



PROGRESS TOWARD VIRAL HEPATITIS ELIMINATION IN CANADA

2021 REPORT

ACKNOWLEDGEMENTS

This report is produced by Action Hepatitis Canada and made possible with funding from AbbVie Canada and Gilead Canada.

The authors would like to thank the Canadian Network on Hepatitis C for their continued work in supporting viral hepatitis elimination efforts across Canada, and in particular for their work in producing the *Blueprint to inform hepatitis C elimination efforts in Canada*, which set the recommended targets that this report measures progress towards achieving. We would particularly like to thank the Action Hepatitis Canada member organizations we work with and for.

Finally, we wish to acknowledge the people in Canada who are affected by viral hepatitis who are represented in the statistics and figures within this report. You are not just numbers to us. You are our mothers, fathers, brothers, sisters, daughters, sons, friends and colleagues, and we stand alongside you on the journey towards eliminating viral hepatitis as a public health threat in Canada by 2030.

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Action Hepatitis Canada. Progress Towards Viral Hepatitis Elimination By 2030 In Canada: 2021 Report. Toronto, ON. Available at: <https://www.actionhepatitiscanada.ca/progressreport> (accessed [date]). May 2021

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ACTION HEPATITIS CANADA MEMBER ORGANIZATIONS AS OF APRIL 2021

Steering Committee Organizations

- AIDS Committee of Newfoundland and Labrador
- AIDS Committee of North Bay & Area (ON)
- BC Hepatitis Network
- Blood Ties Four Directions Centre (YT)
- Canadian Aboriginal AIDS Network (CAAN)
- Canadian Association of Hepatology Nurses (CAHN)
- CATIE
- Centre associatif polyvalent d'aide hépatite C (CAPAHC)
- Gilbert Centre (ON)
- HepNS
- HIV Legal Network (formerly the Canadian HIV/AIDS Legal Network)
- Phoenix Society (BC)

Member Organizations

- AIDS Coalition of Nova Scotia (ACNS)
- AIDS Committee of York Region
- AIDS New Brunswick
- All Nations Hope Network (Saskatchewan)
- Ally Centre of Cape Breton
- ANKORS (BC)
- Atlantic Interdisciplinary Research Network for Social and Behavioural Issues in Hepatitis C and HIV/AIDS (AIRN)
- Avenue B (formerly AIDS Saint John)
- AVI (formerly AIDS Vancouver Island)
- Calgary Liver Unit, Viral Hepatitis Clinic
- Canadian AIDS Society
- Canadian Association of Nurses in HIV/AIDS Care
- Canadian Liver Foundation
- Canadian Society for International Health (CSIH)
- Carefirst Family Health Team
- Central Toronto Community Health Centre (Queen West CHC and Shout)
- Coopérative de solidarité SABSA
- CUPS Clinic (Calgary)
- Dr. Peter AIDS Foundation (Vancouver)
- Dopamine (Montreal)
- Elevate NWO
- Ensemble (formerly AIDS Moncton)

- Gay Men's Sexual Health Alliance
- Halifax Sexual Health Centre
- Healing Our Nations
- Hépatites Ressources
- Hep'd Up (PEI Native Council)
- Lookout Society (BC)
- Lower Mainland Purpose Society
- Mainline Needle Exchange (NS)
- Manitoba Hepatitis C Support Community Inc.
- Northern Healthy Connections Society
- North Lambton Community Health Centre
- Nova Scotia Hemophilia Society
- Pacific AIDS Network
- PEERS Alliance (formerly AIDS PEI Community Support Group)
- Pender Hep C Support Society
- Prairie Harm Reduction (formerly AIDS Saskatoon)
- Prisoner's HIV/AIDS Support Action Network (PASAN)
- Programme National de Mentorat sur le VIH-Sida et Hépatites Virales, CHUM UHRESS Saint-Luc
- Realize
- Sanguen Health Centre
- Sandy Hill Community Health Centre – Oasis Program
- Saskatchewan Infectious Disease Care Network
- South Shore Sexual Health Centre, NS
- Sheet Harbour Sexual Health Centre
- Shining Mountains Living Community Services (Alberta)
- Sidaction Mauricie
- St. Stephen's Community House, Corner Drop-In
- Street Health Centre Kingston
- Toronto Community Hep C Program
- South Riverdale Community Health Centre
- Regent Park Community Health Centre
- Sherbourne Health Centre
- Vancouver Island Persons Living with HIV/AIDS Society (VPWAS)
- Viral Hepatitis Care Network – VIRCAN

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ABBREVIATIONS

AHC	Action Hepatitis Canada
B	Birth
CanHepC	Canadian Network on Hepatitis C
COVID-19	Coronavirus disease
DAA	Direct Acting Antiviral(s)
HBV	Hepatitis B virus
HCV	Hepatitis C virus
NSP	Needle Syringe Program
OAT	Opioid Agonist Therapy
OPS	Overdose Prevention Site
pCPA	Pan-Canadian Pharmaceutical Alliance
PHAC	Public Health Agency of Canada
PWAI	People who are incarcerated
PWID	People who inject drugs
RNA	Ribonucleic acid
STBBI	Sexually Transmitted and Blood-Borne Infection
WHO	World Health Organisation
Y	Years of age

BACKGROUND

VIRAL HEPATITIS ELIMINATION IS WITHIN CANADA'S REACH

Direct Acting Antivirals (DAAs) are a new generation of medications to treat hepatitis C virus (HCV) infection. First licenced by Health Canada in 2011, DAAs brought great hope and promise for viral hepatitis elimination as these new therapies are highly effective, curing HCV infection in more than 95% of people treated in as little as 8-12 weeks with minimal side effects. While demonstrated to be cost-effective, the DAAs licensed in Canada were expensive initially, which resulted in restrictions on treatment reimbursement eligibility from publicly-funded drug plans. Successful negotiations by the pan-Canadian Pharmaceutical Alliance (pCPA) reduced the overall cost to public drug plans. This led to public drug plans across Canada removing all disease-stage restrictions on treatment reimbursement eligibility by 2018. Hepatitis B virus (HBV) elimination is also highly feasible within Canada, as it is a vaccine-preventable infection, with the vaccine licensed for use in infants in Canada.

CANADA'S PROMISE

In May 2016, at the World Health Organization (WHO) Sixty-ninth World Health Assembly, the first-ever Global Viral Hepatitis Strategy (2016-2021)¹ was endorsed by the 194 Member States. The strategy addresses all five hepatitis viruses (hepatitis A, B, C, D and E) with the goal of eliminating viral hepatitis as a public health threat by 2030. As a Member State, Canada signed on to this strategy and endorsed the targets contained within it. The WHO strategy includes specific targets, and all countries were tasked with developing a National Action Plan to meet these targets. The Public Health Agency of Canada (PHAC) responded by publishing the Pan-Canadian framework for action to reduce the health impact of Sexually Transmitted and Blood-Borne Infections (STBBIs)² in 2018 and the Government of Canada five-year action plan on STBBIs³ in 2019.

THE ROLE OF THE PROVINCES & TERRITORIES

PHAC's Framework for Action and Action Plan replicate the WHO targets for viral elimination by 2030, and was endorsed by all Canadian provinces and territories. However, as the provision of health care is a provincial and territorial jurisdiction, it is their governments' responsibility to create and implement their own viral hepatitis elimination strategies.

As the provinces and territories have all benefited from the framework for DAAs negotiated by the pCPA, they now have both the opportunity and the obligation to

BACKGROUND CONTINUED

ensure all Canadians have equitable access to an HCV cure.

HEALTH EQUITY

While Canada's public health care system was founded on principles of fairness and equality, today in 2021 there are many health inequities experienced by people across Canada, and these are reflected among people affected by HCV. These include geographic inequities, such as reduced access to HCV prevention, testing and treatment in rural and remote areas of Canada, or even from province to province. These inequities also result in different groups of people having higher rates of new HCV infections and higher prevalence of HCV compared to the overall population. For example, First Nations, Inuit and Métis peoples in Canada have higher HCV incidence rates and prevalence than the overall population in Canada.

Without addressing the inequities in health care access for remote and rural areas of Canada, and without a reconciliatory approach to healthcare for Indigenous people, there will remain considerable barriers to achieving HCV elimination.

EVIDENCE-BASED RECOMMENDATIONS

Produced by the Canadian Network on Hepatitis C (CanHepC) with input from medical and scientific experts across Canada, as well as the affected community and community-based organizations, the Blueprint to inform hepatitis C elimination efforts in Canada⁴ (the "Blueprint") is a document to guide policymakers in the provinces and territories and aid them in measuring their progress and guiding priorities for action toward global HCV elimination goals. The Blueprint has three pillars: Prevention, Testing & Diagnosis, and Care & Treatment, and also includes an additional section on considerations for priority populations.

THIS PROGRESS REPORT

The metrics evaluated and recommendations made in this report reflect the priority actions from the Blueprint, from the perspective of the community-based organizations that make up the membership of Action Hepatitis Canada. These recommendations represent the actions our membership believes will have the greatest impact. Most could be implemented quickly, and then built on through consultation with Indigenous communities and the other priority populations to develop a comprehensive action plan in each province and territory.

BACKGROUND CONTINUED

2020 CONTEXT: COVID-19 IMPACT

The emergence of the global COVID-19 pandemic has unfortunately created additional challenges that has slowed global progress towards elimination. We have seen COVID-19 have a disproportionate impact on marginalized populations. Scaling back of harm reduction programs due to COVID-19 restrictions increases the potential rates of HCV infection and reinfection. COVID-19 has also paused HCV testing in overtaxed labs, and affected treatment start rates as priorities shifted and as patients became hesitant to enter healthcare centres. As we transition into a post-COVID world, there will be a need to reengage HCV treaters and priority populations, and also an opportunity to leverage learnings and infrastructure from COVID-19.

VIRAL HEPATITIS ELIMINATION TARGETS

Within the WHO's *Global Viral Hepatitis Strategy (2016-2021)*,¹ PHACs *Framework for Action*² and *Action Plan*,³ and the CanHepC *Blueprint*,⁴ there are several targets set that collectively would lead to the elimination of viral hepatitis as a public health threat, and are also feasible to be achieved by 2030.

To help monitor progress towards achieving the goal of eliminating viral hepatitis as a public health threat by 2030, the targets have also been broken into milestones for various years.

Table 1. Viral hepatitis elimination targets for 2020, 2025 and 2030

Target Area	2025 Targets ⁴	2030 Targets ^{1,2,3,4}
Prevention		
<i>Reduce new HCV infections</i>	80% decrease in HCV incidence	80% decrease in HCV incidence
<i>Provision of sterile needles/syringes</i>	500 per PWID	750 per PWID
<i>Reduce new HBV infections</i>	30% reduction in HBV incidence (equivalent to 1% prevalence among children)	90% reduction in HBV incidence (equivalent to 0.1% prevalence among children)
<i>HBV vaccine coverage</i>	50% all children receive 3 rd dose	90% all children receive 3 rd dose
Diagnosis		
<i>People living with HCV or HBV aware of their infection</i>	70% diagnosed	90% diagnosed
Treatment		
<i>People living with HCV started treatment</i>	50% started treatment	80% started treatment
<i>Reduce HCV prevalence</i>	50% decrease in prevalence	90% decrease in prevalence
<i>People living with HBV receiving treatment</i>	-	80% of people eligible on treatment
Mortality		
<i>Reduce HCV-related liver transplantation</i>	30% decrease in transplants	65% decrease in transplants
<i>Reduce HCV-related mortality</i>	30% decrease in mortality	65% decrease in mortality

METRICS TO MEASURE OUR PROGRESS

While this report does not evaluate all the targets set in the various strategies and blueprints, several have been included within the key metrics (below) on which to evaluate progress in Canada. We selected these metrics based on the availability of data, as well as the centrality of the target to the overall elimination goals. Selection of different metrics could produce different results in terms of being on or off track, therefore it will be important to further assess and refine monitoring and evaluation methodologies in subsequent years.



Metric 1: Is There an Elimination Plan or Strategy in Place?

Each province and territory in Canada must create and implement its own strategy oriented towards viral hepatitis elimination. Therefore, the first metric we chose to measure was whether there is a plan or strategy in place in each jurisdiction that incorporates viral hepatitis impact or service coverage targets or goals.



Metric 2: Is HCV RNA Reflex Testing Implemented?

As data on viral hepatitis diagnosis rates across Canada is severely lacking, we chose to focus on evaluating the implementation of testing strategies that have been recommended to improve the rate of viral hepatitis diagnosis. The *Blueprint*⁴ recommends automatically testing samples sent to laboratories for HCV antibody testing that test positive for the presence of the HCV virus to confirm if chronic infection is present. This is known as HCV RNA reflex testing. This testing intervention is particularly attractive as it not only reduces the barriers to patients receiving their HCV diagnosis, but also saves care providers time and reduces costs to the health care system.⁵



Metric 3: Are Same-Day Treatment Starts Possible?

Expediting linkage to care and treatment initiation, as suggested in the *Blueprint*⁴, could close gaps in the cascade of care for HCV. To expedite linkage to care, ‘test-and-treat strategies’ — where treatment providers are able to initiate HCV treatment on the same day that they test or diagnose a patient — need to be implemented. To evaluate whether this is possible or not, we reviewed DAA treatment reimbursement criteria in all publicly-funded drug plans in Canada.

METRICS CONTINUED



Metric 4: Annual HCV Treatment Prescribing Counts

In order to achieve the HCV treatment coverage goals set out by the WHO¹ and in the *Blueprint*, modelling has been done to determine how many people living with HCV would need to start treatment each year in Canada so that 80% have received treatment by 2030. To evaluate progress towards this goal, we looked at how many people started HCV treatment each year and compared this to the modelled annual treatment targets that have been set, to determine if treatment uptake is on track or not.



Metric 5: Coverage of Needles and Syringes Distributed Per Person Who Injects Drugs

The *Global Health Sector Strategy on Viral Hepatitis* recommends 200 needles and syringes distributed per person who injects drugs (PWID) by 2020, and the *Blueprint* recommends 500 by 2025 and 750 by 2030, as an effective harm reduction and viral hepatitis prevention measure. Because provision of sterile needles and syringes prevents both viral hepatitis infection and other STBBIs, this was the main HCV prevention metric we chose to evaluate.



Metric 6: Is HBV Infant Vaccination Implemented?

The WHO indicates that the most effective way to prevent chronic HBV infection is to administer, for all babies, the first HBV vaccine dose at or near the time of birth. This is because 95% of babies and children exposed to HBV will develop a chronic infection which, while being treatable, is not curable — similar to HIV. Despite this, HBV vaccination policies across Canada vary from birth to 12 years; therefore, we chose the implementation of HBV infant vaccination as the final metric to evaluate.

Eliminating Hepatitis C (HCV): prioritizing those impacted the most.

CanHepC's Blueprint to Inform Hepatitis C Elimination Efforts in Canada identifies five priority populations and one age-cohort who carry the largest burden of HCV in Canada.



People who inject drugs (PWID)

85% of all new HCV infections in Canada.

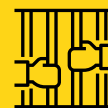
Community-based, peer supports for harm reduction and linking to healthcare are needed.



Indigenous

HCV rates 5X higher than general population.

Culturally safe/responsive care models including primary, mobile, community-based and eHealth are needed.



Incarcerated

HCV rates 24X higher than general population.

Improved access to harm reduction, HCV testing and treatment are needed.



Gay, bisexual, men who have sex with men (gbMSM)

Emerging priority population based on HCV rates.

HCV prevention, testing, and education integrated into sexual health clinics is needed.



Immigrants and newcomers

Up to 35% of those living with HCV in Canada.

Culturally safe/responsive testing and education upon arrival in Canada are needed.



Older adults (1945-1975 birth cohort)

Up to 75% of those living with HCV in Canada.
Education and one-time testing in primary care settings are needed.

Priority Populations

These five priority populations have a history in Canada of inequitable access to health care. Where these populations intersect, that inequity becomes more layered and pronounced: Black and Indigenous people are overrepresented amongst those who are incarcerated, Indigenous people are overrepresented amongst those who use drugs, those who use drugs are overrepresented amongst those who are incarcerated.

Data from the British Columbia 2018 HCV care cascade suggests that concerted efforts to remove barriers for priority populations in accessing care, particularly those who experience social and economic marginalization, are needed.

Federal Role and Recommendations



Federal Leadership Needed

While most people living with viral hepatitis receive health coverage through their province or territory, three priority populations receive their health coverage from the federal government: Indigenous people, those in federal prisons, and some newcomers. They also have an important role in health funding and public health guidance.



Planning

A federal STBBI Action Plan was launched in July 2019, but it includes no targets, no concrete actions, and no timelines. It is not an elimination plan.



HCV Testing

Federal testing guidelines remain risk-based, even though 3 in 4 Canadians who have chronic HCV infections were born between 1945-1975.



HCV Testing-to-Treatment Link

A significant barrier to same-day HCV treatment starts in all jurisdictions but PEI is that the point-of-care testing technology is not yet approved by Health Canada. The federal government can encourage manufacturers to submit for approval.



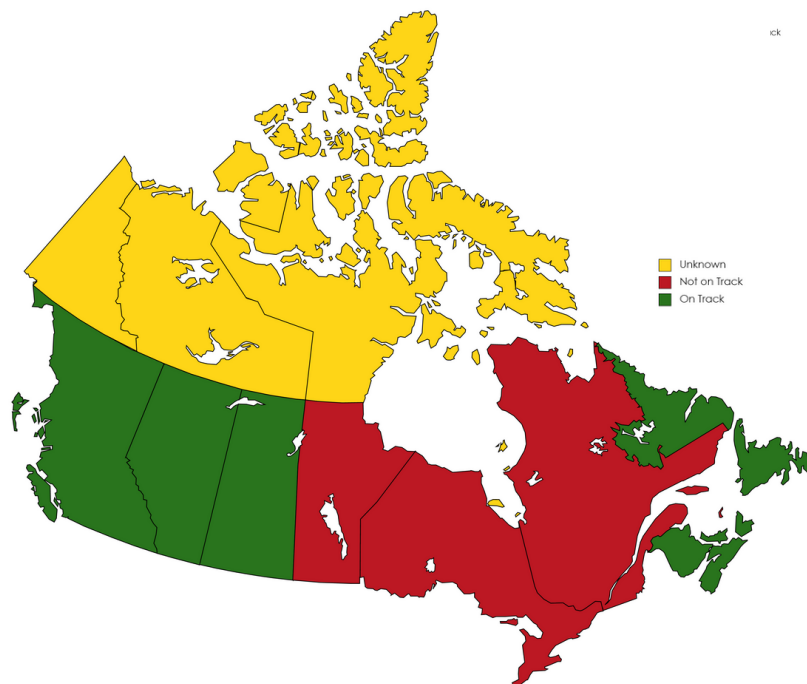
HCV Prevention

The federal government can and should provide funding and policy to support the expansion of harm reduction programs in all Canadian jurisdictions.

RECOMMENDED NEXT STEPS

- ☐ Engage manufacturers of point-of-care testing technologies to bring these tests to Canada.
- ☐ Set strategies, targets, and indicators in consultation with priority populations and using a health equity lens, to measure progress in elimination of viral hepatitis in the jurisdictions that are under federal purview: federal prisons, Indigenous peoples, and some newcomers.
- ☐ Fund and expand harm reduction programming in all Canadian jurisdictions.
- ☐ Update HCV testing guidelines to include birth-cohort testing for 1945-1975.
- ☐ Fund and increase efforts to collect updated HBV and HCV prevalence estimates for all Canadian provinces and territories.

OVERVIEW



Estimated burden of HCV:

250,000

Annual treatment target:

13,333

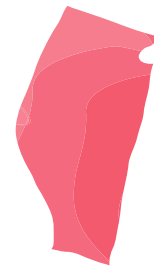
Seven of the ten provinces are on track to meet our viral hepatitis elimination goals. We do not have enough data to determine the status of the three territories.

Table 2. Summary of all six measured metrics by province and territory



	On Track?	Elimination Planning	HCV Testing	HCV Testing-to-Treatment Link	HCV Treatment	HCV Prevention	HBV Prevention
Prince Edward Island	✓	●	●	●	●	●	●
New Brunswick	✓	●	●	●	●	●	●
Nova Scotia	✓	●	●	●	●	●	●
Newfoundland	✓	●	●	●	●	●	●
Alberta	✓	●	●	●	●	●	●
British Columbia	✓	●	●	●	●	●	●
Saskatchewan	✓	●	●	●	●	●	●
Northwest Territories	?	●	●	●	—	—	●
Nunavut	?	●	●	●	—	—	●
Yukon	?	●	●	●	—	●	●
Quebec	✗	●	●	●	●	●	●
Ontario	✗	●	●	●	●	●	●
Manitoba	✗	●	●	●	●	●	●

ALBERTA



CURRENT STATUS: ON TRACK

Overview: Alberta has created a strategic framework as well as the 2016–2020 STBBI *Operational Strategy and Action Plan*. However, these planning documents are reportedly disconnected from Alberta's community-based organizations. Alberta no longer requires unnecessary tests for fibrosis, genotype, and 2nd + RNA test for reimbursement approval, removing barriers to treatment starts. They have been close to or above treatment targets each year, even with COVID disruptions, and needle and syringe distribution is highest in the country per PWID.



Planning ●

Alberta STBBI Strategic Framework 2018-2021



HCV Testing ●

HCV RNA Reflex Testing Implemented



HCV Testing-to-Treatment Link ●

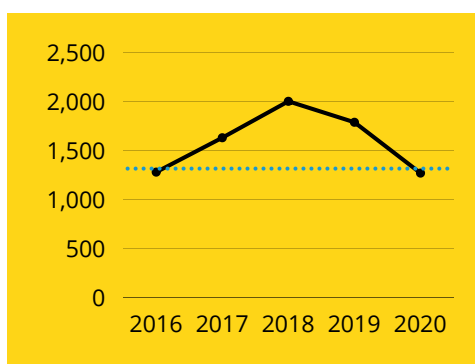
Same-Day Starts Not Possible:

x Faxed approval forms take 1-3 days



HCV Treatment ●

If annual DAA prescribing counts can be flattened in 2021 and beyond, 2030 targets can be met.



HCV Prevention ●

Above targeted # of Needles and Syringes Distributed per PWID

883/500 (177% of recommended 2025 target)



HBV Prevention ●

Infant HBV Vaccination Not Implemented

Vaccinations offered at age 10

Estimated burden of HCV:

24,081

Annual treatment target:

1284

RECOMMENDED NEXT STEPS

- ☐ Create mechanism for same-day approval of DAA reimbursement requests.
- ☐ Update the STBBI Operational Strategy and Action Plan to 2025 or 2030, in consultation with priority populations and using a health equity lens.
- ☐ Maintain needle distribution efforts through community-based organizations.
- ☐ Offer HBV vaccination at birth for all babies.

With the right policy changes, we can stay on track to meet our 2030 target.

BRITISH COLUMBIA



CURRENT STATUS: ON TRACK

Overview: British Columbia has one of the most thorough provincial-level enhanced surveillance systems for HCV globally, allowing for granular analysis of HCV diagnosis and treatment uptake. Annual treatment counts peaked in 2018 and are following a downward trajectory since, although still above target. This may be exacerbated by policy barriers to treatment starts. Despite high coverage of sterile needles and syringes in Vancouver, at the provincial level, prevention of new HCV infections through the distribution of new needles is below recommendations to be achieved by 2025.



Planning ●

No Elimination Plan or Strategy in Place



HCV Testing ●

HCV RNA Reflex Testing Implemented



HCV Testing-to-Treatment Link ●

Same-Day Starts Not Possible:

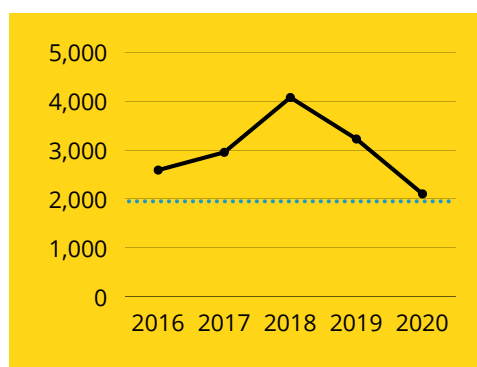
x Genotype test required

x Fibrosis stage test required



HCV Treatment ●

Annual DAA prescribing counts above target with concerning drop since 2018.



HCV Prevention ●

Below targeted # of Needles and Syringes Distributed per PWID

336/500 (just 67% of recommended 2025 target)



HBV Prevention ●

Infant HBV Vaccination Not Implemented
Vaccinations offered at age 2 months

Estimated burden of HCV:

37,484

Annual treatment target:

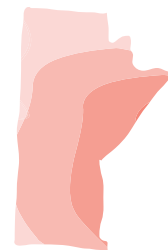
1999

RECOMMENDED NEXT STEPS

- ☐ Remove unnecessary test requirements for DAA reimbursement approvals.
- ☐ Develop an elimination plan that includes targets, in consultation with priority populations and using a health equity lens.
- ☐ Increase needle and syringe distribution.

With the right policy changes, we can stay on track to meet our 2030 target.

MANITOBA



CURRENT STATUS: NOT ON TRACK

Overview: Treatment counts peaked in 2018 and have been dropping since, falling below annual targets in 2020. Manitoba has several barriers to confirmation of a positive diagnosis and treatment start. Needle exchange programs are largely informal and community-based with little government oversight. The province falls well behind the WHO recommendation for HBV infant vaccination, vaccinating instead at age 9.



Planning ●

No Elimination Plan or Strategy in Place



HCV Testing ●

HCV RNA Reflex Testing Not Implemented



HCV Testing-to-Treatment Link ●

Same-Day Starts Not Possible:

x Genotype test required

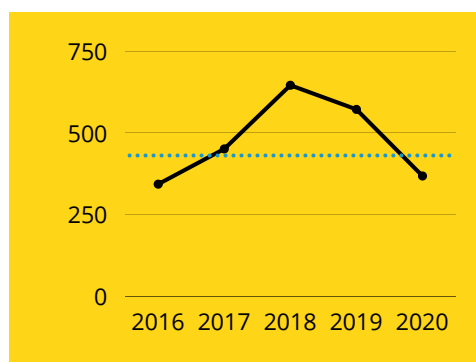
x Fibrosis stage test required

x Faxed approval forms take 2-14 days



HCV Treatment ●

If annual DAA prescribing counts can be brought back up to target in 2021 and beyond, 2030 targets can be met.



HCV Prevention ●

Above targeted # of Needles and Syringes Distributed per PWID

207/500 (just 41% of recommended 2025 target)



HBV Prevention ●

Infant HBV Vaccination Not Implemented

Vaccinations offered at age 9

Estimated burden of HCV:

8401

Annual treatment target:

448

RECOMMENDED NEXT STEPS

- ☐ Implement HCV RNA Reflex Testing.
- ☐ Remove unnecessary test requirements and create mechanism to allow same-day DAA reimbursement approvals.
- ☐ Increase needle and syringe distribution.
- ☐ Develop an elimination plan that includes targets, in consultation with priority populations and using a health equity lens.

With the right policy changes, we can get on track to meet our 2030 target.

NEW BRUNSWICK



CURRENT STATUS: ON TRACK

Overview: New Brunswick carries a relatively low burden of HCV. Despite having no elimination plan or strategy in place, and numerous policy barriers to treatment starts, New Brunswick's annual DAA prescribing counts are above target each year. Policy changes will likely still be needed to diagnose and provide treatment to some marginalized communities within the priority populations. Prevention of new HCV infections through the distribution of new needles is below recommendations. New Brunswick is one of only three jurisdictions following the WHO recommendation for HBV infant vaccination.



Planning ●

No Elimination Plan or Strategy in Place



HCV Testing ●

HCV RNA Reflex Testing Implemented



HCV Testing-to-Treatment Link ●

Same-Day Starts Not Possible:

x Genotype test required

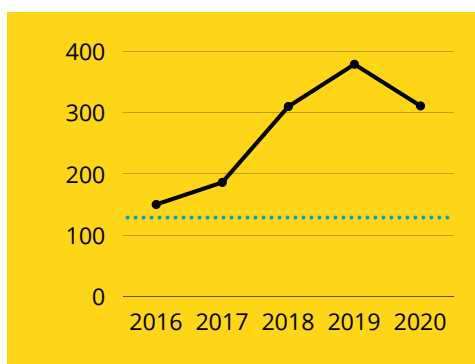
x Fibrosis stage test required

x Faxed approval forms take 2-28 days



HCV Treatment ●

Annual DAA prescribing counts well above target.



HCV Prevention ●

Below targeted # of Needles and Syringes Distributed per PWID

220/500 (just 44% of recommended 2025 target)



HBV Prevention ●

Infant HBV Vaccination Implemented

Estimated burden of HCV:

2467

Annual treatment target:

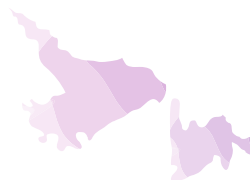
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RECOMMENDED NEXT STEPS

- ☐ Remove unnecessary test requirements and create mechanism to allow same-day DAA reimbursement approvals.
- ☐ Increase needle and syringe distribution.
- ☐ Develop an elimination plan that includes targets, in consultation with priority populations and using a health equity lens.

With the right policy changes, we can stay on track to meet our 2030 target.

NEWFOUNDLAND



CURRENT STATUS: ON TRACK

Overview: Despite having no elimination plan or strategy in place, and policy barriers to treatment starts, Newfoundland's annual DAA prescribing counts were well above target, even with a drop in 2020. Prevention of new HCV infections through the distribution of new needles is far below recommended levels, possibly undermining the above-target treatment counts with a heightened chance of new infections and re-infection. Newfoundland also falls behind the WHO recommendation for HBV infant vaccination, vaccinating instead at age 12.



Planning ●

No Elimination Plan or Strategy in Place



HCV Testing ●

HCV RNA Reflex Testing Implemented



HCV Testing-to-Treatment Link ●

Same-Day Starts Not Possible:

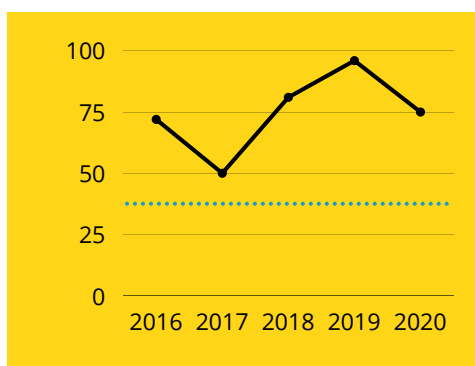
x Genotype test required

x Faxed approval forms take up to 28 days



HCV Treatment ●

If treatment counts can be maintained into 2021 and beyond, 2030 targets will be met.



HCV Prevention ●

Below targeted # of Needles and Syringes Distributed per PWID

134/500 (just 27% of recommended 2025 target)



HBV Prevention ●

Infant HBV Vaccination Not Implemented

Vaccinations offered at age 11

Estimated burden of HCV:

640

Annual treatment target:

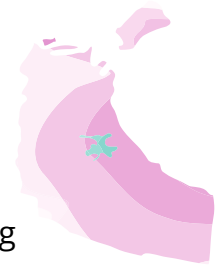
34

RECOMMENDED NEXT STEPS

- ☐ Create mechanism for same-day approval of DAA reimbursement requests.
- ☐ Increase needle distribution.
- ☐ Develop an elimination plan that includes targets, in consultation with priority populations and using a health equity lens.
- ☐ Offer HBV vaccination at birth for all babies.

With the right policy changes, we can stay on track to meet our 2030 target.

NORTHWEST TERRITORIES



CURRENT STATUS: UNKNOWN

Overview: The Northwest Territories have a small estimated number of people living with HCV infection, however there is a paucity of data on the rate of HCV diagnosis in this territory, therefore it is not possible to determine if that estimate is accurate. This territory could be well-positioned to eliminate HCV and HBV as a public health threat by 2030 if a modest number of treatment initiations are maintained in the coming years, however more data is needed.



Planning ●

No Elimination Plan or Strategy in Place



HCV Testing ●

HCV RNA Reflex Testing Not Implemented



HCV Testing-to-Treatment Link ●

Same-Day Starts Not Possible:
x Faxed approval form takes up to 1-3 days



HCV Treatment

Annual treatment count data not available



HCV Prevention

of Needles and Syringes Distributed
per PWID not available



HBV Prevention ●

Infant HBV Vaccination Implemented

Estimated burden of HCV:

778

Annual treatment target:

41

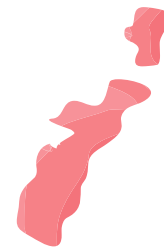
RECOMMENDED NEXT STEPS

- ☐ Implement HCV RNA Reflex Testing.
- ☐ Develop an elimination plan that includes targets, in consultation with priority populations and using a health equity lens.
- ☐ Collect and share data that allows for monitoring of progress toward elimination targets.

With the right data, we can measure progress toward our 2030 target.

NOVA SCOTIA

CURRENT STATUS: ON TRACK



Overview: Despite having no elimination plan or strategy in place, and policy barriers to treatment starts, Nova Scotia's annual DAA prescribing counts are above the annual target. However, 2020 numbers took a steep drop. Prevention of new HCV infections through the distribution of new needles is almost at recommended levels. Nova Scotia falls behind the WHO recommendation for HBV infant vaccination, vaccinating instead at age 12.



Planning ●

No Elimination Plan or Strategy in Place



HCV Testing ●

HCV RNA Reflex Testing Implemented



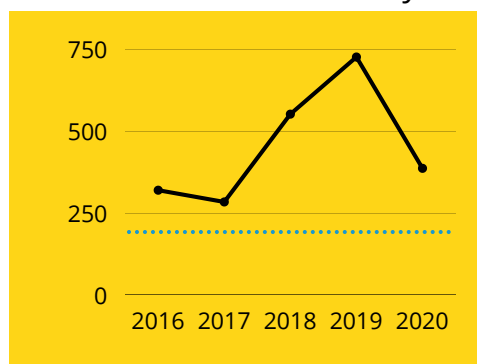
HCV Testing-to-Treatment Link ●

Same-Day Starts Not Possible:
x Genotype test required



HCV Treatment ●

If drop in annual DAA prescribing counts can be flattened into 2021 and beyond, 2030 targets will be met.



HCV Prevention ●

Slightly below targeted # of Needles and Syringes Distributed per PWID
456/500 (91% of recommended 2025 target)



HBV Prevention ●

Infant HBV Vaccination Not Implemented
Vaccinations offered at age 12

Estimated burden of HCV:

4252

Annual treatment target:

227

RECOMMENDED NEXT STEPS

- ☐ Remove genotype test requirement and create mechanism to allow same-day DAA reimbursement approvals.
- ☐ Develop an elimination plan that includes targets, in consultation with priority populations and using a health equity lens.
- ☐ Offer HBV vaccination at birth to all babies.

With the right policy changes, we can stay on track to meet our 2030 target.

NUNAVUT

CURRENT STATUS: UNKNOWN



Overview: While Nunavut has a small estimated number of people living with HCV infection, there is a paucity of data on the rate of HCV diagnosis in this territory, therefore it is not possible to determine if that estimate is accurate. Nunavut could be well positioned to eliminate HCV and HBV as a public health threat by 2030 if a modest number of treatment initiations are maintained in the coming years, however more data is needed.



Planning ●

No Elimination Plan or Strategy in Place



HCV Testing ●

HCV RNA Reflex Testing Not Implemented



HCV Testing-to-Treatment Link ●

Same-Day Starts Not Possible:
x Faxed approval form takes up to 1-3 days



HCV Treatment

Annual treatment count data not available



HCV Prevention

of Needles and Syringes Distributed
per PWID not available



HBV Prevention ●

Infant HBV Vaccination Implemented

Estimated burden of HCV:

243

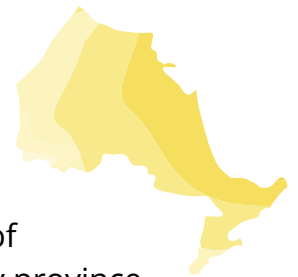
Annual treatment target:

13

RECOMMENDED NEXT STEPS

- ☐ Implement HCV RNA Reflex Testing.
- ☐ Develop an elimination plan that includes targets, in consultation with priority populations and using a health equity lens.
- ☐ Collect and share data that allows for monitoring of progress toward elimination targets.

With the right data, we can measure our progress toward our 2030 target.



CURRENT STATUS: NOT ON TRACK

Overview: Treatment counts peaked in 2017 and 2018, attributed to a lifting of reimbursement restrictions, and have been dropping since. Ontario is the only province still requiring a 2nd positive RNA test for HCV treatment reimbursement and falls well behind the WHO recommendation for HBV infant vaccination, vaccinating instead at age 12. However, work has begun on a "Roadmap to Elimination" that, if adopted, would provide a plan with targets and monitoring.



Planning ●

No Elimination Plan or Strategy in Place



HCV Testing ●

HCV RNA Reflex Testing Not Implemented



HCV Testing-to-Treatment Link ●

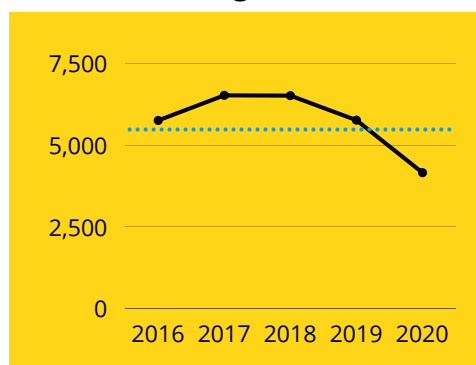
Same-Day Starts Not Possible:

- x Genotype test still required
- x 2nd positive RNA test still required



HCV Treatment ●

If treatment counts can be returned to 2019 levels, 2030 target can be achieved.



HCV Prevention ●

Below targeted # of Needles and Syringes Distributed per PWID

236/500 (just 47% of recommended 2025 target)



HBV Prevention ●

Infant HBV Vaccination Not Implemented

Vaccinations offered at age 12

Estimated burden of HCV:

102,858

Annual treatment target:

5486

RECOMMENDED NEXT STEPS

- ☐ Remove genotype test and the 6-month confirmatory test requirements.
- ☐ Implement HCV RNA Reflex Testing.
- ☐ Increase needle distribution.
- ☐ Provide HBV vaccination for all babies at birth.
- ☐ Adopt and implement the Roadmap to Elimination.

With the right policy changes, we can get on track to meet our 2030 target.

PRINCE EDWARD ISLAND

CURRENT STATUS: ON TRACK

Overview: PEI was the first province to create an HCV Elimination Strategy. They expect to meet their elimination target ahead of 2030. However, without birth cohort testing, PEI is also likely missing a large portion of their infected residents. This is the only jurisdiction where same-day HCV treatment starts are possible, due to an arrangement directly with a pharmaceutical company that does not require confirmation of diagnosis via a Health Canada-approved test for DAA reimbursement. Treatment counts in 2020 dropped dramatically.



Planning ●

PEI 10-year hepatitis C management and treatment strategy



HCV Testing ●

HCV RNA Reflex Testing Implemented



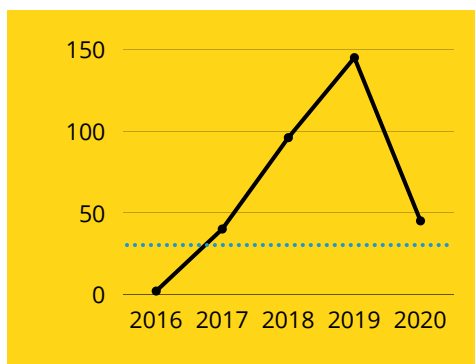
HCV Testing-to-Treatment Link ●

Same-Day Starts Possible



HCV Treatment ●

If drop in annual DAA prescribing counts can be flattened into 2021 and beyond, 2030 targets will be met.



HCV Prevention ●

Slightly below targeted # of Needles and Syringes Distributed per PWID

416/500 (83% of recommended 2025 target)



HBV Prevention ●

Infant HBV Vaccination Not Implemented
Vaccinations offered at age 2 months

Estimated burden of HCV:

602

Annual treatment target:

32

RECOMMENDED NEXT STEPS

- ☐ Ensure the hepatitis C strategy includes consultation with priority populations and uses a health equity lens.
- ☐ Implement 1945-1975 Testing Guidelines.
- ☐ Increase needle distribution.

With slight policy changes, we can stay on track to meet our 2030 target.

QUEBEC

CURRENT STATUS: NOT ON TRACK



Overview: Quebec has removed many policy barriers to HCV treatment start and treatment counts hovered just above target in 2018-2019. There is no elimination plan or strategy in place and HCV RNA reflex testing has not been implemented. Prevention of new HCV infections through the distribution of new needles is far below recommendations, however, Quebec falls only slightly behind the WHO recommendation for HBV infant vaccination, vaccinating at age 2 months.



Planning ●

No Elimination Plan or Strategy in Place



HCV Testing ●

HCV RNA Reflex Testing Not Implemented



HCV Testing-to-Treatment Link ●

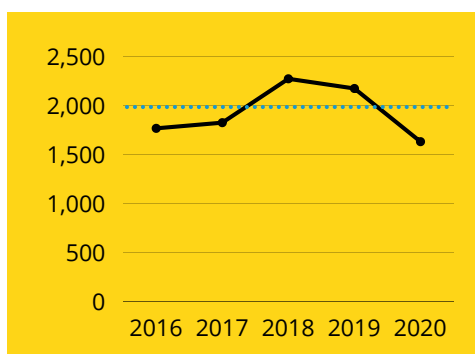
Same-Day Starts Not Possible:

x Only missing POC RNA testing, not yet approved by Health Canada.



HCV Treatment ●

If treatment counts can be returned to pre-COVID levels, 2030 targets will be met.



HCV Prevention ●

Below targeted # of Needles and Syringes Distributed per PWID

168/500 (just 34% of recommended 2025 target)



HBV Prevention ●

Infant HBV Vaccination Not Implemented
Vaccinations offered at age 2 months

Estimated burden of HCV:

37,505

Annual treatment target:

2000

RECOMMENDED NEXT STEPS

- ☐ Implement HCV RNA Reflex Testing.
- ☐ Allow outreach workers to provide HCV testing.
- ☐ Develop an elimination plan that includes targets, in consultation with priority populations and using a health equity lens.
- ☐ Increase needle distribution.

With the right policy changes, we can get on track to meet our 2030 target.

SASKATCHEWAN



CURRENT STATUS: ON TRACK

Overview: Saskatchewan has the highest rate per capita out of all the provinces for people testing positive for HCV, according to Saskatchewan Infectious Disease Care Network. The province has no elimination plan or strategy in place and has not implemented HCV RNA reflex testing. Still, the annual DAA prescribing counts are above the annual target since reimbursement restrictions were lifted in 2017. Prevention of new HCV infections through the distribution of new needles is above recommended levels and should be maintained. Saskatchewan falls behind the WHO recommendation for HBV infant vaccination, vaccinating instead at age 12.



Planning ●

No Elimination Plan or Strategy in Place



HCV Testing ●

HCV RNA Reflex Testing Not Implemented



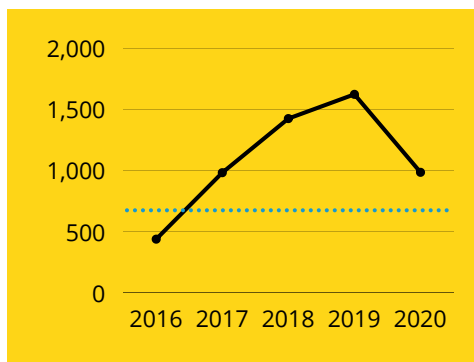
HCV Testing-to-Treatment Link ●

Same-Day Starts Not Possible:
x Fibrosis stage test required



HCV Treatment ●

If drop in annual DAA prescribing counts in 2020 can be managed into 2021 and beyond, 2030 targets will be met.



HCV Prevention ●

Above targeted # of Needles and Syringes Distributed per PWID

673/500 (135% of recommended 2025 target)



HBV Prevention ●

Infant HBV Vaccination Not Implemented

Vaccinations offered at age 11

Estimated burden of HCV:

12,000

Annual treatment target:

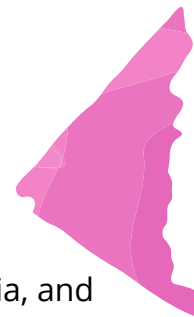
640

RECOMMENDED NEXT STEPS

- ☐ Implement HCV RNA Reflex Testing.
- ☐ Develop an elimination plan that includes targets, in consultation with priority populations and using a health equity lens.
- ☐ Remove fibrosis stage test for DAA reimbursement.
- ☐ Maintain needle distribution.
- ☐ Provide HBV vaccination for all babies at birth.

With the right policy changes, we can stay on track to meet our 2030 target.

CURRENT STATUS: UNKNOWN



Overview: One of the biggest challenges to HCV elimination goals in the Yukon Territory is a lack of prescribing treaters. All tests are sent to labs in British Columbia, and a specialist from British Columbia flies into the Yukon periodically to write prescriptions. This limited availability paired with accessibility challenges for rural and remote communities outside of Whitehorse poses significant barriers to starting treatment. Needle and syringe distribution is well below the 2025 target, increasing the risk of new HCV infections and re-infections.



Planning ●

No Elimination Plan or Strategy in Place



HCV Testing ●

HCV RNA Reflex Testing Implemented



HCV Testing-to-Treatment Link ●

Same-Day Starts Not Possible:

- x Genotype test required
- x Fibrosis stage test required
- x Faxed approval form takes up to 28 days



HCV Treatment

Annual treatment count data not available



HCV Prevention ●

Below targeted # of Needles and Syringes Distributed per PWID

156/500 (just 32% of recommended 2025 target)



HBV Prevention ●

Infant HBV Vaccination Not Implemented
Vaccinations offered at age 2 months

Estimated burden of HCV:

1209

Annual treatment target:

64

RECOMMENDED NEXT STEPS

- ☐ Engage non-specialists to prescribe.
- ☐ Develop an elimination plan that includes targets, in consultation with priority populations and using a health equity lens.
- ☐ Remove genotype and fibrosis stage tests and create mechanism to allow for same-day DAA reimbursement.
- ☐ Increase needle distribution.

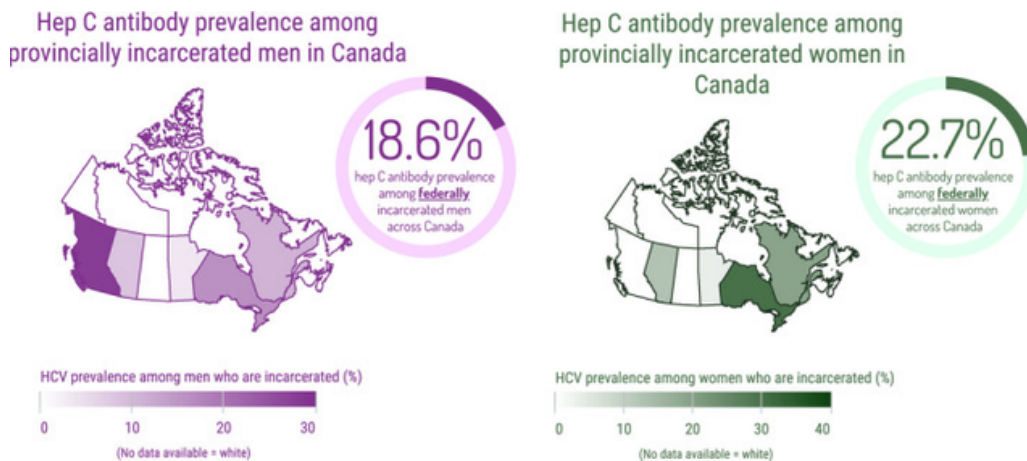
With the right data, we can measure progress toward our 2030 target.

CORRECTIONS: FEDERAL

CURRENT STATUS: ON TRACK

Overview: More than 50% of people who are incarcerated (PWAI) in Canada report a history of drug use, and more than 75% of PWID in Canada have a history of incarceration, resulting in a higher prevalence of HCV among PWAI when compared with the general population.⁶ As a result, the delivery of HCV care to people in prisons in Canada is essential to HCV elimination. Canada's correctional system is stratified based on the length of custodial sentence given by courts; supervision of custody for people with a sentence of two years or more is under the Federal government, and supervision of custody for people with a sentence of two years less a day is under provincial and territorial governments. The Correctional Service of Canada runs all federal prisons in Canada and is responsible for policies related to HCV testing, care, and prevention in federal prisons.⁶

Figure 1. Hepatitis C antibody prevalence among men and women in prison across Canada⁶



HCV Testing Policy ●

Universally offered to all entrants and available on demand⁶



HCV Treatment Access ●

Everyone eligible, irrespective of disease stage⁶



HCV Prevention Access ●

NSP: Needle exchange available in 11 of 43 institutions⁶

OPS: Overdose Prevention Sites available in 1 of 43 institutions⁶

OAT: Opioid Agonist Therapy is available in all institutions but eligibility for 'new starts' post admission is not clearly stated⁷

RECOMMENDED NEXT STEPS

- ☐ Implement NSP in remaining institutions.
- ☐ Provide OPS in remaining institutions.
- ☐ Clarify OAT 'new start' eligibility.

With the right policy changes, we can stay track to meet our 2030 target.

CORRECTIONS: PROVINCIAL

CURRENT STATUS: NOT ON TRACK

Overview: In each province and territory, the Ministry for Public Safety and Solicitor General (or equivalent) is responsible for corrections and runs all provincial and territorial prisons. This means that there are 13 different situations with regards to access to HCV testing and treatment in provincial and territorial prisons.

Continuity of HCV care upon release is a major challenge for correctional systems globally, with calls to streamline provision of health care in corrections with health care in the community.⁸ As a result, several Canadian provinces have transferred the responsibility for the provision of health care from corrections authorities to local health authorities. In provinces where this has occurred, improvements in health care have been reported, including for HCV.⁹ Transfer of responsibility for health care to health authorities in the rest of Canada could assist in streamlining the provision of HCV screening, treatment, and retention in care after release. A survey conducted in 2020 across all provincial prisons in Canada was used to determine progress in provincial prisons towards HCV elimination.⁹ This survey showed that four Canadian provinces do not offer any HCV treatment to people who are provincially incarcerated, and three additional provinces and territories have restrictions on HCV treatment eligibility, indicating that the same standard of health care is not available to people in prison as in the community. This is a contravention of the UN Standard Minimum Rules for the Treatment of Prisoners (Nelson Mandela Rules).¹⁰

Table 3. HCV Ministerial responsibility, testing, treatment, and prevention access in provincial/territorial corrections⁹

Jurisdiction	Ministry of Health responsible for health care in provincial prisons	% of provincial prisons offering universal testing*	% of provincial prisons that provide <i>any</i> HCV treatment	% of provincial prisons that provide HCV treatment without restrictions on eligibility	% of provincial prisons with OAT available
Alberta	● Yes	● 100%	● 25%	● 0%	● 100%
British Columbia	● Yes	● 60%	● 100%	● 90%	● 100%
Manitoba	● No	● 29%	● 57%	● 0%	● 57%
New Brunswick	● No	● 50%	● 0%	● 0%	● 100%
Newfoundland	● Yes	● 67%	● 0%	● 0%	● 67%
Northwest Territories [^]	-	-	-	-	-
Nova Scotia	● Yes	● 67%	● 33%	● 33%	● 33%
Nunavut [^]	-	-	-	-	-
Ontario [#]	● No	-	-	-	-
Prince Edward Island	● No	● 100%	● 100%	● 100%	● 50%
Quebec	● Partially	● 12%	● 56%	● 56%	● 88%
Saskatchewan	● No	● 17%	● 67%	● 67%	● 83%
Yukon [^]	-	-	-	-	-

*Opt-in or opt-out testing
[#]No prisons in Ontario participated in the survey
[^]Territorial prisons were not included in the survey
 Colour code: ● 80-100% 'on track' ● 40-79% 'just off track' ● 0-39% 'significantly off track'

RECOMMENDED NEXT STEPS

- ☐ Offer HCV testing and treatment in all provincial adult correction facilities.
- ☐ Shift healthcare responsibility to Ministries of Health, where not yet done.
- ☐ Make OAT universally available in all provincial correctional centres.

With the right policy changes, we can get on track to meet our 2030 target.

BRIGHT SPOTS

Examples to replicate



Planning

PEI and Alberta provide examples of elimination plans.

British Columbia's Hepatitis Testers Cohort provides a gold standard in HCV disease monitoring and is a framework that other provinces could replicate.



HCV Testing

HCV RNA Reflex Testing emerged as a key indicator of whether a jurisdiction's DAA prescribing counts are on track or not. Several provinces have models to serve as examples.



HCV Testing-to-Treatment Link

Ontario's LU code allows for immediate reimbursement approval.

Quebec has recently launched an online portal for HCV reimbursement requests through RAMQ providing immediate approval for treatment-naïve patients without cirrhosis.



HCV Treatment

Alberta has created an HCV treatment algorithm that allows Nurse Practitioners and Pharmacists to independently prescribe & treat naïve patients without cirrhosis.



HCV Prevention

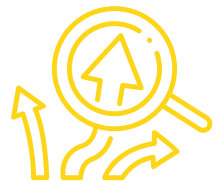
Alberta and Saskatchewan lead the country with needle and syringe distribution.



HBV Prevention

New Brunswick, Northwest Territories, and Nunavut all offer HBV vaccinations at birth to all babies.

TRENDS OF NOTE



HCV RNA Reflex Testing

- With the exception of Saskatchewan, provinces that are achieving their annual HCV treatment targets have implemented HCV RNA Reflex Testing, and those who have not, are not.
- HCV RNA Reflex Testing appears to be a key indicator for achieving HCV treatment targets.



HCV Treatment

- Annual prescribing count increases and decreases were not uniform across the country and seem to correlate to the timing of policy changes in each province regarding the lifting of fibrosis restrictions for DAA reimbursement.
- All provinces dropped in 2020, and efforts at both government and community level will likely be needed to engage moving forward.

DATA GAPS



Prevalence

- It was difficult to determine what the annual HCV treatment initiation target for each P/T should be, as there are few recent published sub-national prevalence estimates.
- HCV and HBV prevalence estimates should be updated urgently for all P/Ts.

Prescribing Counts

- AHC had to pay to license the prescribing count data. This is expensive and there are several limitations to that data.
- The IQVIA data is based on patient counts but it slightly over- and under-estimates the number of patients in different provinces.
- No prescribing count data was available for the territories.

HOW WILL WE KNOW IF WE HAVE ELIMINATED VIRAL HEPATITIS IN 2030 WITHOUT ACCURATE DATA?

MONITORING & EVALUATION METHODOLOGY



Metric 1: Is There an Elimination Plan or Strategy in Place?

Rationale:

Each province and territory in Canada must create and implement its own strategy oriented towards viral hepatitis elimination. Therefore, the first metric we chose to measure was whether there is a plan or strategy in place in each jurisdiction that incorporates viral hepatitis impact or service coverage targets or goals.

Monitoring & Evaluation Methodology:

We reviewed the current provincial and territorial Ministry of Health websites to determine the most recent or up-to-date policy, action plan or strategy that exists which incorporates viral hepatitis impact or service coverage targets or goals. The documents were reviewed to determine if they included any goals or targets that are in line with the WHO, PHAC or *Blueprint* targets and goals.

Table 4. Review of provincial/territorial policies regarding viral hepatitis elimination as of 2020

Jurisdiction	Most recent policy incorporating viral hepatitis impact or service coverage targets or goals	Year released	Includes viral hepatitis elimination goals or targets?
Alberta	Alberta STBBI Strategic Framework 2018-2021 ¹¹	2018	● Yes
British Columbia	Healthy Pathways Forward (A Strategic Integrated Approach to Viral Hepatitis in BC) ¹²	2007	● No
Manitoba	Manitoba Sexually Transmitted and Blood-Borne Infections Strategy 2015-2019 ¹³	2015	● No
New Brunswick	None identified	-	● -
Newfoundland	None identified	-	● -
Northwest Territories	None identified	-	● -
Nova Scotia	Nova Scotia's Strategy on HIV/AIDS ¹⁴	2003	● No
Nunavut	Nunavut Sexual Health Framework for Action 2012-2017 ¹⁵	2012	● No
Ontario	HIV/AIDS Strategy to 2026: Focusing Our Efforts – Changing the Course of the HIV Prevention, Engagement and Care Cascade in Ontario ¹⁶	2016	● No
Prince Edward Island	PEI 10-year hepatitis C management and treatment strategy ¹⁷	2018	● Yes
Quebec	Join, Screen and Detect, Treat: Integrate STBBI prevention into action plans ¹⁸	2016	● No
Saskatchewan	None identified	-	● -
Yukon	None identified	-	● -



Metric 2: Is HCV RNA Reflex Testing Implemented?

Rationale:

- **1 out of every 3** Canadians who have been diagnosed as HCV antibody positive **have never received an HCV RNA test**⁵ to confirm if they actually have a chronic infection.
- Automatically reflexing on positive HCV antibody tests to the HCV RNA test has been shown to be cost effective and favoured by both patients and health care providers.^{19,20}
- Despite this, HCV RNA reflex testing has still not been routinely implemented across all laboratories in Canada.

The *Blueprint to inform hepatitis C elimination efforts in Canada* recommends implementing HCV RNA reflex testing across all laboratories in Canada, to ensure all people in Canada will move through the HCV care cascade efficiently.

Monitoring & Evaluation Methodology:

An environmental scan on laboratory testing for HCV in Canada was conducted in 2016. We reviewed this, in addition to provincial and territorial Ministry of Health websites to determine the most recent or up-to-date HCV testing algorithms in each province and territory.

Table 5. Review of provincial/territorial implementation of HCV RNA reflex testing policy

Jurisdiction	HCV RNA reflex testing implemented?
Alberta	● Yes ²¹
British Columbia	● Yes ²²
Manitoba	● No ²³
New Brunswick	● Yes ²³
Newfoundland	● Yes ²³
Northwest Territories	● No ²³
Nova Scotia	● Yes ²³
Nunavut	● No ²³
Ontario	● No ²³
Prince Edward Island	● Yes ²³
Quebec	● No ²³
Saskatchewan	● No ²³
Yukon	● Yes ²²



Metric 3: Are Same-Day Treatment Starts Possible?

Rationale:

- The HCV testing process is itself a barrier.
- In most settings it requires **3** visits: screening for the antibody, RNA testing to confirm that the infection is still active, and receiving and discussing the results.
- At least **1 in 4** people who test positive during screening never receive a confirmatory test. Loss at the follow-up stage is higher in priority populations, with up to **3 in 4** not completing a confirmatory test.²⁴

Simpler testing technology and approval policies would improve progression through the cascade of care to treatment and aid elimination efforts.

Expediting linkage to care and treatment initiation, as suggested in the *Blueprint*, could close gaps in the cascade of care for HCV. To expedite linkage to care, 'test-and-treat strategies,' where treatment providers are able to initiate HCV treatment on the same day that they test or diagnose a patient, must be implemented in our efforts toward elimination.

Monitoring & Evaluation Methodology:

To determine the ability of treatment providers across Canada to initiate HCV treatment on the same day that a patient receives an HCV diagnosis, a review of the criteria for reimbursement of DAAs in the 10 provincial, three territorial, and three federal publicly-funded drug plans in Canada was conducted.²⁵ Data were extracted from October to December 2020, with outcomes extracted selected based on suggested activities put forward in the *Blueprint*.

Table 6. Matrix of hepatitis C treatment reimbursement approval policies for Canadian publicly-funded drug plans

	 Policy obstructs rapid or simplified HCV treatment	 Policy may obstruct rapid or simplified HCV treatment	 Policy facilitates rapid or simplified HCV treatment		
Public Drug Plan	Point of care HCV RNA test can be used for DAA approval	HCV genotype test required	Fibrosis stage required	Two HCV RNA+ tests required	Time taken & method for DAA approval
Alberta	No	No	No	No	Faxed form 1-3 days
British Columbia	No	No [#]	Yes	No	Online Same day ^m
Manitoba	No	Yes	Yes	No	Faxed form 2-14 days
New Brunswick	No	Yes	Yes	No	Faxed form 2-28 days
Newfoundland & Labrador	No	Yes	No	No	Faxed form Up to 28 days
Northwest Territories	No	No [%]	No [^]	No	Faxed form 1-3 days
Nova Scotia	No	Yes	No ^{&}	No	Approval not required [*]
Nunavut	No	No [%]	No [^]	No	Faxed form 1-3 days
Ontario	No	Yes ⁵	No	Yes	Approval not required [*]
Prince Edward Island	Yes	No	No	No	Approval not required [*]
Quebec	No	No [%]	No ^{&}	No	Online Same day
Saskatchewan	No	No [%]	Yes	No	Telephone Same day
Yukon	No	Yes	Yes	No	Faxed form Up to 28 days
People with FN Status (NIHB)	No	No [%]	No [^]	No	Faxed form 1 day
Correctional Service Canada (CSC)	No	No [%]	No	No	Approval not required [*]
Veterans Affairs Canada (VAC)	No	No [%]	No	No	Approval not required [*]

[#] Temporary during COVID, may continue in future

^m Province wide online platform for special authority request approval launched, but not yet available for HCV medications

[%] Genotype not required for DAA-naïve patients being prescribed pan-genotypic regimen

⁵ Not enforced but technically is actually required

[^] Fibrosis stage not required for DAA-naïve patients

[&] Proof of fibrosis stage not required, just yes/no for cirrhosis

^{*} Uses a 'Limited Use Code' or 'Criteria Code' – no requirement for approval if listed criteria are met. If not eligible for Limited Use criteria, then must be reviewed and that typically takes 2-4 weeks (example is retreatment or treatment of decompensated cirrhosis)



Metric 4: Annual HCV Treatment Prescribing Counts

Rationale:

In order to achieve the HCV treatment coverage goals set out by the WHO and in the *Blueprint*, modelling has been done to determine how many people living with HCV would need to start treatment each year in Canada so that 80% of all people living with HCV have received treatment by 2030. To evaluate progress towards this goal, we looked at how many people started HCV treatment each year and compared this to the modelled annual treatment targets that have been set, to determine if treatment uptake is on track or not.

Monitoring & Evaluation Methodology:

Data on total HCV patient estimates per year from each province in Canada were licensed from IQVIA®.²⁶ The HCV patient estimates from IQVIA® are based on projected numbers from anonymized patient prescription data, and only include prescriptions for DAAs, not interferon or ribavirin. The projected HCV patient numbers per year that IQVIA provided were cross-checked against actual HCV patient counts obtained from provincial drug plans in British Columbia²⁷ and Ontario²⁸ for specific years to determine the approximate level of accuracy for the IQVIA® patient projection methodology. Based on these cross-checks, while the projected patient data from IQVIA® is not an exact count of HCV patients treated in each province per year, it is within an acceptable range and is believed to accurately represent the trends and patterns in HCV treatment uptake at a provincial level.

Modelled targets for the annual number of HCV treatments required each year to be 'on track' to reach HCV elimination targets by 2030 were obtained from the most recently available published estimates at the national²⁹ and provincial³⁰ level.

In order to set a treatment initiation target for each jurisdiction, the most recent estimate of the number of people living with HCV (PLHCV) for that jurisdiction was taken, multiplied by the 80% treatment target, then divided by fifteen (for the years 2016-2030). These targets may underestimate the number of treatment initiations required each year to reach the 2030 elimination goals; however, given the paucity of data, they are the most relevant indicator that can currently be provided.

Table 7. Estimated prevalence of HCV in 2016, annual treatment targets, and projected annual HCV patient treatment (DAAs) counts for Canadian provinces, 2016-2020

Jurisdiction	Est. PLHCV	Annual treatment target	Annual DAA treatment initiations				
			2016	2017	2018	2019	2020
Alberta	24,081 ³¹	1,284	1,279	1,630	2,002	1,788	1,269
British Columbia	37,484 ²⁴	1,999	2,590	2,953	4,073	3,225	2,104
Manitoba	8,401 ³¹	448	343	451	646	572	368
New Brunswick	2,467 ³¹	132	150	186	310	379	311
Newfoundland	640 ³¹	34	72	50	81	96	75
Northwest Territories	778 ³¹	41	-	-	-	-	-
Nova Scotia	4,252 ³¹	227	320	284	553	728	387
Nunavut	243 ³¹	13	-	-	-	-	-
Ontario	102,858 ³¹	5,486	5,756	6,525	6,516	5,764	4,156
Prince Edward Island	602 ³¹	32	2	40	96	145	45
Quebec	37,505 ³¹	2000	1,767	1,825	2,273	2,174	1,631
Saskatchewan	12,000 ³²	640	439	982	1,424	1,622	985
Yukon	1,209 ³¹	64	-	-	-	-	-

- Data was not available for any territories




Metric 5: Coverage of Needles and Syringes Distributed Per Person Who Injects Drugs (PWID)

Rationale:

- PWID are a priority population for HCV prevention interventions.
- The highest rates of new HCV infections in Canada are found among PWID. These account for up to **85%** of all new hepatitis C infections.⁴
- HCV is preventable with evidence-based, WHO-recommended, and cost-effective interventions such as needle and syringe programs (NSP) and opioid agonist therapy (OAT). Combined, these interventions reduce the risk of hepatitis C infection by up to **74%**.

Harm reduction is by far the most effective prevention strategy for hepatitis C.

The *Global Health Sector Strategy on Viral Hepatitis*¹ and the *Blueprint to inform hepatitis C elimination efforts in Canada*⁴ recommend increasing the number of sterile needles and syringes provided per PWID per year to:

- 
200 sterile needles/syringes by 2020
500 sterile needles/syringes by 2025
750 sterile needles/syringes by 2030

Monitoring & Evaluation Methodology:

Using the most recent available published literature on the number of PWID estimated in each province and territory and nationally, and the number of sterile needles and syringes distributed, we estimated the number of needles and syringes distributed per PWID annually. The number distributed was assessed against the 2025 target of 500 sterile needles and syringes per PWID, and expressed as a percentage of that target.

Table 8. Estimated number of sterile needles and syringes distributed per PWID/year in Canada

Jurisdiction	Year	Estimated # needles & syringes per PWID	% of 2025 Blueprint target (500/PWID)
Canada	2016 ³³	291	● 58%
Alberta	2016 ³³	883	● 177%
British Columbia	2019 ³⁴	336	● 67%
Manitoba	2016 ³³	207	● 41%
New Brunswick	2016 ³³	220	● 44%
Newfoundland and Labrador	2016 ³³	134	● 27%
Northwest Territories	-	-	-
Nova Scotia	2016 ³³	456	● 91%
Nunavut	-	-	-
Ontario	2016 ³³	236	● 47%
Prince Edward Island	2016 ³³	416	● 83%
Quebec	2016 ³³	168	● 34%
Saskatchewan	2018 ³⁵	673	● 135%
Yukon	2016 ³³	156	● 32%

- Data was not available for 2 territories

Colour code:

- 80-100% 'on track' ● 40-79% 'just off track' ● 0-39% 'significantly off track'



Metric 6: Is Hepatitis B Infant Vaccination Implemented?

Rationale:

- HBV is a vaccine-preventable disease. People exposed to HBV who develop a chronic infection will live with this for life, as there is no curative therapy for HBV, only suppressive treatment. HBV damages the liver and is a leading global cause of hepatocellular carcinoma and liver failure. Therefore, vaccination is the most important aspect of HBV prevention and elimination efforts.
- **The WHO recommends that all infants receive the first dose of HBV vaccine within 24 hours of birth³⁶ and the Canadian National Advisory Committee on Immunization (NACI) also recommends infants receive the first HBV vaccine dose at birth.³⁷** Despite these recommendations, Canadian provinces and territories offer the HBV vaccine at varying ages from birth to 12 years.
- Infant vaccination is especially important as **over 90% of infants who become infected will develop chronic hepatitis B**, compared to 5% of adults. (95% of adults will clear a hepatitis B infection spontaneously.)

Implementing infant vaccine consistently across Canada is the #1 way to bring the number of new infections in children close to zero.

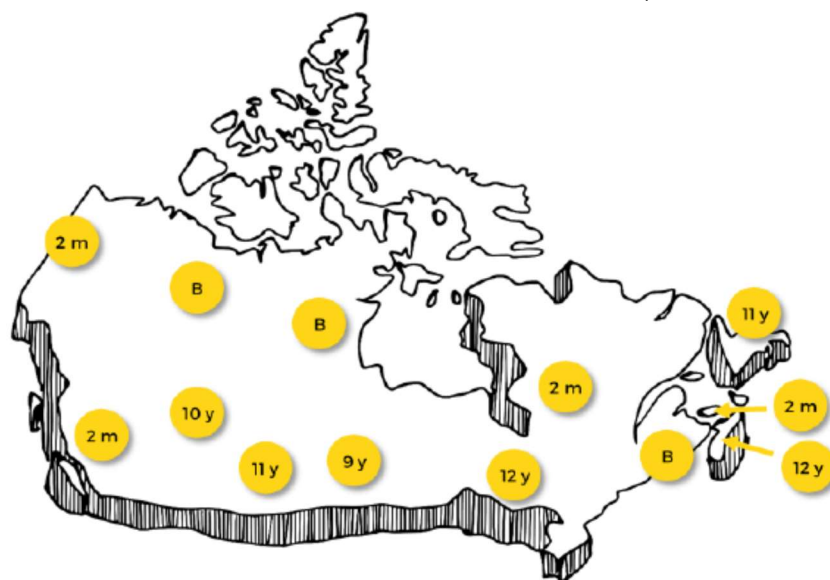
While it has been put forward that offering HBV vaccination at birth is not necessary in Canada as universal prenatal screening and related interventions prevent vertical transmission, a recent study conducted in Ontario found that coverage of prenatal screening and subsequent investigation is sub-optimal and results in many Ontario-born children being given a diagnosis of HBV before age 12 years.³⁸

Monitoring & Evaluation Methodology:

We reviewed the PHAC Hepatitis B vaccine: Canadian Immunization Guide³⁹ to determine the age at which the first HBV vaccine dose is offered in each province and territory.

Figure 2. Age at which HBV vaccine dose 1 is offered across Canada, 2020

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