

**Immunization Coverage
&
Vaccine Preventable Diseases
in northern BC
2013**

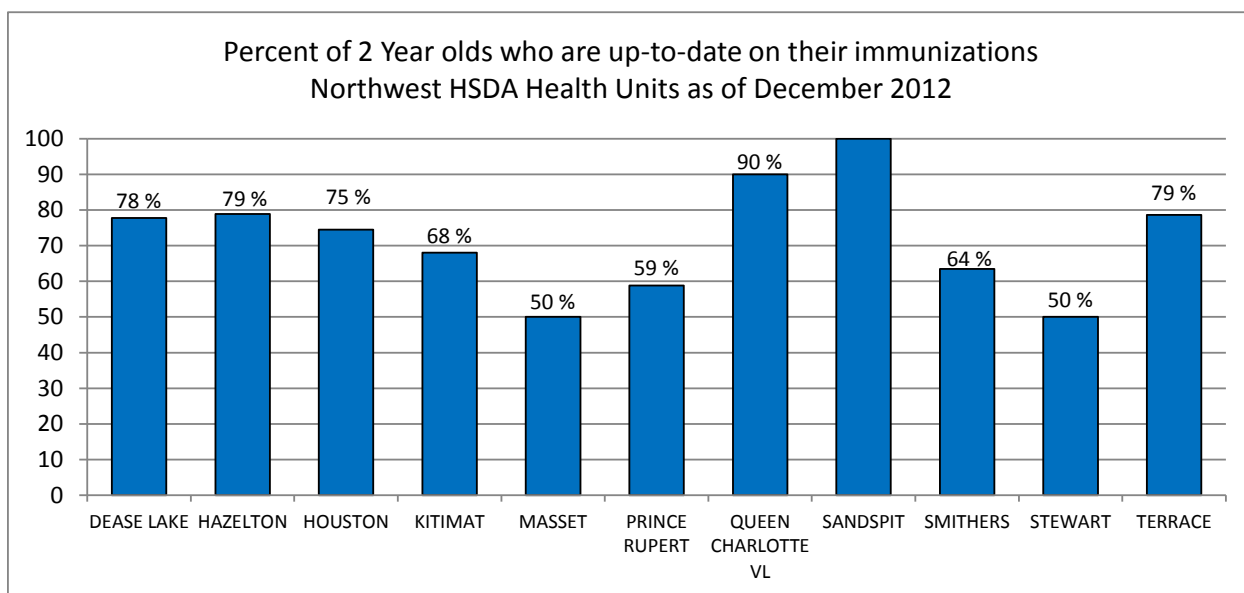
Revised
April, 2014



northern health
the northern way of caring

Immunizations are some of the best health investments that we can make. Along with better sanitation and clean drinking water, immunizations have been responsible for the huge increases in life expectancy that we have seen around the world. ^{1, 2}

Because immunizations are such a good investment and the protection they provide to individuals and communities as a whole is so important, we actively monitor whether certain target populations are fully immunized. The graph below shows the immunization status of two year old children served by health units in the **Northwest Health Service Delivery Area**.³



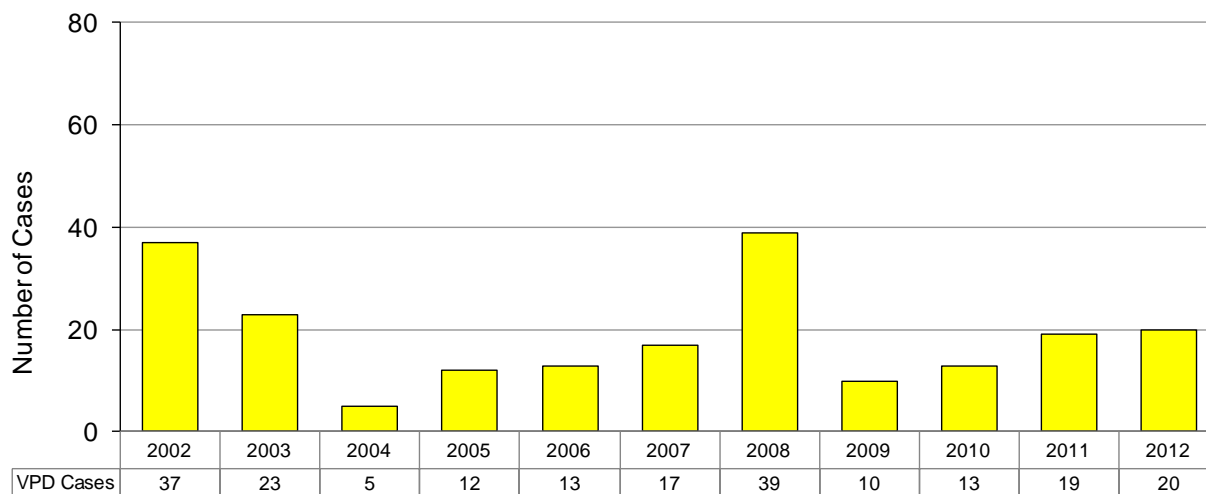
The above graph represents children who were born during the year 2010 and who were two years of age as of Dec 31st, 2012. To be considered as up-to-date for their age, two year old children must have completed the following immunizations by their second birthday:

- 4 doses of DTP vaccine
 - 3 doses of Polio vaccine
 - 3 doses of Hepatitis B vaccine
 - 1 dose each of Measles, Mumps and Rubella vaccines
 - at least 2 doses of Pneumococcal conjugate vaccine
 - at least 1 dose of Meningococcal conjugate vaccine
 - at least 1 dose of Haemophilus Influenza B vaccine after month 15
 - 1 dose of Varicella (chicken-pox) vaccine or past disease by the 2nd birthday
- Note: DTP = Diphtheria, Tetanus and Pertussis (whooping cough).
- Note: Small numbers of children in some areas can greatly influence % coverage rates.

Vaccine Preventable Diseases (VPDs) are illnesses that may have been avoided if individuals and communities were sufficiently immunized. Many of these diseases have lifelong impacts.

This page presents a summary of the most frequently reported Vaccine Preventable Diseases for the **Northwest Health Service Delivery Area** during the 2002 – 2012 period.

Vaccine Preventable Disease Cases in Northwest BC: 2002 - 2012



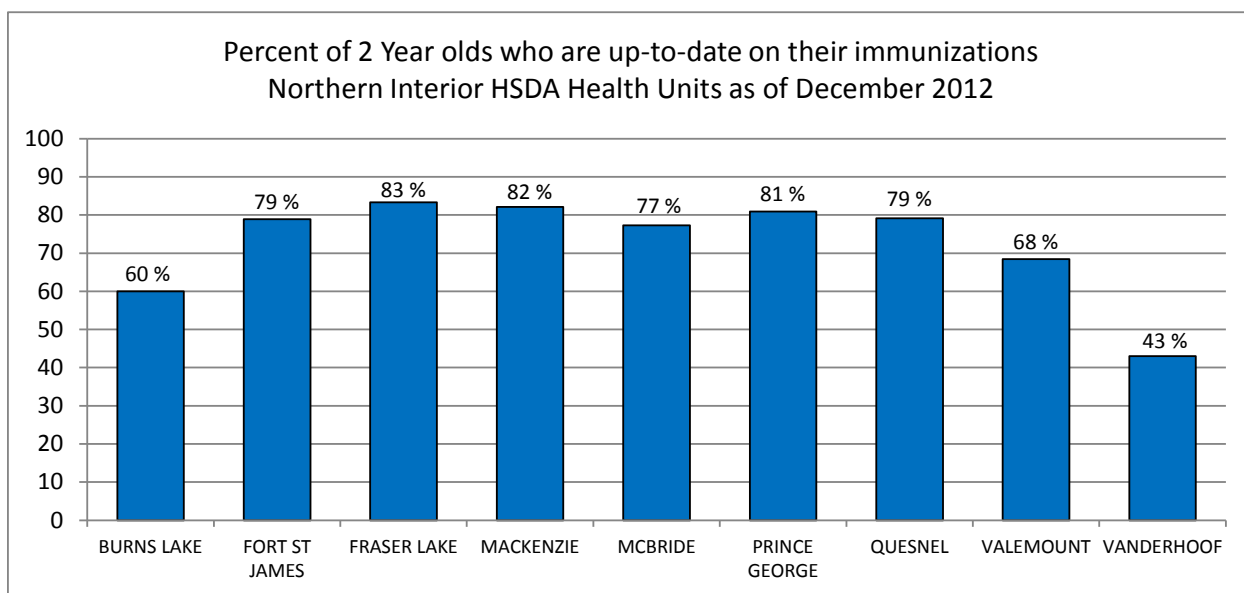
VPD in Northwest BC: Cases by Community Health 2002 - 2012 ⁴												
Community	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total
Dease Lake	0	1	0	0	0	1	0	0	0	0	0	2
Hazelton	1	8	0	0	1	3	2	1	2	0	0	18
Houston	14	1	2	0	0	0	2	0	0	0	0	19
Kitimat	1	2	1	0	0	0	0	2	0	2	1	9
Masset	1	1	0	0	0	1	1	0	0	2	3	9
Prince Rupert	8	4	0	7	5	4	2	2	8	9	5	54
QC Village	0	0	1	0	0	2	2	0	0	0	0	5
Smithers	9	1	1	2	4	4	25	2	1	3	4	56
Stewart	0	0	0	0	0	0	1	0	0	0	0	1
Terrace	3	5	0	3	3	2	4	3	2	3	7	35
Total	37	23	5	12	13	17	39	10	13	19	20	208

From 2002 to 2012, the most frequently reported VPDs in the Northwest HSDA were:

- Hepatitis B - 75 cases
- Pertussis (whooping cough) - 68 cases
- Invasive Pneumococcal Disease - 47 cases
- Invasive Meningococcal disease – 8 cases
- Haemophilus Influenza B – 7 cases.

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Because immunizations are such a good investment and the protection they provide to individuals and communities as a whole is so important, we actively monitor whether certain target populations are fully immunized. The graph below shows the immunization status of two year old children served by health units in the **Northern Interior HSDA**.⁷



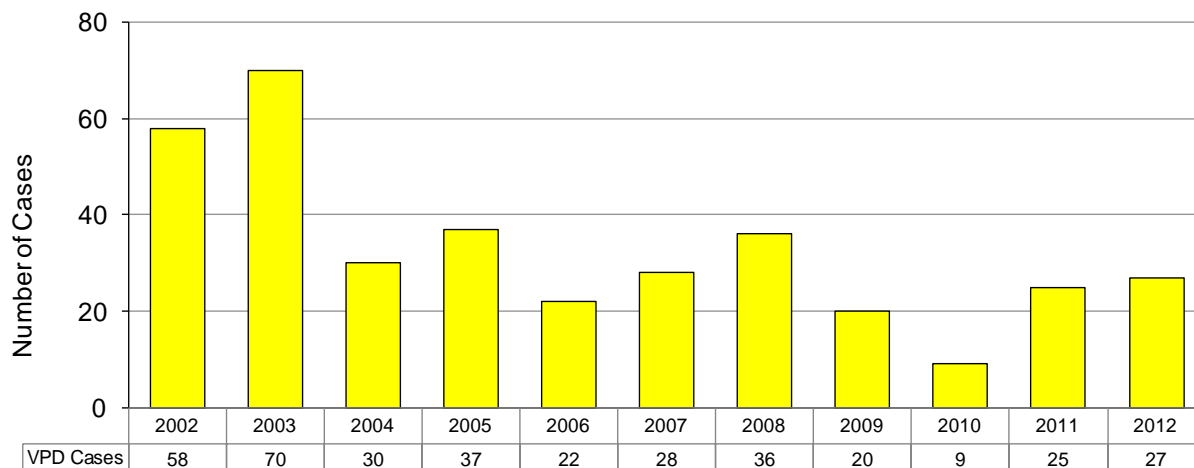
The above graph represents children who were born during the year 2010 and who were two years of age as of Dec 31st, 2012. To be considered as up-to-date for their age, two year old children must have completed the following immunizations by their second birthday:

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Vaccine Preventable Disease Cases in Northern Interior BC: 2002 - 2012



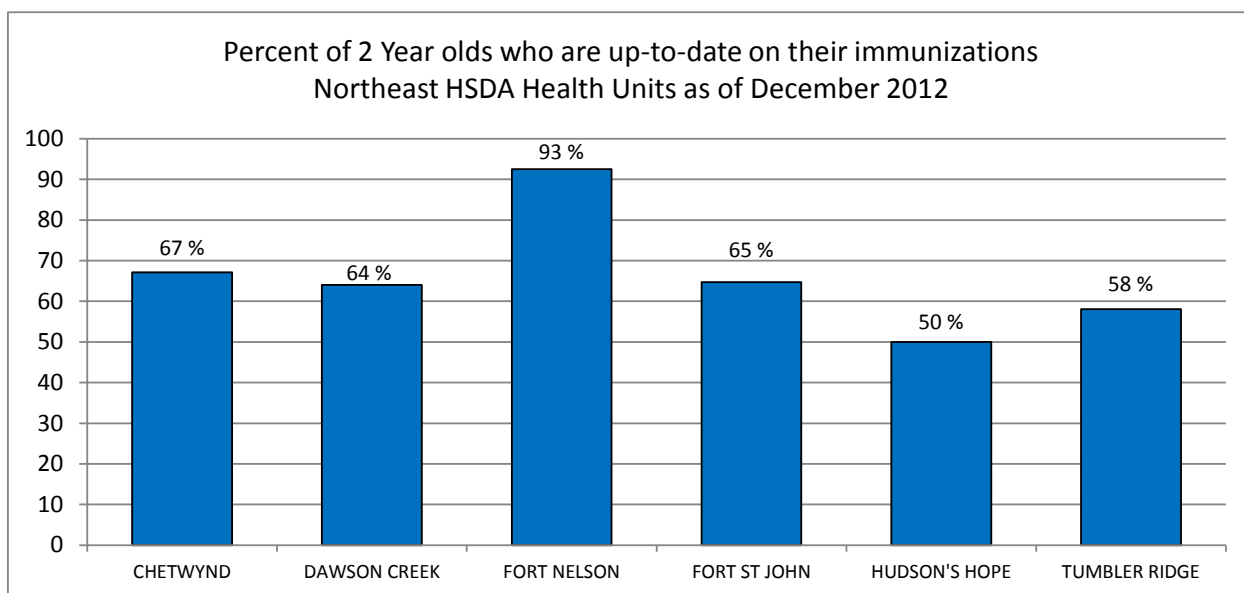
VPD in Northern Interior BC: Cases by Community Health Unit 2002 - 2012 ⁸												
Community	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total
Burns Lake	26	1	0	4	0	0	1	2	0	0	3	37
Ft. St. James	2	0	0	1	3	2	2	0	0	2	3	15
Fraser Lake	0	5	0	1	0	0	1	0	0	0	0	7
MacKenzie	0	1	0	0	1	0	0	1	1	0	0	4
McBride	0	0	0	0	0	0	0	0	0	0	0	0
Prince George	26	52	26	22	17	19	31	13	7	20	15	248
Quesnel	1	5	4	9	1	4	1	4	1	1	3	34
Valemount	0	4	0	0	0	0	0	0	0	0	1	5
Vanderhoof	3	2	0	0	0	3	0	0	0	2	2	12
Total	58	70	30	37	22	28	36	20	9	25	27	362

From 2002 to 2012, the most frequently reported VPDs in the Northern Interior HSDA were:

- Invasive Pneumococcal Disease - 167 cases
- Pertussis (whooping cough) - 109 cases
- Hepatitis B - 60 cases
- Invasive Meningococcal Disease -16 cases
- Haemophilus Influenza B – 5 cases.

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Because immunizations are such a good investment and the protection they provide to individuals and communities as a whole is so important, we actively monitor whether certain target populations are fully immunized. The graph below shows the immunization status of two year old children served by health units in the **Northeast Health Service Delivery Area**.¹¹



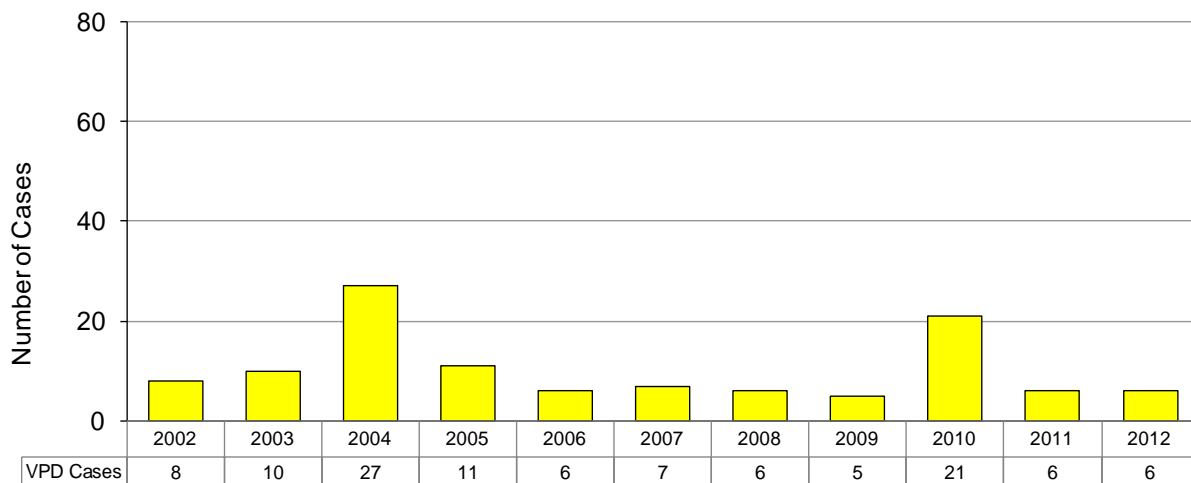
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This page presents a summary of the most frequently reported Vaccine Preventable Diseases for the **Northeast Health Service Delivery Area** during the 2002 – 2012 period.

Vaccine Preventable Disease Cases in Northeast BC: 2002 - 2012



VPD in Northeast BC: Cases by Community Health Unit 2002 - 2012 ¹²												
Community	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total
Chetwynd	2	1	2	1	1	0	1	1	3	0	0	12
Dawson Creek	3	2	21	3	1	3	2	1	3	1	3	43
Fort Nelson	1	0	1	1	0	3	0	2	7	0	0	15
Ft St John	1	7	3	5	4	1	2	1	8	5	3	40
Hudson's Hope	1	0	0	0	0	0	1	0	0	0	0	2
Tumbler Ridge	0	0	0	1	0	0	0	0	0	0	0	1
Total	8	10	27	11	6	7	6	5	21	6	6	113

From 2002 to 2012, the most frequently reported VPDs in the Northeast HSDA were:

- Hepatitis B - 40 cases
- Pertussis (whooping cough) - 33 cases
- Measles -18 cases
- Invasive Pneumococcal Disease - 16 cases
- Invasive Meningococcal Disease and Mumps - 2 cases of each VPD.

References

- ¹ Immunization: A Report on the Health and Wellbeing of British Columbian. BC Provincial Health Officer, 1998. <http://www.health.gov.bc.ca/pho/pdf/phoannual1998.pdf>
- ² Small Area Populations Projections (P.E.O.P.L.E.): Technical Paper. BC Stats, July 2009.(mortality: page 10) <http://www.bcstats.gov.bc.ca/StatisticsBySubject/Demography/TechnicalPapers.aspx>
- ³ 2010 Cohort (2 year olds) Date of Birth Jan 01, 2010 to Dec 30, 2010. Up-to-date for age: (2010 definition). Data extracted Jan 15, 2013: Prepared by CM for JMH / MMP: Northern Health Public Health: August 2013.
- ⁴ Vaccine Preventable Disease: Northern Health-Public Health Internal Files: August 2013..
- ⁵ Immunization: A Report on the Health and Wellbeing of British Columbian. BC Provincial Health Officer, 1998. <http://www.health.gov.bc.ca/pho/pdf/phoannual1998.pdf>
- ⁶ Small Area Populations Projections (P.E.O.P.L.E.): Technical Paper. BC Stats, July 2009.(mortality: page 10) <http://www.bcstats.gov.bc.ca/StatisticsBySubject/Demography/TechnicalPapers.aspx>
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- ¹⁰ Small Area Populations Projections (P.E.O.P.L.E.): Technical Paper. BC Stats, July 2009.(mortality: page 10) <http://www.bcstats.gov.bc.ca/StatisticsBySubject/Demography/TechnicalPapers.aspx>
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- ¹² Vaccine Preventable Disease: Northern Health-Public Health Internal Files: August 2013.