June 19, 2024

FAQ for healthcare providers around misinformation and vaccine safety

We are particularly concerned about the "An Injection of Truth" Townhall, and its potential impact on parental decision-making regarding vaccines, vaccine confidence and uptake for children in our province.
Healthcare providers are the most trusted source of vaccine information. To assist you in supporting your patients' vaccination decisions and countering misinformation, we've compiled a list of anticipated questions and answers.

1. **How has the pandemic affected vaccine misinformation?**

Anti-Vaccine sentiment and conspiracy theories are at an all-time high, worsened by the COVID-19 pandemic, threatening COVID-19 vaccine uptake but also confidence in other established childhood vaccinations.
Misinformation messages are crafted to trigger emotions such as anxiety and fear, clouding judgment.
This is particularly true when it comes to serious childhood illness and death, where the stakes are highest.
It is crucial that as healthcare providers, we recognize the emotional component of vaccine hesitancy and that when we support patients with information, we also validate emotions such as: anxiety and fear.

2. **How has misinformation impacted vaccine preventable disease outbreaks?**

Misinformation is not a recent phenomenon. One example many of us have encountered is the false claim linking the measles vaccine to autism, a myth we've been combatting for nearly four decades. Despite many peer-reviewed studies involving hundreds of thousands of children conclusively demonstrating that the measles vaccine does not cause autism, some parents have chosen to delay or withhold this essential vaccine from their children. In England, for instance, the societal cost of MMR vaccine refusal has been estimated at around £292 million ($511,500,000 Canadian). Over the past year, we've witnessed a resurgence of measles cases worldwide. In the United States, more than half of children diagnosed with measles required hospitalization, while tragically, in Canada, an unvaccinated child died of measles this year.

References:

DeStefano and Shimabukuro. Annu Rev Virol. 2019; 6(1):585-600;
Hviid et al. Annals of Internal Medicine 2019;170(8):513-520.
Jain et al. 2015 Apr 21;313(15):1534-40

3. **How is vaccine safety monitored in Canada?**

Monitoring vaccine safety is an ongoing process conducted jointly by Health Canada and the Public Health Agency of Canada (PHAC). The Canadian Adverse Events Following Immunization Surveillance System (CAEFISS), overseen by PHAC, continually assesses the safety of marketed vaccines through both passive (spontaneous reports from federal, provincial, and territorial authorities) and active surveillance methods (such as monitoring hospital admissions for cases of adverse events and surveying recently vaccinated individuals for health events).

It's important to note that not all health events occurring after vaccination are caused by the vaccine itself. The Advisory Committee on Causality Assessment (ACCA) examines reports of adverse events following immunization to ascertain the likelihood that a specific vaccine was the cause, utilizing a standardized procedure developed by the World Health Organization. For individuals experiencing adverse events requiring medical attention, determining both the cause and the safety of further vaccinations or re-immunization is crucial. To address this, a network of Special Immunization Clinics (SICs) was established, staffed by pediatric and adult infectious disease specialists and allergists who assess and advise individuals who have experienced particularly

concerning adverse events. Both Calgary and Edmonton host such special immunization clinics that review cases from across Alberta.

4. **What is the latest information on COVID-19 vaccine safety? Have there been any deaths in children from COVID-19 vaccines in Canada?**

In Canada, more than 100 million doses of COVID-19 vaccine have been administered, including 8 million doses to children. As of January 19, 2024, 4 deaths reported to the PHAC were consistent with causal association to COVID-19 immunization, all in adults; ***there were no COVID-19 vaccine deaths in children***.

To provide further information about vaccine safety, the Canadian Vaccine Safety Network (CANVAS) conducts immediate safety assessments after vaccine campaigns. For COVID-19 vaccines, CANVAS conducted a cohort study covering the entire pediatric age spectrum, with results showing no difference in adverse events between vaccinated and unvaccinated children under 12 years of age. Through 7 months of follow-up, there were no increases in emergency department visits, hospitalizations, and NO deaths reported among children or adolescents.

Even for well-recognized adverse events such as myocarditis, no deaths have been attributed to COVID-19 vaccination in Canadian children or adolescents. Reported cases of myocarditis or pericarditis post-vaccine are rare, with an overall incidence of 1.2 per 100,000 vaccine doses in Canada. In the highest-risk group, males aged 12-17, the incidence rate was 39 cases per 100,000 doses. No deaths from myocarditis or pericarditis post vaccine were recorded in Canadian children or adolescents.

There have been NO deaths in children linked to the COVID-19 vaccine, which is important to restate amidst misinformation.

References:

1. *Public Health Agency of Canada. Canadian COVID-19 vaccination safety report. Ottawa: Public Health Agency of Canada; January 19, 2024. https://health-infobase.canada.ca/covid-19/vaccine-safety/*
2. *Myocarditis and Pericarditis Following mRNA COVID-19 Vaccination: 2024 Status and Management Update - Canadian Journal of Cardiology (onlinecjc.ca*
3. *CANVAS study: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4854765*

5. **Has childhood mortality increased in Alberta over the last few years?**

No.

We reviewed publicly available childhood mortality in our province: data from the past 25 years in Alberta show that overall, there have been very few deaths among children, with some fluctuation from year to year but an overall stable or decreasing trend in childhood deaths. This means there has NOT been an unusual number of deaths among kids in recent years.

Source: Open Government (alberta.ca)

6. How has childhood mortality been affected by vaccines?

The impact of vaccinations to prevent disease and death in children is massive. It has been recently reported that vaccines have prevented 146 million deaths around the world in children under 5 years of age over the last 50 years. In Alberta, like jurisdictions across many high income countries, the overall death rate of infants from all causes in the first year of life has gone down by more than 95% over the last century. Routine infant vaccinations account for 40% of this decline.

In Alberta, over 5800 people have died from COVID-19 infections including 14 deaths in people under the age of 20 years. Whereas adults and children have died from COVID-19, there **have been NO deaths in children linked to the COVID-19 vaccine, which is important to note amidst misinformation.**

Source: Respiratory virus dashboard | alberta.ca

7. What are the current recommendations for COVID-19 vaccines in children in Canada?

Canada's National Committee on Immunization recently released their recommendations for COVID-19 vaccination in children. According to these guidelines, there are no safety concerns regarding mRNA vaccines in children. The committee advises the use of the most recently updated COVID-19 vaccine for children over 6 months of age who have underlying medical conditions placing them at higher risk of severe COVID-19, including those with complex medical needs. Healthy children may also receive the most recent vaccine update in the fall of 2024.

It's emphasized that while there may be discussions regarding the cost-effectiveness of publicly funded vaccination in this age group, there is no doubt that the pediatric COVID-19 vaccine is safe.

References

NACI: Guidance on the use of COVID-19 vaccines during fall of 2024

CPS: Guidance on the use of COVID-19 vaccines during the fall of 2024 - Canada.ca

https://cps.ca/en/documents/position/covid-19-vaccine-for-children-and-adolescents

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