

Proposed Resolution: Measles Vaccination

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APRIL 17, 2019 BOARD OF HEALTH MEETING

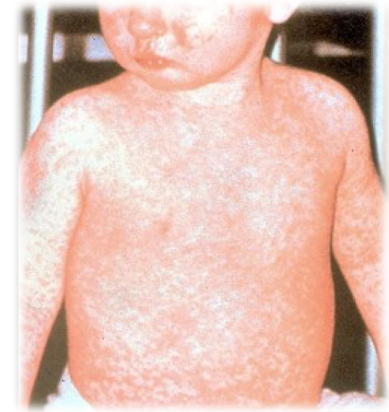


Summary of Proposal

- Require persons living or working in one of four Brooklyn zip codes (11205, 11206, 11211, and 11249) to be vaccinated against measles if not already immune and absent a valid medical exemption
- Require parents or guardians to cause children six months of age or older who live or attend school, preschool, or child care in the affected zip codes to be vaccinated if not already immune and absent a valid medical exemption

Measles 101

- A highly contagious viral infection characterized by fever and rash
- Airborne and droplet transmission; people can be infected by:
 - Inhaling droplets that enter the air when an infected person coughs, sneezes, or talks
 - Touching a surface with infected droplets and then touching their eyes, nose, or mouth
- Virus can remain airborne and active for up to two hours
- Incubation period (time from exposure to illness): 7 to 21 days
- Infectious period: 4 days before through 4 days after rash onset
- 90% of non-immune close contacts will contract the virus



Measles 101

- Complications include:
 - Diarrhea
 - Pneumonia (the most common cause of death from measles)
 - Otitis media (inflammation of the middle ear)
 - Encephalitis (which can cause deafness and brain damage)
 - Problems during pregnancy (pre-term labor, low birth weight)
 - Death (1 to 2 child deaths per 1,000 children infected)
 - Subacute sclerosing panencephalitis (SSPE) (a rare but fatal disease of the central nervous system that develops 7 to 10 years after measles infection)

Why Vaccination Is Critical

- The scientific evidence is unequivocal that the MMR vaccine is safe
 - Over 25 publications since 1999 have shown the safety and efficacy of the vaccine
 - E.g., Study of 657,461 children born in Denmark 1999-2010 showed no increased risk of autism from MMR¹
- MMR is extremely effective in preventing measles
 - Two MMR doses are ~97% effective
 - One MMR dose is ~93% effective
- MMR protects people even after exposure if administered within three days
- Herd immunity requires at least ~95% of the population to be vaccinated
 - Protects people who are too young to be vaccinated or have a medical condition preventing vaccination
 - Without herd immunity, there is a significant risk of prolonged, high volume measles outbreaks given how contagious the virus is, how it is spread, and that people are infectious prior to symptom onset

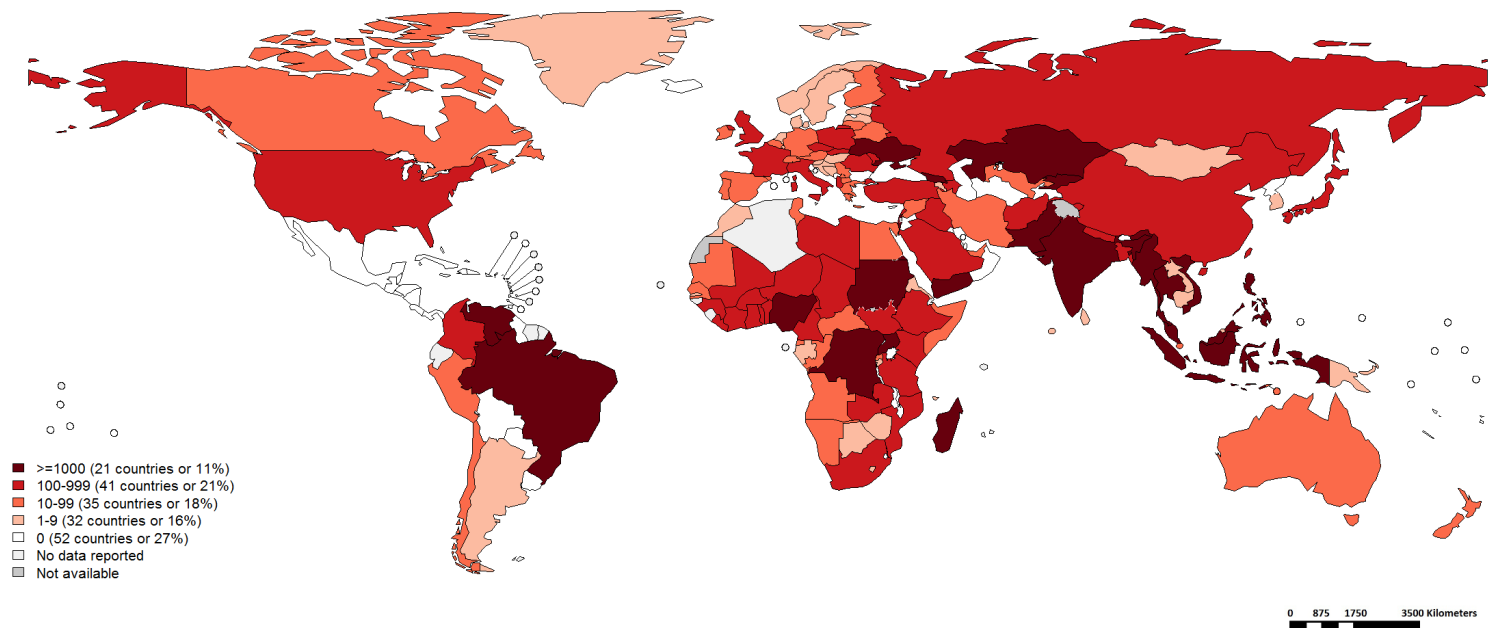
¹ Hviid A, Hansen JV, Frisch M, Melbye M. Measles, mumps, rubella vaccination and autism: a nationwide cohort study. *Ann Intern Med*. [Epub March 5, 2019] doi: 10.7326/M18-2101

Measles Resurgence

- Measles was declared eliminated in the U.S. in 2000
- Since then, there have been periodic outbreaks as a result of importation of the virus by people infected while traveling outside of the U.S.
- 2013 NYC outbreak
 - 58 cases
 - Was largest NYC outbreak since 1989-1991 measles resurgence and since measles was eliminated in the U.S.
 - Caused by one unvaccinated adolescent who acquired measles in the United Kingdom
 - Concentrated in Borough Park and Williamsburg among the Orthodox Jewish community
- Currently, there are large outbreaks throughout the world, including in Israel, Europe (Ukraine), Asia (Philippines, India), South America (Brazil, Venezuela), and Africa (Madagascar)
- Resurgence attributed to weak health systems, low vaccination rates, increased vaccine hesitancy, and anti-vaccination movement

Number of Reported Measles Cases, August 2018 – January 2019

Top 10*	
Country	Cases
Madagascar	59388
Ukraine	40031
India	14304
Brazil	9198
Philippines	8212
Venezuela (Bolivarian Republic of)	5668
Thailand	4871
Pakistan	4775
Yemen	4057
Israel	3146



Map production: World Health Organization, WHO, 2019. All rights reserved
Data source: IVB Database

Disclaimer:

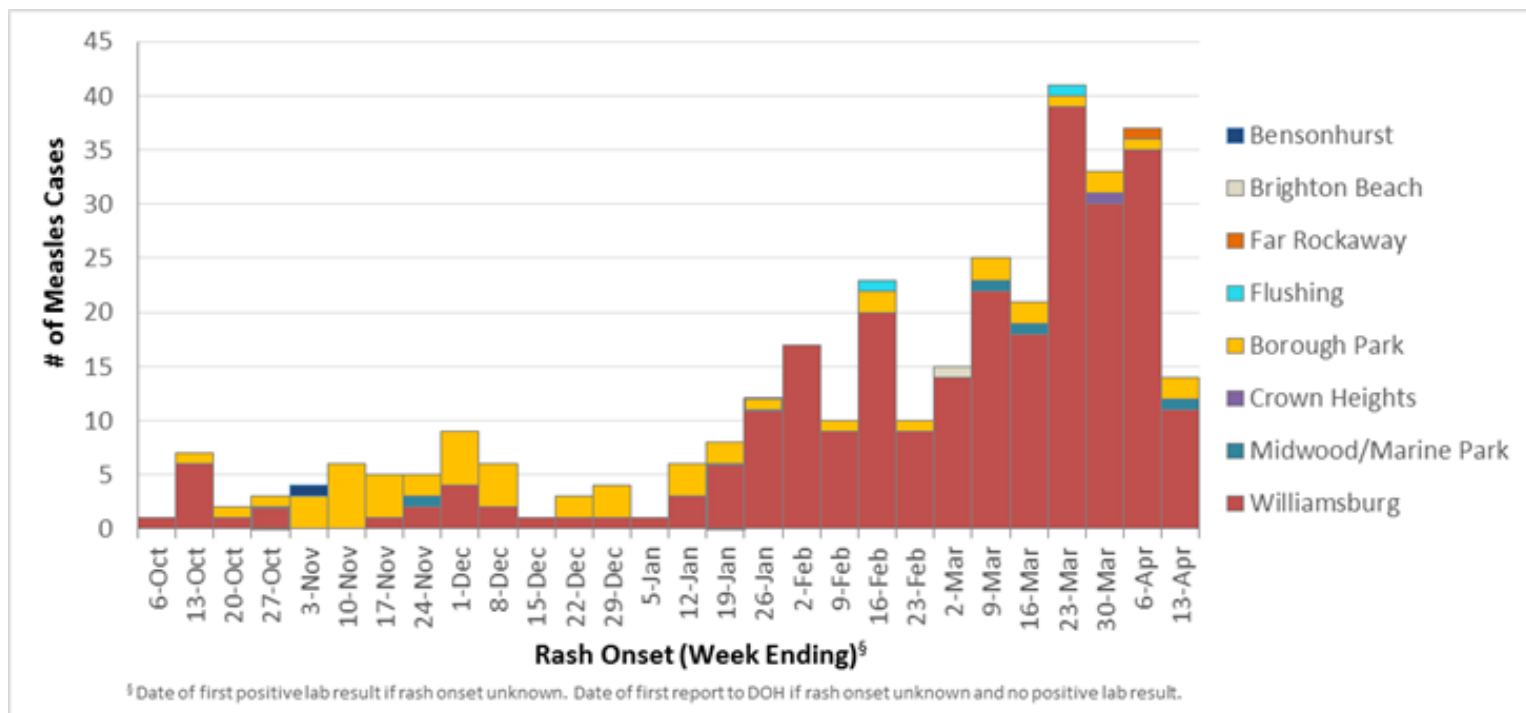
The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Notes: Based on data received 2019-03 - Surveillance data from 2018-08 to 2019-01 - * Countries with highest number of cases for the period
https://www.who.int/immunization/monitoring_surveillance/burden/vpd/surveillance_type/active/measles_monthlydata/en/

Epidemiology of the Current Outbreak (as of April 12, 2019)

- Time period: September 30, 2018 through present
- 329 confirmed cases
- 52 identified chains of transmission, 32 of which are active; 11 importations (Israel, UK, Ukraine, NJ, NYS)
- Age range: <1 year to 66 years of age
 - 56 (17%) children <1 year of age
 - 162 (49%) children 1-4 years of age
 - 66 (20%) children 5-17 years of age
- 25 hospitalizations; 6 persons admitted to Intensive Care Unit
- Almost all cases reside in Williamsburg (267 cases, 81%) or Borough Park (52 cases, 16%) Brooklyn and are members of the Orthodox Jewish community

Measles Outbreak, NYC 2018-2019: Epi Curve by Rash Onset and Neighborhood (as of April 12, 2019)



Health Department Response

- Over 200 Health Department staff working on the outbreak
- Case and contact investigation
 - Set up dedicated call center
 - Station Health Department staff at a high volume facility at the epicenter of the outbreak to assist with potential exposures
 - Investigate all reported cases
 - Perform contact identification and notification (over 12,200 exposures)
- Public Health Laboratory has performed over 1,600 diagnostic tests
- Issued revised MMR recommendations for all children in affected communities

Health Department Response

➤ School and child care enforcement:

- Beginning in December, schools and child care facilities were notified that they were required to exclude unvaccinated children
- In April, Commissioner's Orders were issued to 102 schools and child care facilities in Williamsburg to exclude unvaccinated students or face violations and possible closure
- Notices of Violation have been issued to 23 programs since December 2018
- On April 15, one child care facility in Williamsburg was ordered to close for repeatedly failing to provide access to medical and attendance records

Health Department Response

- Provider/healthcare facility outreach, education, and assistance
 - Sent three Health Alert Network email blast to NYC providers
 - Sent four targeted alerts to providers serving impacted communities
 - Distribute posters and pamphlets in English and Yiddish to doctors' offices and health centers
 - Ensure providers have enough MMR vaccine on hand
 - Provide clinical and infection control consultation
 - Assist in identifying and contacting providers' unvaccinated patients
 - Assist with post-exposure prophylaxis for exposed persons

Health Department Response

- Community outreach and education
 - Publish print ads and social media specific to Orthodox community in English and Yiddish
 - Meet with rabbinical and other community leaders, community pediatricians, and local elected officials
 - Partner with Orthodox Jewish Nurses Association on educational outreach
 - Distribute educational materials targeted to Orthodox community in English and Yiddish
 - Sent letters to parents through schools
 - Performed six rounds of robocalls (30,000 households each round)



VACCINATE YOUR KIDS TODAY!

NOBODY WANTS TO TAKE
A CHOL HAMOED TRIP
TO THE HOSPITAL.

VACCINATE YOUR KIDS TODAY!
PLEASE CONTACT YOUR DOCTOR IMMEDIATELY

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וואקסינירט היינט אייערע קינדער!

קיינער וויל נישט פארברענגען
חול המועד אין שפיטאל.

וואקסינירט היינט אייערע קינדער!
ביטע פארבינדט זיך זאפארט מיט אייער דאקטער

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Pesach checklist:

- ✓ Cleaned house
- ✓ Cooked food for Yom Tov
- ✓ Sold chumetz
- ✓ Made sure kids are up to date on their vaccinations!

VACCINATE YOUR KIDS TODAY!
PLEASE CONTACT YOUR DOCTOR IMMEDIATELY

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פסח ליסטע:

- ✓ געקאכט די יום טוב'דיגע סעודות
- ✓ געקליפט דעם חמץ
- ✓ זיכער געמאכט אז די קינדער זענען אפ-טו-דעיס מיט זייערע וואקסינען

וואקסינירט היינט אייערע קינדער!
ביטע פארבינדט זיך זאפארט מיט אייער דאקטער

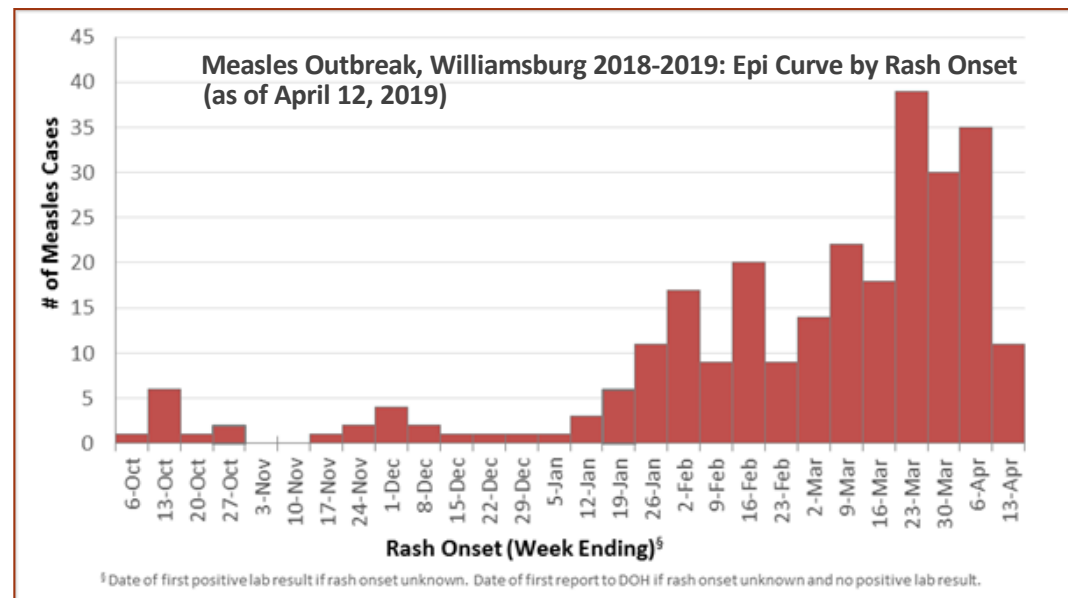
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Recent Events

- On April 9, the Commissioner of Health declared a Public Health Emergency in four Brooklyn zip codes (11205, 11206, 11211, and 11249)
- A Commissioner's Order was issued:
 - Requires persons who live or work within the affected zip codes and who have not received the MMR vaccine within 48 hours of the order to be vaccinated against measles unless such person can demonstrate immunity or a valid medical exemption
 - Requires the parents or guardians of a child over six months of age who lives or works within the affected zip codes and who has not received the MMR vaccine within 48 hours of the order to cause such child to be vaccinated unless immunity or a valid medical exemption is demonstrated
 - Violation of the order carries a \$1,000 fine
- A Temporary Restraining Order (TRO) and Preliminary Injunction was sought on April 15, 2019 directing the Health Department to stop enforcement of the April 9 Emergency Order
 - The TRO was denied; next hearing scheduled for April 18

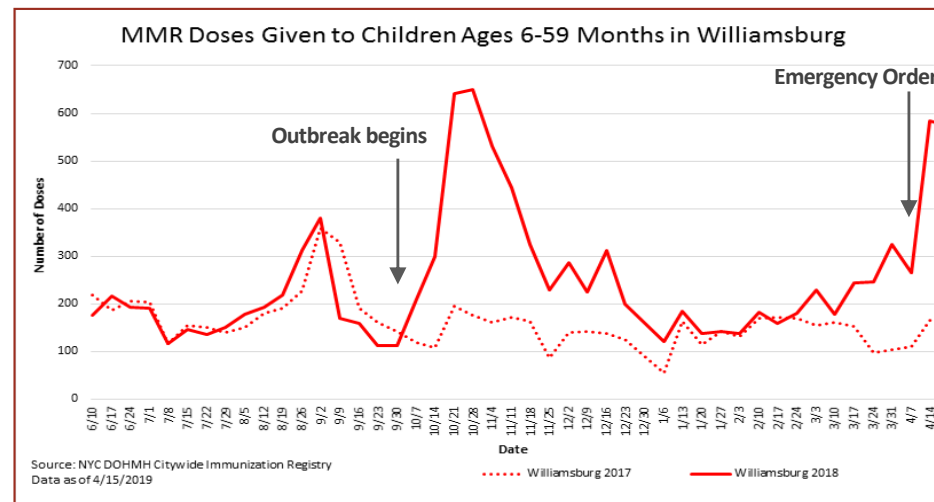
Why an Emergency Declaration Now?

- Despite significant Health Department efforts, measles continues unabated in the affected zip codes



Why an Emergency Declaration Now?

- Since October 1, 2018, an additional ~16,750 doses of MMR vaccine (~4,733 of which were to children in Williamsburg) have been administered to children ≤18 years old in NYC compared to the same time period last year
- After some initial success in increasing MMR coverage, progress in Williamsburg waned



Why an Emergency Declaration Now?

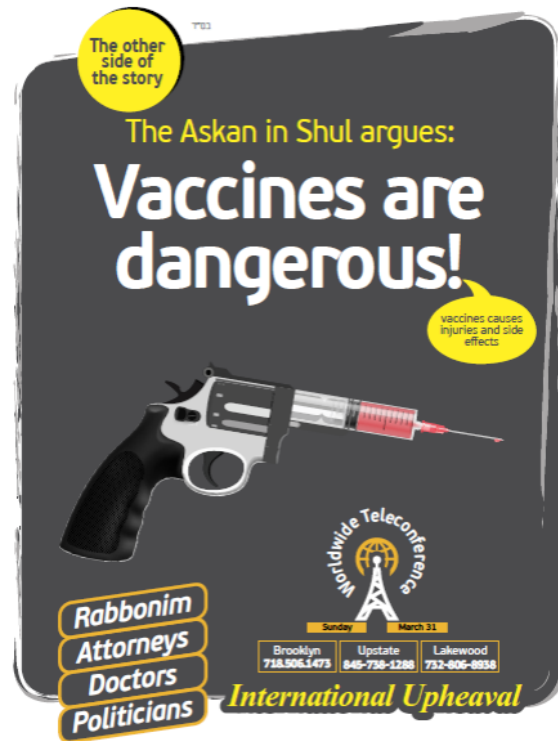
- The emergency declaration was deemed necessary to reduce the risk of the outbreak worsening or someone dying
- Measles is so contagious that each new case severely hinders our ability to end the outbreak
 - E.g., a single child with measles who attended a yeshiva infected over 40 people
- This is a unique and dangerous outbreak
 - 52 identified chains of transmission; 11 importations (as of April 12, 2019)
 - High number of young children in the community
 - Low MMR vaccine coverage in affected zip codes: ~3350 (14%) of children 12-59 months of age living in Williamsburg have received no doses of MMR*

*Based on Citywide Immunization Registry data, as of April 14, 2019

Why an Emergency Declaration Now?

- Community actions continue to undermine Health Department efforts
 - Parents choosing not to seek medical care for infected children
 - Measles “parties” to intentionally expose children to the virus
 - Spreading of misinformation, including by some pediatricians
- The anti-vaccination movement is increasing the intensity of its efforts, distributing propaganda that has no basis in science or fact and targeted at Orthodox Jewish communities

Anti-vaccination Propaganda



The Vaccine Safety Handbook

A cartoon illustration of a young girl with dark hair in pigtails, wearing a red traditional Chinese dress with a yellow star on the chest. She is sitting on a white examination table. To her left is a tall white stethoscope stand. On the wall behind her are a black stethoscope hanging on a rack and a small black bag. The background is a solid teal color.

Some people choose to approach a rabbinic authority for assistance in making vaccine decisions. We recommend consulting a rabbi who is willing to look at the facts before drawing conclusions.

Despite this mounting evidence, the medical establishment continues to claim that vaccines are safe and risk free.

"I worked with Congress in the early 1980s on that [vaccine injury] law and have watched it be turned into a cruel joke...the Department of Justice officials fight every claim, viewing every reward to a vaccine-injured child as admission that vaccines can and do cause harm."⁽²⁾

—Barbara Loe Fisher,
(founder of the National Vaccine Information Center)

Testifying before the California State Senate Committee in 2002

Barbara Loe Fisher, director of the National Information Center, was on the California committee in 2002.

2 Does the “majority rule” apply since most doctors believe that the benefits of vaccines outweigh the risks?

Medical policymakers acceptable for the individual sacrificed for the betterment of the community. Government authorities that many children were killed or injured by vaccine, to the loss of life as well. However, in order to ensure compliance and the goal of "disease eradication," information about the safety of vaccines is intentionally withheld from parents at the time of vaccination.

Autism is a mental disorder characterized by impaired social capability, with trouble relating to other people, difficulty communicating, restricted and repetitive behavior, and difficulty connecting to their surroundings.

There are many elements of autism that make it an unusual condition.

Not only do most autistic children have the normal appearance of healthy children, they also usually lack a clear genetic abnormality that can account for their learning and social deficits. Another strange factor is that autism often appears as a sudden regression after a history of normal development.⁽¹⁰⁾

The U.S. has one of the highest rates of autism in the world.⁽¹⁾ While the numbers continue to climb, according to the CDC, as of March 2013, it is estimated that 1 in 50 American children suffer from the disorder.⁽²⁾ During the last half a century the number of cases has grown exponentially.⁽³⁾⁽⁴⁾ Researchers reported that autism was an extremely rare condition before 1943, when it was announced as a new mental disorder.⁽⁵⁾ In the 1950s, less than 1 in 10,000 cases were reported.⁽⁶⁾ Many attempt to find a logical explanation

Many attempt to find a logical explanation for the growing incidence of this disorder. They claim that the increase in autism is merely an improvement in diagnostics; that there must have always been as many cases, they just went undetected.

"[...] and we've had so many instances of people that work for me. ... [in which] a child, a beautiful child went to have the vaccine, and came back and a week later had a tremendous fever, got very very sick, now is autistic."
—Donald Trump during 2016 debate in 2016

ing our debate in 20

Do You Know What's In A Vaccine?

- HUMAN AND ANIMAL CELLS

CELLS
tuses and hu-
se blood, rab-
ney, cow heart,
o, chicken egg,
lood and more.
(LT)
ver, nerve, and

ected gastroin-
terorgan poison.
IRAL DNA
the recipient's
otic mutation.

acid reactions

4 POLYSORBATE 80

- POLYBUTADIENE 60
Known to cause cancer in animals.

- **FORMALDEHYDE (FORMALIN)**
Major constituent of embalming fluid; poisonous if ingested. Probable carcinogen: suspected in gastrointestinal, liver, immune system, nerve, reproductive system, and respiratory. Putson. Linked to leukemia, brain,

- ↳ **MICRO-ORGANISMS** (often undetected): Live and killed viruses and bacteria or their toxins. Millions of doses of polio vaccine were contaminated with monkey virus (SV-40), now turning up in human bone, lung lining (mesothelioma), brain tumors, and

➤ GELATIN

GENTAMICIN SULFATE AND POLYMYXIN B (ANTIBIOTIC)

Allergic reactions can range from mild to life threatening.

✓ **GLUTARALDEHYDE**
Poisonous if ingested. Causes birth defects in experimental animals.

The second-most-toxic element on Earth (after Plutonium). Has an affinity to the brain, gut, liver, bone marrow, and kidneys. Minute amounts can cause brain/nerve damage. Symptoms of mercury toxicity are similar to those of autism.

TRI(N) BUTYL PHOSPHATE

➤ NEOMYCIN SULFATE (ANTIBIOTIC)

How To Prevent Your Children From Being Damaged By Vaccines



Proposed Resolution

- An outbreak of measles is ongoing in the neighborhood of Williamsburg and the outbreak poses a public nuisance because it is immediately dangerous to life and health
- Persons living or working in zip codes 11205, 11206, 11211, or 11249 must be vaccinated against measles unless they can demonstrate immunity to the disease or document to the satisfaction of the Department that they should be medically exempt from this requirement
- Parents or guardians of a child six months of age or older who lives or attends school, preschool, or child care in the affected zip codes must cause such child to be vaccinated unless the parents or guardians can demonstrate the child's immunity to the disease or document to the satisfaction of the Department that the child should be medically exempt from this requirement
- The failure to be so immunized or cause such child to be immunized is a violation for each day the person or child continues to reside, work, or attend school, preschool, or child care in the affected zip codes

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