The Health Care Systems and Communicable Disease Control and Hepatitis Surveillance in Canada

Bryce Larke, MD, DCISc
# Size and Population Density of Canada and Elsewhere

<table>
<thead>
<tr>
<th>Country or Region</th>
<th>Area (km²)</th>
<th>Population</th>
<th>Density (/km²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nunavut</td>
<td>2,093,190</td>
<td>33,330</td>
<td>0.02</td>
</tr>
<tr>
<td>NWT</td>
<td>1,346,106</td>
<td>43,485</td>
<td>0.04</td>
</tr>
<tr>
<td>Yukon</td>
<td>482,443</td>
<td>34,891</td>
<td>0.07</td>
</tr>
<tr>
<td>Nunavik</td>
<td>443,685</td>
<td>11,627</td>
<td>0.03</td>
</tr>
<tr>
<td>Labrador</td>
<td>294,330</td>
<td>26,364</td>
<td>0.09</td>
</tr>
</tbody>
</table>
# Size and Population Density of Canada and Elsewhere

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<tbody>
<tr>
<td>Sub-Total North</td>
<td>4,659,754</td>
<td>149,697</td>
<td>0.03</td>
</tr>
<tr>
<td>Canada</td>
<td>9,984,670</td>
<td>34,683,000</td>
<td>3.50</td>
</tr>
<tr>
<td>Netherlands</td>
<td>41,526</td>
<td>16,760,000</td>
<td>404.00</td>
</tr>
<tr>
<td>Denmark</td>
<td>43,094</td>
<td>5,580,516</td>
<td>129.00</td>
</tr>
<tr>
<td>Greenland</td>
<td>2,175,600</td>
<td>57,000</td>
<td>0.03</td>
</tr>
</tbody>
</table>
### Population of Canadian Northern Regions by Ethnic Group

<table>
<thead>
<tr>
<th>Region</th>
<th>First Nation Dene or Innu</th>
<th>Inuit Inuvialuit</th>
<th>Metis</th>
<th>Non-Aboriginal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nunavut</td>
<td></td>
<td>80%</td>
<td></td>
<td>20%</td>
</tr>
<tr>
<td>NWT</td>
<td>28%</td>
<td>11%</td>
<td>9%</td>
<td>52%</td>
</tr>
<tr>
<td>Yukon</td>
<td>24%</td>
<td></td>
<td></td>
<td>76%</td>
</tr>
<tr>
<td>Nunavik</td>
<td></td>
<td>90%</td>
<td></td>
<td>10%</td>
</tr>
<tr>
<td>Nunatsiavut (Labrador North Coast)</td>
<td>5%</td>
<td>95%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Expenditures on Health

Collectively, Canada's federal, provincial and territorial governments ensure that Canadians have access to insured health services on the basis of need and not their ability to pay.\textsuperscript{15} Funding to the provinces and territories will amount to over $22.6 billion in cash transfers in 2008–2009 and, with an annual 6% escalator, it will reach over $30 billion per year by 2013–2014.\textsuperscript{16}

Figure 1 Total Health Expenditure
By province/territory and for Canada, per capita, 2008.

National Hepatitis B and C Surveillance Data

• Population based surveillance \((based\ on\ diagnostic\ data)\)
  
  – Canadian Notifiable Disease Surveillance System (CNDSS)
  
  – Enhanced Hepatitis Strain Surveillance System (EHSSS)
Hepatitis Reporting in the NWT

• Hepatitis B reportable since 1958.

• Hepatitis C reportable since 1992.

• EHSSS participant since 2009.
Incident cases of Hepatitis B in the NWT, 2000-2011 (N=61)
3-year rolling incidence rate of Hepatitis B in the NWT, 2000/02 - 2009/11
Distribution of incident cases of Hepatitis B by age group in NWT, 2000-2011 (N = 61)
Distribution of incident cases of Hepatitis B by ethnicity in NWT, 2000-2011 (N = 61)

- Aboriginal: 39%
- Non-Aboriginal: 61%
Incidence rates* of Hepatitis B in Canada and the NWT, 2005 - 2008

*Rates are raw rates; Canadian rates from PHAC
Annual incidence rate of Hepatitis C in the NWT, 2000-2011
3-year rolling incidence rate of Hepatitis C in the NWT, 2000/02 - 2009/11
Distribution of incident cases of Hepatitis C by age group in NWT, 2000-2011 (N = 260)
Distribution of incident cases of Hepatitis C by ethnicity in NWT, 2000-2011 (N = 260)

- Aboriginal: 52%
- Non-Aboriginal: 48%
Reported rates of hepatitis C by territory and year in northern Canada, CNDSS, 2005-2009
Summary

• In Canada, viral hepatitis surveillance is conducted through routine and enhanced surveillance

• Reported rate of hepatitis B is decreasing in Canada and is rare in northern Canada

• Reported rate of hepatitis C is slowly decreasing, but rates in Yukon are the highest in the country

• Sexual transmission and injection drug use are the main routes of transmission for hepatitis B and C, respectively
I thank the following people who contributed to the data used in this presentation:

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   Cheryl Case
   Myrna Matheson

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   Alyshah Lalany
   Carolina Palacios

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   Jane Njihia
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Northwest Territories Health Status Report 2011