Then 30 years after it had been mandated, we discovered that its protection lasted no more than 10 years. Then, I ask my doubting physician if he or she has ever seen a case of tetanus? Most have not. I then tell them to look at the yearly data on tetanus infections – one sees no rise in tetanus cases. The same can be said for measles, mumps, and other childhood infections. It was, and still is, all a myth.”

<http://ow.ly/Y2FCJ>

— Russell Blaylock, MD, neurosurgeon

Michigan Population: 9,883,640

Measles Cases: 43 since March of 2019 is not an emergency

That is 0.000435% of the population

Of the 43 Cases:

- Most are no longer active.
- Some were confirmed to be fully vaccinated individuals
- How many unconfirmed cases were also fully vaccinated but couldn't provide their vaccination records?
- How many have been tested by the CDC to confirm it's the wild strain and not the vaccine strain?
- No one has died

No one wants anyone to suffer from an illness but there are more children injured by the MMR vaccine than complications from measles.

According to the CDC:

- Strep kills 1,100 – 1,600 people per year
- 1,778 teenagers committed suicide in 2017
- Synthetic Opioid drug overdose deaths increased 45% from 2016 to 2017
- Mental Health disorders resulted in 5.7 million emergency room visits and 44,965 deaths from suicide
- Before vaccination approximately 450 people per year died of measles

What's the real crisis?

