Keep Your School or Shul Free of Disease Outbreaks:

An in-depth look at levels of immunity among students and congregants

TABLE OF CONTENTS

Preface **3**
Summary **4**
Introduction **5**
About the mortality rate of measles **5**
Even if it's not deadly, isn't measles dangerous? **6**
Who is susceptible to contracting and transmitting infectious illnesses? **7**
1) Unvaccinated children 7
2) Vaccinated individuals who experience primary or secondary vaccine failure 8
Measles Vaccine 8
Whooping Cough Vaccine 8
3) Individuals infected with a strain, original or mutated, not addressed by the vaccine 9
Whooping Cough 9
Hepatitis B 9
Measles 9
Mumps 9
4) Individuals who received vaccines that only prevent disease, but not infection or transmission 9
Whooping Cough Vaccine 9
5) Individuals vaccinated against disease where the vaccine is known to lack adequate effectiveness 9
Measles Vaccine 9
Mumps Vaccine 10
Influenza Vaccine 11
6) Individuals who were vaccinated with a subpar batch of vaccine 11
7) Vaccinated individuals who shed vaccine strain virus. 11
Risk of Live Virus Vaccine Shedding 11
Measles Vaccine 12
Mumps Vaccine 12
What about the MMR measles vaccine rash and vaccine mumps? 12
Measles Vaccine 12
Mumps Vaccine 13
How vaccine science must shape policy decisions. **13**
In Summation **14**
Appendix A **15**
Some incidences of disease outbreaks in highly vaccinated populations 15
Measles outbreaks 15
Whooping cough outbreaks 15
Mumps outbreaks 15

Former title: Should we exclude unvaccinated individuals from the public sphere

Updated September 4, 2019

Preface

This document endeavors to provide the reader with a different perspective on the topic at hand - one grounded in reality - an evidence-based approach using publicly available authoritative documents and public records. When perspective defines reality and informs public (and personal) policy, it is imperative to be cognizant of the full picture. The reader is, therefore, asked to suspend any beliefs or preconceptions he/she may have about this topic and read this document in its entirety.

Please note the following:

- The internet is dynamic; it is possible that, links which had been active when this was prepared may no longer be available. In that case, the Wayback Machine, an internet archive found at https://archive.org/web/web.php, can be your best friend.
- Bing.com and DuckDuckGo.com are two search engines that will give you different, generally more targeted, results than Google, which has recently become associated with GSK, a vaccine manufacturer.

Summary

Can banning unvaccinated children and adults be a reasonable and effective tactic to keep our community safe? What role, if any, do varying levels of immunity among vaccinated individuals play in disease outbreaks?

The foremost reason for banning unvaccinated individuals from schools and shuls is the claimed high rate of mortality and serious adverse events. Is the death rate from measles really 1 in 1,000, as is reported?

1. Statistical data prior to the introduction of the measles vaccine in 1963 shows a 98% decline in mortality from measles by 1960. By that time, the measles death rate had dropped to 1 in 500,000 population. The same is similarly true for all other infectious illnesses.
2. CDC measles data for the five years prior to the introduction of the vaccine reveals an estimated 3-4,000,000 cases of measles annually and between 450 - 500 deaths per year (elsewhere they state an average of 432 deaths). Thus, the death rate was about **1 in 8,000, not 1 in 1,000,** of those who contracted measles.
3. Since 2003 there has only been one confirmed case of a measles death in the US.
4. Historical records of developed nations from before 1963 describe measles as a mild to moderately severe ailment with low mortality; it is generally, and more easily, experienced by young children. The few adults who contracted measles were severely affected.

Unvaccinated children are said to present a greater threat to the immunocompromised and the general public than the vaccinated. Is this true?

> Immunologist Tatyana Obukhanych, PhD says no. She explains that many recommended vaccines only prevent symptoms of illness but not transmission and others are for noncommunicable infections.[1]

Can anyone other than the unvaccinated contract and transmit infectious illnesses? Yes, for the following reasons:

1. Vaccine failure:
    a. Studies by vaccinologists show that primary (failure to produce an immune response) and secondary (waning immunity) vaccine failure results in outbreaks among highly vaccinated populations. They predict that due to the vaccine, measles will become more endemic in the near future and, rather than just affecting young children, the entire population will be susceptible.
    b. Children have been shown to be 42% more likely to contract whooping cough (due to waning) in the first year after receiving the last of 5 doses and, increasingly, every year thereafter.
2. Vaccinated individuals can contract strains of a virus for which the vaccine doesn't protect them.
3. Some vaccines only prevent vaccinated individuals from having symptoms but not from colonizing and transmitting the infection to others.
4. Some vaccines are known to not be very effective.
5. Vaccines are a class of pharmaceuticals called biologics, which are not uniformly potent from batch to batch. They can also lose potency post production and can expire.
6. Vaccinated individuals can shed vaccine strain virus and infect others.
7. Vaccinated individuals can get vaccine strain measles or mumps as an adverse event after vaccination. Lab testing is needed to identify vaccine and wild-type strains of infection so those recently vaccinated cases are not counted as part of an outbreak.

Vaccinated individuals who contract these infections often have subclinical cases making them more dangerous than unvaccinated individuals since they can spread infection on a large scale without even knowing it. Asymptomatic vaccinated individuals may be responsible for an outbreak while the unvaccinated individuals merely make the outbreak known. *The immunocompromised can be exposed even in a fully vaccinated population.*

Public policy based on scientific evidence must consider this scientific evidence.

It is illogical and unfair to prevent unvaccinated individuals from attending shul, school, and other public events, while potentially infectious and asymptomatic vaccinated individuals can.

[1] Obukhanych explains that vaccination has shifted the burden of measles to infants (formerly protected by the antibodies of naturally infected mothers) and older children and adults. In these cases immunoglobulin can be given.

Introduction

When considering the extreme step of excluding unvaccinated individuals from shuls, schools, simchas, and other community venues and functions, these questions must be asked: Is this in fact a reasonable, effective, and defensible measure? What role, if any, do varying levels of immunity among vaccinated individuals play in disease outbreaks? Do the real facts warrant the shunning of any part of the frum population?

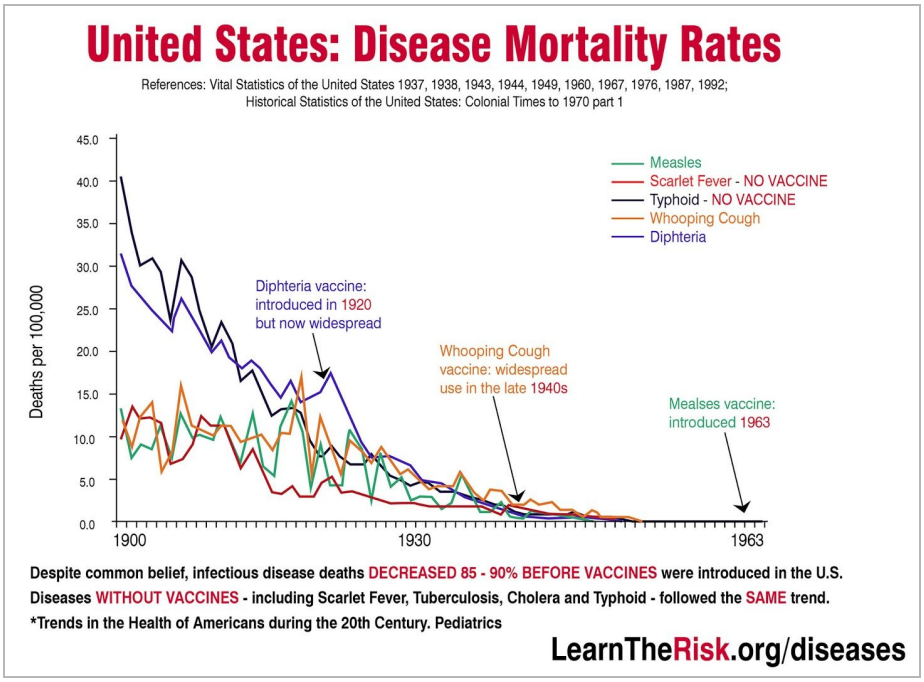
To gain clarity on the topic we will review historical data to ascertain the real danger of contracting measles (and other viral and bacterial infections), what type of protection the vaccines actually confer, who's actually susceptible to contracting and transmitting measles and other infectious illnesses, and what the experience of highly vaccinated populations reveals. (Please note that vaccinated individuals refers to adults and children.)

About the mortality rate of measles

It's true that in developing countries measles is still a serious infection that claims the lives of many children. They have little access to clean water, proper hygiene, and nutritious foods, important variables in preventing and overcoming infection.

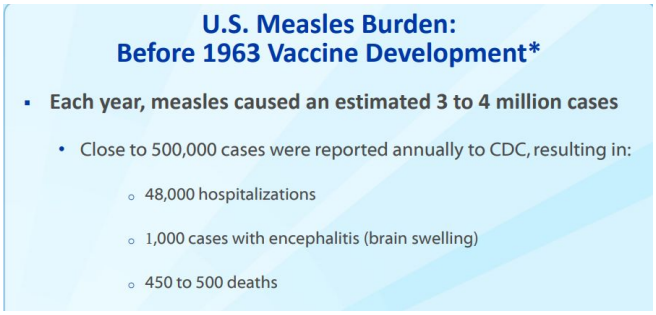
US statistics show that the death rate from measles in 1960 was 0.2 per population of 100,000 or 1 in 500,000. Other infectious illnesses had a comparable drop during this time period, as well.[2]

The image below shows that in the US, deaths from measles and other infectious illnesses had declined about 98% from the beginning of the previous century till the introduction of the vaccine in 1963. Similar declines took place in other developed countries before the introduction of vaccines, as well.[3]



[2] Vital Statistics Rates in the United States 1940-1960 https://www.cdc.gov/nchs/data/vsus/vsrates1940_60.pdf pp 80-85,547

[3] Vaccines Did Not Save Us – 2 Centuries Of Official Statistics https://childhealthsafety.wordpress.com/graphs/#Meas_ScarlFev_etc



For measles cases during the 5 years before the vaccine was implemented (image at left), estimated at between 3-4,000,000 annually (the birth cohort), **the death rate was 1 in about 8,000**.[4] **This is a lot different than publicized death rate of 1:1,000.**

Since 2003, there has been only one confirmed measles death - in an immunocompromised woman who had been vaccinated.[5] While we've been reading a lot about the increasing measles cases, there have been no deaths in 2019 or 2018, either.[6] [7]

Even if it's not deadly, isn't measles dangerous?

Doctors in the pre-vaccine era called measles an illness of mild to moderate severity and knew how to manage it:

> *Mild Ailment*
>
> *...To date there have been close to 150 cases in the practice, and the numbers are now steadily decreasing. Like previous epidemics, the primary cases have been chiefly in the 5- and 6-year olds, with secondary cases in their younger siblings. No special features have been noted in this relatively mild epidemic. It has been mild because complications have occurred in only four children. One little girl aged 2 suffered from a lobular pneumonia, and three others developed acute otitis media following their measles. In the majority of children the whole episode has been well and truly over in a week, from the prodromal phase to the disappearance of the rash, and many mothers have remarked " how much good the attack has done their children," as they seem so much better after the measles.*
>
> ...
>
> *It is conspicuous that the 5-15 years age groups contained the vast majority of the cases. No effort was made to prevent the spread of the disease, except the ordinary precaution of not permitting juvenile visitors. Gamma globulin to thwart the onset of the disease was never used, since the few cases seen affecting the adults have always been severe. It is felt advisable to get the infection over in childhood and thus avoid this hazard later in life."* [8]

Dr. Langmuir, who was instrumental in developing the measles vaccine:

> *... This self-limiting infection of short duration, moderate severity, and low fatality has maintained a remarkably stable biological balance over the centuries...*
>
> *...*
>
> *Thus, in the United States measles is a disease whose importance is not to be measured by total days disability or number of deaths, but rather by human values and by the fact that tools are becoming available which promise effective control and early eradication.*
> *To those who ask me, "Why do you wish to eradicate measles?," I reply with the same answer that Hillary used when asked why he wished to climb Mt. Everest. He said, "Because it is there."*
> *To this may added, "...and it can be done."*[9]

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[4] CDC Measles Statistics and Data Slideset https://www.cdc.gov/measles/downloads/measlesdataandstatsslideset.pdf p4
[5] Undetected measles led to death of Clallam County woman in her 20s
https://www.seattletimes.com/seattle-news/health/undetected-measles-led-to-womans-death/
[6] Measles outbreaks make 2018 a near-record year for U.S
https://www.nbcnews.com/storyline/measles-outbreak/measles-outbreaks-make-2018-near-record-year-u-s-n961276
[7] Increase in Measles Cases — United States, January 1–April 26, 2019
https://www.cdc.gov/mmwr/volumes/68/wr/mm6817e1.htm
[8] Vital Statistics, British Medical Journal, Feb. 7, 1959
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1992477/pdf/brmedj02957-0102.pdf pp 1,2
[9] The Importance of Measles as a Health Problem https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1522578/?page=3, p1,3

To Recap:

1. Measles was not considered, in the period prior to the vaccine, deadly or dangerous in the United States and other developed countries.
2. Young children were the primary group who were infected by measles in the pre-vaccine era. It had been recognized that measles was worse for adults and steps were taken to make sure that children experienced the infection at the proper age.

Who is susceptible to contracting and transmitting infectious illnesses?

1) Unvaccinated children

Do they pose a real risk to the general public? Immunologist Tatyana Obukhanych weighs in[10]:

> *...the nature of protection afforded by many modern vaccines –and that includes most of the vaccines recommended by the CDC for children ... cannot prevent transmission of disease either because they are not designed to prevent the transmission of infection (rather, they are intended to prevent disease symptoms), or because they are for non-communicable diseases. People who have not received the vaccines mentioned below pose no higher threat to the general public than those who have...*
>
> *1. IPV (inactivated poliovirus vaccine) cannot prevent transmission of poliovirus...*
>
> *2. Tetanus is not a contagious disease…*
>
> *3. ... the diphtheria toxoid vaccine (also contained in the DTaP vaccine)is not designed to prevent colonization and transmission of C. diphtheriae…*
>
> *4. ...the aP vaccine is not capable of preventing colonization and transmission of B. pertussis*
>
> *… pertussis variants (PRN-negative strains) currently circulating in the USA acquired a selective advantage to infect those who are up-to-date for their DTaP boosters...*
>
> *5. ...Among numerous types of H. influenzae, the Hib vaccine covers only type b. ...the introduction of the Hib vaccine has inadvertently shifted strain dominance towards other types of H. influenzae(types a through f).*
>
> *6. Hepatitis B is a blood-borne virus. It does not spread in a community setting, especially among children who are unlikely to engage in high-risk behaviors, such as needle sharing or sex. … Further, school admission is not prohibited for children who are chronic hepatitis B carriers.*

Regarding measles:

> *...even in high vaccine responders, vaccine-induced antibodies wane over time.*
>
> *It has been documented that vaccinated persons who develop breakthrough measles are contagious.*

The immunocompromised and other vulnerable individuals[11] can receive immunoglobulin if exposed.[12]

Similarly to Obukhanych, Physicians for Informed Consent explain that unvaccinated school children do not pose a significant risk to immunocompromised school children.[13]

It is also important to bear in mind that immunocompromised children can be part of the group of unvaccinated children and also potentially infectious.

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[10] Vermont Legislators: An Open Letter to Legislators Currently Considering Vaccine Legislation from Tetyana Obukhanych, PhD http://bit.ly/30DmPxi

[11] Obukhanych explains that vaccination has since shifted the burden of the disease to infants and adults. Mothers, lacking natural immunity, cannot pass on adequate antibodies to their babies. Adults, whose vaccine immunity waned, are not protected as they would have been had they contracted natural measles as a child and received lifetime immunity.

[12] Immunoglobulins are important for people with primary immunodeficiency and for other populations in which disease would be dangerous. Unlike antibodies produced by, wild-type measles, measles vaccine antibody titers are not high enough to supply the levels needed for immunoglobulin. "revaccination-induced titer increases were only about 2-fold and short-lived." Measles Virus Neutralizing Antibodies in Intravenous Immunoglobulins: Is an Increase by Revaccination of Plasma Donors Possible? https://academic.oup.com/jid/article/216/8/977/4084678

[13] Why the Vaccination Status of Other Schoolchildren Is Not a Significant Risk to Immunocompromised Schoolchildren http://bit.ly/2xXeyIe

2) Vaccinated individuals who experience primary or secondary vaccine failure

Measles Vaccine

Vaccinologist, Dr. Gregory Poland, Professor of Medicine at the Mayo Clinic and Editor-in-Chief of the journal Vaccine, determined, in 2012, that measles has become a disease of the vaccinated:

> *... Multiple studies demonstrate that 2–10% of those immunized with two doses of measles vaccine fail to develop protective antibody levels, and that immunity can wane over time and result in infection (so-called secondary vaccine failure) when the individual is exposed to measles. For example, during the 1989–1991 U.S. measles outbreaks 20–40% of the individuals affected had been previously immunized with one to two doses of vaccine. In an October 2011 outbreak in Canada, over 50% of the 98 individuals had received two doses of measles vaccine... Thus, 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 [8]. This leads to a paradoxical situation whereby measles in highly immunized societies occurs primarily among those previously immunized [8].*[14]

Many years before the current measles outbreak, in 1984, Dr. David. L. Levy's computer model predicted an increase in the percentage of people susceptible to measles in the US, so that by 2050, despite an initial downturn from 1978 through 1981, the percentage of the population susceptible to measles (mostly children below the age of 10 prior to vaccination) will have surpassed that of the pre-vaccine era and will be evenly spread across the entire population. The number of susceptibles started increasing annually after 1981.This is without even considering waning immunity.[15]

In 2009, Drs. Heffernan and Keeling predicted greater epidemic cycles of measles as a consequence of waning vaccine immunity and absence of natural, asymptomatic boosters:

> *... In the absence of vaccination, lifelong immunity is maintained through frequent encounters with infection, which act to boost the waning immune memory... However, when vaccination is introduced the prevalence of infection declines, which in turn reduces the amount of boosting and hence the level of immunity ... What is more surprising is that the interaction between vaccination and waning immunity can lead to pronounced epidemic cycles in which the peak levels of infection can be of the orders of magnitude greater than the mean.*
>
> *... we find that when encountering infection, it is the level of immune memory (at the moment of encounter) that determines the disease outcome and the subsequent amount of onward transmission.*[16]

[Read what Paul Offit reveals about the measles vaccine and memory immune cells, under item 4 below - Individuals vaccinated against disease where the vaccine is known to lack adequate effectiveness.]

Measles came back to Korea after a large scale vaccination catch-up campaign and measles was considered eliminated.

> *In countries where measles vaccination rates are high, such as in Korea, infected patients are not classic, but instead have modified measles, which makes it difficult to diagnose early. These patients can spread measles on a large scale.*[17]

Whooping Cough Vaccine

> Immunity conferred by the aP (acellular pertussis) portion of the TDaP vaccine wanes quickly. The chances of getting pertussis rise by 42% each year after the last of five vaccine doses is given, at about 7 years of age.[18]

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[14] The Re-Emergence of Measles in Developed Countries: Time to Develop the Next-Generation Measles Vaccines? https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3905323/

[15] The future of measles in highly immunized populations. A modeling approach https://www.ncbi.nlm.nih.gov/pubmed/6741921

[16] Implications of vaccination and waning immunity https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2677258/

[17] The Measles Strikes Back https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6374549/

[18] Waning Protection after Fifth Dose of Acellular Pertussis Vaccine in Children https://www.nejm.org/doi/full/10.1056/NEJMoa1200850

To recap:

- Not everyone develops antibodies and/or primary immunity to the infection for which they were vaccinated, and a large proportion of those who do, experience vaccine waning and are no longer protected by the vaccine.
- Circulating virus used to provide natural boosters for a period of time after vaccination had begun. Today, in the absence of circulating virus, vaccine antibody waning is exceedingly common and expected.
- The number of people susceptible to measles is expected to increase, leading to more epidemic cycles, even in highly vaccinated populations. Measles is already considered a disease of the vaccinated.
- Some vaccinees who contract measles will have modified symptoms or subclinical illness and unknowingly infect a large number of people.

3) Individuals infected with a strain, original or mutated, not addressed by the vaccine

Whooping Cough

As noted above in the discussion of infectious diseases by Tatyana Obukhanyich, the whooping cough vaccine cannot protect against pertussis variants.

Hepatitis B

Escape mutants are mutated variations of a virus for which the vaccine is ineffective. Hepatitis B vaccine is one such example.

> *The implementation of rigorous vaccination programs has led to an overall decrease in the prevalence of this disease worldwide but this may also have led to emergence of viral mutations that can escape the protection of hepatitis B surface antibody. As this phenomenon is increasingly recognized, concern for transmission to vaccinated individuals has also been raised.* [19]

Measles

Antigenic drift (a type of genetic mutation) is responsible for a new measles subgenotype, D4.2, which is not neutralized by the current vaccine since this subtype is missing half of the sites to which antibodies normally attach. Scientists have acknowledged that measles virus evolution is not well understood.

> *... In 2011, these subgenotype D4.2 viruses were imported from France to the United States in 2011*[sic], *causing the highest number of measles cases since it was declared eliminated (63).*[20]

Mumps

Gradual evolution of wild-type mumps viruses has created a situation in which the vaccine strain antibodies have become less effective or the evolved wild-type strain completely escapes neutralization.[21]

4) Individuals who received vaccines that only prevent disease, but not infection or transmission

Whooping Cough Vaccine

The acellular pertussis (aP) portion of the TDaP vaccine only protects vaccinees from overt infection, but does not prevent them from colonizing and transmitting whooping cough.. A primate study found that baboons vaccinated with the acellular pertussis vaccine and exposed to measles afterwards show no symptoms of whooping cough, yet they colonize the virus in their throats and transmit it to others. [22]

Scientists realized that they had a poor understanding of whooping cough when they developed the vaccine.

> *This disease is back because we didn't really understand how our immune defenses against whooping cough worked, and did not understand how the vaccines needed to work to prevent it." … "Instead we layered assumptions upon assumptions, and now find ourselves in the uncomfortable position of admitting that we made some crucial errors..*[23]

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[19] Hepatitis B surface antigen escape mutations https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4792167/
[20] Antigenic Drift Defines a New D4 Subgenotype of Measles Virus https://jvi.asm.org/content/91/11/e00209-17
[21] Antigenic differences between vaccine and circulating wild-type mumps viruses decreases neutralization capacity of vaccine-induced antibodies http://bit.ly/2kvk6Gy
[22] Baboon Study Reveals New Shortcoming of Pertussis Vaccine
https://www.scientificamerican.com/article/baboon-study-reveals-new-shortcoming-of-pertussis-vaccine/
[23] Resurgence of Whooping Cough May Owe to Vaccine's Inability to Prevent Infections,
https://www.bu.edu/sph/2017/09/21/resurgence-of-whooping-cough

5) Individuals vaccinated against disease where the vaccine is known to lack adequate effectiveness

Measles Vaccine

Dr. Paul Offit, noted vaccinologist, interviewed by Zdogg (Dr. Zubin Damania). Dr. Offit, who practices in Children's Hospital of Philadelphia, is often called on to treat children with measles. The following was in response to Zdogg's about his concern of contracting measles from those children. Offit had this to say:

> Zdogg: How comfortable are you with your own immunity and titers that hang around measles kids?
> Offit: I had measles.
> Zdogg: Oh, you had it
> Offit: I'm of an age where I likely had it. I was born before 1957
> Zdogg: So you cheated and had measles. So I'm just going to go on record and say Paul Offit says have a measles party everyone!
> Offit: Isn't it true that after being naturally infected with measles I probably have higher frequencies of memory immune cells, B and T cells, than does someone who was vaccinated? Yes I do, that's true.
> Zdogg: So you had a bigger antigen response.
> Offit: Yeah, the virus reproduced itself thousands of times in me and not the ten or twenty times it is when you get the vaccine. So I have a much greater immune response, it's true. [24]

As was stated by Heffernen and Keeling under item 2 above - it is the degree of immune memory that determines susceptibility and infectiousness. As Offit revealed in this interview, the measles vaccine does not confer robust immune memory, leaving vaccinated individuals susceptible to contracting measles.

Dr. Viera Scheibner on the ineffectiveness of the measles vaccine vs true immunity in the pre-vaccine era:

> *Sencer et al. (1967) addressed the herd immunity by citing Hedrich's (1930) data from Baltimore from 1897 to 1927 to quantitate the ebb and flow of susceptibles. The incidence fluctuated in a roughly 2- to -3 year periodicity. The rate of susceptibles ranging between 45 to 50% triggered an epidemic, while falling to 30%-35%, ended it. With immunity above 55% epidemics did not develop. If a 99% vaccination rate were as effective as natural measles, measles should not exist any more. In reality it is here and kicking and morphed into a serious atypical disease in the unvaccinated babies and vaccinated teenagers and adults.*[25]

What the 1989 "Explosive" School Outbreak in Finland teaches about vaccine effectiveness:

> *Total protection against measles might not be achievable, even among revaccinees, when children are confronted with intense exposure to measles virus.*[26]

Mumps Vaccine

In a 2017 meeting of the National Vaccine Advisory Committee (NVAC), it was recognized that the vast majority of mumps cases have been in immunized rather than unimmunized children. Stanley Plotkin, noted vaccinologist (Dr. Offit's mentor), discusses the lack of effectiveness of the mumps vaccine. He explains that (a) memory b cells are inadequately produced by the mumps vaccine, (b) the Jeryl Lynn vaccine strain cannot adequately neutralize the current circulating mumps strain, and (c) they do not have clear correlates of protective immunity for mumps (measurable signs that a person is immune) since individuals with high titers have become ill with mumps and those with low titers have not.[27,28]

Plotkin, in his April 2018, paper, Measles: a Pain in the Neck, reiterates and elaborates on his comments at the NVAC meeting (above), including the fact that they do not have a complete understanding of what confers

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[24] The Science Isn't Settled https://www.brighteon.com/5853569446001 beginning at 41:00
[25] Re: Measles in older children and adults https://www.bmj.com/content/356/bmj.j426/rr-0
[26] Explosive School-based Measles Outbreak http://bit.ly/2YecSVg
[27] The National Vaccine Advisory Committee (NVAC) hosts their February 2017 meeting http://bit.ly/2Slf10f 45:00
See also Remembering Mumps https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4423963/#ppat.1004791.ref011
[28] Plotkin also suggests that developing a new mumps vaccine is a scary proposition and then backtracks suggesting that it might now be possible because of the improved state of virology science. However, he advises that it will cost millions of dollars to develop a new mumps vaccine and insert it into the MMR but it might be worth it because confidence in the vaccine is being attacked. (This author wonders why confidence in the vaccine is at stake and not public health.)

immunity to mumps. He also implicates lack of natural boosters from circulating wild-type virus as a result of vaccination as contributing to continued outbreaks, a problem noted with the measles vaccine as well.

> *... Decreased boosts from exposure to wild-type mumps virus might also be playing a role.*
> *...it should be understood that the relationship between neutralizing titer and protection is not absolute; other types of antibodies or cellular responses might also play a role in protection.*[29]

Merck charged with fraud in connection to mumps vaccine efficacy

> *As a result of Merkc's fraudulent scheme, the United States has over the last decade paid Merck hundreds of millions of dollars for a vaccine that does not provide the efficacy Merck claims it provides and does not provide the public with adequate immunization.*[30]

Influenza Vaccine

Plotkin also considers the situation regarding the flu vaccine to be a mess.

> ***By and large, we think of vaccines as highly efficacious*** *.... Not so with inactivated influenza vaccine, which we recommend each year for both children and adults but without expecting high efficacy. Indeed, we hope only for moderate efficacy ...*[31]

To recap:

- Some vaccines do not protect against all strains; viruses and bacteria mutate or change, creating new strains against which the vaccine may be ineffective.
- Some vaccines continue to be recommended even though virologists know they have low efficacy.
- When exposed, high frequencies of immune memory is the most important determinant of how one's body will handle the infection and how likely they are to be able to transmit it to others. By their design, not all vaccines confer adequate immune memory to prevent becoming infected and contagious.
- Vaccines have proven ineffective during intense exposure to the measles virus, even among those who got boosters/were revaccinated.
- A 55% natural immunity rate was sufficient to prevent a measles epidemic in the pre-vaccine era.
- Virologists do not have a good understanding of how to measure immunity for all infections.
- Pharmaceutical companies cannot be trusted to ensure the effectiveness of their vaccines.

6) Individuals who were vaccinated with a subpar batch of vaccine

Vaccines are classified as biologics (pharmaceuticals created by either a microorganism or mammalian cell), not chemical drugs. The nature of biologics is such that potency cannot be guaranteed from batch to batch and environmental conditions may cause the vaccine to lose further potency and/or become ineffective.[32]

Immunoglobulins and vaccines are the most recalled pharmaceutical products.[33]

7) Vaccinated individuals who shed vaccine strain virus.

Risk of Live Virus Vaccine Shedding

> *Immunization with live viral or bacterial vaccines is a known hazard to patients with serious immuno-deficiencies of T cell, B cell and phagocytic cell origin. While the risk of acquiring live vaccine-related disease by immunization may be well known to families of severely immunocompromised children, the concept of parents, relatives, or non-family members (not immunized or who have been recently immunized with live vaccines) serving as a source of infection to an immune deficient patient has not had sufficient attention.*[34]

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[29] Mumps: A Pain in the Neck https://academic.oup.com/jpids/article/7/2/91/4990610
[30] Merck Amended ComplaintECFStamped.pdf
https://www.dropbox.com/s/81ruzsot1l0y9lr/Merck%20Amended%20ComplaintECFStamped.pdf?dl=0
MERCK Has Been In Federal Court Since 2010 on Fraud Charges, Accused By Their Own Virologists of Falsifying MMR Vaccine Efficacy Data http://bit.ly/2JH2fW1
[31] The Influenza Vaccine Mess
https://academic.oup.com/jpids/article-abstract/7/3/178/5048882?redirectedFrom=fulltext
[32] Defining the difference: What Makes Biologics Unique https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3564302/
[33] Regulatory Intelligence on Biologics Recalls - Immunoglobulins and Vaccines are Involved in More Recalls than Other Drug Classes http://bit.ly/2SrSWgr
[34] Recommendations for Live Viral and Bacterial Vaccines in Immunodeficient Patients and Their Close Contacts
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4009347/

See also: The Emerging Risks of Live Virus & Virus Vectored Vaccines: Vaccine Strain Virus Infection, Shedding & Transmission https://www.nvic.org/vaccine-strain-virus-shedding-and-transmission.aspx

Measles Vaccine

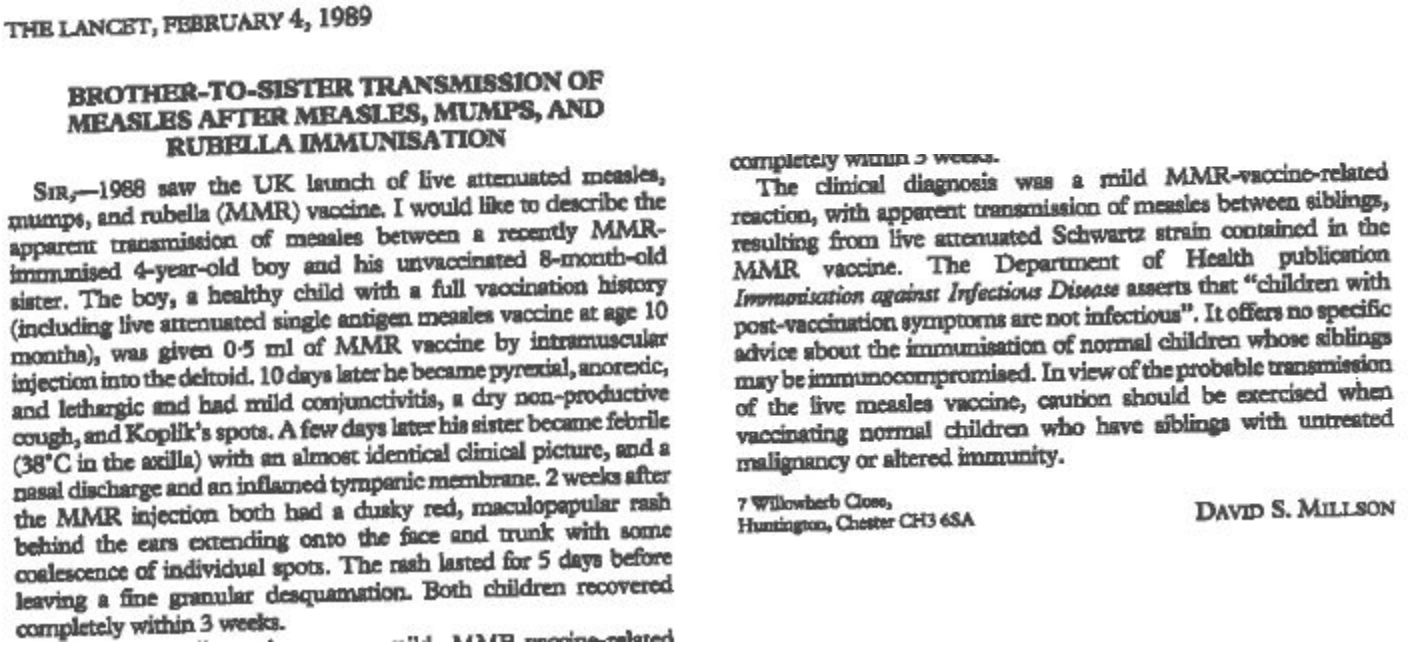
Croatia 2010:

...Throat swabs and urine specimens were collected on the fifth and sixth day of illness, respectively. Genotyping demonstrated measles vaccine strain Schwarz (genotype A). If measles and rubella were not under enhanced surveillance in Croatia, the case would have been either misreported as rubella or not recognised at all.[35]

France 2002:

> *"In the case presented here, the vaccine virus was isolated in the throat, showing that subcutaneous injection of an attenuated measles strain can result in respiratory excretion of this virus."*[36]

United Kingdom 1989[37]:



THE LANCET, FEBRUARY 4, 1989

BROTHER-TO-SISTER TRANSMISSION OF MEASLES AFTER MEASLES, MUMPS, AND RUBELLA IMMUNISATION

SIR,—1988 saw the UK launch of live attenuated measles, mumps, and rubella (MMR) vaccine. I would like to describe the apparent transmission of measles between a recently MMR-immunised 4-year-old boy and his unvaccinated 8-month-old sister. The boy, a healthy child with a full vaccination history (including live attenuated single antigen measles vaccine at age 10 months), was given 0·5 ml of MMR vaccine by intramuscular injection into the deltoid. 10 days later he became pyrexial, anorexic, and lethargic and had mild conjunctivitis, a dry non-productive cough, and Koplik's spots. A few days later his sister became febrile (38°C in the axilla) with an almost identical clinical picture, and a nasal discharge and an inflamed tympanic membrane. 2 weeks after the MMR injection both had a dusky red, maculopapular rash behind the ears extending onto the face and trunk with some coalescence of individual spots. The rash lasted for 5 days before leaving a fine granular desquamation. Both children recovered completely within 3 weeks.

completely within 3 weeks.

The clinical diagnosis was a mild MMR-vaccine-related reaction, with apparent transmission of measles between siblings, resulting from live attenuated Schwartz strain contained in the MMR vaccine. The Department of Health publication *Immunisation against Infectious Disease* asserts that "children with post-vaccination symptoms are not infectious". It offers no specific advice about the immunisation of normal children whose siblings may be immunocompromised. In view of the probable transmission of the live measles vaccine, caution should be exercised when vaccinating normal children who have siblings with untreated malignancy or altered immunity.

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Mumps Vaccine

Belarus 2012:

> *Here we report horizontal symptomatic transmission of the Leningrad–Zagreb (L–Zagreb) mumps vaccine virus. Children who were the source of transmission had been vaccinated with the MMR vaccine ... contained L–Zagreb mumps virus...The etiology of all seven contact cases was confirmed by epidemiological linking, serology and by F, SH, NP and HN mumps virus genes sequencing.*[38]

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[35] Spotlight on measles 2010: excretion of vaccine strain measles virus in urine and pharyngeal secretions of a child with vaccine associated febrile rash illness, Croatia, March 2010.
https://www.eurosurveillance.org/content/10.2807/ese.15.35.19652-en

[36] Detection of measles vaccine in the throat of a vaccinated child
https://www.sciencedirect.com/science/article/pii/S0264410X01004959?via%3Dihub

[37] Brother-to-Sister Transmission of Measles after Measles, Mumps, and Rubella Immunisation
https://www.sciencedirect.com/science/article/pii/S0140673689912749

[38] Horizontal transmission of the Leningrad–Zagreb mumps vaccine strain: A report of six symptomatic cases of parotitis and one case of meningitis https://www.sciencedirect.com/science/article/pii/S0264410X12009218

What about the MMR measles vaccine rash and vaccine mumps?

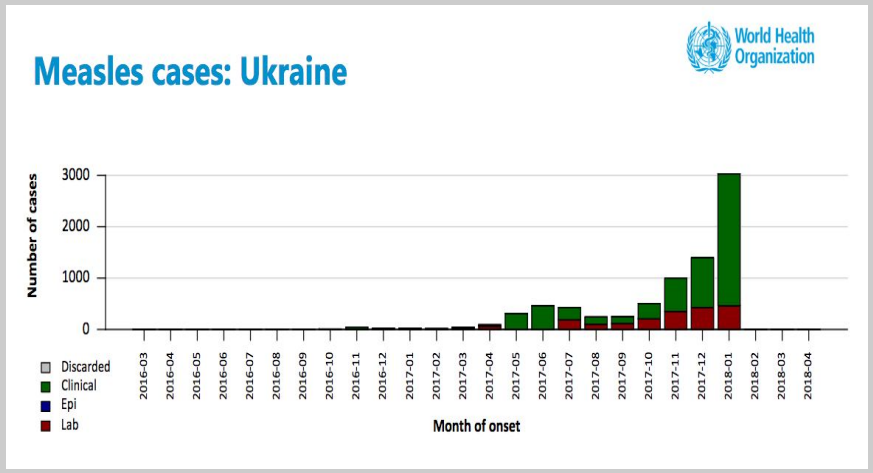
Measles Vaccine

California 2015

> *...approximately 5% of recipients of measles virus-containing vaccine experience rash and fever, which may be indistinguishable from measles…*
>
> *…*
>
> *...During the measles outbreak in California in 2015, a large number of suspected cases occurred in recent vaccinees (3). Of the 194 measles virus sequences obtained in the United States in 2015, 73 were identified as vaccine sequences (R. J. McNall, unpublished data)...*
>
> *Genotyping is ... the only way to distinguish vaccine strains from wild-type viruses…*[39]

This means that during the 2015 outbreak 38% of the cases were from the vaccine. Genotyping and publicizing the incidence of cases that are measles vaccine rash are needed in order to properly inform the public.

The 2017-2018 measles outbreak in the Ukraine provides another such example. The rate of vaccination had fallen from 95% in 2008 to 31% in 2016. Following a mass vaccination campaign in 2017 to bring the rate back to 95%, the incidence of measles increased; however, as is evident from the graph at the right, only a small portion were actually lab confirmed measles cases and it is not known if they were wild-type or vaccine strain cases. [40]



In May 2019, a New Hampshire child came down with measles. Upon genotyping it was found to be vaccine strain measles; the child was recently vaccinated.[41]

Holland 2017:

> *...A 14-month-old boy was admitted to the hospital with an impressive rash 13 days after MMR-vaccination. Diagnostic tests were positive for measles. This test result caused the mother to doubt further vaccination.*[42]
>
> *...Within 14 days after MMR-vaccination, a child can present with symptoms very similar to a wildtype measles virus infection. The low incidence of wildtype measles infection strongly suggests that these symptoms will likely be a reaction to vaccination. Elaborate diagnostic procedures may cause the parents a lot of stress and therefore offering reassurance to parents may be more appropriate.*[43]

Mumps Vaccine

> *About 3 to 4 weeks after having the MMR injection, 1 in 50 children develop a mild form of mumps. This includes swelling of the glands in the cheek, neck or under the jaw, and lasts for a day or two.*[44]

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[39] Rapid Identification of Measles Virus Vaccine Genotype by Real-Time PCR https://jcm.asm.org/content/55/3/735
[40] Outbreak of Over 12,000 Cases of Measles in Ukraine is Caused by Recent Vaccination Campaign?! http://bit.ly/2M8iT3H
[41] State walks back measles warning, says child showed reaction to vaccine https://www.concordmonitor.com/measles-vaccine-new-hampshire-25758903

[42] As we saw with Plotkin (note 25), loss of confidence in the vaccine program seems to be an overriding concern.
[43] Measles after MMR-vaccination https://www.ncbi.nlm.nih.gov/pubmed/28421976
[44] MMR Vaccine Side Effects https://www.nhs.uk/conditions/vaccinations/mmr-side-effects/

How vaccine science must shape policy decisions.

Even though the following discusses measles in particular, it is evident that this applies to most, if not all, vaccines.

Dr. James Lyons Weiler:

> *...vaccinated individuals can, and have always been known to be able to be infected with wild-type measles virus. Since this is true, the rare non-vaccinated child is not, in a highly vaccinated population, to be the primary source of new transmissions of measles. Instead, the vaccinated individuals with subclinical infections may be driving new infections in schools. It is therefore illogical, **and quite unfair**, to blame unvaccinated individuals when infected asymptomatic individuals can go to school unabated.*
>
> *...If we are to have public health policies based on science, this science must be given due consideration; otherwise, **we would have public health policies based on something other than science.** In reality, in highly vaccinated populations, measles can spread from a majority of vaccinated, to a minority of unvaccinated people, causing overt disease. In other words, the unvaccinated merely expose [make apparent-ed.] the circulating measles virus, and any child with a compromised immune system **may be exposed even in a fully vaccinated population**.*

See the16 relevant examples from primary scientific literature that he provides.[45]

In Summation

As is evident, vaccination has not and cannot eliminate disease or prevent its spread, even among highly vaccinated individuals and populations. Therefore:

1. Policy in the frum community must be based on scientific fact, not on the basis of public practice or media representation. This applies in shuls, yeshivas, at simchas, and other places where people congregate.
2. It is not reasonable, logical, or defensible for the frum community to prohibit healthy never vaccinated individuals from attending shul or other community events while vaccinated asymptomatic infectious and potentially infectious individuals can.
3. Camps catering to immunocompromised children that insist on all staff and visitors being vaccinated should be aware that this policy is ineffectual. Vaccinated staff and campers can easily infect each other.
4. Rabbanim and other individuals who believe that it is appropriate to ban never vaccinated individuals have likely not seen this information.
5. *Hishtadlus* does not apply to doing things that have a significant failure rate and can harm others.

Please address any comments or questions to rodefshalom613@gmail.com.

For more information go to http://www.rodefshalom613.org.

[45] For Health Officials and School Boards: Asymptomatic Measles Infection is Real https://jameslyonsweiler.com/2018/12/15/for-health-officials-and-school-boards-asymptomatic-measles-infection-is-real/

Appendix A

Some incidences of disease outbreaks in highly vaccinated populations

Measles outbreaks

1. Measles Outbreak in a Highly Vaccinated Population — Israel, July–August 2017 http://bit.ly/2xDeyg7
2. Outbreak of Measles Among Persons With Prior Evidence of Immunity, New York City, 2011 https://academic.oup.com/cid/article/58/9/1205/2895266
3. Why Is China Having Measles Outbreaks When 99% Are Vaccinated? http://bit.ly/2Ye86LD
4. Investigation of a measles outbreak in a fully vaccinated school population including serum studies before and after revaccination https://www.ncbi.nlm.nih.gov/pubmed/8483623
5. Measles outbreak in a vaccinated school population: epidemiology, chains of transmission and the role of vaccine failures https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1646939/
6. Measles Outbreak among Previously Immunized Adult Healthcare Workers, China, 2015 https://www.hindawi.com/journals/cjidmm/2016/1742530/
7. Measles Outbreak Traced to Fully Vaccinated Patient for First Time https://www.sciencemag.org/news/2014/04/measles-outbreak-traced-fully-vaccinated-patient-first-time
8. Emergence of attenuated measles illness among IgG positive/IgM negative measles cases, Victoria, Australia 2008–2017 academic.oup.com/cid/advance-article-abstract/doi/10.1093/cid/ciz363/5485899?redirectedFrom=fulltext

Whooping cough outbreaks

1. Temporal Trends in the Population Structure of Bordetella pertussis during 1949–1996 in a Highly Vaccinated Population https://academic.oup.com/jid/article/179/4/915/890412
2. Why did so many California kids get whooping cough despite being vaccinated? https://www.latimes.com/health/la-me-whooping-cough-20160205-story,amp.html
3. Whooping Cough Outbreak In Alabama Spread By Vaccinated Children https://newspunch.com/whooping-cough-alabama-vaccinated/
4. Pertussis infection in fully vaccinated children in day-care centers, Israel https://stacks.cdc.gov/view/cdc/15025/Print (*The children in Israel received the DPT vaccine, a whole virus vaccine, which is no longer used in the US because of the degree of associated adverse events.*)
5. Harvard-Westlake students were vaccinated. Dozens caught whooping cough anyway https://www.latimes.com/local/california/la-me-ln-whooping-cough-vaccine-20190316-story.html

Mumps outbreaks

1. The crew of this Navy warship has gone months without a port call thanks to a viral mumps outbreak https://taskandpurpose.com/uss-fort-mchenry-mumps-outbreak
2. Recent Mumps Outbreaks in Vaccinated Populations: No Evidence of Immune Escape https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3255929/
3. Mumps outbreak in a highly vaccinated population https://www.ncbi.nlm.nih.gov/pubmed/1861205
4. Mumps Outbreaks in Vaccinated US Populations https://www.mdedge.com/ccjm/clinical-edge/summary/vaccines/mumps-outbreaks-vaccinated-us-populations
5. A protracted mumps outbreak in Western Australia despite high vaccine coverage: a population-based surveillance study https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(18)30498-5/fulltext
6. Mumps outbreak in Jerusalem affecting mainly male adolescents https://www.eurosurveillance.org/content/10.2807/ese.14.50.19440-en