



BC Centre for Disease Control
Provincial Health Services Authority

UBC CPD Webinar on Vaccination Update
February 7, 2023

Adolescent and Adult Vaccination Update



Monika Naus MD MHS Sc FRCPC FACPM
Medical Director
Immunization Programs and Vaccine Preventable Diseases Service
BC Centre for Disease Control
Professor, School of Population and Public Health, UBC

BC routine child and adolescent immunization schedule 2023

Age	Vaccine(s)
2 mo	DPT-Polio/Hepatitis B/ Hib, PCV13, MenC, rotavirus
4 mo	DPT-Polio/Hepatitis B/ Hib, PCV13, rotavirus
6 mo	DPT-Polio/Hepatitis B/ Hib, rotavirus Influenza (2 doses, to 23 mos only) Hepatitis A (Indigenous)
12 mo	MMR, MenC, PCV13, Varicella
18 mo	DPT-Polio/Hib, Hepatitis A (Indigenous)
4-6 years/ Kindergarten	DPT-Polio, MMRVaricella
Grade 6	HPV (2 doses) girls and boys
14-16 years/ Grade 9	Tdap, Men4C

Mixed model immunization service delivery:

- Infant through Kindergarten: in primary care and public health settings
- Grade 6 and 9: in school

Immunization records

- Immunization records are in the Provincial Immunization Registry, including childhood and COVID-19 vaccines.
- These are viewable through CareConnect:
 - Immunization history (date, trade name, lot #, status (valid/invalid))
 - Recommended Forecast based on BC Immunization Schedule
 - Exemptions, Contraindications, Precautions
 - Deferrals
 - Adverse Event Following Immunizations (vaccine/ date given, date reported, public health recommendation(s))
- Records may be incomplete if vaccinated out of province or by a provider who has not submitted records to the system
- The public can submit records to the system through a centrally administered portal

Submit or update your vaccine record

Use this service to add or update a vaccine record for the B.C. Provincial Immunization Registry (PIR). Your vaccination records will be reviewed by a health care professional, who will update your provincial health records.

[Learn who should use this service and what happens after you submit a record.](#)

Update COVID-19 and other vaccines

You can submit multiple vaccine records at the same time.

Submit your immunizations



Must submit: PHN, personal contact information, image of record

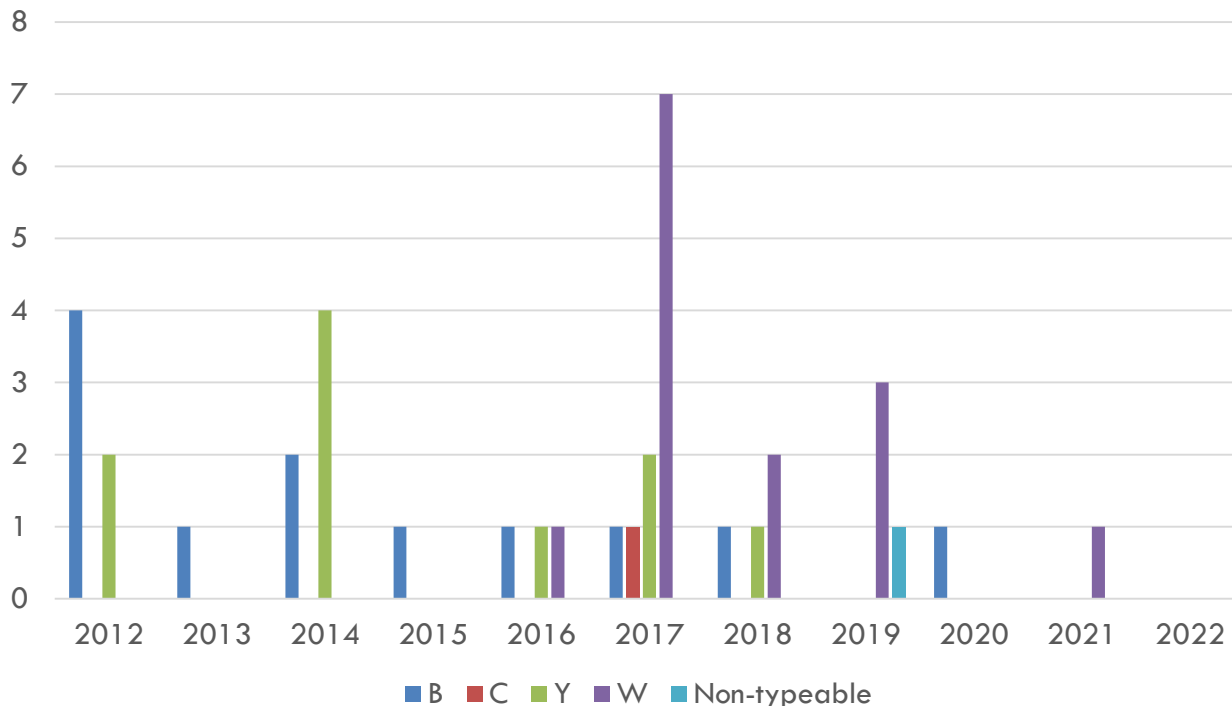
<https://www.immunizationrecord.gov.bc.ca/>

Immunization records (cont'd)

- CareConnect is available for any Physician, Nurse Practitioner, and Registered Nurses who work in community-based clinics
- Physicians have one-click 'Rapid Access' from their EMR to the patient's CareConnect chart.
- <http://www.vch.ca/for-health-professionals/resources-updates/careconnect/request-access-to-careconnect>) or email Private.Careconnect@phsa.ca for instructions on how to access

Invasive meningococcal disease cases 2012-22 among 15-24 year olds by serogroup, BC

Number of cases



IMD is rare, but clonal strains (serogroup Y and then W) periodically cause cases or clusters in BC

Year; Serogroup

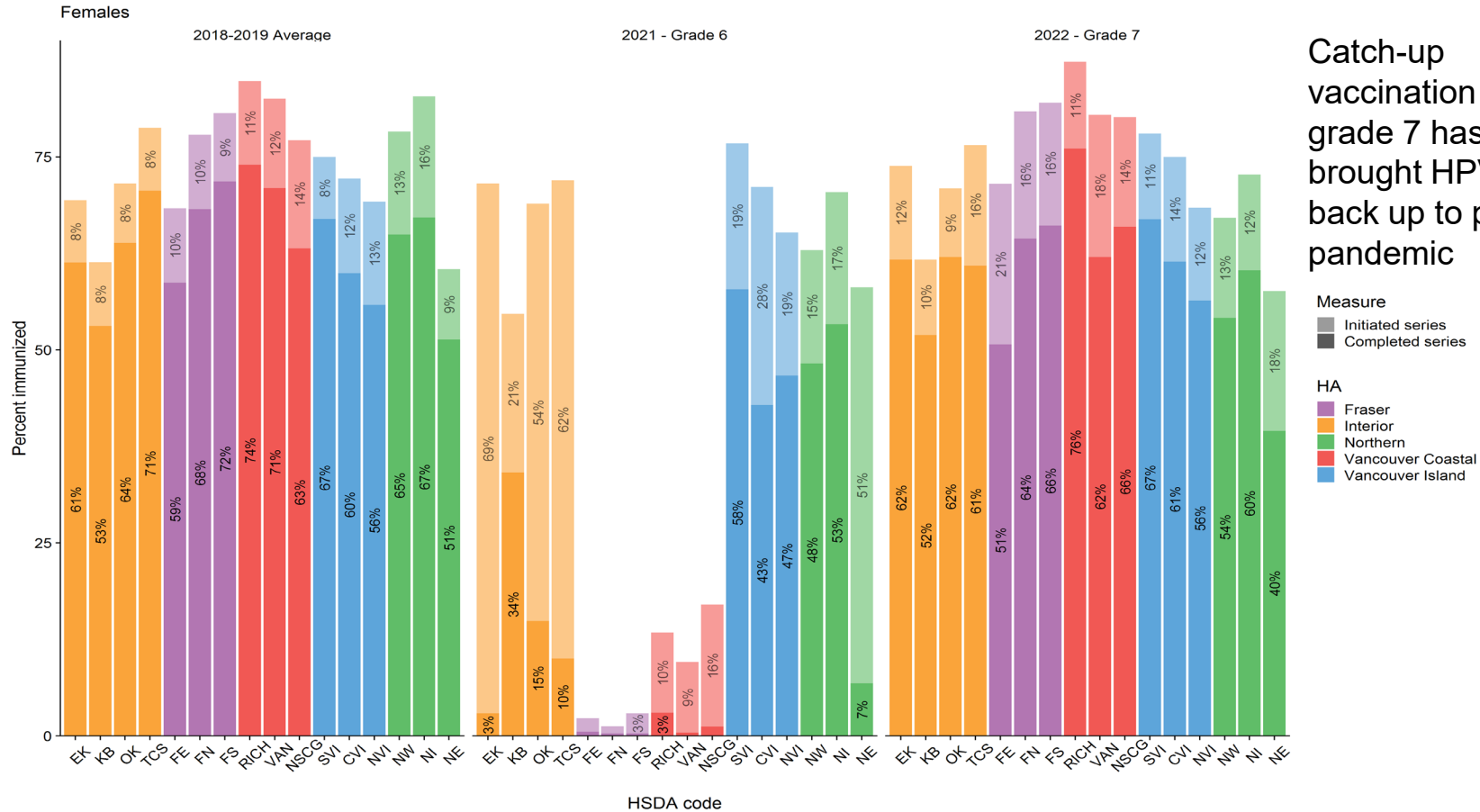
Starting March 2020: COVID-19 response



....resulted in delay in routine immunization due to:

- Reallocation of public health staff to case and contact management
- Virtual care
- School closures/ remote learning
- Public avoidance of clinical settings

Grade 6 (2021) and 7 (2022) HPV female series in BC as of June 30 compared to pre-pandemic uptake



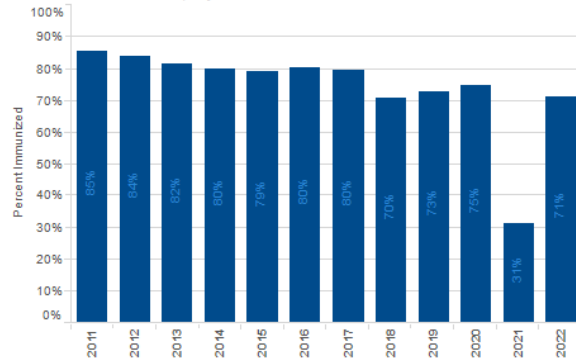
Catch-up vaccination in grade 7 has brought HPV rates back up to pre-pandemic

Grade 9: Tdap and MCV4 June 30

- 2020 unaffected because these are 1 dose programs largely completed in the autumn
- 2021 saw sharp decline; this cohort improved coverage by about 40% by end of grade 10
- 2022 uptake 4 and 5% lower (Tdap and MCV4, respectively) compared to 2020 'pre-pandemic' year

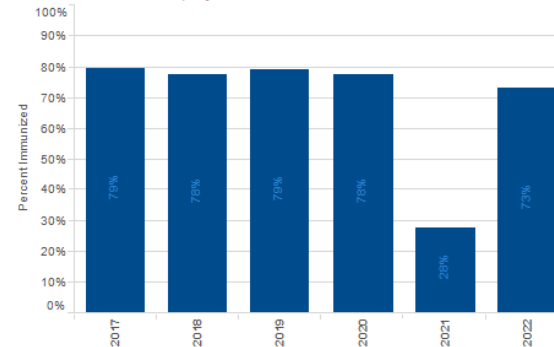
Tdap

All British Columbia, by Year



MCV4

All British Columbia, by Year



Adult immunization schedule - BC 2023

Age, interval, risk group	Vaccine(s)
Any adult	Td every 10 years influenza annually (any age) 65+ PPV23 once MMR 2 nd dose based on age varicella if susceptible
High risk adults: lifestyle and medical risk factors	hepatitis B, hepatitis A PPV23 Tdap pregnancy MCV4, Hib, PCV13 HPV
Health care workers	As any adult above; hepatitis B, MMR 2 nd dose, IPV one lifetime booster, influenza
Travelers - some free	hepatitis A/ B, MMR, IPV, meningococcal, yellow fever, Japanese encephalitis, rabies, other
Other - available for purchase	HPV (non high risk males, older women), Zoster/ Shingles, Tdap, non-high risk MCV4, MenB, PCV13

Tdap for pregnancy

Table 1. Vaccine coverage against pertussis during pregnancy by province and territory – Survey on Vaccination during Pregnancy (SVP), 2019 and 2021

Province or Territory	Percentage of mothers vaccinated against pertussis during pregnancy, % (95%CI) *	
	2019 ¹	2021 ²
Canada	43.5 (41.4-45.6)	64.8 (62.1-67.4) **
Newfoundland and Labrador	15.9 (12.5-20.0)	79.0 (73.3-83.8) **
Prince Edward Island	76.2 (70.9-80.7)	80.4 (73.9-85.6)
Nova Scotia	62.2 (56.9-67.9)	80.4 (74.8-85.1) **
New Brunswick	71.0 (66.3-75.3)	179.5 (74.1-84.1) **
Quebec	48.8 (44.4-53.1)	75.2 (70.1-79.7) **
Ontario	40.3 (35.9-44.9)	60.0 (54.2-65.6) **
Manitoba	57.0 (51.5-62.4)	69.6 (64.1-74.7) **
Saskatchewan	74.0 (69.2-78.3)	78.0 (73.0-84.2)
Alberta	37.9 (33.6-42.4)	60.1 (53.9-65.9) **
British Columbia	25.6 (21.6-29.9)	52.4 (46.8-57.9) **
Yukon	156.5 (44.8-67.6)	77.2 (66.8-85.1) **
Northwest Territories	80.1 (54.6-93.1)	59.3 (45.3-71.9)
Nunavut	N/A ^E	N/A ^E

<https://www.canada.ca/en/public-health/services/publications/vaccines-immunization/survey-vaccination-during-pregnancy-2021.html#t1>

Note: rate of receipt is about 50% lower in Indigenous people

COVID vaccines

- Eligibility for those aged 6 months and older
- Fall booster with a bivalent vaccine for those aged 5+ years
- Currently, a single ‘fall’ booster is recommended
- Future considerations for 2023:
 - A limited ‘spring’ booster program
 - Fall immunization

<http://www.bccdc.ca/health-professionals/clinical-resources/communicable-disease-control-manual/immunization/biological-products>

Shingles vaccine (adjuvanted) for First Nations clients

- The First Nations Health Authority (FNHA) provides reimbursement for shingles vaccine received on or after Oct. 1, 2018 by First Nations clients age 65+; can be considered for those under 65 with supporting medical documentation from a primary care provider
- The vaccine may be administered by a pharmacist (fee covered by the program), community health nurse or physician
- Clients with questions can call FNHA Health Benefits at 1-855-550-5454

<https://www.fnha.ca/Documents/FNHA-Health-Benefits-Shingles-Fact-Sheet.pdf>

Summary

- Routine childhood immunization programs were impacted by the COVID-19 pandemic / response and there are opportunities for catch-up
- Recent 'new' programs are Tdap (pregnancy) and COVID-19; PCV and likely RSV are future considerations
- Immunization record systems are becoming more complete and accessible, facilitating offering of needed vaccines at every visit

More resources

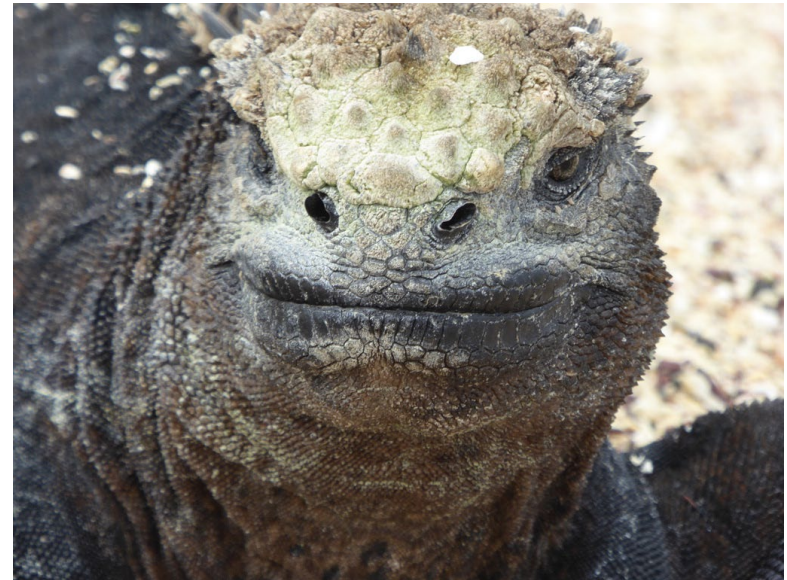
- For healthcare professionals:
 - <http://www.bccdc.ca/health-professionals/clinical-resources/immunization>
 - A variety of resources including immunization manual, childhood and adult immunization schedules, supplementary Q & As, immunization courses, etc.
- For the public:
 - www.bccdc.ca especially for COVID-19 vaccines
 - www.immunizebc.ca for all other vaccines

Adolescent and Adult Vaccination Update

UBC CPD Webinar

Feb 7, 2022

Susan Hollenberg, MD, MCFP
Clinical Assistant Professor, Department of Family Practice, UBC
Co-director, Education lead, UBC Health Clinic
Pre-Travel Health Provider with VCH Travel Clinic
BC Immunization Committee Professional Education Working Group
Tropical Medicine e-Group of BC member
Certificate in Travel Health™





Faculty/Presenter Disclosure

- Faculty: Susan Hollenberg
- Relationships with financial sponsors:
 - Grants/Research Support: nil
 - Speakers Bureau/Honoraria: nil
 - Consulting Fees: nil
 - Patents: nil
 - Other: VCH Travel Clinic work advising on pre-travel vaccination

Routine Vaccines for Primary Care clinicians

- Td/ TdaP
- MMR
- Pneumonia
- Influenza
- Herpes Zoster

Tetanus/ Diphtheria

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Canada Toronto

Tetanus infection in Ontario child prompts calls from worried parents

Grey Bruce health authority fields numerous inquiries since word of the case hit the news



By Helen Branswell, The Canadian Press | Posted: Jun 01, 2015 3:16 PM ET | Last Updated: Jun 02, 2015 8:22 PM ET



Weather

Severe weather warnings or watches in effect for:

[Alliston](#) [Apsley](#) [Barrie](#) [Brampton](#) [Brantford](#) [Burlington](#) [Caledon](#) [Cambridge](#) [Cobourg](#) [Collingwood](#) [Fort Erie](#) [Guelph](#) [Haldimand County](#) [Halton Hills](#) [Hamilton](#) [Kawartha Lakes \(Lindsay\)](#) [Kawartha Lakes \(Fenelon Falls\)](#) [Kitchener-Waterloo](#) [London](#) [Markham](#) [Midland](#) [Mississauga](#) [Mount Forest](#) [New Tecumseth](#) [Newmarket](#) [Niagara Falls](#) [Norfolk](#) [North Perth](#) [Oakville](#) [Orangeville](#) [Orillia](#) [Oshawa](#) [Peterborough](#) [Pickering](#) [Port Colborne](#) [Port Perry](#) [Quinte West](#) [Richmond Hill](#) [Simcoe St. Catharines](#) [Stirling](#) [Stratford](#) [Tillsonburg](#) [Toronto](#) [Toronto Island](#) [Trenton](#) [Vaughan](#) [Vineland](#) [Welland](#) [Whitby](#) [Woodstock](#) [Shelburne](#)

Wednesday	Thursday	Friday	Saturday	Sunday
				

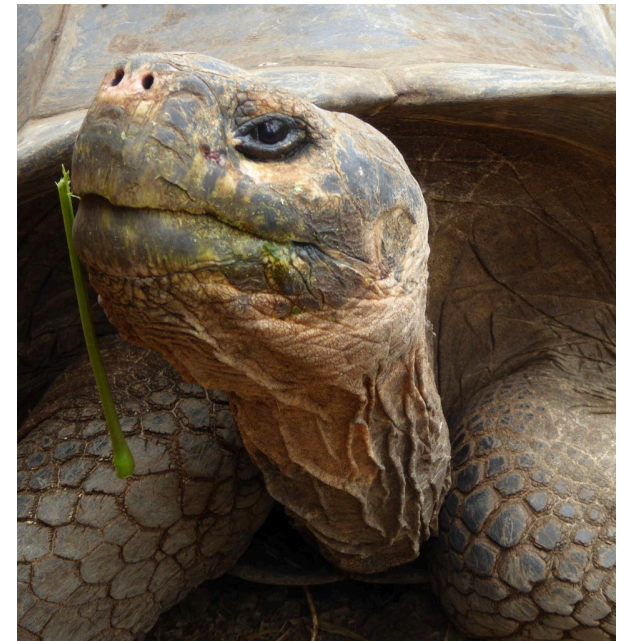
Tetanus/ Diphtheria

- Four tetanus cases in BC in 2007
 - 1 Unimmunized child who sustained a minor injury outdoors
 - 3 Adults >50 yr who had no record of tetanus vaccination
 - All three adult cases fatal
- **Boost adults every 10 years with Td**
- last adolescent vaccine is given in grade 9, age 15 so consider at age 25, 35, 45 etc
- Significant increase in diphtheria cases in Philippines in Oct 2019

Tetanus/ Diphtheria/ acellular Pertussis (TdaP)

- **TdaP** provided free for pregnant people in every pregnancy
- **TdaP** is used in our adolescent vaccine program
- **TdaP** provided free for unvaccinated people >7yr who are starting a primary series

- **Td** should be used for routine Tetanus booster



Measles/Mumps/Rubella

- Measles is the most contagious vaccine-preventable disease
- Estimated 351 children die worldwide from measles every day (Nov 2022 WHO)
- 2021- 9 million cases and 128,000 deaths (WHO)
- increasing cases in all countries, noted since 2017, due to vaccine hesitancy and barriers to delivery
- Globally measles cases surged by 300% in first three months of 2019!

Pre COVID concerns!

Measles Outbreak in BC, January 2019



Measles in B.C.: How we got here and what you need to know

Here's how we got here and what you need to know about measles in B.C.

STEPHANIE IP Updated: February 19, 2019

January / February 2019: An individual who has been confirmed as having measles visited the emergency room at [B.C. Children's Hospital](#) during the following times:

- Jan. 21, 2019 – 10 a.m. to 6:10 p.m.
- Jan. 23, 2019 – 4:45 p.m. to 11:10 p.m.
- Jan. 24, 2019 – 8:13 a.m. to 11:40 a.m.
- Feb. 1, 2019 – 2:05 p.m. to 6:55 p.m.

If you also visited on those days during those times, contact your health care provider.

Jan. 25, 2019: Washington state [declared a state of emergency](#) due to the measles outbreak. As of Feb. 17, a total of 62 cases were confirmed, but there was no evidence the cases in Washington are linked to those in B.C.

Feb. 9, 2019: The [first B.C. case of measles](#) leading up to the current outbreak was confirmed. By the time this case was confirmed, it was past the point of being infectious.

Feb. 13, 2019: VCH announced a [second case of measles](#) was confirmed in the city; there are no indications it is linked to the first case. The patient was a school-aged child who was infected locally, not while travelling abroad.

Feb. 14, 2019: An [online petition](#) calling on the province to make vaccinations mandatory in B.C. schools has picked up traction. Just one day after the second case of measles was announced, the petition had already garnered more than 1,800 signatures. Another five days later, the petition now has nearly 27,000 signatures.

Measles/Mumps/Rubella

- The **decline in measles vaccine coverage** during the COVID pandemic has resulted in large outbreaks globally
- Also seeing resurgence of **rubella and congenital rubella** in many countries



Media and
the mumps
(thanks
Sidney
Crosby)





Penguins' Sidney Crosby tests positive for COVID-19, is experiencing mild symptoms

Crosby had just returned to the lineup following wrist surgery



By [Chris Bengel](#) Nov 3, 2021 at 12:55 pm ET • 1 min read



Measles/Mumps and hockey!

MMR x 1 dose: 78% effective against mumps
 93% effective against measles

MMR x 2 doses: 88% effective against mumps
 97% effective against measles

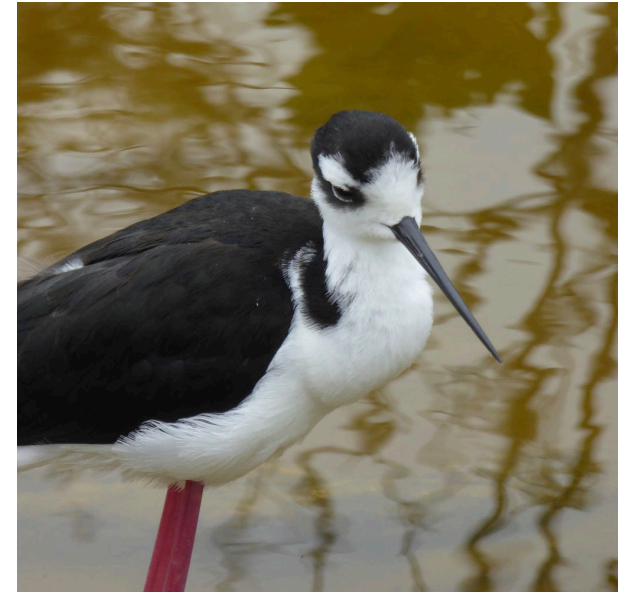


Measles, Mumps, and Rubella

- TARGET everyone born 1970-1994 (28-52 years old) who may not have received a 2nd dose of MMR
- Assume immune in Canada if born before 1970
- For **health care workers** consider booster of MMR if born after 1957 and no serologic immunity or proof of two doses.
- MMR serology is more expensive than vaccine!
 - does assess measles and rubella immunity but correlate for mumps immunity is unknown

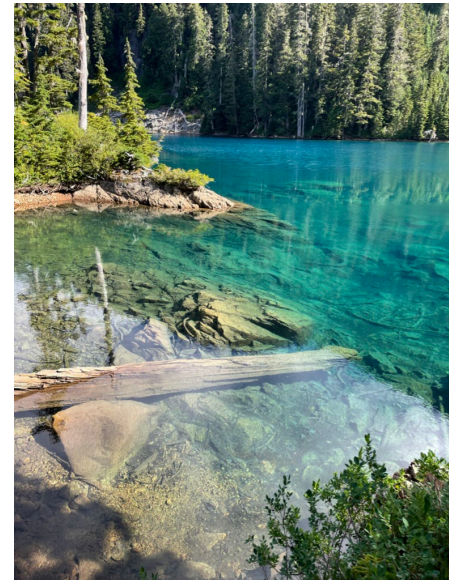
Immunization effectiveness after primary series

- Td is 95% effective for diphtheria, 100% effective for tetanus
- Varicella x 2 = 98% effective
- Pertussis vaccine
 - 70-80% effective in adolescents and adults
 - 4 years later is 30-40% effective



Pneumococcal Vaccines

- Over 90 serotypes of *S. pneumoniae* that lead to:
- **Non-invasive Pneumococcal Disease**
 - Community Acquired Pneumonia (CAP), Otitis media, sinusitis
- **Invasive Pneumococcal Disease**
 - Bacteremia, Sepsis, Meningitis



Pneumococcal Vaccines

- **Invasive Pneumococcal Disease (IPD)**
 - most common in very young, elderly, and immune compromised individuals
- In B.C. increasing incidence (12/100,000 persons) and mortality
- in Canada, in 2014, coverage of ≥ 65 yr. with pneu-P-23 was only 36.5%
- increasing respiratory and blood isolates in Canada are **penicillin resistant**
- Canadian Immunization Guide

Adult Pneumococcal vaccination recommended for

- Age 65 years of age and older
- Residents of long term care/intermediate care facilities
- People at high risk of IPD due to underlying medical conditions
- Adults with lifestyle factors for IPD – alcoholism, homeless
- Adults who use illicit drugs

- NACI/Canadian Immunization Guide



Pneumococcal Vaccines for Adults > 65yr (CDN)

- Fair evidence on a population wide basis for PPV-23
- PPV23 is **50-80% effective in prevention of IPD**
- Publicly funded one-time dose PPV-23 at age 65 in **healthy seniors**
- For **high risk** individuals give 1 dose at time of diagnosis and boost only once at age 65
- For **high risk** individuals consider use of **conjugate pneumococcal vaccine** for additional protection and enhanced effectiveness of polysaccharide vaccine

Pneumococcal Vaccines-

order of vaccines important

- If primed by a conjugate vaccine, the subsequent immunologic response to a polysaccharide vaccine is much greater

- PCV-13 first

8 weeks later

Pneu-P-23



- Pneu-P-23 first

one year

PCV-13



Pneumococcal Vaccines

- Conjugate pneumococcal vaccines introduced into **childhood** programs in 2000-2010 in US
- 2000 - 2010 reductions in all-cause pneumonia in **adults > 65yr**
- after 2010 – 2014 no reductions in all cause pneumonia, but declines from indirect effects of pneumococcal pneumonia
- 2014 ACIP recommended PCV-13 followed by PPV-23 8 weeks later

• <https://www.cdc.gov/vaccines/acip/meetings/downloads/min-archive/min-2019-06-508.pdf>

Pneumococcal Vaccines

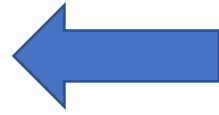
- 47% US adult uptake of PCV-13 to 2019
 - BUT
 - Since 2014 **no further population level impact** has been noted on non-invasive or invasive pneumonia
 - PCV-13 type pneumonia in 2014-16 estimated to be 4% -14% of all cause pneumonia
 - **Non-PCV-13 serotypes** make up the majority of disease burden
 - PCV-13 greatest impact for adults has been through **indirect** effect from pediatric use
 - With this evidence, ACIP recommended 'shared decision making' as the basis for offering PCV13
- <https://www.cdc.gov/vaccines/acip/meetings/downloads/min-archive/min-2019-06-508.pdf>
- Torres A, et al. Clin Infect Dis 2021; 73(6):1075–1085

Pneumococcal Vaccines – still learning

- Conjugate vaccines have decreased colonization by covered serotypes, but non-covered types tend to expand
- Especially type 3, 7F, 19A and 22F which are more virulent
 - Serotype 3 risk factor for septic shock
 - Serotype 19A multidrug resistant
- Increasing evidence that risk for cardiac complications (MI, Arrhythmia, CHF) increases post CAP in short and long term
- COVID-19 complicated by CAP has high mortality rate

Pneumococcal Vaccines – what's new?

- Prevnar 20 (PCV20) and 22F



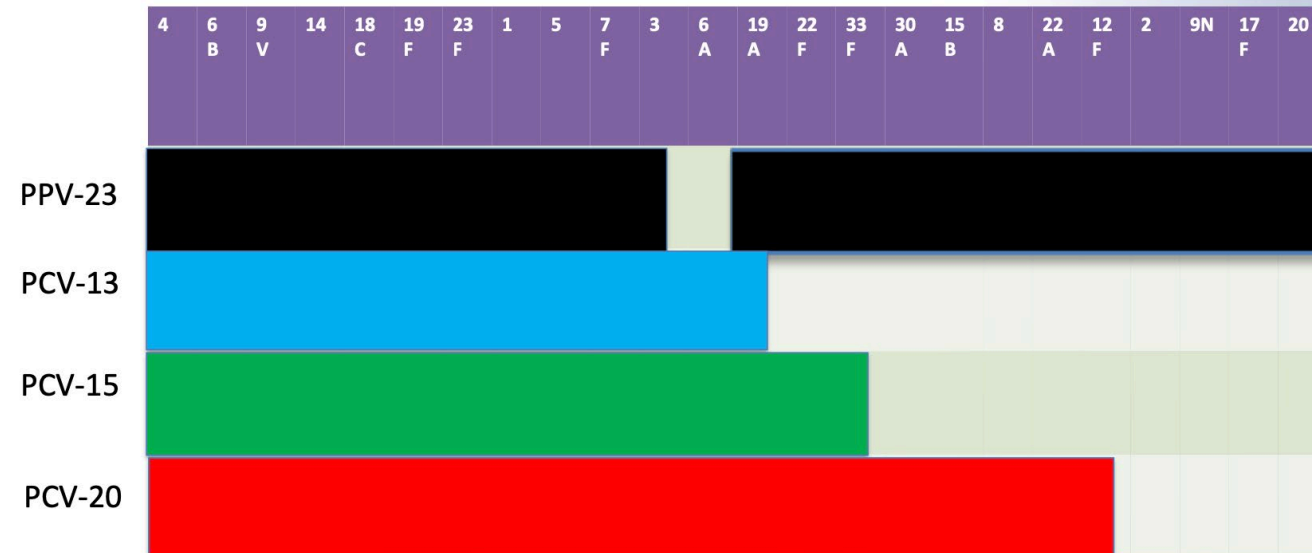
both contain types 3, 7F, 19A

- Vaxneuvance (PCV15)

- Approved by Health Canada
- Awaiting NACI statement and public health funding recommendations in provinces
- Will replace PCV-13

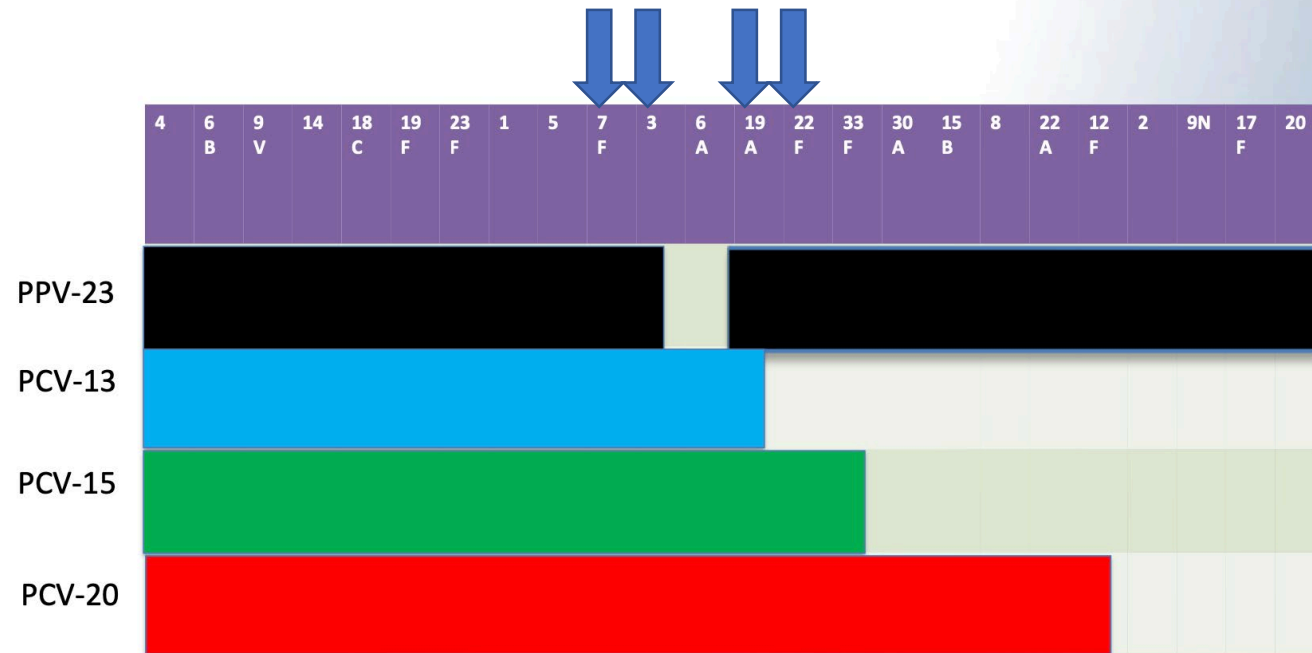
Pneumococcal Vaccines – what's new?

Comparative Serotype Composition of Pneumococcal Vaccines



Pneumococcal Vaccines – what's new?

Comparative Serotype Composition of Pneumococcal Vaccines



Switzerland





BC Centre for Disease Control
Provincial Health Services Authority

Adolescent and Adult Vaccination Immunization Resources and Addressing Vaccine Hesitancy

Katharine Chilton RN BScN
Immunization Programs and Vaccine Preventable Diseases Service
BC Centre for Disease Control

Barriers to Adolescent and Adult Vaccination:

- Lack of vaccine information
- Lack of access to vaccination
- Vaccine hesitancy
 - Fear of adverse reactions (vaccine safety)
 - Anti vaccine sentiments

Client

Lacking understanding:

- vaccine schedules & recommendations
- benefits of vaccines

Vaccine hesitancy:

- vaccine safety, efficacy, reactions
- needle fear or phobias
- trust in health care provider

Provider

Lack of awareness:

- vaccine schedules & recommendations

Missed opportunities to:

- have immunization conversations
- provide vaccine recommendations
- Misunderstanding contraindications to vaccination

System

Inconvenient/accessibility:

- clinic times and locations
- long wait times for appointments

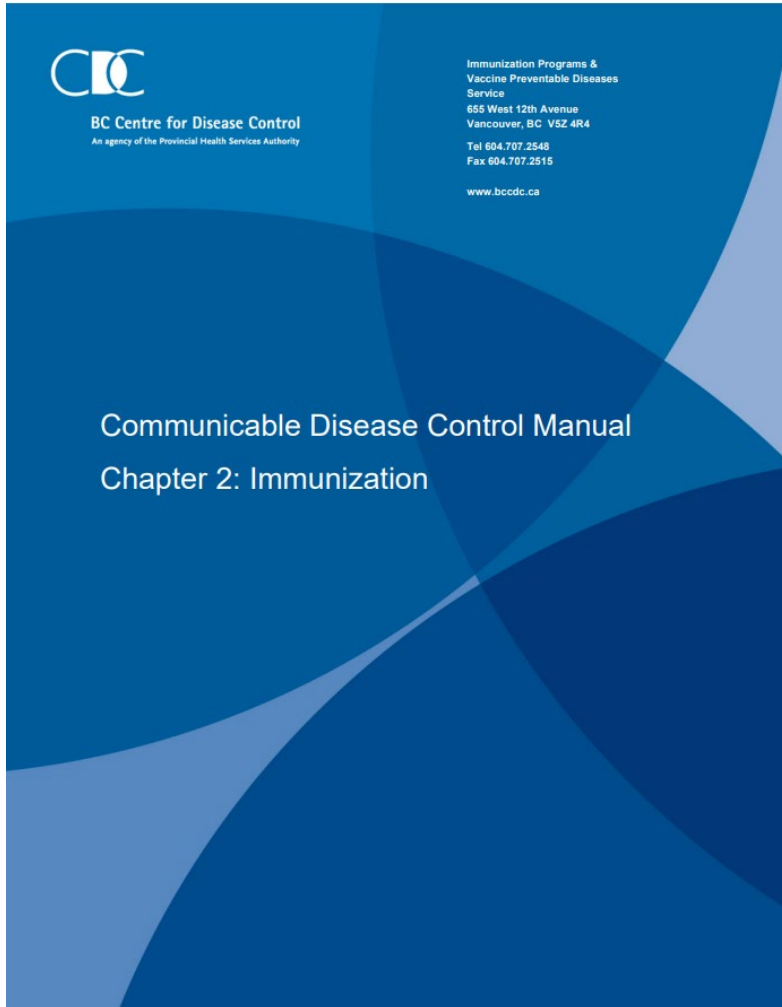
Lack of operational processes:

- recall/reminder systems
- immunization records

Systemic racism in healthcare



Clinical Resources



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Health Professionals / Clinical Resources / Communicable Disease Control Manual / Immunization Manual

Immunization Manual

The BC Communicable Disease Control Manual, Chapter 2: Immunization (BC Immunization Manual) provides best practice guidelines to direct the provision of immunization services.

Updates & user responsibilities

The BC Immunization Manual is updated regularly. The updated version of a section is published immediately on this page. All updates are listed and described in [Admin Circulars](#). If you use this manual, it is your responsibility to ensure that you are using the most recent version of the material.

BC Immunization Manual

Contents & introduction

- [Table of Contents](#)
- [Introduction](#) | Overview of provider responsibilities, immunization competencies & opportunities for immunization
 - [Essential Immunization Services During Times of Severe Disruption](#) | Guidance on the prioritization and continuity of immunization services during times of severe disruption to health service delivery
 - [Guidance for Influenza Vaccine Delivery in the Presence of COVID-19](#) | Guidance on the delivery of influenza vaccine and mass immunization clinics during the COVID-19 pandemic

Parts 1-5

- [Part 1: Immunization Schedules](#) | Routine immunization schedules by age.

In this section

- Communicable Disease Cor
- [Admin Circulars](#)
- Communicable Disease C
- Immunization Manual
- Immunization of Specia Populations
- Biological Products
- Infection Control
- Tuberculosis Manual
- Sexually Transmitted Inf
- Surveillance of Reportab Conditions

See Immunization Clinics for updates & supplemental materials >

Related content

Subscribe to the Admin Circulars to keep up to date



Vaccines Recommended for Adults in BC - QRG

Vaccines Recommended for Adults in BC Online Quick Reference Guide For Health Care Providers

For additional information on vaccine eligibility, dosing, schedules, etc. go to:
[BC Immunization Manual, Part 4: Biological Products \(Vaccines & Immune Globulins\)](#)

- For [Individuals at High Risk for Vaccine Preventable Disease](#) refer to: [BC Immunization Manual, Part 2: Immunization of Special Populations](#)

This quick reference guide does not provide information specific to travel vaccines. For information on travel vaccines refer to a travel health professional or a [travel clinic](#) in your area.

Vaccine Click on the vaccine to go to the BC Immunization Manual, Part 4: Biological Products. Then select the specific vaccine.	Recommended and available for free:	Recommended and available at cost ^{1,2} :	Available at cost ² :
Hepatitis A	<ul style="list-style-type: none"> • Adults with medical or lifestyle risks. 	<ul style="list-style-type: none"> • Travelers to destinations where the risk of hepatitis A is high (consult a travel clinic). • Adults with occupational risks and food handlers (the cost of the vaccine may be covered by your client's employer). • Adults with lifestyle or other risks. 	<ul style="list-style-type: none"> • Adults who want protection.
Hepatitis B	<ul style="list-style-type: none"> • Adults born in 1980 or later. • Adults with medical, occupational, lifestyle or other risks. 	<ul style="list-style-type: none"> • Adults living in communities or traveling to destinations where the risk of hepatitis B is high (consult a travel clinic). 	<ul style="list-style-type: none"> • Adults who want protection.
Human Papillomavirus (HPV) (Gardasil®9)	<ul style="list-style-type: none"> • Women 18 years of age. • Women who have commenced a series prior to age 19 may be completed with publicly funded HPV vaccine prior to the 26th birthday. • Men ≤ 26 years of age with lifestyle or other risks. • HIV positive individuals ≤ 26 years of age. • Transgender individuals ≤ 26 years of age. 	<ul style="list-style-type: none"> • Women ≤ 45 years of age. • Men ≤ 26 years of age. • Men 27 years of age and older who have sex with men. 	<ul style="list-style-type: none"> • Women 46 years of age and older. • Men 27 years of age and older.
Influenza	<ul style="list-style-type: none"> • Adults ≥ 65 years of age. • Those with medical risks and other eligible individuals. 	<ul style="list-style-type: none"> • Adults who want protection. 	
Measles/Mumps/Rubella	<ul style="list-style-type: none"> • Adults born in 1970 or later. 		

continued on next page

Immunization resources for the public

**BC Routine Immunization Schedule
ADULTS 18 YEARS OF AGE & OLDER
Not Immunized in Childhood**

ImmunizeBC

Timing of Immunization

Vaccine* (Click on the vaccine name to view the vaccine HealthLinkBC file)	1 st visit	4 weeks later	2 months after 1 st visit	6 months after 1 st visit	6 months after 2 nd visit	every 10 years
Meningococcal C Conjugate (for those born before 2002 who are ≤ 24 years of age)	✓					
Meningococcal Quadrivalent Conjugate (for those born in 2002 or later and are ≤ 24 years of age)	✓					
Tdap** (tetanus, diphtheria, pertussis)	✓					
MMR† (measles, mumps, rubella)	✓	✓				
Hepatitis B* (for those born in 1980 or later and other eligible individuals)	✓	✓		✓		
HPV‡ (human papillomavirus) (for eligible individuals only)	✓		✓	✓		
Varicella‡ (chickenpox) (for susceptible individuals only)	✓		✓			
Td (tetanus, diphtheria)		✓			✓	✓
Influenza			✓ yearly			
Pneumococcal Polysaccharide* (for those 65 years and older and other eligible individuals)			✓			

COVID-19 vaccination is recommended and free for people 6 months of age and older. Get information about [COVID-19 vaccines](#).

* The hepatitis A and polio vaccines are not included in this table. The hepatitis A vaccine is available for Indigenous adults that are 18 years of age and other eligible individuals. The polio vaccine is only recommended for unimmunized adults who are at risk of exposure to polio virus. See the HealthLinkBC Files for more information on vaccine eligibility or speak to your health care provider.

† Two doses of MMR vaccine are recommended for adults born in 1970 or later.

‡ Pregnant people should receive 1 dose of Tdap in every pregnancy, ideally between 27 - 32 weeks of gestation.

§ See the HealthLinkBC Files for more information on vaccine eligibility or speak to your health care provider.

11/22

**BC Routine Immunization Schedule
SCHOOL AGE**

Child's Grade

Vaccine (Click on the vaccine name to view the vaccine HealthLinkBC file)	Grade 6 HealthLinkBC File	Grade 9 HealthLinkBC File
Hepatitis B	✓ 2 doses (if 3 doses not received in infancy) 2 nd dose 6 months after 1 st dose	
HPV† (human papillomavirus)	✓ 2 doses 2 nd dose 6 months after 1 st dose	
Varicella‡ (chickenpox)	✓ 1 or 2 doses‡ 2 nd dose at least 3 months after 1 st dose	
Meningococcal Quadrivalent Conjugate		✓ 1 dose
Tdap (tetanus, diphtheria, pertussis)		✓ 1 dose

COVID-19 vaccination is recommended and free for people 6 months of age and older. Get information about [COVID-19 vaccines](#).

Yearly influenza (flu) vaccination is recommended for everyone 6 months of age and older. Appointments can be booked through the [Get Vaccinated system](#).

† The HPV vaccine has been offered to boys in grade 6 since September 2017.

‡ Children who had chickenpox or shingles disease, confirmed by a lab test, at 1 year of age or older do not need the chickenpox vaccine. Children who received a single dose of chickenpox vaccine at a younger age only need 1 dose in grade 6. Children who have never received the chickenpox vaccine need 2 doses.

ImmunizeBC

11/22

← Display immunization posters in waiting rooms

Public Resource for Immunization Information

BRITISH COLUMBIA | ImmunizeBC | Evidence-based immunization information and tools for B.C. residents

Search keywords or ask a question Search

Why Vaccinate ▾ When to Vaccinate ▾ Get Vaccinated ▾ Vaccine Safety ▾ Vaccines by Disease ▾ FAQ

**Protect yourself and your family from influenza (the flu).
Get Vaccinated.**
Everyone 6 months of age and older should get an influenza vaccine every year.

Boost your protection against COVID-19
A fall booster dose is recommended for everyone 5 years of age and older.

Popular Resources

- Vaccine schedules
- Tips for finding vaccine records
- Frequently asked questions
- Posters & pamphlets
- Resources for health care providers

Helpful Tools

- Health unit finder
- Influenza (flu) clinic locator
- Text message appointment reminders
- Vaccination scheduler tool (for children up to 6 years)
- Vaccination status indicator (school-age children)

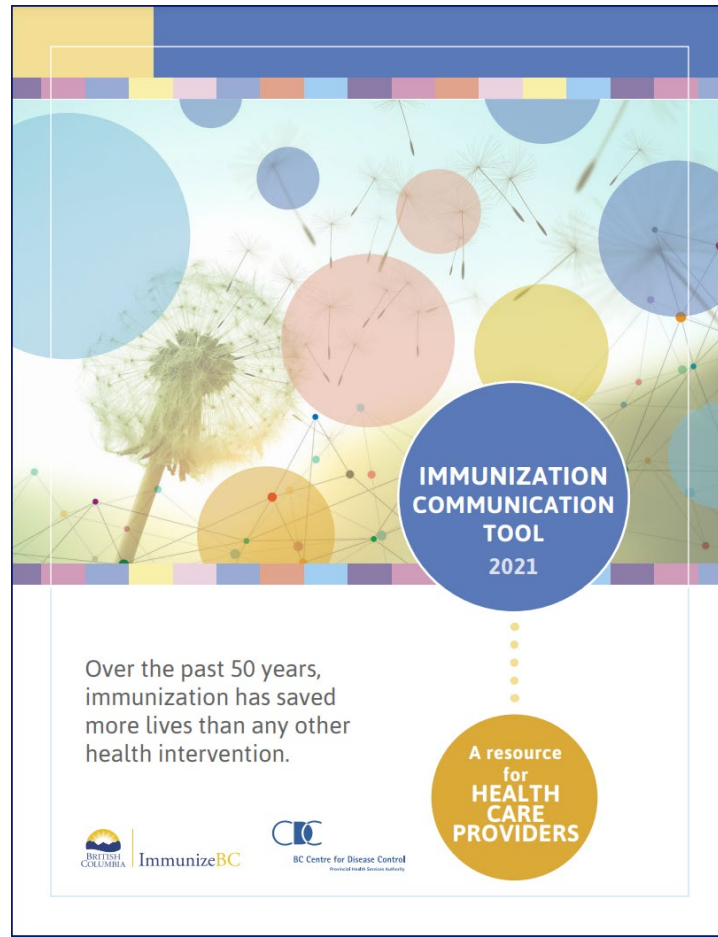
News & Events

Provincial health officer's statement on influenza-related deaths in children, youth

[More news & events](#)

ImmunizeBC is an evidence-based immunization information website for BC residents
<https://immunizebc.ca/>

Addressing Vaccine Hesitancy: Immunization Communication Tool (ICT)



Results of CNICS survey

- 17% of parents were considered to be vaccine-hesitant
- Regional variations (14% to 24%)

Table 4.2 Prevalence of vaccine hesitancy by region

Region	Refuse all % (95% CI)	Hesitant % (95% CI)	Non-hesitant % (95% CI)	n
Atlantic region	1.4 (0.8–1.9)	15.6 (13.9–17.4)	83.0 (81.2–84.8)	2,145
Quebec	3.0 (1.6–4.3)	23.9 (20.5–27.3)	73.1 (69.5–76.7)	628
Ontario	1.7 (0.7–2.7)	15.6 (12.8–18.5)	82.7 (79.7–85.6)	636
Manitoba	3.4 (1.9–4.8)	15.7 (12.6–18.7)	81.0 (77.7–84.3)	553
Saskatchewan	2.8 (1.3–4.2)	15.3 (11.8–18.7)	82.0 (77.8–86.2)	564
Alberta	2.0 (0.9–3.2)	14.3 (11.6–17.1)	83.6 (80.7–86.6)	622
British Columbia	3.9 (2.3–5.6)	16.2 (12.9–19.4)	79.9 (76.6–83.3)	578
Northern region	1.8 (0.7–2.9)	21.9 (18.4–25.3)	76.3 (72.8–79.8)	712
Total	n = 132	n = 1,092	n = 5,214	6,438

n = number of respondents (unweighted) excluding those who did not provide a valid answer.

CI – Confidence interval.

Note: Due to the small number of observations (n < 10) in the 'refuse all' category, some provinces and territories were combined. Atlantic region includes Newfoundland and Labrador, Prince Edward Island, Nova Scotia and New Brunswick; Northern region includes Yukon, Northwest Territories and Nunavut.

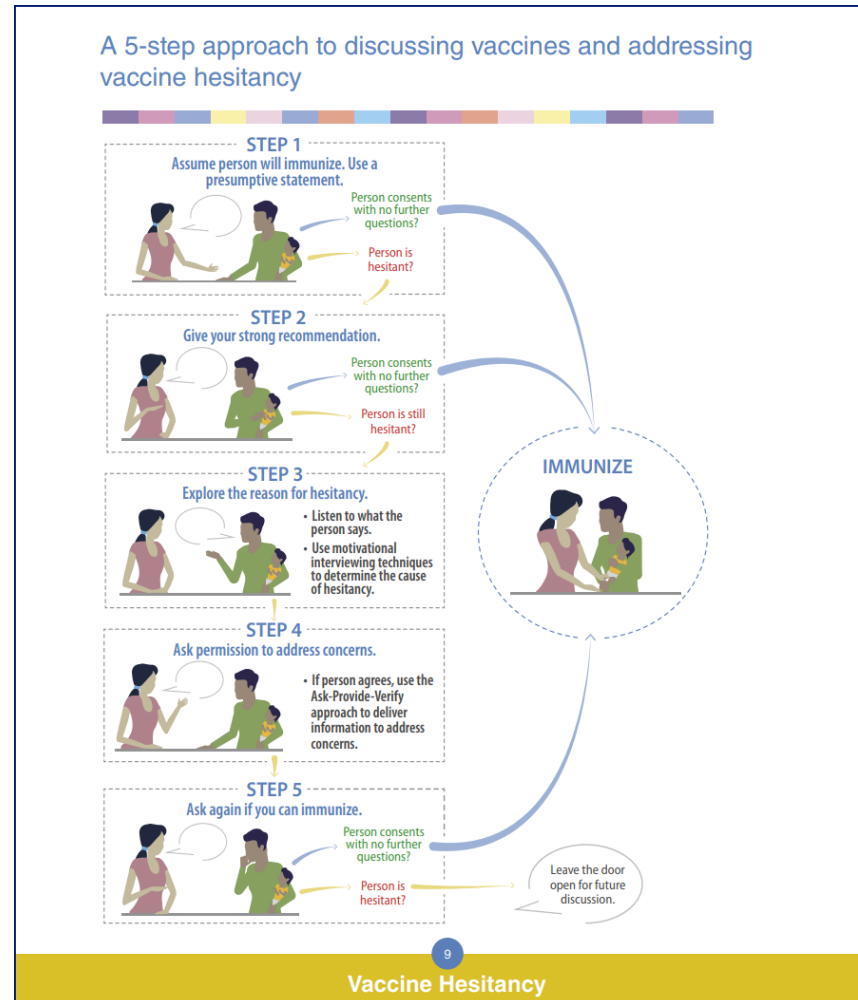
Source of information most trusted by parents:

- The source of information most trusted by parents was their medical doctors (really trusted by **43%**).
- The most commonly reported sources of information on vaccination were medical doctors (**81%**), local public health clinics (**54%**) and nurses (**50%**).

Strategies to address vaccine hesitancy

- Understand that health care providers play a key role in a person's decision to vaccinate
- Build trust
- Use a presumptive statement
- Use motivational interviewing techniques to understand a person's vaccine concerns
- Keep messages short and simple
- Present both the risks and benefits of vaccines fairly and accurately
- Share stories
- Address pain head-on

Immunization Communication Framework:



Summary

- ❑ Lack of vaccine information and awareness of available vaccines and schedules is a barrier to adult/adolescent immunization:
 - Clinical resources can be found on the BCCDC website.
 - Resources for the public can be found on ImmunizeBC.

- ❑ Vaccine hesitancy can be addressed using the Immunization Communication Tool:
 - Immunization communication framework
 - Evidence-based strategies

As the most trusted source of information on vaccination, a health care provider's immunization recommendation is a key factor in an individual's decision to receive a vaccine.

Immunization Resources for HCPs

Immunization Clinical Resources: <http://www.bccdc.ca/health-professionals/clinical-resources/immunization>

- Immunization Manual
- Vaccines Recommended for Adults - QRG
- The Immunization Communication Tool for Health Care Providers
- Immunization Courses:
 - Pearls for Immunization Practice – CME accredited course available on UBC/CPD

Credible Immunization Resources for the Public:

- ImmunizeBC – <https://immunizebc.ca/>
- Immunize Canada - <https://immunize.ca/>
- The Vaccine Safety Net is a global network of websites, evaluated by the World Health Organization, that provide credible information about vaccines:
<https://vaccinesafetynet.org/>