

Communicable Diseases and Immunization Service

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Immunization Coverage in Children by the Second Birthday

2011-2020

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Data Sources and Definitions

Data Sources

- 1. Panorama, BC Centre for Disease Control (2013 onward)
- Integrated Public Health Information System (iPHIS), BC Centre for Disease Control (2007-2012)

Years

2011-2020

Coverage reported for any given year reflects uptake among children who turned 2 years old during that calendar year (i.e., 2020 results are for children born in 2018).

Coverage presented in this report is based on reporting in Panorama to January 15, 2021.

Up-to-date for Age Definitions

Only doses given prior to the second birthday are included in this assessment.

4 doses diphtheria/tetanus/pertussis, 3 doses hepatitis B, 1 dose Up to date for age

(UTD)

measles/mumps/rubella, 3 doses polio, up-to-date for Haemophilus influenzae type b as defined by age of first dose, 1 dose varicella (or recorded exemption for varicella due to previous disease or protective antibody levels), up-to-date for pneumococcal conjugate

and meningococcal C conjugate as defined by age at first dose

Up-to-date for age 3 doses diphtheria/tetanus/pertussis, 3 doses hepatitis B, 1 dose minus booster

measles/mumps/rubella, 2 doses polio, at least 1 valid dose Haemophilus influenzae type

b, 1 dose varicella (or recorded exemption for varicella due to previous disease or (UTD-MB)

protective antibody levels), up-to-date for pneumococcal conjugate and meningococcal C

conjugate as defined by age at first dose

D/T/aP/IPV 4 doses diphtheria/tetanus/pertussis, 3 doses polio

D/T/aP/IPV/Hib 4 doses diphtheria/tetanus/pertussis, 3 doses polio, up-to-date for Haemophilus

influenzae type b as defined by age of first dose

Hep B 3 doses hepatitis B vaccine

Hib If dose 1 before 15 months of age: at least 2 valid doses of Haemophilus influenzae type

b vaccine with the last dose on or after 12 months of age. If dose 1 on or after 15 months

of age: 1 dose of Haemophilus influenzae type b vaccine.

MMR 1 dose measles/mumps/rubella (2 doses prior to 2012)

Polio 3 doses polio

Varicella 1 dose of varicella or recorded exemption for varicella due to previous disease or

protective antibody levels

Men-C-C At least 1 dose of meningococcal C conjugate on or after 12 months of age. For children

who receive quadrivalent meningococcal conjugate vaccine instead of meningococcal C

conjugate, 2-3 doses are required (depending on age at first dose).

Pneu-C As defined by age of first dose: 3 doses pneumococcal conjugate if dose 1 before 12

months of age; 2 doses pneumococcal conjugate if dose 1 between 12 and 23 months of

Rotavirus 2 doses of rotavirus vaccine; 3 doses if RotaTeq® was used for one or more dose(s)

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No immunizations

recorded

No immunizations recorded in Panorama

Refusal to all Exemptions recorded for "Client Refusal" or "Parent/Guardian Refusal" to all of:

diphtheria, tetanus, pertussis, polio, hep B, measles, mumps, rubella, meningococcal C conjugate, varicella, Hib, pneumococcal, rotavirus. As of 2018, only children who have

these exemptions and no recorded immunizations are counted.

All analyses were conducted using business rules which calculated ages and time intervals at receipt of immunization. Each dose was counted as a valid dose only if given at or after the earliest eligible age, or at a time interval equal to or greater than the shortest recommended interval.

See Minimum Intervals Between Eligible Doses.

Caution

Data in this report should be interpreted with caution. Please refer to the <u>Notes</u> for additional information.

Percent of Two-year-olds with Up-to-date Immunizations

Table 1. Percent of two-year olds with up-to-date immunizations, British Columbia

Province	Vaccination Details					Ye	ar				
Province	vaccination Details	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
British	Up-to-date for age	68%	71%	68%	67%	70%	73%	74%	74%	74%	73%
Columbia	Up-to-date minus the booster	77%	79%	78%	76%	78%	80%	81%	81%	84%	83%
BC*	Specific Agents										
	D/T/aP/IPV	75%	77%	74%	73%	75%	78%	78%	78%	77%	76%
* Does not	D/T/aP/IPV/Hib	75%	77%	74%	72%	75%	78%	78%	78%	77%	76%
include	Нер В	84%	86%	85%	84%	85%	86%	86%	87%	86%	85%
Vancouver	Hib	79%	81%	77%	76%	79%	79%	82%	82%	81%	79%
Coastal	MMR	75%	88%	86%	85%	86%	87%	87%	87%	88%	86%
Health	Polio	78%	80%	76%	75%	78%	80%	81%	81%	80%	78%
Authority	Varicella	84%	85%	83%	82%	84%	85%	86%	86%	86%	85%
(see Notes)	Pneu-C	85%	86%	84%	82%	83%	85%	85%	85%	85%	84%
	Men-C-C	87%	88%	86%	84%	86%	87%	87%	87%	87%	85%
	Rotavirus	n/a	n/a	n/a	70%	75%	79%	81%	83%	82%	72%
	No immunizations recorded	n/a	n/a	n/a	n/a	7%	7%	6%	6%	6%	8%
	Refusal to all	n/a	n/a	n/a	n/a	2%	2%	2%	1%	1%	1%

Table 2. Percent of two-year olds with up-to date immunizations by Health Authority

Health	Mandon Nation Batalla					Ye	ar				
Authority	Vaccination Details	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Interior	Up-to-date for age	70%	75%	71%	68%	68%	72%	73%	73%	75%	72%
Health	Up-to-date minus the booster	79%	82%	80%	77%	77%	79%	79%	80%	83%	81%
IHA	Specific Agents										
	D/T/aP/IPV	77%	80%	76%	73%	73%	76%	77%	77%	78%	75%
	D/T/aP/IPV/Hib	77%	80%	75%	73%	73%	76%	77%	77%	78%	74%
	Нер В	86%	88%	87%	84%	84%	85%	85%	86%	85%	85%
	Hib	80%	83%	78%	76%	76%	78%	80%	80%	81%	76%
	MMR	76%	89%	87%	85%	84%	86%	86%	86%	87%	85%
	Polio	79%	82%	77%	75%	75%	78%	79%	78%	79%	76%
	Varicella	84%	86%	84%	81%	81%	83%	83%	84%	85%	83%
	Pneu-C	86%	89%	86%	83%	83%	84%	85%	85%	85%	84%
	Men-C-C	88%	90%	88%	85%	84%	86%	86%	86%	87%	84%
	Rotavirus	n/a	n/a	n/a	69%	70%	73%	77%	80%	81%	72%
	No immunizations recorded	n/a	n/a	n/a	n/a	9%	9%	8%	8%	8%	10%
	Refusal to all	n/a	n/a	n/a	n/a	3%	2%	3%	2%	2%	1%
Fraser	Up-to-date for age	67%	71%	68%	68%	72%	76%	77%	78%	75%	74%
Health	Up-to-date minus the booster	75%	78%	76%	76%	79%	82%	82%	84%	85%	84%
FHA	Specific Agents										1
	D/T/aP/IPV	75%	78%	74%	74%	77%	81%	82%	82%	79%	78%
	D/T/aP/IPV/Hib	75%	77%	74%	74%	77%	80%	82%	82%	79%	78%
	Нер В	83%	85%	84%	83%	85%	87%	88%	89%	87%	86%
	Hib	79%	82%	77%	77%	81%	82%	85%	86%	83%	81%
	MMR	75%	88%	85%	85%	87%	89%	89%	89%	88%	87%
	Polio	78%	80%	77%	76%	80%	83%	84%	84%	81%	80%
	Varicella	84%	86%	84%	83%	86%	88%	88%	89%	87%	86%
	Pneu-C	83%	85%	83%	82%	84%	86%	87%	87%	86%	85%
	Men-C-C	86%	88%	85%	84%	87%	88%	89%	89%	88%	86%
	Rotavirus	n/a	n/a	n/a	69%	79%	83%	85%	86%	85%	74%
	No immunizations recorded	n/a	n/a	n/a	n/a	6%	6%	5%	5%	5%	7%
	Refusal to all	n/a	n/a	n/a	n/a	1%	1%	2%	1%	1%	0%

Health	v · · · · · · · · · · · · · · · · · · ·					Ye	ar				
Authority	Vaccination Details	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Island	Up-to-date for age	69%	68%	67%	65%	70%	74%	73%	71%	75%	73%
Health	Up-to-date minus the booster	79%	78%	79%	76%	79%	81%	81%	80%	86%	83%
VIHA	Specific Agents										
	D/T/aP/IPV	75%	73%	71%	70%	74%	78%	77%	75%	79%	75%
	D/T/aP/IPV/Hib	75%	73%	71%	70%	74%	77%	76%	75%	78%	75%
	Нер В	86%	86%	86%	84%	85%	87%	87%	86%	88%	86%
	Hib	78%	76%	75%	75%	79%	79%	81%	80%	83%	78%
	MMR	74%	86%	85%	85%	87%	88%	88%	86%	90%	86%
	Polio	77%	75%	74%	74%	78%	80%	79%	78%	81%	77%
	Varicella	84%	83%	83%	82%	84%	86%	86%	85%	88%	85%
	Pneu-C	86%	85%	84%	83%	84%	86%	86%	84%	88%	84%
	Men-C-C	87%	86%	86%	85%	86%	88%	87%	86%	89%	85%
	Rotavirus	n/a	n/a	n/a	70%	73%	76%	81%	81%	82%	72%
	No immunizations recorded	n/a	n/a	n/a	n/a	6%	6%	5%	6%	5%	8%
	Refusal to all	n/a	n/a	n/a	n/a	1%	1%	2%	1%	1%	1%
Northern	Up-to-date for age	69%	72%	68%	65%	63%	63%	63%	63%	61%	67%
Health	Up-to-date minus the booster	79%	79%	77%	75%	72%	70%	72%	72%	73%	78%
NHA	Specific Agents										
	D/T/aP/IPV	77%	78%	73%	70%	70%	69%	68%	68%	65%	70%
	D/T/aP/IPV/Hib	77%	78%	73%	70%	69%	69%	68%	68%	65%	70%
	Нер В	87%	88%	86%	84%	82%	79%	80%	82%	74%	81%
	Hib	80%	81%	76%	74%	73%	70%	73%	72%	74%	74%
	MMR	76%	88%	85%	84%	81%	80%	79%	79%	80%	82%
	Polio	78%	80%	76%	73%	72%	72%	71%	70%	70%	73%
	Varicella	83%	83%	80%	80%	77%	77%	77%	77%	78%	80%
	Pneu-C	87%	86%	84%	81%	78%	78%	77%	77%	72%	79%
	Men-C-C	88%	87%	85%	84%	81%	80%	79%	79%	79%	81%
	Rotavirus	n/a	n/a	n/a	71%	69%	72%	75%	79%	71%	68%
	No immunizations recorded	n/a	n/a	n/a	n/a	8%	9%	11%	8%	10%	11%
	Refusal to all	n/a	n/a	n/a	n/a	2%	2%	2%	1%	1%	0%

Table 3. Percent of two-year olds with up-to-date immunizations by Health Service Delivery Area, Interior Health

HSDA	Vaccination Details					Ye	ar				
HSDA	vaccination Details	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
East	Up-to-date for age	71%	74%	67%	71%	72%	78%	78%	78%	76%	78%
Kootenay	Up-to-date minus the booster	79%	82%	79%	78%	80%	83%	82%	83%	84%	85%
EK	Specific Agents										
	D/T/aP/IPV	78%	82%	74%	77%	78%	84%	82%	83%	81%	81%
	D/T/aP/IPV/Hib	78%	81%	74%	77%	78%	84%	82%	83%	81%	81%
	Нер В	86%	89%	87%	86%	86%	89%	87%	90%	85%	89%
	Hib	81%	84%	77%	81%	82%	85%	86%	86%	84%	84%
	MMR	77%	92%	89%	89%	89%	91%	89%	91%	90%	89%
	Polio	80%	83%	76%	80%	80%	85%	84%	85%	82%	83%
	Varicella	86%	88%	86%	84%	85%	88%	86%	87%	88%	87%
	Pneu-C	87%	91%	87%	86%	87%	90%	88%	88%	87%	87%
	Men-C-C	89%	92%	89%	88%	89%	91%	89%	91%	89%	88%
	Rotavirus	n/a	n/a	n/a	71%	71%	77%	80%	86%	83%	75%
	No immunizations recorded	n/a	n/a	n/a	n/a	6%	5%	7%	5%	6%	8%
	Refusal to all	n/a	n/a	n/a	n/a	4%	2%	4%	3%	2%	2%
Kootenay	Up-to-date for age	54%	56%	57%	51%	58%	60%	58%	66%	66%	62%
Boundary	Up-to-date minus the booster	62%	64%	65%	63%	65%	68%	67%	72%	76%	73%
КВ	Specific Agents										
	D/T/aP/IPV	65%	65%	67%	60%	66%	67%	66%	71%	71%	65%
	D/T/aP/IPV/Hib	64%	65%	67%	60%	66%	66%	66%	71%	71%	65%
	Нер В	73%	76%	79%	74%	76%	76%	77%	79%	81%	79%
	Hib	68%	67%	71%	64%	71%	68%	71%	76%	76%	68%
	MMR	65%	76%	79%	76%	77%	77%	80%	81%	83%	79%
	Polio	69%	67%	69%	62%	68%	69%	68%	73%	74%	66%
	Varicella	69%	68%	70%	68%	69%	72%	74%	77%	78%	76%
	Pneu-C	77%	76%	77%	72%	75%	76%	77%	79%	80%	77%
	Men-C-C	77%	77%	79%	75%	77%	78%	79%	80%	82%	78%

HSDA	Massination Dataila					Ye	ar				
HSDA	Vaccination Details	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	Rotavirus	n/a	n/a	n/a	54%	51%	59%	62%	68%	69%	64%
	No immunizations recorded	n/a	n/a	n/a	n/a	6%	15%	13%	13%	10%	14%
	Refusal to all	n/a	n/a	n/a	n/a	4%	3%	3%	3%	2%	2%
Okanagan	Up-to-date for age	69%	78%	72%	67%	70%	73%	74%	73%	75%	72%
ОК	Up-to-date minus the booster	78%	84%	81%	76%	78%	80%	81%	80%	83%	81%
	Specific Agents										
	D/T/aP/IPV	75%	83%	76%	72%	74%	77%	78%	76%	78%	75%
	D/T/aP/IPV/Hib	75%	83%	76%	72%	74%	77%	78%	76%	78%	75%
	Нер В	86%	88%	88%	83%	84%	85%	86%	85%	86%	85%
	Hib	78%	85%	78%	74%	77%	79%	81%	79%	80%	76%
	MMR	74%	90%	87%	83%	85%	86%	86%	86%	87%	84%
	Polio	77%	84%	78%	74%	76%	79%	80%	77%	79%	76%
	Varicella	83%	88%	85%	80%	82%	83%	84%	84%	85%	82%
	Pneu-C	85%	90%	87%	82%	83%	85%	86%	84%	85%	83%
	Men-C-C	86%	91%	88%	83%	84%	86%	86%	86%	86%	83%
	Rotavirus	n/a	n/a	n/a	69%	73%	74%	79%	80%	81%	73%
	No immunizations recorded	n/a	n/a	n/a	n/a	8%	8%	8%	9%	8%	10%
	Refusal to all	n/a	n/a	n/a	n/a	3%	2%	3%	2%	2%	1%
Thompson	Up-to-date for age	77%	77%	76%	74%	69%	72%	73%	74%	77%	73%
Cariboo	Up-to-date minus the booster	85%	85%	86%	83%	79%	80%	80%	82%	85%	84%
Shuswap	Specific Agents										
TCS	D/T/aP/IPV	83%	82%	78%	78%	72%	76%	76%	77%	79%	75%
	D/T/aP/IPV/Hib	83%	82%	78%	78%	72%	76%	76%	77%	79%	75%
	Нер В	90%	90%	90%	89%	86%	85%	85%	87%	87%	86%
	Hib	86%	83%	81%	80%	75%	77%	80%	80%	82%	77%
	MMR	82%	91%	91%	89%	85%	86%	86%	87%	88%	86%
	Polio	85%	83%	80%	80%	75%	79%	78%	79%	80%	77%
	Varicella	89%	89%	89%	86%	83%	85%	84%	86%	86%	85%
	Pneu-C	92%	90%	90%	88%	84%	84%	85%	86%	86%	85%
	Men-C-C	92%	92%	91%	89%	85%	86%	86%	88%	88%	86%

HSDA	Vaccination Details	Year											
HODA	vaccination betains	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020		
	Rotavirus	n/a	n/a	n/a	75%	73%	75%	76%	80%	82%	71%		
	No immunizations recorded	n/a	n/a	n/a	n/a	8%	9%	9%	8%	7%	8%		
	Refusal to all	n/a	n/a	n/a	n/a	2%	2%	2%	2%	2%	1%		

Table 4. Percent of two-year olds with up-to-date immunizations by Health Service Delivery Area, Fraser Health

LICDA	Vassination Dataila					Ye	ar				
HSDA	Vaccination Details	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Fraser East	Up-to-date for age	68%	72%	67%	68%	71%	75%	77%	78%	75%	73%
FE	Up-to-date minus the booster	79%	81%	77%	77%	80%	82%	82%	84%	84%	83%
	Specific Agents										
	D/T/aP/IPV	74%	77%	71%	71%	75%	78%	80%	80%	78%	75%
	D/T/aP/IPV/Hib	73%	76%	71%	71%	75%	78%	80%	80%	78%	75%
	Нер В	86%	87%	85%	84%	86%	87%	87%	88%	87%	85%
	Hib	77%	81%	74%	75%	79%	80%	85%	83%	82%	78%
	MMR	74%	88%	84%	84%	86%	87%	88%	88%	88%	85%
	Polio	76%	79%	73%	74%	78%	80%	82%	82%	80%	77%
	Varicella	83%	85%	81%	81%	83%	85%	86%	86%	86%	84%
	Pneu-C	84%	86%	82%	81%	84%	86%	87%	87%	86%	83%
	Men-C-C	86%	88%	84%	84%	86%	87%	88%	88%	87%	85%
	Rotavirus	n/a	n/a	n/a	70%	73%	77%	80%	81%	81%	73%
	No immunizations recorded	n/a	n/a	n/a	n/a	7%	7%	7%	7%	7%	9%
	Refusal to all	n/a	n/a	n/a	n/a	3%	3%	4%	2%	2%	2%
Fraser	Up-to-date for age	66%	69%	66%	67%	71%	74%	76%	78%	74%	73%
North	Up-to-date minus the booster	73%	75%	74%	74%	77%	80%	81%	83%	83%	83%
FN	Specific Agents										
	D/T/aP/IPV	74%	76%	74%	74%	77%	80%	81%	83%	79%	77%
	D/T/aP/IPV/Hib	73%	75%	73%	73%	77%	80%	81%	83%	78%	77%
	Нер В	81%	83%	83%	81%	84%	85%	86%	89%	86%	84%
	Hib	77%	80%	77%	77%	80%	81%	85%	86%	82%	80%
	MMR	74%	87%	84%	84%	86%	87%	88%	90%	87%	86%
	Polio	76%	79%	76%	76%	80%	82%	83%	85%	81%	79%

LICDA	Vaccination Details	Year											
HSDA		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020		
	Varicella	83%	84%	83%	82%	85%	86%	87%	90%	86%	85%		
	Pneu-C	81%	83%	81%	80%	83%	85%	86%	87%	84%	83%		
	Men-C-C	84%	85%	84%	83%	86%	87%	88%	90%	86%	85%		
	Rotavirus	n/a	n/a	n/a	66%	79%	83%	85%	87%	84%	73%		
	No immunizations recorded	n/a	n/a	n/a	n/a	7%	6%	6%	5%	6%	8%		
	Refusal to all	n/a	n/a	n/a	n/a	1%	1%	1%	1%	0%	0%		

						Ye	ar				
HSDA	Vaccination Details	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Fraser	Up-to-date for age	66%	72%	69%	69%	74%	77%	78%	79%	76%	76%
South	Up-to-date minus the booster	75%	80%	78%	77%	81%	83%	84%	84%	86%	86%
FS	Specific Agents										
	D/T/aP/IPV	76%	79%	75%	75%	79%	82%	83%	83%	80%	79%
	D/T/aP/IPV/Hib	76%	79%	75%	75%	79%	82%	83%	83%	80%	79%
	Нер В	83%	87%	85%	85%	86%	88%	89%	89%	88%	87%
	Hib	80%	83%	79%	79%	83%	83%	86%	86%	83%	82%
	MMR	77%	90%	87%	87%	89%	90%	90%	89%	90%	88%
	Polio	79%	82%	78%	78%	82%	85%	85%	85%	82%	81%
	Varicella	85%	87%	86%	85%	88%	89%	90%	89%	89%	88%
	Pneu-C	85%	87%	84%	83%	86%	88%	88%	87%	87%	87%
	Men-C-C	88%	89%	87%	86%	88%	90%	90%	89%	89%	88%
	Rotavirus	n/a	n/a	n/a	72%	82%	84%	87%	87%	87%	74%
	No immunizations recorded	n/a	n/a	n/a	n/a	5%	4%	4%	5%	4%	6%
	Refusal to all	n/a	n/a	n/a	n/a	1%	1%	1%	0%	1%	0%

Table 5. Percent of two-year olds with up-to-date immunizations by Health Service Delivery Area, Vancouver Island Health

LICDA	Wassingston Bassile					Ye	ar				
HSDA	Vaccination Details	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
South	Up-to-date for age	71%	70%	69%	68%	74%	76%	76%	76%	79%	78%
Vancouver	Up-to-date minus the booster	81%	80%	81%	78%	81%	82%	83%	83%	89%	85%
Island	Specific Agents										
SVI	D/T/aP/IPV	78%	75%	73%	74%	79%	80%	81%	80%	83%	81%
	D/T/aP/IPV/Hib	78%	75%	73%	74%	79%	80%	80%	80%	83%	81%
	Нер В	87%	87%	88%	86%	87%	88%	89%	89%	90%	88%
	Hib	81%	78%	77%	77%	82%	81%	83%	83%	85%	82%
	MMR	77%	87%	87%	87%	89%	89%	89%	89%	92%	88%
	Polio	80%	77%	76%	77%	81%	82%	82%	82%	84%	82%
	Varicella	85%	85%	84%	83%	86%	86%	88%	87%	90%	87%
	Pneu-C	88%	87%	86%	85%	87%	87%	87%	86%	90%	87%
	Men-C-C	89%	88%	88%	86%	89%	88%	89%	88%	91%	87%
	Rotavirus	n/a	n/a	n/a	73%	77%	79%	84%	84%	86%	78%
	No immunizations recorded	n/a	n/a	n/a	n/a	5%	5%	4%	5%	4%	7%
	Refusal to all	n/a	n/a	n/a	n/a	1%	1%	1%	0%	0%	0%
Central	Up-to-date for age	64%	64%	62%	58%	64%	69%	67%	64%	69%	67%
Vancouver	Up-to-date minus the booster	76%	76%	76%	73%	75%	79%	78%	76%	83%	79%
Island	Specific Agents										
CVI	D/T/aP/IPV	69%	69%	66%	63%	68%	74%	71%	68%	72%	69%
	D/T/aP/IPV/Hib	69%	69%	66%	63%	68%	73%	71%	68%	72%	69%
	Нер В	85%	85%	84%	82%	83%	85%	83%	83%	86%	84%
	Hib	73%	73%	71%	69%	75%	75%	78%	74%	78%	72%
	MMR	69%	84%	83%	82%	84%	87%	85%	83%	88%	83%
	Polio	72%	72%	70%	68%	73%	77%	75%	72%	77%	72%
	Varicella	81%	82%	80%	79%	81%	84%	83%	81%	86%	81%
	Pneu-C	83%	83%	81%	79%	81%	84%	82%	80%	85%	81%
	Men-C-C	85%	85%	83%	82%	83%	86%	85%	83%	87%	82%
	Rotavirus	n/a	n/a	n/a	67%	68%	72%	76%	77%	78%	65%
	No immunizations recorded	n/a	n/a	n/a	n/a	6%	6%	7%	7%	6%	9%

LICDA	Mandardina Batalla					Ye	ar			2019 1% 75% 84%	
HSDA	Vaccination Details	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	Refusal to all	n/a	n/a	n/a	n/a	2%	2%	3%	2%	1%	2%
North	Up-to-date for age	70%	66%	69%	69%	70%	75%	73%	73%	75%	72%
Vancouver	Up-to-date minus the booster	79%	75%	78%	78%	79%	84%	82%	80%	84%	81%
Island	Specific Agents										
NVI	D/T/aP/IPV	76%	73%	75%	74%	75%	78%	77%	77%	79%	74%
	D/T/aP/IPV/Hib	76%	73%	75%	74%	75%	78%	76%	77%	79%	74%
	Нер В	85%	83%	85%	85%	83%	89%	87%	85%	87%	84%
	Hib	80%	78%	79%	79%	80%	80%	81%	83%	85%	77%
	MMR	76%	85%	87%	86%	87%	90%	88%	87%	90%	87%
	Polio	79%	77%	78%	77%	79%	81%	79%	81%	82%	77%
	Varicella	83%	81%	83%	82%	84%	87%	86%	85%	87%	84%
	Pneu-C	85%	83%	85%	85%	85%	88%	87%	85%	87%	84%
	Men-C-C	88%	85%	86%	86%	87%	89%	88%	87%	89%	86%
	Rotavirus	n/a	n/a	n/a	68%	70%	76%	81%	80%	79%	67%
	No immunizations recorded	n/a	n/a	n/a	n/a	7%	5%	5%	6%	6%	8%
	Refusal to all	n/a	n/a	n/a	n/a	1%	1%	1%	1%	1%	1%

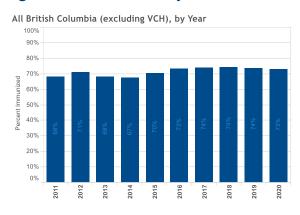
Table 6. Percent of two-year olds with up-to-date immunizations by Health Service Delivery Area, Northern Health

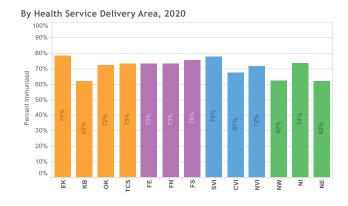
LICDA	Wassingting Batatle					Ye	ar				
HSDA	Vaccination Details	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Northwest	Up-to-date for age	62%	68%	60%	56%	56%	58%	57%	57%	61%	62%
NW	Up-to-date minus the booster	75%	78%	74%	71%	65%	67%	67%	68%	73%	75%
	Specific Agents										
	D/T/aP/IPV	71%	75%	67%	62%	62%	64%	61%	63%	64%	65%
	D/T/aP/IPV/Hib	71%	75%	67%	62%	62%	64%	61%	63%	64%	65%
	Нер В	84%	86%	86%	80%	75%	77%	74%	79%	75%	79%
	Hib	76%	79%	72%	68%	66%	66%	67%	68%	74%	69%
	MMR	72%	88%	85%	82%	76%	76%	75%	76%	81%	79%
	Polio	74%	78%	71%	67%	66%	67%	64%	66%	70%	68%
	Varicella	82%	84%	79%	79%	73%	73%	72%	74%	79%	77%
	Pneu-C	85%	86%	84%	78%	72%	73%	73%	74%	73%	76%
	Men-C-C	88%	88%	86%	82%	76%	76%	75%	77%	80%	78%
	Rotavirus	n/a	n/a	n/a	66%	66%	72%	69%	76%	72%	66%
	No immunizations recorded	n/a	n/a	n/a	n/a	11%	10%	13%	10%	8%	12%
	Refusal to all	n/a	n/a	n/a	n/a	1%	1%	1%	1%	0%	0%
Northern	Up-to-date for age	77%	77%	76%	75%	72%	71%	71%	68%	65%	74%
Interior	Up-to-date minus the booster	85%	82%	83%	84%	79%	78%	79%	76%	76%	83%
NI	Specific Agents										
	D/T/aP/IPV	83%	84%	79%	79%	78%	77%	77%	72%	68%	76%
	D/T/aP/IPV/Hib	83%	83%	79%	79%	78%	76%	77%	72%	68%	76%
	Нер В	92%	91%	91%	90%	89%	85%	87%	86%	77%	85%
	Hib	86%	85%	81%	81%	81%	78%	80%	75%	77%	80%
	MMR	82%	91%	89%	90%	88%	87%	86%	82%	81%	87%
	Polio	85%	85%	81%	81%	80%	79%	79%	73%	72%	79%
	Varicella	88%	85%	86%	87%	85%	84%	83%	81%	79%	86%
	Pneu-C	92%	90%	88%	89%	85%	85%	84%	80%	74%	83%
	Men-C-C	93%	90%	89%	90%	88%	87%	86%	82%	80%	87%
	Rotavirus	n/a	n/a	n/a	80%	77%	78%	82%	85%	75%	74%
	No immunizations recorded	n/a	n/a	n/a	n/a	4%	5%	6%	5%	8%	7%

LICDA	Manada attau Batatla					Ye	ar				
HSDA	Vaccination Details	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	Refusal to all	n/a	n/a	n/a	n/a	1%	1%	2%	1%	0%	0%
Northeast	Up-to-date for age	63%	67%	63%	57%	60%	55%	57%	61%	56%	62%
NE	Up-to-date minus the booster	72%	74%	71%	66%	69%	62%	66%	69%	70%	73%
	Specific Agents										
	D/T/aP/IPV	70%	72%	69%	64%	66%	62%	62%	66%	60%	66%
	D/T/aP/IPV/Hib	70%	72%	69%	63%	66%	62%	62%	66%	60%	66%
	Нер В	81%	84%	81%	78%	79%	74%	74%	79%	71%	76%
	Hib	72%	76%	72%	68%	70%	63%	65%	71%	70%	68%
	MMR	70%	82%	80%	76%	78%	73%	72%	77%	77%	76%
	Polio	71%	74%	71%	66%	69%	65%	64%	69%	67%	67%
	Varicella	76%	78%	74%	71%	74%	69%	70%	74%	75%	75%
	Pneu-C	80%	80%	79%	74%	75%	70%	71%	75%	69%	74%
	Men-C-C	81%	82%	80%	76%	78%	73%	73%	77%	77%	75%
	Rotavirus	n/a	n/a	n/a	63%	64%	62%	70%	73%	64%	61%
	No immunizations recorded	n/a	n/a	n/a	n/a	11%	14%	15%	12%	14%	15%
	Refusal to all	n/a	n/a	n/a	n/a	3%	3%	3%	1%	1%	0%

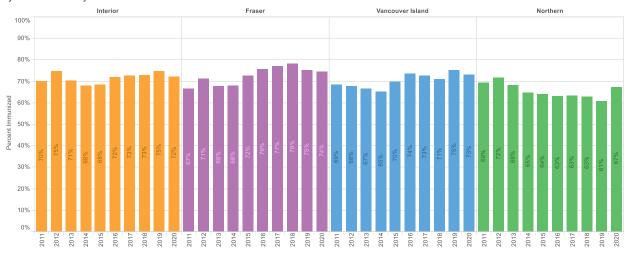
Up-to-date for age

Figure 1. Percent of two-year olds immunized up-to-date for age, British Columbia



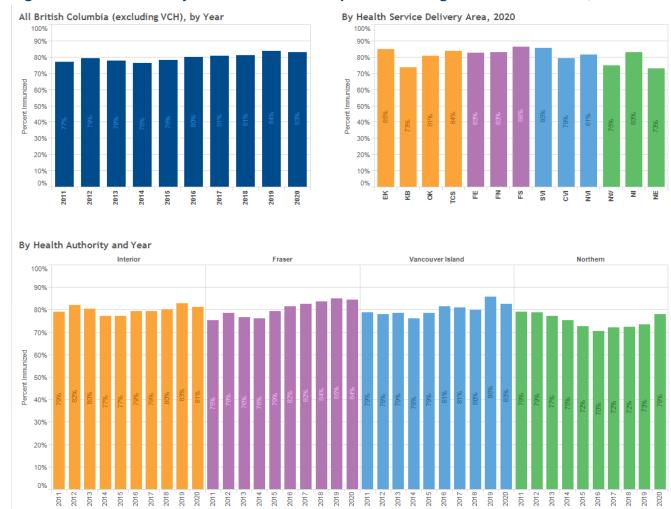






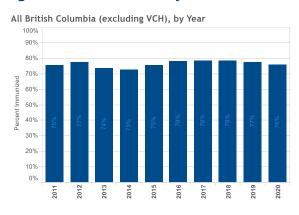
Up-to-date for age minus the booster

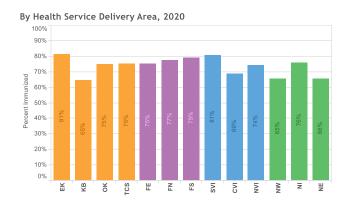
Figure 2. Percent of two-year olds immunized up-to-date for age minus the booster, British Columbia



Diphtheria, Tetanus, Pertussis and Polio (D/T/aP/IPV)

Figure 3. Percent of two-year olds immunized, D/T/aP/IPV, British Columbia







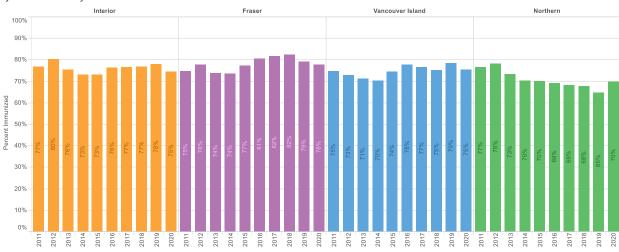


Table 7. Reasons for non-immunization, D/T/aP, British Columbia, 2020

						Count		
Vaccination	Region	Population	Immunized	Partially I	mmunized		Unimmunized	
			Up-to-date	Refusal	Other	Refusal	Contraindication	Other
D/T/aP	British Columbia - excluding VCH	35,914	27,414	92	4	5,379	519	1
	Interior Health Authority	6,851	5,122	28	1	1,021	145	0
	East Kootenay	758	617	5	0	78	16	0
	Kootenay Boundary	651	425	3	0	129	19	0
	Okanagan	3,305	2,474	9	0	472	69	0
	Thompson Cariboo Shuswap	2,137	1,606	11	1	342	41	0
	Fraser Health Authority	18,923	14,803	26	1	2,652	178	0
	Fraser East	3,627	2,725	16	0	553	100	0
	Fraser North	6,514	5,071	5	1	876	26	0
	Fraser South	8,782	7,007	5	0	1,223	52	0
	Vancouver Island Health Authority	6,682	5,060	33	0	1,059	152	0
	South Vancouver Island	3,263	2,639	8	0	391	38	0
	Central Vancouver Island	2,330	1,610	19	0	487	90	0
	North Vancouver Island	1,089	811	6	0	181	24	0
	Northern Health Authority	3,458	2,429	5	2	647	44	1
	Northwest	902	593	3	2	195	9	0
	Northern Interior	1,528	1,162	1	0	255	16	1
	Northeast	1,028	674	1	0	197	19	0

					Per	cent		
Vaccination	Region	Population	Immunized Up-	Partially Im	munized		Unimmunized	
			to-date	Refusal	Other	Refusal	Contraindication	Other
D/T/aP	British Columbia - excluding VCH	35,914	76%	0%	0%	15%	1%	0%
	Interior Health Authority	6,851	75%	0%	0%	15%	2%	0%
	East Kootenay	758	81%	1%	0%	10%	2%	0%
	Kootenay Boundary	651	65%	0%	0%	20%	3%	0%
	Okanagan	3,305	75%	0%	0%	14%	2%	0%
	Thompson Cariboo Shuswap	2,137	75%	1%	0%	16%	2%	0%
	Fraser Health Authority	18,923	78%	0%	0%	14%	1%	0%
	Fraser East	3,627	75%	0%	0%	15%	3%	0%
	Fraser North	6,514	78%	0%	0%	13%	0%	0%
	Fraser South	8,782	80%	0%	0%	14%	1%	0%
	Vancouver Island Health Authority	6,682	76%	0%	0%	16%	2%	0%
	South Vancouver Island	3,263	81%	0%	0%	12%	1%	0%
	Central Vancouver Island	2,330	69%	1%	0%	21%	4%	0%
	North Vancouver Island	1,089	74%	1%	0%	17%	2%	0%
	Northern Health Authority	3,458	70%	0%	0%	19%	1%	0%
	Northwest	902	66%	0%	0%	22%	1%	0%
	Northern Interior	1,528	76%	0%	0%	17%	1%	0%
	Northeast	1,028	66%	0%	0%	19%	2%	0%

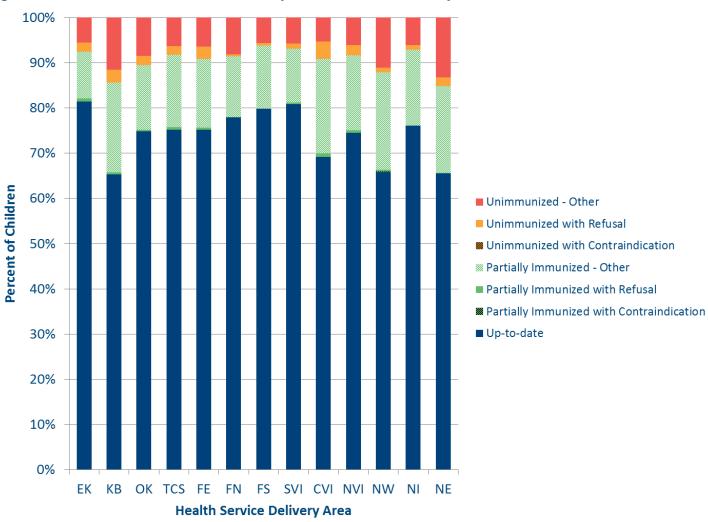
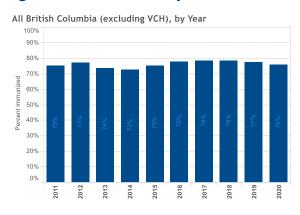
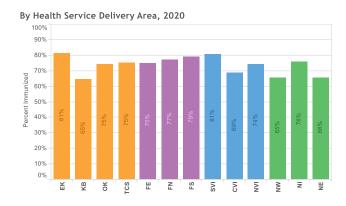


Figure 4. Reasons for non-immunization by Health Service Delivery Area, D/T/aP, British Columbia, 2020

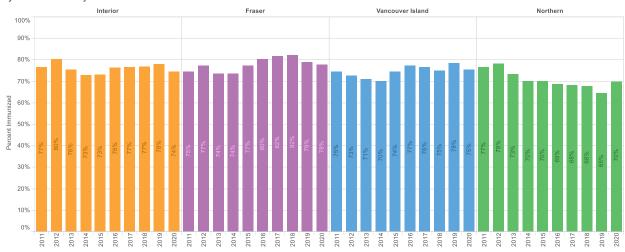
Diphtheria, Tetanus, Pertussis, Polio, Haemophilus influenzae type b (D/T/aP/IPV/Hib)

Figure 5. Percent of two-year olds immunized, D/T/aP/IPV/Hib, British Columbia



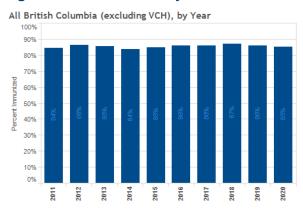


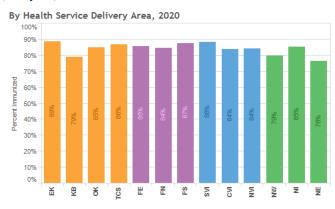
By Health Authority and Year



Hepatitis B (Hep B)

Figure 6. Percent of two-year olds immunized, Hep B, British Columbia





By Health Authority and Year

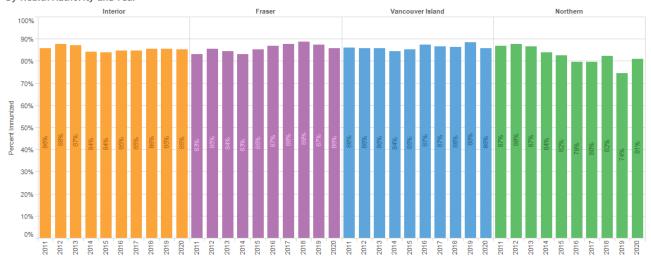


Table 8. Reasons for non-immunization, Hep B, British Columbia, 2020

						Count			
Vaccination	Region	Population	Immunized		Partially Immunized			Unimmunized	
			Up-to-date	Refusal	Contraindication	Other	Refusal	Contraindication	Other
Hepatitis B	British Columbia - excluding VCH	35,914	30,620	59	3	1,974	589	1	2,668
	Interior Health Authority	6,851	5,834	18	0	253	167	0	579
	East Kootenay	758	671	3	0	18	18	0	48
	Kootenay Boundary	651	514	2	0	31	23	0	81
	Okanagan	3,305	2,801	4	0	121	81	0	298
	Thompson Cariboo Shuswap	2,137	1,848	9	0	83	45	0	152
	Fraser Health Authority	18,923	16,250	16	1	1,131	197	0	1,328
	Fraser East	3,627	3,099	8	0	171	110	0	239
	Fraser North	6,514	5,494	5	1	419	31	0	564
	Fraser South	8,782	7,657	3	0	541	56	0	525
	Vancouver Island Health Authority	6,682	5,734	24	0	338	179	0	407
	South Vancouver Island	3,263	2,872	6	0	134	49	0	202
	Central Vancouver Island	2,330	1,946	15	0	142	98	0	129
	North Vancouver Island	1,089	916	3	0	62	32	0	76
	Northern Health Authority	3,458	2,802	1	2	252	46	1	354
	Northwest	902	716	1	2	66	11	0	106
	Northern Interior	1,528	1,301	0	0	104	16	1	106
	Northeast	1,028	785	0	0	82	19	0	142

						Percent			
Vaccination	Region	Population	Immunized		Partially Immunized	ı		Unimmunized	
			Up-to-date	Refusal	Contraindication	Other	Refusal	Contraindication	Other
Hepatitis B	British Columbia - excluding VCH	35,914	85%	0%	0%	5%	2%	0%	7%
	Interior Health Authority	6,851	85%	0%	0%	4%	2%	0%	8%
	East Kootenay	758	89%	0%	0%	2%	2%	0%	6%
	Kootenay Boundary	651	79%	0%	0%	5%	4%	0%	12%
	Okanagan	3,305	85%	0%	0%	4%	2%	0%	9%
	Thompson Cariboo Shuswap	2,137	86%	0%	0%	4%	2%	0%	7%
	Fraser Health Authority	18,923	86%	0%	0%	6%	1%	0%	7%
	Fraser East	3,627	85%	0%	0%	5%	3%	0%	7%
	Fraser North	6,514	84%	0%	0%	6%	0%	0%	9%
	Fraser South	8,782	87%	0%	0%	6%	1%	0%	6%
	Vancouver Island Health Authority	6,682	86%	0%	0%	5%	3%	0%	6%
	South Vancouver Island	3,263	88%	0%	0%	4%	2%	0%	6%
	Central Vancouver Island	2,330	84%	1%	0%	6%	4%	0%	6%
	North Vancouver Island	1,089	84%	0%	0%	6%	3%	0%	7%
	Northern Health Authority	3,458	81%	0%	0%	7%	1%	0%	10%
	Northwest	902	79%	0%	0%	7%	1%	0%	12%
	Northern Interior	1,528	85%	0%	0%	7%	1%	0%	7%
	Northeast	1,028	76%	0%	0%	8%	2%	0%	14%

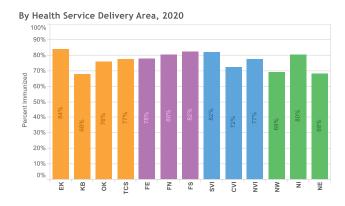
100% 90% 80% 70% Percent of Children 60% ■ Unimmunized - Other ■ Unimmunized with Refusal 50% **™** Unimmunized with Contraindication **Maintain Partially Immunized - Other** 40% ■ Partially Immunized with Refusal ■ Partially Immunized with Contraindication 30% ■ Up-to-date 20% 10% 0% EK KB OK TCS FE FN FS SVI CVI NVI NW NI NE **Health Service Delivery Area**

Figure 7. Reasons for non-immunization by Health Service Delivery Area, Hep B, British Columbia, 2020

Haemophilus influenzae type b (Hib)

Figure 8. Percent of two-year olds immunized, Hib, British Columbia







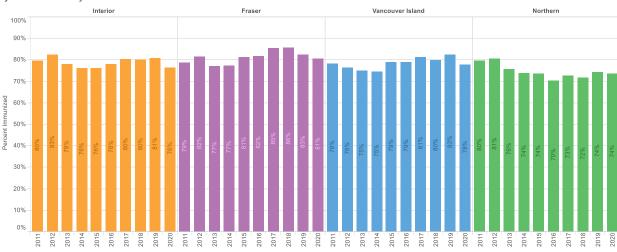


Table 9. Reasons for non-immunization, Hib, British Columbia, 2020

						Count			
Vaccination	Region	Population	Immunized		Partially Immunized			Unimmunized	
			Up-to-date	Refusal	Contraindication	Other	Refusal	Contraindication	Other
Hib	British Columbia - excluding VCH	35,914	28,226	77	1	4,578	520	1	2,511
	Interior Health Authority	6,851	5,236	30	0	905	146	0	534
	East Kootenay	758	638	5	0	57	16	0	42
	Kootenay Boundary	651	440	6	0	110	19	0	76
	Okanagan	3,305	2,502	9	0	444	70	0	280
	Thompson Cariboo Shuswap	2,137	1,656	10	0	294	41	0	136
	Fraser Health Authority	18,923	15,240	14	0	2,224	179	0	1,266
	Fraser East	3,627	2,814	7	0	473	100	0	233
	Fraser North	6,514	5,227	3	0	721	27	0	536
	Fraser South	8,782	7,199	4	0	1,030	52	0	497
	Vancouver Island Health Authority	6,682	5,200	31	0	919	151	0	381
	South Vancouver Island	3,263	2,674	11	0	351	37	0	190
	Central Vancouver Island	2,330	1,684	15	0	417	90	0	124
	North Vancouver Island	1,089	842	5	0	151	24	0	67
	Northern Health Authority	3,458	2,550	2	1	530	44	1	330
	Northwest	902	624	2	1	166	9	0	100
	Northern Interior	1,528	1,225	0	0	193	16	1	93
	Northeast	1,028	701	0	0	171	19	0	137

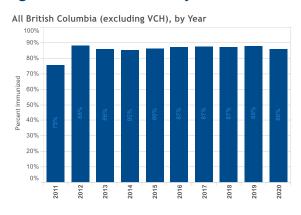
						Percent			
Vaccination	Region	Population	Immunized		Partially Immunized	ı		Unimmunized	
			Up-to-date	Refusal	Contraindication	Other	Refusal	Contraindication	Other
Hib	British Columbia - excluding VCH	35,914	79%	0%	0%	13%	1%	0%	7%
	Interior Health Authority	6,851	76%	0%	0%	13%	2%	0%	8%
	East Kootenay	758	84%	1%	0%	8%	2%	0%	6%
	Kootenay Boundary	651	68%	1%	0%	17%	3%	0%	12%
	Okanagan	3,305	76%	0%	0%	13%	2%	0%	8%
	Thompson Cariboo Shuswap	2,137	77%	0%	0%	14%	2%	0%	6%
	Fraser Health Authority	18,923	81%	0%	0%	12%	1%	0%	7%
	Fraser East	3,627	78%	0%	0%	13%	3%	0%	6%
	Fraser North	6,514	80%	0%	0%	11%	0%	0%	8%
	Fraser South	8,782	82%	0%	0%	12%	1%	0%	6%
	Vancouver Island Health Authority	6,682	78%	0%	0%	14%	2%	0%	6%
	South Vancouver Island	3,263	82%	0%	0%	11%	1%	0%	6%
	Central Vancouver Island	2,330	72%	1%	0%	18%	4%	0%	5%
	North Vancouver Island	1,089	77%	0%	0%	14%	2%	0%	6%
	Northern Health Authority	3,458	74%	0%	0%	15%	1%	0%	10%
	Northwest	902	69%	0%	0%	18%	1%	0%	11%
	Northern Interior	1,528	80%	0%	0%	13%	1%	0%	6%
	Northeast	1,028	68%	0%	0%	17%	2%	0%	13%

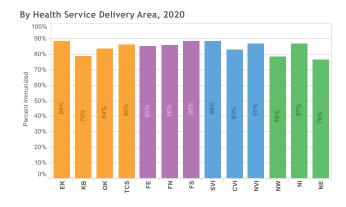
100% 90% 80% 70% Percent of Children 60% ■ Unimmunized - Other ■ Unimmunized with Refusal 50% **™** Unimmunized with Contraindication **Mainter of the Partially Immunized - Other** 40% ■ Partially Immunized with Refusal ■ Partially Immunized with Contraindication 30% ■ Up-to-date 20% 10% 0% EK KB OK TCS FE FN FS SVI CVI NVI NW NI NE **Health Service Delivery Area**

Figure 9. Reasons for non-immunization by Health Service Delivery Area, Hib, British Columbia, 2020

Measles, Mumps and Rubella (MMR)

Figure 10. Percent of two-year olds immunized, MMR, British Columbia







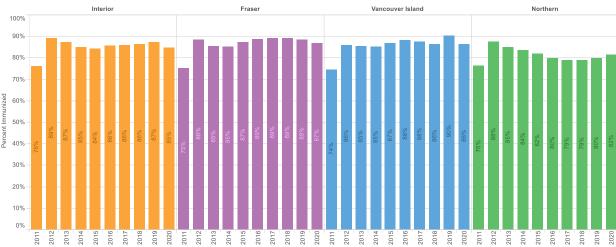


Table 10. Reasons for non-immunization, MMR, British Columbia, 2020

					Count				Percent	
Vaccination	Region	Population	Immunized		Unimmunized		Immunized		Unimmunized	
			Up-to-date	Refusal	Contraindication	Other	Up-to-date	Refusal	Contraindication	Other
MMR	British Columbia - excluding VCH	35,914	30,811	476	3	4,624	86%	1%	0%	13%
	Interior Health Authority	6,851	5,793	136	2	920	85%	2%	0%	13%
	East Kootenay	758	672	18	0	68	89%	2%	0%	9%
	Kootenay Boundary	651	512	15	0	124	79%	2%	0%	19%
	Okanagan	3,305	2,769	56	0	480	84%	2%	0%	15%
	Thompson Cariboo Shuswap	2,137	1,840	47	2	248	86%	2%	0%	12%
	Fraser Health Authority	18,923	16,438	193	1	2,291	87%	1%	0%	12%
	Fraser East	3,627	3,087	104	0	436	85%	3%	0%	12%
	Fraser North	6,514	5,582	31	1	900	86%	0%	0%	14%
	Fraser South	8,782	7,769	58	0	955	88%	1%	0%	11%
	Vancouver Island Health Authority	6,682	5,760	146	0	776	86%	2%	0%	12%
	South Vancouver Island	3,263	2,882	32	0	349	88%	1%	0%	11%
	Central Vancouver Island	2,330	1,934	96	0	300	83%	4%	0%	13%
	North Vancouver Island	1,089	944	18	0	127	87%	2%	0%	12%
	Northern Health Authority	3,458	2,820	1	0	637	82%	0%	0%	18%
	Northwest	902	709	0	0	193	79%	0%	0%	21%
	Northern Interior	1,528	1,325	0	0	203	87%	0%	0%	13%
	Northeast	1,028	786	1	0	241	76%	0%	0%	23%

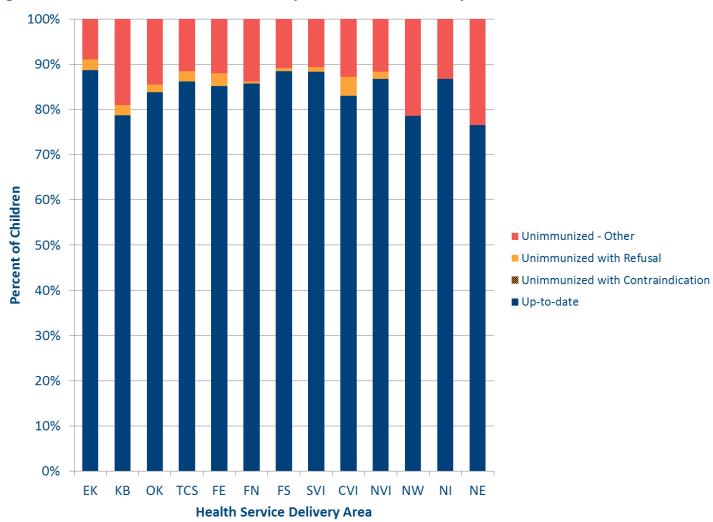
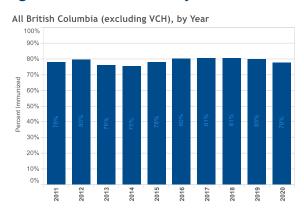
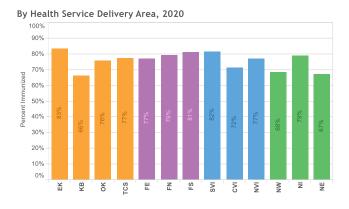


Figure 11. Reasons for non-immunization by Health Service Delivery Area, MMR, British Columbia, 2020

Polio

Figure 12. Percent of two-year olds immunized, Polio, British Columbia







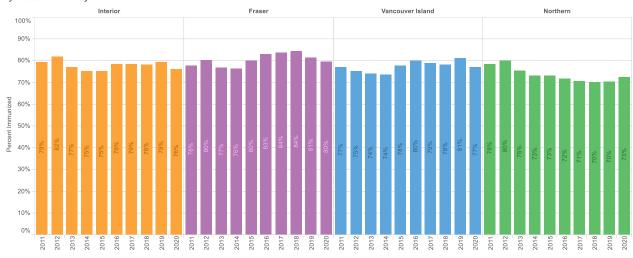


Table 11. Reasons for non-immunization, Polio, British Columbia, 2020

						Count			
Vaccination	Region	Population	Immunized		Partially Immunized			Unimmunized	
			Up-to-date	Refusal	Contraindication	Other	Refusal	Contraindication	Other
Polio	British Columbia - excluding VCH	35,914	27,953	80	2	4,850	519	1	2,509
	Interior Health Authority	6,851	5,216	23	0	933	145	0	534
	East Kootenay	758	631	5	0	64	16	0	42
	Kootenay Boundary	651	431	3	0	123	19	0	75
	Okanagan	3,305	2,505	6	0	444	69	0	281
	Thompson Cariboo Shuswap	2,137	1,649	9	0	302	41	0	136
	Fraser Health Authority	18,923	15,067	22	0	2,388	179	0	1,267
	Fraser East	3,627	2,785	16	0	492	100	0	234
	Fraser North	6,514	5,151	3	0	798	27	0	535
	Fraser South	8,782	7,131	3	0	1,098	52	0	498
	Vancouver Island Health Authority	6,682	5,162	31	0	959	151	0	379
	South Vancouver Island	3,263	2,660	8	0	369	38	0	188
	Central Vancouver Island	2,330	1,666	17	0	434	89	0	124
	North Vancouver Island	1,089	836	6	0	156	24	0	67
	Northern Health Authority	3,458	2,508	4	2	570	44	1	329
	Northwest	902	616	3	2	172	9	0	100
	Northern Interior	1,528	1,202	1	0	216	16	1	92
	Northeast	1,028	690	0	0	182	19	0	137

						Percent			
Vaccination	Region	Population	Immunized		Partially Immunized	1		Unimmunized	
			Up-to-date	Refusal	Contraindication	Other	Refusal	Contraindication	Other
Polio	British Columbia - excluding VCH	35,914	78%	0%	0%	14%	1%	0%	7%
	Interior Health Authority	6,851	76%	0%	0%	14%	2%	0%	8%
	East Kootenay	758	83%	1%	0%	8%	2%	0%	6%
	Kootenay Boundary	651	66%	0%	0%	19%	3%	0%	12%
	Okanagan	3,305	76%	0%	0%	13%	2%	0%	9%
	Thompson Cariboo Shuswap	2,137	77%	0%	0%	14%	2%	0%	6%
	Fraser Health Authority	18,923	80%	0%	0%	13%	1%	0%	7%
	Fraser East	3,627	77%	0%	0%	14%	3%	0%	6%
	Fraser North	6,514	79%	0%	0%	12%	0%	0%	8%
	Fraser South	8,782	81%	0%	0%	13%	1%	0%	6%
	Vancouver Island Health Authority	6,682	77%	0%	0%	14%	2%	0%	6%
	South Vancouver Island	3,263	82%	0%	0%	11%	1%	0%	6%
	Central Vancouver Island	2,330	72%	1%	0%	19%	4%	0%	5%
	North Vancouver Island	1,089	77%	1%	0%	14%	2%	0%	6%
	Northern Health Authority	3,458	73%	0%	0%	16%	1%	0%	10%
	Northwest	902	68%	0%	0%	19%	1%	0%	11%
	Northern Interior	1,528	79%	0%	0%	14%	1%	0%	6%
	Northeast	1,028	67%	0%	0%	18%	2%	0%	13%

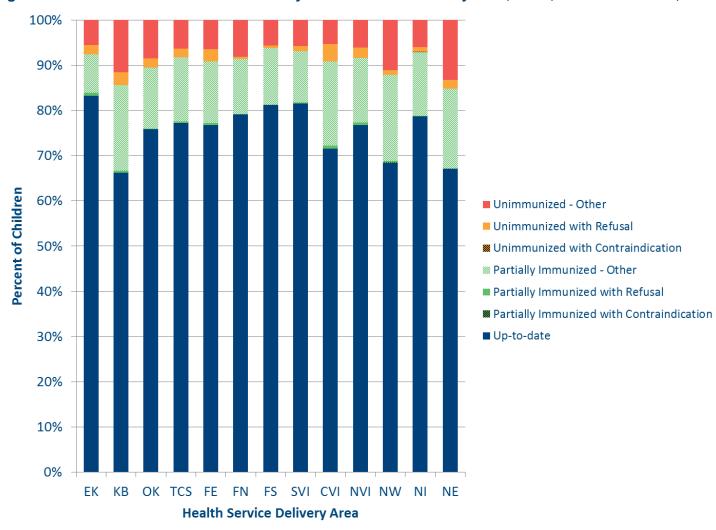
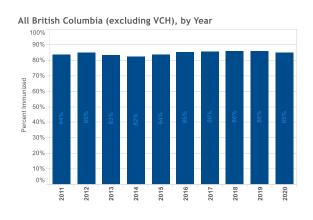
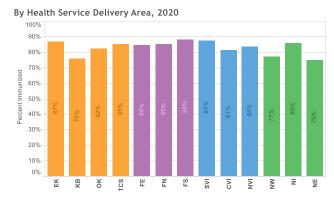


Figure 13. Reasons for non-immunization by Health Service Delivery Area, Polio, British Columbia, 2020

Varicella

Figure 14. Percent of two-year olds immunized, Varicella, British Columbia







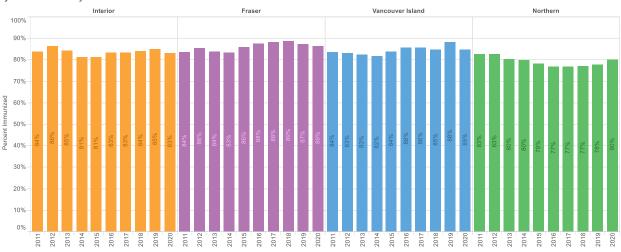


Table 12. Reasons for non-immunization, Varicella, British Columbia, 2020

					Co	unt		
Vaccination	Region	Population	Immunized	Immune:	Immune:		Unimmunized	
			Up-to-date	Previous Disease	Lab Evidence	Refusal	Contraindication	Other
Varicella	British Columbia - excluding VCH	35,914	30,435	0	1	604	2	4,872
	Interior Health Authority	6,851	5,686	0	1	183	2	979
	East Kootenay	758	656	0	0	26	0	76
	Kootenay Boundary	651	494	0	0	23	0	134
	Okanagan	3,305	2,714	0	1	81	0	509
	Thompson Cariboo Shuswap	2,137	1,822	0	0	53	2	260
	Fraser Health Authority	18,923	16,321	0	0	212	0	2,390
	Fraser East	3,627	3,060	0	0	109	0	458
	Fraser North	6,514	5,539	0	0	38	0	937
	Fraser South	8,782	7,722	0	0	65	0	995
	Vancouver Island Health Authority	6,682	5,656	0	0	202	0	824
	South Vancouver Island	3,263	2,848	0	0	47	0	368
	Central Vancouver Island	2,330	1,896	0	0	127	0	307
	North Vancouver Island	1,089	912	0	0	28	0	149
	Northern Health Authority	3,458	2,772	0	0	7	0	679
	Northwest	902	694	0	0	4	0	204
	Northern Interior	1,528	1,310	0	0	2	0	216
	Northeast	1,028	768	0	0	1	0	259

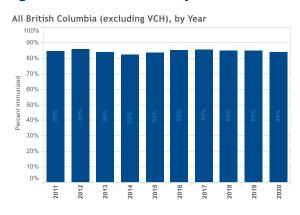
					Pe	rcent		
Vaccination	Region	Population	Immunized	Immune:	Immune:		Unimmunized	
			Up-to-date	Previous Disease	Lab Evidence	Refusal	Contraindication	Other
Varicella	British Columbia - excluding VCH	35,914	85%	0%	0%	2%	0%	14%
	Interior Health Authority	6,851	83%	0%	0%	3%	0%	14%
	East Kootenay	758	87%	0%	0%	3%	0%	10%
	Kootenay Boundary	651	76%	0%	0%	4%	0%	21%
	Okanagan	3,305	82%	0%	0%	2%	0%	15%
	Thompson Cariboo Shuswap	2,137	85%	0%	0%	2%	0%	12%
	Fraser Health Authority	18,923	86%	0%	0%	1%	0%	13%
	Fraser East	3,627	84%	0%	0%	3%	0%	13%
	Fraser North	6,514	85%	0%	0%	1%	0%	14%
	Fraser South	8,782	88%	0%	0%	1%	0%	11%
	Vancouver Island Health Authority	6,682	85%	0%	0%	3%	0%	12%
	South Vancouver Island	3,263	87%	0%	0%	1%	0%	11%
	Central Vancouver Island	2,330	81%	0%	0%	5%	0%	13%
	North Vancouver Island	1,089	84%	0%	0%	3%	0%	14%
	Northern Health Authority	3,458	80%	0%	0%	0%	0%	20%
	Northwest	902	77%	0%	0%	0%	0%	23%
	Northern Interior	1,528	86%	0%	0%	0%	0%	14%
	Northeast	1,028	75%	0%	0%	0%	0%	25%

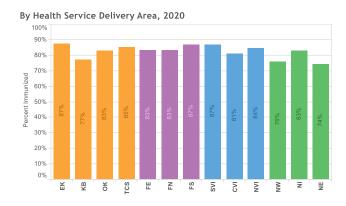
100% 90% 80% 70% Percent of Children 60% ■ Unimmunized - Other Unimmunized with Refusal 50% **■ Unimmunized with Contraindication** ■ Exemption: Previous Disease 40% ■ Exemption: Immunity (lab) ■ Up-to-date 30% 20% 10% 0% OK TCS FE FN FS SVI CVI NVI NW KB NI **Health Service Delivery Area**

Figure 15. Reasons for non-immunization by Health Service Delivery Area, Varicella, British Columbia, 2020

Pneumococcal Conjugate Vaccine (Pneu-C)

Figure 16. Percent of two-year olds immunized, Pneu-C, British Columbia







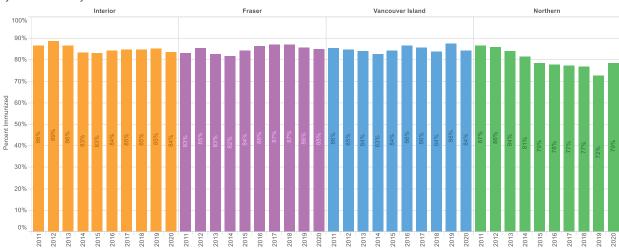


Table 13. Reasons for non-immunization, Pneu-C, British Columbia, 2020

						Count			
Vaccination	Region	Population	Immunized		Partially Immunized			Unimmunized	
			Up-to-date	Refusal	Contraindication	Other	Refusal	Contraindication	Other
Pneu-C	British Columbia - excluding VCH	35,914	30,150	61	2	2,445	563	1	2,692
	Interior Health Authority	6,851	5,722	18	0	386	160	0	565
	East Kootenay	758	663	4	0	30	16	0	45
	Kootenay Boundary	651	501	2	0	43	21	0	84
	Okanagan	3,305	2,740	4	0	191	79	0	291
	Thompson Cariboo Shuswap	2,137	1,818	8	0	122	44	0	145
	Fraser Health Authority	18,923	16,079	15	0	1,275	188	0	1,366
	Fraser East	3,627	3,026	7	0	240	105	0	249
	Fraser North	6,514	5,435	4	0	475	28	0	572
	Fraser South	8,782	7,618	4	0	560	55	0	545
	Vancouver Island Health Authority	6,682	5,634	24	0	448	172	0	404
	South Vancouver Island	3,263	2,832	7	0	181	42	0	201
	Central Vancouver Island	2,330	1,884	13	0	201	102	0	130
	North Vancouver Island	1,089	918	4	0	66	28	0	73
	Northern Health Authority	3,458	2,715	4	2	336	43	1	357
	Northwest	902	685	2	2	94	9	0	110
	Northern Interior	1,528	1,267		0	144	16	1	100
	Northeast	1,028	763	2	0	98	18	0	147

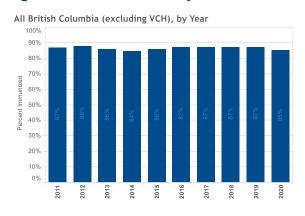
						Percent				
Vaccination	Region	Population	n Immunized Partially Immunized			l	Unimmunized			
			Up-to-date	Refusal	Contraindication	Other	Refusal	Contraindication	Other	
Pneu-C	British Columbia - excluding VCH	35,914	84%	0%	0%	7%	2%	0%	7%	
	Interior Health Authority	6,851	84%	0%	0%	6%	2%	0%	8%	
	East Kootenay	758	87%	1%	0%	4%	2%	0%	6%	
	Kootenay Boundary	651	77%	0%	0%	7%	3%	0%	13%	
	Okanagan	3,305	83%	0%	0%	6%	2%	0%	9%	
	Thompson Cariboo Shuswap	2,137	85%	0%	0%	6%	2%	0%	7%	
	Fraser Health Authority	18,923	85%	0%	0%	7%	1%	0%	7%	
	Fraser East	3,627	83%	0%	0%	7%	3%	0%	7%	
	Fraser North	6,514	83%	0%	0%	7%	0%	0%	9%	
	Fraser South	8,782	87%	0%	0%	6%	1%	0%	6%	
	Vancouver Island Health Authority	6,682	84%	0%	0%	7%	3%	0%	6%	
	South Vancouver Island	3,263	87%	0%	0%	6%	1%	0%	6%	
	Central Vancouver Island	2,330	81%	1%	0%	9%	4%	0%	6%	
	North Vancouver Island	1,089	84%	0%	0%	6%	3%	0%	7%	
	Northern Health Authority	3,458	79%	0%	0%	10%	1%	0%	10%	
	Northwest	902	76%	0%	0%	10%	1%	0%	12%	
	Northern Interior	1,528	83%	0%	0%	9%	1%	0%	7%	
	Northeast	1,028	74%	0%	0%	10%	2%	0%	14%	

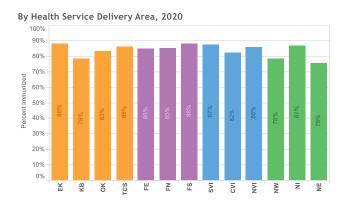
100% 90% 80% 70% Percent of Children 60% ■ Unimmunized - Other ■ Unimmunized with Refusal 50% **™** Unimmunized with Contraindication **M** Partially Immunized - Other 40% ■ Partially Immunized with Refusal ■ Partially Immunized with Contraindication 30% ■ Up-to-date 20% 10% 0% KB OK TCS FE FS SVI CVI NVI NW NI FN **Health Service Delivery Area**

Figure 17. Reasons for non-immunization by Health Service Delivery Area, Pneu-C, British Columbia, 2020

Meningococcal-C Conjugate Vaccine (Men-C-C)

Figure 18. Percent of two-year olds immunized, Men-C-C, British Columbia







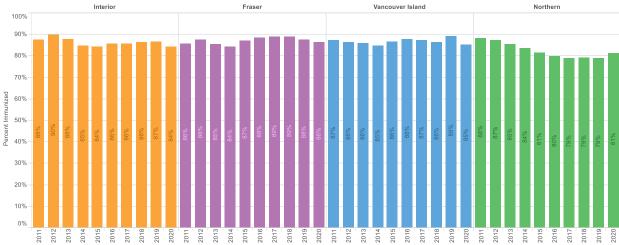


Table 14. Reasons for non-immunization, Men-C-C, British Columbia, 2020

			Count							
Vaccination	Region	Population	Immunized		Partially Immunized			Unimmunized		
			Up-to-date	Refusal	Contraindication	Other	Refusal	Contraindication	Other	
Men-C-C	British Columbia - excluding VCH	35,914	30,626	41	1	1,849	556	1	2,840	
	Interior Health Authority	6,851	5,776	15	0	324	156	0	580	
	East Kootenay	758	668	3	0	22	16	0	49	
	Kootenay Boundary	651	511	2	0	34	21	0	83	
	Okanagan	3,305	2,756	3	0	171	76	0	299	
	Thompson Cariboo Shuswap	2,137	1,841	7	0	97	43	0	149	
	Fraser Health Authority	18,923	16,339	10	0	931	184	0	1,459	
	Fraser East	3,627	3,074	6	0	192	101	0	254	
	Fraser North	6,514	5,537	2	0	328	29	0	618	
	Fraser South	8,782	7,728	2	0	411	54	0	587	
	Vancouver Island Health Authority	6,682	5,703	14	0	351	173	0	441	
	South Vancouver Island	3,263	2,853	4	0	140	42	0	224	
	Central Vancouver Island	2,330	1,914	9	0	167	101	0	139	
	North Vancouver Island	1,089	936	1	0	44	30	0	78	
	Northern Health Authority	3,458	2,808	2	1	243	43	1	360	
	Northwest	902	707	1	1	73	10	0	110	
	Northern Interior	1,528	1,325	0	0	84	15	1	103	
	Northeast	1,028	776	1	0	86	18	0	147	

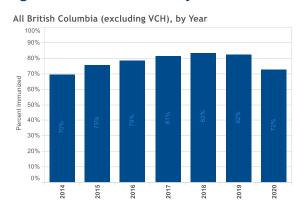
					Pe	ercent			
Vaccination	Region	Population	Immunized	Pa	artially Immunized			Unimmunized	
			Up-to-date	Refusal	Contraindication	Other	Refusal	Contraindication	Other
Men-C-C	British Columbia - excluding VCH	35,914	85%	0%	0%	5%	2%	0%	8%
	Interior Health Authority	6,851	84%	0%	0%	5%	2%	0%	8%
	East Kootenay	758	88%	0%	0%	3%	2%	0%	6%
	Kootenay Boundary	651	78%	0%	0%	5%	3%	0%	13%
	Okanagan	3,305	83%	0%	0%	5%	2%	0%	9%
	Thompson Cariboo Shuswap	2,137	86%	0%	0%	5%	2%	0%	7%
	Fraser Health Authority	18,923	86%	0%	0%	5%	1%	0%	8%
	Fraser East	3,627	85%	0%	0%	5%	3%	0%	7%
	Fraser North	6,514	85%	0%	0%	5%	0%	0%	9%
	Fraser South	8,782	88%	0%	0%	5%	1%	0%	7%
	Vancouver Island Health Authority	6,682	85%	0%	0%	5%	3%	0%	7%
	South Vancouver Island	3,263	87%	0%	0%	4%	1%	0%	7%
	Central Vancouver Island	2,330	82%	0%	0%	7%	4%	0%	6%
	North Vancouver Island	1,089	86%	0%	0%	4%	3%	0%	7%
	Northern Health Authority	3,458	81%	0%	0%	7%	1%	0%	10%
	Northwest	902	78%	0%	0%	8%	1%	0%	12%
	Northern Interior	1,528	87%	0%	0%	5%	1%	0%	7%
	Northeast	1,028	75%	0%	0%	8%	2%	0%	14%

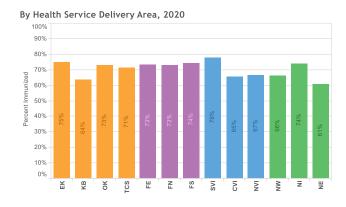
100% 90% 80% 70% Percent of Children 60% ■ Unimmunized - Other ■ Unimmunized with Refusal 50% **™** Unimmunized with Contraindication **M** Partilaly Immunized - Other 40% ■ Partially Immunized with Refusal ■ Partially Immunized with Contraindication 30% ■ Up-to-date 20% 10% 0% KB OK TCS FE FS SVI CVI NVI NW NI FN **Health Service Delivery Area**

Figure 19. Reasons for non-immunization by Health Service Delivery Area, Men-C-C, British Columbia, 2020

Rotavirus

Figure 20. Percent of two-year olds immunized, Rotavirus, British Columbia







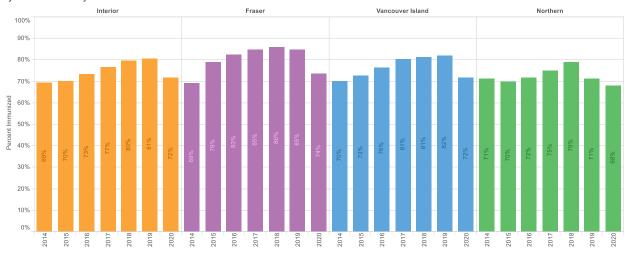


Table 15. Reasons for non-immunization, Rotavirus, British Columbia, 2020

						Count			
Vaccination	Region	Population	Immunized		Partially Immunized			Unimmunized	
			Up-to-date	Refusal	Contraindication	Other	Refusal	Contraindication	Other
Rotavirus	British Columbia - excluding VCH	35,914	26,004	136	4	4,716	922	37	4,095
	Interior Health Authority	6,851	4,910	36	0	731	322	7	845
	East Kootenay	758	567	4	0	80	22	0	85
	Kootenay Boundary	651	415	10	0	48	54	2	122
	Okanagan	3,305	2,406	11	0	325	147	1	415
	Thompson Cariboo Shuswap	2,137	1,522	11	0	278	99	4	223
	Fraser Health Authority	18,923	13,949	35	0	2,699	187	8	2,045
	Fraser East	3,627	2,659	15	0	394	121	3	435
	Fraser North	6,514	4,758	7	0	917	28	2	802
	Fraser South	8,782	6,532	13	0	1,388	38	3	808
	Vancouver Island Health Authority	6,682	4,791	48	0	835	312	3	693
	South Vancouver Island	3,263	2,540	19	0	313	97	1	293
	Central Vancouver Island	2,330	1,526	19	0	365	158	1	261
	North Vancouver Island	1,089	725	10	0	157	57	1	139
	Northern Health Authority	3,458	2,354	17	4	451	101	19	512
	Northwest	902	598	4	2	126	25	6	141
	Northern Interior	1,528	1,132	5	2	185	28	8	168
	Northeast	1,028	624	8	0	140	48	5	203

						Percent			
Vaccination	Region	Population	Immunized		Partially Immunized		Unimmunized		
			Up-to-date	Refusal	Contraindication	Other	Refusal	Contraindication	Other
Rotavirus	British Columbia - excluding VCH	35,914	72%	0%	0%	13%	3%	0%	11%
	Interior Health Authority	6,851	72%	1%	0%	11%	5%	0%	12%
	East Kootenay	758	75%	1%	0%	11%	3%	0%	11%
	Kootenay Boundary	651	64%	2%	0%	7%	8%	0%	19%
	Okanagan	3,305	73%	0%	0%	10%	4%	0%	13%
	Thompson Cariboo Shuswap	2,137	71%	1%	0%	13%	5%	0%	10%
	Fraser Health Authority	18,923	74%	0%	0%	14%	1%	0%	11%
	Fraser East	3,627	73%	0%	0%	11%	3%	0%	12%
	Fraser North	6,514	73%	0%	0%	14%	0%	0%	12%
	Fraser South	8,782	74%	0%	0%	16%	0%	0%	9%
	Vancouver Island Health Authority	6,682	72 %	1%	0%	12%	5%	0%	10%
	South Vancouver Island	3,263	78%	1%	0%	10%	3%	0%	9%
	Central Vancouver Island	2,330	65%	1%	0%	16%	7%	0%	11%
	North Vancouver Island	1,089	67%	1%	0%	14%	5%	0%	13%
	Northern Health Authority	3,458	68%	0%	0%	13%	3%	1%	15%
	Northwest	902	66%	0%	0%	14%	3%	1%	16%
	Northern Interior	1,528	74%	0%	0%	12%	2%	1%	11%
	Northeast	1,028	61%	1%	0%	14%	5%	0%	20%

100% 90% 80% 70% Percent of Children 60% ■ Unimmunized - Other Unimmunized with Refusal 50% ■ Unimmunized with Contraindication **M Partially Immunized - Other** 40% ■ Partially Immunized with Refusal ■ Partially Immunized with Contraindication 30% ■ Up-to-date 20% 10% 0% KB OK TCS FE FS SVI CVI NVI NW NI FN **Health Service Delivery Area**

Figure 21. Reasons for non-immunization by Health Service Delivery Area, Rotavirus, British Columbia, 2020

Notes

1. Numerators:

Number of children with active records in iPHIS or Panorama who are up-to-date for the specified agent(s) by age two in the Interior Health, Island Health, Fraser Health, and Northern Health Authorities.

2. Denominators:

All children with active records in iPHIS/Panorama in the Interior Health, Island Health, Fraser Health, and Northern Health Authorities.

- 3. Vancouver Coastal Health Authority (VCHA) provides their two-year old coverage data through a separate mechanism. Two-year old immunization coverage data for VCHA have not been included with provincial data because the VCHA data (based on periodic surveys of a sample of the population) may not be comparable with population based immunization data obtained from the registry for the rest of the province. While immunizations provided to infants by public health immunizers in VCHA are captured in the health authority's electronic information system (called PARIS), the majority of VCHA infants are immunized by physicians. The BC Public Health Act does not require reporting of immunizations to public health, nor are physicians reimbursed for reporting immunizations; thus immunizations delivered by physicians are not captured systematically in the VCHA electronic database. VCHA thus endeavors to examine 2-year old coverage data by the use of periodic coverage studies. Coverage studies have been conducted for the 2003, 2006, 2009 and 2012 birth cohorts. While coverage studies have inherent limitations (coverage can only be obtained for babies whose parents/guardians could be located and agreed to provide the information), this is the only solution at present. See: Percent of Two-year-olds with Up-to-date Immunizations by Health Authority and Health Service Delivery Area, Vancouver Coastal Health.
- 4. The COVID-19 pandemic was declared in March 2020. This pandemic initially resulted in a province-wide shut down, which impacted the provision of public health services as well as in-person clinical services by physician providers. As a result, two year old coverage rates were lower in 2020 than previous years, particularly for the doses scheduled to be received at the 12- and 18-month milestones.
- 5. In 2019, resources available to early childhood immunization may have been impacted by other public health immunization programs, including the measles catch-up immunization campaign for school-age children, the implementation of the Vaccination Status Reporting Regulation for school-age children, and the migration of public health information systems in Fraser Health Authority. This may have resulted in decreases in two year old coverage rates.
- 6. In June-July 2013, the health authorities using the iPHIS immunization registry migrated their data to the Panorama immunization registry. The data source for 2-year old coverage immunization coverage changed to Panorama as of 2013.
 - The decline in coverage in 2013 may be explained by the change in the immunization registry. Due to increased workload involved with the new system, there was decreased clinic availability in some regions, leading to fewer children being immunized. In addition, some regions were unable to run their recall and reminder reports out of the new system, and therefore did not notify all children who were behind on their immunizations prior to their second birthday.
- 7. In July 2013, Northern Health Authority began using the Community Medical Office Information System (MOIS) to record immunizations at point of care, with secondary data entry into Panorama. As a result, timeliness of data entry into Panorama has been impacted. As well, the frequency of reminders/ recalls from birth to the 2nd birthday has been reduced from four to one. These two factors may contribute to both artificial and potentially real declines in coverage.
- 8. In 2011 (2009 birth cohort), the scheduled age for the second ("booster") dose of measles/mumps/rubella vaccine changed from 18 months to 4-6 years of age. Prior to this, two doses of measles-containing vaccine, 1 (children

born in 2007-2008) to 2 (children born prior to 2007) doses of mumps-containing vaccine, and at least 1-dose of rubella-containing vaccine were required before the second birthday for a child to be considered up-to-date. As a result of this change, the percent of children born in 2010 (assessed in 2012) up-to-date for MMR increased dramatically when compared to previous years. If the only one dose of MMR had been required for the 2009 birth cohort, the percent of children up-to-date for MMR would have been 13% higher (89%); the percent up-to-date for age would have been 3% higher (71%); the percent up-to-date minus the booster would have been 2.6% higher (80%).

- 9. In the fall and winter of 2009/10, the influenza H1N1 pandemic required an immense public health response. Regions reported that resources normally used to follow-up children under the age of two were diverted to the H1N1 response. As a result, two year old coverage rates were lower in 2009 and 2010 than previous years.
- 10. Starting in 2015 (2013 birth cohort), a Hib booster dose is considered valid when given as early as 12 months of age; previously, the minimum age for this dose was 15 months. This change had a very small effect on coverage estimates at the provincial level, this change resulted in an increase of 0.2% in children up-to-date for Hib.
- 11. In 2018 (2016 birth cohort), 6% of children had no record of immunizations in Panorama at the second birthday (1% had refused all routine vaccines). Potential explanations for children with no immunizations and no documented refusal to all vaccines include clients not responding to public health contact and records that have not been inactivated after a child has moved out of province or has died.
- 12. In 2018 (2016 birth cohort) 60 children had Panorama records indicating that they lived in BC, but did not have a specific health region assigned (i.e., the client health region was reported as "Unknown City / Town BC"). These children were excluded from the analysis.
- 13. Prior to 2017, children who received a single dose of quadrivalent meningococcal vaccine on or after 12 months of age were considered up-to-date for meningococcal C conjugate. As of 2017, children who receive quadrivalent meningococcal vaccine are only considered up-to-date for meningococcal C conjugate if they receive 2-3 doses (depending on age at first dose) and if the trade name of those doses is recorded as Menveo®. In 2017, there was one child who would have been considered up-to-date under the previous meningococcal C rules who was no longer considered up-to-date. This change had no overall impact on the percent up-to-date for meningococcal C conjugate or up-to-date for age at the provincial level.
- 14. Data need to be interpreted with caution for the following reasons:
 - a. To be considered up-to-date for age, documentation of every dose in the provincial immunization registry (iPHIS/Panorama) is required. Some children may have received doses that have not been documented in the immunization registry. All regions make their best efforts to obtain vaccination records pertaining to physician-delivered immunizations. There can be a delay in obtaining these records from physicians, which can result in delay of data entry. Both these issues will artificially lower the rates of vaccine coverage.
 - b. Data completeness with respect to children residing in the Health Authority may vary. Some regions enter all children born in their region into the registry. Other regions enter only those children into the system that present for service. In addition, First Nations children may not be completely captured in the registry system, as on-reserve birth records and immunizations may not be entered into iPHIS/Panorama. It is our opinion based on the difference found in the 2001 cohort of children followed up in the Medical Services Plan study, that these numbers represent limitations in the data population of our registry system. In March 2020 Client Roster data were imported into Panorama from the BC Ministry of Health, and biweekly updates from the Ministry of Health RAPID system (Maximus) were initiated. This should provide more complete information on the entire BC population in Panorama.

15. Abbreviations

Health Authorities:

FHA Fraser Health Authority

VCHA Vancouver Coastal Health Authority

BC Centre for Disease Control An agency of the Provincial Health Services Authority

IHA	Interior Health Authority	VIHA	Vancouver Island Health Authority
NHA	Northern Health Authority		
Health Ser	vice Delivery Areas:		
EK	East Kootenay	VAN	Vancouver
KB	Kootenay Boundary	NSCG	North Shore / Coast Garibaldi
OK	Okanagan	SVI	South Vancouver Island
TCS	Thompson Cariboo Shuswap	CVI	Central Vancouver Island
FE	Fraser East	NVI	North Vancouver Island
FN	Fraser North	NW	Northwest
FS	Fraser South	NI	Northern Interior
RICH	Richmond	NE	Northeast

For an explanation of BC Health Authorities, please visit: http://www.health.gov.bc.ca/socsec/index.html

Minimum Intervals Between Doses

Immunization coverage analyses in British Columbia are conducted using business rules which calculate ages and time intervals at receipt of immunization. Each dose is counted as a valid dose only if given at or after the earliest eligible age, or at a time interval equal to or greater than the shortest recommended interval.

Antigen/Agent	Minim	The second second	linimum Time Int Eligible Doses	erval
	Dose 1 A	Dose 2	Dose 3	Dose 4
Diphtheria, Tetanus, acellular Pertussis (DTaP)	42 days	28 days	28 days	24 weeks
Polio ^B	42 days	28 days	24 weeks	
Hepatitis B				
received 3rd dose before June 2007	0 days	28 days	28 days	
received 3rd dose between June 2007 and May 2014	0 days	28 days	56 days ^c	
received 3rd dose in June 2014 or later	0 days	28 days	56 days ^{C,D}	
Measles, Mumps, Rubella	12 months			
Varicella ^E	12 months			
Meningococcal-C Conjugate				
meningococcal-C conjugate vaccine	12 months			
quadrivalent meningococcal vaccine (Menveo®), initial	8 weeks	8 weeks	8 weeks	
dose before 12 months of age				
quadrivalent meningococcal vaccine (Menveo®), initial dose on or after 12 months of age	12 months	8 weeks		
Haemophilus influenzae, type b				
initial dose before 15 months of age	42 days	8 weeks ^F		
initial dose on or after 15 months of age	15 months			
Pneumococcal Conjugate				
initial dose before 12 months of age	42 days	28 days	56 days ^G	
initial dose between 12 and 23 months of age	12-23 months	56 days		
Rotavirus				
trade name = Rotarix® or not specified	42 days	28 days		
≥1 dose has trade name = RotaTeq®	42 days	28 days	28 days	

- A. Dose 1 refers to the earliest age a child can receive the initial dose.
- B. Schedule for DTaP should be followed when poliomyelitis provided in combination vaccine.
- C. Dose 3 must be given at least 16 weeks (112 days) after dose 1.
- D. Dose 3 must be given on or after 24 weeks of age.
- E. To be counted as valid, varicella vaccine must be administered on or after 12 months of age. Guidelines also state that children with a history of varicella disease should only be considered protected if the illness occurred on or after 12 months of age. The date of varicella disease onset is not systematically entered into iPHIS/Panorama. For the purposes of this assessment, any child with a past history of varicella disease recorded in iPHIS/Panorama is considered protected, regardless of their age at the time of illness.
- F. The booster dose may be given as early as 12 months of age.
- G. Dose must be given on or after 12 months of age.

Percent of Two-year-olds with Up-to-date Immunizations by Health Authority and Health Service Delivery Area, Vancouver Coastal Health

Health			Year	
Authority /	Vaccination Details	Children born	Children born	Children born
HSDA		in 2006	in 2009	in 2012
Vancouver	Up-to-date for age	77%	65%	69%
Coastal	Up-to-date minus the booster	78%	72%	70%
Health	Specific Agents			
VCHA	D/T/aP/IPV	87%	80%	819
	D/T/aP/IPV/Hib	86%	80%	819
	Нер В	93%	81%	859
	Hib	90%	84%	859
	MMR	87%	78%	939
	Polio	89%	83%	849
	Varicella	92%	87%	909
	Pneu-C	88%	86%	88'
	Men-C-C	93%	89%	90
	Rotavirus	n/a	n/a	84
Richmond	Up-to-date for age	85%	71%	72
RICH	Up-to-date minus the booster	85%	77%	72
	Specific Agents			
	D/T/aP/IPV	93%	85%	87
	D/T/aP/IPV/Hib	93%	85%	86
	Нер В	96%	86%	86
	Hib	95%	89%	89
	MMR	93%	83%	94
	Polio	94%	88%	89
	Varicella	94%	91%	92
	Pneu-C	90%	88%	87
	Men-C-C	94%	91%	90
	Rotavirus	n/a	n/a	88
Vancouver	Up-to-date for age	69%	63%	72
VAN	Up-to-date minus the booster	71%	70%	73
	Specific Agents			
	D/T/aP/IPV	80%	82%	84
	D/T/aP/IPV/Hib	79%	82%	83
	Нер В	91%	79%	85
	Hib	85%	86%	86
	MMR	82%	79%	95
	Polio	83%	86%	85
	Varicella	90%	87%	91
	Pneu-C	85%	84%	89
	Men-C-C	92%	89%	90
	Rotavirus	n/a	n/a	85

Health		Year		
Authority /	Vaccination Details	Children born	Children born	Children born
HSDA		in 2006	in 2009	in 2012
North	Up-to-date for age	82%	61%	69%
Shore	Up-to-date minus the booster	83%	70%	70%
	Specific Agents			
	D/T/aP/IPV	92%	76%	80%
	D/T/aP/IPV/Hib	92%	76%	80%
	Нер В	94%	76%	85%
	Hib	93%	80%	85%
	MMR	90%	76%	95%
	Polio	93%	80%	84%
	Varicella	94%	86%	92%
	Pneu-C	91%	86%	88%
	Men-C-C	94%	88%	93%
	Rotavirus	n/a	n/a	85%
Coast	Up-to-date for age	79%	65%	64%
Garibaldi	Up-to-date minus the booster	79%	74%	65%
	Specific Agents			
	D/T/aP/IPV	88%	74%	71%
	D/T/aP/IPV/Hib	88%	74%	71%
	Нер В	88%	81%	82%
	Hib	89%	80%	77%
	MMR	87%	74%	87%
	Polio	88%	77%	75%
	Varicella	87%	83%	84%
	Pneu-C	88%	84%	86%
	Men-C-C	90%	86%	88%
	Rotavirus	n/a	n/a	77%

Data sources: Vancouver Coastal Health Authority and Fraser Health Authority, 2012 Cohort Two-Year-Old Immunization Coverage Survey. Vancouver Coastal Health Authority and Fraser Health Authority, 2009 Cohort Two-Year-Old Immunization Coverage Survey. Vancouver Coastal Health and Vaccine Evaluation Centre, 2006 Cohort Two-Year-Old Immunization Coverage Surveys.

Prepared by: Vancouver Coastal Health, Public Health Surveillance Unit, October 2012 and September 2015.

2009 and 2012 coverage rates are based on a random sample from total surveys completed. 2006 was a random sample generated by Ministry of Health but follow-up was prioritized for those with existing records in iPHIS or PARIS. This may have led to an overestimation of coverage for that birth cohort.

Note that the varicella up-to-date definition for VCHA considers varicella vaccine only, while the definition used for the other four health authorities considers both varicella vaccine and previous varicella disease or protective antibody levels. For the 2012 birth cohort, previous varicella disease or protective antibody levels accounted for 0.2% of children who were up-to-date for varicella for the "BC excluding VCHA" total. The remaining up-to-date definitions for the 2012 birth cohort are consistent.