The epidemiology of STIs among young Indigenous people in NZ and Australia
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Population Maori and Aboriginal and Torres Strait Islander people
In the 2013 Census, 598,605 people identified as being part of the Māori ethnic group, accounting for 14.9% of the New Zealand population.

Australia’s Aboriginal and Torres Strait Islander population has reached 669,900 (or 3 per cent of the total population).

The median age of Māori is 23.9 years compared to 36.9 years.

The median age of the Aboriginal and Torres Strait Islander population at 30 June 2011 was 21.8 years, compared to 37.6 years for the non-Indigenous population.

Fertility rates
- The total fertility rate was 2.2 births per woman in 2010;
- Māori women had a total fertility rate of 2.8 births per woman in 2010 and Māori women aged 20–24 had the highest fertility rate (156 births per 1,000 women).
- Total fertility rate 1.88 per women vs 2.34 among Aboriginal and Torres strait Islander women
- ~75% of Aboriginal and Torres Strait Islander mothers were < 30 years when they had their babies, compared with less than 50% of non-Indigenous mothers.
- Around 18 in 100 Indigenous mothers were teenagers, compared with 3 in 100 for non-Indigenous mothers.

Nationally notifiable data
- The chlamydia notification rate for the Aboriginal and Torres Strait Islander population of 1,341 per 100,000 in 2014
- Overall Chlamydia rate in NZ was 633 per 100,000 vs 389 per 100,000 in Australia
- Maori comprised (37.3%, 1838 cases) diagnosed in SHC and (37.0%, 974 cases) in FPCs

Notification rates of chlamydia infection by Aboriginal & TSI status & year

Chlamydia cases by ethnicity 2009-2013, NZ

Chlamydia case numbers from SHCs by ethnicity, 2009–2013

Chlamydia by DHB area NZ

48% of population Māori 7/10 on deprivation scale

Of the 19 DHBs meeting the laboratory collection criteria for analysis in 2013, Taumata (DHB) reported the highest gonorrhoea rate, over five times the estimated national rate.

Gonorrhoea, Australia and NZ

• In Australia in 2014, there were a total of 15,786 notifications of (23%) were among the Aboriginal and Torres Strait Islander population.

• In 2014, the gonorrhoea rate in the Aboriginal and Torres Strait Islander population was 18 times that of the non-Indigenous population (859 vs. 49 per 100,000 population), increasing to 69 times higher in remote areas.

• In NZ in 2013, a national gonorrhoea rate (based on 19 DHBs) of 78 per 100,000 population was estimated from laboratory surveillance data.

• The estimated rate for 2013 (115 per 100,000) while in Tairawhiti a rate of 400 per 100,000.

Gonorrhoea SHCs NZ by ethnicity

Syphilis, NZ

• NZ The number of cases of syphilis reported by SHCs remained stable between 2012 and 2013 (80 cases). Three cases were reported by FPCs.

• The SHC cases were predominantly male (92.5%) and occurred most commonly in the 40 years and over age group.

• 60% percent of the cases were from the European ethnic group, 20.5% from the Other ethnic group, 11.0% from the Pacific Peoples ethnic group and 8.2% from the Māori ethnic group.
Syphilis

Issue: Infectious syphilis outbreak MJA paper 2010

NT, QLD and WA infectious syphilis notifications higher than rest of Australia in 2010

3+ neonatal deaths (QLD)

6 congenital cases

Common issues – antenatal care

A higher proportion of Maori and Pacific women were screened compared to other groups and younger women were screened more compared to older women. Of those women screened, 8.2% had chlamydia, 2.2% had trichomonas and 0.2% had gonorrhoea. There were higher rates of chlamydia and trichomonas seen in both Maori and Pacific women in comparison to European and Asian women.


Prospective intervention program in a cohort of women attending Townsville Aboriginal and Islander Health Services (TAMI), for shared antenatal care between 1 January 2000 and 31 December 2003. Of the 456 women, 403 (88.4%) were screened for chlamydia, gonorrhoea and trichomonas and 432 (94.7%) were screened for syphilis. A total of 92 cases of STI (20.2%, 95% CI 16.5-23.9) were of chlamydia detected, with 21 concurrent infection(s). The overall prevalence was 14.4%, gonorrhoea 6.1%, trichomoniasis 7.2% and infectious syphilis 2.5%.


Equity in health care

Cases without documented treatment were more likely to be women (8.2% versus 2.1%, P = 0.037) and more likely to be Māori than non-Māori (13.6% versus 4.8%, P = 0.036). Overall, the most notable issue was the lack of effective partner notification across all demographic variables. Ongoing efforts are required to ensure equitable access to timely treatment and to ensure that more effective partner notification strategies are implemented.


NG resistance a concern in both countries

• 204 cases of gonorrhoea were identified during the study period; 50% of the diagnosed cases were in people aged less than 26 years. Gonococcal infection was strongly associated with being of either Māori or Pacific ethnicity (p<0.001).

• The incidence of gonorrhoea in the Auckland population is steadily rising, with the main risk factors being age under 25 and being of Māori or Pacific ethnicity.


Number and rate of HIV Diagnosis Indigenous Peoples 1999-2008

<table>
<thead>
<tr>
<th>Country</th>
<th>Australia</th>
<th>NZ</th>
<th>Canada</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Indigenous number of diagnoses</td>
<td>7589</td>
<td>929</td>
<td>5838</td>
</tr>
<tr>
<td>-age standardised rate*</td>
<td>26</td>
<td>13</td>
<td>24</td>
</tr>
<tr>
<td>Indigenous number of diagnoses</td>
<td>185</td>
<td>129</td>
<td>1799</td>
</tr>
<tr>
<td>-age Standardised rate*</td>
<td>31</td>
<td>23</td>
<td>178</td>
</tr>
</tbody>
</table>

Rates of HIV by Exposure Category-1999-2008 Indigenous Rates per 100,000

<table>
<thead>
<tr>
<th>Exposure Category</th>
<th>Australia</th>
<th>Canada</th>
<th>NZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSM</td>
<td><strong>31.4</strong></td>
<td>35.6</td>
<td>30.8</td>
</tr>
<tr>
<td>Heterosexual (F)</td>
<td>12.5</td>
<td>55.2</td>
<td>3.8</td>
</tr>
<tr>
<td>Heterosexual (M)</td>
<td>7.2</td>
<td>49.3</td>
<td>3.2</td>
</tr>
<tr>
<td>IDU (F)</td>
<td>4.8</td>
<td>112.6</td>
<td>0.0</td>
</tr>
<tr>
<td>IDU (M)</td>
<td>8.4</td>
<td>107.7</td>
<td>0.65</td>
</tr>
</tbody>
</table>

Issues common to both populations

- Young populations
- High birthing rates
- Over representation in STI data
- HIV risk
- NG resistance risk
- Poverty, social deprivation
- Remoteness
- Solutions are required tailored to communities and populations
- Potency of interventions need to be stronger multi-layered