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Addressing Vaccine Hesitancy

Emerging Tools for Clinicians



Land Acknowledgement

BC Children's Hospital Research Institute and UBC operates on the traditional, ancestral, and unceded territory of the Coast Salish peoples — x^wməθk^wəy^əm (Musqueam), Sk^wx^wú7mesh (Squamish), and Səlílwətaʔ/Selilwitulh (Tsleil-Waututh) Nations. Further, this acknowledgement, gratitude, and respect extends to all of the First Nations communities on whose traditional territories you may be joining us from today



Objectives

- Overview of vaccine hesitancy
- Traditional vaccine communication strategies
- What pregnant people and perinatal care providers want
- Describe new communication intervention



The Problem



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HEALTH RUNNING

HEALTH

TRENDING Ghomeshi | Income splitting | Ottawa | Magnotta | ISIS | Ford | NHL | Space Ship Two

Parents 'horrified' after botched vaccination exposes six-year-old B.C. girl to HIV

GORDON MCINTYRE, POSTMEDIA NEWS | October 29, 2014 | Last Updated: Oct 29 8:10 AM ET
More from Postmedia News



ed-vaccination-exposes-six-year-old-b-c-girl-to-hiv/...

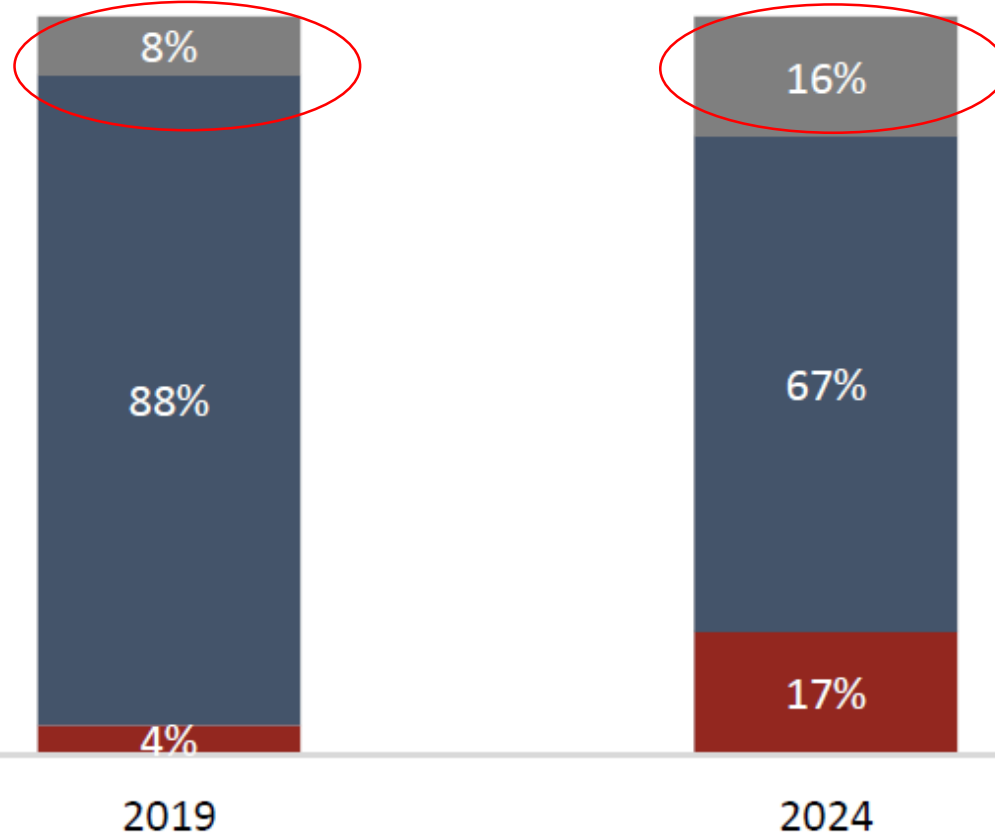
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Non-vaccinating
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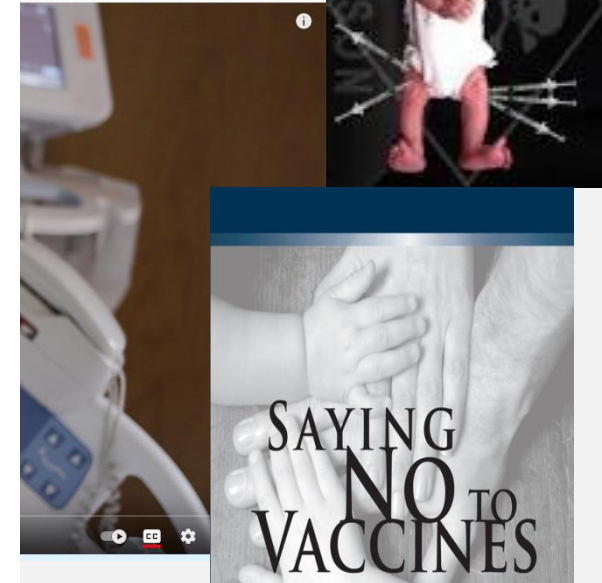
ELIZABETH PAYNE
More from Elizabeth Payne
Published on: March 19, 2014 | Last Updated: 7

Thinking about your own children, how do you feel about vaccinating them?
(Among parents with kids under 18)



- I'm not sure
- I would vaccinate my children without reservation
- I'm really against vaccinating my children

YT Opinion



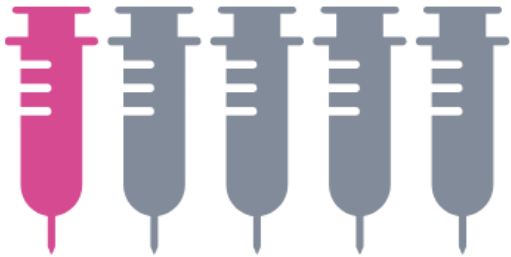
Angus Reid Institute
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14 | Last Updated: May 20, 2014 4:41 AM EST



Background

- Maternal and neonatal immunization is underutilized in Canada



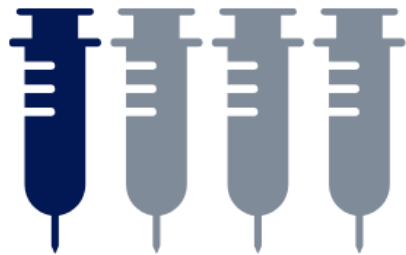
1 in 5
pregnant people
receive the Influenza
vaccine¹

16%

lower COVID-19
vaccine coverage
among pregnant
people in 2021²

10x

more likely to
receive pertussis or
influenza
vaccination after
recommendation³



1 in 4
pregnant people
receive the Tdap
vaccine¹

1. Program ACDCPC-wl. Alberta Influenza Immunization Coverage Report 2018-2019. Province-wide Immunization Program Communicable Disease Control (CDC).

2. Fell DB et al. Association of COVID-19 Vaccination in Pregnancy With Adverse Peripartum Outcomes. *Jama*. 2022

3. Kilich E et al. Factors that influence vaccination decision-making among pregnant women: A systematic review and meta-analysis. *PLoS ONE* (2020)





WHO/Rada Akbar



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Child



WHO/Sergey Volkov

Vaccine hesitancy

Vaccine hesitancy – the reluctance or refusal to vaccinate despite the availability of vaccines – threatens to reverse progress made in tackling vaccine-preventable diseases. [Vaccination](#) is one of the most cost-effective ways of avoiding disease – it currently prevents 2-3 million deaths a year, and a further 1.5 million could be avoided if global coverage of vaccinations improved.

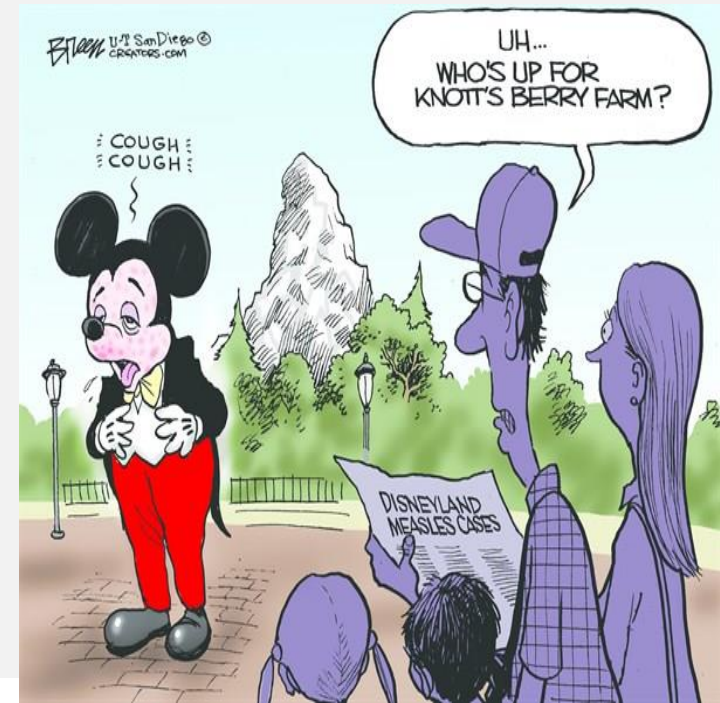
Measles, for example, has seen a 30% increase in cases globally. The reasons for this rise are complex, and not all of these cases are due to vaccine hesitancy. However, some countries that were close to eliminating the disease have seen a resurgence.

The reasons why people choose not to vaccinate are complex; a [vaccines advisory group](#) to WHO identified complacency, inconvenience in accessing vaccines, and lack of confidence are key reasons underlying hesitancy. Health workers, especially those in communities, remain the most trusted advisor and influencer of vaccination decisions, and they must be supported to provide trusted, credible information on vaccines.

In 2019, WHO will ramp up work to eliminate [cervical cancer](#) worldwide by increasing coverage of the HPV vaccine, among other interventions. 2019 may also be the year when transmission of wild poliovirus is stopped in [Afghanistan and Pakistan](#). Last year, less than 30 cases were reported in both countries. WHO and partners are committed to supporting these countries to vaccinate every last child to eradicate this crippling disease for good.

Definition of Vaccine Hesitancy

- **Vaccine Hesitancy**
 - Refers to delay in acceptance or refusal of vaccines **despite availability of vaccine services**
 - **Complex and context specific** varying across **time, place** and **vaccine**
 - Influenced by such factors as
 - **Complacency**
 - **Convenience**
 - **Confidence**



Vaccine Hesitancy

- Vaccine Hesitancy: as old as vaccination. Since Jenner first scraped cow-pox blisters & inoculated people
- Vaccine refusal:
 - Associated with outbreaks
 - Pertussis in the UK
 - Measles in the UK
 - Mumps in the UK
 - Rubella in the UK
 - Associated with outbreaks
 - 140,000 measles cases 2018
 - 8 whooping cough 2017 US/Canada; 5 in 2018

Hesitancy can affect any vaccine program



Anti-vaccine cartoon, *The Punch*, 1802.
Opponents of smallpox vaccination showed vaccinees developing bovine features

Who is Hesitant?

The French Rejection 26

God of Cricket 40

TIME

ARE YOU **MOM ENOUGH?**

Why attachment parenting drives some mothers to extremes—and how Dr. Bill Sears became their guru

BY KATE PICKERT

Source:
www.time.com

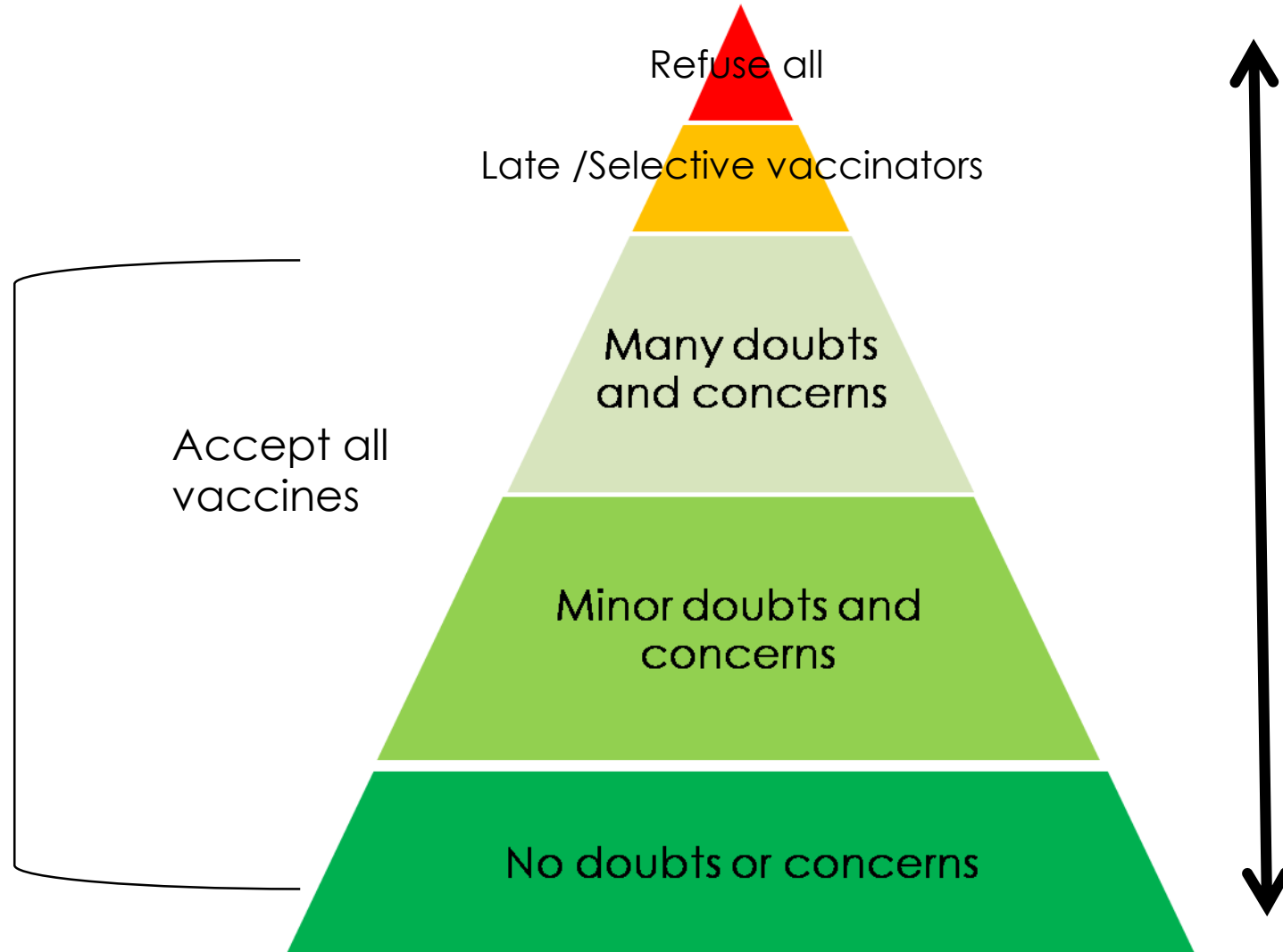
Jamie Lynne Grumet, 26, and her 3-year-old son

www.time.com

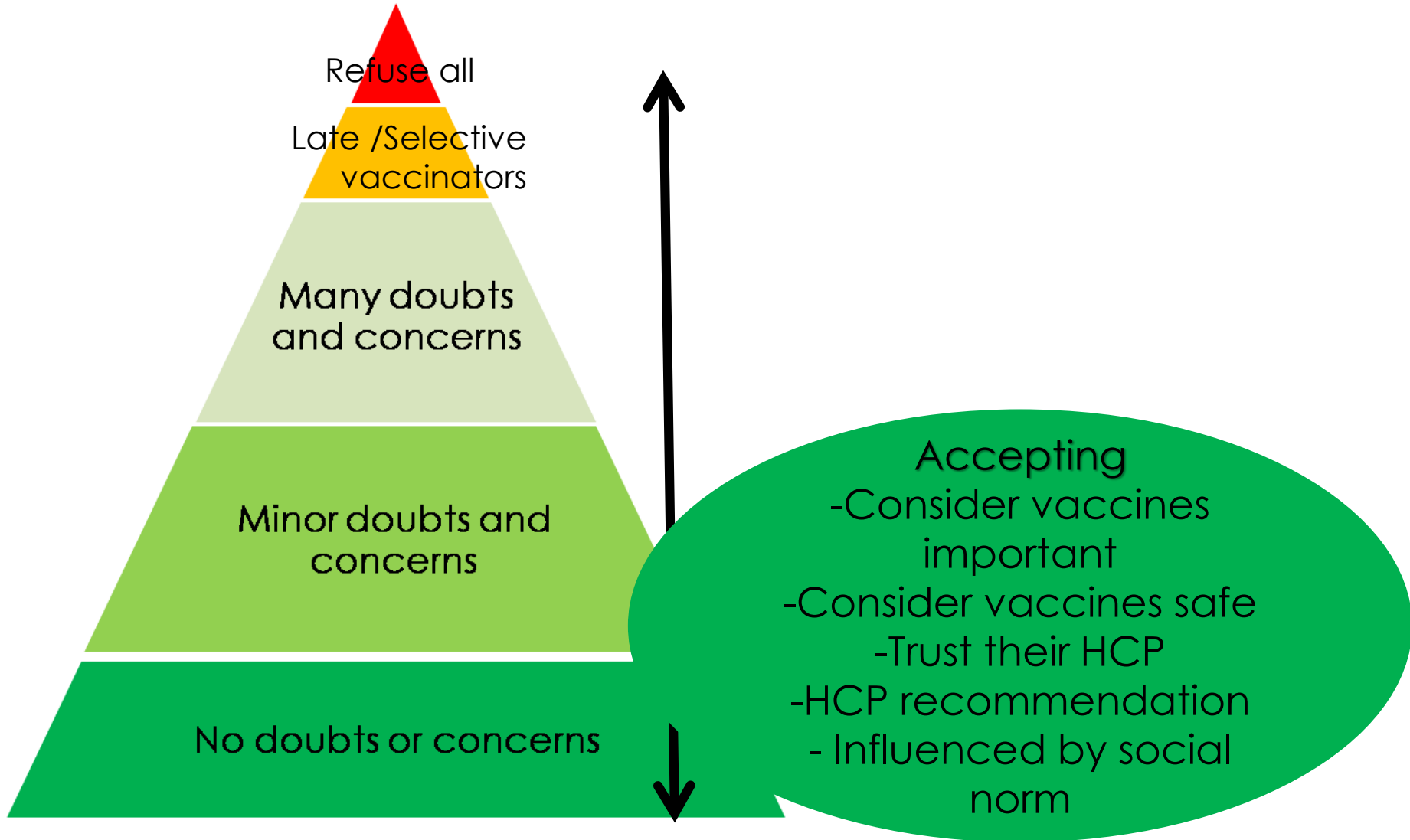
Who is Hesitant?



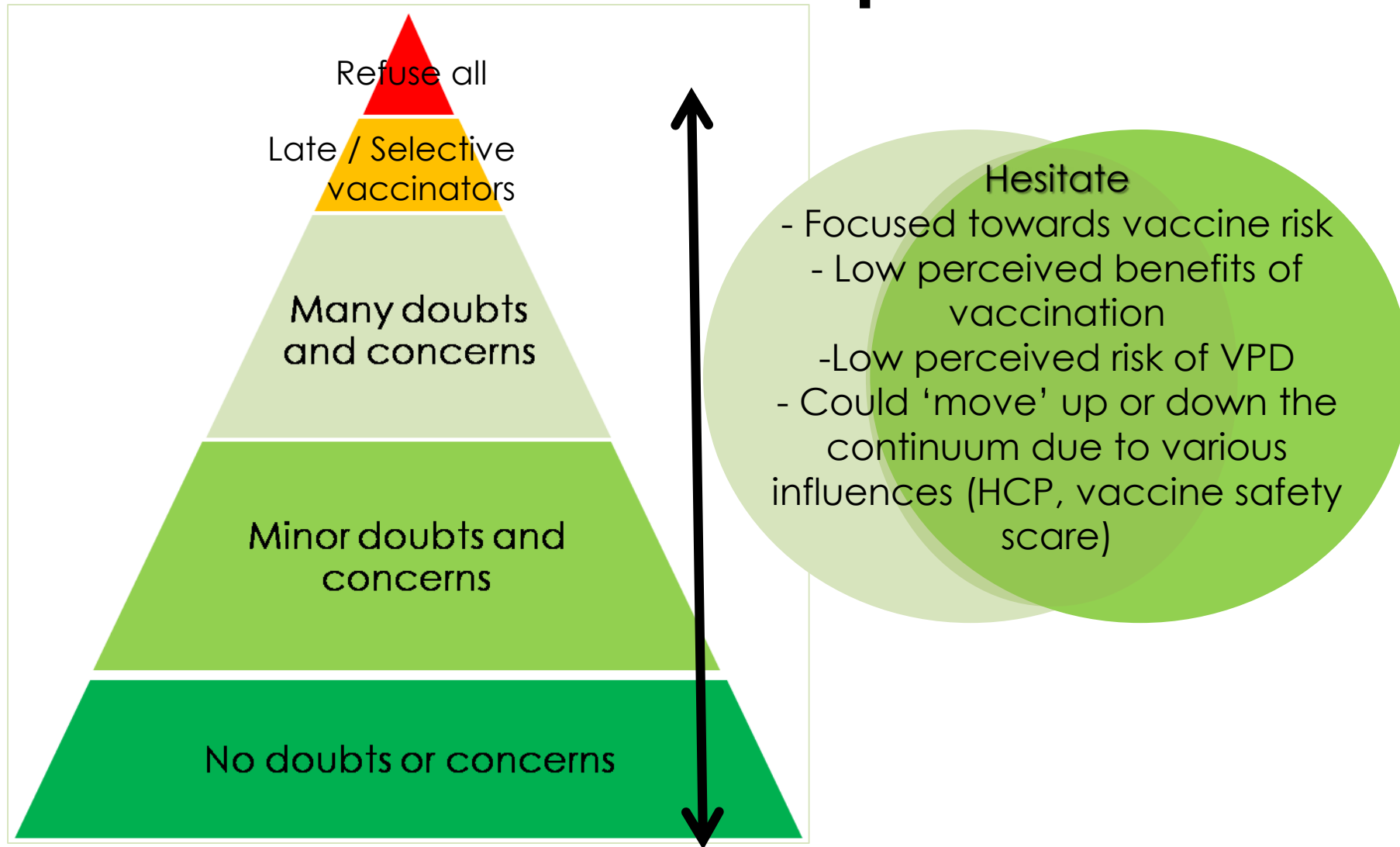
The Continuum of Vaccine Acceptance



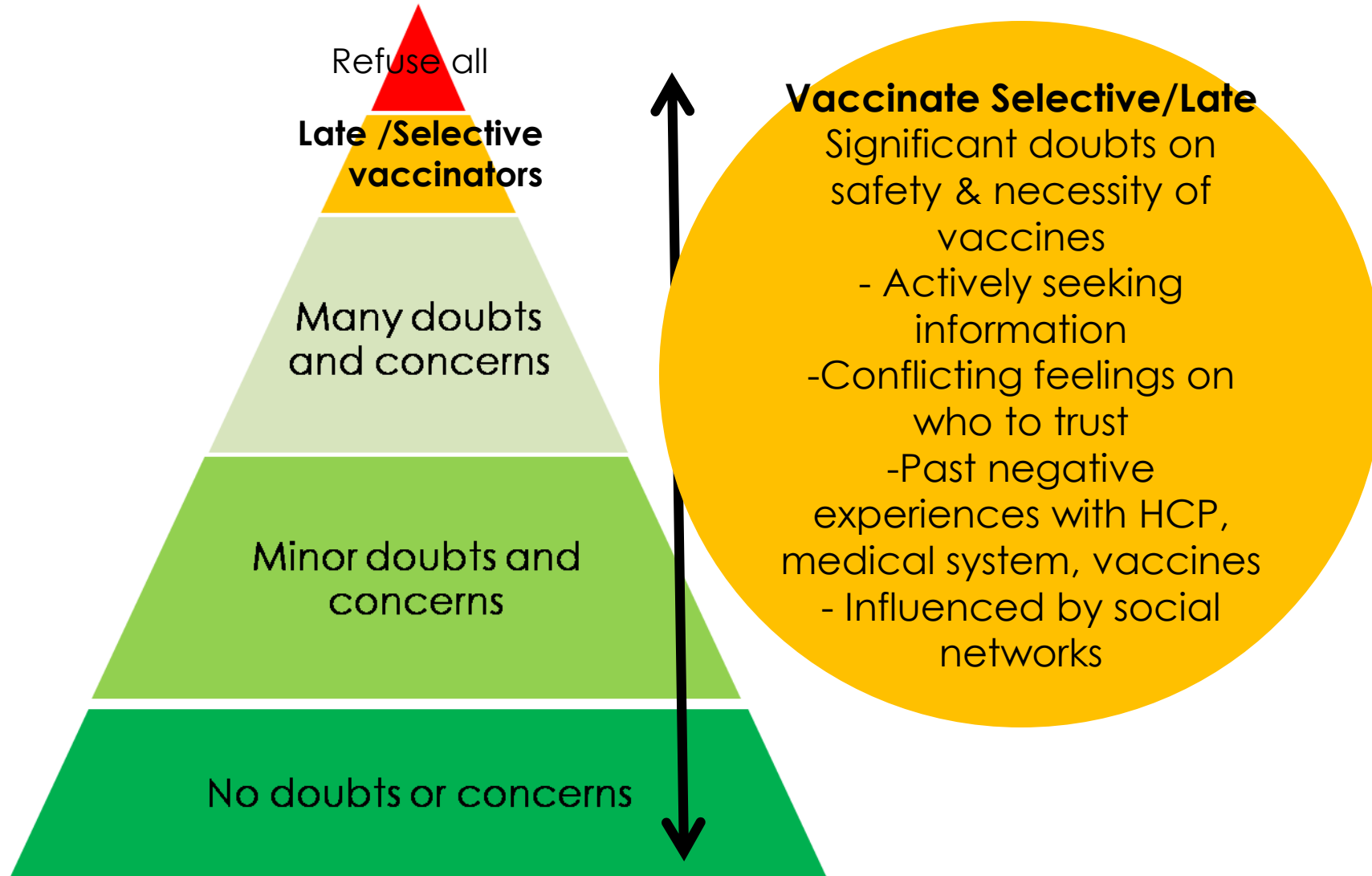
The Continuum of Vaccine Acceptance



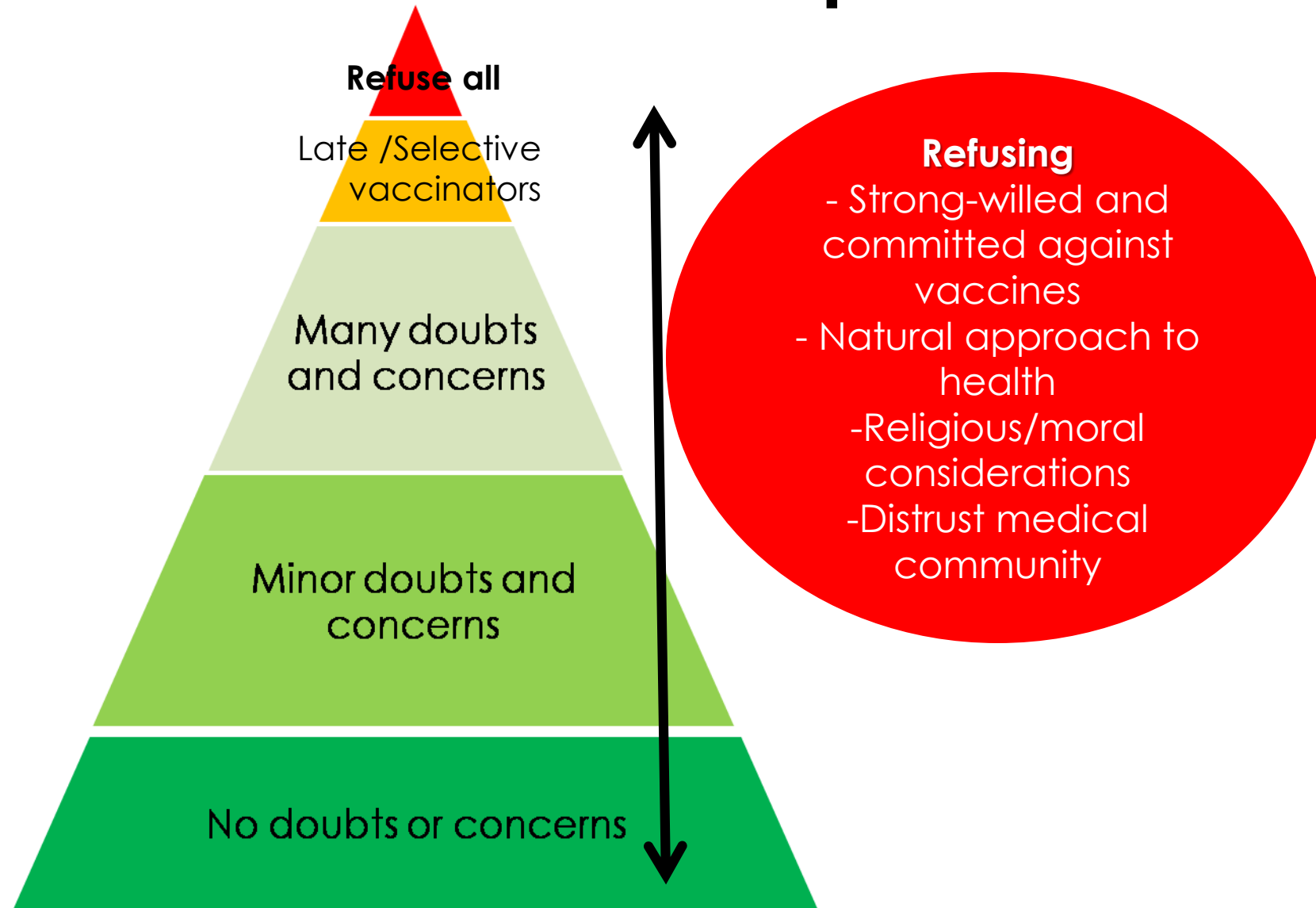
The Continuum of Vaccine Acceptance



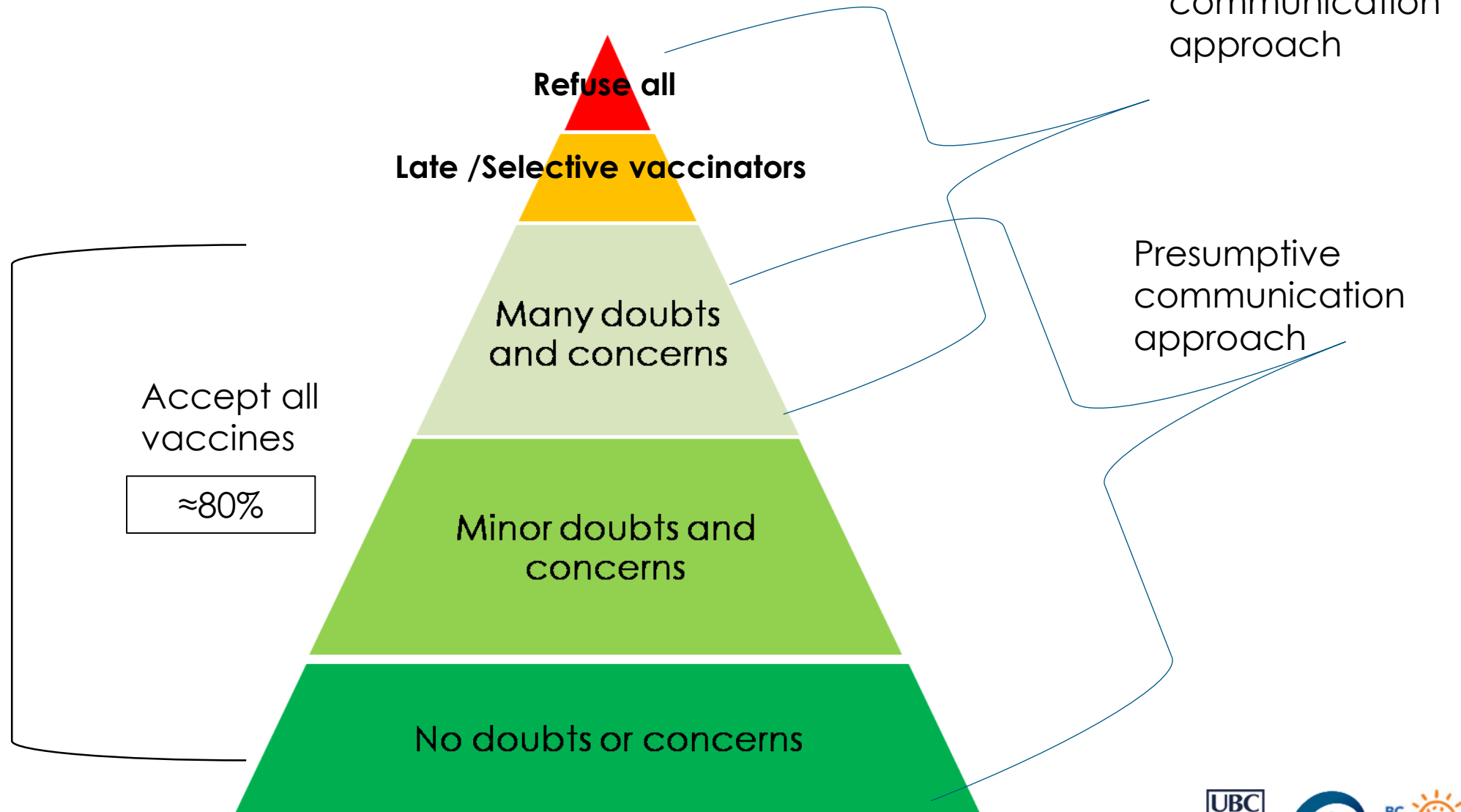
The Continuum of Vaccine Acceptance



The Continuum of Vaccine Acceptance



The Continuum of Vaccine Acceptance



Traditional Approaches to Vaccine Conversations

1. Participatory Approach

"Have you thought about the flu vaccine?"

"Would you like to discuss the flu vaccine?"

- ✔ Shared decision-making
- ✔ Patient autonomy

*"I think I've always preferred that it's a **conversation** rather than, as I mentioned, dictated."*

- Focus Group Participant 14



2. Presumptive Approach

- ✔ Clear delivery of recommendation
- ✔ Standard of care

*"I prefer the **strong recommendation** just to know the doctor's opinion. Is not like I'm going to base my decision on that, but I prefer more confident."*

- Focus Group Participant 8

"You need to get your flu vaccine today."



What do perinatal care providers need?

Research with Canadian pregnant people, new parents, midwives, family physicians and obstetric providers 2010-present

- What do pregnant people need for vaccine recommendations/conversations?
- What influences vaccine recommendations and practices of perinatal HCP?
- How are informed choice vaccine conversations taking place?
- What supports do midwives and other perinatal care providers need to have vaccine conversations?



Pregnant people: Canadian data

- Pre-natal period optimum time for vaccine conversations and decisions: pregnancy vaccine infant vaccines
- Pre-natal care providers **TRUSTED**; often ideal HCP to hold these conversations
- Decisions/behavior with first child influential with next

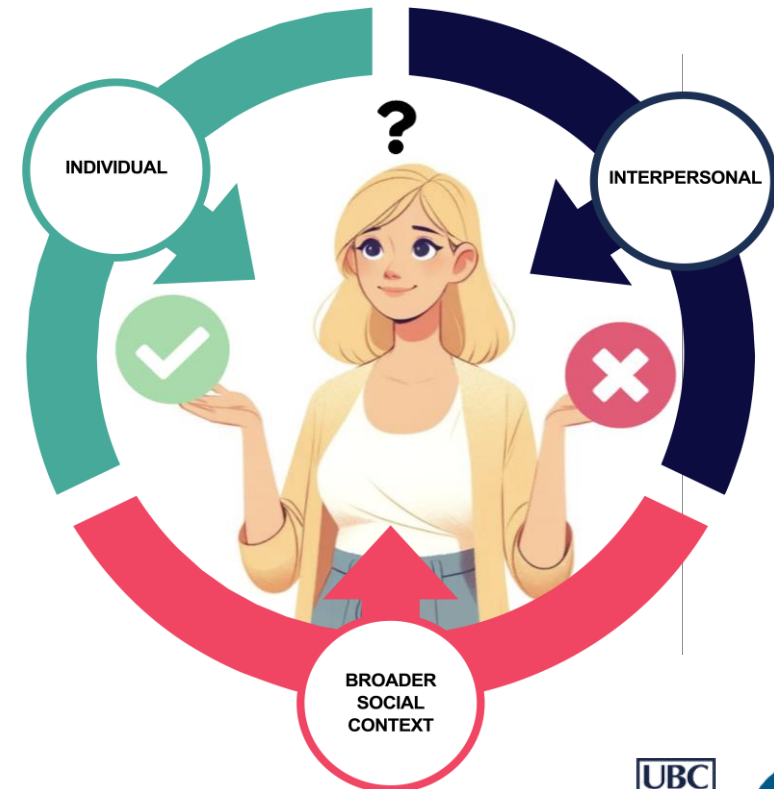


Pregnant people: Canadian data

Pregnancy is a **UNIQUE** lived-experience where several factors influence decisions, and a **pregnancy-specific approach** to vaccination communication is needed



This is the context in which vaccination communication in pregnancy takes place.



Need for a pregnancy-tailored approach.

Active participation

Clear recommendation



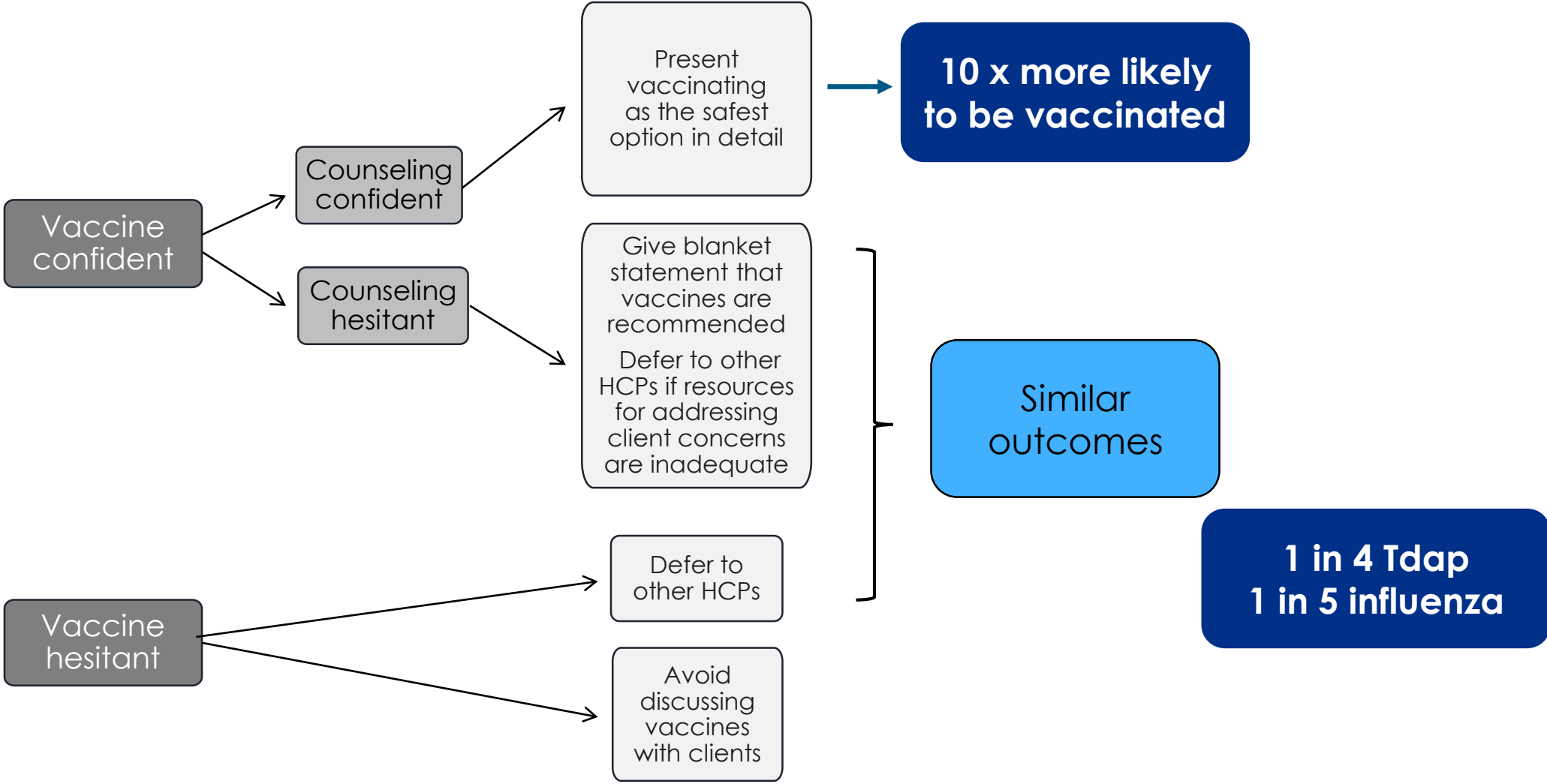
Pregnant Patients Want a **Balanced** Approach.

"I think just being given all the information and then giving me time to think about it and do my own research rather than just saying, you have to get these, these are the ones that you need in that moment.

- Focus Group Participant 1

Orhierhor et al. SSM Qual Res Health, 2023; Rubincam et al. BMC Public Health, 2022; Reifferscheid et al. CJPH, 2022; Greyson et al. Health Ed & Behav, 2021; Dube et al. HVI, 2020; Mijovic et al. CMAJ Open 2020; Bettinger et al. JOGC, 2016.

What influences vaccine recommendations

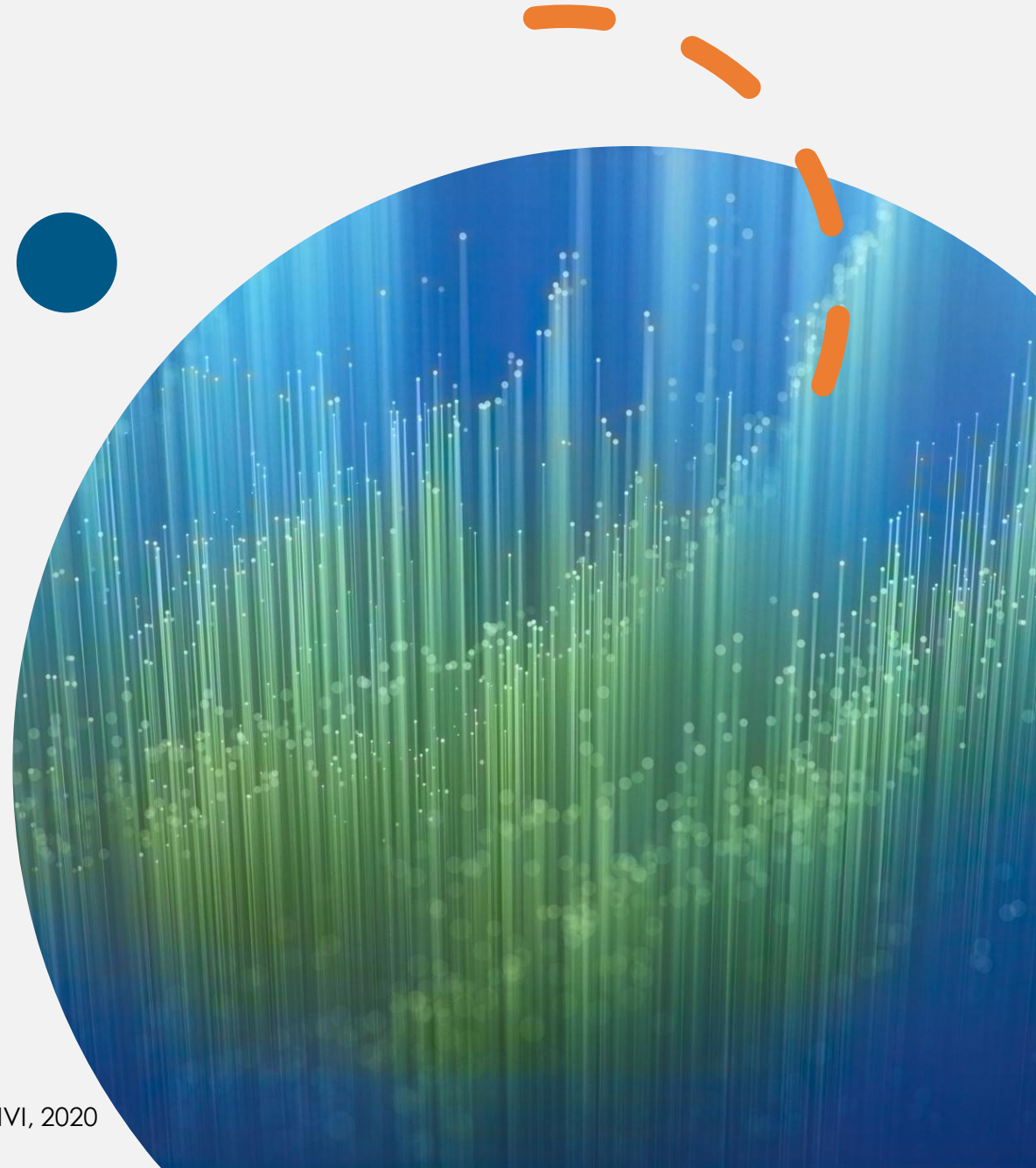


What do midwives need?

Challenges in discussing vaccination with clients, when using resources not suited to Informed Choice

Clarify midwives' role in vaccine counselling

Opportunities to build capacity





Vaccine In Pregnancy Intervention Objective:

Improve the **quality** and **frequency** of vaccine communication in pregnancy

Solution:

Centralized digital repository with evidence-based resources for BOTH patients and providers, and a co-designed communication course for providers to practice vaccine in pregnancy conversation skills



VIP Intervention initiated by:



THE UNIVERSITY
OF BRITISH COLUMBIA

Faculty of Medicine

Dr. Julie Bettinger, PhD, MPH
Kim Campbell, RN, RM MN
Lisa Blackwell, RN



UNIVERSITY OF
CALGARY

Dr. Eliana Castillo, MD
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Marcia Bruce, BComm

THE UNIVERSITY OF
MELBOURNE

Margie Danchin, MD
Jessica Kaufman PhD



The Ottawa
Hospital
Research Institute

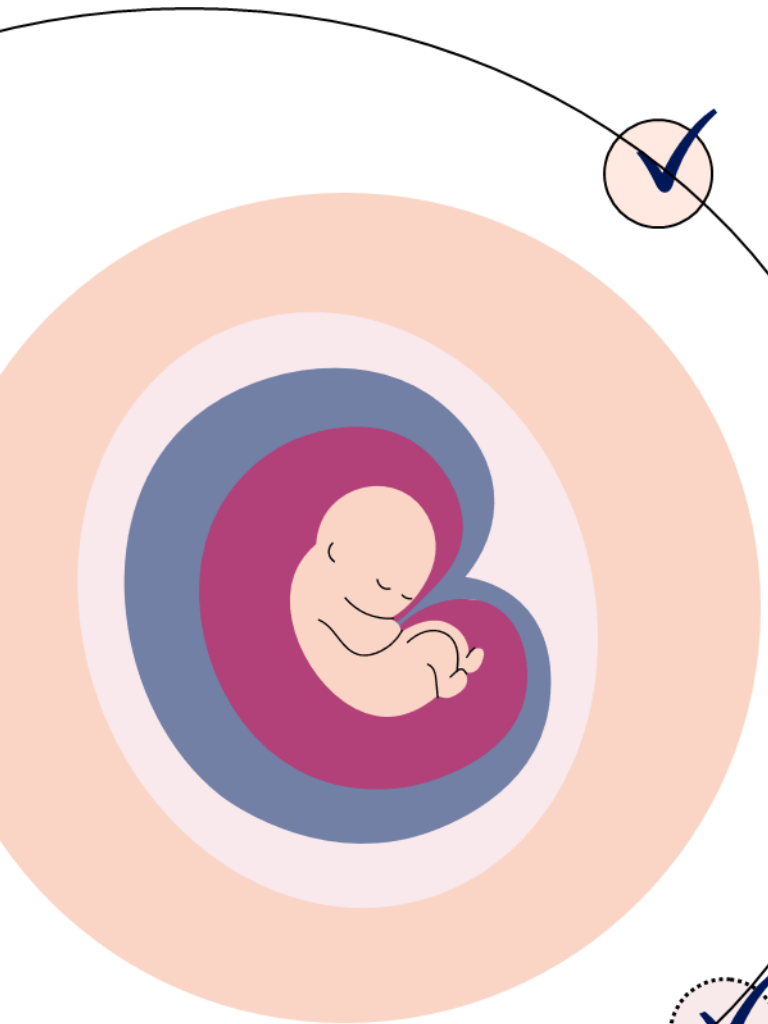
Andrea M Patey, PhD



**VACCINES IN
PREGNANCY
CANADA**

Funding for this study was provided by Canadian Immunization Research Network (CIRN), Canadian Institutes of Health Research, Public Health Agency of Canada and Pfizer Canada unrestricted grant (HCP training)

Work to Date



STEP 1: Characterized SKAI, an existing Australian intervention, using the Behavior Change Techniques taxonomy (BCTs)

SKAI: <https://skai.org.au/>

STEP 2: Explored Canadian context via existing data, provider interviews, patient surveys and scoping review of existing VIP communication resources

STEP 3: Mapped identified Canadian barriers and facilitators to intervention components using BCTs and the Theoretical Domains Framework (TDF)

STEP 4: Co-designed intervention with diverse **provider expert panel** and used patient-oriented research methods when engaging with **patient partners***

Our parent council includes new Canadians from diverse ethnic backgrounds and genders, living in both urban and rural communities.

Intervention Design

Iterative feedback from parents, providers and adult learning specialists. Based on Australian intervention

Used a patient-oriented, research methods & community outreach to understand parental preferences

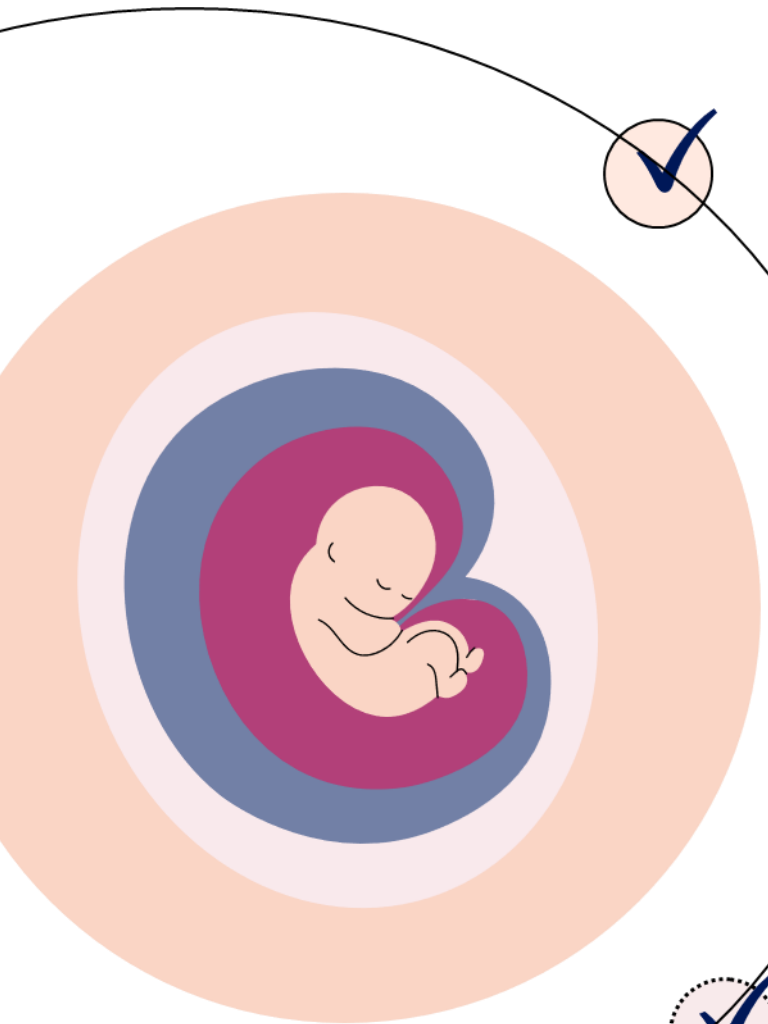
Perinatal expert panel made up of nurses, midwives, physicians, pharmacists and doulas

Aligned with behavioral theories and techniques i.e., Behavioral Change Theory and Theoretical Domains Framework



www.VaccinesInPregnancyCanada.ca

Work to Date



STEP 1: Characterized SKAI, an existing Australian intervention, using the Behavior Change Techniques taxonomy (BCTs)

SKAI: <https://skai.org.au/>



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STEP 5: Functionality, Heuristics, Usability and Feasibility testing of intervention with real-end users and clinics in Alberta, British Columbia and Nova Scotia

Our parent council includes new Canadians from diverse ethnic backgrounds and genders, living in both urban and rural communities.

Healthcare Providers

Vaccine Communications Training Course

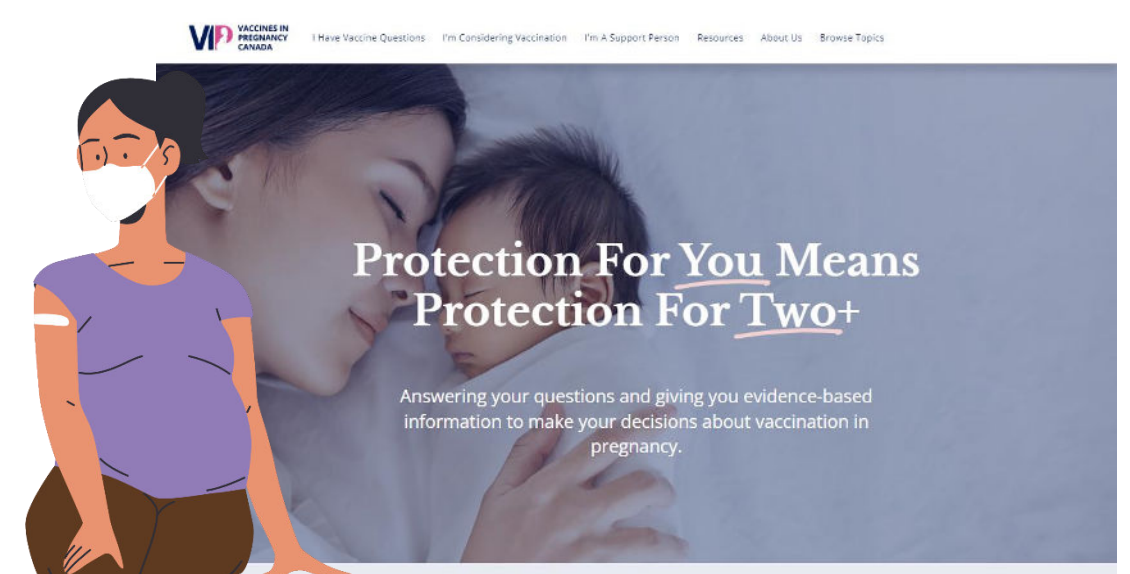
- ✓ Novel VIP communication strategy
- ✓ Demonstration videos
- ✓ Tips



Pregnant People

Website and Toolkit

- ✓ Vaccine info & FAQ
- ✓ Videos & infographics
- ✓ Patient and partner testimonials
- ✓ Tips for loved ones



Patient Vaccines In Pregnancy website



The screenshot shows the top navigation bar of the website. On the left is the logo for 'VIPP VACCINES IN PREGNANCY CANADA'. To the right of the logo are three links: 'I Have Vaccine Questions', 'I'm Considering Vaccination', and 'I'm A Support Person'. Below these links are three more links: 'Resources', 'About Us', and 'Browse Topics'. The main content area features a large image of a woman kissing a baby on the forehead. Overlaid on this image is the text 'Protection For You Means Protection For Two+'. Below this headline is a paragraph: 'Answering your questions and giving you evidence-based information to make your decisions about vaccination in pregnancy.'

VIPP VACCINES IN PREGNANCY CANADA

I Have Vaccine Questions I'm Considering Vaccination I'm A Support Person

Resources About Us Browse Topics

Protection For You Means Protection For Two+

Answering your questions and giving you evidence-based information to make your decisions about vaccination in pregnancy.

Influenza (Flu) Vaccine

Learn how getting vaccinated helps protect you and your baby from serious illness caused by the flu virus.



On This Page



Influenza (the 'flu') is a virus that can be **very dangerous** for pregnant people and babies.



Getting the flu vaccine during pregnancy helps protect **you and your baby** against serious illness and hospitalization from the flu.



The flu vaccine is **safe** during pregnancy and doesn't pose any risk to you or your baby.



You can get the flu vaccine at **any point** in your pregnancy, starting in the first trimester.



Second Trimester (13-27 Weeks)

The second trimester is a special time as you begin to feel your baby move, and your body continues to adapt to the changes of pregnancy. If you haven't had them already, it's recommended to get your flu and COVID-19 vaccines during the second trimester. The Tdap vaccine for tetanus, diphtheria, and pertussis (whooping cough) is also highly recommended, starting around 27 weeks of pregnancy. Click the buttons below to learn more.

Flu

Tdap

COVID-19

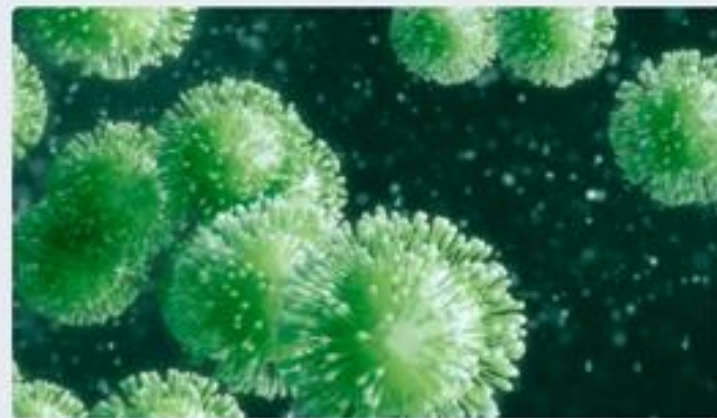


About Influenza (Flu)

Influenza ('flu') is a viral infection. In Canada, the flu leads to approximately 12,200 hospitalizations and 3,500 deaths every year.¹

The flu usually begins with symptoms like fever, chills, a headache, muscle aches, dry cough, sore throat, feelings of fatigue (feeling tired), and weakness.² If it gets worse, the flu can also cause dehydration and lead to complications like pneumonia or bronchitis.

These problems can be dangerous for pregnant people and babies.



How do you catch the flu?



What are the risks of the flu for my baby?



What are the risks of the flu for pregnant people?



How common is the flu in Canada?



How can I protect my baby from the flu?



[Back to Top](#)

About the Flu Vaccine

In Canada, it's recommended that all pregnant individuals receive the **inactivated** flu vaccine. It is given in one needle in your arm. This vaccine is designed to protect against four specific flu virus types each season.¹

It's important to get a flu vaccine every year. This is because the flu virus changes regularly, and different strains of the virus may be present in different flu seasons. Each year, Health Canada follows the recommendations of the World Health Organization (WHO) to decide which strains should be included in the vaccine to provide the best protection.¹⁻³

You can get the flu vaccine any point during pregnancy, starting in the first trimester. As the flu vaccine is updated every year to fight new strains of the virus, it's important to get the **updated seasonal flu vaccine** once it's available. Talk to your healthcare provider for more information on the best time to get the flu vaccine.



How does the vaccine work? ▼

How does getting the flu vaccine in pregnancy protect my baby? ▼

How effective is the flu vaccine for pregnant people? ▼

How effective is the flu vaccine during pregnancy for protecting newborn babies? ▼



Getting vaccinated in pregnancy is the best way to protect both you and your baby from the flu.

Flu Vaccine Safety

Is it safe to get the flu vaccine when you're pregnant? ▼

Does the flu vaccine increase the risk of complications during pregnancy? ▼

Is there a risk that my baby and I could catch the flu from the vaccine? ▼

Does the vaccine have any serious side effects, even if they are rare? ▼

Are there any medical reasons why someone should NOT be vaccinated during pregnancy? ▼



Vaccine Reactions

After getting vaccinated, some people may experience **temporary** side effects that typically last from a few hours to a few days.

It's important to keep in mind that experiencing some mild symptoms after getting vaccinated is **perfectly normal**. These symptoms are a sign that your body is working to **build immunity (protection)** against the disease.

Most people who have the flu vaccine have no reaction at all. Some people have mild reactions that last between 12 and 24 hours and are easily treated at home.

Redness or soreness at the spot the needle went in



Headache



Mild fever




Rare but serious reactions




I think I'm having a reaction to the vaccine. What should I do?




Vaccine Timing

When should I get the flu vaccine? 


I have been vaccinated for flu before – do I need another vaccination? 

Can I wait until after my baby is born to get vaccinated? 

Can I get the flu vaccine at the same time as other vaccines? 

Additional Information

What else can I do to protect my baby against the flu? 

Should anyone else in my family get vaccinated against the flu? 

Where do I go to get vaccinated? 



“We all want to do what we can to protect our precious babies and getting the vaccine was one of the ways I could do that.”

– Carly (Calgary A.B)

Key Facts

Influenza (flu) is a contagious virus that can be very serious for pregnant people and small babies.

Pregnant people and babies under six months old are at higher risk for flu-related complications, hospitalization, and even death.

The flu vaccine is safe and effective for both pregnant people and their babies.



Patient Vaccines In Pregnancy Website



Website going live in April
Details available CAM monthly
newsletter

Feedback welcome!

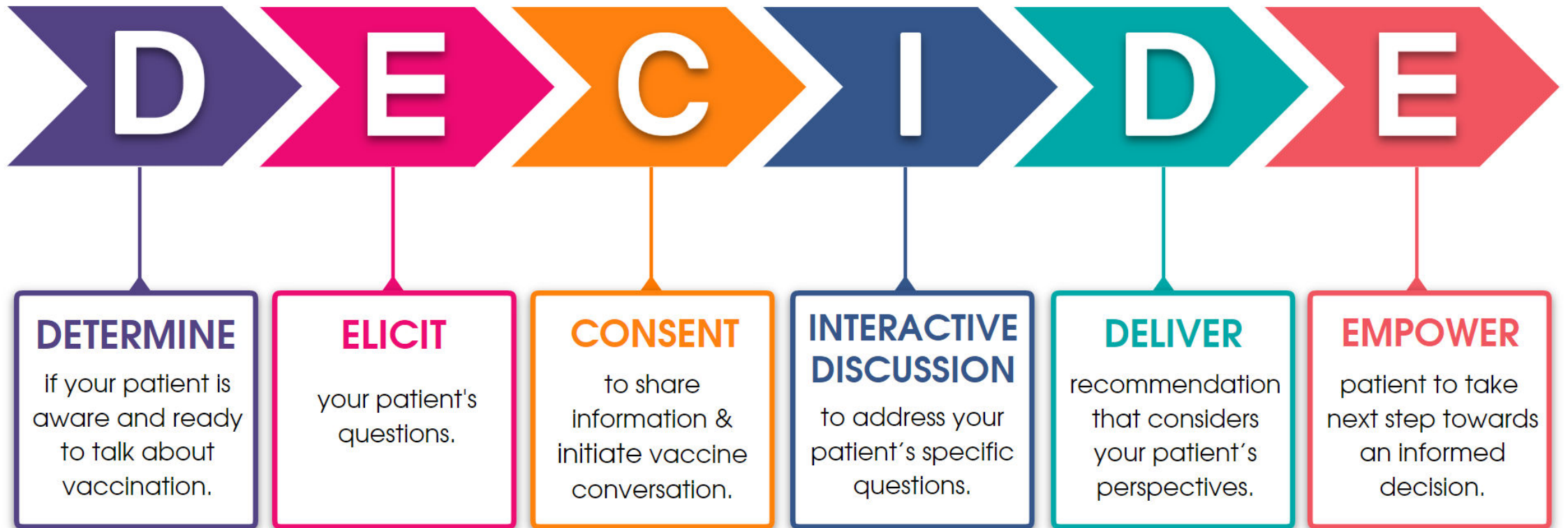
www.VaccinesInPregnancyCanada.ca

Health Care Providers: Vaccine Communications Training Course

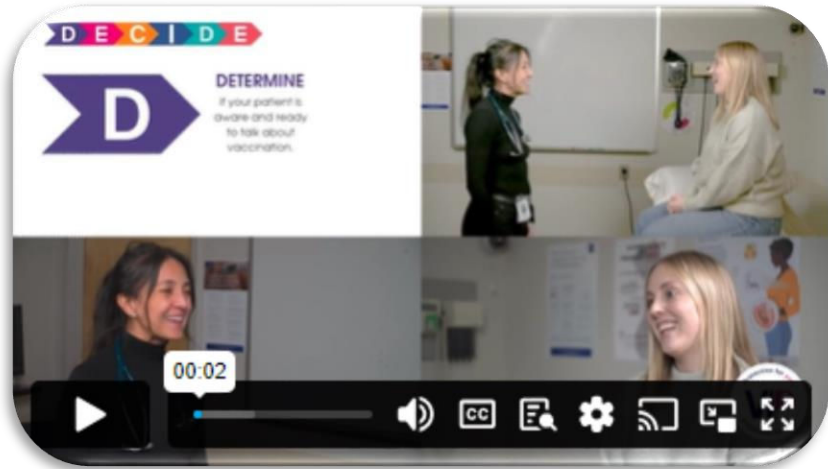
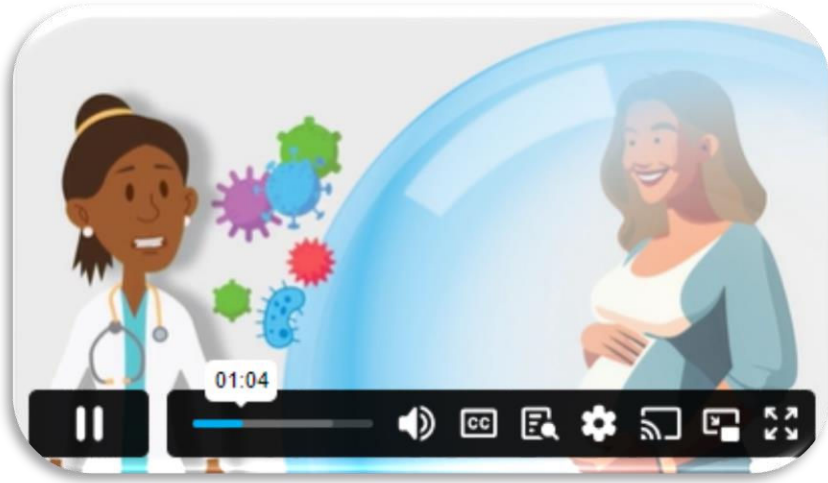


- ✓ DECIDE communication strategy
- ✓ Demonstration videos
- ✓ Tips

DECIDE: a novel VIP communication approach



Evidence-based videos
and infographics



Risks and Benefits of the Flu Vaccine in Pregnancy



How Do Flu and Tdap Vaccines Work?



Patient and partner
testimonials

Provider VIP Course



Testing going live in April
Details available CAM monthly newsletter

Participation welcome!

Conclusions

- Vaccine hesitancy complex, content specific. Motivational state change over time
 - Affects pregnant women
- Perinatal care provider recommendation impacts vaccine acceptance
- HCP confidence in vaccine counseling affects vaccine conversations
- Need for vaccine counseling materials and training applicable to midwifery centered care

Vaccines in Pregnancy



- **Patient-Driven Development:** Actively involved patients in the development process, ensuring their perspectives shaped and strengthened the initiative
- **Iterative Refinement:** Continuously refined the products based on expert feedback, resulting in a more tailored solution
- **Comprehensive Resource Hub:** Established a centralized repository, offering a comprehensive suite of resources for both patients and healthcare providers
- **Innovative Skill Development:** Employed an innovative approach focusing on skill enhancement rather than knowledge acquisition, empowering healthcare providers to engage effectively in vaccination discussions



Thank You!