HCV clinical care cascade for Indigenous and non-Indigenous people living with HIV/HCV who use drugs in Canada: A longitudinal analysis

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Relevant frameworks

**IDoH**
- Indigeneity often buried within, not recognized as foundational
- Colonisation and neo-colonialism
- Resilience, cultural continuity, self-determination

**Intersectionality**
- For many people who use drugs, multiple, overlapping and intersecting factors:
  - Disruption (land, culture, community, family, …)
  - Trauma (historical and ongoing)
  - Poverty (spiritual, economic)
  - Chaos
    - Criminalisation
    - Survival and transactional sex work
    - Homelessness
HCV statistics about Indigenous Canadians are alarming ...

- Reported rates almost **5X** higher among Indigenous Canadians compared to non-Indigenous Canadians
- In the Canadian HIV/HCV co-infection cohort
  - **13%** of participants identified as Indigenous, compared to **4.3%** of the overall population
  - Even more of a concern in British Columbia, where the reported Indigenous rate was **33%** - the highest in cohort
Statistics about Indigenous women in Canada are even more alarming!

- Indigenous women’s HCV rate was **48.7%** compared to **33.9%** for the general population of women in Canada.
- In the Canadian HIV/HCV co-infection cohort, Indigenous women had a co-infection rate of **52%** compared to **22%** for women in the rest of Canada.
- Age-standardized HIV diagnosis rates among Indigenous women in Canada was **14X** and **41X** higher than their doubles in Australia and New Zealand, respectively.
Background – DTES

• Historically, the heart of Vancouver - politically, culturally and in retail

• As of the 1980s, a rapid decline of the area due to:
  – Influx of hard drugs
  – De-institutionalization
  – Policies that pushed prostitution and drug-related activity out of nearby areas
  – Federal government pulling out of social housing

• Then came the HIV [HCV] epidemic and drug overdoses

• And more recently, fentanyl and carfentanil
Illicit drug overdose deaths

Type of Drugs:
• Preliminary data suggests that the proportion of illicit drug overdose deaths for which illicit fentanyl was detected (alone or in combination with other drugs) was 67% in 2016 and 78% in January-May 2017. Fentanyl data for June was not available for this report.
• Illicit fentanyl–detected deaths appear to account for the increase in illicit drug overdose deaths since 2012 as the number of illicit drug overdose deaths excluding fentanyl-detected has remained relatively stable since 2011 (average of 300 deaths per year). This data is subject to change as further analogue testing becomes available.
• A review of completed cases from 2015 and 2016 indicates that the top four detected drugs relevant to illicit drug overdose deaths were cocaine (48.6%), fentanyl (45.9%), heroin (35.9%) and methamphetamine/amphetamine (30.0%).

Illicit Drug Overdose Deaths including and excluding Fentanyl, 2007–2016
Background – DTES

• Lack of Indigenous-specific services
• Recent closures
  – Healing Our Spirit BC Aboriginal HIV/AIDS Society
  – Hey-Way'-Noqu' Healing Circle for Addictions Society
  – Positive Women’s Network
ACCESS study

• Prospective cohort of HIV-positive people who use drugs (PWUD)
• Participants were recruited through snowball sampling and extensive street outreach in DTES beginning in 2005
• At baseline and every 6 months:
  – Interviewer-administered questionnaire, cursory exam by a nurse, and labs drawn (i.e., plasma HIV RNA viral load [VL], CD4, HCV antibody and HIV viral drug resistance genotyping)
Methods

• HCV care cascade analysis
  – Indigenous males
  – Indigenous non-males
  – Non-Indigenous males
  – Non-Indigenous non-males

• Multivariable generalized linear mixed-effects and Cox extended analyses

*** Notes:
  – Non-male = those who self-identify as females, Two-Spirited, transgender, gender diverse, and gender fluid
  – Stats drawn from pre-DAA era to establish baseline
# Baseline characteristics: 638 HIV +ve people who use drugs with HCV AB

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Indigenous 280 (43.9%)</th>
<th>Non-Indigenous 358 (56.1%)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-male 126 (19.7%)</td>
<td>Male 154 (24.1%)</td>
<td></td>
</tr>
<tr>
<td>Age (Mean, IQR)¹</td>
<td>39.6</td>
<td>43.7</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Homeless (n, %)²</td>
<td>35</td>
<td>53</td>
<td>0.503</td>
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<tr>
<td>High school diploma (n, %)¹</td>
<td>47</td>
<td>67</td>
<td>0.290</td>
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<tr>
<td>Heavy alcohol use (n, %)²</td>
<td>6</td>
<td>11</td>
<td>0.040</td>
</tr>
<tr>
<td>Heroin injection (n, %)²</td>
<td>60</td>
<td>59</td>
<td>0.031</td>
</tr>
<tr>
<td>Crack cocaine use (n, %)²</td>
<td>107</td>
<td>126</td>
<td>0.377</td>
</tr>
<tr>
<td>MMT (n, %)¹</td>
<td>52</td>
<td>42</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>CD4 cell count (Mean, IQR)²</td>
<td>3.0</td>
<td>2.9</td>
<td>0.030</td>
</tr>
</tbody>
</table>

1. Refers to current status
2. Refers to the six-month period prior to the study interview.
HCV care cascade – 2005-2014

- HCV Antibody positive
- HCV disease screening
- Offered HCV treatment
- Initiated HCV treatment
Multivariate effect estimates for HCV care cascade – stratified by Indigenous identity and gender
Conclusions

• Consistent with previous analyses
  – Very low rates of Interferon-based treatment initiation among dual-infected people who use illicit drugs
  – Consistent deficits in HCV screening and treatment experienced by Indigenous non-males (i.e., those who self-identify as females, Two-Spirited, transgender, gender diverse, and gender fluid)
  – Another illustration of the ongoing effects of colonization
  – Highlight the need for efforts to scale up HCV treatment and to incorporate Indigenous approaches
Next steps ...

• Indigenous analysis of HCV care cascade in the DAA era
  – Periodic, meeting TRC C2A #19
  – Knowledge to action – informing policy and programming
  – HCV elimination necessitates a special focus on First Nations, Inuit and Métis peoples

• Institutional cultural resonance
  – Ensuring an Indigenous perspective on other BC CfSU databases, studies
  – Indigenous-initiated analysis, both epi and anthro-epi


Questions?

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