

Vaccine hesitancy and First Nations, Inuit and Metis populations – Potential implications during COVID-19

Presenter: Dr. Sarah Minwanimad Funnell

<https://nccid.ca/webcast/vaccine-hesitancy-and-first-nations-inuit-and-metis-populations-during-covid-19/>

- Our communities, although distinct have different local history, and have a common history of oppression, racism and cultural genocide – the same efforts that we can apply to address Truth and Reconciliation are the same efforts that will be useful in promoting vaccine
- A patient recalled being lined up in residential school to receive vaccines → its important to recognize that some people carry those histories of trauma and vaccines and to recognize as health care professionals, service providers, leaders and allies that people have experienced trauma too as a result of vaccination in residential schools
- Racism, paternalism and colonialism is a part of our combined history but also is a contemporary issue
- As a physician, would refer patients to resources created by government agencies but was told by parents they don't trust those sources
- Patients may not trust the healthcare provider if they don't know them or know them well
- We need to understand why they're hesitant and where their fears are coming from
- With hesitant parents it is important to take extra time to identify their specific concerns, don't be judgemental and confrontational, take time to validate concerns, talk honestly about the risks and honestly about how the community can be protected, and telling compelling stories to parents about the safety and protection of vaccines is really important
- There is a lot we don't know, formal research hasn't been done on vaccine hesitancy in Indigenous peoples

Promotion of Vaccine – Addressing the 3C's

- **Confidence** – confidence in the vaccine. Medical concerns FN individuals have around medical treatments are legitimate. We have this checkered history in Canada of unconsented research on our people e.g. nutritional experiments in residential schools is one of many examples. We can understand why people might question and have a lack of confidence in our system. How do we address the fears? The AMC Grand Chief said our own experts are ensuring due diligence, and that the proper science is done. Dr. Marcia Anderson has been sharing videos on social media about the COVID-19 vaccine. Its leaders such as Dr. Anderson that will help us get our message out and increase our confidence in the science of vaccines. Dr. Wieman, Dr. Funnell and Dr. Anderson – as Indigenous physicians are supporting this vaccine
- **Complacency** – how people feel about and what they know about diseases and making it convenient for people to receive vaccines. Address actual dangers of COVID-19 at the individual level and community level; address perceived risks of the disease and to put the disease in a list of competing priorities for individuals. Its important to address the complacency people might have about the importance of the disease
- **Convenience** – it's important to remove physical barriers to access – ie. Physical availability of vaccine, affordability, available geographically, explain the vaccine in a language and literacy level that is applicable to the person receiving the vaccine
- The Pfizer study had 43,448 participants. 8 of those that received the vaccine got sick with COVID-19, and 162 that received the placebo got COVID-19. The ability of the vaccine to fight COVID is 95%
- The Moderna study had 30,420 participants. In the vaccine group 11 got COVID-19 and 185 in the placebo group got sick with COVID, with an efficacy of 94.1%
- Those that got sick with COVID in the placebo group were more sick than those that got the vaccine. Those that were vaccinated and yet unlucky to get sick, they're generally more protected than someone that didn't have the vaccine, were less likely to have severe effects of whatever the organism is, and less likely to die or be hospitalized

- With the COVID vaccine the majority of the serious adverse events is related to allergy with this vaccine. There were 21 cases of anaphylaxis after 1,893,360 doses which is 11.1 cases per million doses. 17 were in persons that had a history of allergies, 7 with a history of anaphylaxis
- When it comes to looking at the COVID vaccine you have to weigh the benefits and the risks. The risk of dying with COVID infection is much higher than the risk of any adverse event following immunization with COVID. When you communicate with people, you have to put that into perspective.
- We also have to share with people that vaccine development and safety and approval has a very robust process. There's many stages of clinical trials before the vaccine gets distributed to the general public.

Additional C in framework for vaccine hesitancy for Indigenous populations

- **Culturally safe** – trauma informed eg. patient who had to line up with others at residential school and get jabbed – that's some trauma. Being trauma-informed is part of cultural safety. Be humble – admit what you know and what you don't know. Work with patients and communities to understand where they're coming from. Be anti-racist – part of cultural safety is addressing racism. By tackling anti-racism, not only are you going to promote health and wellness for Indigenous people, the side benefit is that you will also develop trust which will promote vaccine uptake in your communities.

Cultural safety guidance for clinicians

- Be alert about past traumatic experiences
- Advocate for cultural safety
- Build relationships that create trust
- Make it clear that the information is owned by the patient
- Access to resources

Key dimensions of Equity Oriented Services

- Partnership with Indigenous peoples regarding the vaccine rollout, all aspects of health, wellness and social services. Nothing about us without us.
- Actions at all levels – the individual level, local level, community level, family level – you'll have better impact if you have action at all levels
- Attention to local and global histories – history of trauma and genocide with our people across Turtle Island - be attentive to that
- Attention to unintended and potentially harmful impacts – paternalism is what led to residential schools – 'we know what's best for you' and that has deadly implications

Ten strategies

- 1) Commit to health equity – be authentic
- 2) Develop supportive structures – ensure supports for communities and individuals
- 3) Optimize use of place and space – ensure people are comfortable
- 4) Revision the use of time – take time and have structures in place to allow time
- 5) Power differentials – may be seen as an outsider, not trustworthy as a western trained MD
- 6) Local Indigenous contexts – have a humble approach. We're one but we're not the same.
- 7) Actively counter racism and discrimination
- 8) Meaningful engagement
- 9) Inter-related forms of violence
- 10) Social determinants of health

Community/Individual centred approach

at individual level – culturally safe and anti-racist practice; be trustworthy – trust takes time; share knowledge with humility; show genuine curiosity about different worldviews

at population level – support FN/Inuit/Metis leaders to build trustworthy, anti-racist systems – as First Nations/Inuit/Metis people, we know what we need to be well – we just have to be supported in those things that we know; we request trust and anti-racist systems so that we can work together. Trust is earned; address the root causes of mistrust; we have to work together towards the larger vision of reconciliation

PHAC: Addressing COVID-19 Vaccine Hesitancy in Clinical Practice

<https://nccid.ca/webcast/phac-addressing-covid-19-vaccine-hesitancy/>

- Vaccine hesitancy is the reluctance or refusal to vaccinate despite the availability of vaccines
- There is a spectrum from accepting all vaccines with confidence, acceptance with some uncertainties, and trust to refuse all with conviction
- Some individuals who are typically accepting of vaccines have unique concerns about COVID-19 vaccines, leading them to refuse or delay their COVID-19 vaccination
- Confidence – level of trust in the safety and effectiveness of vaccines, the systems that deliver vaccines and the motives of those who establish vaccine policies
- Complacency – perception that risks of VPD's are low and vaccines are not necessary
- Convenience – extent to which vaccines are available, affordable, accessible, and an individual's ability to understand (as a reflection for language and health literacy) the need for vaccinations
- Calculation – individual engagement in extensive information searching and evaluation of risks vs. vaccination → misinformation plays a role
- Collective responsibility – extent to which one is willing to protect others by one's own vaccination
- Certain subgroups are more likely to express vaccine hesitancy including young adults, women, Indigenous, Black Canadians, newcomers, parents/guardians of children < 18 years old and intersections of these groups

Intersectional factors and access barriers

- Histories and lived experiences of stigma and discrimination
- Trust in health care system and access to immunizations
- Challenges with language barriers and access to technology
- Increased exposure to misinformation/disinformation on social media
- Mistrust of government
- Lower socioeconomic status, work commitments, family commitments
- Women with competing domestic responsibilities
- Concern about vaccines impact on fertility
- Need to take unpaid sick leave from work due to vaccine side effects

Vaccine hesitancy challenges

- Encourage all adults who can get vaccinated to do so
- Support individuals to return for their second vaccine dose
- Gain parents/guardians acceptance of vaccinating children/youth against COVID-19

What are the subtle indicators of vaccine hesitancy you see and how do you try to overcome those?

'Waiting' – eg. for Pfizer (not wanting AstraZeneca), will wait for the better vaccine; more people to take the vaccine and see what happens:

- All vaccines approved went through the protocols and process that ensures safety;

- They also involved a very significant segment of racialized populations;
- Highlight the risk of waiting for COVID vs risk of vaccines – showing the discrepancy;
- Within 8 weeks we usually know what the effects of a vaccine are going to be;
- Up until now, millions of people have been vaccinated, we have incredible amounts of robust safety data telling us very clearly that the vaccines are safe to use

‘People who feel that one size that fits all doesn’t fit them’ – there is something different about them such as personal history or family history that makes them somewhat exceptional when it comes to the vaccine or possible vaccine effects. There are also people that are not opposed to vaccine and recognize that COVID is a significant threat to their lives, have been so compliant with public health recommendations, that they feel somewhat safe in their isolation. When numbers are high, nobody is really safe; these people are trying to make the best decision they can to protect themselves and protect their families, overcoming anxiety and fear:

- Create a connection – building trust with them, understand more about families and their situation, and validate some of the emotion behind the reasoning for this;
- Meet them where they’re at – recognition that where they are, is where they are;
- Approach in a personal way – how is the vaccine a benefit to their family, their life, their situation;
- Find a way to connect – meet them where they’re at, validate their emotion behind this, and keep the conversation very personal

‘I haven’t made up my mind yet’ – recognize there is such a power disparity. They don’t want the vaccine and they’re too polite to discuss with MD or recognize they’re coming from different places. There is a lot under the surface that needs to be teased out. When people aren’t sharing their reluctance, our job is to dig deeper and see why.

Some people are ‘hesitant’ about their hesitancy – they don’t know how to bring it up.

- You can say “you look a little nervous today, is something going on?” Start from a place of curiosity, what is it about the setting we’re in. Is it needle phobia, wanting a specific vaccine?
- Open the conversation, acknowledging and validating those feelings. Starting from a place of curiosity about what it is today – that those particular needs are.
- Making it really personal, building that connection, and building that trust – and taking time to do that, even in a setting where you’re trying to get through lots of people as quickly as possible.

How have you seen the ‘infodemic’ effect on patients attitudes on likelihood of taking the vaccine and what are some of the ways to help patients navigate this mountain of misinformation? They may have questions about fertility, the vaccine affecting their DNA, etc.

- Host webinars for the community, patients workers
- Have information sheets/bulletins translated
- The information to give is important but it’s really about trust and who is providing that information
- Information has to be accessible and language specific
- We need to recognize where vulnerable populations are going for their information and tap into those sites - use the platforms they are using

How do we go about some of the ways to address vaccine hesitancy more on a population level?

- If vaccine hesitancy is all we focus on, it actually avoids the uncomfortable truth of inequitable distribution
- Address inequitable distribution by consulting and partnering with community leaders
- Develop strategies that address mistrust and access
- Optimize vaccine access for trusted health care providers

- Ensure that community leaders and agencies are at the decision making tables – ie. hosting a clinic, identifying community ambassadors, identifying ways of providing culturally safe care
- Embed ongoing opportunities for vaccination in places where people already spend their time
- Offer vaccines on a walk in basis – appointments can be a barrier

A large component of confidence includes trust in health institutions, trust in government and trust in vaccine manufacturers – can you speak about the factors that shape the trust among some of the communities you work with and how can health care providers build trust with those communities

- Many people are experiencing racism in the health care system and because of that don't want to trust health care institutions
- Become culturally competent so when they're talking about vaccines with racialized populations, they don't do harm by invalidating the perspectives of people making these claims
- Assume vaccine distrust/mistrust is grounded in reason, even if it's something you don't agree with
- The focus has to be respectful listening, respectful engagement, share the facts and the evidence and let them make the decision
- Educate your peers – many people are influenced by social media. You have to assume the conversation is needed and you have to create a safe space to discuss all these things

As the age of vaccination is lowering slowly, what are some of the challenges and strategies to overcoming hesitancy in the younger population?

- We can finally protect teens and give them back a sense of control. Kids have felt very out of control in this pandemic and they've paid a huge price – so many mental health admissions, such a cost in terms of socialization and education. Many of them feel responsible and a threat to their families because they have been the only ones leaving the house going to school. When it comes to vaccine hesitancy among parents, the approach is similar to adults – connect, meet them where they're at, and keep it personal. Safety is the main driver of hesitancy. This is more than just correcting misinformation, there is the whole validation of emotion.
- When passing a personalized message 1) always keep it personal – relevant to the child and family, which means you have to learn about the child and family to keep it personal for them. 2) Address safety head on with no platitudes. Instead of saying vaccines are safe and effective, mention the 2.8 million teenagers in the US who are 16 and 17 who have had these vaccines with no specific safety concerns. 3) Outline the robust immune response that we're seeing in teenagers 4) outline that kids have paid a heavy cost in this pandemic and therefore it is of great benefit in them having this vaccine

Can you comment on the fact that for a lot of people who are hesitant and feeling more fear, sharing more facts doesn't help. Can you comment on strategies to overcome that?

- It's all about trust, not providing evidence to counter other evidence. It's about being a trusted source of facts. Recognize early it's not about evidence, it's about trust. Respect the people we are engaging. Provide some respectful listening and provide as much evidence as the conversation will allow, but focus on building efficacy for the person to make an informed decision. If they're not ready to make an informed decision, come back later. I respect that, let's have the conversation again sometime later – accept the person's validity for making that decision

For individuals that don't have a primary care provider and don't have someone they can toss the ideas around, how can we approach on a population level?

- They are often accessing other social services and other health care services. Work with peer support workers and community ambassadors who can go out and let folks know the vaccine is available, answer

questions, share their own experiences of being vaccinated. People need multiple opportunities for engagement, using those services that have those ongoing relationships and do this repeatedly.

For individuals who are low risk and less concerned about the disease itself, what are some of the ways to give better information and to try to overcome this lack of perception of risk?

- The risk of severe illness is lower but it's not that the risk is zero, it's not that we're absolutely clear about long term side effects in people who are young
- Young people are noticing the impact of restrictions on them. This is the way for young people to get access to the lives that have been curtailed. Going out and spending time with friends has much more resonance. Preventing ICU admissions, efficacy data and side effect data is less compelling

Feature Article: Long-term Side Effects of COVID-19 Vaccine? What We Know

Children's Hospital of Philadelphia <https://www.chop.edu/news/long-term-side-effects-covid-19-vaccine>

YouTube Video <https://www.chop.edu/centers-programs/vaccine-education-center/video/what-are-the-long-term-side-effects-of-covid-19-vaccine>

- The history of vaccines shows that delayed effects following vaccination can occur. But when they do, these effects tend to happen within 2 months of vaccination
- Oral polio vaccine: About 1 in 2.4 million recipients of the oral polio vaccine were paralyzed following vaccination when the vaccine virus reverted to "wild type" poliovirus. Genetic changes to weaken the virus were lost during viral replication in the vaccine recipient. Paralysis occurred 7-30 days (1-4 weeks) after vaccination. Because vaccine recipients "shed" the virus in their stools, on occasion contacts of these people would be paralyzed when they were infected and the genetic reversion occurred in them. This secondary event could happen up to 60 days (8-9 weeks) after the first person was vaccinated
- Influenza vaccine: A 1976 swine influenza vaccine was identified as a rare cause of Guillain-Barre Syndrome (GBS) – an ascending paralysis that can involve the muscles of breathing. However, subsequent studies have not found flu vaccines to be a cause of GBS. In contrast, influenza infection is also a cause of GBS. GBS occurs 17 times more frequently after natural infection than vaccination. Almost all cases following vaccination occurred in the 8 weeks after receipt of the vaccine. In 2009, during the H1N1 pandemic, one influenza vaccine used in Finland was found to cause narcolepsy in about 1 in 55,000 vaccine recipients. Narcolepsy is a sleep disorder characterized by excessive fatigue and periods of sleep throughout the day. The average onset of symptoms was within 7 weeks of vaccination.
- MMR vaccine – 1/30,000 recipients of MMR vaccine can experience a temporary decrease in platelets (thrombocytopenia). Platelets are the cells responsible for the clotting of blood. Both measles and mumps infections can cause thrombocytopenia. This is condition most often found between one and three weeks after vaccination, but in a few cases occurred up to eight weeks after vaccination
- Experiences demonstrate two important findings
 - First, when these events occurred, the onset was within eight weeks of receipt of the vaccine
 - Second, in all of these cases, except narcolepsy following the H1N1 vaccine, the side effect of the vaccine was something that could be caused by the infection, meaning that getting infected with the virus also carried a risk of experiencing these outcomes.
- This history humbles vaccine scientists – they know that they hold peoples lives in their hands. Scientists and public health officials carefully analyze and continually monitor data related to every vaccine before, during and after it becomes available.

What we know regarding mRNA

- mRNA is made and used in protein production in all cells of our bodies. As such, cells have mechanisms in place to ensure that no protein is made in quantities greater than needed

- mRNA has a poly (A) tail. In the cytoplasm, this tail ensures mRNA decay. As the mRNA is used to make proteins in the cell, the length of the poly (A) tail decreases until it is too short for the mRNA to continue being used as a protein blueprint. Once this happens, the mRNA breaks down and is removed as cellular debris. This process limits how long mRNA remains in the cytoplasm, and therefore, how much protein is produced. As such, poly (A) tails ensure that the cell breaks down the vaccine mRNA in a timely manner. Likewise, this understanding allows scientists to design vaccine delivered mRNA in a way that ensures it does not stay in the cell longer than needed to generate immunity.
- Because of the knowledge gained with other vaccines, the FDA required companies making COVID-19 vaccines to follow trial participants for a minimum of eight weeks before they could submit that data for approval. Participants in the trials continue to be followed.

The misinformation

- While concerns about long term effects are legitimate, it is important to be aware that the organized anti-vaccine industry has targeted this issue as a way to sow doubt and confusion about COVID-19 vaccines
- Professional anti-vaccine activists organized a meeting in the fall of 2020 to create messaging that would decrease the acceptance of COVID-19 vaccines once available
- These organized efforts aim to move people to extreme positions about vaccines – from having legitimate questions about vaccines to become “anti-vaccine,” refusing all vaccines and believing conspiracy theories and false narratives
- In some cases, individuals in these groups do not believe the science and in other cases, they are seeking to profit from this hesitancy by encouraging the use of other products to “protect” against COVID-19
- Carefully ‘vet’ sources of information and statements they are making to ensure you are getting the answers from reliable sources

Immunize BC – COVID-19 Vaccine Frequently Asked Questions

<https://immunizebc.ca/covid-19-vaccine-frequently-asked-questions>

- While it’s difficult to say whether or not there are long-term side effects, the medical and scientific community is confident in the long-term safety of the mRNA COVID-19 vaccines
- Researchers have been studying and working with mRNA vaccines for decades. mRNA vaccines have been studied before for flu, zika, rabies and cytomegalovirus. In addition, cancer research has used mRNA to trigger the immune system to target specific cancer cells. Decades of studying mRNA have shown no long-term side effects
- In addition, the medical and scientific community is confident in the vaccine’s long-term safety, because of the track record of Canada’s vaccine approval and the provincial safety monitoring system. Overall, this means that the end data and safety tests are exactly the same as other vaccines that have been approved in Canada. The safety monitoring system in Canada happens both passively and actively.

Fear of Adverse Effects and COVID-19 Vaccine Hesitancy: Recommendations of the Treatment Expectation Expert Group

<https://jamanetwork.com/journals/jama-health-forum/fullarticle/2779081>

- Health care decisions, including whether to take part in vaccination against COVID-19, are based on the comparison of the potential costs of participation with the expected benefits. Costs can span a variety of factors, but fear of adverse effects has featured prominently in recent surveys.
- As extensive research of our groups and others on nocebo effects has shown, it is – ironically – this very same fear that can amplify and even induce adverse effects. Therefore, addressing concerns by providing evidence-based information as part of larger information campaigns and individual conversations is key to increasing vaccine uptake.

- Acknowledging that vaccines can cause unwanted effects and that concerns about adverse effects are understandable is an important first step in any conversations about concerns. However, it is also worth pointing out that most people experience no or only mild adverse effects.
- It is also important to explain that not all symptoms that occur following vaccination are caused by the vaccine. In fact, the major trial investigating the Pfizer-BioNTech vaccine, which included more than 40,000 people, reported fatigue rates after the first shot in the placebo group of 23% to 33%, headache rates of 18% to 34%, and muscle pain rates of 8% to 11%.
- Easy access to medical advice when adverse effects occur is pivotal to build trust and address concerns before they trigger a level of fear that amplifies the negative experience.
- The way information regarding potential side effects is presented strongly influences decision-making and perception of symptoms. Instead of stating the probability of experiencing a particular adverse effect, we can provide the probability of not experiencing this effect.
- Instead of offering a noncurated list of all possible adverse effects without an estimate of their likelihood to occur, we can provide more graduated information about the likelihood of experiencing an adverse effect (eg. from very common to very rare).
- While severe adverse effects are of course a matter of concern and need to be monitored closely, mild forms of fever, muscle pain, or fatigue also indicate that the immune system is responding appropriately to the vaccine. Pointing out the healthy nature of reactogenicity can help the individual experience adverse effects in a less threatening manner and thereby avoid the amplifying effect of fear.
- Beyond the future protection of the individual, the benefits of receiving the vaccination may be less obvious. These benefits need to be communicated to balance out the more readily available information about risks and adverse effects. Conveying the relevance of the societal impact of the individual's decision and appealing to their altruistic motivations are particularly important for groups that are less likely to become severely ill if infected (eg. adolescents).
- While negative information about vaccinations is usually easy to find in the form of lead stories on mass and social media, constructive information is noticeably absent. Strategic placement of key information in physical and virtual spaces where people spend time can help to spread the word beyond scientific journals.
- Misinformation about consequences of vaccination can range from half-truths and unfounded speculations to targeted disinformation rooted in conspiracy theories. Misinformation can shape people's perceptions and decision-making if left unchallenged and lead to a self-perpetuating cycle of negative news. People who are exposed to negative information about medication in the media report more adverse events, thereby increasing and validating other people's concerns. Therefore, conversations about vaccine adverse effects need to address common misconceptions without elevating them through public discourse. However, clinicians need to be aware that further actions may be needed when working with people with higher levels of anxiety because providing correcting information does not necessarily decrease vaccination hesitancy.
- Information campaigns on vaccinations are commonly tailored to those who are vaccine hesitant ie., individuals who have not yet decided whether the benefits outweigh the costs of getting vaccinated but who are open to information to inform their decision. Hesitancy usually involves mistrust of vaccine benefit, worries about future unknown effects, concerns about commercial profiteering, or a preference for natural immunity. It is important to identify the predominant belief and focus discussion or information in this area.