THE HEALTH BURDEN OF VIRAL HEPATITIS

42,800–180,800
Number of persons living with HBV infection, 2011

55,800–400,000
Persons living with chronic HCV infection, 2016

Regional average in the Americas:
HBV: 0.3%
HCV: 0.7%

35% of all HCV infections among immigrants
Prevalence of anti-HCV is 4X higher among indigenous peoples

Based on national survey;
Prevalence rate is possibly 10X greater among foreign-born
### Preprogress Towards 2020 WHO Elimination Goals

#### Prevention of New Infections and Mortality

<table>
<thead>
<tr>
<th>Hepatitis</th>
<th>Percentage Change in New Infections, 2015-2018</th>
<th>WHO 2020 Target</th>
<th>Percentage Change in Deaths, 2015-2019</th>
<th>WHO 2020 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>HBV</td>
<td>+10%</td>
<td>-10%</td>
<td>-1%</td>
<td>-10%</td>
</tr>
<tr>
<td>HCV</td>
<td>+14%</td>
<td>-30%</td>
<td>-7%</td>
<td>-10%</td>
</tr>
</tbody>
</table>

**Prevalence of HBsAg in children < 5 years (%)**

- **0.27% (0.02-0.34)**
  - **SDG 2020 Target 1%**

---

**New HBV cases, 2018**

- **4,783**
  - 85% of new HCV infections among PWID

**New HCV infections, 2018**

- **12,447**

**HBV-related deaths, 2019**

- **445**
  - **1.22** Deaths per 100,000, 2019

**HCV deaths, 2019**

- **2,692**
  - **7.37** Deaths per 100,000
**ACCESS TO RECOMMENDED VACCINATION, TESTING AND TREATMENT**

**Hepatitis B vaccination coverage for newborns, 2017**

- WHO 2020 Target 50%
- N/A

**HepB 3 dose vaccine coverage for infants, 2017**

- WHO 2020 Target 90%
- 74%

**Proportion of persons living with HBV diagnosed, 2011**

- WHO 2020 Target 30%
- NO DATA

**Proportion of diagnosed HBV persons receiving appropriate treatment**

- WHO 2020 Target 30%
- NO DATA

**Number of sterile needles and syringes provided per Persons Who Inject Drugs (PWID) per year**

- WHO 2020 Target 200
- 261 (136-883)

**Proportion of persons living with HCV diagnosed, 2016**

- WHO 2020 Target 30%
- 44%

- NO DATA
Proportion of diagnosed persons who have been cured, 2016

NO DATA

\[11,331\]

Number of persons treated for HCV, 2020

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Persons Treated</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>12,718</td>
</tr>
<tr>
<td>2017</td>
<td>14,520</td>
</tr>
<tr>
<td>2018</td>
<td>17,973</td>
</tr>
<tr>
<td>2019</td>
<td>16,493</td>
</tr>
<tr>
<td>2020</td>
<td>11,331</td>
</tr>
</tbody>
</table>

POLLICY ENVIRONMENT FOR THE ELIMINATION OF HEPATITIS

ACHIEVEMENT

Routine official reports to monitor HBV and HCV

INNOVATIONS

CanHepC Trainee Network links over 100 researchers, trainees, community members, and policy makers to promote the translation of evidence into HCV prevention and care programs

ROADBLOCKS

STRATEGIC INFORMATION

Public Health Agency of Canada releases surveillance reports for new HBV and HCV infections but acute and chronic HCV infections are no disaggregated.

Statistics Canada releases vital registration reports on HBV and HCV deaths, but hepatitis-specific reports are not released.

No national survey to estimate prevalence conducted in last 5 years.

Mortality: Not Adopted

Incidence: Partially Adopted

Prevalence: Not Adopted

Estimates of HBV and/or HCV economic burden

Monitoring of HBV and HCV diagnosis and treatment

INNOVATIONS

British Columbia Hepatitis Testers Cohort (BC-HTC) to monitor epidemiological trends

Adopted
PREVENTION OF MOTHER TO CHILDREN TRANSMISSION

Policy for hepatitis B vaccination of newborns 13

Partially Adopted

3 of 13 provinces/territories

Recommendations for:

HBV testing of pregnant women 14

Adopted

HCV testing of pregnant women 15

Partially Adopted

ACCESS AND REGISTRATION OF MEDICINES AND TESTS

Registration of patented pan-genotypic HCV medications 31

Adopted

Eligible for generic medicines

Not Eligible

Licensed point-of-care PCR testing to detect HBV and HCV 22

Not Adopted

GeneXpert assays for HBV or HCV virologic detection assays have not been registered with the Government of Canada yet 22

ACHIEVEMENTS
Decline in HCV treatment prices

TESTING TO DIAGNOSE HBV AND HCV INFECTION

Testing recommendations for:

HBV: Risk-based 20

Adopted

HCV: Risk-based 21

Adopted

HBV: Persons born in regions with prevalence >2% 20

Adopted

No patient co-pays for HBsAg and anti-HCV testing

No Data
## ROADBLOCKS

*Inadequate number of persons tested for HCV and linked to care*

## ACCESS TO HBV AND HCV TREATMENT

<table>
<thead>
<tr>
<th></th>
<th>HBV: National treatment guidelines</th>
<th>HCV: National treatment guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Adopted</td>
<td>Available</td>
</tr>
<tr>
<td>Simplified care: Simplified treatment and monitoring algorithm for primary care providers</td>
<td>Partially Adopted</td>
<td></td>
</tr>
<tr>
<td>Simplified care: No patient treatment co-pays</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HBV:</td>
<td>HCV:</td>
</tr>
<tr>
<td></td>
<td>Adopted</td>
<td>Available</td>
</tr>
<tr>
<td></td>
<td>Simplified care algorithm: Less than 2 clinic visits during treatment</td>
<td>Partially Adopted</td>
</tr>
<tr>
<td></td>
<td>Simplified care algorithm: Non-specialists can prescribe treatment</td>
<td>Not Adopted</td>
</tr>
<tr>
<td></td>
<td>Simplified care algorithm: No patient treatment co-pays</td>
<td>Partially Adopted</td>
</tr>
<tr>
<td></td>
<td>No fibrosis restrictions</td>
<td>Partially Adopted</td>
</tr>
<tr>
<td></td>
<td>No sobriety restrictions</td>
<td>Adopted</td>
</tr>
<tr>
<td></td>
<td>No genotyping</td>
<td>Partially Adopted</td>
</tr>
</tbody>
</table>

Some HBV anti-virals are included in all provincial health insurance schemes, but not all Health Canada approved anti-virals are included in the public insurance plans, and the criteria to be eligible for treatment can differ from province to province.

Non-specialists restricted in up to 50% of jurisdictions.

Co-pays required but usually covered.

6 of 13 provinces/territories still require with 1 more only recently removing during the COVID-19 pandemic.

## ACHIEVEMENTS

*Since 2015, HCV treatment uptake has increased significantly, going from 5,127 people in 2014 up to over 16,000 people in 2019*
### Innovations

*Nurse-lead treatment and telemonitoring linking specialists to primary care providers following the ECHO model in Alberta, British Columbia, Ontario, and Quebec*

### Roadblocks

*Non-specialists do not have prescribing authority in all provinces and territories*

*Two positive HCV RNA tests are required to start treatment in Ontario*

### Health Equity and Addressing Disparities

<table>
<thead>
<tr>
<th>Policy</th>
<th>Status</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>National strategy addresses populations most affected</td>
<td>Adopted</td>
<td>Persons living with HBV or HCV are protected by the Canadian Human Rights Act, R.S.C 1985, H-6. No specific law is in place to protect persons living with HBV or HCV (28)</td>
</tr>
<tr>
<td>National anti-discrimination laws against persons living with hepatitis B and/or C</td>
<td>Partially Adopted</td>
<td></td>
</tr>
<tr>
<td>National policy for adult hepatitis B vaccination</td>
<td>Adopted</td>
<td></td>
</tr>
<tr>
<td>National policy for:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harm reduction for persons who inject drugs (PWID)</td>
<td>Adopted</td>
<td>Since June 2018, the Correctional Service of Canada (CSC) has been rolling out a Prison Needle Exchange Program (PNEP) in 11 of 43 federal institutions across the country but needle exchange is not available in provincial prisons</td>
</tr>
<tr>
<td>Syringe exchange in federal prisons</td>
<td>Adopted</td>
<td>Ranges from 136 to 883 needles per PWID per year across provinces/territories</td>
</tr>
<tr>
<td>If yes, number of federal prisons that implement syringe exchange</td>
<td>11 of 43</td>
<td>WHO Target 40 Partial progress defined by &gt;20 Recipients</td>
</tr>
<tr>
<td>Number of needles/syringes per PWID per year</td>
<td>261</td>
<td></td>
</tr>
<tr>
<td>Number of opioid substitution therapy recipients per 100 PWID</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Decriminalization of possession of syringes &amp; paraphernalia</td>
<td>Adopted</td>
<td></td>
</tr>
<tr>
<td>Decriminalization of drug use</td>
<td>Not Adopted</td>
<td></td>
</tr>
</tbody>
</table>
INNOVATIONS
Multidisciplinary, community-based programs to reach marginalized populations, including PWID and those with unstable housing

Supervised injection sites in 5 provinces

ACHIEVEMENTS
HCV prevention, testing, and treatment is strong in federal prisons

ROADBLOCKS
HBV care for culturally diverse populations

HCV prevention, testing, and treatment is poor in provincial prisons

FINANCING
Public budget line for HBV and HCV testing and treatment

Adopted

NEXT STEPS TOWARD ELIMINATION

Improve strategic information to monitor incidence, mortality, and prevalence of HBV and HCV

Prioritize programs and partnerships to address hepatitis-related health disparities

Implement universal hepatitis B birth dose policy in all provinces

Scale-up HCV prevention, testing, and treatment in provincial correctional facilities

Implement HCV RNA reflex Testing

Expedite licensure of point of care test for HBV and HCV

Develop policies to guide HBV screening and care

Continue to simplify HCV care, e.g. remove repeat HCV testing before treatment (Ontario), remove genotype requirements and prior authorizations, and allow non-specialists to prescribe treatment


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29. Personal communication with Jordan Feld, Hepatologist, University Health Network, University of Toronto.