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Catch-Up of Routine and School-Based Immunizations for School-Aged Children and Adolescents

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Polling Question 1

What is your primary practice setting?

1. Public Health Unit
2. Primary Care (e.g. family practice, walk-in, urgent care)
3. Pharmacy
4. Hospital
5. Other
6. Not applicable. I am not a healthcare provider.

Polling Question 2

How comfortable are you in using Ontario's Publicly Funded Immunization Schedules to assess children who are behind in their routine immunization schedule and to determine what immunizations they require to be caught up?

1. Very comfortable
2. Comfortable
3. Somewhat comfortable
4. Not comfortable

Learning Objectives

By the end of this session, participants will be able to:

1. Describe the impact of the COVID-19 pandemic on the delivery and coverage of routine immunizations.
2. Understand key immunization principles related to routine immunization scheduling and catch-up.
3. Identify and know where to access Ontario's publicly funded immunization schedules (routine, school-based) and extended eligibility guidance.
4. Apply key principles to common case studies that assess school-aged clients for recommended immunizations based on immunization history, timing and age.
5. Describe a training approach for new public health unit staff on the appropriate delivery of catch-up vaccines based on an interpretation of a client's immunization record.

Impact of the COVID-19 Pandemic on Routine Immunizations

Impact of the COVID-19 Pandemic on Routine Immunization Programs

- Additional strain on Canadian health care system
- Restricted availability of in-person services
  - Public health clinics and physicians' offices
- Limited resources e.g., staff shortages, PPE shortages, lack of infrastructure to maintain social distancing
- Immunization programs in school > preschool and adult programs

Sell H, Assi A, Driedger SM, Dubé È, Gagneur A, Meyer SM, et al. Continuity of routine immunization programs in Canada during the COVID-19 pandemic. Vaccine. 2021;39(39):5532-7. Available from: https://doi.org/10.1016/j.vaccine.2021.08.044.

Examples of Vaccines Administered in the School-age Cohort

School-based program	Grade routinely offered
Hepatitis B	Grade 7
HPV	Grade 7
Men-ACYW	Grade 7

Community-based program	Age routinely offered
Tdap-IPV	4 to 6 years
MMRV	4 to 6 years
Tdap	14 to 16 years

Low School-based Immunization Coverage in Past Two School Years Due to Impact of COVID-19 Pandemic

Figure 1. Immunization coverage for quadrivalent meningococcal conjugate (MCV4), human papillomavirus (HPV) and hepatitis B (Hep B) vaccines among 12-year-olds in Ontario: 2013–14 to 2020–21 school years

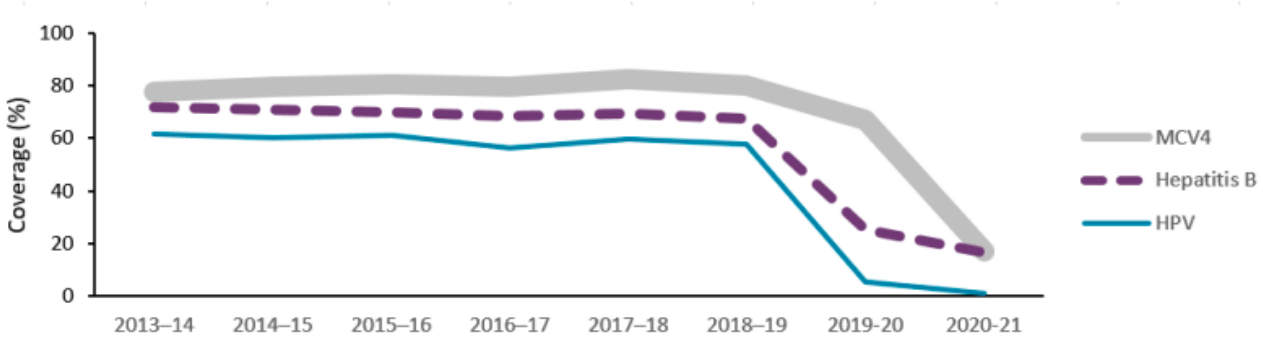
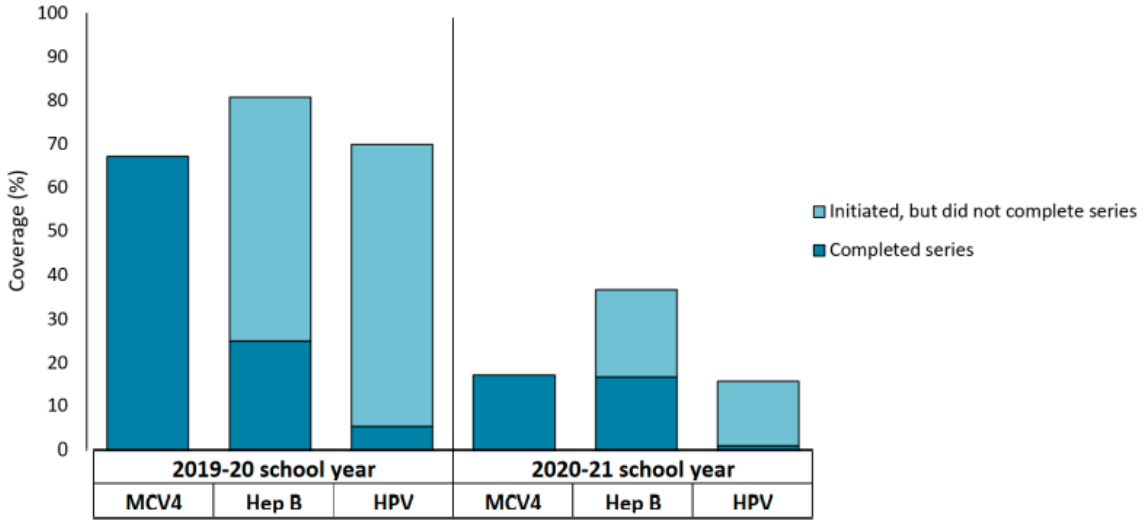


Figure 2a. Immunization coverage for school-based immunization programs among 12-year-olds in Ontario: 2019–20 and 2020–21 school years



- Coverage estimates for the 2019-20 and 2020-21 school years are substantially lower than in previous years
- Many grade 7 students (aged ~12-13 years) in the 2019-20 cohort initiated, but did not complete their school-based immunization series; fewer initiated and completed in 2020-21

Ontario Agency for Health Protection and Promotion (Public Health Ontario). Immunization coverage report for school-based programs in Ontario: 2019-20 and 2020-21 school years [Internet]. Toronto, ON: Queen's Printer for Ontario; 2021 [cited 2022 Jul 13]. Available from: https://www.publichealthontario.ca/-/media/documents/i/2021/immunization-coverage-2019-2021.pdf?sc_lang=en .

Key Principles of Catch-up Immunizations

Persons Who May Need Immunizations

Unimmunized persons

- Routine serology is not necessary
- Start an immunization schedule appropriate for age and risk factors

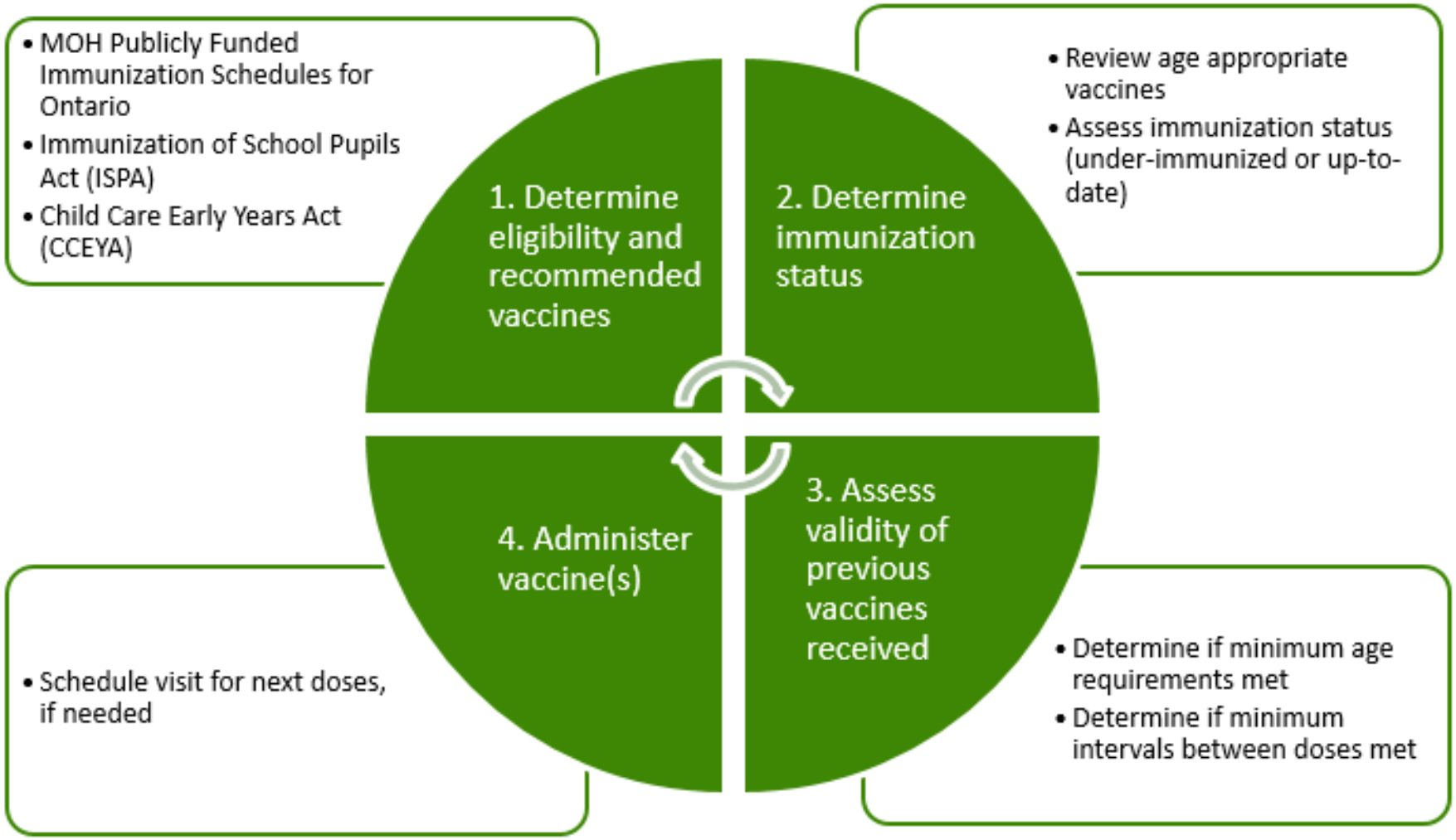
Persons unsure of immunization status

- Consider unimmunized if no record or client/guardian is unable to confirm which vaccines received
- Start an immunization schedule appropriate for age and risk factors

Under-immunized persons

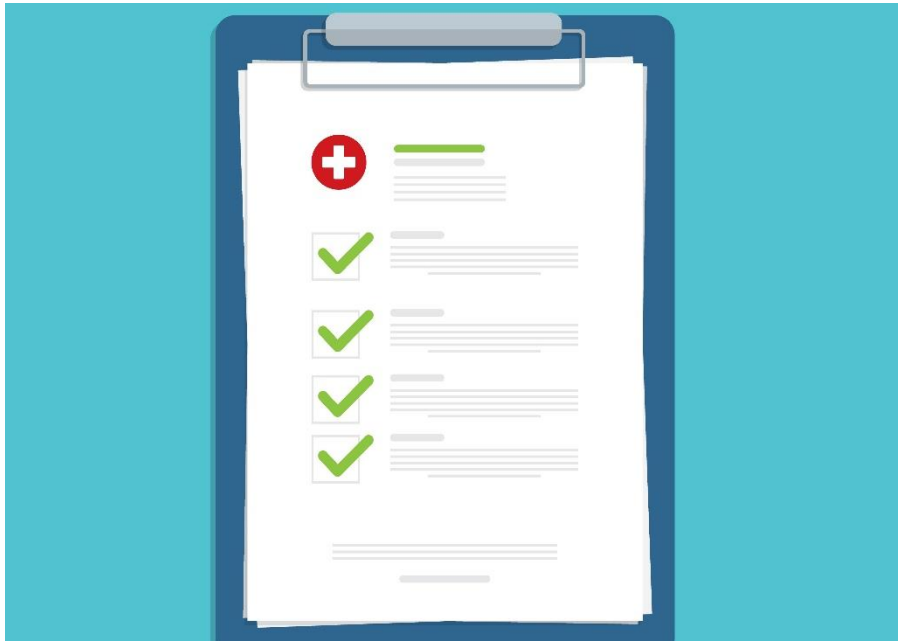
- Continue series – no need to restart
- Ensure minimum ages and recommended intervals are met

Approach to Assessing an Immunization Record for Catch-up



Key Principles of Catch-up Immunizations

1. Assess immunization status at every opportunity
2. Do not restart immunization series
3. Observe recommended intervals between doses in a vaccine series
4. Use simultaneous administration or multiple injections as a catch-up strategy
5. Observe appropriate spacing of inactivated vs. live vaccines
6. Determine interchangeability of products
7. Schedule future immunization appointments



1. Assess Immunization Status at Every Opportunity

- Review individual vaccination history to determine whether any vaccine doses are missing or due
- If there is no evidence or confirmation of vaccination history, assume the individual has not been vaccinated
- Individuals should be vaccinated using the age-appropriate dose and schedule

2. Do Not Restart Immunization Series

- Interruption of an immunization series does not require restarting the series
- An additional dose or fewer doses may be recommended if not administered as per schedule depending on individual's age and previous doses received
- Delays between doses do not result in a reduction in final antibody concentrations for most multi-dose products

3. Observe Recommended Intervals Between Doses in an Immunization Series

- The minimum interval is the shortest time between two vaccine doses in a multi-dose series in which a protective response can be expected
- Even though doses given at the minimum intervals are considered valid in the series, it is preferable to maintain the **recommended interval** when possible, with a few exceptions, as this will provide optimal protection or has the best evidence of efficacy
  - Minimum intervals may be considered for a susceptible individual at high risk of exposure e.g. during an outbreak or when traveling overseas to high-risk areas

4. Use Simultaneous Administration or Multiple Injections as a Catch-up Strategy

- Simultaneous administration or multiple injections in a single clinic visit should be considered/used as a catch-up strategy.
- Increase the probability that a person will be fully immunized.
  - Administer all vaccine doses at single visit unless specific contraindication exists.
  - Receiving multiple vaccines at one time is safe and effective.
- Practice considerations:
  - Use different limbs whenever possible; if the same limb required, injection sites separated by at least 2.5 cm (1 inch).
  - Administer vaccines that are known to cause the most site pain after other vaccines.
  - Use techniques to decrease injection pain.

5. Observe Appropriate Spacing of Inactivated vs. Live Vaccines

- Inactivated vaccines generally can be given concomitantly with, or at any time before or after other inactivated vaccines or live vaccines
- Live parenteral vaccines may be given concomitantly with other vaccines at the same visit
  - If two live parenteral vaccines are not administered concomitantly, there should be a period of at least 4 weeks (28 days) before the second live parenteral vaccine is given

6. Determine Interchangeability of Products

- In general, the same manufacturer's product should be used for all doses in a vaccine series.
- Monovalent HB vaccines (i.e. Recombivax HB®, Engerix-B®) may be used interchangeably, even though their antigen content is not the same, using the dosage and schedules recommended by the manufacturer for the vaccine recipient’s age group.

7. Schedule Future Immunization Appointments

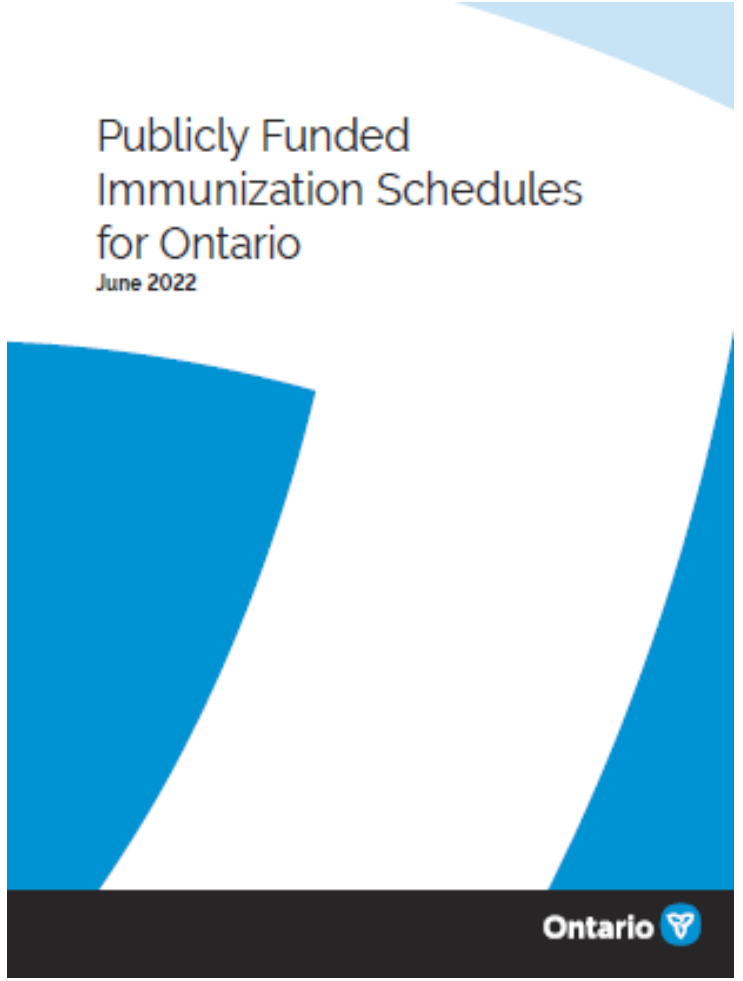
- Schedule subsequent immunization visits or ensure a recall system is in place, until individual is up-to-date

- The individual must be provided with their up-to-date immunization record following each visit

Publicly-Funded Immunization Schedules for Ontario

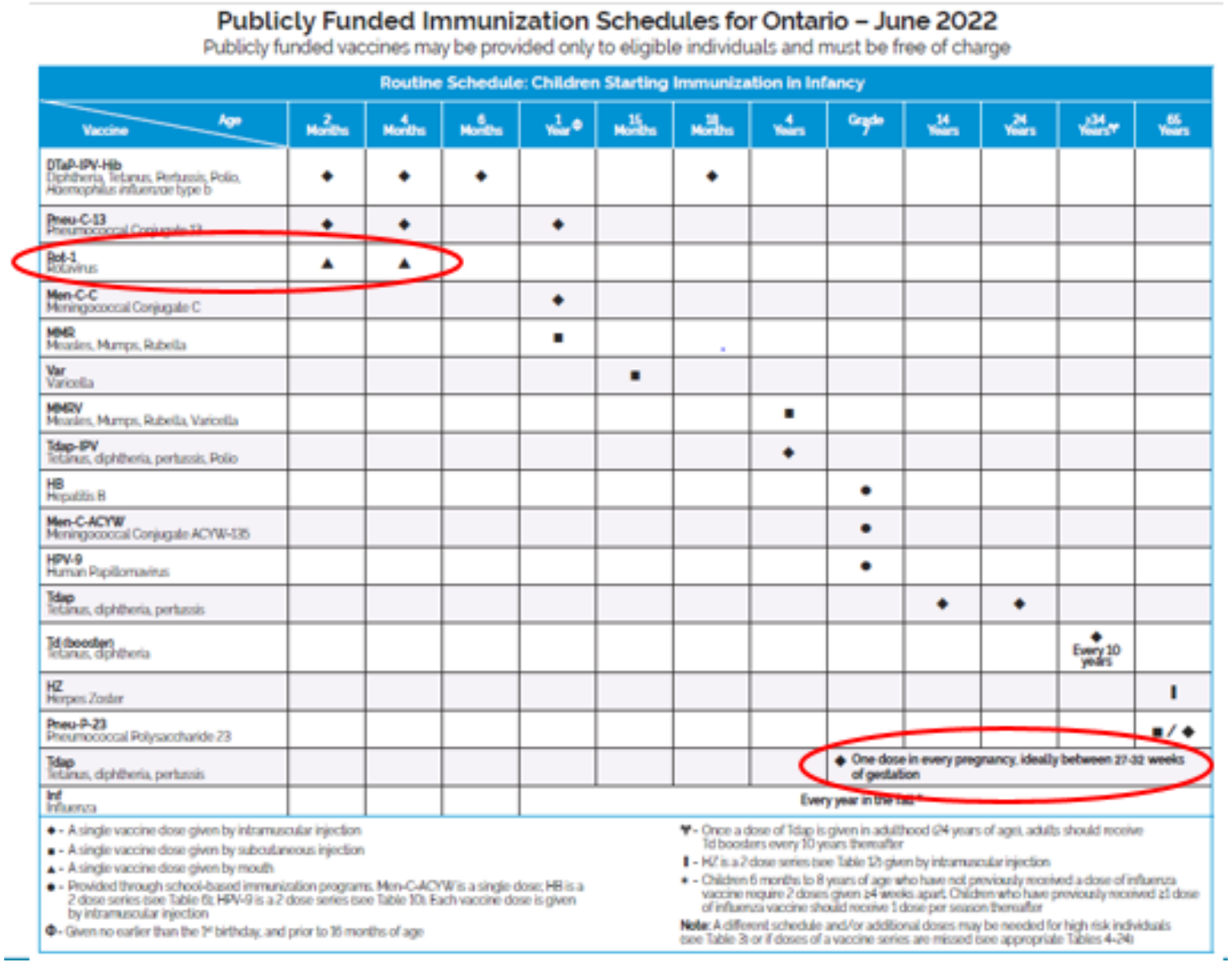
Publicly-Funded Immunization Schedules for Ontario

- Routine immunization schedule
- Catch-up immunization schedules
  - Catch-up schedules (pg. 4&5); age-dependent
- High risk immunization programs and schedules (pg. 7&8)
  - High risk criteria including medical conditions and risk factors
  - Age-dependent; vaccine-specific interval tables
- Eligibility criteria for all publicly funded vaccines
- Minimum and recommended intervals



Ontario. Ministry of Health. Publicly funded immunization schedules for Ontario: June 2022 [Internet]. Toronto, ON: Queen's Printer for Ontario; 2022 [cited 2022 Jul 13]. Available from: https://www.health.gov.on.ca/en/pro/programs/immunization/docs/Publicly_Funded_ImmunizationSchedule.pdf.

Publicly-Funded Schedules for Ontario



Publicly Funded Immunization Schedules for Ontario – June 2022

Publicly funded vaccines may be provided only to eligible individuals and must be free of charge

Routine Schedule: Children Starting Immunization in Infancy

Vaccine \ Age	2 Months	4 Months	6 Months	1 Year Φ	15 Months	18 Months	4 Years	Grade 7	14 Years	24 Years	≥34 Years Ψ	65 Years
DTaP-IPV-Hib Diphtheria, Tetanus, Pertussis, Polio, Haemophilus influenzae type b	◆	◆	◆			◆						
Pneu-C-13 Pneumococcal Conjugate 13	◆	◆		◆								
Rot-1 Rotavirus	▲	▲										
Men-C-C Meningococcal Conjugate C				◆								
MMR Measles, Mumps, Rubella				■								
Var Varicella					■							
MMRV Measles, Mumps, Rubella, Varicella							■					
Tdap-IPV Tetanus, diphtheria, pertussis, Polio							◆					
HB Hepatitis B								●				
Men-C-ACYW Meningococcal Conjugate ACYW-135								●				
HPV-9 Human Papillomavirus								●				
Tdap Tetanus, diphtheria, pertussis									◆	◆		
Td (booster) Tetanus, diphtheria											◆ Every 10 years	
HZ Herpes Zoster												‖
Pneu-P-23 Pneumococcal Polysaccharide 23												■ / ◆
Tdap Tetanus, diphtheria, pertussis								◆ One dose in every pregnancy, ideally between 27-32 weeks of gestation				
Inf Influenza				Every year in the fall *								

◆ - A single vaccine dose given by intramuscular injection

■ - A single vaccine dose given by subcutaneous injection

▲ - A single vaccine dose given by mouth

● - Provided through school-based immunization programs. Men-C-ACYW is a single dose; HB is a 2 dose series (see Table 6); HPV-9 is a 2 dose series (see Table 10). Each vaccine dose is given by intramuscular injection

Φ - Given no earlier than the 1st birthday, and prior to 16 months of age

Ψ - Once a dose of Tdap is given in adulthood ≥24 years of age, adults should receive Td boosters every 10 years thereafter

‖ - HZ is a 2 dose series (see Table 12) given by intramuscular injection

* - Children 6 months to 8 years of age who have not previously received a dose of influenza vaccine require 2 doses given ≥4 weeks apart. Children who have previously received ≥1 dose of influenza vaccine should receive 1 dose per season thereafter

Note: A different schedule and/or additional doses may be needed for high risk individuals (see Table 3) or if doses of a vaccine series are missed (see appropriate Tables 4-24)

Children Starting Immunization Between 1 - 6 Years of Age

Publicly Funded Immunization Schedules for Ontario – June 2022

Publicly funded vaccines may be provided only to eligible individuals and must be free of charge

Catch-up Schedule 1: Children Starting Immunization between 1-6 Years

Vaccine \ Age	1st Visit:			2nd Visit: 2 months after 1st visit					3rd Visit: 2 months after 2nd visit		4th Visit: 6-12 months after 3rd visit		5th Visit (only required if child was <4 years at 4th visit): 4-6 yrs of age and 6-12 months after 4th visit	Grade 7	14-18 yrs§	24-28 yrs		≥34 yrs†*	65 yrs
	If child is			If child is <5 years and was			If child is		If child is		If child is					If adult was			
	<4 yrs	4 yrs	5-6 yrs	<2 yrs at 1st visit	2-3 yrs at 1st visit	4 yrs at 1st visit	5-6 yrs	7 yrs	<7 yrs	7 yrs	<4 yrs	4-8 yrs				<18 yrs at previous visit‡	≥18 yrs at previous visit†*		
DTaP-IPV-Hib	◆	◆	◆	◆	◆	◆	◆		◆		◆								
Pneu-C-13	◆	◆		◆															
MMR	■																		
MMRV		■	■									■	■						
Var				■	■														
Men-C-C	◆	◆	◆																
Tdap-IPV								◆		◆		◆	◆						
HB														●					
Men-C-ACYW														●					
HPV-9														●					
Tdap															◆	◆			
Td																	◆	◆ Every 10 years	
HZ																			▮
Pneu-P-23																			■ / ◆
Tdap														◆ One dose in every pregnancy, ideally between 27-32 weeks of gestation					
Inf	Every year in the fall *																		

◆ - A single vaccine dose given by intramuscular injection

■ - A single vaccine dose given by subcutaneous injection

● - Provided through school-based immunization programs. Men-C-ACYW is a single dose; HB is a 2 dose series (see Table 6); HPV-9 is a 2 dose series (see Table 10). Each vaccine dose is given by intramuscular injection

§ - Given 10 years after the (4-8 year old) Tdap-IPV dose

‡ - Given 10 years after the adolescent Tdap dose

†* - Once a dose of Tdap is given in adulthood (>18 yrs), adults should receive Td boosters every 10 years thereafter

▮ - HZ is a 2 dose series (see Table 12) given by intramuscular injection

* - Children 6 months to 8 years of age who have not previously received a dose of influenza vaccine require 2 doses given ≥4 weeks apart. Children who have previously received ≥1 dose of influenza vaccine should receive 1 dose per season thereafter

Note: A different schedule and/or additional doses may be needed for high risk individuals (see Table 3) or if doses of a vaccine series are missed (see appropriate Tables 4-24)

Children Starting Immunization Between 7 - 17 Years of Age

Publicly Funded Immunization Schedules for Ontario – June 2022

Publicly funded vaccines may be provided only to eligible individuals and must be free of charge

Catch-up Schedule 2: Children Starting Immunization between 7–17 Years

Age / Vaccine	1st Visit		2nd Visit: 2 months after 1st Visit		3rd Visit: 6-12 months after 2nd Visit	Grades 7-12	10 Years after 3rd Visit	10 years after previous visit (only required if child was <18 yrs old at previous visit)	Every 10 years after the previous visit†	65 Years
	If child is <13 yrs	If child is 13 to 17 yrs	If child is <13 yrs	If child is 13 to 18 yrs						
Tdap-IPV	◆	◆	◆	◆	◆					
MMRV	■		■							
MMR		■		■						
Var		■		■						
Men-C-C	◗									
HB						●				
Men-C-ACYW						●				
HPV-9						●				
Tdap							◆	◆		
Td									◆	
HZ										▌
Pneu-P-23										■ / ◆
Tdap	◆ One dose in every pregnancy, ideally between 27-32 weeks of gestation									
Inf	* Every year in the fall									

◆ - A single vaccine dose given by intramuscular injection

■ - A single vaccine dose given by subcutaneous injection

◗ - Individuals born on or after 2003/Sept/01 are eligible to receive a dose of Men-C-C (given by intramuscular injection). These individuals are also eligible to receive Men-C-ACYW when they enter Grade 7. If the individual is immunized with Men-C-ACYW, in or after Grade 7, Men-C-C is no longer recommended

● - Provided through school-based immunization programs. Men-C-ACYW is a single dose; HB is a 2 dose series (see Table 6); HPV-9 is a 2 or 3 dose series (see Tables 10 and 11). Each vaccine dose is given by intramuscular injection

† - Once a dose of Tdap is given in adulthood, adults should receive Td boosters every 10 years thereafter

▌ - HZ is a 2 dose series (see Table 12) given by intramuscular injection

★ - Children 6 months to 8 years of age who have not previously received a dose of influenza vaccine require 2 doses given ≥4 weeks apart. Children who have previously received ≥1 dose of influenza vaccine should receive 1 dose per season thereafter

Note: A different schedule and/or additional doses may be needed for high risk individuals (see Table 3) or if doses of a vaccine series are missed (see appropriate Tables 4-24)

Vaccine Eligibility – Missed Doses for School-based, Grade 7 Vaccines:

Vaccine	Current eligibility	Impacted cohort	Remains eligible for missed doses until	Special considerations
Hepatitis B (Recombivax HB® or Engerix-B®)	Grades 7 to 12*	Grade 9 students in the 2020/21, 2021/22, and 2022/23 school years (born in 2006, 2007, or 2008)	August 31, 2023 (must complete series)	These vaccines are typically provided through school-based clinics; however, if health care providers have eligible patients requesting a vaccine, contact the local health unit for special release access to administer the vaccine(s) directly
HPV-9 (Gardasil®9)	Grades 7 to 12	Students who completed grade 12 in 2019/20, 2020/21, and 2021/22 school years (born in 2002, 2003, or 2004)	August 31, 2023 (must complete series)	
Men-C-ACYW135 (Menactra®, Nimenrix)	Grade 7 to 12 and those born in or after 1997	N/A	Remains eligible until vaccine is received	

*Starting the 2022-23 school year, expanded eligibility of the school-based hepatitis B immunization program allows students who missed their vaccine in grade 7 to be vaccinated under the publicly funded program until the end of grade 12.

Vaccine Eligibility – Missed Doses for Adult Herpes Zoster Vaccine and High Risk Vaccines:

Adult vaccine

Vaccine	Current eligibility	Impacted cohort	Remains eligible for missed doses until
HZ (Shingrix®)	65 to 70 years old	Seniors born in 1949, 1950, 1951, 1952	Dec 31, 2023

High risk vaccines

Vaccine	Current eligibility	Impacted cohort	Remains eligible for missed doses until
HPV-9 (Gardasil®9)	Males 9 to 26 years old	Males born in 1993, 1994, 1995, and 1996	Dec 31, 2023
4CMenB (Bexsero®)	2 months to 17 years old	Individuals born in 2002, 2003, 2004, 2005	Dec 31, 2023
Men-C-AYW135 (Menactra®, Nimenrix)	9 months to 55 years old	Individuals born in 1964, 1965, 1966, 1967	Dec 31, 2023

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Ontario

Harjit Chung and Leslie Alderman

Niagara Region Public Health

Niagara Region

Applying Ontario's publicly funded immunization schedules & extended eligibility to common case studies/scenarios

Polling Question 3

Case Scenario #1: **Incomplete Hep B in a 16 year old**

A 16 year old girl (DOB 2006) received a 1.0mL dose of hepatitis B vaccine in Grade 7 but did not receive the second dose. She is now in Grade 11 and presents at the health unit to complete her hepatitis B vaccine series.

Polling Question 3 - Answer

Case Scenario #1: **Incomplete Hep B in 16 year old**

A 16 year old girl (DOB 2006) received a 1.0mL dose of hepatitis B vaccine in Grade 7 but did not receive the second dose. She just completed Grade 10 and presents at the health unit to complete her hepatitis B vaccine series.

Poll (Select one) - How would you proceed?

a) **Give two 0.5 mL doses of hepatitis B vaccine to complete the series**
b) Send her for bloodwork to assess her anti-HBs levels.
c) Give one 1.0 mL dose of hepatitis B vaccine to complete the series.
d) Give one 0.5 mL dose of hepatitis B vaccine to complete the series.
e) Restart the hepatitis B vaccine series. 3 doses given as 0.5mL (either 10 mcg or 5 mcg, depending on the product) at 0, 1 and 6 months.

Table 6 and 7 – Hepatitis B Series

Table 6: Hepatitis B (HB) immunization series for grade 7

Recombivax® HB First Dose – Intervals	Engerix®-B First Dose - Intervals
1st dose Recombivax® HB in Grade 7 2nd dose Recombivax® HB or Engerix®-B, 4 months after 1st dose	1st dose Engerix®-B in Grade 7 2nd dose Engerix®-B or Recombivax® HB, 6 months after 1st dose
Note: The 2 dose HB schedule and vaccine formulation is licensed for use for children between 11 and 15 years of age. For children who have not received their 2nd dose prior to their 16th birthday, a 3-dose series is required. Follow Table 7 for the 2nd and 3rd doses; no need to restart the series	

Table 7: Hepatitis B (HB) immunization series for high risk individuals ≥0 years of age and students in grades 10 to 12 who are ≥16 years of age

Recommended Intervals	Minimum Intervals
1st dose 2nd dose, 1 month after 1st dose 3rd dose, 5 months after 2nd dose and at age ≥24 weeks	1st dose 2nd dose, 4 weeks after 1st dose 3rd dose, 8 weeks after 2nd dose, 16 weeks after 1st dose and at age ≥24 weeks
Notes: • Premature infants weighing <2,000 grams at birth, born to HBV-positive mothers, should receive 4 doses, given at birth, 1, 2 and 6 months of age • Refer to the Canadian Immunization Guide for appropriate vaccine formulations, serology testing and boosters for individuals who meet HB high risk eligibility criteria (see Table 3)	

Polling Question 4

Case Scenario #2: **15 year old missed grade 7 vaccines**

A 15 year old female student (DOB 2007) did not receive grade 7 immunizations. A review of her record indicates that she received all recommended routine vaccines up to and including MMRV and Tdap-IPV when she was 4 years of age.

Polling Question 4 – Answer

Case Scenario #2: **15 year old missed grade 7 vaccines**

A 15 year old female student (DOB 2007) did not receive grade 7 immunizations. A review of her record indicates that she received all recommended routine vaccines up to and including MMRV and Tdap-IPV when she was 4 years of age.

Poll (click all that apply) - What vaccines should she be offered?

a) Tdap-IPV
b) Tdap
c) Men-C-ACYW
d) Hep B (1.0 mL 2 dose series)
e) HPV-9 (2 dose series)
f) HPV-9 (3 dose series)

Table 10 and 11 – HPV Series

Table 10: HPV-9 two dose immunization series for:
- **healthy grade 7 to 12 students who are <15 years of age**
- **healthy youth 9 to 14 years of age (who meet high risk eligibility criteria)**

Recommended Intervals	Minimum Intervals
1st dose 2nd dose, 6 months after 1st dose	1st dose 2nd dose, 24 weeks after 1st dose

Notes:
- Immunocompromised or immunocompetent HIV-infected individuals require 3 doses (see Table 11)
- In healthy individuals 15 years of age and older who received the first dose between 9 to less than 15 years of age, a 2 dose schedule can be used

Table 11: HPV-9 three dose immunization series for:

Healthy:
- **grade 7 to 12 students who are ≥15 years of age**
- **males 15 to 26 of age (who meet high risk eligibility criteria)**

Immunocompromised or immunocompetent HIV-infected:
- **grade 7 to 12 students**
- **males 9 to 26 years of age (who meet high risk eligibility criteria)**

Recommended Intervals	Minimum Intervals
1st dose 2nd dose, 2 months after 1st dose 3rd dose, 4 months after 2nd dose	1st dose 2nd dose, 4 weeks after 1st dose 3rd dose, 12 weeks after 2nd dose and 24 weeks after the 1st dose

Polling Question 5

Case Scenario #3: **Interrupted vaccine series in a 7 year old**

A 7 year old client presents to your office in order to update their immunization. They missed their 4-6 year old vaccines (Tdap-IPV and MMRV) due to the COVID-19 pandemic. Upon review of his immunization record, you note that they also missed their 18 month DTaP-IPV-Hib dose.

Polling Question 5 – Answer

Case Scenario #3: **Interrupted vaccine series in a 7 year old**

A 7 year old client presents to your office in order to update their immunization. They missed their 4-6 year old vaccines (Tdap-IPV and MMRV) due to the COVID-19 pandemic. Upon review of his immunization record, you note that they also missed their 18 month DTaP-IPV-Hib dose.

Poll (Select one) - How would you proceed?

a) Provide one dose each of Tdap-IPV and MMRV vaccines at the visit and inform client that a booster dose for Tdap will be due 10 years later

b) Provide one dose each of DTaP-IPV-Hib and MMRV vaccines at the visit, and a dose of Tdap-IPV six months later. Inform client that a booster dose for Tdap will be due 10 years later

c) Provide one dose each of Tdap-IPV and MMRV vaccines at the visit, and a dose of Tdap-IPV six months later. Inform client that a booster dose for Tdap will be due 10 years later

Table 24 – Tdap-IPV, Td and IPV, and/or Td schedule for individuals ≥7 years of age

Table 24: Tdap-IPV, Td and IPV, and/or Td schedule for individuals ≥7 years of age who have not completed their series

Number of DTaP-IPV-[Hib] doses received at age <7 years	Individual's current age	Continue with the following number of Tdap-IPV, Td and IPV and/or Td doses to complete series (recommended intervals)
1 dose	7 to 17 years	1 dose of Tdap-IPV, 2 months after DTaP-IPV-[Hib] dose 1 dose of Tdap, 2 months after 1st Tdap-IPV dose 1 dose of Tdap-IPV, 6-12 months after Tdap dose
	≥18 years	1 dose of Tdap-IPV 1 dose of Td, 2 months after Tdap-IPV dose 1 dose of Td and IPV, 6-12 months after Td dose
2 doses	7 to 17 years	1 dose of Tdap-IPV, 6-12 months after DTaP-IPV-[Hib] dose 1 dose of Tdap, 6-12 months after 1st Tdap-IPV dose
	≥18 years	1 dose of Tdap-IPV 1 dose of Td, 6-12 months after Tdap-IPV dose
3 doses	≥7 years	1 dose of Tdap-IPV, 6-12 months after DTaP-IPV-[Hib] dose
4 doses received at age <4 years	≥7 years	1 dose of Tdap-IPV

Note: DTaP-IPV-[Hib] indicates the use of either DTaP-IPV-Hib or DTaP-IPV depending on the age of the child

Niagara Region Public Health's strategies for training new staff

Resources and Materials

- Education Program for Immunization Competencies (EPIC) modules
- Orientation Booklet
  - Orientation calendar
  - Slide decks of teaching blocks
  - Ontario Publicly Funded Schedule
  - Internal Medical directives
  - Internal Policies/Procedures
  - Internal guidance documents on Best Practices/Niagara Exceptions
  - Internal Vaccine Fact Sheets
  - Important hyperlinks (e.g., Storage and Handling, CIG, NACI)
  - Mock records

Teaching Blocks

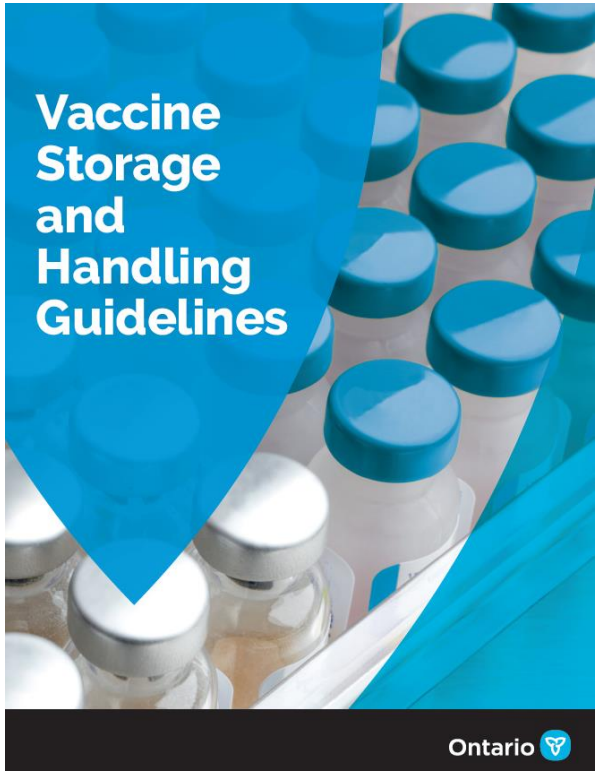
1. Introduction and Overview
2. Cold Chain
3. Consent and Release of Information
4. Health Assessment
5. Record Review
6. Grade 7 Vaccines
7. Tdap and Tdap-IPV
8. Documentation

1. Introduction & Overview

- Importance of immunization
- What to expect
- Program goals
- Services delivered
- Systems that support programming

2. Cold Chain

- Vaccine Storage and Handling guidelines
- Cold chain and management policies and procedures
- Required documentation



3. Consent and Release of Information

- College of Nurses of Ontario (CNO) standards
- Corporate policies
- Personal health information (PHI) protection and release
- Consent to treatment
- Legislation: ISPA and CCEYA
- Statement of conscience and medical exemption

4. Health Assessment

- Pre-vaccination counselling
- Vaccine safety
- Health history

5. Record Review

- Pillars associated with immunization foundations:
  - National Advisory Committee on Immunization (NACI)
  - Canadian Immunization Guide (CIG)
  - Ministry of Health (MOH)
  - Product monographs

- Filters associated with vaccine assessment:
  - MOH schedules
  - CCEYA and ISPA
  - Exceptions
  - Medical directives
  - *Panorama forecaster*

6. Grade 7 Vaccines

- Hepatitis B, HPV, Meningococcal
- Etiology and disease transmission
- Compare and contrast ingredients
- Dosage and scheduling recommendations
- Common precautions and contraindications
- Knowledge test – Jeopardy game

7. Tdap and Tdap-IPV

- Antigen abbreviations
- Single antigen vaccine
- Tetanus combination vaccines
- Vaccine intervals
- Interrupted schedules

8. Documentation

- Panorama
- EMR – Profile
- m-IMMS application

Putting it all together

- Work through mock appointment bookings and records
- Shadow clinic shifts
  - Following IPAC practices
  - Preparing vaccine
  - Land marking
  - Administration practices
  - Documentation
- Inject under observation
- Competency test
- Mentoring program
- Education Days

Thank You