Building a Better Future in the North:

A Porcupine Health Unit Report on Children and Youth
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Public Health Epidemiologist

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Message from the Medical Officer of Health

I am pleased to provide you with Building a Better Future in the North: A Porcupine Health Unit Report on Children and Youth. This report on health issues is based on a broader sense that health is a state of physical, mental and social being, not merely the absence of disease. It uses the “determinants of health” as outlined by the WHO to indicate whether the children and youth in our area are healthy or not. An underlying theme is understanding that health is a collective responsibility among individuals, families, communities, businesses and all levels of government. To build a healthy society we each need to take on our share of responsibility.

Many of the children and youth of the Porcupine Health Unit area are as healthy as the children and youth of the rest of Ontario but some are not. As in other Northern Ontario health units, the children and youth of this area face problems such as: a high rate of teen birth, a low breastfeeding initiation rate, a higher proportion of babies with high birth weight, childhood obesity, and high rates of tooth decay and sexually transmitted infections, such as chlamydia.

The purpose of this report is not to show the progress of the health of children and youth in our area, but rather to give us a snapshot of how our children and youth are doing with respect to health and other social determinants. This report used the most up-to-date data available during its creation. The Porcupine Health Unit is also committed to provide up-to-date data in the future by publishing similar documents periodically.

This report is not intended to lay blame, but to raise awareness of the conditions of the children and youth in our area. The Porcupine Health Unit is committed to working with other stakeholders including individuals, families, communities, businesses and government to improve the determinants of the health of the children and youth in this area, but without measurement, our efforts would be without direction.

Dennis Hong, MD, MSc, FRCSC
Medical Officer of Health (A)
Preface

The Porcupine Health Unit’s role in maintaining a healthy lifestyle for the population of Northeast Ontario is immense. Its journey began many years ago when the health unit operated as a Health Department of the Town of Timmins. The Health Department’s role at that time was similar to what it is today: to prevent diseases that pose a threat to the general population, e.g., tuberculosis, measles, polio, small pox, syphilis and gonorrhoea. The Health Department became the Porcupine Health Unit in 1944, to continue to work for public health, and has continued to operate since that time.

In order to determine the improvement of the health of the population, reports highlighting the health status of the community are published. Reports recently published by the Porcupine Health Unit include: Population Profile, Community Check-Up, Porcupine Health Unit Status Report, and The Golden Age Boom. The health unit has now taken the initiative to publish a report on the health of children and youth within our area.

Building a Better Future in the North: A Porcupine Health Unit Report on Children and Youth provides information on the health of the population in the Cochrane District and beyond. This report not only provides a snapshot of the determinants of health, but also serves as a basis for future health planning in terms of recognizing diverse needs associated with demographic structure, health status, health behaviours and preventive measures, and determinants of health.

The data in this report captures children and youth from zero (0) to nineteen (19) years of age.
Data sources

A graph or table has been attached with each indicator in this report. To allow the reader to evaluate the changes and dissimilarities, comparisons were made to data from the Province of Ontario and the Government of Canada (where applicable). The most current data available were used to describe the health conditions of children and youth in the Porcupine Health Unit catchment area. Provincial and national data sources such as Statistics Canada: Census 2006, the Provincial Health Planning Database (PHPDB), the Health Planning Service Database (HELPS), and 3.1 Canadian Community Health Survey (CCHS) were used.

All data were analyzed using SPSS 15.0 (SPSS Inc., Illinois, USA) and STATA 9.1 (STATA Corp., Texas, USA) and is presented according to source guidelines, including weighted values and collapsed response categories, where required. When rates were compared among different years, the population estimates were extracted from the PHPDB database and the 2006 Census.

When the number of observations for a variable on which an estimate was based was less than 30 during the CCHS data analysis, the weighted estimate was not published in this report, regardless of the value of the coefficient of variation.

Some local data captured by the Porcupine Health Unit was also used in this report. The data was validated by comparing the percentages of local data with provincial data sources. All percentages of local data were approximate to that of provincial sources.
Acknowledgement

I would like to thank those without whose cooperation this report would not have been produced. Foremost, I would like to thank the Management Committee of the Porcupine Health Unit for their continuous enthusiasm and encouragement to have this report published.

Special thanks go to Dr. Dennis Hong for his valuable suggestions. I would also like to thank the Association of Public Health Epidemiologists in Ontario for their web assistance. In a few cases, information from the indicator's site was used for this publication. And finally, I would like to thank Jennifer Bonsall for creating graphs, design and layout.

Foyez Haque
Public Health Epidemiologist
Executive Summary

- There were approximately twenty-four thousand (24,366) children and youth in the Porcupine Health Unit area in 2006 and the ratio of male to female was 51.4:48.6.
- High birth weight rate was consistently higher in the health unit area than in the Province of Ontario.
- Teen birth rate was significantly higher in the health unit area than in the Province of Ontario. In 2003, the Porcupine Health Unit reported the teen birth rate at 13.7% whereas the Province of Ontario reported only 3.6%.
- Almost twenty percent (19.5%) of the population of the Porcupine Health Unit area reported total household income as being less than $30,000, whereas only 13.0% of the population of Ontario reported their income in the same range.
- The proportion of children who are food insecure with moderate hunger was higher in the health unit area (6.0%) than in the Province of Ontario (1.7%).
- A higher proportion of children and youth in the health unit area (30.5%) reported they had rarely or never used a bicycle helmet than in Ontario (21.9%).
- A significantly higher proportion of children and youth in the Porcupine Health Unit area (29.5%) reported second-hand smoke exposure at home, than in the Province of Ontario (19.3%).
- The proportion of regular drinkers among youth in the health unit area (24.3%) was lower than in the Province of Ontario (27.7%), whereas the proportion of occasional drinkers was higher in the health unit area (30.2%) than the provincial average (18.3%).
- The proportion of school children (Junior Kindergarten to Grade 8) with acute tooth decay increased, almost steadily, from 1997 to 2007 in the Porcupine Health Unit area.
- The proportion of children with caries-free teeth declined in the health unit area from 2002 to 2006.
- A higher proportion of children and youth in the Porcupine Health Unit area (76.9%) reported that they were physically active than the provincial average (70.5%).
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1. Basic Demographics

**TABLE 1:** Children and youth aged 0-19 years, distribution throughout the Porcupine Health Unit area

<table>
<thead>
<tr>
<th>CENSUS SUBDIVISION AND TYPE</th>
<th>TOTAL CHILDREN AND YOUTH</th>
<th>MALE</th>
<th>FEMALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cochrane (Town)</td>
<td>1,405</td>
<td>705</td>
<td>700</td>
</tr>
<tr>
<td>Constance Lake 92 (Indian reserve)</td>
<td>260</td>
<td>140</td>
<td>120</td>
</tr>
<tr>
<td>Hearst (Town)</td>
<td>1,335</td>
<td>655</td>
<td>680</td>
</tr>
<tr>
<td>Mattice-Val Cote (Township)</td>
<td>195</td>
<td>100</td>
<td>95</td>
</tr>
<tr>
<td>Hornepayne (Township)</td>
<td>340</td>
<td>170</td>
<td>170</td>
</tr>
<tr>
<td>Iroquois Falls (Town)</td>
<td>1,020</td>
<td>545</td>
<td>475</td>
</tr>
<tr>
<td>Fauquier-Strickland (Township)</td>
<td>100</td>
<td>60</td>
<td>40</td>
</tr>
<tr>
<td>Kapuskasing (Town)</td>
<td>1,875</td>
<td>970</td>
<td>905</td>
</tr>
<tr>
<td>Moonbeam (Town)</td>
<td>270</td>
<td>150</td>
<td>120</td>
</tr>
<tr>
<td>Opasatika (Town)</td>
<td>55</td>
<td>25</td>
<td>30</td>
</tr>
<tr>
<td>Val Rita-Harty (Township)</td>
<td>245</td>
<td>125</td>
<td>120</td>
</tr>
<tr>
<td>Black River-Matheson (Township)</td>
<td>630</td>
<td>320</td>
<td>310</td>
</tr>
<tr>
<td>Marten Falls 65 (Indian reserve)</td>
<td>130</td>
<td>75</td>
<td>55</td>
</tr>
<tr>
<td>Peawanuck (Indian reserve)</td>
<td>75</td>
<td>35</td>
<td>40</td>
</tr>
<tr>
<td>Moosonee (Town)</td>
<td>905</td>
<td>450</td>
<td>455</td>
</tr>
<tr>
<td>Smooth Rock Falls (Town)</td>
<td>295</td>
<td>145</td>
<td>150</td>
</tr>
<tr>
<td>Timmins (City)</td>
<td>11,015</td>
<td>5,665</td>
<td>5,350</td>
</tr>
<tr>
<td>Cochrane, Unorganized Part</td>
<td>4,216</td>
<td>2,190</td>
<td>2,026</td>
</tr>
<tr>
<td><strong>HEALTH UNIT TOTAL</strong></td>
<td><strong>24,366</strong></td>
<td><strong>12,525</strong></td>
<td><strong>11,841</strong></td>
</tr>
</tbody>
</table>

**Source:** 2006 Census, Statistics Canada
2. Maternal and Infant Conditions

a. Breastfeeding

**FIG. 1:** Percentage of respondents with children born in 2000-2002 who breastfed in the first 48 hours after birth, all northern health units

<table>
<thead>
<tr>
<th>Region</th>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Bay and District</td>
<td>79.8</td>
</tr>
<tr>
<td>Porcupine</td>
<td>65.1</td>
</tr>
<tr>
<td>Sudbury and District</td>
<td>71.6</td>
</tr>
<tr>
<td>Timiskaming</td>
<td>73.1</td>
</tr>
<tr>
<td>Algoma</td>
<td>74.5</td>
</tr>
<tr>
<td>Thunder Bay</td>
<td>88.4</td>
</tr>
<tr>
<td>Northwestern</td>
<td>80.4</td>
</tr>
<tr>
<td>Muskoka-Parry Sound</td>
<td>83.6</td>
</tr>
<tr>
<td>All Northern Health Units</td>
<td>77.2</td>
</tr>
</tbody>
</table>

**Source:** Data from S. Sinclair, V. Houston, K. Shields, S. Snelling S, Breastfeeding practices in Northern Ontario, a report from the Northern Ontario Perinatal and child health survey consortium (PHRED: Sudbury and District Health Unit, 2003)

- The breastfeeding initiation rate is calculated by dividing the number of babies who received at least one feeding with breastmilk by the total number of babies born, multiplied by 100.

- In 2000-2002, the Porcupine Health Unit’s breastfeeding initiation rate was one of the lowest of the Northern Ontario health units.

- In 2007, the Porcupine Health Unit reported an increase in the breastfeeding initiation rate to 73.4%.
b. Low Birth Weight

**FIG. 2:** Low birth weight rate in Ontario and the Porcupine Health Unit area, 1995-2004

- Babies weighing less than 500 grams, multiple pregnancies, and stillborn babies were excluded from the analysis. Only singleton babies were included in the analysis.
- The Porcupine Health Unit area’s low birth weight rate compared favourably with the provincial rate since 2001. Prior to that year, the rate was higher in the health unit area.
- In 2007, the Porcupine Health Unit reported the low birth weight rate at 4.2% in the health unit area which was higher than the rate in 2004.
- The mother’s place of residence was utilized to extract the birth data instead of the place where birth occurred.
- Low birth weight is the main indicator of infant mortality and morbidity. The adverse effect of low birth weight can be life long. Low birth weight can be associated with premature birth or intrauterine growth retardation.
- Low birth weight is often associated with maternal age, type of birth (multiple), gestational age, smoking, weight gain during pregnancy and genetic factors.

Source: Provincial Health Planning Database, Health Data and Decision Support Unit, Ministry of Health and Long Term Care, Ontario; accessed January 2, 2008.
c. High Birth Weight

**FIG. 3:** High birth weight rate in Ontario and the Porcupine Health Unit area, 1995-2004

![Bar chart showing high birth weight rates for Ontario and the PHU from 1995 to 2004.](chart.png)

**Source:** Provincial Health Planning Database, Health Data and Decision Support Unit, Ministry of Health and Long Term Care, Ontario; accessed January 2, 2008.

- Only singleton babies were included in the analysis. No stillborn or babies less than 500 grams were included in the analysis.

- High birth weight is defined as a birth weight more than 4,500 grams.

- High birth weight rate was consistently higher in the Porcupine Health Unit area than the rate of the Province of Ontario from 1995 to 2004.

- Porcupine Health Unit reported the high birth weight rate at 4.3% in 2007, which was consistent with provincial database data.

- High birth weight babies are at increased risk for low blood glucose level and also for shoulder distocia. Often, high birth weight babies are associated with gestational diabetes.
d. Infant Mortality Rate

**Fig. 4:** Infant mortality rate in Cochrane District, Ontario and Canada, 1993-2002

Source: Statistics Canada and Provincial Health Planning Database, Health Data and Decision Support Unit, Ministry of Health and Long Term Care, Ontario; accessed April 7, 2007.

- Infant mortality can be defined as the number of deaths of infants (one year of age or younger) per 1,000 live births.
- Infant mortality rate was slightly higher in the Cochrane District (5.7/1,000 live births) than Ontario (5.6/1,000 live births) and Canada (5.6/1,000 live births) in the last decade (1993 to 2002).
- The infant mortality rate is a useful indicator of a country’s level of health and development, and is a component of the physical quality of life index.
e. Teen Birth Rate

FIG. 5: Teen birth rate in the northern health units and Ontario, 2003


- Teen birth rate is defined as the percentage of babies born to mothers ages 13 to 19.
- Teen birth rate in the Porcupine Health Unit area was the second highest among Northern Ontario health units.
- In 2007, the Porcupine Health Unit reported the teen birth rate at 12.2%.
- Teen births are often associated with reduced economic options for the teen mothers, decreased educational opportunities and subsequently, decreased opportunities for jobs.
3. Family and Social Environment

a. Family Structure

**TABLE 2: 2006 Census family structures in Timmins, Ontario and Canada †**

<table>
<thead>
<tr>
<th>FAMILY TYPE</th>
<th>CHARACTERISTIC</th>
<th>TIMMINS</th>
<th>ONTARIO</th>
<th>CANADA</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUSBAND-WIFE (H-W)</td>
<td># FAMILIES</td>
<td>10,585</td>
<td>2,881,605</td>
<td>7,482,775</td>
</tr>
<tr>
<td></td>
<td>% FAMILIES</td>
<td>84.5%</td>
<td>84.2%</td>
<td>84.1%</td>
</tr>
<tr>
<td>NOW MARRIED (N-M)</td>
<td># FAMILIES</td>
<td>8,350</td>
<td>2,530,560</td>
<td>6,105,910</td>
</tr>
<tr>
<td></td>
<td>% H-W</td>
<td>78.9%</td>
<td>87.8%</td>
<td>81.6%</td>
</tr>
<tr>
<td></td>
<td>% FAMILIES</td>
<td>66.7%</td>
<td>73.9%</td>
<td>68.6%</td>
</tr>
<tr>
<td>WITHOUT CHILDREN AT HOME</td>
<td># FAMILIES</td>
<td>3,835</td>
<td>1,008,550</td>
<td>2,662,135</td>
</tr>
<tr>
<td></td>
<td>% N-M</td>
<td>45.9%</td>
<td>43.0%</td>
<td>43.6%</td>
</tr>
<tr>
<td></td>
<td>% FAMILIES</td>
<td>30.6%</td>
<td>29.5%</td>
<td>29.9%</td>
</tr>
<tr>
<td>WITH CHILDREN AT HOME</td>
<td># FAMILIES</td>
<td>4,520</td>
<td>1,522,015</td>
<td>3,443,775</td>
</tr>
<tr>
<td></td>
<td>% N-M</td>
<td>54.1%</td>
<td>60.1%</td>
<td>56.4%</td>
</tr>
<tr>
<td></td>
<td>% FAMILIES</td>
<td>36.1%</td>
<td>44.5%</td>
<td>38.7%</td>
</tr>
<tr>
<td>COMMON-LAW (C-L)</td>
<td># FAMILIES</td>
<td>2,230</td>
<td>351,040</td>
<td>1,376,870</td>
</tr>
<tr>
<td></td>
<td>% H-W</td>
<td>21.1%</td>
<td>12.2%</td>
<td>18.4%</td>
</tr>
<tr>
<td></td>
<td>% FAMILIES</td>
<td>17.8%</td>
<td>10.3%</td>
<td>15.5%</td>
</tr>
<tr>
<td>WITHOUT CHILDREN AT HOME</td>
<td># FAMILIES</td>
<td>1,010</td>
<td>209,300</td>
<td>758,715</td>
</tr>
<tr>
<td></td>
<td>% C-L</td>
<td>45.3%</td>
<td>59.6%</td>
<td>55.1%</td>
</tr>
<tr>
<td></td>
<td>% FAMILIES</td>
<td>8.1%</td>
<td>6.1%</td>
<td>8.5%</td>
</tr>
<tr>
<td>WITH CHILDREN AT HOME</td>
<td># FAMILIES</td>
<td>1,220</td>
<td>141,745</td>
<td>618,150</td>
</tr>
<tr>
<td></td>
<td>% C-L</td>
<td>54.7%</td>
<td>40.4%</td>
<td>44.9%</td>
</tr>
<tr>
<td></td>
<td>% FAMILIES</td>
<td>9.7%</td>
<td>4.1%</td>
<td>6.9%</td>
</tr>
<tr>
<td>LONE-PARENT</td>
<td># FAMILIES</td>
<td>1,940</td>
<td>540,715</td>
<td>1,414,060</td>
</tr>
<tr>
<td></td>
<td>% FAMILIES</td>
<td>15.5%</td>
<td>15.8%</td>
<td>15.9%</td>
</tr>
<tr>
<td>MALE</td>
<td># FAMILIES</td>
<td>390</td>
<td>99,605</td>
<td>281,775</td>
</tr>
<tr>
<td></td>
<td>% L-P</td>
<td>20.1%</td>
<td>18.4%</td>
<td>19.9%</td>
</tr>
<tr>
<td></td>
<td>% FAMILIES</td>
<td>3.1%</td>
<td>2.9%</td>
<td>3.2%</td>
</tr>
<tr>
<td>FEMALE</td>
<td># FAMILIES</td>
<td>1,550</td>
<td>441,105</td>
<td>1,132,290</td>
</tr>
<tr>
<td></td>
<td>% L-P</td>
<td>80.0%</td>
<td>81.6%</td>
<td>80.1%</td>
</tr>
<tr>
<td></td>
<td>% FAMILIES</td>
<td>12.4%</td>
<td>12.9%</td>
<td>12.7%</td>
</tr>
<tr>
<td>TOTAL # CENSUS FAMILIES</td>
<td></td>
<td>12,525</td>
<td>3,422,320</td>
<td>8,896,840</td>
</tr>
</tbody>
</table>


† Data available for the City of Timmins only, not for the Porcupine Health Unit area.
b. Household Income

**FIG. 6:** Total household income from all sources in Ontario and the Porcupine Health Unit area, 2005

![Bar chart showing household income](image)

**Source:** 3.1 Canadian Community Health Survey. Statistics Canada, 2005

- About twenty percent (19.5%) of the population of the Porcupine Health Unit area reported a total household income of less than $30,000, whereas in the Province of Ontario, thirteen percent (13.0%) reported income in the same range.

- Statistics Canada determined the upper limit for low household income in the Porcupine Health Unit area is $27,217 for a three-person family in 2005.

- About sixty-eight percent of the population in the health unit area (67.6%) reported having income of $30,000 or more, whereas in the rest of Ontario about seventy-two percent (72.3%) reported having income in the same range.
FIG. 7: Source of total household income in Ontario and the Porcupine Health Unit area, 2005

<table>
<thead>
<tr>
<th>Source of Income</th>
<th>Ontario</th>
<th>PHU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wages and salaries</td>
<td>66.4</td>
<td>64.5</td>
</tr>
<tr>
<td>Self-employment</td>
<td>8.8</td>
<td>3.9</td>
</tr>
<tr>
<td>Canada Pension Plan</td>
<td>3.6</td>
<td>6.8</td>
</tr>
<tr>
<td>Retirement pension</td>
<td>8.1</td>
<td>9.9</td>
</tr>
<tr>
<td>Social welfare</td>
<td>2.9</td>
<td>2.6</td>
</tr>
<tr>
<td>Other</td>
<td>5.3</td>
<td>5.3</td>
</tr>
</tbody>
</table>

Source: 3.1 Canadian Community Health Survey. Statistics Canada, 2005

- Wages and salaries were the most frequent source of income among the total population of the Porcupine Health Unit area (64.5%) which is slightly lower than the provincial average (66.4%).
- About seventeen percent of the area population (16.7%) reported Canada Pension Plan and retirement pension as their source of household income which is higher than the provincial average (11.7%).
- A slightly lower proportion of households in the health unit area (2.6%) reported social welfare as their source of income than in the Province of Ontario (2.9%).
**FIG. 8:** Percentage of low income youth (less than 18 years of age) in Ontario and the Porcupine Health Unit area, 2005

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**Source:** 3.1 Canadian Community Health Survey. Statistics Canada, 2005

- Low income cut-off is defined as an income threshold below which a family will likely devote a larger share of its income to the necessities of food, shelter and clothing than an average family.
- In the most recent base for low income cut-offs, an average family in Canada spent 43% of its after tax income on food, shelter and clothing.
- A lower proportion of youth (14.3% before tax and 10.1% after tax) in the Porcupine Health Unit area were under the low income cut-off point than that of the Province of Ontario (18% before tax and 13.7% after tax).
c. Early Development Index

**FIG. 9:** Comparison of 5 developmental domains in Ontario and the Timmins-James Bay area, 2007

<table>
<thead>
<tr>
<th>Domain</th>
<th>Ontario</th>
<th>Timmins-James Bay Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical health &amp; well-being</td>
<td>8.9</td>
<td>8.9</td>
</tr>
<tr>
<td>Social competence</td>
<td>8.3</td>
<td>8.5</td>
</tr>
<tr>
<td>Emotional maturity</td>
<td>8.1</td>
<td>7.9</td>
</tr>
<tr>
<td>Language &amp; cognitive development</td>
<td>8.6</td>
<td>8.9</td>
</tr>
<tr>
<td>Communication &amp; general knowledge</td>
<td>7.8</td>
<td>8.3</td>
</tr>
</tbody>
</table>

**Source:** Timmins-James Bay Early Development Instrument-2006 Community Profile, Timmins-James Bay Ontario Early Years Centre, Child and Family Services of Timmins and District, May 2007.

- The Early Development Instrument is used to determine the outcomes of children’s early development as they prepare to go to school.
- The score is based on a scale of 1 to 10 with 10 being the highest.
- The Timmins-James Bay mean for the emotional maturity domain was slightly lower than the provincial mean.
FIG. 10: Percentage of vulnerable children in Ontario and the Timmins-James Bay area, 2007


- McMaster University described a manner of identifying the vulnerability of children by identifying those who scored low (below the 10th percentile) on at least one readiness to learn domain, and also those who scored low on two or more readiness to learn domains.

- The five readiness to learn domains are: physical health and well-being, social competence, emotional maturity, language and cognitive development and communication and general knowledge.

- There was a higher than average percentage of children in the Timmins-James Bay area that scored lower on at least one readiness to learn domain.
d. Food Security

**FIG. 11:** Household food insecurity status in Ontario and the Porcupine Health Unit area as reported by youth aged 12-19 years, 2005

![Bar chart showing food insecurity status](chart.png)

**Source:** 3.1 Canadian Community Health Survey. Statistics Canada, 2005

- Food insecurity is defined as the proportion of the total children and youth who, because of lack of money, worry that there would not be enough to eat or do not have enough food to eat, or do not eat the quality or variety of foods that they want to eat.

- Six percent (6.0%) of youth reported being food insecure with moderate hunger, which is higher than the provincial average (1.7%).
FIG. 12: Food situation in household as reported by youth aged 12-19 years in Ontario and the Porcupine Health Unit area, 2005

Source: 3.1 Canadian Community Health Survey. Statistics Canada, 2005

- About twenty percent of youth (19.2%) in the health unit area reported having enough food but not always the kind wanted, which is higher than the provincial average (14.3%).
- About two percent of youth in the Porcupine Health Unit area (1.7%) reported they sometimes did not have enough food, which is higher than the provincial average (1.1%).
4. Bike Helmet Use

**FIG. 13:** Frequency of bicycle helmet use by the youth aged 12-17 years in Ontario and the Porcupine Health Unit area, 2005

- A lower proportion of youth (17.5%) in the Porcupine Health Unit area wore bicycle helmets always or most of the time, compared to the provincial average (19.4%).
- About thirty-one percent (30.5%) of youth in the health unit area rarely or never used bicycle helmets, which was higher than the provincial average (21.9%).
- Cyclists under the age of 18 are required by law to wear an approved bicycle helmet when riding a bicycle on a roadway or sidewalk in Ontario. This law was passed on October 1, 1995.

**Source:** 3.1 Canadian Community Health Survey. Statistics Canada, 2005
5. Smoking and Second-Hand Smoking

**FIG. 14: Type of smokers among the youth aged 12-19 years in Ontario and the Porcupine Health Unit area, 2005**

- Smokers are defined as the proportion of children and youth that are current cigarette smokers (number of cigarettes not specified).
- About six percent (6.4%) of youth in the Porcupine Health Unit area reported smoking daily, which is slightly higher than the provincial average (5.8%).
- A slightly higher proportion of youth in the health unit area reported smoking occasionally (6.6%) than the provincial average (4.7%).

**Source:** 3.1 Canadian Community Health Survey. Statistics Canada 2005
FIG. 15: Exposure to second-hand smoke among youth aged 12-19 years in Ontario and the Porcupine Health Unit area, 2005

Source: 3.1 Canadian Community Health Survey. Statistics Canada, 2005

- About thirty percent (29.5%) of youth in the Porcupine Health Unit area reported exposure to second-hand smoke inside the home, which is significantly higher than the provincial average (19.3%).

- A higher proportion of youth (20.1%) in the health unit area reported exposure to second-hand smoke in a private vehicle than that of the Province of Ontario (16.1%).

- Exposure to second-hand smoke in public places was less prevalent in the health unit area (12.5%) than the provincial average (21.3%).
6. Alcohol Use

FIG. 16: Type of drinkers among youth aged 12-19 years in Ontario and the Porcupine Health Unit area, 2005

Source: 3.1 Canadian Community Health Survey, Statistics Canada, 2005

- About one quarter of youth (24.3%) in the Porcupine Health Unit area reported drinking alcohol regularly, which was lower than that of Ontario (27.7%).
- A significantly higher proportion of youth (30.2%) in the health unit area reported drinking alcohol occasionally. This rate was higher than that of the Province of Ontario (18.3%).
FIG. 17: Frequency of binge drinking in the last 12 months in Ontario and the Porcupine Health Unit area, 2005

Source: 3.1 Canadian Community Health Survey. Statistics Canada, 2005

- Binge drinking is described as drinking five or more drinks on one occasion and is linked to alcohol-related health problems.
- The percentage of youth who binge drink more than once a month was higher in the Porcupine Health Unit area (5.2%) compared to the provincial rate (4.0%).
7. Dental Health

**FIG. 18:** Proportion of youth aged 12-19 years who visited a dentist in Ontario and the Porcupine Health Unit area, 2005

![Bar chart showing proportions of youth visited a dentist in Ontario and PHU]

- **Source:** 3.1 Canadian Community Health Survey. Statistics Canada, 2005

- About eighty-four percent of youth (84.3%) in the Porcupine Health Unit area visited a dentist, which is higher than the provincial average (77.6%).
School children in the Porcupine Health Unit area experienced increased tooth decay in the last decade.

The dental screenings for Junior Kindergarten (JK), Senior Kindergarten (SK), and Grade 2, 4, 6 and 8 students were completed during 1997-2007. The only exception is for the 2004/2005 school year, when a targeted screening was provided (all JK and SK students were seen, Grade 2 and 8 if the school was medium risk and Grade 2, 4, 6 and 8 for high risk schools).
**Source:** The Ontario Dental Indices Survey (DIS) data

- Caries-free is defined as the proportion of children and youth who do not have any dental caries.

- The percentage of caries-free 5-year-old children in the Porcupine Health Unit area was the lowest among all those reported from Northern Ontario health units, except in the 2002-2003 school year.

- The proportion of caries-free children in the health unit area declined since 2002-2003.

- 2004-2005 data is not available.
**FIG. 21:** Mean deft score for 5-year-old children in various Northern Ontario health units, 2000-2006

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Porcupine</td>
<td>1.8</td>
<td>2.0</td>
<td>2.4</td>
<td>2.9</td>
</tr>
<tr>
<td>Sudbury</td>
<td>1.5</td>
<td>1.1</td>
<td>1.2</td>
<td>1.4</td>
</tr>
<tr>
<td>North Bay</td>
<td>-</td>
<td>1.5</td>
<td>1.7</td>
<td>1.8</td>
</tr>
<tr>
<td>Thunder Bay</td>
<td>2.3</td>
<td>2.2</td>
<td>2.0</td>
<td>2.4</td>
</tr>
<tr>
<td>Algoma</td>
<td>2.0</td>
<td>2.4</td>
<td>2.3</td>
<td>2.4</td>
</tr>
</tbody>
</table>

**Source:** The Ontario Dental Indices Survey (DIS) data

- Mean deft score can be defined as the proportion of the number of teeth decayed, missing/extracted or filled because of decay, to the total number of teeth examined among 5-year-old children.

- There was a sharp increase of mean deft score in the health unit area from 2000 to 2006, demonstrating increasing but treated tooth decay.

- 2001-2002 and 2004-2005 data is not available.
8. Communicable Diseases

**FIG. 22:** Leading communicable diseases in the Porcupine Health Unit area from 1997-2007

- **Chlamydia (STI):**
  - 152 (15-19 years)
  - 0 (1-14 years)
- **Giardiasis (Water borne):**
  - 12 (1-14 years)
  - 8 (15-19 years)
- **Pertussis (Respiratory):**
  - 42 (1-14 years)
  - 62 (15-19 years)
- **Salmonellosis (Food borne):**
  - 19 (1-14 years)
  - 14 (15-19 years)

**Source:** Cognos Report version 1.0, iPHIS, 2008

- For the last decade, chlamydia was the leading communicable disease in the Porcupine Health Unit area. The disease was reported among youth aged between 15 and 19 years, not children aged below 15.
- Pertussis, giardiasis and salmonellosis were the other leading communicable diseases in the health unit area.
9. Sexual Health

**FIG. 23**: Age of sexual debut in Ontario and the Porcupine Health Unit area, 2005

Source: 3.1 Canadian Community Health Survey. Statistics Canada 2005

- The age of sexual debut is defined as the age of onset of sexual activity.
- About ten percent of youth (10.3%) in the Porcupine Health Unit area reported starting sexual activity between the ages of 12 and 15 years, which is higher than the provincial average of 8.3%.
- The Province of Ontario (14.5%) and the Porcupine Health Unit area (14.0%) reported similar percentages of youth starting sexual activity between the ages of 16 and 19.
**FIG. 24:** Proportion of youths aged 15-19 years who had sexual intercourse in the last 12 months

- **Source:** 3.1 Canadian Community Health Survey, Statistics Canada, 2005

- About one quarter of youth (24.3%) in the Porcupine Health Unit area reported having sexual intercourse in the last twelve months, which is higher than the provincial average of 22.9%.

- About thirty-four percent of youth (33.6%) in the health unit area reported not having sexual intercourse, which is lower than the provincial rate (39.5%).
10. Physical Activity and Nutrition

a. Physical Activity

**FIG. 25:** Physical activity index for youth aged 12-19 years in Ontario and the Porcupine Health Unit area, 2005

- About seventy-seven percent of youth (76.9%) in the Porcupine Health Unit area reported being at least moderately physically active, which is higher than the provincial rate of 70.5%.

- Physical activity reduces the risk of premature morbidity and mortality, which are related to cardiovascular disease, hypertension, cancer and osteoporosis. Physical activity is associated with positive mental health, which leads to increased self-confidence and an improved sense of well-being. Physical inactivity is an important risk factor for overweight and obesity.

- Usually, decreased physical activity is associated with increasing age. Sometimes, physical activity increases with income and higher level of education achieved.

*Source:* 3.1 Canadian Community Health Survey. Statistics Canada, 2005
FIG. 26: Physical activity of the youth in Ontario and the Porcupine Health Unit area, 2005

Source: 3.1 Canadian Community Health Survey. Statistics Canada, 2005

- Walking was the most popular physical activity among youth of the Porcupine Health Unit area (68.2%), which was higher than the provincial average of 63.9%.
- Swimming (52.2%) and fishing (37.3%) were other popular physical activities chosen by youth of the health unit area.
b. Vegetable and Fruit Consumption

**FIG. 27:** Daily consumption of vegetables and fruit by the youth in Ontario and the Porcupine Health Unit area, 2005

Source: 3.1 Canadian Community Health Survey. Statistics Canada, 2005

- About thirty-five percent of youth (35.3%) in the Porcupine Health Unit area reported having vegetables and fruit 5 to 10 times a day, which was slightly lower than the provincial average of 38.2%.

- *Canada’s Food Guide* recommends the following number of vegetables and fruit servings daily: 5 servings for children ages 4-8; 6 servings for children ages 9-13; 7 servings for females 14-18 years; 8 servings for males 14-18 years.

- Vegetable and fruit consumption is associated with many health benefits including a reduced risk of cancer, cardiovascular disease, high blood pressure, overweight and stroke.

- In general, women consume more vegetables and fruit than men. Frequency of eating vegetables and fruit is positively associated with being physically active, not smoking and not being overweight.
c. Childhood Obesity

**FIG. 28:** Prevalence of childhood obesity among the school children of Timmins, 2004

![Bar chart showing prevalence of childhood obesity](chart.png)

- Underweight: 0.9%
- Acceptable weight: 71.2%
- Overweight: 15.9%
- Obese: 12.1%


- Overweight is defined as body mass index above 25 but less than 30, and obesity is defined as body mass index above 30.

- In 2004, the Porcupine Health Unit undertook an initiative to determine the prevalence of childhood obesity in school-age children Grades 1 to 12.

- The overweight and obesity rate was 28.0%, similar to other jurisdictions in Canada.
The prevalence of overweight and obese Grade 6 students in Hearst, Kapuskasing and Iroquois Falls were compared as the data collection method was the same.

In all three towns, the overweight and obesity rates in Grade 6 students were more than 29%, which is consistent with other jurisdictions in Canada.

**Source:** Healthy Measures Study. Porcupine Health Unit, 2005-2007
11. Mental Health

**FIG. 30:** Prevalence of mood and anxiety disorders among youth in Ontario and the Porcupine Health Unit area, 2005

<table>
<thead>
<tr>
<th></th>
<th>Ontario</th>
<th>PHU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mood disorder</td>
<td>3.1</td>
<td>2.2</td>
</tr>
<tr>
<td>Anxiety disorder</td>
<td>2.4</td>
<td>4.8</td>
</tr>
</tbody>
</table>

**Source:** 3.1 Canadian Community Health Survey. Statistics Canada, 2005

- A mood disorder is a condition where the prevailing emotional mood is distorted or inappropriate to the circumstances. The two major types of mood disorders are depression (or unipolar depression) and bipolar disorder.

- According to the *Diagnostic and Statistical Manual of Mental Disorders, 4th edition* (DSM-IV), anxiety disorders comprise of: generalized anxiety disorder (GAD), social anxiety disorder (SAD, also known as social phobia), specific phobia and panic disorder (PD), with and without agoraphobia, obsessive-compulsive disorder (OCD) and post-traumatic stress disorder (PTSD).

- In the Porcupine Health Unit area, the proportion of youth and children with mood disorder (2.2%) was less than the provincial average of 3.1%.

- The proportion of children and youth in the health unit area with anxiety disorder (4.8%) was higher than the provincial average of 2.4%.
A learning disability is defined as any of a group of disorders that affect a broad range of academic and functional skills including the ability to speak, listen, read, write, spell, reason and organize information. A learning disability does not indicate low intelligence. People who have learning disabilities sometimes have difficulty achieving at their intellectual level because of a deficit in one or more of the ways the brain processes information.

In the Porcupine Health Unit area, the percentages of children and youth with a learning disability (9.1%) and ADHD (3.6%) were higher than the provincial averages.

**Source:** 3.1 Canadian Community Health Survey. Statistics Canada, 2005
12. Hospitalization

**FIG. 32:** Leading causes of hospitalization of children aged 0-6 years in Ontario and the Porcupine Health Unit area, 2005

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
<th>Ontario</th>
<th>PHU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foetal/neonatal conditions</td>
<td>57.8</td>
<td>66.0</td>
<td></td>
</tr>
<tr>
<td>Respiratory diseases</td>
<td>14.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infectious diseases</td>
<td>3.8</td>
<td>2.1</td>
<td></td>
</tr>
<tr>
<td>Perinatal conditions</td>
<td>3.7</td>
<td>5.2</td>
<td></td>
</tr>
<tr>
<td>Ear, nose, throat disease</td>
<td>2.9</td>
<td>2.0</td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Provincial Health Planning Database, Health Data and Decision Support Unit, Ministry of Health and Long Term Care, Ontario; accessed on January 4, 2008.

- Foetal and neonatal conditions included premature and pre-term infants, complication of the foetus, short gestation, foetal haemorrhage and newborn sepsis.
- Foetal and neonatal conditions were the leading cause of hospitalization among children aged 0 to 6 years both in Ontario and the Porcupine Health Unit area.
Injury and poisoning was the leading cause of hospitalization both in Ontario and the Porcupine Health Unit area for youth aged between 7 and 13.
13. Proportionate Mortality Rate

**FIG. 34:** Proportionate mortality rate of children aged 0 and 6 years

**Source:** Provincial Health Planning Database, Health Data and Decision Support Unit, Ministry of Health and Long Term Care, Ontario; accessed on January 4, 2008.

- Proportionate mortality rate is defined as the ratio of the number of deaths from a given cause per 100 total deaths in the same period.
- Foetal and neonatal conditions were the highest cause of death, both in Ontario and the Porcupine Health Unit area for children aged 0 to 6 years.
- “Congenital anomaly” includes congenital heart disease, hydrops foetalis, anencephaly, encephalocele, hypoplastic heart disease, heart malformation, potters syndrome, short rib syndrome, bulbus cordis anomaly and cleft palate.

**Ontario and Porcupine Health Unit**

- **Foetal/Neonatal Conditions**
- **Congenital Anomaly**
- **Injury & Poisoning**
- **Cardiovascular Disease**
- **Infectious Disease**
- **Other**
**FIG. 35**: Proportionate mortality rate of children and youth aged 7 to 13 years

*Source:* Provincial Health Planning Database, Health Data and Decision Support Unit, Ministry of Health and Long Term Care, Ontario; accessed on January 4, 2008.

- Injury and poisoning was the leading cause of death among children and youth aged 7 to 13 in both Ontario and the Porcupine Health Unit area from 1995 to 2004.
- Cancer, respiratory and cardiovascular diseases and congenital anomalies were other leading causes of death in both jurisdictions.
14. Appendix

Definitions

Age of sexual debut: The age of onset of sexual activity.

Binge drinking: Drinking five or more drinks on one occasion.

Caries-free: Children and youth who do not have any dental caries.

Census family: A married couple with or without children of either or both spouses; or a couple living common-law with or without children of either or both partners; or a lone parent of any marital status, with at least one child living in the same dwelling. A couple living common-law may be of opposite or same sex. “Children” in a census family include grandchildren living with their grandparent(s) but with no parents present.

Children and youth: Age from newborn to 19 years.

Common-law: Two people of the opposite sex or of the same sex who live together as a couple, but who are not legally married to each other.

Drinker: Someone who drinks alcohol either regularly or occasionally.

Food insecurity: Proportion of the total children and youth who, because of lack of money, worry that there would not be enough to eat or don't have enough food to eat or don't eat the quality or variety of foods that they want to eat.

High birth weight: Birth weight more than 4,500 grams.

Hospitalization: Hospitalization data indicates the cause of hospital admissions of children and youth.

Household income: The annual average income of a person or a group of persons who occupy the same dwelling.

Infant mortality: The number of deaths of infants (one year of age or younger) per 1,000 live births.

iPHIS: Integrated Public Health Information System

Learning disability: Any of a group of disorders that affect a broad range of academic and functional skills including the ability to speak, listen, read, write, spell, reason and organize information. A learning disability does not indicate low intelligence. People who have learning disabilities sometimes have difficulty achieving at their intellectual level because of a deficit in one or more of the ways the brain processes information.
Low birth weight: Birth weight less than 2,500 grams.

Low income cut-offs (LICO): An income threshold below which a family will likely devote a larger share of its income to the necessities of food, shelter and clothing than an average family would.

Mean deft score: The proportion of the number of teeth decayed, missing/extracted or filled because of decay to the total number of teeth examined among 5-year-old children.

Mood disorder: A condition where the prevailing emotional mood is distorted or inappropriate to the circumstances. The two major types of mood disorders are depression (or unipolar depression) and bipolar disorder.

Obesity: Body mass index above 30.

Overweight: Body mass index above 25 but less than 30.

Physical activity index: Percentage of children and youth who report a physical activity index of “active”.

Proportionate mortality rate: The ratio of the number of deaths from a given cause per 100 total deaths in the same period.

Second-hand smoking: Exposure to second-hand smoke by someone else, not by the respondent himself or herself.

Smoker: Proportion of children and youth that are current cigarette smokers, number of cigarettes not specified.

Teen birth rate: The birth of infants to mothers aged 13 to 19 years.