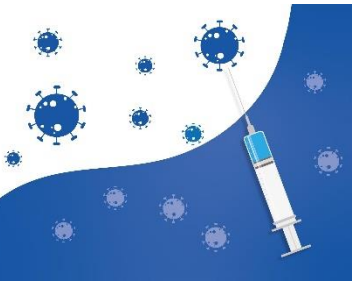
Queen's University
HEALTH SCIENCES



COVID-19 Vaccination Hesitancy in Patients Within the KFL&A Region

This module was developed by Queen's University in collaboration KFL&A and community-based partners to support healthcare workers engage in conversation about COVID-19 vaccine hesitancy. This project is funded by the Public Health Agency of Canada. The evidence-informed information in this module was collected by the research team through a review of open access materials, surveys, and interviews of key stakeholders, in collaboration with subject matter experts.

MODULE COMPANION GUIDE

CONTENTS

MODULE INTRODUCTION

Please see the online learning module for the full experience of interactions within this document.

The COVID-19 pandemic has been an unprecedented global event.

Over the past two years, healthcare professionals and service providers like you have worked hard to continue to provide quality care, and to ensure that your clients receive aid when needed. The availability of COVID-19 vaccines in 2021 provided hope for a return to normalcy, but that hope can only be realized if vaccination rates reach a level that provides community protection.

Within this module, you will learn about Betsch's 5C1 model of factors influencing vaccine hesitancy and acceptance. You will then apply this model to explore the multiple factors that influence vaccine hesitancy through an ecological systems lens. Lastly, you will learn several tips on how to engage in effective conversations related to vaccination.

Throughout this module, you will find quotes from survey respondents in the Kingston, Frontenac, Lennox, and Addington (KFL&A) area.

Module Learning Outcomes

Upon completion of this module, you will be able to:

1. Identify key concepts of vaccine hesitancy.
2. Discuss social and historical determinants for vaccine hesitancy.
3. Identify key motivational components of patient discussions.
4. Use the appropriate strategy in situ for engaging patients in productive vaccine conversations based on a whole-person approach.
5. Discuss potential solutions/plans to overcome vaccination barriers.

End of Module Introduction

SECTION 01: AN INTRODUCTION TO COVID-19 VACCINATION HESITANCY

In this section, you will learn the factors that influence vaccine hesitancy through an ecological systems lens.

Vaccine Hesitancy

Although vaccination has been proven to prevent morbidity and mortality from many infectious diseases, there are still those who remain vaccine hesitant. Vaccine hesitancy is defined as the "delay in acceptance or refusal of vaccination despite availability of vaccination services. It is complex and context specific, varying across time, place and vaccination."[2] Vaccine hesitancy has been the cause of increased infection throughout history, including infections such as polio and influenza.[3, 4, 5] An increase in vaccine hesitancy enables a return of vaccine-preventable diseases.

Vaccine Hesitancy Continuum

According to MacDonald (2015)[2], **vaccine hesitancy** occurs on a continuum and is primarily based on **vaccine demand** (i.e., the intention or willingness to be vaccinated):

When vaccine hesitancy is high, the demand for vaccines is low. When vaccine hesitancy is low in a population, the demand for vaccines is high.

The continuum of vaccine hesitancy ranges between those that **accept all vaccines with no doubts** (high vaccine demand), to those who have **complete refusal with no doubts** (no demand for available and offered vaccines). **Vaccine hesitant** individuals are the heterogeneous group that lie between these two extremes.

Note, however that when rates of hesitancy are high, levels of demand are low, but low rates of hesitancy do not necessarily mean that demand will be high. Context, community, and vaccine specific strategies beyond those aimed at addressing hesitancy need to be developed to achieve high individual and community vaccine demand.

Vaccine hesitancy continuum (refusal to vaccinate to fully vaccinated).[2]

The 5C Model

In order to eliminate certain infectious diseases and to protect individual and population health, it is necessary to understand the psychological factors that may contribute to vaccine uptake, or to vaccine

hesitancy. The 5C model for assessing the psychological antecedents of vaccination is a validated tool created by Betsch et al. (2018)[1] and describes five psychological factors of vaccination hesitancy:

1. **Confidence**
2. **Complacency**
3. **Constraints**
4. **Calculation**
5. **Collective responsibility**[6]

The 5C model can be adapted for specific language, country, and cultural contexts.6 One thing to note about this model, is that these psychological factors capture information that often influences behaviour at an individual level, even though the influence of broader socio-cultural forces are detectable in the ways that people engage with and build the individual and collective belief systems which ultimately determine their behaviours.

Continue to learn more about the five antecedents of vaccination.

5C

The five antecedents of vaccination

Confidence

Confidence refers to the level of trust someone has in the vaccine (e.g., effectiveness, safety), the system that delivers them including the reliability and competence of the health services and healthcare professionals, and the motivations of the policy-makers who decide on the need for vaccines.[2]

Constraints

Contraints refers to the real of perceived structural or psychological barriers that impede the conversion of vaccination intention into the actual vaccination behavious. Higher levels of constraints are related to perceived behavioural control, self-efficacy, and perceived access to healthcare. Constraints are also related to feelings of being under time pressure or being overwhelmed with daily challenges.[1]

Complacency

Compacency refers to a belief that there is a low risk of infection so the vaccine is not reuired. Higher complacency is related to the perceived lower risk of contracting a disease, and when vaccination is not perceived as a social norm. Higher complacency is also related to a greater interest in immediate outcomes (rather than future ones), and to more risk-seeking behaviours.[1]

Calculation

Calculation refers to an individual's engagement in information searching, and a deliberate comparison of the risks of infections and vaccination to make an informed decision. Individuals who

are high in calculation are likely to be risk averse, perceive higher risks related to vaccination, and have a more deliberate decision-making style.[1]

Collective Responsibility

Collective responsibility refers to the willingness to vaccinate in order to protect others through the process of herd immunity. High collective responsibility is correlated with collectivism, communal orientation, and empathy.[1]

The Link Between the 5Cs and the Social Determinants of Health

As you delve into the 5Cs, you may recognize, many of the factors associated with the 5Cs overlap with the **social determinants of health** or the non-medical factors that shape the conditions of an individual's daily life. The Canadian Public Health Association (n.d) provides the following 14 social determinants of health, although these are not necessarily an exhaustive list.

Complete the matching activity by pairing each term with its corresponding example.

Activity: Match each of the 5Cs to its corresponding example.

List of 5C options: Confidence, Complacency, Collective Responsibility, Constraints, Calculation

1. I know people who got the COVID-19 vaccine and they still got sick.
2. COVID-19 is just like the flu.
3. There aren't any vaccine clinics near my home, and I don't have reliable transportation.
4. I've done my own research and made my own decision.
5. I want get the vaccine to protect my children who are susceptible to COVID-19.

Feedback:

Correct answer:

1. Confidence
2. Complacency
3. Constraints
4. Calculation
5. Collective Responsibility

Next, you will explore the ecological systems model and how the 5C's can be applied to this model to explain vaccine hesitancy both at an individual level as well as within larger community, organizational, and sociocultural systems. As you read through this section, consider the impacts that vaccine interventions may have at each level of the ecological systems model.

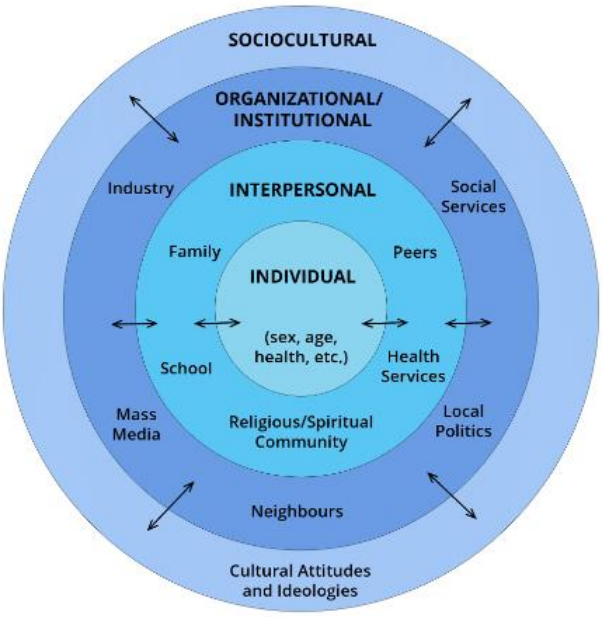
The Ecological Systems Model

A key consideration in vaccine acceptance/uptake is that the person is at the centre of their own life. The ecological systems model created by Urie Bronfenbrenner (1992)[8], provides insight into the complexity of an individual's life experiences and agents of socialization that may be associated with vaccine hesitancy.

An ecological approach to vaccination builds upon and extends the 5Cs model by emphasizing the interrelated levels of factors that influence vaccination, as well as the broader social and environmental context. The four levels of the ecological systems model include:

- **Individual**
- **Interpersonal**
- **Organizational/Institutional**
- **Sociocultural**

The ecological systems model situates these factors as concentric levels which are placed around the individual, with closer levels having typically more direct effects as opposed to indirect or latent effects which are harder to see and are often far more insidious. For example, closer levels may include family members that individuals regularly interact with and whose beliefs may influence an individual's behaviour. It also considers the reciprocal interactions between these factors over time.



For each level of the ecological systems model, you will explore findings from a scoping review that investigates the barriers and facilitators to vaccination hesitancy. You will then use the 5C model as a conceptual framework for understanding the complex, and sometimes contradictory or overlapping factors that can motivate individual vaccine hesitancy or uptake across the ecological system.

By applying the categories of the 5C model to each level of the ecological system model, you can analyze the factors that influence vaccine hesitancy at each level. In doing this, you can see that the underlying motivations for vaccine hesitancy or acceptance vary considerably between these categories.

Watch the video to learn how the ecological system and 5C model relates to the vaccine hesitancy continuum. (04:35)

Start of Video Transcript:

The Ecological Systems Model is a diagram of four concentric circles representing the four levels of the ecological system. The innermost circle, the individual level, includes demographic characteristics, such as sex, age, and health, as well as our values, our beliefs, our motives, and our fears. These shape our interpretation of experiences as well as the influence that these experiences have on ourselves.

At the broader interpersonal level, we can also think that we as individuals interact with others and that these interactions also shape our experiences. The interpersonal level can include interactions with family, peers, school, health services, and religious and social communities. The interpersonal level can be didactic in terms of one-on-one interactions with another person, or at the group level, where didactic interactions consist of these higher-level group dynamics and are shaped by group processes.

We can also think at the organizational level, which is, again, a higher-order level comprised of the many institutions and organizations that may exist within a broader community. The organizational level can

include factors such as funding, infrastructure, communication, and accessibility within services such as industry, social services, local politics, and mass media.

And finally, it's important to recognize that any of these levels are constrained by a particular place and time and are shaped by broader sociocultural factors. This could include understanding the social and cultural leaders or celebrities that are speaking out for and against COVID-19 vaccinations, current events, such as anti-masking rallies or vaccination policies, as well as understanding the values of time and place in which the vaccine is being offered.

All these systems are embedded within each other and can change and evolve over time. We will take you through an example of how the 5Cs can be experienced at the different levels of the ecological system.

For each of the ecological systems model levels, in this example, you will explore the findings from a scoping review that investigates the barriers and facilitators to vaccination hesitancy. You will then use the 5C model as a conceptual framework for understanding the complex and sometimes contradictory or overlapping factors that can influence individual vaccine hesitancy or uptake across the ecological system.

For example, complacency factors contributing to vaccine hesitancy at the individual level may involve factors such as age, being between 18 and 30, or geography, such as living in a rural area, which might contribute to individuals feeling that they are at a lower risk contracting COVID-19.

Complacency factors at the interpersonal level that may influence vaccine hesitancy can include perceptions of whether or not family or friends may be at risk of serious consequences if they become ill from COVID-19. A belief that everyone they care about and interact with is a healthy adult may lead to someone being more complacent about getting vaccinated.

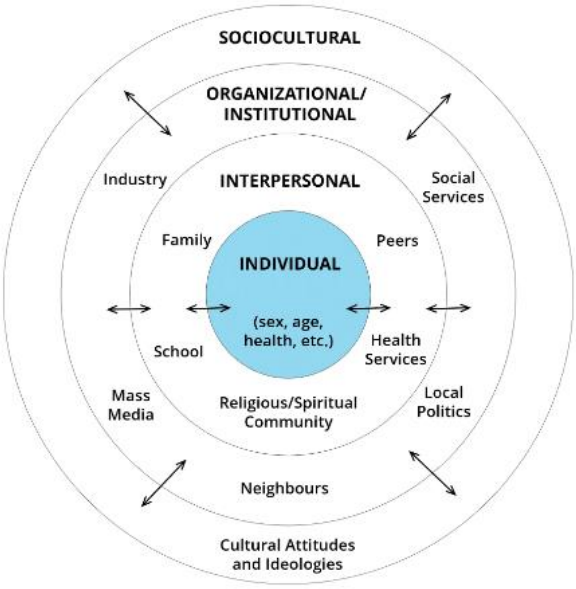
At the organizational or institutional level, complacency factors contributing to vaccine hesitancy may be related to whether an individual interacts regularly with high-risk community members through their involvement with institutions with high-risk populations.

For example, healthcare providers, social service providers, correctional service workers, and educators may be more likely to vaccinate because of their connections with these institutions. Ironically, complacency factors contributing to vaccine hesitancy at the socio-cultural level can occur when policies have been particularly successful in keeping transmission rates low. As perceptions of a community level of threat lower, individual complacency rates may become higher.

End of Video Transcript.

1. Individual Factors Influencing Vaccine Hesitancy

Factors that are unique to the **individual** (demographic factors) are located at the centre of Bronfenbrenner's (1996)[9] model.



Many of these individual factors are variables that either cannot be modified, such as an individual's ethnicity or age, or they are factors that would require extensive time, energy, and/or resources to modify, such as income level, education level, or place of residency. These are also theorized to be heavily influenced by macro (system-level) factors like policies, governance, culture, and societal values which lead to social hierarchies and systemic bias and discrimination. For example, accessibility policies can directly affect how convenient it is for someone with mobility issues to access vaccination clinics (WHO, 2010).[10]

Continue to learn how the 5Cs are applied to the individual level of the ecological systems model.

Confidence

Within the 5C model of vaccination hesitancy, one of the primary individual factors that can influence vaccine confidence is ethnicity, or being part of a racialized group.[11, 12, 13, 14]

Historically-founded mistrust of government and healthcare in general is a legacy of horrific historical and contemporary crimes, such as the Tuskegee Experiments[15], Smallpox Blankets, Residential Schools[16], Indian hospitals[17], nutritional experiments, forced sterilization,[18] institutionalization, mandated treatment, disenfranchisement, and other colonial and discriminatory actions that continue to live in the minds of the survivors, peers, and descendants of those who experienced these atrocities first-hand.

Unsurprisingly, historically marginalized and equity-deserving groups may harbour a distrust of vaccination programs for fear of them being the next atrocity.

Complacency

Individual factors associated with vaccine complacency include **gender, age, geography,** and **political affiliation**. For example, studies suggest that factors such as being male, aged between 18-30, living in

rural areas, and identifying with conservative political affiliations have been associated with vaccine hesitancy.[19, 20]

Each of these factors can contribute to an individual's belief that they are at a lower risk of contracting COVID-19, or that they are not at risk of serious consequences if they do become ill. People who are vaccine complacent may use phrases such as "I'm not a member of a high-risk group".

Constraints

Individual factors which can contribute to vaccine constraints include worries about **cost** (lower income), or not having **insurance**, '**sign-up fatigue'**, lack of **information** or misinformation, or **fear** of deportation.[11, 21] Vaccine **side effects** could also be considered a constraint, or barrier to vaccination.[22]

Within the KFL&A region, an important constraint to consider is geographic location. Accessing vaccination appointments and clinics may be more difficult for rural/remote community members due to factors such as distance and access to transportation. Accessing online vaccination announcements and booking systems may also be difficult in rural or remote areas due to challenges with internet or cell service coverage. Constraints associated with geographic location can also intersect with socioeconomic constraints. For instance, community members with lower socioeconomic status may decide that the costs associated with getting a vaccine are too high (e.g., cost of transportation, fuel, or taking time off work).

Calculation

Individual factors which contribute to vaccine calculation can include level of **education**. Individuals with high school education or lower may have more difficulty in differentiating between credible medical sources and misinformation. Additionally, individuals who are less able to **delay gratification** (e.g., the side effects of the COVID-19 vaccine may be unpleasant in the short-term but I would have increased immunity to COVID-19 in the long-term) tend to be higher in vaccine hesitancy, irrespective of education.[23]

Collective Responsibility

Within the category of collective responsibility, individual factors such as **health status** and **gender** may contribute to vaccine hesitancy. This is a bi-directional concept in that while collective responsibility often refers to the willingness to be vaccinated in order to contribute to herd immunity or to protect others, the inverse is also true. Individuals who are immunocompromised, for example, or women who are pregnant or plan on being pregnant, may have more concerns about the vaccine and may therefore rely on others being vaccinated (herd immunity) to offer them protection from contracting the virus. Moreover, due to sex and gendered upbringing, girls and women tend to think and behave in more collective ways than men and boys. [1, 24]

5Cs at the Individual Level - Example Quotes from the KFL&A Survey

Continue to read quotes from individuals in the KFL&A region.

"I have a phobia of needles, and while I have been able to overcome this phobia in order to receive my COVID-19 vaccines through self-taught coping mechanisms, I have had traumatising vaccination

experiences in the past. I feel lucky that all the practitioners administering my COVID-19 vaccine doses were understanding, but I know not everyone is. Understanding, patience, and compassion from health care providers is necessary to avoid vaccine hesitation among those with phobias." – Individual in the KFL&A region

"I trust our KFL&A with the information given throughout the pandemic and to date more than what the Government agencies put out." – Individual in the KFL&A region

"The clinics were located away from the central city, requiring me to stay at a friends place in the west end to get a shot at the Invista. I attempted to bike to Beechgrove for the next shot and it was a terrifying ride. I ended up getting my third shot at my parents place in Waterloo because I couldn't get to a clinic in Kingston. My health got worse and now I can't bike either, so I can only get a 4th shot if the vax clinic came to central downtown, on a day I felt well enough to leave the apartment." – Individual in the KFL&A region

"I found an excellent pharmacist who administered three of my vaccinations and who recommended another local pharmacy for the fourth when he had run out. I later noticed a vaccination bus around town. These venues make sense to take pressure off other parts of the health care system in a pandemic and for community health in general." – Individual in the KFL&A region

"There are a lot of rural people in KFL&A that can't easily drive to the mobile vaccination sites." – Individual in the KFL&A region

"It's often difficult to get to a location to get vaccinated, the easiest was the vaccine bus but it rarely stopped near where I live. It would be nice to have a number you could call to explain you situation and possibly have someone come to your home or out front of home to get the vaccine. Worst place to get a vaccine was inside a drug store, especially with little to no mask usage by others nearby." – Individual in the KFL&A region

"I was hesitant to get it because it was too new, no one knew the side effects yet, and long term effects. It affected a condition I have terribly but I still got 2 vaccines. I suffer now because of it but its better than getting covid like my friend had. I will not get a booster but I also don't tell anyone about the effects of the vaccine it had on my because I don't want that to be an excuse not to get it." – Individual in the KFL&A region

Click through the scenario to apply the 5Cs to a case study.

Scenario: Understanding Vaccine Hesitancy

You are working with a client who is refusing vaccination. He is a young man who lives below the poverty line and is dependent on social assistance. He consumes a great deal of fringe, right-wing media. His diagnosis of schizophrenia makes him susceptible to the paranoia and conspiracy theories peddled on these shows. Based on the fact that he is on a community treatment order and therefore, not entitled to make his own treatment decisions, he is highly suspicious of the medical system.

Continue to start the scenario.

What factors might contribute to this individual's confidence that would lead him to vaccine

hesitancy?

a) A high suspicion of the medical system.
b) Being on a community treatment order.
c) Their socioeconomic status.

Feedback:

Correct answer: a

Yes, his high suspicion of the medical system could impact his confidence leading to vaccine hesitancy.

What factors might contribute to this individual's calculation that would lead him to vaccine hesitancy?

a) Their consumption of right-wing media and conspiracy theories.
b) Their socioeconomic status.
c) Their schizophrenia diagnosis.

Feedback:

Correct answer: a

Exactly! Susceptibility to misinformation can factor into vaccination behaviours related to calculation.

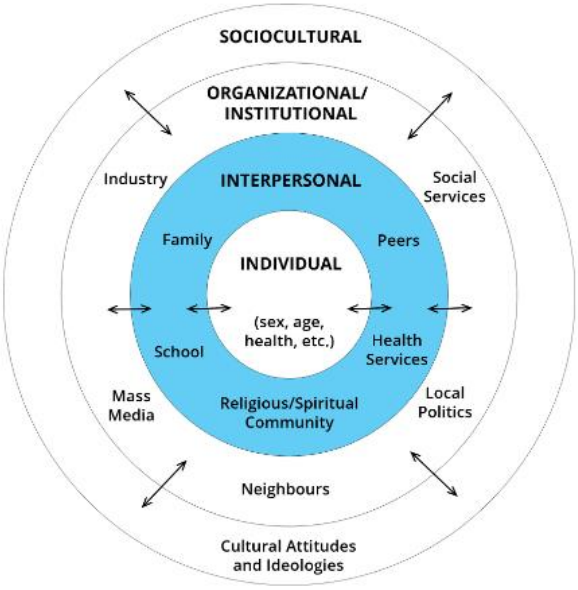
Scenario End

You have completed the scenario and considered the factors that affect an individual's confidence and calculation at the individual level.

Next, you will learn how interactions at the interpersonal level can impact a patient's decision to vaccinate.

2. Interpersonal Factors Influencing Vaccine Hesitancy

Interpersonal components of the ecological systems model refer to those with whom we have direct contact, such as family, friends, peers, colleagues, and religious communities.



Individuals are often influenced by those around them. Social networks can either encourage or discourage vaccination uptake. As such, it is valuable to strengthen the social influence of the scientific and medical communities, as well as sharing positive experiences of those who have been vaccinated (e.g., personal experiences, previous patients).[25] This is important to consider since mistrust of governments and public health agencies has been linked with lower vaccination acceptance, whereas more proximal social influences such as peers or group norms may be a valuable avenue for encouraging vaccination.[26]

Continue scrolling to learn how the 5Cs are applied to the interpersonal level of the ecological systems model.

Confidence

Interpersonal factors which can influence vaccine confidence can extend to members of organizations through which the vaccines are being offered. When vaccines are offered through schools and other trusted community partners, it can facilitate uptake.[21] Religious affiliations and sociocultural norms may also influence vaccine confidence. A study from the US found that Christian Nationalism, for example, is associated with lower confidence in the COVID-19 vaccine.[27]

Complacency

Individuals are likely to be influenced to accept a vaccination when they receive encouragement from their **primary care provider, colleagues**, and/or **family** members, or when they hear about a positive experience of friends receiving the vaccine.[21, 28, 29] Conversely, vaccine beliefs of an individual's friends and family can also strongly influence vaccine hesitancy.[30] Interpersonal relationships can have a strong impact on how individuals perceive the vaccine, and can move complacent individuals towards vaccination acceptance and uptake.

Interpersonal relationships may also influence perceptions of complacency. For example, individuals may consider whether people that they know are at lower risk of either contracting COVID-19, or that

they are not at risk of serious consequences if they do become ill. People who are vaccine complacent may not think that people they know are a member of a high-risk group. For example, "everyone in my household is a healthy adult." As healthcare and service providers, you can talk about people in their life who may be a member of a high-risk group such as colleagues who are immunocompromised or friends who are caregivers to children or older adults.

Constraints

At the interpersonal level, constraints can refer to **peer pressure, family pressures, co-workers**, or members of **social networks** who can influence an individual's decision to vaccinate.[13] Individuals are more likely to be vaccinated in areas with strong social norms towards vaccination.[31] Divorced individuals, for example, are less likely to have received a vaccine, or have plans to receive a vaccine, than married individuals.[27] Having support from interpersonal connections can also help overcome or manage constraints. For example, family members who can take care of small children while a parent gets a vaccine or a colleague/friend who can share the cost of transportation can reduce constraints associated with an individual's decision to vaccinate.

Calculation

At the interpersonal level, when considering risk to infection, knowing someone who has died from COVID-19 may cause someone to perceive themselves as more susceptible to contracting COVID-19, and therefore may increase the likelihood of their willingness to accept a vaccine. On the other hand, **misinformation** received from family and friends about the virus and/or its severity may actually lead to vaccine hesitancy.[11]

Collective Responsibility

At an interpersonal level, vaccination hesitancy may be influenced by the collective **responsibility** that individuals feel towards their family and friends, particularly if they are related to someone who is at high-risk for COVID complications.[24] While a desire to protect friends and family may motivate someone towards vaccination uptake, if there is a strong lack of confidence in the vaccine, or high levels of concern around the safety of the vaccine, then vaccination hesitancy may result.[24]

Complacency at the Interpersonal Level:

Continue to read quotes related to complacency at the interpersonal level from individuals in the KFL&A region.

"The fear propaganda needs to stop… everyone is awake to the BS." – Individual in the KFL&A region

"Weak public messaging and impotent provincial leadership has failed to keep the public safe and informed, people are generally exhausted by the mixed messages and lack of insight. Masking is our strongest tool against Covid 19 and very few even speak of Covid in the present tense even though it is still as big a threat as it ever was. Disaster caused by provincial incompetence. – Individual in the KFL&A region

"If the vaccines did what we were told they did (i.e., protect the vulnerable by not transmitting, create immunity, etc.) I would have had it. It doesn't do what they said it would do. I have zero comorbidities and I am not at risk of dying from COVID-19." – individual in the KFL&A region

Reflect on your clinical experiences and think about a time where your patient's interactions at the interpersonal level may have impacted their decision to vaccinate. Expand your thinking by mapping these factors to categories from the 5C model.

Continue for feedback

Start of Audio Transcript:

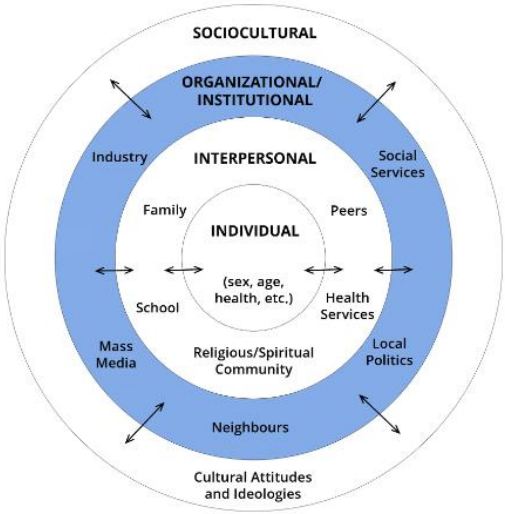
I've had many conversations with individuals where interventions at the interpersonal level may have contributed to their decision to vaccinate. People are often strongly influenced by those closest to them -- their friends and family. So if they're vaccine-hesitant or resistant, that can be a substantive barrier to overcome. Trying to change someone's perceptions towards a vaccine is often not something that will happen during your first encounter. There's a trust-building process that often needs to happen, especially if the person identifies as part of a marginalized group. Take the time to listen to their concerns without judgment and offer them additional information. It may be useful to offer them written information that they can share with family and friends. For other people, an effective approach may be about drawing parallels between the vaccine and things they're currently doing.

End of Audio Transcript.

Next, you will learn how interactions at the organizational/institutional level can impact a patient's decision to vaccinate.

3. Organizational/Institutional Factors Influencing Vaccine Hesitancy

At the **organizational/institutional** level, healthcare and service providers can consider how their programs and policies may influence perceptions that lead to vaccine hesitancy.



While interactions at the interpersonal level refers to those with whom we have direct contact such as family, friends, peers, and religious communities, the organizational or institutional level refers to an individual's interactions with organizations or institutions such as neighbours, social services, local politics, and mass media.

Continue to learn how the 5Cs are applied to the organizational/institutional level of the ecological systems model.

5Cs

Step 1: Confidence

Racial disparities in death rates within the healthcare system and a history of systemic racism from healthcare institutions has created a pattern of **relational mistrust** which makes some persons more distrustful, particularly when combined with a new treatment, like a vaccine, which has been developed quickly.[11, 21, 32] At the organizational level, ongoing systemic racism and ableism within hospitals may continue to foster distrust in the system.

Step 2: Complacency

There is some support in the literature to suggest that connections with institutions with high risk community members (e.g., if you regularly interact with institutions with high risk populations (e.g., schools, corrections, long term care for KFL&A examples), you may be more likely to take the vaccine. Conversely, if you do not have strong connections to these institutions, you may be more complacent.

Step 3: Constraints

At the organizational/institutional level, it is important for healthcare and service providers to consider how they influence the **cost**, **convenience**, and **accessibility** of vaccines. For example, if you work at a location that provides vaccines, be aware of factors such as requiring certain documentation to be vaccinated, eligibility requirements, location and hours of service, communication methods, policies around the Accessibility for Ontarians with Disabilities Act (AODA), etc.

Step 4: Calculation

The scoping review conducted by our research team did not identify factors at the organizational level that were related to calculation.

Step 5: Collective Responsibility

During the COVID-19 pandemic, collective responsibility was a factor in higher vaccination rates among essential workers (i.e., employees in high-risk settings such as health care). For example, nursing home facilities that had frontline staff champions, for example, had higher vaccine uptake.[33] Collective responsibility can also be expressed as a responsibility for those who are dependent on someone else, such as residents within care facilities or shelters.[34]

Reflect on your clinical experiences and think about a time where your patient's interactions at the organizational/institutional level may have impacted their decision to vaccinate. Expand your thinking by mapping these factors to categories from the 5C model.

Continue for Feedback

Start of Audio Transcript:

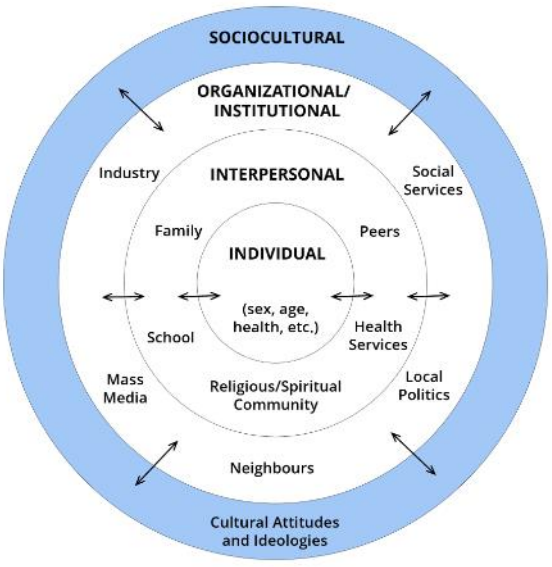
At an organizational level, barriers to access to culturally safe care, systemic racism within the healthcare system, and a history of discriminatory colonial policies have left many Indigenous individuals understandably mistrustful of the Canadian healthcare system. Despite having priority access to vaccines, vaccination rates among urban Ontario First Nations, Metis, and Inuit are 20% lower than the overall population. Recognizing the historical factors that contribute to this mistrust, healthcare and community outreach organizations can increase vaccine competence by working with trusted messengers within these communities and by facilitating community-level engagement. For example, offering indigenous immunization clinics in urban areas that are staffed by Indigenous staff and volunteers can create a safe space for individuals to ask questions, express their fears while trusting the response.

End of Audio Transcript.

Next, you will learn how interactions at the sociocultural level can impact a patient's decision to vaccinate.

4. Sociocultural Factors Influencing Vaccine Hesitancy

A number of factors can operate at the **sociocultural** level to influence the way that someone perceives vaccination. These factors often interact with individual characteristics, interpersonal, or organizational/institutional influences to impact an individual's level of vaccine hesitancy.



Sociocultural influences may include historical trauma and inequities in education and in access to resources (e.g., financial, informational, or geographical).[10]

Continue to learn how the 5Cs are applied to the sociocultural level of the ecological systems model.

Confidence

Confidence can be influenced by both historical and on-going relationships with healthcare and government systems. At the sociocultural level, confidence can be influenced by factors such as the community healthcare systems which are making decisions, and by government and political decisions regarding vaccinations (i.e., are they following the guidance of physicians and healthcare providers, or are other factors guiding their decision-making processes?). Individuals may also be influenced by the vaccine brands available in their community (e.g., choosing not to vaccinate because the Pfizer COVID-19 vaccine is unavailable).[21]

Complacency

Ironically, complacency at the sociocultural level can occur when regions have been particularly successful at keeping transmission rates low.[35] In Canada, vaccine complacency is particularly apparent in relation to the booster shots.[36] Canadian federal and provincial governments lifting most health measures has contributed to the complacency demonstrated by many with respect to the booster series of vaccines.

Constraints

"By influencing access to healthcare systems, sociocultural factors can influence community vaccine coverage. Social vulnerability consists of the **social and structural factors** associated with adverse health outcomes.[33] For example, areas with lower socioeconomic status and lower educational attainment levels tend to have lower vaccination coverage. Social and community constraints can also be related to access to information, and make individuals particularly susceptible to misinformation. This could be because of a lack of information in the appropriate language for some cultural groups, or because of lower levels of information literacy.

Calculation

Susceptibility to **misinformation** can also factor into vaccination behaviours related to calculation (e.g., the design and systemic structure of mass media can influence vaccination behaviour in key ways). For example, belief in misinformation can cause individuals to feel that natural infection is better than vaccines for developing immunity[37], or to believe vaccine conspiracy theories.[38] At the social/community level, immunization behaviours related to impact can be influenced by a 'wait and see' approach. Individuals who may be vaccine hesitant within this group are often those who want to see how others react to the vaccine before taking it themselves.[19]

Collective Responsibility

At the community level, vaccine hesitancy related to collective **responsibility** may be expressed in terms of a 'greater good' when vaccine supplies are low. For example, some societies are more collective minded (collectivism) where social and health inequities are comparatively lower. There is

some literature to show that vaccine intentions are higher in these societies or that COVID-19 is better managed.[19]

Calculation at the Sociocultural Level:

"I would like to receive unbiased information. I would like to hear the various sides and make my own decisions. I don't like to be treated like an idiot. I don't like being told what to do I don't like being threatened. If those things are needed, not all the facts are being presented that would allow me to make the right decision for me and my family." – Individual in the KFL&A region

Reflect on your clinical experiences and think about how the sociocultural environment may have impacted your patient's decision to vaccinate. Expand your thinking by mapping these factors to categories from the 5C model.

Continue for Feedback

Start of Audio Transcript:

For the persons who are sleeping downtown on Princess Street or in a park, those are the conversations that are difficult because it's not something on their radar. They're just trying to survive day to day. And worrying about the pandemic is not something that would change their daily life. For other individuals, there's a language barrier with the vaccine information materials that are being provided. Having this information available in different languages and making these resources available to organizations that are trusted by persons in vulnerable communities can be helpful. We also need to consider people's past experiences with the government and with healthcare systems, which for some people and for some groups has not always been positive. This makes the trust relationship between clients who are unwell and social services so important because they don't have trust in anything else. So if you can build that little bit of trust and trusting that they will be okay with being in a shelter, then you can work on that, trust of, "Ah, I will have my shot. Jack over there, you know, has his shot." "If you want to have a conversation with the nurse, we can get public health in here and explain it to you again." So trust goes a long way with these individuals.

End of Audio Transcript.

Application to Clinical Practice

Now that you've had a chance to see how the 5Cs can influence an individual's vaccination uptake across multiple levels of the ecological systems model, it's time to start thinking about how you can use this information with your own patients and clients.

Continue through the scenario to learn more about potential barriers to vaccines.[39]

Developing a Vaccination Clinic

You have been selected to develop a vaccination clinic that addresses potential barriers to vaccination.

A potential barrier to vaccination is time of day. Why is this a barrier?

a) People have different commitments and responsibilities.
b) People should receive vaccines on an empty stomach.

c) Vaccines are more effective when administered in daylight.

Feedback:

Correct answer: a

Yes, people have different commitments and responsibilities. They may need to arrange childcare or time off work.

Another potential barrier is transportation. Why is transportation a potential barrier?

a) People may not have access to a reliable form of transportation due to concerns related to cost and accessibility.
b) Parking is not always available at vaccination clinics
c) People may miss their vaccination appointment if public transportation is not on schedule.

Feedback:

Correct answer: a

Exactly. Not all people can afford public transit and some may be worried about exposure to COVID-19 while taking public transit.

Another potential barrier is accessibility. How can vaccination sites be more accessible to people who have mobility issues?

a) Send vaccination kits in the mail to every individual.
b) Offer mobile clinics in targeted communities.
c) Residents with mobility issues need to opt out of receiving a vaccination.

Feedback:

Correct answer: b

Bringing vaccines to residents (e.g., mobile clinics) makes vaccination clinics more accessible than asking residents to travel to specific clinics.

We understand that not every provider is going to be planning a vaccination clinic, but keep in mind that all of the strategies mentioned here can be applied to any kind of patient or client programming that you may be running. So if you are planning any kind of programming, it would be important for you to consider the time of day in which it will be offered, as patients might not be able to get time off work or might need childcare. You would also need to consider the location of the clinic, as it may not be accessible or it may be very difficult to travel to the clinic. You would also have to be mindful that patients may be concerned about risks associated with travel (e.g., public transportation). Finally, you would want to consider the context of the situation, such as how bringing the vaccines to residents (e.g., mobile clinics) may be more accessible than asking residents to travel to specific clinics.

Improving the Accessibility of the Vaccination Clinic

It is also important to note that once a vaccination clinic plan is established, healthcare and service providers should reflect on the extent to which clients are aware of the location and hours of the vaccine clinic.

The clinic should prioritize increasing trust among equity-deserving groups. Clinics could implement policies stating all service providers must receive cultural sensitivity training, or that clinics must include providers or champions/opinion-leaders that represent the population being served. Note that this is also a call to action included by the the Truth & Reconciliation Committee. Conversations that build trust and motivation to be vaccinated could be had by service providers in their own clinics when meeting with unvaccinated patients (not only at COVID-19 specific vaccination clinics).

Further, healthcare and service providers should consider how constraints-related factors may vary within certain communities. For example, it may be important to reflect on whether the selected locations are accessible to the target population and to consider ways to administer vaccines in culturally sensitive ways, such as working with the community to determine the location, time, and context for the vaccine clinic.

To help clients navigate these constraints, healthcare and service providers can discuss barriers to vaccination (e.g., costs, transportation) and discuss potential solutions/plans to overcome these barriers (e.g., directing patients to appropriate resources). Providers should look for resources that are tailored to the client (e.g., culturally-tailored resources).

Continue to read about some strategies on how to reach people with limited access to vaccines.

Strategies for Reaching People with Limited Access to COVID-19 Vaccines40

Take a moment to reflect on your own engagement with your patients or clients. Choose one of the 5Cs, and consider how this information could help you approach conversations with vaccine hesitant individuals differently.

In this section, you learned that vaccine hesitancy is defined as "delay in acceptance or refusal of vaccination despite availability of vaccination services. It is complex and context specific, varying across time, place and vaccination." You explored a vaccine hesitancy continuum and were introduced to the 5C model for assessing the psychological antecedents of vaccination. The 5Cs are confidence, complacency, constraints, calculation, and collective responsibility. Then you explored how the 5Cs are applied to the ecological systems model, namely at the individual, interpersonal, organizations/institutional, and social-cultural levels. You explored three potential barriers to vaccination via developing a vaccination clinic scenario activity.

Page Links:

https://player.vimeo.com/video/763844516?app_id=122963&h=6dbc1cbe9a&referrer=https%3A%2F%2Farticulateusercontent.com%2F

https://www.cdc.gov/vaccines/covid-19/vaccinate-with-confidence/limited-access.html

References:

[1] Betsch, C., Schmid, P., Heinemeier, D., Korn, L., Holtmann, C., & Böhm, R. (2018). Beyond confidence: Development of a measure assessing the 5C psychological antecedents of vaccination. PLOS ONE, 13(12), e0208601. Retrieved July 2022 from https://doi.org/10.1371/journal.pone.0208601

[2] MacDonald, N. E. (2015). Vaccine hesitancy: Definition, scope and determinants. Vaccine, 33(34), 4161–4164. Retrieved July 2022 from https://doi.org/10.1016/j.vaccine.2015.04.036

[3] Hwang, S. E., Kim, W. H., & Heo, J. (2021). Socio-demographic, psychological, and experiential predictors of COVID-19 vaccine hesitancy in South Korea, October-December 2020. Human Vaccines & Immunotherapeutics, 18(1), 1–8. Retrieved July 2022 from https://doi.org/10.1080/21645515.2021.1983389

[4] Michael, C. A., Ogbuanu, I. U., Storms, A. D., Ohuabunwo, C. J., Corkum, M., Ashenafi, S., Achari, P., Biya, O., Nguku, P., Mahoney, F., & the NSTOP OPV Refusal Study Team. (2014). An assessment of the reasons for oral poliovirus vaccine refusals in northern nigeria. Journal of Infectious Diseases, 210(suppl 1), S125–S130. Retrieved July 2022 from https://doi.org/10.1093/infdis/jiu436

[5] Murakami, H., Kobayashi, M., Hachiya, M., Khan, Z. S., Hassan, S. Q., & Sakurada, S. (2014). Refusal of oral polio vaccine in northwestern Pakistan: A qualitative and quantitative study. Vaccine, 32(12), 1382–1387. Retrieved July 2022 from https://doi.org/10.1016/j.vaccine.2014.01.018

[6] Betsch, C., Bach Habersaat, K., Deshevoi, S., Heinemeier, D., Briko, N., Kostenko, N., Kocik, J., Böhm, R., Zettler, I., Wiysonge, C. S., Dubé, È., Gagneur, A., Botelho-Nevers, E., Gagneux-Brunon, A., & Sivelä, J. (2020). Sample study protocol for adapting and translating the 5C scale to assess the psychological antecedents of vaccination. BMJ Open, 10(3), e034869. Retrieved July 2022 from https://doi.org/10.1136/bmjopen-2019-034869

[7] Government of Canada. (n.d.). Social determinants of health and health inequalities Retrieved July 2022 from https://www.canada.ca/en/public-health/services/health-promotion/population-health/what-determines-health.html

[8] Bronfenbrenner, U. (1992). Ecological systems theory. In R. Vasta (Ed.), Six theories of child development: Revised formulations and current issues (pp. 187–249). Jessica Kingsley Publishers.

[9] Bronfenbrenner, U. (1996). The ecology of human development: Experiments by nature and design. Harvard University Press.

[10] World Health Organization. (2010). A conceptual framework for action on the social determinants of health. Retrieved July 2022 from https://www.who.int/publications/i/item/9789241500852

[11] Bateman, L. B., Hall, A. G., Anderson, W. A., Cherrington, A. L., Helova, A., Judd, S., Kimberly, R., Oates, G. R., Osborne, T., Ott, C., Ryan, M., Strong, C., & Fouad, M. N. (2022). Exploring COVID-19 vaccine hesitancy among stakeholders in African American and Latinx communities in the deep south through the lens of the Health Belief Model. American Journal of Health Promotion, 36(2), 288–295. Retrieved July 2022 from https://doi.org/10.1177/08901171211045038

[12] Berry, S.D., Johnson, K.S., Myles, L., Herndon, L., Montoya, A., Fashaw, S., Gifford, D., 2021. Lessons learned from frontline skilled nursing facility staff regarding COVID 19 vaccine hesitancy. Journal of the American Geriatrics Society, 69(5), 1140–1146.. Retrieved July 2022 from https://doi:10.1111/jgs.17136

[13] Elwy, A. R., Clayman, M. L., LoBrutto, L., Miano, D., Ann Petrakis, B., Javier, S., … McInnes, D. K. (2021). Vaccine hesitancy as an opportunity for engagement: A rapid qualitative study of patients and employees in the U.S. Veterans Affairs healthcare system. Vaccine: X, 9. Retrieved July 2022 from https://doi.org/https://doi.org/10.1016/j.jvacx.2021.100116

[14] Enwezor, C. H., Peacock, J. E., Edelstein, S. L., Hinkelman, A. N., Seals, A. L., Wierzba, T. F., … Herrington, D. M. (2021). Attitudes Toward The COVID-19 Vaccine Among North Carolina Participants In The COVID-19 Community Research Partnership. MedRxiv, 2021.05.20.21257343. Retrieved July 2022 from https://doi.org/10.1101/2021.05.20.21257343

[15] McVean, A. (2019). 40 years of human experimentation in America: The Tuskegee Study. McGill Office for Science and Society. Retrieved July 2022 from https://www.mcgill.ca/oss/article/history/40-years-human-experimentation-america-tuskegee-study

[16] Hanson, E., Gamez, D., & Manuel, A. (2020, September). The Residential School System. Indigenous Foundations. Retrieved July 2022 from https://indigenousfoundations.arts.ubc.ca/residential-school-system-2020/

[17] Indigenous Corporate Training Inc. (2017). A brief look at Indian hospitals in Canada. Retrieved July 2022 from https://www.ictinc.ca/blog/a-brief-look-at-indian-hospitals-in-canada-0

[18] Pegoraro, L. (2015). Second-rate victims: The forced sterilization of Indigenous peoples in the USA and Canada. Settler Colonial Studies, 5(2), 161–173. Retrieved July 2022 from https://doi.org/10.1080/2201473X.2014.955947

[19] Adams, S. H., Schaub, J. P., Nagata, J. M., Park, M. J., Brindis, C. D., & Irwin Jr,, C. E., (2021). Young adult perspectives on COVID-19 vaccinations. The Journal of adolescent health : official publication of the Society for Adolescent Medicine, 69(3), 511–514. Retrieved June 2022 from https://doi.org/10.1016/j.jadohealth.2021.06.003

[20] Bhochhibhoya, A., Branscum, P., Thapaliya, R., Sharma Ghimire, P., & Wharton, H. (2021). Applying the Health Belief Model for investigating the impact of political affiliation on COVID-19 vaccine uptake. American Journal of Health Education, 52(5), 241–250. Retrieved July 2022 from https://doi.org/10.1080/19325037.2021.1955231

[21] Balasuriya, L., Santilli, A., Morone, J., Ainooson, J., Roy, B., Njoku, A., Mendiola-Iparraguirre, A., O'Connor Duffany, K., Macklin, B., Higginbottom, J., Fernández-Ayala, C., Vicente, G., & Venkatesh, A. (2021). COVID-19 vaccine acceptance and access among Black and Latinx Communities. JAMA Network Open, 4(10), e2128575. Retrieved June 2022 from https://doi.org/10.1001/jamanetworkopen.2021.28575

[22] Dugani, S. B., Geyer, H. L., Maniaci, M. J., Fischer, K. M., Croghan, I. T., Coons, T. J., Canan, E. L., & Burton, M. C. (2021). Hospitalist perspectives on barriers to recommend and potential benefit of the

COVID-19 vaccine. Hospital Practice, 49(4), 245–251. Retrieved July 2022 from https://doi.org/10.1080/21548331.2021.1914465

[23] Hudson, A., Hall, P. A., Hitchman, S. C., Meng, G., & Fong, G. T. (2022). Cognitive predictors of vaccine hesitancy and COVID-19 mitigation behaviors in a population representative sample. MedRxiv. Retrieved July 2022 from https://doi.org/10.1101/2022.01.02.22268629

[24] Benis, A., Seidmann, A., & Ashkenazi, S. (2021). Reasons for Taking the COVID-19 Vaccine by US Social Media Users. Vaccines, 9(4), 315. Retrieved July 2922, https://doi.org/10.3390/vaccines9040315

[25] Vallis, M., & Glazer, S. (2021). Protecting individuals living with overweight and obesity: Attitudes and concerns toward COVID-19 vaccination in Canada. Obesity, 29(7), 1128-1137. Retreived July 2022 from https://doi.org/10.1002/oby.23182

[26] Crawshaw, J., Konnyu, K., Castillo, G., van Allen, Z., Grimshaw, J., & Presseau, J. (v3 June 18, 2021). Factors affecting COVID-19 vaccination acceptance and uptake among the general public: A living behavioural science evidence synthesis. Retrieved July 2022 from https://www.mcmasterforum.org/docs/default-source/product-documents/living-evidence-syntheses/covid-19-living-evidence-synthesis-4.3---factors-affecting-covid-19-vaccination-acceptance-and-uptake-among-the-general-public.pdf?sfvrsn=2954597f_5

[27] Corcoran, K. E., Scheitle, C. P., & DiGregorio, B. D. (2021). Christian nationalism and COVID-19 vaccine hesitancy and uptake. Vaccine, 39(45), 6614–6621. Retrieved July 2022 from https://doi.org/10.1016/j.vaccine.2021.09.074

[28] Gatto, N. M., Lee, J. E., Massai, D., Zamarripa, S., Sasaninia, B., Khurana, D., Michaels, K., Freund, D., Nightingale, J., & Firek, A. (2021). Correlates of COVID-19 vaccine acceptance, hesitancy and refusal among employees of a safety net California county health system with an early and aggressive vaccination program: Results from a cross-sectional survey. Vaccines, 9(10), 1152. Retrieved July 2022 from https://doi.org/10.3390/vaccines9101152

[29] Budhwani, H., Maycock, T., Murrell, W., & Simpson, T. (2021). COVID-19 vaccine sentiments among African American or black adolescents in rural Alabama. The Journal of Adolescent Health, 69(6), 1041–1043. Retrieved July 2022 from https://doi.org/10.1016/j.jadohealth.2021.09.010

[30] Fernández-Penny, F. E., Jolkovsky, E. L., Shofer, F. S., Hemmert, K. C., Valiuddin, H., Uspal, J. E., Sands, N. A., & Abella, B. S. (2021). COVID-19 vaccine hesitancy among patients in two urban emergency departments. Academic Emergency Medicine, 28(10), 1100–1107. Retrieved July 2022 from https://doi.org/10.1111/acem.14376

[31] Berg et. al., 2021

[32] Henna et. al., 2021)

[33] Barry, V., Dasgupta, S., Weller, D. L., Kriss, J. L., Cadwell, B. L., Rose, C., Pingali, C., Musial, T., Sharpe, J. D., Flores, S. A., Greenlund, K. J., Patel, A., Stewart, A., Qualters, J. R., Harris, L., Barbour, K. E., & Black, C. L. (2021). Patterns in COVID-19 Vaccination Coverage, by Social Vulnerability and Urbanicity - United

States, December 14, 2020-May 1, 2021. Morbidity and Mortality Weekly Report, 70(22), 818–824. Retrieved July 2022 from https://doi.org/10.15585/mmwr.mm7022e1

[34] Harrison, J., Berry, S., Mor, V., & Gifford, D. (2021). "Somebody like me": Understanding COVID-19 vaccine hesitancy among staff in skilled nursing facilities. Journal of the American Medical Directors Association, 22(6), 1133–1137. Retrieved July 2022 from https://doi.org/10.1016/j.jamda.2021.03.012

[35] Silver, A. (2022). 'COVID zero' regions struggle with vaccine complacency. Nature, d41586-022-00554–0. Retrieved July 2022 from https://doi.org/10.1038/d41586-022-00554-0

[36] CBC News. (2022, April 16). 3rd COVID-19 vaccine doses stalled by confusion, complacency [Video]. Retrieved July 2022 from https://www.cbc.ca/player/play/2023541827826

[37] Carmody, E. R., Zander, D., Klein, E. J., Mulligan, M. J., & Caplan, A. L. (2021). Knowledge and attitudes toward COVID-19 and vaccines among a New York Haredi-Orthodox Jewish community. Journal of Community Health, 46(6), 1161–1169. Retrieved July 2022 from https://doi.org/10.1007/s10900-021-00995-0

[38] Geana, M. V., Anderson, S., & Ramaswamy, M. (2021). COVID-19 vaccine hesitancy among women leaving jails: A qualitative study. Public Health Nursing, 38(5), 892–896. Retrieved July 2022 from https://doi.org/10.1111/phn.12922

[39] UBC Innovation Support Unit. (n.d.). COVID-19 immunization toolkit: Engage vaccine hesitant patients. Retrieved July 2022 from https://covidtoolkit.ca/home/vaccine-hesitancy/

[40] Centers for Disease Control and Prevention. (2022). Strategies for reaching people with limited access to COVID-19 vaccines: Feedback from jurisdictional listening sessions. Retrieved July 2022 from https://www.cdc.gov/vaccines/covid-19/vaccinate-with-confidence/limited-access.html

End of Section 01

SECTION 02: CONSIDERING PATIENTS' MOTIVATION WHEN ADDRESSING VACCINE HESITANCY CONVERSATIONS

In this section, you will look at some elements of motivation theory and the ways that these can be incorporated into conversations related to vaccinations.

The Impact of Motivation on Vaccine Hesitancy

Motivation is the 'why' of human behaviour, and perhaps the best place to start for vaccine hesitancy is to engage with why they have **so far** made the decision to not be vaccinated.[1]

Humans are seldom completely illogical, but rather have a different logic than one another, resulting in divergent behaviours. While there are a myriad of potential motivations, Self-Determination Theory[2] (SDT) groups the psychological needs and considerations into three broad groups of innate need:

- Competence
- Autonomy
- Relatedness

Each of these innate needs can factor into vaccine hesitancy.

Continue to learn more about the three broad groups of innate needs and how they may impact vaccine hesitancy.

Competence

Competence is the psychological need to be knowledgeable, skilled, or effective either by the self- or by others. It can colloquially be thought of as the need to be 'good at something'.

For example, a person who reads misinformation online, might well believe what they read and thus believe that vaccines are dangerous. Being challenged in their beliefs by conflicting information provided by someone they trust (e.g., colleague, health professional, friend) may challenge perceptions of their competence in relation to finding accurate health information.

Autonomy

Autonomy is the psychological need to make the important decisions in one's life, which can be thought of colloquially as the need for independence.

For example, a person in response to mandates and external pressures might exhibit a counter-dependency (i.e., a common type of adaptation or psychological defense that involves a need to show that one does not need or want to depend on others and can take care of things oneself)[3] and become even more vaccine hesitant because the mandate is threatening their independence.

Relatedness

Relatedness is the psychological need to have positive relationships with other people.

For example, if a person has friends who are vaccine hesitant, persuading them to be vaccinated would mean having to overcome the 'peer pressure' they have been subjected to.

Motivation- Examples Quotes from the KFL&A Survey

Continue to read quotes from individuals in the KFL&A region.

"The disinformation is much stronger than the accessible pro-vaccination info. The purveyors of the disinfo speak to people at their level. The medical/public health community isn't breaking through with so many people. My father (72 unvaccinated) fell victim to this disinformation and died of COVID April 10, 2022. My mother is still unvaccinated. I'm a nurse and they refused to listen to me. We have to find a way to do better." – Individual in the KFL&A region

"I am quite aware of what the vaccine is doing. I have witnessed very young people dying without cause and have witnessed people are losing eyesight, hearing and increasing unknown ailments. Miacle-Gro[w] for what is lurking bad in your body." – Individual in the KFL&A region

"I have also had 2 very healthy friends Pass away due to this shot! And many more will unfortunately die from it! There should NEVER have been Masking, health passports, or firing people from jobs, for this fake plandemic!!!! It is clearly seen who is dying and who is not! The unvaxed are alive and healthy while the vaxed are getting sick all the time, in and out of the hospital and dieing! I have many friends and family that wish they'd NEVER had taken the shots. But not one of my unvaxed friends, family members has ever said they should have gotten the shot!" – Individual in the KFL&A region

"We have lost family to the vaccine or had them and friends injured. This vaccine is extremely controversial, it's creating prejudices, discrimination, hate. Since when is someone's medical information anyone's business? It doesn't stop the spread, it doesn't prevent disease and people are dying from it. Enough is enough!" – Individual in the KFL&A region

Put yourself in your patient's shoes. Reflect on your personal experiences with the need for competence, autonomy, and decision-making. How have these innate needs affected your decision-making? Consider how autonomy may be a motivator for calculation and how relatedness can be a motivator for collective responsibility.

Continue for Feedback

Feedback: Thank you for taking the time to reflect on the three innate needs and how they have affected your decision-making. This is an exercise of self-reflection and there are no right or wrong answers. Understanding how SDT impacts your patient's motivations will assist you in having productive conversations regarding vaccines.

Watch the video to learn about several considerations before engaging a new patient or client in a discussion about vaccines or vaccination (9:35).[4]

As you watch, think about some of the key strategies to remember when having conversations about vaccination. Consider what new approaches you may implement when having these conversations.

Vaccine Hesitancy

Start of Video Transcript:

[Words on screen] This Osmosis video is designed as a reference only in these videos we have made every effort to present the most up-to-date and widely accepted information in addition any insights and tips we provide come from years of our own clinical experience. That said, every institution has their own unique policies and every person requires individualized care. Always use your own clinical judgment in accordance with your institution's guidelines for what is the appropriate course of action in your specific situation. For the most up-to-date information and guidance, visit www.cdc.gov and www.who.int

Vaccine hesitancy has become a significant concern and it is defined by the World Health Organization as "A delay in acceptance or refusal of vaccination despite availability of vaccination services." Vaccine hesitancy is a complex issue and its causes are unique to each individual. While vaccine hesitancy has been an ongoing public health issue for years, the rapid development of vaccines in response to the COVID-19 pandemic has exacerbated the issue. A survey by Fisher et al., in September 2020 revealed that 11% of people in the United States plan to decline a COVID-19 vaccine with another 32% of people undecided if they'd accept the vaccine. With such large percentage of the population being hesitant to vaccination, it's imperative healthcare providers initiate and maintain an open dialogue about vaccination with patients. Patients are often willing to have a discussion about vaccination even if they're hesitant to receive a vaccine. When beginning a dialogue on vaccines with patients, always ensure that you frame the discussion in a positive, non-confrontational light. Be respectful and truly understand the person's perspective. Do they feel worried? Do they feel suspicious? These are legitimate feelings that warrant a conversation about safety and the process of how vaccines get made and evaluated before they're given to patients. Even if a patient decides not to be vaccinated it's important to maintain a strong healthcare provider-patient relationship so that you can continue to engage them overtime. The more opportunities you have to engage them, the more likely a skeptical patient may be to change their mind and decide to become vaccinated. Patients are the ultimate decision makers on whether they get vaccinated or not. Your role as a healthcare provider is to be a resource to them. Reinforcing this with the patient will help build trust and a strong clinician-patient relationship. Highlight that both of you have shared goals: to do what is best for them and acknowledge that there is an enormous amount of difficult to understand information around vaccines. Let the patient know that you want them to be able to make an informed decision. Offer to help them find the best information on vaccines and you will be available to answer any questions that they might have. As soon as possible try to establish how knowledgeable the patient is on COVID-19 and the vaccines as well as how strong their beliefs are regarding vaccination generally. Knowing if a patient has strong opposition to vaccination early on will help you make decisions on how to navigate your conversation with them in order to maintain a good relationship with the patient. Avoid making presumptuous statements that limit what a patient can say in response, such as would you like me to schedule you for a COVID-19 vaccine or have you received your COVID-19 vaccine yet? Instead focus more on participatory dialogue and use open-ended prompts such as what are your thoughts on the COVID-19 vaccination roll out or how do you feel about the COVID-19 vaccines? Both the American Academy of Pediatrics and the World Health Organization have sample scripts healthcare providers may find helpful as they prepare to initiate dialogue with their patients. When talking about vaccines, avoid referring to complicated statistics or using complicated terms unless the patient specifically asked for clarification. Instead focus on the key information and broad takeaways. You want to keep the message clear and concise to patients, but also answer specific questions they might have. When possible, personalize information to patients explaining how information affects them specifically based on their health history. For example patients who are thinking about becoming pregnant or who are currently

taking immunosuppressant medications may wonder if they should take the new COVID-19 vaccines. Contextualizing information like vaccine risks is also important. Patients tend to overestimate the risks of vaccines, misunderstanding statistical concepts, or have difficulty grasping risk rates such as 1 in 100,000 as 100,000 is a number so big most people have little to compare it to. Using analogies patients can personally relate to may help such as comparing the population of the city that the patient lives in versus the risk of experiencing a vaccine complication. Similarly patients tend to underestimate the risk of acquiring a disease or the risk of serious symptoms developing from a disease. Directly comparing the risks of contracting the disease with the risks of complications from vaccines may help convince some hesitant patients. After your first vaccine conversation with a patient it's important to keep the dialogue going regardless of whether they continue to be hesitant or not. Patients may not be forthcoming with concerns or questions they have so you want to provide them with an opportunity to have a discussion at every visit. If a patient has previously expressed support for vaccination, asking them how they feel about the vaccine rollout or how their mental health has been while they wait to receive a vaccine may be a great conversation starter. For patients that have previously expressed hesitancy towards vaccines, asking them how they feel about the vaccine given all the media coverage recently may also be a good conversation starter. For patients you see infrequently, consider sending them an email or calling them directly to evaluate their interest in receiving the vaccine and address any concerns they might have. This is especially important for patients at high-risk for COVID-19 illness and complications. While the reasons patients are hesitant towards receiving vaccines are unique to them, there are some concerns that are more common than others. For example patients are often concerned about how safe the COVID-19 vaccines are given how fast they were developed and that Pfizer and Moderna vaccines are the first mRNA vaccines to be used. They may be worried shortcuts were taken to get the vaccines out quickly. Taking time to review the clinical trial process with patients as well as the results from those trials may help decrease vaccine hesitancy. Patients might also respond well to review in the numbers of vaccinations since the start of the trial. For example as of January 2021 well over 30 million doses of COVID-19 vaccines have been administered worldwide without any adverse reactions not already seen in the clinical trials. Another common belief held by patients is that they are not at risk of infection or serious illness or that COVID-19 is not a real disease. Young adults in particular may feel that they are immune to infection or serious illness. Highlighting epidemiological trends and emphasizing young patients can still develop serious symptoms that may persist for years after infection may help promote vaccination. For patients who doubt COVID-19 is real, one strategy may be to ask them about their friends, family, and coworkers. Have any of them been getting sick? What have their experiences been like? Encouraging these patients to talk with those they trust who have been ill or who have worked directly with those who have been ill may help encourage them to get vaccinated. Patients may also be hesitant towards the vaccine because they have existing hesitancies towards other vaccines. This can be due to many of the reasons we've already discussed as well as religious reasons, mistrust of the government, healthcare, or pharmaceutical institutions, a desire to maintain control of their body, believes natural infections produce stronger immunity than vaccination, that vaccines don't work, or that vaccines cause diseases such as autism. Identifying which of these beliefs a patient holds and providing resources that address these beliefs may help patients become less hesitant. To summarize, start a conversation with your patients on vaccination early and continue to engage them on the subject regularly. Do your best to understand their existing knowledge and opinions and learn about their specific concerns and where their concerns are coming from. Always approach the subject in a supportive manner and above all else maintain a good working relationship with your patient even if they decide vaccination is not for them.

End of Video Transcript.

Addressing Vaccine Hesitancy: The Three Key Elements of a Conversation

The three key elements to a conversation that addresses vaccine hesitancy are:

1. Distinguish vaccine hesitancy from hostility
2. Cultivating interpersonal involvement by the provider
3. Promote informed decision-making

Step 1: Distinguish Vaccine Hesitancy from Hostility

The first step when having a conversation that addresses vaccine hesitancy is to identify whether the individual is **vaccine hesitant** or **vaccine hostile**.

Continue to learn the difference between vaccine hesitancy and vaccine hostility.

Vaccine hesitancy is a state where a person has a delay in acceptance or refusal of vaccination despite availability of vaccination services. It is complex and context-specific, varying across time, place, and vaccination. [5]

Vaccine hostility or refusal is a popularized notion (as opposed to a studied phenomenon) where hesitancy has become so entrenched that it has become 'an article of faith.' It has been popularized rather than scientifically proven, which means that it can still be considered an extreme form of hesitancy rather than its own construct.[6]

Think back to the 5Cs from the previous section. As you engage in conversations with patients and clients about the COVID-19 vaccine and vaccination, really listen to what they are saying, and consider the underlying factors motivating their hesitancy.

What might an individual need to move them closer towards vaccination acceptance? Are these barriers at the individual, interpersonal, organizational, or sociocultural level?

Healthcare and service providers can help individuals by having conversations that can instill confidence about the vaccine and the vaccination process.

Watch the video for some examples of how to engage in conversations with patients about COVID-19 vaccinations from other healthcare providers. (5:08)[7]

As you watch, consider what strategies have been or could be implemented to remove barriers to vaccination in your community.

COVID-19: Helping the vaccine hesitant get the shot

Start of Video Transcript:

[Andrew Chang] "Welcome back. It has been nine months since Canada began its nationwide COVID-19 vaccination program. Since then, more than 79% of those eligible have received two doses which is pretty high compared to most other countries. But as doctors have warned and as we've seen from the latest wave of infections it's certainly not enough to end the pandemic. So let's try to understand a bit: more the cause, the stakes, and the solution to the problem with two doctors joining us right now. We've got Dr. Warda Iqbal,

a family doctor who also spends time in the community providing information, help, and guidance to those who have yet to get the vaccine. We also have infectious diseases specialist Dr. Sumon Chakrabarti joining us. Hello to both of you. So you know we saw in Ioanna's reporting a whole variety of perfectly understandable reasons why people might opt not to get the vaccine, but I'd like to hear from both of you, what have you learned from your conversations with those people? Dr. Iqbal, maybe I'll start with you."

[Dr. Iqbal] "Hi Andrew, thank you for having me here today. So I guess the first thing is I don't really like to use the term vaccine hesitation as much as I like to talk about instilling confidence when it comes to these vaccines. What I've been finding especially through my work in the community is that there are a number of reasons that people might not have this confidence and two of the things that I've been seeing a lot especially in the last couple of months are number one, might be mistrust which comes from experiences that people have with the health-care system whether that's here in Canada or maybe it's back home with that health-care system, and I think number two is just trying to sift through the amount of information that's out there. It's hard for people to be able to navigate the information that's coming at them so quickly and this could be because of maybe people are busy, they're doing double shifts, they're essential workers or it might be because it's in a language that they don't necessarily understand and I find that these two are the most common reasons that people still don't have the confidence that they should have at this point in the vaccine."

[Andrew Chang] "And Dr. Chakrabarti what have you learned or have you been surprised by anything that your patients have told you?"

[Dr. Chakrabarti] "Yeah absolutely, I think the big surprise is and it shouldn't be a surprise at this point is most people are not against taking the vaccine. They just want to sit down and have a conversation about it and the surprising part is I'm sitting there ready often with numbers and figures, but it's not that. They just want to have the conversation, feel like they've been listened to and have reassurance coming from somebody who knows what they're talking about which I guess would be me, but the point that I'm trying to make is that if you have compassion and alleviate concerns, this really does help a long way in reassuring people that it's safe and get the vaccine."

[Andrew Chang] "Speaking of numbers, Dr. Chakrabarti we heard Ioanna refer to the idea of herd immunity. Do we even know what that magic number even is nowadays given how transmissible Delta is?"

[Dr. Chakrabarti] "Absolutely, this number is much higher than it was before and you know this is a dynamic situation, this is a model that we use but it's around 90% in terms of immunity that can be from the vaccine or it can be from natural immunity as well but it's much higher than with the classic Covid. It's something that's going to be harder to obtain. We will get there at some point, but we do have some work to do."

[Andrew Chang] "But I guess it's funny to think that herd immunity is very much a local concept, right? It only matters on a local level, not really so much on a national level, right?"

[Dr. Charabarti] "Absolutely, and what we're seeing across Canada is an aggregate of many, many different processes happening in different parts of the country so you know when you look at it you can get a herd immunity in an area, it can change, and you can get it across the country eventually, but the point is yes, you have to look at what's going on in the geographical region, you know go to the problems that are there, address them and the main thing is get vaccinated, that's our best defense that we have."

[Andrew Chang] "So Dr. Iqbal, what works in those conversations that you have with your patients just in terms of you know arriving at some kind of joint common understanding about how best to approach the question of vaccination?"

[Dr. Iqbal] "Yeah, so what we've been finding is that what we have been doing recently is we're doing a bunch of pop-ups that really brings the vaccines closer to people. So we've been doing pop-ups when it comes to buildings in the lobbies. We might be at an intersection somewhere just setting up shop there, and what we're trying to do is we're trying to build confidence by bringing vaccines to the people and trying to make it more convenient for them. Furthermore, I think what we're trying to do is we're trying to create a space where people don't feel judged, they feel like they have a safe space. I think we really need to understand that when it comes to lack of confidence, it comes from a set of belief, from a set of values, and we need to be in a position where we can respect that, having a conversation where we listen to them, as opposed to talk to them, and when this is done in a way where people don't feel judged and they feel like it's an informal conversation it really opens up the doors to be able to have these conversations and move towards building that confidence."

[Andrew Chang] "Well clearly, there's so much more time needed to have a fulsome conversation about this but this is a good start. Thank you, both of you for your time, really appreciate that."

[Drs. Iqbal and Charabarti] "Thank you Andrew."

End of Video Transcript.

"Those with pre-existing health conditions and co-morbidities were often on the spectrum of vaccine hesitancy – many were interested in/pro-vaccine but at the same time expressed concerns on the 'newness' of this vaccine and potential interactions it may have with existing health conditions/medications. Risk vs benefit conversations with this group were very effective at reducing hesitancy, particularly when discussing the many risks associated with COVID-19 infection."

- Nurse

Click the buttons to learn more about vaccine hesitancy and vaccine hostility.

Addressing Vaccine Hesitancy[8]

Vaccine Hesitancy Morphs into Hostility, as Opposition to Shots Hardens[9]

Step 2: Cultivating Interpersonal Involvement by the Provider

Interpersonal involvement has also been identified as an important social determinant of motivation. Interpersonal involvement reflects the healthcare and service providers relationships with their patients. This can include the degree to which providers show a genuine interest in their clients, are knowledgeable about them, and display affection and care. Connell and Wellborn (1991)[10] suggest that interpersonal involvement can foster perceptions of relatedness and the internalization of behaviours and values.

One way healthcare and service providers may enact this is by speaking in a calm, directive, and warm manner. Providers may also ask questions about their patients (both specific to the vaccine and about their broader experiences) to show patients that they are genuinely interested in their well-being.

Continue for examples of open-ended questions that could be posed during initial and subsequent conversations with patients.

INITIAL CONVERSATION

The goal of an initial conversation is to show genuine interest and to engage the patient in a conversation while using a respectful tone. Research shows that the use of presumptive statements when initiating a discussion with patients about vaccines helps convey the social norm of vaccination and the expectation that patients will vaccinate (e.g., "Would you like me to schedule you for a COVID-19 vaccine?" or "Have you received your COVID-19 vaccine yet?").[11]

You may also use participatory dialogue and open-ended prompts, such as:

- How much do you know about the COVID-19 vaccine?
- How strong are your beliefs regarding vaccination generally?
- What are your thoughts on the COVID-19 vaccination rollout?
- How do you feel about the COVID-19 vaccine?

SUBSEQUENT CONVERSATIONS

Keep the dialogue going by providing an opportunity for discussion at every visit (or initiate discussion through phone or email, especially for high-risk patients).

For previously supportive patients, you might ask:

- Has your view on the vaccine changed since the last time we spoke?
- How do you feel about the vaccine rollout?
- How has your mental health been during the pandemic?

For previously hesitant patients, you might ask:

- How do you feel about the vaccine given the media coverage lately?

Step 3: Promote Informed Decision-Making

Healthcare providers can promote informed decision-making in their patients by answering patient questions and providing clearly supported facts, while acknowledging that it is the patient's decision to make and that you are simply providing them with information to help them make the most informed decision.

Healthcare and service providers can also consider practicing motivational interviewing techniques.

Motivational interviewing has been proven to be effective because it is a collaborative and goal-oriented style of communication with particular attention to the language of change.[12] It is designed to

strengthen personal motivation for and commitment to a specific goal by eliciting and exploring the person's own reasons for change within an atmosphere of acceptance and compassion.[13]

This process emphasizes partnership, acceptance, compassion, affirmation, reflection, and the respectful exchange of information.

In this section, you were introduced to elements of motivation theory and how they can be applied to conversations about vaccine hesitancy with patients. You learned the three key elements of the conversation: distinguish vaccine hesitancy from hostility, interpersonal involvement, and promote informed decision-making.

Page Link:

https://www.youtube.com/watch?v=yZwVOD-lTx4&feature=emb_title

https://cdn.embedly.com/widgets/media.html?src=https%3A%2F%2Fwww.youtube.com%2Fembed%2FrdvUI_oo0Sc%3Ffeature%3Doembed&display_name=YouTube&url=https%3A%2F%2Fwww.youtube.com%2Fwatch%3Fv%3DrdvUI_oo0Sc&image=https%3A%2F%2Fi.ytimg.com%2Fvi%2FrdvUI_oo0Sc%2Fhqdefault.jpg&key=40cb30655a7f4a46adaaf18efb05db21&type=text%2Fhtml&schema=youtube

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6515949/

https://www.washingtonpost.com/politics/covid-vaccines-biden-trump/2021/07/15/adaf6c7e-e4bd-11eb-a41e-c8442c213fa8_story.html

References:

[1] Maehr, M. L., & Meyer, H. A. (1997). Understanding Motivation and Schooling: Where We've Been, Where We Are, and Where We Need to Go. Educational Psychology Review, 9(4), 371–409. Retrieved July 2022 from https://doi.org/10.1023/A:1024750807365

[2] Ryan, R. M., & Deci, E. L. (2000). Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions. Contemporary Educational Psychology, 25(1), 54–67. Retrieved June 2022 from https://doi.org/10.1006/ceps.1999.1020

[3] Blum, L. D., Horenstein, A., Carper, M. M., Stange, J. P., Cohen, J. N., Doyle, A., & Smith, V. (2021). A new instrument to assess counterdependency, evaluated in the context of postpartum depression. Psychoanalytic Psychology, 38(1), 49–57. Retrieved June 2022 from https://psycnet.apa.org/record/2020-45075-001

[4] Osmosis. (2021, March 31). Vaccine hesitancy [Video]. Youtube. Retrieved June 2022 from https://www.youtube.com/watch?v=yZwVOD-lTx4

[5] MacDonald, N. E. (2015). Vaccine hesitancy: Definition, scope and determinants. Vaccine, 33(34), 4161–4164. Retrieved July 2022 from https://doi.org/10.1016/j.vaccine.2015.04.036

[6] Bajos, N., Spire, A., Silberzan, L., & EPICOV study group (2022). The social specificities of hostility toward vaccination against Covid-19 in France. PloS one, 17(1), e0262192. Retrieved June 2022 from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8735622/

[7] CBC The National. (n.d.). COVID-19: Helping the vaccine hesitant get the shot [Video]. Youtube. Retrieved June 2022 from https://www.youtube.com/embed/rdvUI_oo0Sc

[8] Shen, S. C., & Dubey, V. (2019). Addressing vaccine hesitancy: Clinical guidance for primary care physicians working with parents. Canadian family physician Medecin de famille canadien, 65(3), 175–181. Retrieved June 2022 from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8735622/

[9] Diamond, D., Knowles, H., Pager, T. (2021, July 15). Vaccine hesitancy morphs into hostility, as opposition to shots hardens. The Washington Post.

[10] Connell, J. P., & Wellborn, J. G. (1991). Competence, autonomy, and relatedness: A motivational analysis of self-system processes. In M. R. Gunnar & L. A. Sroufe (Eds.), Self processes and development (pp. 43–77). Lawrence Erlbaum Associates, Inc.

[11] Government of Canada. (2021). Addressing vaccine hesitancy in the context of COVID-19: A primer for health care providers. Retrieved June 2022 from https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/health-professionals/vaccines/vaccine-hesitancy-primer.html

[12] MINT. (2021). Understanding Motivational Interviewing. Retrieved June 2022 from https://motivationalinterviewing.org/understanding-motivational-interviewing

[13] Miller, W. R., & Rollnick, S. (2013). Motivational Interviewing: Helping people change. (3rd ed.). Guilford Press.

End of Section 02

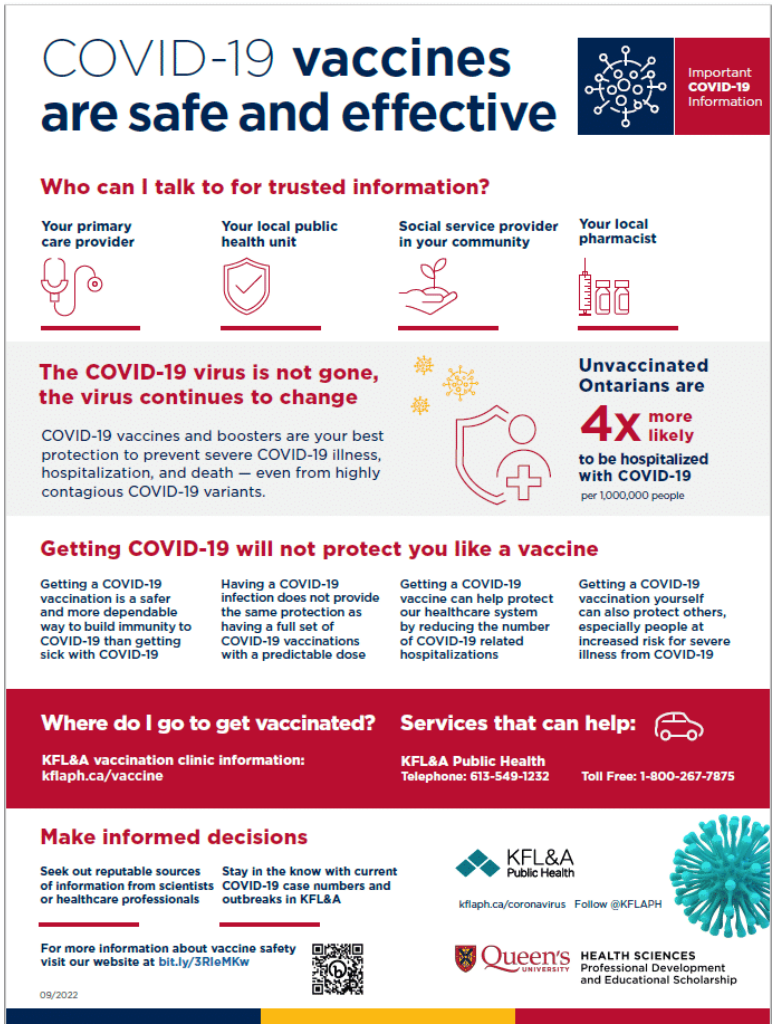
MODULE CONCLUSION

As the KFL&A region, as well as the rest of Ontario and Canada, continued to open up and lessen restrictions, an increase in hesitancy among individuals who were not yet vaccinated was observed. Continuing to engage in these conversations is incredibly important. Remember that every person is going to have their own unique reasons for not being vaccinated, and that all of these reasons stem from very valid concerns. You can increase the likelihood of positive encounters by taking the time to engage in conversations that identify the underlying factors motivating an individual's vaccine hesitancy. Using conversational strategies that maintain a person-centred and collaborative approach are also key during these discussions. Remember that even if it does not seem likely that you will change someone's mind, the more often you engage in open, non-judgmental conversations with them, the more likely it is that they will move closer to vaccine acceptance.

Supporting Resources

Resources & COVID-19 Information

Public information for KFL&A



Acknowledgment

This online module was developed by the Office of Professional Development and Educational Scholarship (Queen's Health Sciences) in collaboration with our community-based partners. This project was made possible with funding from Health Canada.

Project Team

- David Barber
- Grandmother Kathy Brant
- Samantha Buttemer
- Megan Carter
- Katrina Gee
- Tom Greening
- Hugh Guan
- Daria Adèle Juüdi-Hope
- Alexander Hamilton
- Amber Hastings-Truelove
- Klodiana Kolomitro
- Brian Larkin
- Kirk Leifso
- Jeanne Mulder
- Jane Philpott
- Amanda Ross-White
- Amrita Roy
- Denise Stockley
- Rebecca Theal
- Kelsey Tucker
- Jennifer Turnnidge
- Richard van Wylick
- Rosemary Wilson
- Brent Wolfrom

Page Link:

https://healthsci.queensu.ca/opdes/about-us/project-showcase/KFLA-COVID-Info

https://creativecommons.org/licenses/by-nc-nd/4.0/

End of Conclusion

End of Module