



BC Centre for Disease Control
Provincial Health Services Authority

COVID-19 Vaccine in Pregnancy

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Disclosures

- I have no conflicts of interest to disclose

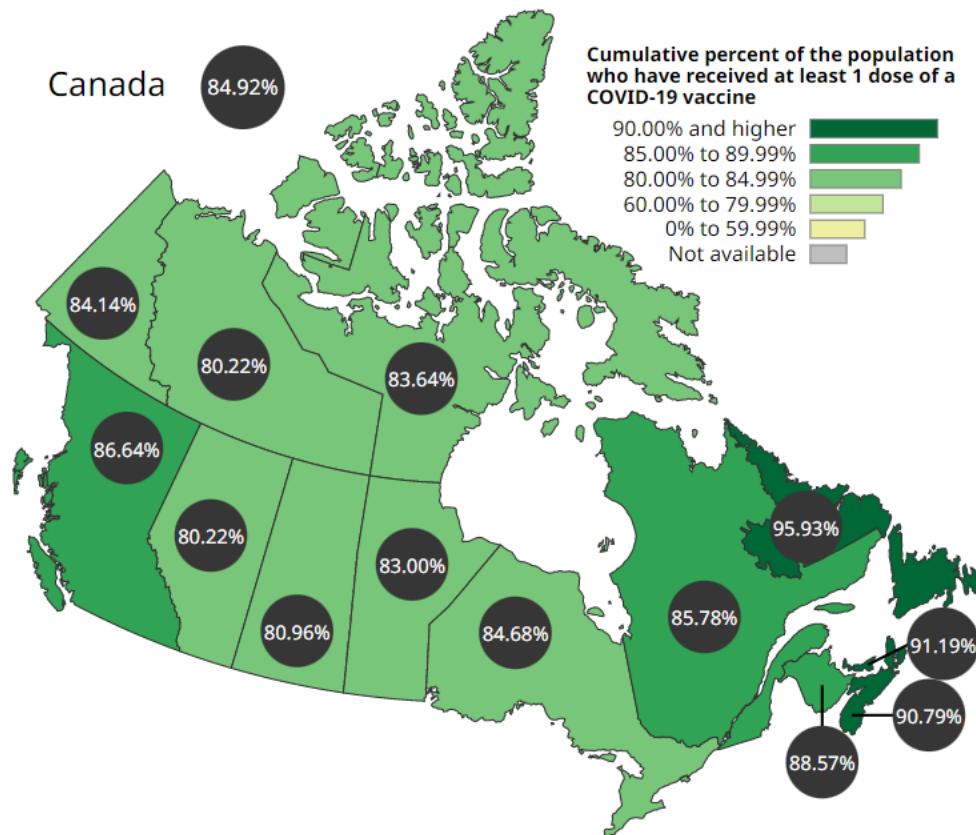
Learning Objectives

- Review COVID-19 vaccine coverage in pregnancy
- Discuss the safety of COVID-19 vaccines and recommendations for pregnancy
- Describe the challenges of immunization communication related to COVID-19 vaccination in pregnancy
- Identify COVID-19 vaccine resources for HCPs and the public

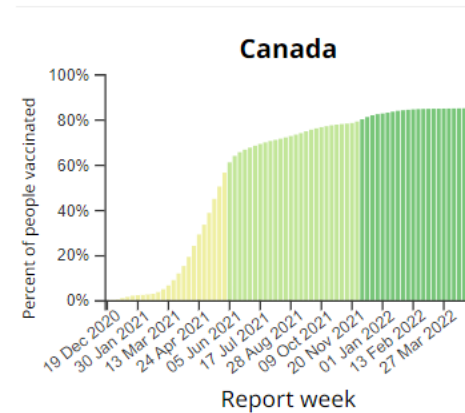
Why immunize in pregnancy

- Pregnant people are at increased risk for severe outcomes with COVID-19 infection
- Increase in hospitalization and ICU admission vs. non pregnant individuals
- Complications:
 - Preterm birth
 - Stillbirth
 - Low-birth weight
 - Caesarean birth

Vaccine coverage in Canada



The cumulative percent of people who have received **at least 1 dose** of a COVID-19 vaccine in **Canada** was **84.92%** as of May 22, 2022.



Health Canada May 22, 2022

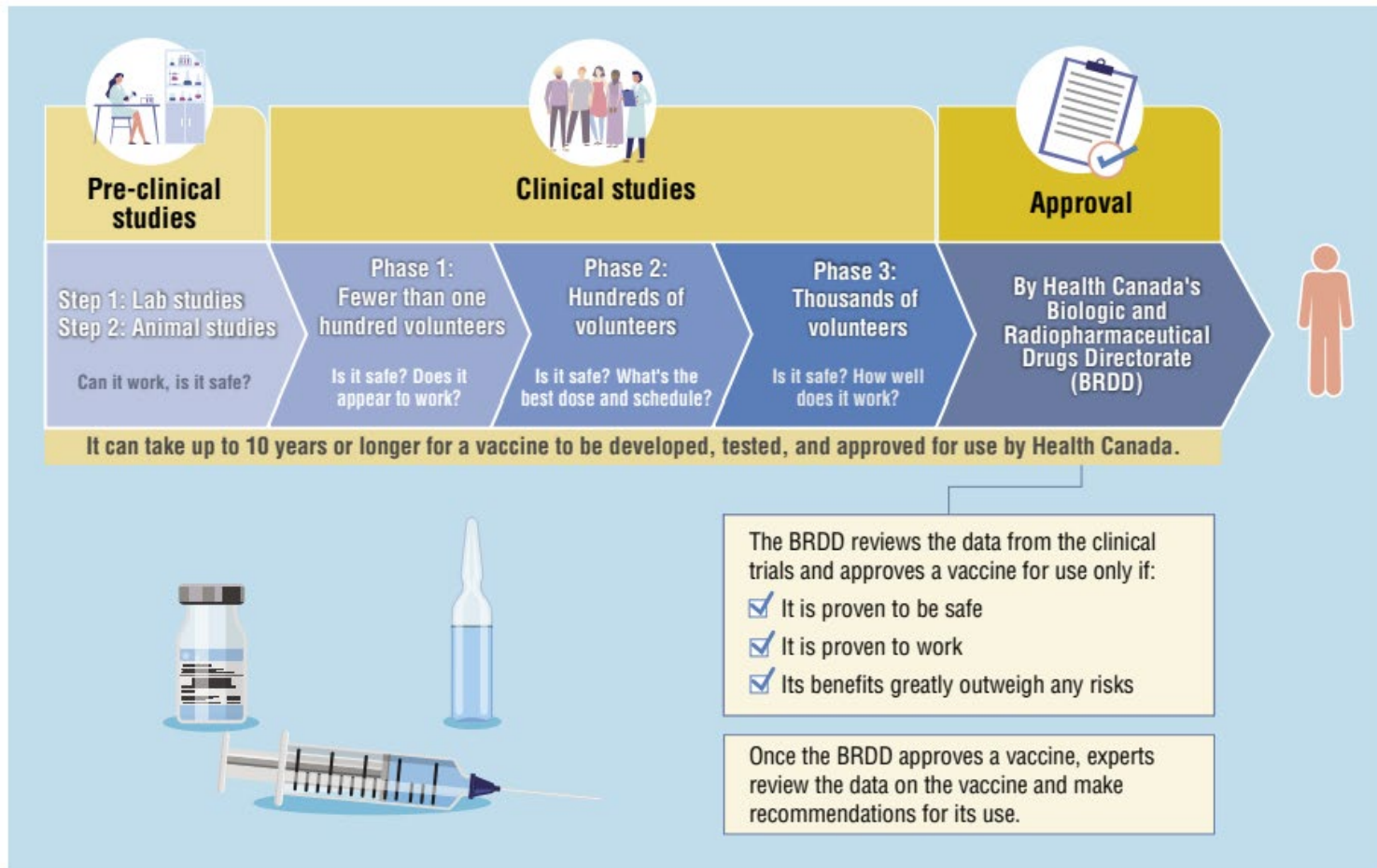
Reifferscheid et.al. April, 2022.

COVID-19 vaccine uptake and intention during pregnancy in Canada.

COVID-19 vaccine safety

- Pregnant or breastfeeding people were excluded from COVID-19 vaccine clinical trials
 - Data collected through international COVID-19 vaccine registries to date have not revealed any maternal or neonatal safety signals
- Evidence has shown **no** increase in miscarriage, small for gestational age or stillbirth in association with COVID-19 vaccines

How vaccines are tested and approved

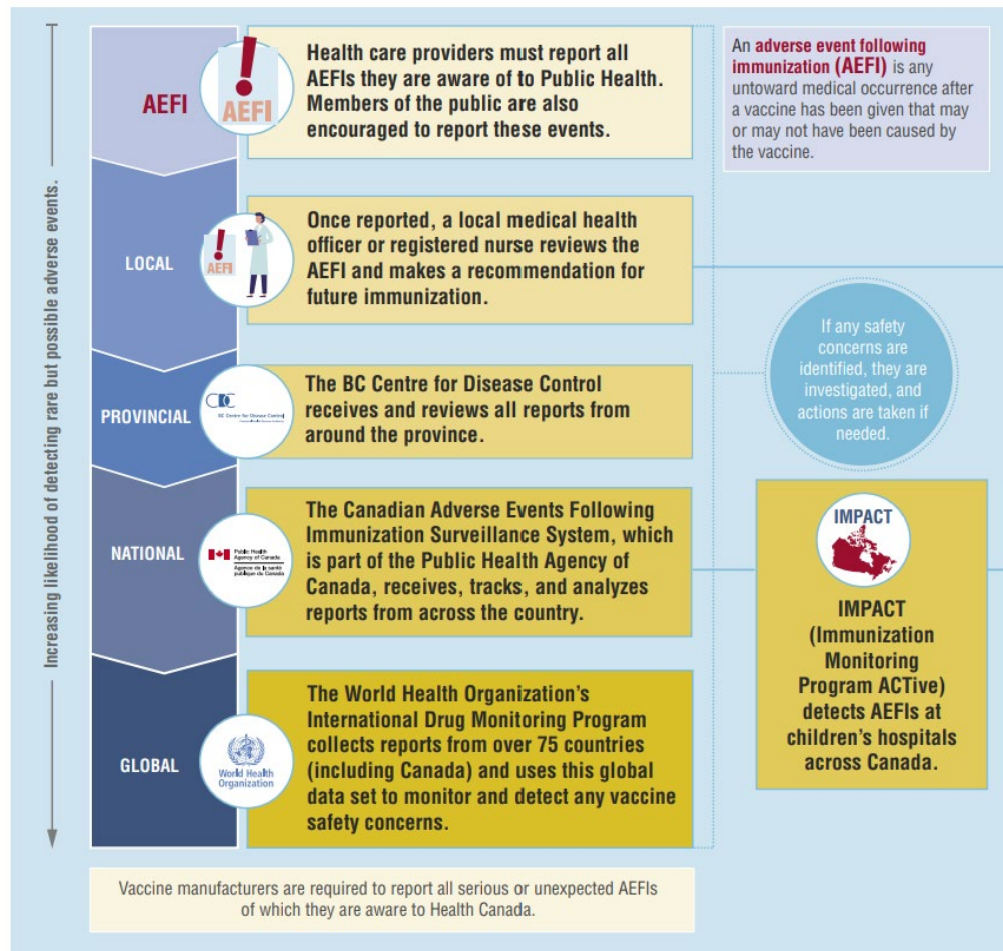


How were COVID-19 vaccines determined to be safe in pregnancy?

- Post-market surveillance detects:
 - Rare adverse events not captured in clinical trials
 - Events that may occur over long time periods
 - Events in populations not included in clinical trials (i.e., pregnancy, immunocompromised)
 - Pregnancy registries
 - Research studies

How is vaccine safety monitored?

The purpose of ongoing vaccine safety monitoring is to detect possible adverse events that would occur very rarely, too rarely to have been detected even in a large clinical trial.



NACI recommendations for COVID-19 vaccine in pregnant individuals

Dec 12, 2020

NACI:
COVID-19 vaccine **should not** be given to pregnant individuals

Jan 12, 2021

NACI:
A complete COVID-19 vaccine series **may be offered** to pregnant individuals

May 3, 2021

NACI:
Preferentially recommends **mRNA COVID-19 vaccines** for pregnant individuals

May 28, 2021

NACI:
A complete mRNA COVID-19 vaccine series **should be offered** to pregnant individuals

Current recommendations

- NACI recommends that people who are planning a pregnancy, pregnant or breastfeeding get a:
 - complete series with a COVID-19 mRNA vaccine
 - booster dose when eligible
- SOGC consensus statement:
 - COVID-19 vaccination is recommended during pregnancy in any trimester and while breastfeeding

What are the vaccine coverage rates in pregnant individuals

- COVID-19 vaccine coverage is difficult to estimate
 - National study reported 57.5% vaccine acceptance
- An increase in pediatric hospitalizations in some Canadian jurisdictions including Ontario, BC, Alberta and Quebec (Jan. 2022)

Vaccine hesitancy

The 3Cs model

Confidence

Trust in the safety and effectiveness of vaccines, the system that delivers them, and motivations of policy makers who make vaccine decisions.

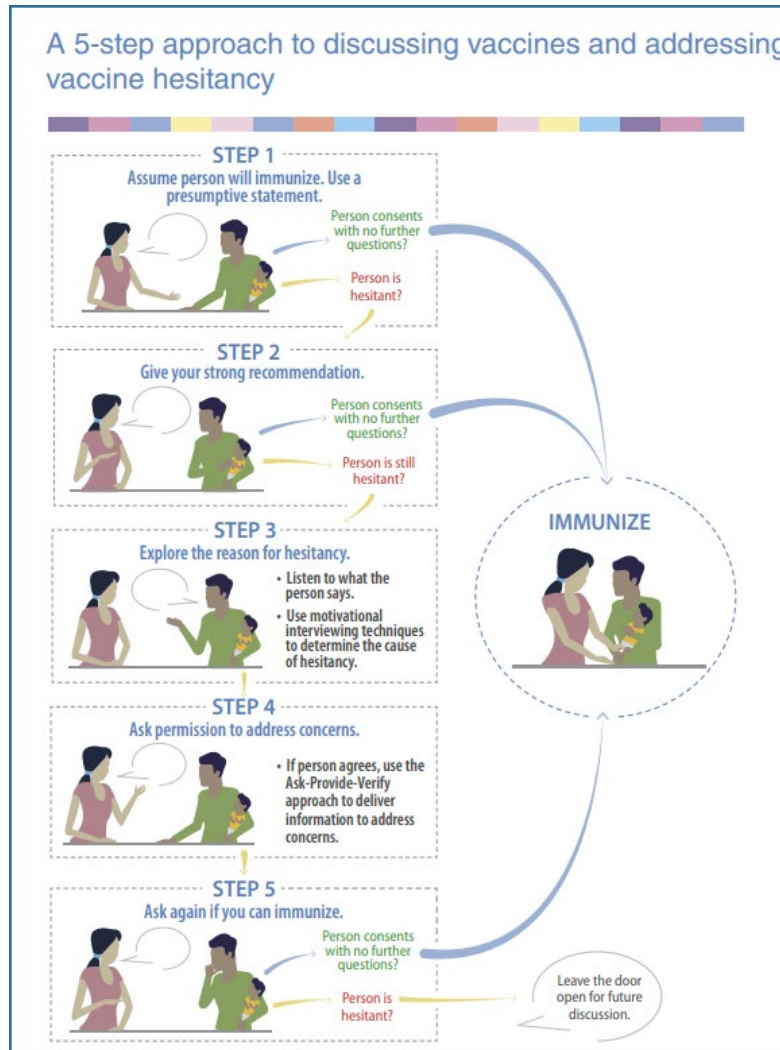
Complacency

Perception that the risk of vaccine-preventable diseases is low and that vaccines are not necessary.

Convenience

The extent to which vaccines are available, affordable, and accessible, and the appeal of immunization services.

Immunization Communication



Build vaccine confidence

- Focus on personal protection
- Risk perception and complacency
- Health care professionals are the most trusted source of vaccine information

FAQs about COVID-19 vaccination in pregnancy



Q#1 - Are COVID-19 vaccines safe to use in pregnancy?

- Yes. Based on a growing body of evidence, no difference in rates of spontaneous abortion, stillbirth, preterm birth or other pregnancy complications have been identified.
- Yes. The SOGC, NACI and a number of other national and international bodies recommend the COVID-19 vaccine for all those pregnant, breastfeeding and planning to become pregnant.

Q.#2 – Are there long-term effects on the baby when a person gets a COVID-19 vaccine during pregnancy?

- Studies to date have shown no safety concerns for babies born to people who were vaccinated against COVID-19 during pregnancy.
- Based on how these vaccines work in the body, experts believe they are unlikely to pose a risk for long-term health effects.

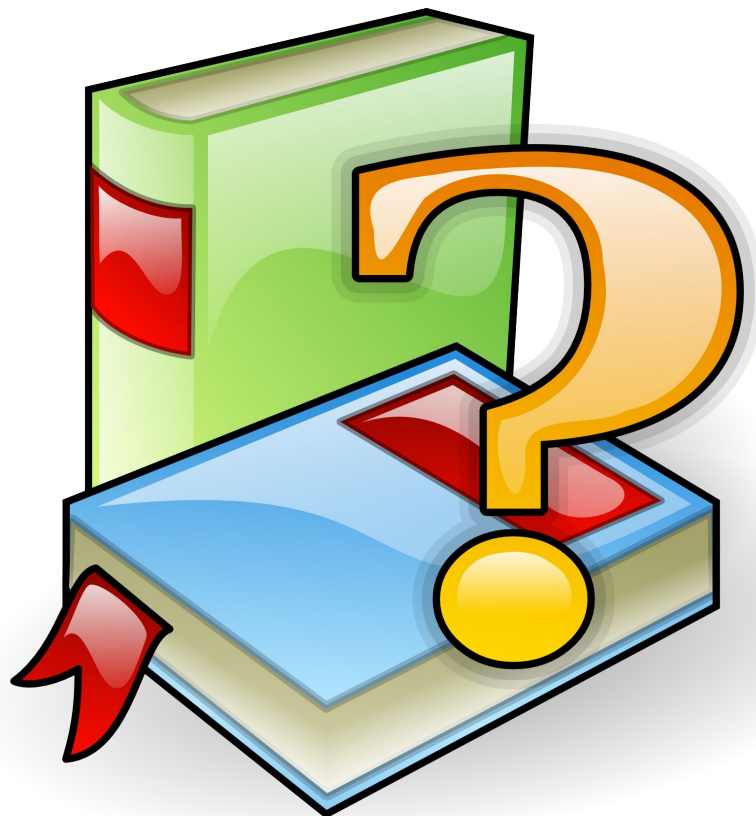
Q.#3 - What are the benefits of COVID-19 vaccination for the pregnant individual?

- COVID-19 vaccines are as effective in pregnancy as in non-pregnant people in preventing severe illness and hospitalization due to COVID-19 infection
- By preventing COVID-19 infection in pregnancy may reduce the chance of being:
 - admitted to hospital
 - ending up in the ICU
 - delivering a baby preterm

Q.#4 - What are the benefits of COVID-19 vaccination during pregnancy for the newborn?

- Vaccination during pregnancy may provide some additional protection to newborns by passing protective antibodies through the placenta.
- These antibodies may protect the baby after birth, as may antibodies passed through human milk during breastfeeding

Resources



Resources for health care providers

- BCCDC – BC Immunization Manual
 - [Part 4 - COVID-19 vaccine](#)
- Society of Obstetricians and Gynecologists of Canada (SOGC)
 - [Vaccination in pregnancy FAQ for HCPs](#)
 - [SOGC Statement on COVID-19 vaccination in pregnancy](#)
- National Advisory Committee on Immunization (NACI)
 - [NACI Statements and Publications: COVID-19](#)
 - [Canadian Immunization Guide: COVID-19](#)
- BCCDC 2021 [Immunization Communication Tool](#) for health care providers

Resources for the public

- BCCDC:
 - [COVID-19 planning for your vaccine](#) document
- ImmunizeBC:
 - [FAQs on pregnancy & breastfeeding](#)
- HealthlinkBC:
 - [COVID-19 mRNA vaccines Healthfile](#)
- Society of Obstetricians and Gynecologists of Canada (SOGC):
 - [COVID-19 vaccination in pregnancy](#)
 - [COVID-19 vaccine myths and facts](#)
- Health Canada:
 - [COVID-19: pregnancy, childbirth and caring for a newborn](#)



References

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