VCC Response: 2017 Ontario Vaccination Exemption Form

VACCINE CHOICE CANADA
FORMERLY VRAN

Background Information

In the spring of 2017, the Ontario Ministry of Health was successful in having an omnibus bill—the *Protecting Patients Act*—pass in the Ontario House with only one dissenting vote. Schedule 2 in this bill is an amendment to the *Immunization of School Pupils Act* (hereinafter ISPA) that requires parents who are seeking vaccine exemptions for their children to attend "education sessions" about the risk of not vaccinating. Ontario parents must contact their local public health unit regarding attendance at these sessions. Following the session a certificate of attendance will be issued. This certificate must accompany the new exemption form.

The new vaccine exemption form, titled *Statement of Conscience or Religious Belief*, is different from the previous form in a number of ways. Of interest to us in this report is the **Risk of Not Being Vaccinated Statement** found at the bottom of page 1 of the form. We refer to this as the "risk statement" in the following discussion.

Our response to the government's Risk Statement on the new Exemption Form is based on the Ethics of Sound Science and Informed Consent.

Science: The medical establishment considers vaccines effective if they suppress a few targeted illnesses—but at what cost? An emerging body of evidence indicates that vaccines can damage a child's developing brain and immune system, leading to neurodevelopmental disorders, seizure disorders, learning disabilities, ADHD, asthma, anaphylactic food allergies, diabetes and autoimmune disorders. As well, vaccines have been linked to sudden, unexpected death in infancy and early childhood (SIDS). [1]

Informed Consent: Vaccine Choice Canada recognizes that vaccines are not without risk and supports the right of each individual to adequate disclosure prior to providing consent…In order to provide truly informed consent, individuals must be apprised of potential risks, benefits and alternatives to vaccination.

Pertinent information should include the actual risk of contracting a particular disease, based upon epidemiological evidence, probable outcome and available treatments. Disclosure should also include vaccine ingredients and their known hazards, possible adverse effects and vaccine efficacy.

Vaccine Choice Canada is opposed to mandatory vaccination, and upholds the right of individuals to exercise "Informed Consent" when considering an invasive medical procedure such as vaccination.

No pressure should be exerted to gain vaccination compliance. No individual should be refused medical treatment or threatened in any way should the individual choose not to vaccinate.[2]

1 Vaccination: Basic Concerns http://vaccinechoicecanada.com/about-vaccines/vaccination-the-basics/
2 Policy Statement on Vaccination http://vaccinechoicecanada.com/about/policy-statement-on-vaccination/

As we write this document, we know there is a world wide movement to mandate many childhood vaccines and at the same time remove personal belief exemptions and charge parents with negligence who do not vaccinate their children. Thus our response to the most egregious assertion in the risk statement, which basically defines parents as negligent if they do not vaccinate, is one of outrage, as captured in the cartoon here. When the government makes the assertion seen below, parents have every right to be concerned.

"With the decision to delay or refuse vaccines, you are accepting responsibility that you are putting your child's health and even life at risk."

Parents, Do NOT be Intimidated by these Tactics! Read On…

In Your Face is one thing. In Your Brain is another!

Many Ontario parents have contacted VCC regarding their fear of signing the affidavit in the new exemption form because the form contains a *Risks of not being vaccinated* statement, including this declaration:

"With the decision to delay or refuse vaccines, you are accepting responsibility that you are putting your child's health and even life at risk."

The legal opinion we obtained says signing the Affidavit only applies to the oath on page 2. You are not agreeing to the risk statement either in full or in part. However, this is really a moot point. Child protection laws claiming medical negligence stand with or without the declaration above being brought forth by the state. But we do not believe charging parents is the objective of publishing the declaration above (or the full risk statement below) on the new exemption form. As the state is want to do, it is more a trial balloon to ascertain public response and above all **a blatant tactic to frighten parents into vaccinating their children.**

There is no doubt the risk statement is highly insulting, especially to parents who through their very love for their children and their concerns for their children's health have researched vaccine safety and effectiveness and have made a decision that does not concur with the opinions of the medical establishment.

Do not be distracted by the slap in the face. Every Canadian has a right to informed consent to medical procedures. That right encompasses fully vaccinating your children, not vaccinating your children or partially vaccinating your children.

We can only encourage parents who wish to exempt their children from some or all vaccinations (or to delay certain vaccines) to carefully consider the risks of vaccinating their babies and children versus the very remote possibility of the state taking legal action against them simply for signing the exemption form.

If you have chosen to sign the exemption form, do not let them into your brain with this impudent and aggressive move, nor into your child's developing brain with inflammatory biochemical substances that can cause brain inflammation and injuries.

—The VCC Board of Directors

What Are They Actually Saying?

Risks of not being vaccinated:

Immunization programs have resulted in dramatic reductions in cases of vaccine-preventable diseases (VPDs) in Canada with reductions in incidence in the range of 99 to 100% for diseases such as measles, mumps, chickenpox, diphtheria and polio. With the decision to delay or refuse vaccines, you are accepting responsibility that you are putting your child's health and even life at risk. Be aware that any vaccine-preventable disease can appear at any time in Ontario because all of these diseases still circulate either here or elsewhere in the world.[1]

Delaying or refusing vaccines for your child also puts others at risk of illness, especially children and adults in cancer treatment, those with heart or lung disease or diabetes, newborn babies and the elderly. Communities depend on high immunization rates to keep vaccine preventable diseases from spreading. When more people are immunized, there is less risk for everyone. If your child is sick and you call or visit a health care provider, immediately tell them that your child is not fully vaccinated. This may affect what tests they do. Precautions may need to be taken so that a vaccine-preventable disease does not spread from your child to other people.[2]

1 Source: Ministry of Health and Long-Term Care 2 Source: Canadian Paediatric Society

This statement is full of in-your-face threats against parents who dare to challenge the medical industry stance that all vaccines are "safe and effective". The Ministry of Health puts parents who do not fully vaccinate on notice that they can be investigated or charged with parental negligence. Doctors inform parents who do not fully vaccinate that they will be subject to unspecified "precautions" or treated differently than other patients.

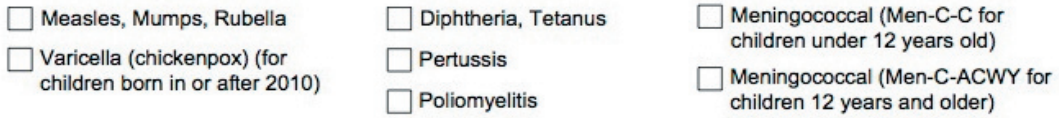
Further, most of the information in the statement is demonstrably false or obfuscates the truth. In the following sections we will show the government's own data that belies most of what is said above. We will also present links to real evidence-based science that has addressed the safety and effectiveness of vaccines for many years.

We will show that the statement above is no more than the same tired attempt to prop up the medical-pharma vaccine industry. It is an industry the public is justified in losing faith in; because it is what is placing their children's health and even lives in jeopardy.

What is the Target?

1. ISPA Designated Diseases

The new form also has another change. It asks parents to check boxes to show whether they are exempting their child from all vaccines for ISPA designated diseases or just vaccines for certain designated diseases. The designated diseases appear as follows on the form.



Note only the meningococcal vaccines are shown. The combination vaccines for the other two groupings are not shown. Therefore parents need to familiarize themselves with the Ontario Vaccine Schedule to understand which vaccines they are exempting their children from when they check boxes on the form. Parents also need to know which vaccines they are not exempting their children from with this exemption form, so they can take appropriate action. Below we have listed the vaccines for ISPA designated diseases (covered by the exemption form) on the left and the vaccines for diseases not covered by exemption form on the right.

Vaccines for ISPA Designated Diseases	Vaccines not covered by the exemption form
For Measles, Mumps, Rubella and Varicella: MMR at 1 year, Varicella at 15 months, MMRV at 4-6 yrs *For Diphtheria, Tetanus, Pertussis and Polio* DTaP-IPV-Hib at 2, 4, 6 and 18 months Tdap-IPV at 4-6 yrs Tdap at 14-16 years *For Meningococcal*: Men C-C at 1 year Men-C-ACYW Grade 7	**Babies & Children to 6 years old** Pneumococcal C-13 at 2 & 4 months Rotavirus at 2 & 4 months Influenza at 6 months, 18 months, then 3, 4, 5 & 6 yrs **School Age Vaccines** Influenza vaccine given every year to all ages Hepatitis B vaccine is given in 2 injections in Grade 7 HPV vaccine is given in 2 injections in Grade 7 *See discussion below for exemptions for these vaccines.*

Vaccinations are Voluntary:

In Ontario most vaccines for babies and children prior to school age are given by doctors in private clinics. If you do not want your baby/child to receive pneumococcal, rotavirus or influenza vaccines speak to your medical practitioner. They must obtain your informed consent before vaccinating your child.

Informed Consent must be obtained for all school age vaccines. Parents receive consent forms along with notices of school vaccination clinics. However even if you as a parent do not consent to influenza, Hep B or HPV vaccines, your child may be pressured to override your non-consent. Children may be told they do not need parental consent to receive these vaccines. The Mature Minor doctrine incorporated into Ontario's *Health Care Consent Act* in 1996, allows minor children of no specific age (some as young as age 11), to make their own medical decisions without parental knowledge or consent. Children may be told "It's the law" and/or that they may be suspended from school if they do not receive vaccinations. They may also be vaccinated prior to receiving their consent form. Discuss this with your child so they are aware of their right to refuse vaccines.

Many parents who do not want their children to receive vaccines in school, keep their children home from school on vaccination clinic days to protect them from bullying tactics and peer pressure to vaccinate.

Above all remember: All vaccinations are voluntary in Canada.

2. Vaccine Preventable Diseases or VPDs

VPDs are diseases for which vaccines have been licensed in Canada. There are 25 active vaccines listed in Part 4 of the *Canadian Immunization Guide*.

To say that vaccines are "safe and effective" is a gross over-simplification of a very complex subject. Vaccines have different success rates (effectiveness) in preventing targeted diseases. Not all vaccines are designed to prevent disease. Some only reduce symptoms, like the pertussis (DTaP & Tdap) vaccines. Some vaccines are for non-communicable disease like tetanus. Some vaccines are live viral vaccines where shedding of the disease antigen occurs after vaccination, including MMR, Varicella, & MMRV and rotavirus vaccines. Some vaccines like Varicella

Who is the Target? Or ...that pesky 2%!

have higher failure rates, meaning the disease occurs after vaccination. Some vaccines are more reactogenic than others, meaning more adverse events occur following vaccination. This is largely due to ingredients in the vaccines other than the antigen. (There is a whole section on our website on Vaccine Ingredients.) The immunizing effect wanes at different rates for different vaccines. No vaccine provides life-long immunity. Human responses to vaccines also differ. No testing is available to determine personal sensitivity to vaccines. Vaccines are designed to jolt the immune system into action, meaning they cause inflammation. Babies' immune systems are designed to remain in a non-inflammatory state during the first two years of major brain development. For these reasons and many others, objections to "one-size-fits-all" heavy vaccine schedules for children are heard from both parents and members of the medical and medical research communities.

Vaccination Coverage

The amendments to the ISPA target parents who wish to use the *Statement of Conscience or Religious Belief* exemption form. The reason this form exists at all is that parents must be offered relief from laws that require vaccinations for school entrance. As Health Canada explained in 1996, **due to the Canadian Constitution "... legislation and regulations must not be interpreted to imply compulsory immunization."**

The question immediately arises: **What per cent of parents exercise their constitutional rights to exempt their children from vaccinations?**

Coverage Rates

	by 2 years	by 7 years	by 17 years
DTaP-IPV-Hib	≥ 4 doses	≥ 5 doses	≥ 6 doses
National	77%	72%	54%
Ontario	80%	70%	55%
MMR	≥ 1 dose	≥ 2 doses	no booster
National	89%	85%	required
Ontario	92%	88%	
Varicella	≥ 1 dose	(no data in National report)	
National	73%		
Ontario	82%		
Meningococcal C	≥ 1 dose	(no data in National report)	
National	89%		
Ontario	89%		

Information on exemptions is contained in vaccine coverage reports. On a national basis, the latest data available is found in the Public Health Agency of Canada report Vaccine Coverage in Canadian Children. This report is based on 2013 data collected in a survey of 25,000 Canadian parents. **It estimates 1.5% of Canadian children between the ages of 2 and 17 years have never been vaccinated.** The percent of unvaccinated children varied by age group: 2.7% for 2 year olds, 1.1% for 7 year olds and 1.8% for older children. Recognizing that combination vaccines are used, tables in the report break down coverage rates by vaccine groups. Only children who have **all** the required number of doses are counted. In combination vaccines, different antigens have differing numbers of doses required to be counted as up-to-date. We have simplified the data for the chart here. We list only vaccinations for ISPA designated diseases. Note that Ontario has coverage rates higher than (or in one case equal to) national averages. it is worth noting however, that provinces without school immunization legislation do have higher coverage rates in many categories.

Ontario Public Health also issues *Immunization Coverage Reports*. The 2012/2013 Report has an entire section on exemptions for 7-year olds with discussion and charts. Basically it says that for children in first grade, the "… religious beliefs or conscientious objections accounted for the greatest proportion of exemptions (**1.3–2.0%**)".

One obvious anomaly appears when looking at the coverage data in this report. To explain: the 7-year old exemption rate for MMR is reported at 2% and the coverage rate at 88% for a total of 90%. This means either 10% of children only have 1 dose of the vaccine or they are unvaccinated without an exemption form. In either case, this larger population should be of equal if not more concern to public health as those filing exemptions. This is not the case however. The new legislation, the required education sessions and the fear-mongering about herd immunity is directed at the approximately **2%** of Ontario parents who do file the legal exemption forms provided for in the ISPA Act. This appears to be highly discriminatory from the standpoint of both public health protection and the protection of our civil rights.

Correlation is not Causation Or...Real Science

Statistics and Science

Before examining the veracity of the Risk Statement on the new Exemption Form, an understanding of some basics is needed. First let's look at what the statement "Correlation is not Causation" actually means.

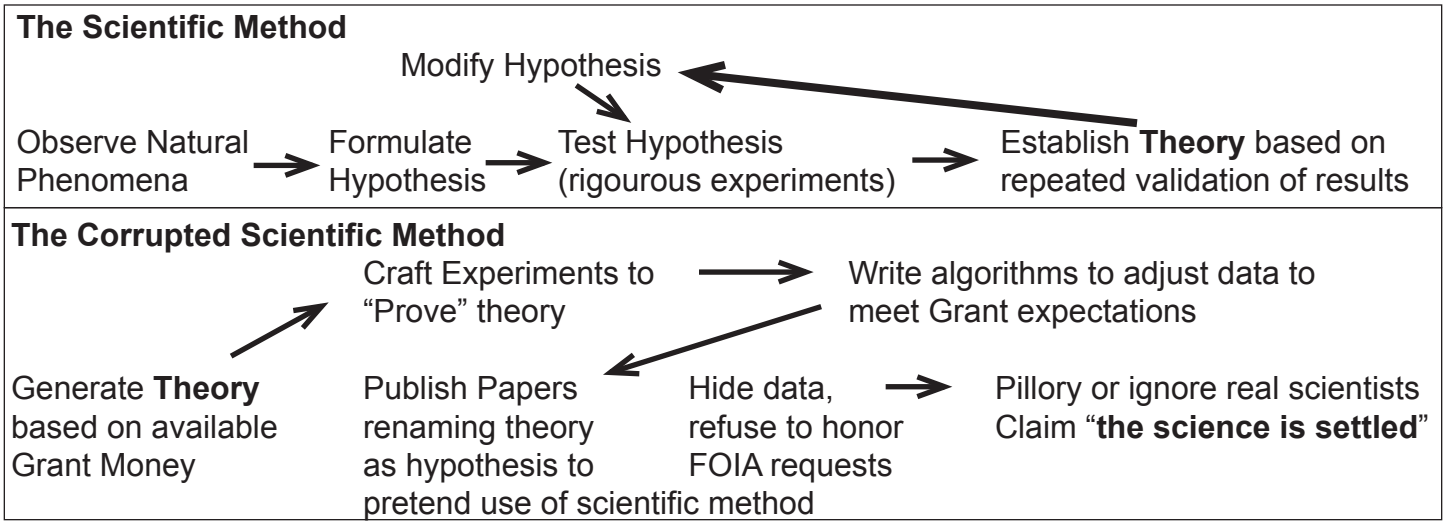
Statistics is the mathematical study of data. For example, if one collected data on drowning deaths and compared them to ice cream sales data, one would see that both increase in the summer, that is, they are correlated. But to draw the conclusion that the rise in ice cream sales causes drowning deaths (or vice versa depending on what one is postulating) is ridiculous. The point here is that in statistical studies, the type and quality of the data chosen and the assumptions made about that data is everything. Further such studies can never "prove" anything. They can only show correlations, but they are not science and never constitute proof. Epidemiological studies, for example, are actually statistical studies and do not constitute proof of anything without evidence-based scientific research on the mechanisms underlying the statistics.

The value of correlations is that they give research scientists a jumping off point to form an hypothesis to investigate natural phenomena. For example, if statistical data showed a correlation between the rise in the hospitalizations and deaths of infants and the number of vaccines doses they have received (Goldman, Miller, 2012), this statistical study would give scientists a jumping off point to generate scientific experiments on the actual mechanisms multiple vaccines trigger in infants' bodies that could lead to such deaths and hospitalizations.

Many scientific studies do exist that investigate the negative effects of vaccines on biological mechanisms. For example, medical doctors like Blaylock and Humprhries, who see the effects of vaccines in their patients have scoured the medical literature for explanations: (Blaylock, 2008 has 170 referenced scientific studies on vaccine effects, Humphries in this video presents many studies on the effects of aluminium and other toxins in vaccines on children). And research scientists like Shaw & Tomljenovic, Deisher and Mikovits and many, many others have published scientific research on vaccine toxicity and its effects on humans and animals. This referenced, 2016 slide show Vaccine Safety: Know the Facts & the Science by Edda West of Vaccine Choice Canada presents an excellent overview of the subject.

The volume of scientific papers confirming serious vaccine safety issues continues to increase. However, these papers are either ignored or slammed by the medical establishment and mainstream media as they belie the "safe and effective" mantra. Further, a new type of "scientific" study is replacing real evidence-based science in the medical literature. Both the Editor of the *British Medical Journal* and the Editor-in-chief of *Lancet* have recently spoken out about the corruption in medical science.

One reason for this problem is suggested by the diagram below (based on this article by Sayer Ji). To put it simply, truly independent scientists—those who do not have a conflict of interest due to their funders—are becoming increasingly scarce as industry and government public health agencies fund and direct vaccine research. The same problem applies to government committees like NACI, who make recommendations regarding which vaccines are to be publicly funded in Canada. See *Canadian Vaccine Schedules Birth to Grade 12* for details.



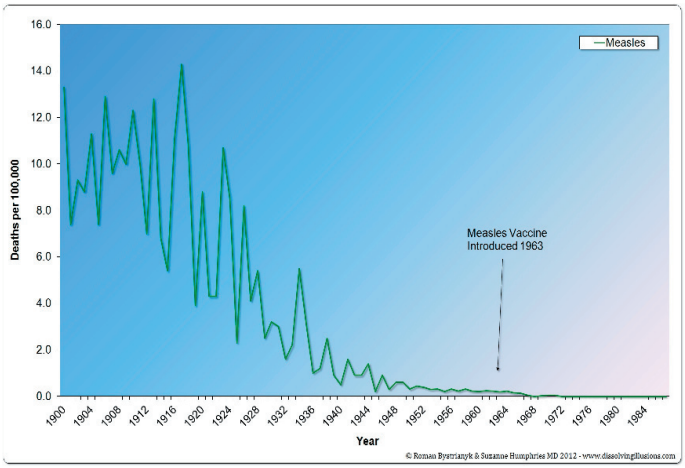
What's the Risk? Death by Measles...

With the decision to delay or refuse vaccines, you are accepting responsibility that you are putting your child's health and even life at risk.

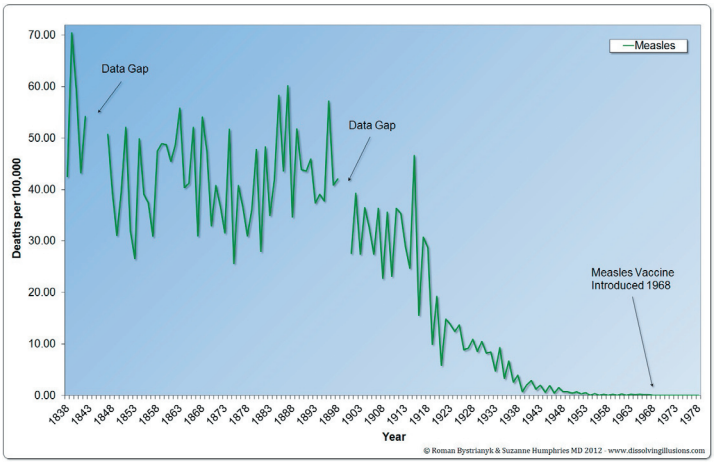
Ontario Ministry of Health

Since parents who don't vaccinate as expected are meant to acknowledge on the Ontario exemption form that their child might become ill or die of a vaccine preventable disease, they would like to know what the chances are. We have chosen measles for this discussion because we have access to relevant government data and because measles is the poster child of the medical industry fear messages regarding vaccine-preventable diseases.

It is an unassailable fact that infectious disease morbidity (incidence) and mortality declined prior to the introduction of vaccines. Yet as the risk statement shows public health policy makers choose to completely ignore this fact. To fully understand this decline, read *Dissolving Illusions: Diseases, Vaccines and the Forgotten History*, by Humphries & Bystrianyk. Here are a couple of measles mortality charts from the book:

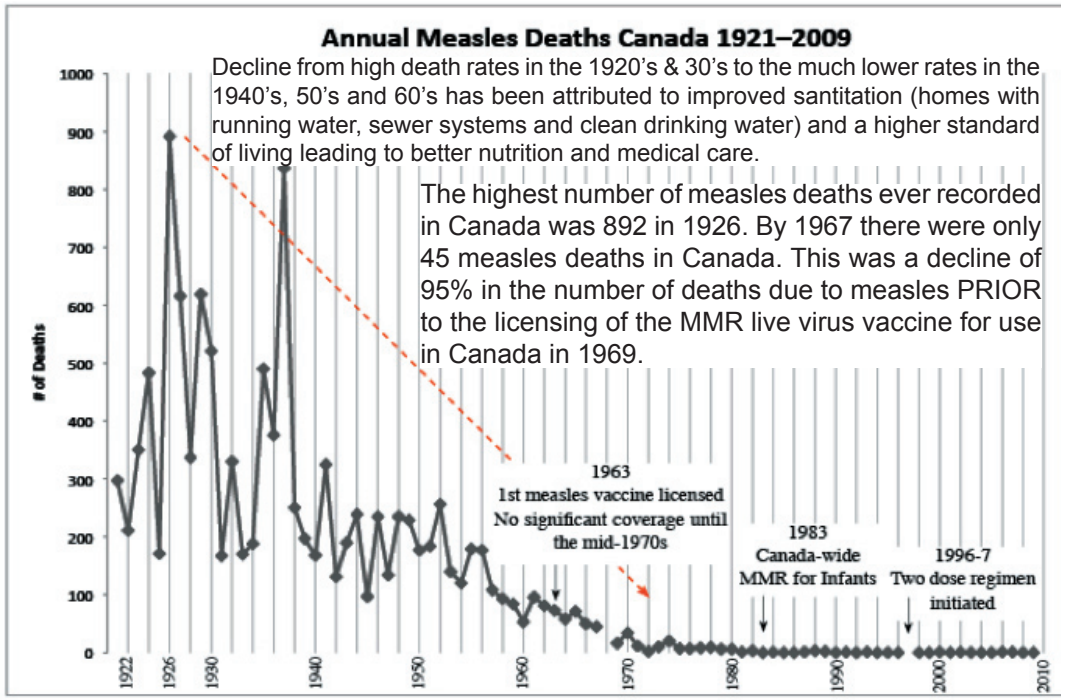


A killed measles virus vaccine came into use in the United States in 1963. What you may not have heard, is that by 1963, the death rate from measles in the United States had already dropped by approximately 98%.



In England the measles vaccine was introduced in 1968. By this point measles deaths were extremely rare. The actual death rate from measles in England had fallen by an almost full 100%.

Mortality rates for measles are found in Statistics Canada tables. VCC created the graphic below from that data. It can be seen that mortality rates declined steadily prior to vaccines having an effect on these rates, just as shown above in the USA and the UK. We have described the reasons for this decline on the chart.



Calculating Risk

For the last 20 years (1990–2009) shown on the chart for the entire population of Canada the number of deaths from measles has been either 0 or 1. This is very unlikely to change.

This means the chances of death by measles for any Canadian is either zero or 1 chance in 33.6 million (the 2009 population). In other words, the risk is infinitesimal. And actually much lower than the risk of serious damage from MMR vaccines.

What's the Risk? Sick with Measles...

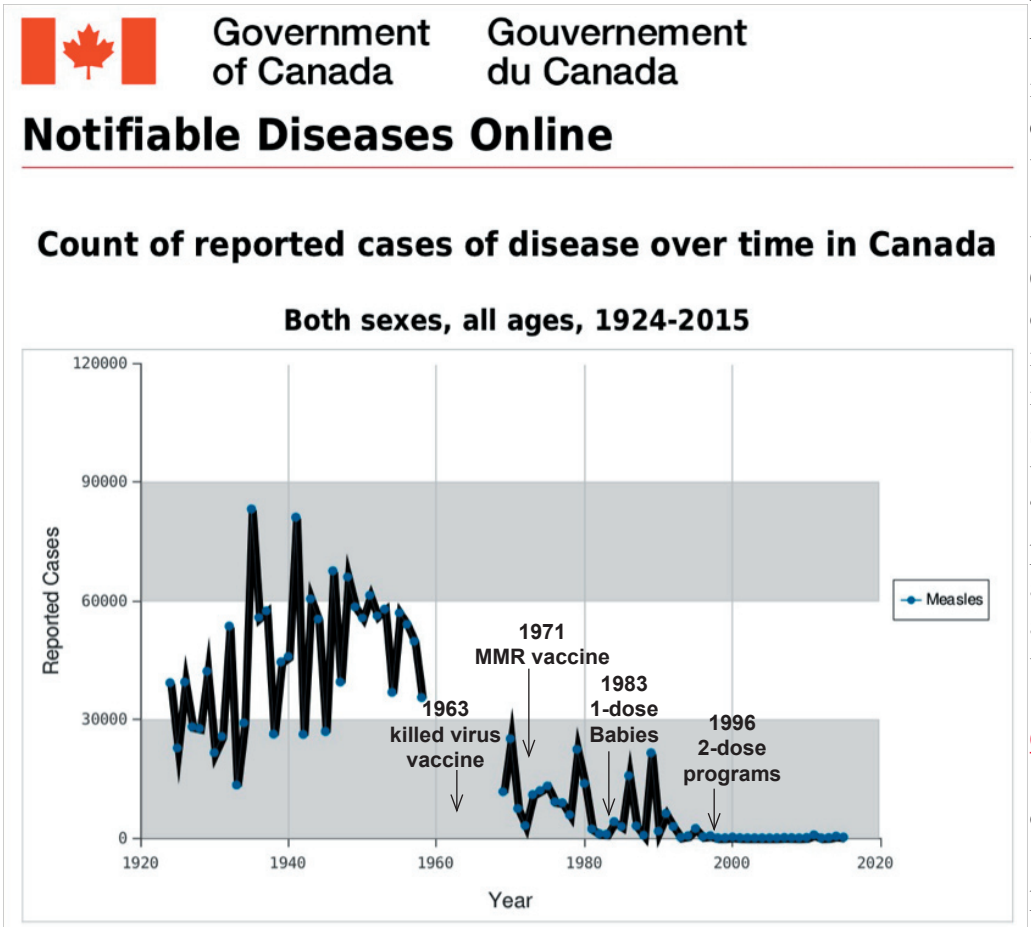
Immunization programs have resulted in dramatic reductions in cases of vaccine-preventable diseases (VPDs) in Canada with reductions in incidence in the range of 99 to 100% for diseases such as measles, mumps, chickenpox, diphtheria and polio. **Ontario Ministry of Health**

Now let's look at disease incidence of measles in Canada. The Public Health Agency of Canada (PHAC) maintains a Notifiable Disease database that contains information in five basic formats. Using the moving line chart one can view measles incidence as either a rate per 100,000 population or as the number of cases.

In 2015 for the entire population of Canada, the rate of measles incidence reported was 0.5 cases/100,000 population. The number of cases totaled 195. 2015 was the year of the great media hype on the "Disneyland" outbreak. Yet in the previous year, 2014, there were more than double the number of measles cases (419 cases) and the rate was more than double as well: 1.2 cases/100,000. So why the hysteria in 2015?

Another tool for parents assessing measles risk is the PHAC *Measles Surveillance Reports*. Table 1 in the 2015 Report shows the incidence rate in Ontario was 1.5/100,000 with a total of 20 cases. But there were no cases in children under 1 year, only 4 cases in children from 1–4 years old, no cases in children from 5–9 years and only 4 cases in 10-19 year olds. So only 8 cases in children 18 years old and less, or 40% of the total. This means the incidence rate would be 0.6 per 100,000 for children. Also, 163 of the 196 total Canadian cases occurred in an unvaccinated religious community in Quebec. Table 2 shows there were 163 unvaccinated cases. Therefore all 20 cases in Ontario were either vaccinated or their vaccination history was unknown. The 2014 Report lists 22 cases in Ontario, 5 in school age children and 5 in children 4 yrs. old or younger. It's fairly obvious that with only 8 to 10 cases in children in all of Ontario, the risk of an unvaccinated child acquiring measles is again very small.

Historical Data: Below is the moving line chart for measles incidence from 1924–2015. The first thing one will notice in this chart is that there is a large gap in the data. The government removed measles from the notifiable diseases data for a period of 10 years. The notes say: "Measles was removed from the notifiable disease list after 1958 and returned in 1969." Mumps and chickenpox were unreported for 24 years (from 1959–1985). Was this because these were considered benign childhood diseases and incidence rates had dropped enough that public health officials were no longer concerned?



The first killed-virus, measles vaccine was licensed for use in Canada in 1963, but was used in only two provinces and withdrawn in 1970 when it was determined it could cause atypical measles syndrome. In 1971 the MMR live virus vaccine became available. "By the early 1970's 1-dose publicly funded programs were available across Canada. By 1983, all provinces had one-dose MMR vaccine programs for babies." [Ref: Measles Elimination in Canada]

The highest incidence number on the chart is 83,127 cases in 1935. In 1971, before public programs were widespread,

Herds & Immunity ...a Wolf in Sheep's clothing?

7,439 cases were reported. **This represents a 91% decline in incidence PRIOR to measles vaccines having a meaningful effect.**

If one looked at the effect of one-dose MMR programs for babies, that is data from 1983 (934 cases) to 2015 (195 cases), this would be an 80% decline. If one looked at the decline since the 2-dose program was introduced in 1997, one would see a 63% decline in incidence. It's a bit of a numbers game depending on which number is chosen for a starting point. But one thing is clear, the decline from the high incidence rates in the 1930's and early 1940's to the lower rates in the 1950's and 1960's cannot be attributed to measles vaccines. Of course if you are public health, you could just declare measles (and polio) eliminated by vaccines, and that would be a 100% decline from any previous value any data might show.

A Wolf in sheep's clothing is an idiom of Biblical origin used to describe those playing a role contrary to their real character with whom contact is dangerous, particularly false teachers... Source: Wikipedia

Mortality and Incidence

What we learned looking at measles mortality rates is that in the 90 years covered by the data, measles never really was the "killer" public health purports it to be. If we compare two years from the two charts, this becomes clear. 1938 had the **highest incidence of 83,127 cases**, yet only **252 deaths**. This means only 0.3% of cases died in that epidemic. 1926 had the **highest mortality with 892 deaths** and an incidence of 39,429 cases. In this measles cycle, 2.2% of cases died. Still the 892 deaths hardily creates an image of bodies littering the streets.

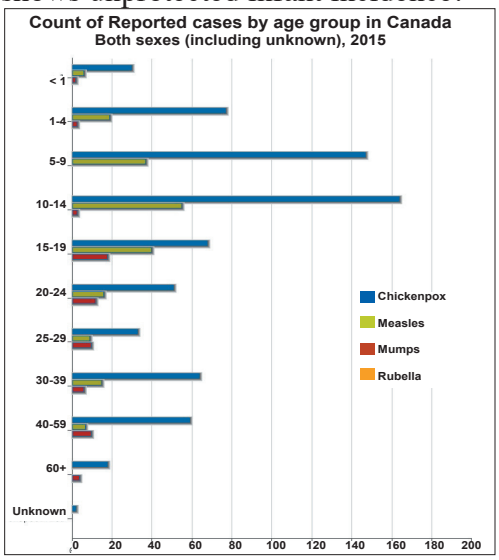
Then and Now

One more point is important when considering declines in measles morbidity and mortality rates. Besides better sanitation and nutrition, the other reason that the rates continued to fall off was that survivors acquired near life-long natural immunity to measles. Large epidemics created more immunity in the population naturally. Thus, the disease was actually self-limiting over time.

Further, in the good old days, mothers passed on their natural immunity to their infants both through their placenta and through breast milk to protect them until their developing immune systems could kick in to fight off infections on their own. Early childhood diseases like measles, mumps and chicken pox were a fact of life for generation after generation. They not only primed children's immune systems in early childhood, but repeated exposure kept everyone's natural immunity active, while infants were protected. Thus, real herd immunity functioned in the population.

Of course this has all changed in the vaccine era, affecting the last 3 generations of Canadians. As Dr. Suzanne Humphries so succinctly states: "The [measles] vaccine was created because it could be done, not because we needed it. Measles is not eradicated. Outbreaks happen all over the world, and will continue. And now infants will be unprotected because of the absence of maternal antibodies in their vaccinated mother's milk. **So much for protecting the most vulnerable in the herd."**

Unprotected infants are particularly susceptible to the worst side effects of any disease. Further, diseases that were relatively benign in early childhood became damaging to adolescents and adults as vaccine programs shifted these diseases to older populations. Hence more vaccinations were required to protect these populations due to the waning effects of vaccine immunity over time. This shift continues to this day as shown by this chart from the Notifiable Diseases database: 2015 incidence of the diseases protected against by the MMRV vaccine. It also shows unprotected infant incidence.



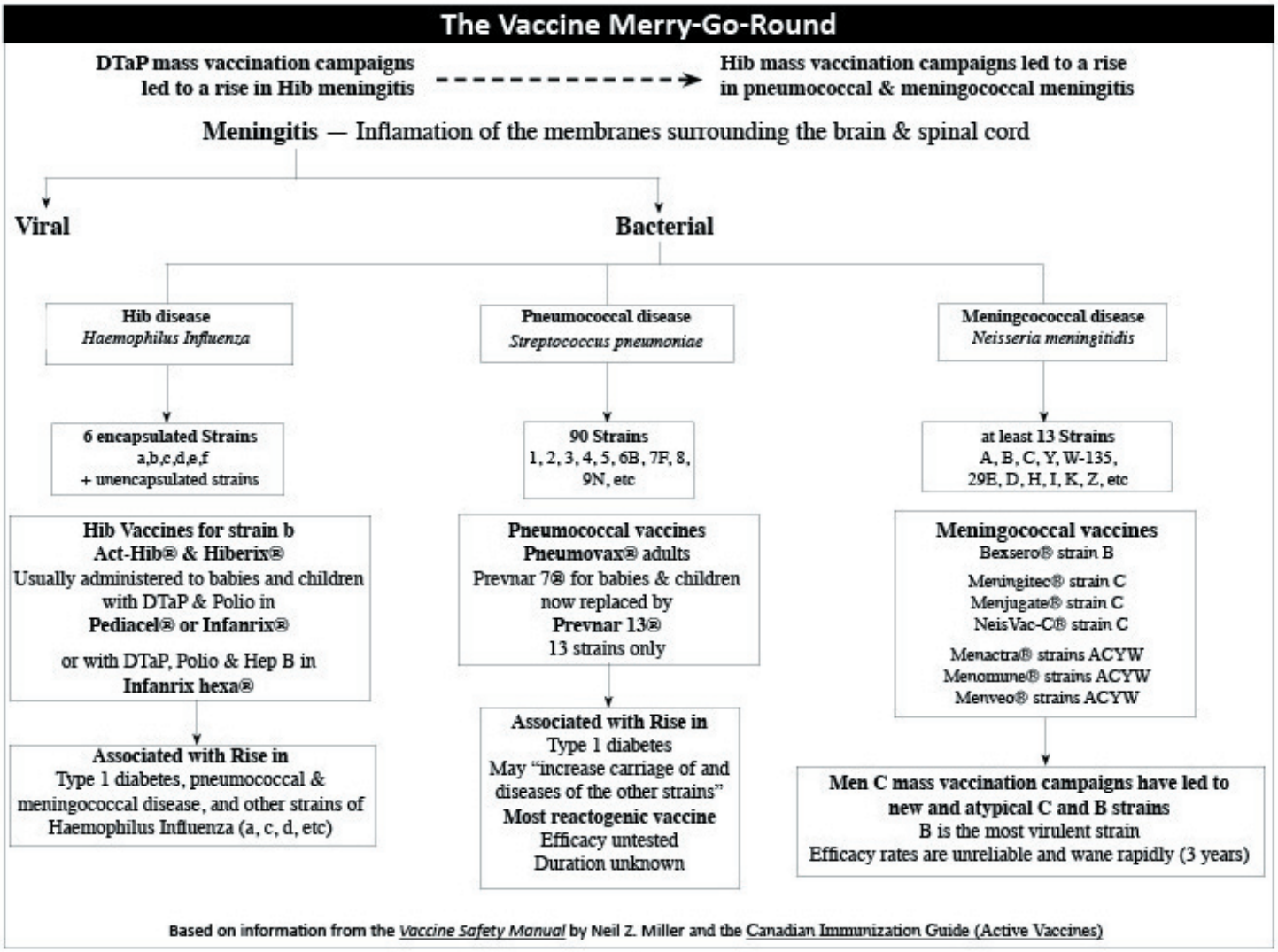
Vaccines ...many Wolves in Sheep's clothing

More Unreported Effects of Vaccines

"It is becoming increasingly clear to me that the vaccination program as a whole is only succeeding in altering which infections we get; it is not actually protecting us from infectious disease in general."

—MIT researcher, Dr. Stephanie Seneff

More strains of bacteria and viruses are appearing in the population as they replace the targeted strains killed off by vaccines. Often these strains are more virulent than those they replace. This is referred to as the vaccine merry go-round (diagram from page 23 of the March 2016 VCC Safety Report}.



This effect of mass vaccine campaigns continues. The government is now tracking non-b *Haemophilus* strains in the Canadian population as can be seen in the next section on VPD's. Recent licensing of meningococcal B vaccine Bexsero and the shingles vaccine Zostovax are two more examples of how vaccines lead to the need for more vaccines.

Another example is the increase of *B. parapertussis* whooping cough following the introduction of acellular pertussis (DTaP) vaccines. There is no vaccine for this strain of whooping cough.

Vaccine strains themselves also cause illness and death. The classic example is polio vaccines. There is the simian virus SV40 contamination which is still causing cancer today. Then there are the oral polio virus (OPV) vaccines, the use of which was discontinued in the US and Canada in 2000 due to the risk of *vaccine-associated paralytic poliomyelitis (VAPP)*. Yet these vaccines are infecting and paralyzing children in many parts of the world today where they are, shamefully, still in use. Despite the fact WHO re-defined vaccine strain polio paralysis as Accute Flaccid Paralysis (AFP), it is clinically indistinguishable from polio. In 2012, India reported 60,922 children paralysed by AFP.

We will return to this subject in the section on adverse events following immunization (AEFIs).

Vaccine Preventable Diseases ...some less so

Immunization programs have resulted in dramatic reductions in cases of vaccine-preventable diseases (VPDs) in Canada with reductions in incidence in the range of 99 to 100% for diseases such as measles, mumps, chickenpox, diphtheria and polio. **Ontario Ministry of Health**

Note that the ISPA designated diseases tetanus and pertussis are not mentioned in the above statement, even though these are two of the first vaccines any child will receive. All Ontario children receive tetanus and pertussis vaccines six times: first at 2, 4 and 6 months, then at 18 months, again at 4 to 6 years old and finally at 14 to 16 years old.

Tetanus

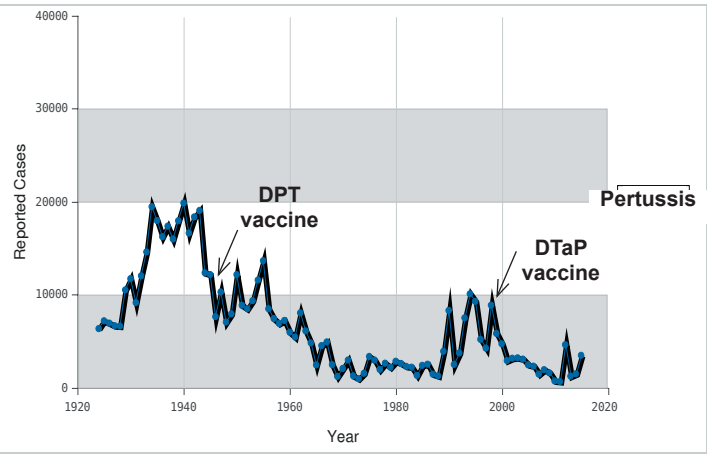
Probably the reason tetanus vaccine is not mentioned is that, first, it is NOT a communicable disease so herd immunity does not apply; and second its incidence rate in the 60 years it has been tracked on the Notifiable Diseases database ranges between a high of 1 case per 1 million population and a low of 1 case per 10 million population. There were 4 cases in Canada in 2015. Tetanus is caused by a bacterial spore which is found in the intestines of animals and in the soil of areas they frequent. Due to demographic changes in rural and urban populations, one wonders why we even vaccinate against it today. Especially since tetanus immune globulin (TIG) is available for treatment, not to mention hydrogen peroxide for wound treatment.

Pertussis

Pertussis is another case entirely. Despite the routine DPT vaccination programs beginning in the late 1940's, whooping cough has proved to be the most stubborn of vaccine "preventable" diseases. As seen on this chart from the Notifiable Disease database, the number of cases of pertussis has not declined consistently over time. Rather a number of resurgences have occured.

Count of reported cases of disease over time in Canada

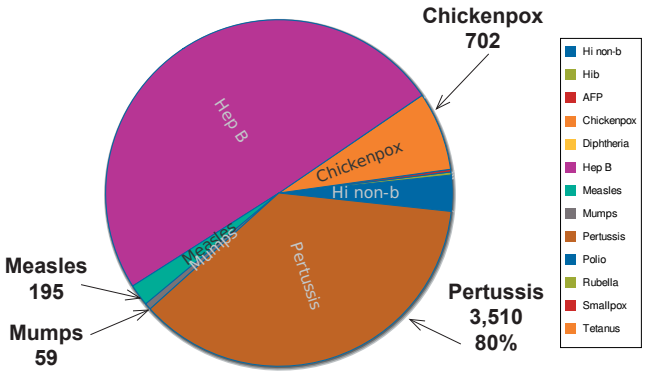
Both sexes, all ages, 1924-2015



Many Vaccine Preventable Diseases are found together on the Notifiable Disease database in the Disease by Group—Pie Chart section. The pie charts can be sorted by age groups and individual year. This allows one to compare the effectivenss of the vaccines shown in controlling the targeted disease. Here is the 2015 chart for the diseases they list:

Vaccine preventable diseases, count of reported cases of disease in Canada

Both sexes (including unknown), all ages, 2015



Disease	Reported Cases	Percentage
Haemophilus influenzae Disease, non-b, Invasive (Hi non-b)	318	3.32%
Haemophilus influenzae Disease, type b, Invasive (Hib)	27	0.28%
Acute Flaccid Paralysis (AFP)	24	0.25%
Chickenpox	702	7.33%
Diphtheria	2	0.02%
Hepatitis B (Hep B)	4,741	49.48%
Measles	195	2.04%
Mumps	59	0.62%
Pertussis	3,510	36.63%
Poliomyelitis (Polio)	0	0.00%
Rubella	0	0.00%
Smallpox	0	0.00%
Tetanus	4	0.04%
TOTAL	9,582	100.00%

Who has whooping cough?

Pertussis as a percent of the 12 VPDs, Sorted by age.

Age	#cases	%	Age	#cases	%
<1	285	81	20–24	130	30
1–4	531	80	25–29	102	14
5–9	653	78	30–39	265	15
10–14	747	75	40–59	428	19
15–19	246	57	60+	119	12

This chart was made by viewing all the age group pie charts and noting the pertussis data. It is apparent that children who are being heavily vaccinated for pertussis have the highest incidence of the disease. Adults have many fewer cases compared to the other VPDs. The 2015 Canadian total of pertussis cases in children was 2,462. (Unspecified ages are not included accounting for a lower number here than in the line chart.)

Pertussis Resurgence: Science vs. Policy

The original whole cell pertussis (wP) DPT vaccines were more effective at controlling whooping cough than the newer acellular pertussis (aP) DTaP & TDaP vaccines. However, the wP vaccines were withdrawn from the market in the late 1990s due to the high level of adverse events. In fact, it was the parents of children injured and killed by DPT (wP) vaccine who spearheaded the USA initiative 25 years ago to create a vaccine injury compensation program in that country. Canada has no national system for compensating vaccine injury victims.

Ramifications of the use of less toxic acellular pertussis vaccines have been widely covered in the medical literature, but have only resulted in increasing the number of vaccinations rather than questioning the effectiveness of the vaccines or the program itself.

The 2012 referenced article on our website, Whooping cough vaccine failure drives resurgence of the disease quotes studies which show natural immunity to whooping cough lasts up to 30 years, whereas vaccine immunity decreases 36% every year following vaccination. The article also notes that a representative of the CDC speaking about 2012 outbreaks in the USA said, "It's not likely that vaccine refusal is having a large role in this,"

In late 2012 an actual scientific animal experiment conducted by FDA was published showing even more worrisome facts about these vaccines. It provided proof that 1) while the vaccine reduced symptoms of the disease (ie, less severe cases in the vaccinated), 2) it **did not prevent infection** which was often sub-clinical (ie, no symptoms), 3) **nor did it prevent transmission** of the infection to others.

So, the consequences of this mass vaccination program are that now we have an infected population that may not have any symptoms, but can transmit the disease to the most vulnerable, including infants, compromised individuals and the unvaccinated. Further, research has shown that the target bacteria is mutating into more virulent strains that are not affected by the vaccines. **The takeaway of all this is that the concept of "herd immunity" can not and does not apply to current use of aP pertussis vaccines.**

This 2016 peer-reviewed study, *The Pertussis resurgence: putting together the pieces of the puzzle*, thoroughly covers epidemiological studies of the resurgence and scientific research in aP vaccines. The new immunological information they cite is that aP vaccines do not confer mucosul immunity, while the wP vaccines did. Hence their rather frightening conclusion states: "The resurgence of pertussis likely has many contributing factors. And while detection bias, poor persistence, and leaky vaccine efficacy due to evolutionary shifts likely contribute to varying degrees in the pertussis resurgence, it seems far more likely that the key factor is instead immunologic…The lack of sterilizing mucosal immunity following aP vaccinations appears to be a critical limitation to these vaccine's overall effectiveness, and in our view may be the most important factor of all in accounting for the resurgence.

"If so, the implications of this inference are quite profound. The resurgence of pertussis in the past 2 decades is at once a public health and a public relations crisis. Vaccine hesitancy rates are rising, and the population is increasingly skeptical about professional pronouncements regarding vaccine policy. With the introduction and expanded use of aP vaccines into the population failing to control the rise in pertussis incidence, it seems increasingly likely that radical solutions will be required. **This may include the resumption of wP vaccinations in some part of the infant schedule**, or even the development of an entirely new pertussis vaccine. While it is too soon to know how this will play out, understanding how any new or improved pertussis vaccine affects mucosal immunity will be essential."

So while we wait for vaccine manufacturers to improve safety and effectiveness of pertussis vaccines and policy makers to absorb this new research, parents are left with being accused of risking their children's health and the health of others by not vaccinating. When in fact the opposite is closer to the truth.

MMR and DTaP vaccines compared

Following is the 2015 Canadian data of both incidence rate and number of cases for each of the 7 ISPA designated diseases covered by these two combination vaccines. Only pertussis has a rate greater than 1 case per 100,000 for all Canadians.

Vaccine	# cases	rate/100,000 population
DTaP-IPV-Hib		
Diphthera	2	0.01
Tetanus	4	0.01
Pertussis	**3,510**	**9.79**
Polio	0	0
MMR		
Measles	195	0.45
Mumps	59	0.16
Rubella	0	0

Vaccine Preventable Diseases ...some less so

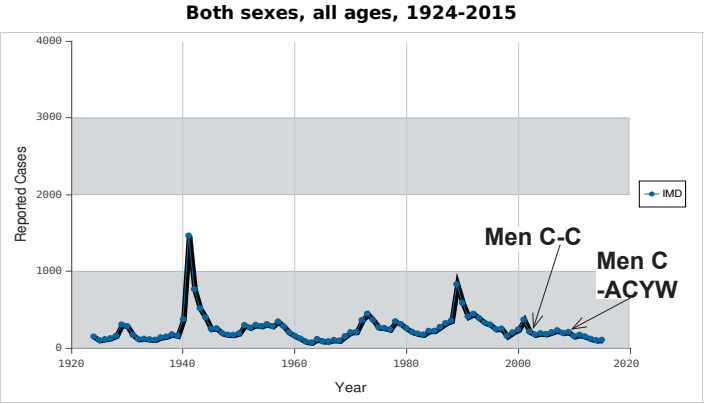
Immunization programs have resulted in dramatic reductions in cases of vaccine-preventable diseases (VPDs) in Canada with reductions in incidence in the range of 99 to 100% for diseases such as measles, mumps, chickenpox, diphtheria and polio. **Ontario Ministry of Health**

Bacterial Meningitis (IMD)

The 2 other ISPA designated disease vaccines not mentioned in the Ministry of Health risk statement are the Meningococcal vaccines, Men C-C for babies and Men C-ACYW for older children. Ontario began routine programs for 1 year olds with Men C-C in 2004 and Men C-ACYW for grade 7 students in 2009.

The disease is found on the Notifiable Diseases database as Meningococcal Disease, Invasive (IMD) and is described as follows: "Invasive meningococcal disease is an acute and serious illness caused by the bacterium *Neisseria meningitidis*. Invasive disease may lead to meningitis [40% of cases], in which the bacteria infect the fluids and membranes (called meninges) covering the brain and the spinal column, or septicemia."

Count of reported cases of disease over time in Canada



IMD is a rare disease. The overall incidence rate in 2015 was 0.29 per 100,000. 2015 data in the Notifiable Disease database shows the 3 age groups with highest incidence rate:

Age	Rate	# cases
less <1	2.7	10
1–4	0.9	14
15–19	0.6	14

Like 8 other provinces, Ontario only vaccinates with Men C-C at 1 year old. This is largely due to the fact that this vaccine, like other bacterial vaccines, has a high rate of adverse events as will be shown in the adverse events section.

The real concern with the meningococcal vaccine program is that, due to the effectiveness of the program, we are no longer targeting the strains of the bacteria that are causing the most cases of the disease. The data on the Notifiable Disease database includes disease caused by all strains (serogroups) of the bacteria. The latest data we could find on serogroups (strains) was in the 2014 *Common Guidance Statement* on the licensing of Bexsero, a vaccine for the B strain of the bacteria. The statement in the report regarding the graphic below says [emphasis ours]:

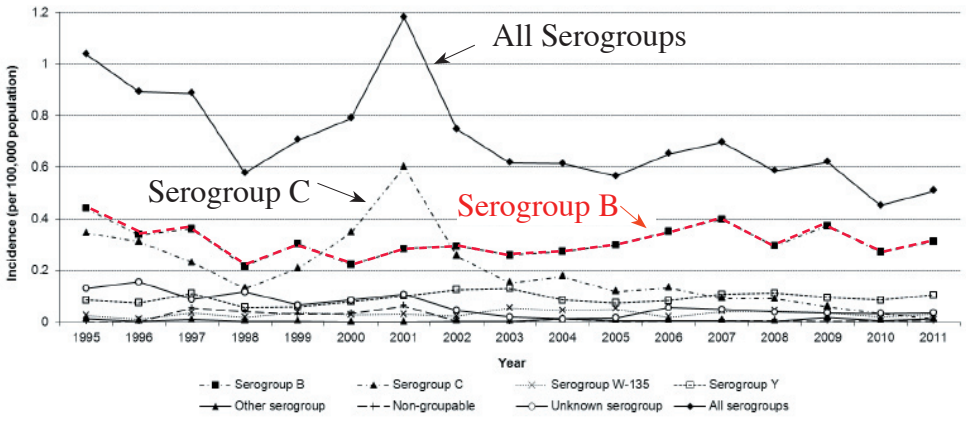
"Following the occurrence of multi-focal serogroup C outbreaks in the late 1990s and early 2000s, conjugate serogroup C vaccination programs were implemented in all Canadian P/Ts between 2002 and early 2007, resulting in significant decreases in serogroup C incidence in all age groups and regions.

"With the declining incidence of serogroup C, serogroup B now makes up the greatest proportion of reported IMD cases in Canada (**62% due to serogroup B versus 2% due to serogroup C in 2011**). From 2007 to 2011, serogroup B incidence has fluctuated slightly between 0.27 and 0.40 cases per 100,000 per year."

So the Men C-C vaccine our babies are receiving now targets only 2% of meningococcal disease cases. Even the Men C-ACWY vaccine is targeting less than 30% of the cases. The 62% of serogroup B are not targeted.

The real tragedy is that Bexsero, the Men B vaccine licensed in Canada is highly reactogenic yet requires 4 or 5 doses before 2 years of age to induce vaccine immunity in babies. Further as the *Common Guidance*

Figure 1 - Incidence of IMD (per 100,000 population) in Canada by serogroup and year, from 1995 to 2011[8]



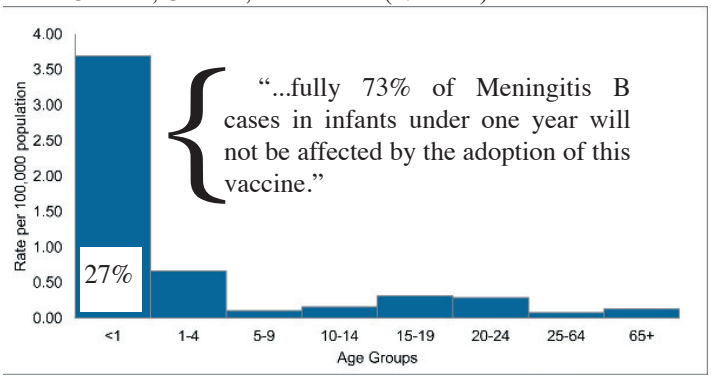
Statement says [emphasis ours],

"Given the current available information on the burden of IMD in Canada, as well as the **lack of evidence** and the range of **uncertainty of the underlying assumptions**, particularly those concerning the predicted level of strain susceptibility [efficacy], duration of protection [effectiveness], impact on meningococcal carriage and herd immunity [transmission], and potential adverse effects of vaccination at the population level [safety], a recommendation for the implementation of a routine immunization program for meningococcal serogroup type B in Canada cannot be made at this time."

A Public Health Ontario study which examines the epidemiology of serogroup B meningococcal disease in Ontario from 2000 to 2010 reports:

"A total of 259 serogroup B IMD cases were identified in Ontario over the 11-year period. Although rare, the proportion of IMD caused by serogroup B has increased and **currently causes most IMD in Ontario**, with infants having the highest risk of disease." The report also states the vaccine cannot protect infants under 6 months of age: "Because the vaccine will not protect very young infants, fully 73% of Meningitis B cases in infants under one year will not be affected by the adoption of this vaccine." Note in Figure 3 below those infants under 1 year of age is the group most affected by serogroup B, yet only 27% would be protected.

Fig 3: Annualized age-specific incidence for serogroup B IMD, Ontario, Canada, 2000–2010 (N = 257)



Source: http://www.biomedcentral.com/1471-2334/12/202/figure/F3

In the 11 year period of the study, Table 1 shows the following deaths were reported:

Strain	Age	# cases	# deaths
B	<1	52	7
C	<1	3	0
B	1–19	85	4
C	1-19	48	7

This means there was less than 1 death per year in the <1 year old infants. And 1 death per year in the 1 to 19 age group. This translates to a 0 (zero) incidence rate of death in both age groups.

Public Health Ontario has a Reportable Disease Trends website. Graphs can be printed of the 10 year trends for 2005-2015. The data can be sorted by geographical region and age. The following information for the ISPA designated disease incidence and number of cases is sorted by age for all of Ontario in 2015. The incidence rate reflects your child's chance of acquiring the disease in 2015 (latest data available).

ONTARIO 2015			
Vaccine & ISPA Diseases	**Age**	**Cases**	**Incidence rate/ 100,000 population**
MMR+V			
measles	0-4	4	0.6
	5-9	1	0.1
mumps	0-9	2	0.1
rubella	all ages	0	0
chickenpox	0-4	37	5.2
	5-9	53	7.2
DTaP-IPV & Tdap			
diphthera	all ages	0	0
	Note: no cases in past 20 years		
tetanus	all ages	1	0
pertussis	0-4	234	32.7
	5-9	140	18.9
	10-14	122	16.5
	Note: 29 hospitalized under age 5		
polio	all ages	0	0
	Note: no cases in Canada in past 20 years		
Men C-C & Men ACWY			
IMD	0-4	4	0.6
	5-9	0	0
	10-14	1	0
	15-19	3	0.4
Deaths: 1 death reported for all cases IMD, no age given. No deaths reported for any of the other ISPA diseases.			

It is obvious that an unvaccinated child is not being put at risk of death by any of the ISPA designated diseases. And it is only pertussis that is any threat to a child's health, whether vaccinated or not.

Under-Reporting

Since the Notifiable Disease databases and the Adverse Events databases are based on voluntary (passive) reporting, under-reporting is acknowledged for all these databases. Thus, all numbers are estimates. That said, adverse events are more likely to be under-reported than notifiable diseases since medical professionals receive no training to recognize adverse events following vaccination. Parents may wish to keep this in mind when comparing the risk of acquiring VPD's to the risk of damage from vaccination.

Informed Consent includes Vaccine Risk...AEFIs

Adverse Events Following Vaccination (AEFI's)

The state seems determined to exclude any discussion of vaccine associated risk. Parents are told that serious outcomes of vaccinations are rare or very rare. Little do parents know there is an epidemiological definition of these terms. When discussing the frequency of AEFIs, a "rare" event is defined as occurring between every 1,001 vaccinations to every 10,000 vaccinations. A "very rare" event occurs in every 10,001 or more vaccinations.

AEFI's have 2 classifications: Serious and Non-serious. A serious adverse event or SAE is defined as one that results in one of the following events:

- Death
- Life Threatening event (say, cardiac arrest or anaphylactic shock)
- Hospitalization, or Extended Hospitalization if already hospitalized or
- Disability (say, paralysis or blindness) or
- Congenital deformity (relates to pregnant mother vaccination resulting in damage to the fetus)

Ontario Public Health's new vaccine safety surveillance tool shows the following 2015 AEFI reports for Vaccines. The first group are infant and childhood vaccines (blue). The second group are adolescent vaccines (green). There are other vaccines on the chart which we don't show. The entire chart has 54 Serious reports. Accounting for 70% of the serious events are the 38 below for babies and school children. (Note Influenza vaccine was not broken down by age group so it could not be included in the 70% calculation.)

We calculated the Reporting Rate of Serious Events for ISPA Designated Disease Vaccines and added these to the chart in the column headed SAE rate.

One can also see the type of Adverse Events that were reported on another chart, although these are not linked to specific vaccines. That chart has only 14 serious events on it, not the 56 shown on the Vaccine chart.

This gives parents an understanding of how many reports are discounted as not meeting Case Definitions. When one reads the case definitions (something every vaccinating parent should do, so they know what to look for), one sees different events have different time criteria following vaccination, many must be doctor diagnosed (a report from a parent, nurse, pharmacist would be discounted), some like fever must occur with other symptoms to meet criteria and so forth.

Vaccine Choice Canada has a series of four Vaccine Safety Reports on our website that go into great detail regarding Canada's two adverse event reporting systems, CAEFISS and CV. CAEFISS data is only available in reports. CV data is only minimally searchable by the public. Therefore, it is difficult to assess AEFI data for specific vaccines during specific time periods. It is almost impossible to acquire data on deaths related to vaccines through either system.

Risk of Death

The American database VAERS is easily searchable. We performed a search for measles vaccine related deaths for children from 1 to 6 years old resulting in the following data for the years 1990–2017 (27 years):

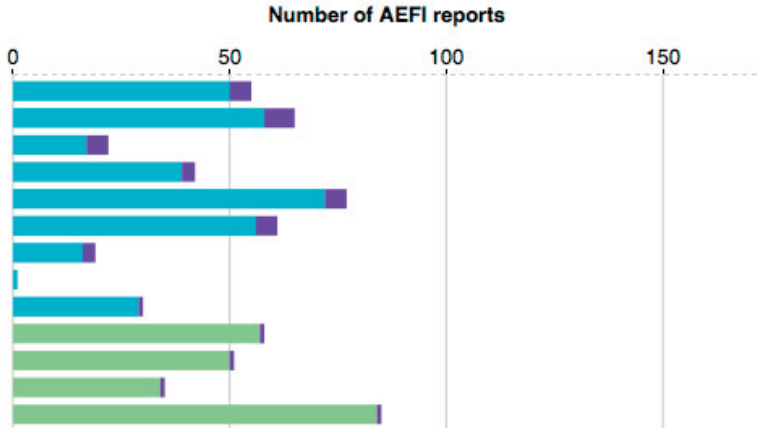
Found 272 cases where Age is 1-or-more-and-under-6 and Vaccine is MMR or MMRV and Patient Died

Age	Count	Percent
< 3 Years	243	89.34%
3-6 Years	29	10.66%
TOTAL	272	100%

This shows that 89% of the deaths were in children less than 3 years old. The rate would be approximately

Number of AEFI reports and reporting rate by vaccine in Ontario, 2015

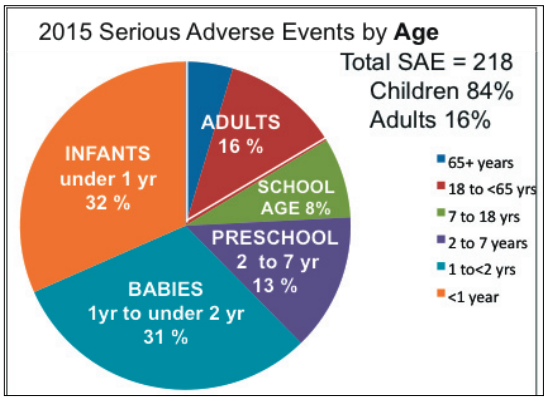
Number of non-serious AEFI reports	Number of serious* AEFI reports	Reporting rate**	SAE Rate	Vaccine
50	5	8.7	.87	DTaP-IPV-Hib
58	7	12.4		Pneu-C-13
17	5	6.4		Rot-1
39	3	19.5	1.5	Men-C-C
72	5	21.0	1.5	MMR
56	5	21.4	1.9	Var
16	3	10.0	1.9	MMRV
1	0	18.0	Ø	DTaP-IPV
29	1	11.9	.41	Tdap-IPV
57	1	34.7	.61	Men-C-ACWY
50	1	19.8		HB
34	1	23.9		HPV4
84	1	10.6	.13	Tdap



10 deaths per year (272 deaths/27 years). If we consider the Canadian population as 10% of the American population, then we would expect to see at least 1 death per year related to MMR and MMRV vaccines in Canadian children less than 6 years of age. A search of the CV database for the same period revealed 2 death reports, both in 2015, related to MMR/MMRV vaccine. A physician reported one. The other was reported by the manufacturer with an adverse reaction of hives and SIDS as the cause of death. This of course is only partial Canadian data (~70% of SAE reports). **But it means the risk of a Canadian child dying from the measles vaccine is higher than the risk of them dying from measles disease in 2015.**

Risk of Injury: 2015 Serious Adverse Events (SAEs)

The graphic below was created by VCC from data in the 2015 Quarterly Reports from CAEFISS.



Babies less than 2 years of age experience 63% of all reported SAEs as they cycle through the heavy vaccine schedule. Children from birth to 7 years experienced 76% of life changing SAEs. 35% of these SAE reports are for neurological events like seizures, brain damage and GBS. 32% are for systemic events that include more than 1 system, for example gastrointestinal system (severe vomiting and/or diarrhea) plus a fever.

See 2-page document on our website for more information with graphics.

Ontario Data

Ontario Public Health releases annual Vaccine Safety Reports. The 2014 Report states: "There were 23 reports of AEFIs that were classified as serious, representing 4.0% (23/568) of all reports and a serious AEFI reporting rate of…0.26 per 100,000 [vaccine] doses distributed."

Ontario reporting rates appear to be very low compared to the national rates shown below. In 2012 the national rate for the vaccinated population was 30.1 serious AEFI reports per 100,000 doses administered. This means Ontario reporting is off by a factor of more than 100.

The Ontario report concludes with this statement: "**Under-reporting of AEFIs continues to be an important limitation of AEFI surveillance in Ontario. Further research to evaluate health professionals' awareness and practices regarding reporting of AEFIs is needed to inform strategies to increase AEFI reporting in order to contribute to a more robust provincial vaccine safety surveillance system**." We can only concur.

There was 1 infant death reported in 2014 after receipt of routine vaccination. Other SAE's included optic neuritis in an adolescent following HB and Men-ACWY, 4 reports of seizures (age range 2 months to 3 years old), 7 reports of fever/rash illness (three diagnosed as Kawasaki disease) and 1 lab-confirmed **vaccine-strain** measles infection (age range 6 to 17 months of age).

Historical Canadian Data

CAEFISS issues comprehensive reports on AEFI data. The 2014 Report on Vaccines Administered covered data for 8 years from 2005-2012. Table 3 below is from that report. For babies <1 year of age an **annual average of 18** per 100,000 vaccinated experienced a reported Serious Adverse Event. For babies from 1 to <2 years age an **annual average of 20** per 100,000 babies vaccinated were affected.

Table 3: Annual age-specific AEFI[1] and SAE[2] reporting rates per 100,000 population for vaccines administered from 2005 through 2012

Age group	AEFI (SAE) reporting rates per 100,000 population							
	2005	2006	2007	2008	2009	2010	2011	2012
<1 year	176(16)	161(16)	169(18)	134(12)	152(19)	150(20)	136(15)	130(12)
1 to <2 years	305(22)	290(24)	276(22)	283(22)	238(18)	217(18)	202(17)	152(16)
2 to <7 years	47.1(1.2)	36.7(1.1)	31.5(1.2)	31.0(1.2)	27.8(1.0)	28.7(1.0)	28.8(1.4)	25.2(1.2)
7 to <18 years	11.9(0.5)	11.4(0.4)	9.5(0.4)	15.1(0.6)	12.3(0.5)	12.0(0.4)	9.7(0.6)	11.2(0.4)
18 to <65 years	6.5(0.2)	6.0(0.1)	6.0(0.1)	5.6(0.1)	4.9(0.2)	4.7(0.1)	4.2(0.1)	5.0(0.1)
65+ years	8.0(0.3)	6.6(0.2)	6.3(0.2)	6.8(0.2)	4.3(0.3)	7.1(0.5)	5.3(0.3)	5.8(0.3)
All ages	14.8(0.7)	13.5(0.6)	12.9(0.7)	13.4(0.6)	12.1(0.7)	11.9(0.7)	10.3(0.6)	10.1(0.6)

The other information parents want regarding vaccine injury is which vaccines have the most injury reports. This data is hard to come by and is affected by how long the vaccines have been in the routine schedule, how many provinces have the vaccines in their schedule and so forth. For example, the increase in Meningococcal vaccine SAE reports (see chart below) in 2015 is a result of the MenB vaccine Bexsero coming into broader use. Further, no comprehensive safety reports we have found stratify the reports on specific vaccines into specific age groups. However from the chart below of Serious Adverse Event reports, which we compiled from the CAEFISS Quarterly reports, one can see which vaccines have the most reports.

Infant & Child Mortality Rates

Rates of Infant Mortality (deaths <1 year old/1,000 live births) and Child Mortality (deaths <5 years old/1,000 live births) are often used as an indicator of the level of health and well being of a country.

Canada and USA have the highest Child Mortality rates compared to other nations in the G7: United States 6.5, Canada 4.9, France 4.3, United Kingdom 4.2, Germany 3.7, Italy 3.5 and Japan 2.7. And Canada and the USA have the highest Infant Mortality Rates among 17 peer countries according to the Conference Board of Canada.

We also know the health of all children in both Canada and the USA is in a state of crisis as we see continuing escalation of neurological damage and chronic illness. Since Canada and USA also have the most agressive routine vaccination schedules in G8 countries, our public health officials should investigate these correlations of infant and child mortality to our vaccination programs.

Some nations have done so and taken action with excellence declines in vaccine injury and mortality rates. For example, in the 1970's when Japan became concerned by the number of sudden infant deaths (SIDS) related to pertussis vaccine, they raised the vaccination age from 3 months to 2 years. Within 6.5 years of this change the SIDs rate following vaccination dropped from 1.47 to 0.15 deaths per million doses—a 90% improvement. And 10 years after this change the Infant Mortality rate had dropped by 65%, from 12.4 to 5.0. (See Miller, 2013)

Conclusion

Parsing all this data allows parents to see for themselves the risk of vaccinating and not vaccinating their child. When faced with a vaccine decision, above all keep in mind the words of Immunologist, Tetyana Obukhanych, when she explains that due to lack of research on predisposing factors to vaccine injury "…if you understand the biology as opposed to mere statistics, then you understand…your chances of getting a certain vaccine injury would be either close to nil or close to 100 percent. As of now, we are totally in the dark regarding who will and who won't suffer a severe vaccine injury and from which vaccine. No guarantees can be made. **Basically, vaccinate at your own risk.**"