

# Publicly Funded Immunization Schedules for Ontario – December 2016

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	12 Months	15 Months	18 Months	4-6 Years <sup>^</sup>	Grade 7	14-16 Years <sup>§</sup>	24-26 Years <sup>†</sup>	≥34 Years <sup>‡</sup>	65 Years
<b>DTaP-IPV-Hib</b> Diphtheria, Tetanus, Pertussis, Polio, <i>Haemophilus influenzae</i> type b		◆	◆	◆			◆						
<b>Pneu-C-13</b> Pneumococcal Conjugate 13		◆	◆		◆								
<b>Rot-1</b> Rotavirus		▲	▲										
<b>Men-C-C</b> Meningococcal Conjugate C					◆								
<b>MMR</b> Measles, Mumps, Rubella					■								
<b>Var</b> Varicella						■							
<b>MMRV</b> Measles, Mumps, Rubella, Varicella								■					
<b>Tdap-IPV</b> Tetanus, diphtheria, pertussis, Polio								◆					
<b>HB</b> Hepatitis B									●				
<b>Men-C-ACYW</b> Meningococcal Conjugate ACYW-135									●				
<b>HPV-4</b> Human Papillomavirus									●				
<b>Tdap</b> Tetanus, diphtheria, pertussis										◆	◆		
<b>Td (booster)</b> Tetanus, diphtheria												◆	
<b>HZ</b> Herpes Zoster													■
<b>Pneu-P-23</b> Pneumococcal Polysaccharide 23													■
<b>Inf</b> Influenza													
* Every year in the fall													
<p>◆ = A single vaccine dose given in a syringe and needle by intramuscular injection                      ■ = A single vaccine dose given in a syringe and needle by subcutaneous injection                      ▲ = A single vaccine dose given in an oral applicator 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-4 is a 2 dose series (see Table 10). Each vaccine dose is given in a syringe and needle by intramuscular injection                      ^ = Preferably given at 4 years of age                      § = Given 10 years after the (4-6 year old) Tdap-IPV dose                      † = Given 10 years after the adolescent (14-16 year old) Tdap dose                      ‡ = Once a dose of Tdap is given in adulthood (24-26 years of age), adults should receive Td boosters every 10 years thereafter                      * = 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</p>													
<b>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 4-23)</b>													

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

Vaccine	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): <b>4-6 years of age and 6-12 months after 4th visit</b>	Grade 7	14-16 Years <sup>‡</sup>	24-26 Years <sup>†</sup>	≥34 Years <sup>‡</sup>	65 Years	
	If child is			If child is <5 years and was				If child is		If child is									
	<4 yrs	4 yrs	5-6 yrs	<15 mos at 1 <sup>st</sup> visit	15-23 mos at 1 <sup>st</sup> visit	2-3 yrs at 1 <sup>st</sup> visit	4 yrs at 1 <sup>st</sup> visit	5-6 yrs	7 yrs	<7 yrs	7 yrs	<4 yrs							4-6 yrs
<b>DTaP-IPV-Hib</b>	◆	◆		◆															
<b>Pneu-C-13</b>	◆	◆		◆	◆														
<b>MMR</b>	■																		
<b>MMRV</b>		■	■									■	■	■					
<b>DTaP-IPV</b>			◆		◆	◆	◆	◆		◆		◆							
<b>Var</b>				■	■	■													
<b>Men-C-C</b>	◆	◆	◆																
<b>Tdap-IPV</b>									◆				◆	◆	◆				
<b>HB</b>															●				
<b>Men-C-ACYW</b>															●				
<b>HPV-4</b>															●				
<b>Tdap</b>											◆					◆	◆		
<b>Td</b>																		◆ Every 10 years	
<b>HZ</b>																		■	
<b>Pneu-P-23</b>																		■	
<b>Inf</b>	* Every year in the fall																		

◆ = A single vaccine dose given in a syringe and needle by intramuscular injection

■ = A single vaccine dose given in a syringe and needle 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-4 is a 2 dose series (see Table 10). Each vaccine dose is given in a syringe and needle by intramuscular injection

§ = Given 10 years after the (4-6 year old) Tdap-IPV dose

† = Given 10 years after the adolescent (14-16 year old) Tdap dose

‡ = Once a dose of Tdap is given in adulthood (24-26 years of age), adults should receive Td boosters every 10 years thereafter

\* = 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 4-23)**

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Catch-up Schedule 2: Children Starting Immunization between 7–17 Years																	
Vaccine	Age	1st Visit				2nd visit: 2 months after 1st Visit			3rd visit: 6-12 months after 2nd Visit	Grade 7	Grades 7-8	Grades 7-12	Grades 8-12 Females	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 years and born		If child is ≥13 years and born		If child is <13 years	If child is ≥13 years and born										
		on or after 2003/Sep/01	on or prior to 2003/Aug/31	in or after 2000	in 1999		in or after 2000	in 1999									
Tdap-IPV		◆	◆	◆	◆	◆	◆	◆									
MMRV		■	■		■												
MMR				■	■		■	■									
Var				■			■										
Men-C-C		◆															
HB										●							
Men-C-ACYW											●						
HPV-4									●			●					
Tdap													◆	◆			
Td																◆	
HZ																	■
Pneu-P-23																	■
Inf		* Every year in the fall															

◆ = A single vaccine dose given in a syringe and needle by intramuscular injection  
 ■ = A single vaccine dose given in a syringe and needle by subcutaneous injection  
 ◆ = Individuals born on or after 2003/Sept/01 are eligible to receive a dose of Men-C-C (given in a syringe and needle 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); see Table 10 or 11 for the HPV-4 series. Each vaccine dose is given in a syringe and needle by intramuscular injection  
 ‡ = Once a dose of Tdap is given in adulthood (24-26 years of age), adults should receive Td boosters every 10 years thereafter  
 \* = 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 4-23)**

Catch-up Schedule 3: Adults Starting Immunization at 18 Years and Older									
Vaccine	Age	1st Visit			2nd Visit: 2 months after 1st visit		3rd Visit: 6-12 months after 2nd visit	Every 10 years after the 3rd visit	65 Years
		If adult is born			If adult is				
		in or prior to 1985	between 1986 and 1996	in or after 1997	18-25 yrs	≥26 yrs			
Tdap-IPV		◆	◆	◆					
MMR		■	■	■	■				
Men-C-ACYW				◆					
Men-C-C			◆						
Td-IPV					◆	◆	◆		
Td								◆	
HZ									■
Pneu-P-23									■
Inf		◆ Every year in the fall							

◆ = A single vaccine dose given in a syringe and needle by intramuscular injection  
 ■ = A single vaccine dose given in a syringe and needle by subcutaneous injection

**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 4-23)**

**General Notes:**

- Interruption of a vaccine series does not require restarting the series, regardless of the length of time that has elapsed since the last dose
- When age ranges are specified, they are inclusive of the lower and upper age parameters, for example:
  - “4–6 years” means from the 4<sup>th</sup> birthday to the day prior to the 7<sup>th</sup> birthday
  - “6 months to 8 years” means from 6 months of age to the day prior to the 9<sup>th</sup> birthday

**Table 1: Vaccine Administration**

Route of administration	Vaccine recipient	Recommended needle gauge	Recommended needle length
Intramuscular (IM) <i>Note:</i> For IM injections, use a needle length sufficient to reach the largest part of the muscle	Infants, toddlers and older children	22-25	7/8 inch-1 inch
	Adolescents and adults	22-25	1 inch-1½ inch
Subcutaneous (SC)	All ages	25	5/8 inch
Oral (per os [PO])	Infants	n/a	n/a
Intranasal (IN)	All ages	n/a	n/a

**Notes:**

- For route, site and technique for vaccine administration refer to the Canadian Immunization Guide (CIG) at [www.phac-aspc.gc.ca/publicat/cig-gci/p01-07-eng.php](http://www.phac-aspc.gc.ca/publicat/cig-gci/p01-07-eng.php)
- Never mix and administer different vaccines together in the same syringe unless indicated in the product monograph
- For vaccines that require reconstitution, always mix the vaccine with the supplied diluent

**Table 2: Eligibility Criteria for All Publicly Funded Vaccines**

Publicly Funded Vaccines	Route of administration	Publicly Funded Age Groups	
		Routine Vaccine Programs	High Risk Vaccine Programs
<b>DTaP-IPV</b> Diphtheria, Tetanus, Pertussis, Polio	IM	6 weeks to 6 years of age	
<b>DTaP-IPV-Hib</b> Diphtheria, Tetanus, Pertussis, Polio, <i>Haemophilus influenzae</i> type b	IM	6 weeks to 4 years of age	5 to 6 years of age (see Table 3)
<b>HA</b> Hepatitis A	IM		≥1 year of age (see Table 3)
<b>HB</b> Hepatitis B	IM	Grades 7 to 8	≥0 years of age (see Table 3)
<b>Hib</b> <i>Haemophilus influenzae</i> type b	IM	6 weeks to 4 years of age	≥5 years of age (see Table 3)
<b>HZ</b> Herpes Zoster	SC	65 to 70 years of age (2016 only – individuals born in 1945)	
<b>HPV-4</b> Human Papillomavirus	IM	Grades 7 to 12 females Grade 7 males (born on or after 2004/Jan/01 and in grades 7 to 12)	Males 9 to 26 years of age (see Table 3)
<b>Inf</b> Influenza	IM - inactivated IN - live attenuated	≥6 months of age	
<b>IPV</b> Polio	SC	≥6 weeks of age	≥18 years of age (see Table 3)
<b>4CMenB</b> Multicomponent Meningococcal B	IM		2 months to 17 years of age (see Table 3)
<b>Men-C-C</b> Meningococcal Conjugate C	IM	<ul style="list-style-type: none"> <li>• Born on or after 2003/Sep/01 and ≥1 year of age</li> <li>• Born between 1986/Jan/01 and 1996/Dec/31</li> </ul>	
<b>Men-C-ACYW</b> Meningococcal Conjugate ACYW-135	IM	<ul style="list-style-type: none"> <li>• Grades 7 to 12</li> <li>• Born on or after 1997/Jan/01</li> </ul>	9 months to 55 years of age (see Table 3)
<b>Men-P-ACYW</b> Meningococcal Polysaccharide ACYW-135	SC		≥56 years of age (see Table 3)
<b>MMR</b> Measles, Mumps, Rubella	SC	≥1 year of age	<ul style="list-style-type: none"> <li>• 6 to 11 months (see Table 3)</li> <li>• ≥18 years of age (see Table 3)</li> </ul>
<b>MMRV</b> Measles, Mumps, Rubella, Varicella	SC	4 to 12 years of age	
<b>Pneu-C-13</b> Pneumococcal Conjugate 13	IM	6 weeks to 4 years of age	<ul style="list-style-type: none"> <li>• 6 weeks to 6 months of age (see Table 3)</li> <li>• ≥50 years of age (see Table 3)</li> </ul>
<b>Pneu-P-23</b> Pneumococcal Polysaccharide 23	SC or IM	≥65 years of age	<ul style="list-style-type: none"> <li>• 2 to 64 years of age (see Table 3)</li> <li>• ≥2 years of age (reimmunization) (see Table 3)</li> </ul>
<b>Rot-1</b> Rotavirus	PO	6 to 24 weeks of age	
<b>Td</b> Tetanus, diphtheria	IM	≥7 years of age	
<b>Tdap</b> Tetanus, diphtheria, pertussis	IM	≥4 years of age <i>Note:</i> Adults (≥18 years of age) are eligible for 1 Tdap dose (generally given 10 years after the adolescent Tdap dose). However, if the Tdap booster dose is required earlier, they are eligible to receive 1 dose of Tdap regardless of the interval since the last dose of tetanus or diphtheria containing vaccine.	
<b>Tdap-IPV</b> Tetanus, diphtheria, pertussis, Polio	IM	≥4 years of age	≥18 years of age (see Table 3)
<b>Td-IPV</b> Tetanus, diphtheria, Polio	IM	≥7 years of age	≥18 years of age (see Table 3)
<b>Var</b> Varicella	SC	Born on or after 2000/Jan/01 and ≥1 year of age	Born on or prior to 1999/Dec/31 (see Table 3)

- Notes:**
- Some vaccines protect against the same disease; the most appropriate vaccine should be selected based on the age and needs of the vaccine recipient in accordance with the recommended schedules
  - For any of the immunization schedules, if an individual is partially immunized or contraindicated to receive a component of a combined vaccine, alternative vaccines may be used, provided the individual is eligible to receive the vaccine, for example:
    - If IPV series is complete Tdap can be used instead of Tdap-IPV
    - Similarly if there is a contraindication to receiving pertussis, Td-IPV for individuals ≥7 years of age can be used instead of Tdap-IPV
  - Consult with your local public health unit regarding the availability of publicly funded vaccines for the case and contact management of vaccine preventable diseases

**Table 3: High Risk Vaccine Programs**

High risk individuals should also be immunized according to the routine or applicable catch-up schedules (see pages 1 to 3)

Publicly Funded Vaccines	Publicly Funded Age Groups	# of Eligible Doses	Vaccine Intervals	High Risk Eligibility Criteria
<b>Hib</b>	≥5 years	1 or 3	For HSCT - See Table 9	<ul style="list-style-type: none"> <li>Asplenia (functional or anatomic) (1 dose)</li> <li>Bone marrow or solid organ transplant recipients (1 dose)</li> <li>Cochlear implant recipients (pre/post implant) (1 dose)</li> <li>Hematopoietic stem cell transplant (HSCT) recipients (3 doses)</li> <li>Immunocompromised individuals related to disease or therapy (1 dose)</li> <li>Lung transplant recipients (1 dose)</li> <li>Primary antibody deficiencies (1 dose)</li> </ul> <b>Note:</b> High risk children 5 to 6 years of age who require DTaP-IPV and Hib may receive DTaP-IPV-Hib instead of Hib
<b>DTaP-IPV-Hib</b>	5-6 years			
<b>HA</b>	≥1 year	2	See Table 5	<ul style="list-style-type: none"> <li>Intravenous drug use</li> <li>Liver disease (chronic), including hepatitis B and C</li> <li>Men who have sex with men</li> </ul>
<b>HB</b>	≥0 years	2 to 4 (+ boosters if required)	See Table 7	<ul style="list-style-type: none"> <li>Children &lt;7 years old whose families have immigrated from countries of high prevalence for HBV and who may be exposed to HBV carriers through their extended families (3 doses)</li> <li>Household and sexual contacts of chronic carriers and acute cases (3 doses)</li> <li>History of a sexually transmitted disease (3 doses)</li> <li>Infants born to HBV-positive carrier mothers:               <ul style="list-style-type: none"> <li>premature infants weighing &lt;2,000 grams at birth (4 doses)</li> <li>premature infants weighing ≥2,000 grams at birth and full/post term infants (3 doses)</li> </ul> </li> <li>Intravenous drug use (3 doses)</li> <li>Liver disease (chronic), including hepatitis C (3 doses)</li> <li>Awaiting liver transplants (2<sup>nd</sup> and 3<sup>rd</sup> doses only)</li> <li>Men who have sex with men (3 doses)</li> <li>Multiple sex partners (3 doses)</li> <li>Needle stick injuries in a non-health care setting (3 doses)</li> <li>On renal dialysis or those with diseases requiring frequent receipt of blood products (e.g., haemophilia) (2<sup>nd</sup> and 3<sup>rd</sup> doses only)</li> </ul>
<b>HPV-4</b>	Males 9 to 26 years	2 to 3	See Tables 10 and 11	<ul style="list-style-type: none"> <li>Men who have sex with men</li> </ul>
<b>4CMenB</b>	2 months to 17 years	2 to 4	See Table 13	<ul style="list-style-type: none"> <li>Acquired complement deficiencies (e.g., receiving eculizumab)</li> <li>Asplenia (functional or anatomic)</li> <li>Cochlear implant recipients (pre/post implant)</li> <li>Complement, properdin, factor D or primary antibody deficiencies</li> <li>HIV</li> </ul>
<b>Men-C-ACYW</b>	9 months to 55 years	2 to 4 + boosters	See Table 14	
<b>Men-P-ACYW</b>	≥56 years	1	See Table 14	
<b>MMR</b>	6-11 months	1	See Table 15	<ul style="list-style-type: none"> <li>Infants who will be traveling to areas where disease is a concern</li> </ul> <b>Note:</b> 2 additional doses are required at ≥1 year of age and at appropriate intervals
	≥18 years	1 (as a 2 <sup>nd</sup> dose)	See Table 15	<ul style="list-style-type: none"> <li>Adults who have only received 1 dose of MMR, are eligible to receive a 2<sup>nd</sup> dose:               <ul style="list-style-type: none"> <li>if they are health care workers</li> <li>if they are post-secondary students</li> <li>if they are planning to travel to areas where disease is a concern</li> <li>based on the health care provider's clinical judgement</li> </ul> </li> </ul>
<b>Pneu-C-13</b>	6 weeks to 6 months	1 (as a 4 <sup>th</sup> dose)	See Table 16	<ul style="list-style-type: none"> <li>Infants who meet any of the Pneu-P-23 high risk criteria from 1 to 14 (see Pneu-P-23 eligibility criteria) are eligible for a 4<sup>th</sup> dose and should be immunized according to the high risk Pneu-C-13 schedule</li> </ul>
	≥50 years	1 or 3	For HSCT – See Table 17 See Table 18 for intervals between Pneu-C-13 and Pneu-P-23	<ul style="list-style-type: none"> <li>Asplenia (anatomical or functional) (1 dose)</li> <li>Congenital immunodeficiencies involving any part of the immune system, including B-lymphocyte (humoral) immunity, T-lymphocyte (cell) mediated immunity, complement system (properdin or factor D deficiencies), or phagocytic functions (1 dose)</li> <li>HIV (1 dose)</li> <li>HSCT recipient (3 doses)</li> <li>Immunocompromising therapy including use of long-term corticosteroids, chemotherapy, radiation therapy, post-organ-transplant therapy, biologic and certain anti-rheumatic drugs (1 dose)</li> <li>Malignant neoplasms including leukemia and lymphoma (1 dose)</li> <li>Sickle cell disease or other hemoglobinopathies (1 dose)</li> <li>Solid organ or islet cell transplant (candidate or recipient) (1 dose)</li> </ul>
<b>Pneu-P-23</b>	2 to 64 years	1		<ol style="list-style-type: none"> <li>Asplenia (functional or anatomic), splenic dysfunction</li> <li>Cardiac disease (chronic)</li> <li>Cerebral spinal fluid leak (chronic)</li> <li>Cochlear implant recipients (pre/post implant)</li> <li>Congenital (primary) immunodeficiencies involving any part of the immune system, including B-lymphocyte (humoral) immunity, T-lymphocyte (cell) mediated immunity, complement system (properdin or factor D deficiencies), or phagocytic functions</li> <li>Diabetes mellitus</li> <li>HIV</li> <li>Immunocompromising therapy including use of long-term systemic corticosteroid, chemotherapy, radiation therapy, post-organ transplant therapy, certain anti-rheumatic drugs and other immunosuppressive therapy</li> <li>Liver disease (chronic), including hepatitis B and C, and hepatic cirrhosis due to any cause</li> <li>Malignant neoplasms, including leukemia and lymphoma</li> <li>Renal disease (chronic), including nephrotic syndrome</li> <li>Respiratory disease (chronic), excluding asthma, except those treated with high-dose corticosteroid therapy</li> <li>Sickle-cell disease and other sickle cell haemoglobinopathies</li> <li>Solid organ or islet cell transplant (candidate or recipient)</li> <li>Neurologic conditions (chronic) that may impair clearance of oral secretions</li> <li>HSCT (candidate or recipient)</li> <li>Residents of nursing homes, homes for the aged and chronic care facilities or wards</li> </ol>
<b>Pneu-P-23</b>	≥2 years	1 (as a 2 <sup>nd</sup> dose)	See Table 19	<ul style="list-style-type: none"> <li>Individuals are eligible to receive a 2<sup>nd</sup> (one lifetime reimmunization) dose of Pneu-P-23 if they meet the following high risk criteria:               <ul style="list-style-type: none"> <li>Asplenia (functional or anatomic) or sickle cell disease</li> <li>Hepatic cirrhosis</li> <li>HIV</li> <li>Immunocompromised related to disease or therapy</li> <li>Renal failure (chronic) or nephrotic syndrome</li> </ul> </li> </ul>
<b>IPV Tdap-IPV Td-IPV</b>	≥18 years	1		<ul style="list-style-type: none"> <li>Travellers who have completed their immunization series against polio and are travelling to areas where polio virus is known or suspected to be circulating</li> </ul> Refer to the Committee to Advise on Tropical Medicine and Travel (CATMAT) for recommendations at <a href="http://www.phac-aspc.gc.ca/tmp-pmv/catmat-cmntmv/index-eng.php">www.phac-aspc.gc.ca/tmp-pmv/catmat-cmntmv/index-eng.php</a> <b>Note:</b> Travellers are eligible to receive a single adult lifetime booster dose of IPV-containing vaccine. The most appropriate vaccine (i.e., IPV, Tdap-IPV or Td-IPV) should be selected
<b>Var</b>	Born on/prior to 1999/Dec/31	2	See Table 15	<ul style="list-style-type: none"> <li>Susceptible children and adolescents given chronic salicylic acid therapy</li> <li>Susceptible individuals with cystic fibrosis</li> <li>Susceptible household contacts of immunocompromised individuals</li> <li>Susceptible individuals receiving low dose steroid therapy or inhaled/topical steroids</li> <li>Susceptible immunocompromised individuals, see the CIG</li> </ul>

# Vaccine Intervals – Recommended and Minimum

**Note:** Tables 8,12,13,14 and 16 should be used when initiating the vaccine series. Interrupted schedules may result in fewer necessary doses than indicated in the table. Consult the CIG or Table 23 for the interrupted Pneu-C-13 series.

Table 4: DTaP-IPV-[Hib] and Tdap-IPV Primary Immunization Series for Children <7 Years of Age	
Recommended Intervals	Minimum Intervals
1 <sup>st</sup> DTaP-IPV-[Hib] dose at age ≥2 months 2 <sup>nd</sup> DTaP-IPV-[Hib] dose, 2 months after 1 <sup>st</sup> dose 3 <sup>rd</sup> DTaP-IPV-[Hib] dose, 2 months after 2 <sup>nd</sup> dose 4 <sup>th</sup> DTaP-IPV-[Hib] dose, 6-12 months after 3 <sup>rd</sup> dose and age ≥1 year <i>If 4<sup>th</sup> dose is given at age ≥4 years and ≥24 weeks after 3<sup>rd</sup> dose, Tdap-IPV should be given</i> 5 <sup>th</sup> Tdap-IPV dose, 6-12 months after 4 <sup>th</sup> dose and at age ≥4 years <i>5<sup>th</sup> dose is not required if 4<sup>th</sup> dose is given at age ≥4 years and ≥24 weeks after 3<sup>rd</sup> dose</i>	1 <sup>st</sup> DTaP-IPV-[Hib] dose at age ≥6 weeks 2 <sup>nd</sup> DTaP-IPV-[Hib] dose, 4 weeks after 1 <sup>st</sup> dose 3 <sup>rd</sup> DTaP-IPV-[Hib] dose, 4 weeks after 2 <sup>nd</sup> dose 4 <sup>th</sup> DTaP-IPV-[Hib] dose, 24 weeks after 3 <sup>rd</sup> dose and age ≥1 year <i>If 4<sup>th</sup> dose is given at age ≥4 years and ≥24 weeks after 3<sup>rd</sup> dose, Tdap-IPV should be given</i> 5 <sup>th</sup> Tdap-IPV dose, 24 weeks after 4 <sup>th</sup> dose and at age ≥4 years <i>5<sup>th</sup> dose is not required if 4<sup>th</sup> dose is given at age ≥4 years and ≥24 weeks after 3<sup>rd</sup> dose</i>
<b>Notes:</b> <ul style="list-style-type: none"> <li>DTaP-IPV-[Hib] indicates the use of either DTaP-IPV-Hib or DTaP-IPV depending on the age of the child and the number of Hib doses required (see Table 8)</li> <li>Refer to the Routine Schedule and Catch-up Schedule 1 for the use of DTaP-IPV-[Hib]</li> </ul>	

Table 5: Hepatitis A (HA) Immunization Series for High Risk Individuals ≥1 Year of Age	
Recommended Intervals	Minimum Intervals
1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 6 to 36 months after 1 <sup>st</sup> dose (depending on vaccine)	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 24 weeks after 1 <sup>st</sup> dose

Table 6: Hepatitis B (HB) Immunization Series for Grade 7 School-based Program	
Recombivax® HB First Dose – Intervals	Engerix®-B First Dose - Intervals
1 <sup>st</sup> dose Recombivax® HB in Grade 7 2 <sup>nd</sup> dose Recombivax® HB or Engerix®-B, 4 months after 1 <sup>st</sup> dose	1 <sup>st</sup> dose Engerix®-B in Grade 7 2 <sup>nd</sup> dose Engerix®-B or Recombivax®-HB, 6 months after 1 <sup>st</sup> dose
<b>Note:</b> The 2 dose HB schedule and vaccine formulation is licensed for use for children between 11 and 15 years of age	

Table 7: Hepatitis B (HB) Immunization Series for High Risk Individuals ≥0 Years of Age	
Recommended Intervals	Minimum Intervals
1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 1 month after 1 <sup>st</sup> dose 3 <sup>rd</sup> dose, 5 months after 2 <sup>nd</sup> dose and at age ≥24 weeks	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 4 weeks after 1 <sup>st</sup> dose 3 <sup>rd</sup> dose, 8 weeks after 2 <sup>nd</sup> dose, 16 weeks after 1 <sup>st</sup> dose and at age ≥24 weeks
<b>Notes:</b> <ul style="list-style-type: none"> <li>Premature infants weighing &lt;2,000 grams at birth, born to HBV-positive carrier mothers, should receive 4 doses, given at birth, 1, 2 and 6 months of age</li> <li>Some individuals who meet HB eligibility criteria (see table 3) are eligible to receive boosters according to CIG recommendations</li> <li>Refer to the CIG for appropriate vaccine formulations, serology testing and use of immunoglobulin for high risk individuals and for accelerated schedules</li> </ul>	

Table 8: Haemophilus influenzae type b (Hib) Immunization Series for Children <5 Years of Age		
Age at first dose	Recommended Intervals	Minimum Intervals
2-6 months	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 2 months after 1 <sup>st</sup> dose 3 <sup>rd</sup> dose, 2 months after 2 <sup>nd</sup> dose 4 <sup>th</sup> dose, 2 months after 3 <sup>rd</sup> and at age ≥12 months	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 4 weeks after 1 <sup>st</sup> dose 3 <sup>rd</sup> dose, 4 weeks after 2 <sup>nd</sup> dose 4 <sup>th</sup> dose, 24 weeks after 3 <sup>rd</sup> dose and at age ≥12 months
7-11 months	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 2 months after 1 <sup>st</sup> dose 3 <sup>rd</sup> dose, 2 months after 2 <sup>nd</sup> dose and at age ≥12 months	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 8 weeks after 1 <sup>st</sup> dose 3 <sup>rd</sup> dose, 8 weeks after 2 <sup>nd</sup> dose and at age ≥12 months
12-14 months	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 2 months after 1 <sup>st</sup> dose	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 8 weeks after 1 <sup>st</sup> dose
15-59 months	1 <sup>st</sup> dose	1 <sup>st</sup> dose

Table 9: Haemophilus influenzae type b (Hib) Immunization Series for HSCT Recipients ≥5 Years of Age	
Recommended Intervals	Minimum Intervals
1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 2 months after 1 <sup>st</sup> dose 3 <sup>rd</sup> dose, 12 months after 2 <sup>nd</sup> dose	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 4 weeks after 1 <sup>st</sup> dose 3 <sup>rd</sup> dose, 4 weeks after 2 <sup>nd</sup> dose
<b>Note:</b> Immunization series can be initiated at 6 to 12 months post-transplant	

Table 10: HPV-4 Two Dose Immunization Series for:	
• healthy grade 7 students who are <14 years of age • healthy males 9 to 13 years of age (who meet high risk eligibility criteria)	
Recommended Intervals	Minimum Intervals
1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 6 months after 1 <sup>st</sup> dose	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 24 weeks after 1 <sup>st</sup> dose
<b>Notes:</b> <ul style="list-style-type: none"> <li>For the 2 dose HPV immunization series, individuals must receive the 1<sup>st</sup> dose at &lt;14 years of age, otherwise they will require 3 doses, see Table 11</li> <li>Immunocompromised or immunocompetent HIV-infected individuals will require 3 doses, see Table 11</li> </ul>	

Table 11: HPV-4 Three Dose Immunization Series for:	
• Females in grades 7 to 12 or males in grade 7 who are ≥14 years of age • Females in grades 7 to 12, males in grade 7 or males 9 to 26 years of age (who meet high risk eligibility criteria) who are Immunocompromised or immunocompetent HIV infected	
Recommended Intervals	Minimum Intervals
1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 2 months after 1 <sup>st</sup> dose 3 <sup>rd</sup> dose, 4 months after 2 <sup>nd</sup> dose	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 4 weeks after 1 <sup>st</sup> dose 3 <sup>rd</sup> dose, 12 weeks after 2 <sup>nd</sup> dose and 24 weeks after the 1 <sup>st</sup> dose

Age at first dose	Recommended Intervals	Minimum Intervals
6 weeks to 3 years	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 2 months after 1 <sup>st</sup> dose 3 <sup>rd</sup> dose, 2 months after 2 <sup>nd</sup> dose 4 <sup>th</sup> dose, 6 to 12 months after 3 <sup>rd</sup> dose <i>4<sup>th</sup> dose is not required if 3<sup>rd</sup> dose is given at age ≥4 years and ≥24 weeks after 2<sup>nd</sup> dose</i>	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 4 weeks after 1 <sup>st</sup> dose 3 <sup>rd</sup> dose, 4 weeks after 2 <sup>nd</sup> dose 4 <sup>th</sup> dose, 24 weeks after 3 <sup>rd</sup> dose <i>4<sup>th</sup> dose is not required if 3<sup>rd</sup> dose is given at age ≥4 years and ≥24 weeks after 2<sup>nd</sup> dose</i>
≥ 4 years	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 2 months after 1 <sup>st</sup> dose 3 <sup>rd</sup> dose, 6-12 months after 2 <sup>nd</sup> dose	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 4 weeks after 1 <sup>st</sup> dose 3 <sup>rd</sup> dose, 24 weeks after 2 <sup>nd</sup> dose

Age at first dose	Recommended Intervals	Minimum Intervals
2-5 months	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 2 months after 1 <sup>st</sup> dose 3 <sup>rd</sup> dose, 2 months after 2 <sup>nd</sup> dose 4 <sup>th</sup> dose, 2 months after 3 <sup>rd</sup> and at age ≥12 months	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 4 weeks after 1 <sup>st</sup> dose 3 <sup>rd</sup> dose, 4 weeks after 2 <sup>nd</sup> dose 4 <sup>th</sup> dose, 8 weeks after 3 <sup>rd</sup> dose and at age ≥12 months
6-11 months	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 2 months after 1 <sup>st</sup> dose 3 <sup>rd</sup> dose, 2 months after 2 <sup>nd</sup> dose and at age ≥12 months	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 8 weeks after 1 <sup>st</sup> dose 3 <sup>rd</sup> dose, 8 weeks after 2 <sup>nd</sup> dose and at age ≥12 months
12 months to 10 years	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 2 months after 1 <sup>st</sup> dose	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 8 weeks after 1 <sup>st</sup> dose
11 to 17 years	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 1 month after 1 <sup>st</sup> dose	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 4 weeks after 1 <sup>st</sup> dose

Age at first dose	Recommended Intervals	Minimum Intervals
9 to 11 months	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 2 months after 1 <sup>st</sup> dose 3 <sup>rd</sup> dose, 2 months after 2 <sup>nd</sup> dose and at age ≥12 months Booster doses every 3 to 5 years	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 4 weeks after 1 <sup>st</sup> dose 3 <sup>rd</sup> dose, 4 weeks after 2 <sup>nd</sup> dose 4 <sup>th</sup> dose, 4 weeks after 3 <sup>rd</sup> dose and at age ≥12 months <i>4<sup>th</sup> dose is not required if 3<sup>rd</sup> dose is given at age ≥12 months and ≥4 weeks after 2<sup>nd</sup> dose</i> Booster doses every 3 to 5 years
12 months to 6 years	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 2 months after 1 <sup>st</sup> dose Booster doses every 3 to 5 years	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 4 weeks after 1 <sup>st</sup> dose Booster doses every 3 to 5 years
7 to 55 years	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 2 months after 1 <sup>st</sup> dose Booster doses every 5 years	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 4 weeks after 1 <sup>st</sup> dose Booster doses every 5 years

**Notes:**

- ≥4 weeks is required between doses of Men-C-ACYW and Men-C-C
- For high risk individuals ≥56 years of age, a single lifetime dose of Men-P-ACYW may be given ≥5 years after last dose of Men-C-ACYW

Order of Vaccines	Recommended Intervals	Minimum Intervals
MMR then MMR	1 month	4 weeks
MMR then MMRV / MMRV then MMR	3 months	6 weeks
MMR then Var / Var then MMR	1 month	4 weeks
MMRV then MMRV	3 months	6 weeks
Var then MMRV / MMRV then Var	3 months	6 weeks
Var then Var	3 months	6 weeks

**Note:** MMR and Var may be given on the same day if required

Age at first dose	Applies to	Recommended Intervals	Minimum Intervals
2-6 months	Healthy	1 <sup>st</sup> dose at age ≥2 months 2 <sup>nd</sup> dose, 2 months after 1 <sup>st</sup> dose 3 <sup>rd</sup> dose, 2 months after 2 <sup>nd</sup> dose and at age ≥12 months	1 <sup>st</sup> dose at age ≥6 weeks 2 <sup>nd</sup> dose, 8* weeks after 1 <sup>st</sup> dose 3 <sup>rd</sup> dose, 8 weeks after 2 <sup>nd</sup> dose and at age ≥12 months
	High risk	1 <sup>st</sup> dose at age ≥2 months 2 <sup>nd</sup> dose, 2 months after 1 <sup>st</sup> dose 3 <sup>rd</sup> dose, 2 months after 2 <sup>nd</sup> dose 4 <sup>th</sup> dose, 2 months after 3 <sup>rd</sup> dose and at age ≥12 months	1 <sup>st</sup> dose at age ≥6 weeks 2 <sup>nd</sup> dose, 8* weeks after 1 <sup>st</sup> dose 3 <sup>rd</sup> dose, 8* weeks after 2 <sup>nd</sup> dose 4 <sup>th</sup> dose, 8 weeks after 3 <sup>rd</sup> dose and at age ≥12 months
7-11 months	All	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 2 months after 1 <sup>st</sup> dose 3 <sup>rd</sup> dose, 2 months after 2 <sup>nd</sup> dose and at age ≥12 months	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 8* weeks after 1 <sup>st</sup> dose 3 <sup>rd</sup> dose, 8 weeks after 2 <sup>nd</sup> dose and at age ≥12 months
12-23 months	All	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 2 months after 1 <sup>st</sup> dose	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 8 weeks after 1 <sup>st</sup> dose
24-59 months	All	1 dose	1 dose

\* For these doses, the vaccine manufacturer indicates the minimum interval is 4 weeks, however the CIG recommends the minimum interval between doses be 8 weeks

**Note:** 1 dose of Pneu-P-23 should be given ≥8 weeks after the last dose of Pneu-C-13, for children ≥2 years of age who meet Pneu-P-23 high risk criteria (see Table 3)

Recommended Intervals	Minimum Intervals
1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 1 month after 1 <sup>st</sup> dose 3 <sup>rd</sup> dose, 1 month after 2 <sup>nd</sup> dose	1 <sup>st</sup> dose 2 <sup>nd</sup> dose, 4 weeks after 1 <sup>st</sup> dose 3 <sup>rd</sup> dose, 4 weeks after 2 <sup>nd</sup> dose

**Note:** Start series 3 to 9 months after transplant; 1 dose of Pneu-P-23 should be given 12 to 18 months post-transplant (6 to 12 months after last dose of Pneu-C-13)

**Table 18: Pneu-C-13 and Pneu-P-23 Intervals for High Risk Adults ≥50 Years of Age**

- 1 dose of Pneu-P-23 should be given ≥8 weeks after the last dose of Pneu-C-13 (except for HSCT recipients see Table 17 for intervals)
- Alternatively if Pneu-P-23 has already been received, Pneu-C-13 should be given ≥1 year after the last dose of Pneu-P-23

**Table 19: Pneu-P-23 Reimmunization Intervals for High Risk Individuals ≥2 Years of Age**

- 2<sup>nd</sup> (one lifetime reimmunization) dose should be given ≥5 years after the 1<sup>st</sup> dose

**Table 20: Rot-1 Immunization Series for Infants <25 Weeks of Age**

Recommended Intervals	Minimum Intervals
1 <sup>st</sup> dose* at age ≥2 months	1 <sup>st</sup> dose* at age ≥6 weeks
2 <sup>nd</sup> dose**, 2 months after 1 <sup>st</sup> dose	2 <sup>nd</sup> dose**, 4 weeks after 1 <sup>st</sup> dose

\* Although the vaccine manufacturer indicates that the 1<sup>st</sup> dose may be administered by <21 weeks of age, the CIG recommends that the 1<sup>st</sup> dose be administered by <15 weeks of age as the safety of providing the 1<sup>st</sup> dose of rotavirus vaccine in older infants is unknown  
 \*\* 2<sup>nd</sup> dose must be administered by <25 weeks of age

**Table 21: Tdap-IPV and/or Td-IPV Primary Immunization Series for Individuals ≥7 Years of Age**

Recommended Intervals	Minimum Intervals
1 <sup>st</sup> dose	1 <sup>st</sup> dose
2 <sup>nd</sup> dose, 2 months after 1 <sup>st</sup> dose	2 <sup>nd</sup> dose, 4 weeks after 1 <sup>st</sup> dose
3 <sup>rd</sup> dose, 6-12 months after 2 <sup>nd</sup> dose	3 <sup>rd</sup> dose, 24 weeks after 2 <sup>nd</sup> dose

**Note:** Refer to the Catch-up Schedules 2 and 3 for the use of Tdap-IPV and Td-IPV

## Interrupted Vaccine Series

**Table 22: Pneu-C-13 Schedule for Children <5 Years of Age Who Have Not Completed Their Series**

Child's current age	Applies to	Number of Pneu-C-13 doses received previously	Number of Pneu-C-13 doses required to complete series and recommended intervals
2 to 6 months	Healthy	1 dose (1 <sup>st</sup> dose)	2 <sup>nd</sup> dose, 2 months after 1 <sup>st</sup> dose 3 <sup>rd</sup> dose, 2 months after 2 <sup>nd</sup> dose and at age ≥12 months
		2 doses (1 <sup>st</sup> and 2 <sup>nd</sup> dose)	3 <sup>rd</sup> dose, 2 months after 2 <sup>nd</sup> dose and at age ≥12 months
	High risk	1 dose (1 <sup>st</sup> dose)	2 <sup>nd</sup> dose, 2 months after 1 <sup>st</sup> dose 3 <sup>rd</sup> dose, 2 months after 2 <sup>nd</sup> dose 4 <sup>th</sup> dose, 2 months after 3 <sup>rd</sup> dose and at age ≥12 months
		2 doses (1 <sup>st</sup> and 2 <sup>nd</sup> dose)	3 <sup>rd</sup> dose, 2 months after 2 <sup>nd</sup> dose 4 <sup>th</sup> dose, 2 months after 3 <sup>rd</sup> dose and at age ≥12 months
7 to 11 months	All	1 dose (1 <sup>st</sup> dose)	2 <sup>nd</sup> dose, 2 months after 1 <sup>st</sup> dose 3 <sup>rd</sup> dose, 2 months after 2 <sup>nd</sup> dose and at age ≥12 months
		2 doses (1 <sup>st</sup> and 2 <sup>nd</sup> dose)	3 <sup>rd</sup> dose, 2 months after 2 <sup>nd</sup> dose and at age ≥12 months
12 to 23 months	All	1 dose (1 <sup>st</sup> dose) at age <12 months	2 <sup>nd</sup> dose, 2 months after 1 <sup>st</sup> dose 3 <sup>rd</sup> dose, 2 months after 2 <sup>nd</sup> dose
		1 dose (1 <sup>st</sup> dose) at age ≥12 months	2 <sup>nd</sup> dose, 2 months after 1 <sup>st</sup> dose
		1 dose (1 <sup>st</sup> dose) at age <12 months and 1 dose (2 <sup>nd</sup> dose) at age ≥12 months	3 <sup>rd</sup> dose, 2 months after 2 <sup>nd</sup> dose
		2 or more doses at age <12 months	1 dose, 2 months after most recent dose
24 to 59 months	All	Any incomplete series	1 dose, 2 months after most recent dose

**Note:** See Table 16 to determine if the child has an interrupted schedule and requires additional doses in order to complete the appropriate schedule for their current age

**Table 23: Tdap-IPV, Td-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-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 1 <sup>st</sup> 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-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 1 <sup>st</sup> 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

- A record of vaccines received at each visit must be provided free of charge. The Yellow Card is a permanent personal immunization record and should be brought to all immunization appointments.
- In Ontario, up to date immunization records or valid exemptions are required for attendance at school, under the *Immunization of School Pupils Act* (designated diseases include diphtheria, tetanus, polio, pertussis, meningococcal, measles, mumps, rubella, and varicella) and child care centres under the *Child Care and Early Years Act* (consult your public health unit).
- Refer to the CIG ([www.phac-aspc.gc.ca/publicat/cig-gci/index-eng.php](http://www.phac-aspc.gc.ca/publicat/cig-gci/index-eng.php)) for additional information.
- For vaccines not publicly funded or travel vaccines, refer to NACI ([www.phac-aspc.gc.ca/naci-ccni/](http://www.phac-aspc.gc.ca/naci-ccni/)) and CAMAT ([www.phac-aspc.gc.ca/tmp-pmv/catmat-ccmtmv/index-eng.php](http://www.phac-aspc.gc.ca/tmp-pmv/catmat-ccmtmv/index-eng.php)) for indications and usage.
- Report adverse events following immunization (AEFI) to your local public health unit:
  - Public health unit listing: [www.health.gov.on.ca/English/public/contact/phu/phuloc\\_mn.html](http://www.health.gov.on.ca/English/public/contact/phu/phuloc_mn.html)
  - Ontario AEFI reporting form is available from Public Health Ontario: [www.publichealthontario.ca/vaccinesafety](http://www.publichealthontario.ca/vaccinesafety)

Visit [Ontario.ca/vaccines](http://Ontario.ca/vaccines) to obtain the most current Publicly Funded Immunization Schedules for Ontario