Epidemiology of HIV infection in Ontario: Update to 2009

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Background

- HIV epidemic in Ontario remains unstable and dynamic
- Critical to monitor trends in HIV transmission to:
  - evaluate effectiveness of prevention efforts and burden of HIV infection (incidence)
  - quantify the need for health care and support services (prevalence)
Methods: Data sources

- HIV serodiagnostic data: First-time HIV positive diagnoses at HIV Laboratory, Ontario Ministry of Health and Long-Term Care (MOHLTC), 1985-2009
- Reported AIDS cases: Cases diagnosed to December 2008 and reported to Public Health Division, MOHLTC by November 2009
- Laboratory Enhancement Program (LEP): Data used to adjust HIV diagnoses for unknown risk factors and previous HIV testing and to obtain estimates of HIV incidence (detuned assay)
## Modeled MSM population, HIV prevalence and incidence by health region, Ontario, 2008

<table>
<thead>
<tr>
<th>Health region</th>
<th>Population at risk</th>
<th>HIV prevalent number</th>
<th>HIV prevalence rate (%)</th>
<th>Annual HIV incident number</th>
<th>Annual HIV incidence rate (%)</th>
<th>Proportion MSM tested in 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toronto</td>
<td>48,960</td>
<td>10,730</td>
<td>21.9%</td>
<td>520</td>
<td>1.4%</td>
<td>26.7%</td>
</tr>
<tr>
<td>Ottawa</td>
<td>10,600</td>
<td>1,190</td>
<td>11.2%</td>
<td>80</td>
<td>0.85%</td>
<td>36.3%</td>
</tr>
<tr>
<td>Central East, other</td>
<td>12,330</td>
<td>840</td>
<td>6.8%</td>
<td>35</td>
<td>0.30%</td>
<td>20.3%</td>
</tr>
<tr>
<td>Eastern, other</td>
<td>2,730</td>
<td>260</td>
<td>9.5%</td>
<td>15</td>
<td>0.61%</td>
<td>33.8%</td>
</tr>
<tr>
<td>Central West</td>
<td>8,150</td>
<td>990</td>
<td>12.1%</td>
<td>45</td>
<td>0.63%</td>
<td>21.7%</td>
</tr>
<tr>
<td>Southwest</td>
<td>6,610</td>
<td>890</td>
<td>13.5%</td>
<td>40</td>
<td>0.70%</td>
<td>39.6%</td>
</tr>
<tr>
<td>Northern</td>
<td>3,020</td>
<td>180</td>
<td>6.0%</td>
<td>10</td>
<td>0.35%</td>
<td>22.7%</td>
</tr>
<tr>
<td><strong>Ontario, total</strong></td>
<td><strong>92,400</strong></td>
<td><strong>15,070</strong></td>
<td><strong>16.3%</strong></td>
<td><strong>745</strong></td>
<td><strong>0.96%</strong></td>
<td><strong>27.5%</strong></td>
</tr>
</tbody>
</table>
MSM: Epidemiologic highlights

- As of December 2008:
  - 15,070 infected, of whom 70% diagnosed
  - New HIV diagnoses in 2008 up 10.7% over 2003
  - HIV prevalence 16.3%: Toronto 21.9%, Ottawa 11.2% and other regions 6-13%
  - HIV prevalence up 26% 2003 to 2008, annual increase 4.7%
  - 745 incident HIV infections in 2008
  - HIV incidence 0.96%: Toronto 1.4%, Ottawa 0.85% and other regions 0.30-0.70%
- Compared to 2008, new HIV diagnoses in 2009 down 2.5%
Acknowledgements

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• OHEMU web site: www.phs.utoronto.ca/ohemu