

Sharing Progress, Igniting Efforts

PAN-CANADIAN HEPATITIS C ELIMINATION

Meeting Report



Co-convened by



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SUMMARY

What is hepatitis C and why is it important?

Hepatitis C is a major public health issue. It is among the most burdensome infectious diseases in Canada: it results in more years of life lost than any other infectious disease in the country, and it is a leading cause of liver cancer and death.^{1,2} Hepatitis C's greatest impact is on some of Canada's most marginalized populations, including Indigenous peoples,³ people who use drugs,⁴ gay, bisexual and men who have sex with men (gbMSM),⁵ immigrants and newcomers,⁶ and people who experience incarceration.⁷

Hepatitis C elimination is achievable; however, it will require dedicated and coordinated efforts by all levels of government, including Indigenous leadership, the health and social sectors, and partners involved in programming and policy. It is essential to implement a multi-sector approach with various partners taking part to ensure hepatitis C services for priority populations across the continuum of care. This involves different levels of governments, departments, health systems, and community-based and front-line organizations stepping up.

Pan-Canadian Meeting: "Hepatitis C Elimination: Sharing Progress, Igniting Efforts"

To tackle the challenges we face, CATIE partnered with the **Canadian Network on Hepatitis C (CanHepC)** and the **Public Health Agency of Canada (PHAC)**, with support from **Indigenous Services Canada**, and the **Canadian Institutes of Health Research (CIHR)**, to host a pan-Canadian bilingual meeting on national hepatitis C elimination efforts in programming and health systems. This two-day invitational meeting titled "Hepatitis C Elimination: Sharing Progress, Igniting Efforts" was held on February 5 and 6, 2024. The meeting brought together key partners and experts committed to advancing national and regional efforts to achieve World Health Organization (WHO) elimination targets by 2030. This meeting aimed to foster the uptake of evidence-based practice and policy to reach elimination targets through knowledge-sharing and discussion activities.

Emergent themes and recommendations

This report highlights the themes and recommendations that emerged from the event for policy, practice and programs. These themes and recommendations to address gaps and challenges in advancing a coordinated response to eliminate hepatitis C in Canada are summarized in two broad categories: (1) health system and policy level and (2) programming and implementation level.

HEALTH SYSTEM AND POLICY LEVEL

1 Ensure governmental commitment to and endorsement of hepatitis C elimination goals across the health system sectors

Achieving elimination requires leadership and coordinated action at the health system and policy level. This includes involvement from national, provincial and territorial governments, healthcare system leaders, municipal governments, public health and Indigenous governing bodies.

2 Underpin efforts with a health equity approach: Focus on addressing barriers with priority populations

The elimination of hepatitis C in Canada can only be achieved through a health equity approach that addresses inequalities and improves access to care. This involves tackling the social and structural determinants of health, as well as the barriers that contribute to disparities in infection rates, access to testing, treatment and care for those most affected by hepatitis C. The five priority populations that

experience a disproportionate burden of hepatitis C are Indigenous peoples (including First Nations, Métis and Inuit); people who use drugs (PWUD); people who experience incarceration; immigrants and newcomers from countries where hepatitis C is common; and gay, bisexual and other men who have sex with men (gbMSM).

3 Implement prison-based strategies in federal and provincial corrections facilities

People in prison are disproportionately impacted by hepatitis C. Unique challenges associated with prison settings, alongside opportunities for microelimination, warrant additional considerations at both the federal and provincial levels. Recommendations for prisons include universal opt-out screening upon entry, initiation of treatment by non-specialist prescribers or via telemedicine, linking people to community-based care upon release and improving access to harm reduction supplies and programs (e.g., needle exchange programs, opioid agonist treatment) to prevent new infections.

4 Accelerate approval of and remove barriers for new testing technologies

New, simplified hepatitis C testing technologies have the potential to revolutionize testing and help identify undiagnosed cases. These new testing technologies offer many benefits, each technology is associated with unique barriers to their uptake and widespread use.

5 Expand access to treatment by expanding provider eligibility and simplified coverage

Ensuring treatment is more easily accessible and available is critical to increase treatment uptake. While all provincial, territorial and federal jurisdictions have made progress in expanding access to public coverage for hepatitis C treatment, there are still challenges around obtaining coverage. Simplifying reimbursement requirements for treatment coverage can improve treatment accessibility, allowing for more timely treatment initiation. Additionally, there are currently wide jurisdictional differences in the types of providers who can prescribe and deliver hepatitis C treatment. Increasing the eligibility and number of prescribers will ensure treatment is more widely available and accessible.

6 Leverage COVID-19 investments, policies and strategies

Although the COVID-19 pandemic caused immense disruption to hepatitis C elimination efforts, many advancements were made during the pandemic that could be leveraged for a hepatitis C response. Leveraging these advancements, such as digital health and telemedicine infrastructure, and replicating COVID-19 diagnostic policies and data systems would support hepatitis C elimination efforts.

7 Strengthen monitoring and surveillance systems: Improve data collection, promote data sharing and collaboration and build monitoring and surveillance capacity

While respecting Indigenous data sovereignty and governance, hepatitis C elimination in Canada requires the enhancement of hepatitis C monitoring and surveillance data in all jurisdictions, including how the data are collected, collated and shared. There is also a need to provide population-specific estimates at the provincial/territorial level. This is crucial to support health system planning, program delivery, and monitoring progress toward the 2030 elimination targets.

PROGRAMMING AND IMPLEMENTATION LEVEL

1 Emphasize micro-elimination initiatives: Focused, tailored and scalable approaches to reach specific populations

Micro-elimination was proposed as a pragmatic way to establish realistic elimination goals, allocate resources and support local expertise to tailor, deliver and scale up interventions. Micro-elimination involves eliminating hepatitis C for defined segments of the population in a defined geographic area as one strategy to incrementally achieve national elimination goals.⁸ Target groups may include those in certain settings, subpopulations or age cohorts, such as individuals who are incarcerated, who would benefit from hepatitis C prevention and care because of the link between hepatitis C, injection drug use and imprisonment.⁹

2 Integrate hepatitis C prevention, testing and treatment into community settings or primary care to reach priority populations

Simplifying approaches to testing and treatment can improve engagement in hepatitis C care, particularly for marginalized populations. Integrating hepatitis C programs

or delivering programs in community health, primary care or other settings instead of “centralizing” them at a hospital or specialty clinic makes them more accessible.

3 Ensure integrated, low-barrier and holistic approaches to hepatitis C care: A commitment to health equity

Integrated and low-barrier hepatitis C programs can help to address barriers faced by priority populations that experience a disproportionate burden of hepatitis C in Canada and who are not well served by the traditional healthcare system.

4 Prioritize community-led programs to meet local needs

To eliminate hepatitis C as a public health threat, it is important to maintain and expand the breadth and depth of community-led programs. Programs are most relevant and responsive when those most affected are meaningfully engaged to shape and tailor programming.

5 Expand access to harm reduction and other low-barrier substance use services to prevent hepatitis C among people who use drugs

Hepatitis C disproportionately affects people who use drugs, and addressing hepatitis C prevention among this population must be a core part of broader elimination efforts. Expanding access to prevention programs is essential to elimination efforts.

6 Closing the gap in hepatitis C diagnosis: Ensure targeted and accessible testing

Increasing access to hepatitis C testing and diagnosis to more people is essential for linkage to treatment and to achieving broader elimination targets. There is a need to increase the uptake of available testing technologies, and testing efforts need to be expanded.

CONCLUSION AND NEXT STEPS:

Implementing both system-level and programming-focused strategies that address health inequities and improve access to hepatitis C care is critical to advance hepatitis C elimination in Canada. At the system level, coordinated leadership from all sectors of government, a commitment to health equity, accelerated access to testing technologies and expansion of treatment eligibility and coverage are necessary to reach more individuals

affected by hepatitis C, ensuring that more people receive timely diagnosis, care and treatment across diverse communities. To drive a coordinated national response, strengthened monitoring and surveillance systems will improve data collection and sharing to effectively monitor progress toward the 2030 elimination targets.

Programming-focused strategies that include micro-elimination initiatives tailored to specific populations, as well as the integration of hepatitis C prevention, testing and treatment into community and primary care settings, will be crucial to reaching priority populations. In particular, emphasizing low-barrier, holistic and community-led approaches leads to programming that is meaningful and responsive to those most affected by hepatitis C. Expanding harm reduction and other substance use services will also play a key preventive role and close the gap in hepatitis C diagnosis.

The pan-Canadian elimination meeting aimed to ignite momentum to eliminate hepatitis C in Canada by promoting the uptake of evidence-based practice and policy. Multi-region, cross-sectoral dialogue stimulated collaboration and knowledge sharing among attendees representing community organizations, clinicians and researchers across the country, as well as key federal agencies. Through this, opportunities were identified to ensure a coordinated response and make meaningful progress to eliminate hepatitis C as a public health threat by 2030. Fostering partnership between governments, healthcare providers, community organizations and those most affected by hepatitis C is essential to build a comprehensive, equitable and effective strategy to reach 2030 elimination targets. Prioritizing community-led initiatives will ensure that programs are responsive to local needs and challenges across Canada. Next steps should focus on strengthening commitments at the national, provincial/territorial and local levels, including scaling up initiatives and programming for both health systems and community organizations. By addressing these recommendations, Canada can make meaningful progress toward the goal of eliminating hepatitis C as a public health threat by 2030.



INTRODUCTION

Canada is participating in a global effort to eliminate viral hepatitis, including hepatitis C, as a public health threat by 2030. Hepatitis C is a viral infection primarily affecting the liver. It poses significant health risks such as cirrhosis, liver cancer and liver failure if left untreated, resulting in major illness and death.

According to the World Health Organization (WHO), approximately 58 million people globally were living with chronic hepatitis C in 2020, with 1.5 million new infections occurring annually.¹⁰ The WHO's Global Health Sector Strategy (GHSS) on Viral Hepatitis, released in 2016, set ambitious targets aimed at reducing new infections by 90%, diagnosing 90% of cases and treating 80% of those diagnosed by 2030.¹¹

In February 2024, CATIE, in partnership with the Canadian Network on Hepatitis C (CanHepC) and the Public Health Agency of Canada (PHAC) and with support from Indigenous Services Canada and the Canadian Institutes

of Health Research (CIHR), convened a two-day gathering to accelerate progress toward hepatitis C elimination in Canada. Titled "Hepatitis C Elimination: Sharing Progress, Igniting Efforts," this pan-Canadian meeting brought together key partners and experts committed to advancing national and regional efforts to achieve elimination targets by 2030. This meeting aimed to foster the uptake of evidence-based practice and policy to reach elimination targets through knowledge-sharing and discussion activities. This report highlights the themes and recommendations that emerged from the event for policy, practice and programs.

Why eliminate hepatitis C?

There are many reasons to eliminate hepatitis C.

Improving public health outcomes by preventing deaths and serious health complications: Hepatitis C is a major public health issue. Chronic infection with hepatitis C can lead to severe liver diseases such as cirrhosis, liver cancer and liver failure. It is among the most burdensome infectious diseases in Canada, resulting in more years of life lost than any other infectious disease in the country, and it is a leading cause of liver cancer and death.^{1,2} Eliminating the virus can prevent long-term liver damage, reduce mortality and improve quality of life.

Addressing health inequities: Hepatitis C's greatest impact is on some of Canada's most marginalized populations, including Indigenous peoples,³ people who use drugs,⁴ gay and bisexual men who have sex with men (gbMSM),⁵ immigrants and newcomers,⁶ and people who experience incarceration.⁷ Along with hepatitis C, these communities face a higher burden of other health and mental health issues, compounded by other social factors like racism, colonialism, criminalization, homophobia and poverty.¹² Hepatitis C elimination can be a significant way to support equity-deserving communities and even act as a gateway to engage them in other health or social services.

Realizing economic benefits: Treating and managing advanced liver disease is costly.¹³⁻¹⁵ A recent study showed that accelerating diagnosis and treatment rates to reach targets will save \$122.6 million in healthcare costs in Manitoba, Ontario and Quebec combined by 2030 compared with our current trajectory.¹⁶ In Ontario alone, a study found that the mean 30-day costs of managing hepatitis C-related liver disease ranged from around \$798 for each patient with no cirrhosis to over \$8,700 for those with severe conditions like decompensated cirrhosis and liver cancer.¹⁵ Investment now to eliminate hepatitis C can significantly reduce healthcare costs, including treatment for liver disease such as cirrhosis and liver cancer.¹⁷

Why are we well positioned to eliminate hepatitis C?

Major advancements in treatment, testing and prevention strategies: Advances in treatment mean that hepatitis C can now be cured using simple, well-tolerated and highly effective antiviral medications. These treatments are simpler, shorter, more tolerable and much more effective than past treatments, curing more than 95% of those treated. A cure is what makes it possible to eliminate hepatitis C as a public health threat, and other advances in testing and prevention can accelerate this process.¹⁶ Simpler testing and diagnostic methods, such as point-of-care tests and reflex testing, have provided more options to identify undiagnosed people.^{18,19} Evidence-based interventions such as needle and syringe programs (NSP) and opioid agonist therapy have proven effective in reducing ongoing transmission and preventing reinfection.^{20,21}

Political commitment to eliminate hepatitis C as a public health threat: Canada is committed to eliminating viral hepatitis as a public health threat by 2030. The World Health Organization (WHO) released a Global Health Sector Strategy (GHSS) in 2016, which aims to eliminate viral hepatitis as a public health threat by 2030 by setting ambitious targets for prevention, diagnosis, treatment and vaccination that guide progress toward the 2030 goals.¹¹ Canada endorsed these efforts in the *Pan-Canadian Sexually Transmitted and Blood-Borne Infections (STBBI) Framework for Action*, released by the Public Health Agency of Canada (PHAC) in 2018, and the *Accelerating our response: Government of Canada five-year action plan on sexually transmitted and blood-borne infections* in 2019.²³ By adopting the WHO GHSS's elimination targets, Canada aims to reduce new hepatitis C infections by 90%, diagnose 90% of cases and treat 80% of people living with hepatitis C by 2030 (see box below). This STBBI action plan also provides a structured approach for public health action to address viral hepatitis. It was renewed in 2024,²⁴ with an added series of actions across four core pillars — prevention, testing, initiation of care and treatment, and ongoing care and support — actionable by different responsible federal departments.


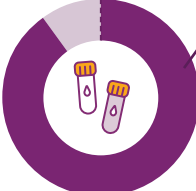
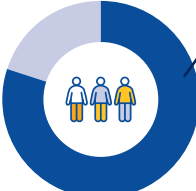
National and regional coalitions for elimination: CanHepC released the *Blueprint to inform hepatitis C elimination efforts in Canada*²⁵ in 2019 to complement the STBBI action plan. The blueprint offers a menu of evidence-informed recommendations to address hepatitis C across prevention, testing and diagnosis, and care and treatment with a particular focus on the priority populations that are the most affected. This document was the basis for regional-level coalitions that are developing “roadmaps” for elimination for their respective parts of Canada. These coalitions include the commitment of governments, healthcare providers, researchers and community organizations to work together on a coordinated response.

Strong public health monitoring: In 2022, PHAC released national hepatitis C estimates to track Canada’s progress against the 2020 and 2030 elimination targets in the **Government of Canada’s sexually transmitted and blood-borne infections action plan 2024-2030**.

These estimates provide an indication of our progress on the path to elimination up until the end of 2019. Moving forward, future estimates can help monitor our progress toward eliminating hepatitis C by 2030. The state of our progress at the end of 2019 is detailed in the box below.

CANADA’S PROGRESS TOWARD HEPATITIS C ELIMINATION TARGETS

Canada has joined countries around the world in committing to eliminating hepatitis C as a public health threat by 2030. Elimination targets have been established for Canada including targets for hepatitis C prevention, testing and treatment.* It is projected that meeting these targets will eliminate hepatitis C in Canada by 2030. This was the state of our progress at the end of 2019**:

| | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>PREVENTION TARGET Reduce new infections by 90% by 2030</p> <p>In 2019, there were an estimated 9,470 new hepatitis C infections, which represents a 2% reduction in the annual number of new infections since 2015. Improving access to prevention strategies, testing and treatment will reduce the rate of new infections, which is essential to reaching 2030 targets.</p> |  <p>REDUCE NEW INFECTIONS BY 90% BY 2030</p> |
| <p>TESTING TARGET Diagnose 90% of people living with hepatitis C</p> <p>An estimated 76% of people who have ever had hepatitis C in Canada had been diagnosed as of 2019; this means that 24% were unaware of their status. To reach 2030 targets, it is essential to increase access to testing so that more people with hepatitis C are diagnosed.</p> |  <p>DIAGNOSE 90% OF PEOPLE LIVING WITH HEP C</p> |
| <p>TREATMENT TARGET Begin treatment for 80% of people living with hepatitis C</p> <p>As of 2019, an estimated 74,500 people living with chronic hepatitis C had been treated (30%). Improving access to treatment and support for people to complete treatment and be cured of hepatitis C is essential to reaching 2030 targets.</p> |  <p>BEGIN TREATMENT FOR 80% OF PEOPLE LIVING WITH HEP C</p> |

*Targets from the *Government of Canada’s sexually transmitted and blood-borne infections action plan 2024-2030*.
 **2019 estimates from the Public Health Agency of Canada

What needs to happen to reach elimination?

Despite our efforts to date, recent hepatitis C estimates indicate that in 2020, Canada was not on track to achieve elimination by 2030.²⁶ This highlights the need to prioritize hepatitis C elimination efforts to ensure that 2030 targets will be met. The COVID-19 pandemic has set us back even further by exacerbating health inequities,^{27,28} stretching our health systems and disrupting hepatitis C services across the care continuum.^{29–32}

Elimination is still within reach; however, it will require dedicated and coordinated efforts. Through collective action from all government and health sectors and partners involved in programming and policy, hepatitis C elimination is achievable. It is essential to implement a multi-sector approach with various partners taking part in ensuring

hepatitis C services for priority populations across the continuum of care. This involves different levels of governments, Indigenous governing bodies, departments, health systems and community-based and frontline organizations committing to a coordinated response. Achieving hepatitis C elimination will require coordinated actions from all of these partners across health systems.

Canada needs to double down to regain lost momentum and reach the goal of eliminating hepatitis C by 2030.

To tackle the challenges we face, CATIE partnered with CanHepC and the PHAC, with support from Indigenous Services Canada, and the Canadian Institutes of Health Research (CIHR), to host a bilingual meeting on national hepatitis C elimination efforts in programming and health systems.





A PAN-CANADIAN MEETING TO SHARE PROGRESS AND IGNITE EFFORTS

On February 5 and 6, 2024, **CATIE**, in partnership with **CanHepC** and the **PHAC**, co-convened a pan-Canadian two-day invitational meeting titled “Hepatitis C Elimination: Sharing Progress, Igniting Efforts.” This meeting aimed to support pan-Canadian efforts to reach hepatitis C elimination targets by 2030 through sharing evidence, mobilizing knowledge and networking.

MEETING OBJECTIVES

- 1** Ignite momentum and synergize the Canadian response to reach hepatitis C elimination targets following interruptions from the COVID-19 pandemic
- 2** Facilitate collaboration, knowledge sharing and networking among hepatitis C researchers, service providers, programming leaders and key decision-makers across different regions and sectors
- 3** Share progress toward elimination targets across provinces and territories and nationally
- 4** Inform strategic priorities to advance and sustain Canada’s elimination efforts
- 5** Amplify the voices and engage the expertise of members of key priority populations in the development and implementation of elimination action plans
- 6** Create a mechanism to communicate about best practices and lessons learned to support implementation and scale-up of elimination efforts across the country

In the lead-up to the meeting, the meeting organizers worked with an advisory committee that provided extensive input on the agenda and participant list. The advisory committee had national representation from hepatitis C community organizations, clinicians and researchers and key federal agencies. This included PHAC, Correctional Service Canada, the CIHR and Indigenous Services Canada. The five priority populations disproportionately impacted by hepatitis C were represented in the advisory committee (the full list of advisory committee members is provided in **Appendix C**):

- Indigenous peoples (including First Nations, Inuit and Metis members)
- people who use drugs (PWUD)
- people who experience incarceration
- immigrants and newcomers from countries where hepatitis C is common
- gay, bisexual and other men who have sex with men (gbMSM)

On the basis of input from the advisory committee, meeting organizers invited individuals to attend the meeting to provide regional diversity and representation from a range of people involved in the response to hepatitis C. The meeting convened over 80 key national-, provincial- and territorial-level partners who influence Canada's hepatitis C elimination response, including:

- public health workers
- researchers
- health policy-makers
- services planners
- decision-makers (including chief medical officers of health from six jurisdictions)
- clinicians
- people working in community-based organizations
- community leaders from priority populations
- people with lived or living experience

Before the event, meeting participants were provided with background materials, including a summary document and two prerecorded online webinars by external experts. These materials were provided to ensure participants attended the meeting with a common understanding of hepatitis C elimination efforts and opportunities (**Appendix B**).

The final agenda was structured to facilitate and ignite multi-region and cross-sectoral dialogue among participants so that they could share experiences, insights, concerns and challenges. This helped to identify overall opportunities at the federal, territorial and provincial levels to move coordinated hepatitis C elimination efforts forward (**Appendix B**).

MEETING AGENDA AND GUIDING QUESTIONS

Over the course of two days, participants gave presentations, engaged in plenary dialogues and had discussions in breakout groups. The topics covered included the following:

- Why is eliminating hepatitis C in Canada important, urgent, and achievable and how can we ignite momentum?
- What do the data tell us about our progress toward elimination in Canada?
- How will hepatitis C fit in within the Public Health Agency of Canada's new five-year action plan 2024–2030 on sexually transmitted and blood-borne infections?
- What are "game changers" for achieving hepatitis C elimination through prevention, testing, treatment?
- What approaches are working well, how have barriers been overcome and how might these be scaled up?
- How can hepatitis C elimination be achieved within different provincial or territorial health systems in Canada?
- What game changers to hepatitis C elimination could be integrated into programming and systems in your region to help achieve elimination?

See **Appendix B** for the full meeting agenda.



EMERGENT THEMES AND RECOMMENDATIONS

Significant gaps and challenges persist in advancing a coordinated response to eliminate hepatitis C in Canada. Emergent themes and recommendations from the meeting to address these gaps and challenges are summarized in two broad categories: (1) health system and policy level and (2) programming and implementation level.

HEALTH SYSTEM AND POLICY LEVEL

1 Ensure governmental commitment to and endorsement of hepatitis C elimination goals across the health system sectors

Achieving elimination requires leadership and coordinated action at the health system and policy level. This includes involvement from national, provincial and territorial governments, healthcare system leaders, municipal governments, public health and Indigenous governing bodies. Having endorsement and support from these leaders is crucial to enacting policy and health system changes and prioritizing investment in hepatitis C programs and services. One way this can be done is for provincial, territorial and federal governments and health authorities to integrate and prioritize hepatitis C as part of STBBI, sexual health and cancer prevention strategies.

Packaging hepatitis C as part of broader health strategies can facilitate health system coordination and ensure hepatitis C services are financed.

Commitment to hepatitis C elimination is also necessary for federal and regional bodies that oversee healthcare for specific priority populations. At the federal level, this includes Correctional Service Canada, Indigenous Services Canada and Immigration, Refugees and Citizenship Canada.

“We need all levels of government to come together and prioritize hepatitis C elimination. Without coordinated action, we won’t be able to reach our goals.”

– Provincial policy-maker

2 Underpin efforts with a health equity approach: Focus on addressing barriers with priority populations

In Canada, five priority populations experience a disproportionate burden of hepatitis C:

- Indigenous peoples (First Nations, Inuit and Metis)
- people who use drugs (PWUD)
- people who experience incarceration
- immigrants and newcomers from countries where hepatitis C is common
- gay, bisexual and other men who have sex with men (gbMSM)

These groups are marginalized by social and structural factors, including discrimination, criminalization and stigma, that increase their risk for acquiring hepatitis C infection and create barriers to accessing care.¹² The elimination of hepatitis C in Canada can only be achieved through a health equity approach that addresses inequalities and improves access to care for these populations. This work must be done through meaningful engagement with people from these communities. Interventions and services must be tailored, relevant and responsive to their needs and delivered in a way that recognizes culture, language and past experiences.

Efforts at the health systems and policy level must be made to reduce barriers to hepatitis C services, including allocating resources to fund population-specific interventions that provide wraparound care and addressing the social and structural factors that exacerbate health inequities.

3 Implement prison-based strategies in federal and provincial corrections facilities

Prison-based strategies in federal and provincial corrections facilities are essential to achieving elimination targets, given the unique challenges associated with prison settings and opportunities for microelimination. People in prison are disproportionately impacted by hepatitis C.⁷ This is because the criminalization of drug use leads people who use drugs to be overrepresented in prison settings, where high-risk practices like sharing drug equipment and unregulated tattooing are common.³³ Limited access to sterile equipment and harm reduction supplies increases hepatitis C transmission risks.³³ Considering these factors, recommendations for prisons include universal opt-out screening upon entry, initiation of treatment by non-specialist prescribers or via telemedicine, linking people to community-based care upon release and improving access

to harm reduction supplies and programs (e.g., needle exchange programs, opioid agonist treatment) to prevent new infections.

4 Accelerate approval of and remove barriers for new testing technologies

The most utilized approach to hepatitis C testing in Canada is standard two-step testing. This approach uses two separate blood samples taken at two separate times to confirm a chronic hepatitis C diagnosis and to demonstrate eligibility for treatment.

The first blood sample screens for hepatitis C antibodies. If this test result is positive, a second blood sample is taken to conduct a confirmatory test, which is sent to a laboratory for analysis. While this two-step testing process is the most common form of testing in Canada, it presents a significant barrier to the diagnosis of a current hepatitis C infection. This is because two tests and multiple appointments are often required, and many individuals are lost to care during this process.²⁵ In Canada, research suggests that only 70% to 85% of individuals with a positive hepatitis C antibody test go on to take a confirmatory test.³⁴ Simpler testing technologies and processes (e.g., point-of-care testing) have been recommended by the WHO to improve linkage to and retention in hepatitis C treatment.³⁵

New, simplified hepatitis C testing technologies have the potential to revolutionize testing and help identify undiagnosed cases. These testing technologies can complement the standard two-step testing process (see side box). Another major benefit is that they reduce the number of clinical appointments required to receive a diagnosis. However, each of these technologies is associated with unique barriers to their uptake and widespread use.

Reflex testing is an approach in laboratory workflows to simplify two-step testing into one-step testing. This eliminates the need for a second appointment and blood sample; it can ensure everyone has access to a full diagnosis and reduces the risk that individuals fall out of care.³⁶ Another advantage of reflex testing is that with more laboratory-confirmed diagnoses, public health is able to gather more data to create a more accurate national

picture of current hepatitis C infections in this country. Most provinces perform this process for first antibody-positive tests, but individuals with a previous positive result don't receive a reflex confirmatory test during retesting, creating barriers to treatment for individuals at ongoing risk for reinfection.

New point-of-care testing technologies can provide nearly instant results and be delivered by a wide variety of providers.³⁷ They are already being used around the world. While some of these tools are already being used, others are awaiting approval by federal regulators. Canada needs to approve these for use and invest in making these tools widely available across traditional and community-based health settings. Funding and infrastructure (i.e., health record and data collection tools) are needed to ensure results are reported centrally and systems are in place to facilitate linkage to care. In addition to the testing

technologies that are waiting approval, there are others, including ones made by Canadian companies and marketed in other countries, that have not yet been submitted to Health Canada. There is a need to engage with these manufacturers as appropriate to submit their technologies for approval in Canada.

Dried blood spot (DBS) testing is an alternative sample collection method that can expand the reach of testing, particularly in rural and remote areas or for people with difficult vein access.³⁸ Although DBS testing is approved by Health Canada for diagnostics, it is not widely available or in use. It is only currently available for routine testing in one province. It needs to be more widely adopted by public health laboratories, and the distribution of dried blood spot testing kits needs to be expanded.

In addition to approvals, these new simplified testing technologies need sustained funding.

Point-of-care antibody testing is a rapid, finger-prick blood test that screens for hepatitis C antibodies.³⁹ The test is portable and easy to administer, and it returns results in 20 minutes or less.^{40,41} It can be used outside of clinical settings and can be performed by non-clinical providers with proper supports. Additional laboratory testing is still required to confirm current hepatitis C infection and to ensure that an individual's treatment will be publicly covered.

Although point-of-care antibody tests are currently licensed for use, there is no sustained public funding to allow frontline service providers to purchase and use these tests. There is an important role for provincial and territorial leadership to support the funding and uptake of these tests.

Point-of care rapid hepatitis C RNA testing is a rapid finger-prick blood test for diagnosing hepatitis C with a confirmatory RNA test.⁴² A sample is loaded into an on-site analyzer and returns results in about one hour.⁴³ There is also the potential to follow antibody positive results immediately by using a point-of-care RNA test to confirm the result and provide a definitive diagnosis within hours or even

minutes. This method can be delivered in non-clinical and mobile settings.^{37,44}

The Xpert HCV Viral Load Fingerstick rapid RNA point-of-care hepatitis C test is not currently approved for diagnostics in Canada. Despite the fact that Health Canada has licensed rapid point-of-care RNA tests for COVID-19, influenza and respiratory syncytial virus infections, they have not yet approved point-of-care RNA tests for hepatitis C. A submission for approval has been made, but this has been delayed. There is an important role for federal leadership to play in expediting the approval of rapid hepatitis C RNA point-of-care tests and working with provincial and territorial health systems to ensure uptake of and public funding for these tests.

Both types of point-of-care tests can be delivered by a broader range of providers and in new settings, which eliminates the need for traditional clinic visits. This increases access to testing, especially among communities that avoid traditional healthcare interactions for various reasons, such as past experiences of stigma and discrimination in the healthcare environment.

5 Expand access to treatment by expanding provider eligibility and simplifying coverage

While all provincial, territorial and federal jurisdictions have made progress in expanding access to public coverage for hepatitis C treatment, some challenges remain.⁴⁵ The process to be reimbursed by provincial and territorial drug benefit programs is very complex in some regions, requiring extensive paperwork and long wait times. This includes the requirement in some regions to demonstrate a chronic infection, which requires repeated testing over several months, delaying treatment. In certain provinces, individuals face significant difficulties securing drug coverage; high deductibles are often covered by pharmaceutical companies' patient support programs, but this is a temporary solution that could be withdrawn at any time.

Additionally, there are currently wide jurisdictional differences in the types of providers who can prescribe and deliver hepatitis C treatment.⁴⁶ In Canada, most hepatitis C care is still overseen by specialist physicians. This can create long wait times as there are relatively few of these specialists, and they typically work only in major hospitals, meaning that many communities do not have access.⁴⁶ However, modern treatments are highly effective and easy for most primary care prescribers, including nurse practitioners and family doctors, to oversee. Canada needs to increase the number of providers who are trained in hepatitis C care, as this can ensure treatment becomes more widely available and easier to access. Expanding the range of care providers who can oversee hepatitis C treatment would mean that people could receive treatment from familiar providers in settings they already access, such as substance use treatment programs, community health centres and sexual health clinics. Virtual clinical training programs for new prescribers already exist across the country. Provincial and territorial health systems can work with provider associations and primary care networks to promote and implement hepatitis C treatment, including through development of new healthcare standards and other supportive policies.

6 Leverage COVID-19 investments, policies and strategies

Although the COVID-19 pandemic caused immense disruption to hepatitis C elimination efforts,^{29–32,47} many advancements were made during the pandemic that could be leveraged for a hepatitis C response.⁴⁸ For example:

- Remarkable achievements in data sharing and access were realized during the COVID-19 pandemic, with major health benefits.
- Surveillance systems were decentralized during the pandemic to facilitate real-time tracking of infections.
- Digital health platforms including mobile health apps, online education and the provision of virtual care via telemedicine expanded rapidly during the pandemic, becoming more mainstream.
- Policy-makers and the general public developed a better understanding of the way marginalized populations are disproportionately impacted by infectious diseases.

Leveraging these advancements during the pandemic, such as digital health and telemedicine infrastructure, and replicating COVID-19 diagnostic policies and data systems would support hepatitis C elimination efforts.

7 Strengthen monitoring and surveillance systems: Improve data collection, promote data sharing and collaboration and build monitoring and surveillance capacity

Hepatitis C elimination in Canada requires the enhancement of hepatitis C surveillance data in all jurisdictions, including how the data are collected, collated and shared. This is crucial to support health system planning, program delivery and monitoring progress toward the 2030 elimination targets. Currently, available data sources in most provinces and territories are fragmented and are not being utilized, hindering effective planning and response efforts. Establishing a centralized source of information at the provincial, territorial and federal levels would be very useful in informing health policy, program planning and research. This would necessitate linking existing databases, sharing data and measuring new indicators that track progress toward hepatitis C elimination. By setting baseline metrics, including ones specific to priority populations, Canada can create a clearer pathway to achieving its hepatitis C elimination targets.

Regions can also set up centralized data dashboards to enable real-time monitoring of our progress and make data easily accessible for decision-making and planning.

“Comprehensive data are essential for monitoring our progress toward elimination goals and identifying areas for improvement.”

– Federal representative

In addition to comprehensive, centralized data, there is a need to provide population-specific estimates at the provincial/territorial, federal jurisdictional, and national levels. This is essential to inform targeted interventions and effectively monitor progress toward elimination targets. Specifically, setting jurisdictional testing and treatment targets would provide a clear framework for measuring progress and ensure each jurisdiction is held accountable for advancing elimination efforts. Establishing these targets would also enable the identification of gaps in care for optimal resource allocation. While some of these estimates exist, many of them are missing because of a lack of mandatory data collection in priority populations at points of care. This data collection needs to be equity informed, and the data need to be used alongside qualitative and contextual information to accurately inform targeted approaches. More investment into research can also fill gaps in data on the prevalence and incidence of hepatitis C in priority populations.

We need data that reflect the diversity of our population to ensure that our interventions are effective and equitable.

– Public health physician and health planner

“Data sharing is crucial for identifying trends and disparities in hepatitis C incidence and guiding our response efforts.”

– Physician and health system advisor

PROGRAMMING AND IMPLEMENTATION LEVEL

1 Emphasize micro-elimination initiatives: Focused, tailored and scalable approaches to reach specific populations

Micro-elimination of hepatitis C is an approach that can help to incrementally achieve national elimination goals. Micro-elimination involves eliminating hepatitis C for defined segments of the population in a defined geographic area.⁸ Micro-elimination was proposed as a pragmatic way to establish realistic elimination goals, allocate resources and support local expertise to tailor, deliver and scale up interventions. Segments of the population that can be targeted for micro-elimination can include people in certain settings, geographic areas, subpopulations and age cohorts, such as people in prisons, people in cities or people with co-infections.⁴⁹ There are many micro-elimination projects underway in Canada, but sharing these approaches and repeating them in more places can help regions simplify planning and take realistic, achievable steps toward elimination. That said, sustainability is crucial in the context of micro-elimination initiatives, as short-term, low-budget funding is inadequate to make meaningful progress toward elimination targets and address gaps in health equity. Long-term investment to scale up and maintain micro-elimination efforts is necessary to avoid losing momentum and risking the reversal of progress made toward hepatitis C elimination.

“Micro-elimination allows us to focus our efforts where they’re needed most, ensuring that no one is left behind in our elimination efforts.”

– Federal representative

2 Integrate hepatitis C prevention, testing and treatment into community settings and primary care to reach priority populations

Simplifying approaches to testing and treatment can improve engagement in hepatitis C care, particularly for marginalized populations.⁵⁰ Integrating hepatitis C programs or delivering programs in community health, primary care or other settings instead of “centralizing” these programs at a hospital or specialty clinic makes them more accessible. Integrating programs can include expanding the scope of existing services (e.g., an opioid

agonist therapy provider also providing testing). It can also include service coordination where separate, independent organizations link their services through intentional communications strategies and shared case management (e.g., a clinic working with a harm reduction site). This can be supported by virtual and telephone-based appointments, shared scheduling and clear referral systems. This model can be especially useful in providing care in geographically remote areas.

We need to integrate hepatitis C services into primary care and community settings to ensure that everyone has access to testing and treatment, regardless of where they live.”

– Clinician researcher

3 Ensure integrated, low-barrier and holistic approaches to hepatitis C care: a commitment to health equity

The five priority populations that experience a disproportionate burden of hepatitis C in Canada often face significant barriers to accessing healthcare, including stigma, racism, discrimination and socio-economic challenges.¹² Integrated and low-barrier hepatitis C programs can help to address barriers faced by these communities that are not well served by the traditional healthcare system and reduce the numbers of individuals who fall through the cracks.⁵⁰ This includes programs where all appointments are delivered at one location and by familiar providers. They have the ability to address other healthcare needs and provide supports for social or basic needs (e.g., housing), or they can make warm referrals or support patient navigation when services aren't available in-house. Care is provided in a non-stigmatizing, culturally safe way.

This approach recognizes that addressing hepatitis C can be about more than clearing the virus; it can also be about empowerment, validation and building bridges to other long-term health and broader support services. This in turn can reduce stigma and make hepatitis C care part of an individual's routine interactions with familiar, trusted providers. Fragmented health services can be especially difficult to navigate for marginalized or vulnerable populations, who may face stigma and discrimination by healthcare providers; it can be daunting to deal with

multiple service providers and face judgment in a variety of settings. There is a growing number of successful examples of community-based multidisciplinary hepatitis C models in harm reduction and addiction treatment facilities, shelters and sexual health clinics. These successful programs need to be replicated across the country and their approaches adopted by new and existing providers.

“Hepatitis C is often not a priority. People aren't engaged with getting treatment because of concurrent crises in meeting their basic life needs.”

– Frontline community health worker

4 Prioritize community-led programs to meet local needs

To eliminate hepatitis C as a public health threat, it is important to maintain and expand the breadth and depth of community-led programs. Programs are most relevant and responsive when those most affected are meaningfully engaged to shape and tailor programming.^{51,52} Given that community-based organizations have already established trust with those most affected by hepatitis C, they are ideally positioned to serve as effective navigators for hepatitis C care. Examples of this include the following:

- Having peer workers with lived experience design and lead outreach programs has proven to be an extremely effective way to reach people who use drugs.
- Indigenous patient navigators have been critical in bridging service users with the healthcare system in Indigenous communities.
- Community hepatitis C educators can hold culturally safe, in-language workshops in community settings for immigrant and newcomers.
- Patient advisory boards can guide research projects, and the development and evaluation of programs.

Engaging service users in the planning, delivery and evaluation of programs and services is a key success factor in ensuring that they are relevant to the individuals for whom they are intended and that they reflect the

communities within which they are offered/provided. These approaches have been pioneered by community organizations, but they need to be adopted by more providers and programs to help reach diverse communities affected by hepatitis C.

Community involvement is key to the success of our programs. We need to listen to the voices of those most affected and empower them to drive change.”

– Federal policy-maker

5 Expand access to harm reduction and other low-barrier substance use services to prevent hepatitis C infections among people who use drugs

Hepatitis C disproportionately affects people who use drugs⁴ and addressing prevention among this population must be a core part of broader elimination efforts. While shifts in political climates across the country have made the provision of effective prevention services for people who use drugs more difficult, there is a strong evidence base for optimal prevention programs including access to opioid agonist treatment, rapid access to low-barrier, harm reduction informed substance use treatment and publicly funded harm reduction programming including needle distribution programs and supervised consumption services.^{20,21} There is strong evidence demonstrating that harm reduction programs reduce the onward transmission of hepatitis C among people who use drugs. Needle syringe programs in combination with opioid substitution therapy, reduce the risk of onward transmission of hepatitis C by up to 74%.²¹

Harm reduction interventions, including provision of new drug equipment, have been shown to be highly cost-effective compared with the long-term healthcare costs of hepatitis C.² Shifting political climates have created barriers to some of these programs.

Expanding access to prevention programs, including needle distribution and safer drug use equipment distribution, opioid agonist therapy (including injectable and long-acting doses) and rapid-access substance use treatment, are essential to elimination efforts. There is also a need to ensure equitable access to these programs in rural and remote settings, as well as the provision of proven safer drug use, tattooing and piercing programs in provincial, territorial and federal correctional facilities.

In Canada, hepatitis C among people who use drugs must be understood in the context of the growing drug toxicity and overdose crisis. The unregulated drug market is increasingly exposing people to toxic substances and leading to more overdose deaths.⁵³ People who use drugs are currently more likely to die from overdose than hepatitis C.⁵⁴ Efforts to eliminate hepatitis C should become an opportunity to expand support services, including safer supply programs, also known as prescribed alternatives, and healthcare, including overdose prevention, for people who use drugs.

“Stigma and discrimination are major barriers to care. We need policies that address these issues and create supportive environments for people living with hepatitis C.”

– Physician and clinical researcher,

6 Close the gap in hepatitis C diagnosis: Ensure targeted and accessible testing

Nearly one-quarter of people who have ever had hepatitis C in Canada are estimated to be unaware of their status.⁵⁵ Increasing access to hepatitis C testing and diagnosis for more people is essential for linkage to treatment and to achieving broader elimination targets. Many advances have been made over the past few years, and more tools are available than ever to test people for hepatitis C, particularly outside of clinical settings.³⁴ However, there is a need to increase the uptake of available testing technologies, and testing efforts need to be expanded.

Task shifting is a promising approach to facilitate access to hepatitis C testing and treatment and advance national elimination efforts. Task shifting refers to the delivery of services by non-specialist providers. For example, a community worker might offer a hepatitis C test directly rather than referring a client to a healthcare professional. Another example is the delivery of care by non-specialist clinicians, such as family doctors or nurse practitioners. Task shifting offers several advantages: it expands the number of available providers, streamlines appointments and situates care with a familiar and trusted provider.

Task shifting is a promising approach that enables a broader range of service providers to deliver care. For example, community outreach workers can offer point-of-care testing in place of a nurse or physician. This expands the number of providers who can offer hepatitis C testing and allows individuals who are already engaged with their community workers to be offered a hepatitis C test directly, rather than through a healthcare professional.

Although evidence supports task shifting as an effective approach,⁵⁶ it is not widely used in Canada. Facilitating task shifting of clinical tasks to increase the uptake of available testing technologies and retain an individual in care would be an important way to support hepatitis C elimination efforts. There are key policy and programming implications to advance task shifting. Healthcare organizations can support this practice by developing standards and policies to make uptake and implementation easier. These can include credentialing, staff training and guidance on ways to adapt workflows, staff roles and policies. Medical directives can also be used to enable these providers to take on these additional clinical roles. Conversely, regulatory frameworks must be considered, as some tasks are designated as specific medical interventions and can only be performed by certain providers. Thus, addressing regulatory constraints is critical for effective task shifting.

“Task shifting can help us reach more people with testing and treatment, especially in underserved communities where access to healthcare providers may be limited.”

– Federal representative

Conclusion and next steps

The pan-Canadian meeting “Hepatitis C Elimination: Sharing Progress, Igniting Efforts” held in February 2024 was a critical step toward igniting momentum to eliminate hepatitis C in Canada. The meeting facilitated multi-regional, cross-sectoral dialogue to stimulate collaboration and knowledge-sharing among attendees representing community organizations, clinicians and researchers across the country, as well as key federal agencies. Through meaningful participation and dialogue, the meeting helped to identify opportunities for scaling up evidence-based interventions, fostering partnerships and driving a unified response across regions and sectors to achieve the goal of eliminating hepatitis C in Canada by 2030.

Emergent themes from the meeting highlight key recommendations spanning changes at the health system and policy level and at the community programming and implementation level. The critical need for governmental commitment at all levels became apparent, underscored by the importance of coordinated action across health system sectors. Further, elimination efforts must be underpinned by a health equity approach, with a focus on priority populations most affected by hepatitis C. This approach is particularly relevant when developing and implementing programming that will scale up efforts to prevent, test for and treat hepatitis C. Meaningful engagement with key partners will ensure that initiatives are responsive to local needs and challenges across Canada.

Advancing initiatives at the system and policy level requires a coordinated response led by national, provincial and territorial, and municipal governments, as well as Indigenous governing bodies. Specifically, integrating hepatitis C within broader health strategies (e.g., STBBI prevention and care) can improve health system coordination and align financing among sectors. Governmental commitment and coordination are particularly crucial for federal agencies that oversee healthcare for certain priority populations (e.g., Correctional Service Canada, Indigenous Services Canada). Further, addressing structural barriers to care will improve the accessibility and availability of hepatitis C care. This includes reducing lengthy approval processes for testing technologies as well as changing restrictive provider eligibility for hepatitis C treatment and simplifying treatment coverage.

Recommendations at the system and policy level call for expanded access to hepatitis C testing; widespread implementation of simplified, low-barrier testing technologies (e.g., point-of-care testing) in a variety of settings would improve the identification of undiagnosed cases. Additionally, ensuring treatment is more easily accessible and available is critical to reduce wait times and boost treatment initiation. In particular, clinicians located in primary care and community health settings should be included as eligible prescribers, and training should be offered to increase the number of healthcare providers able to prescribe hepatitis C treatment. Moreover, removing complex reimbursement requirements for treatment coverage can improve treatment accessibility, allowing for more timely treatment initiation. To create more responsive health infrastructure and ensure a coordinated response across all sectors, policy investments during the COVID-19 pandemic, such as telemedicine, data sharing and decentralized surveillance systems, should be leveraged and harnessed for hepatitis C elimination efforts.

In terms of programming and implementation, micro-elimination initiatives are a promising strategy that target specific populations and geographic areas, such as people with prison experience. These tailored approaches represent an opportunity to reach priority populations and address health equity gaps; however, micro-elimination efforts should be sustainable, scalable and community led. Furthermore, the expansion of harm reduction and low-barrier substance use programs, (e.g., opioid agonist therapy, supervised consumption services) is vital to prevent new hepatitis C infections and provide pathways to hepatitis C care. Equally important to reducing barriers to care is the prioritization of community-led programming (e.g., peer navigation, culturally safe workshops). Engaging service users and harnessing community relationships is critical to reach diverse communities, especially those most affected by hepatitis C.

Eliminating hepatitis C in Canada requires a concerted effort — fostering partnership between governments, healthcare providers, community organizations and those most affected by hepatitis C is essential to build a comprehensive, equitable and effective strategy to reach 2030 elimination targets. By implementing a multi-pronged approach that addresses systemic barriers through policy reform and programming implementation, Canada is well positioned to make meaningful progress toward eliminating hepatitis C as a public health threat by 2030. However, coordinated efforts, sustained investment, a health equity approach and the prioritization of community-led initiatives will be crucial to ensuring that these efforts are both effective and inclusive. Meaningfully engaging partners will ensure that initiatives are responsive to local needs and challenges across Canada. Next steps should focus on strengthening commitments at the national, provincial/territorial and local levels, including scaling up resources and programming for both health systems and community organizations. By addressing these recommendations, Canada can make meaningful progress toward the goal of eliminating hepatitis C as a public health threat by 2030.

APPENDIX A

List of meeting participants

We acknowledge that many colleagues from Atlantic Canada were unable to attend because of inclement weather. **Unable to attend.*

Tagenine Alladin,
Manager, Public Health
Agency of Canada

Jason Altenberg, CEO,
South Riverdale
Community Health
Centre

***Lisa Barrett**, Physician
researcher, Dalhousie
University

Sofia Bartlett, Scientific
director (interim), clinical
prevention services,
BC Centre for Disease
Control

Nicole Blackman, Director
of integrated care
& clinical services,
Indigenous Primary
Health Care Council

Karine Blouin, Conseillère
scientifique spécialisée,
Institut national de santé
publique du Québec

Zoé Bordeleau-Cass,
Health educator, CATIE

Andrew Brett, Director,
Communications, CATIE

Jennifer Broad, Broad
Program manager,
harm reduction &
hepatitis C, South
Riverdale Community
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Julie Bruneau, Professor,
Centre de Recherche
du CHUM, Université
de Montréal

***Stacey Burns MacKinnon**,
Provincial communicable
disease coordinator, PEI
Department of Health
and Wellness

Laurel Challacombe,
Director, knowledge
services, CATIE

Kelly Choi, Epidemiologist,
Public Health Agency of
Canada

Romane Close, Specialist,
resource development
and knowledge
mobilization, CATIE

Brian Conway, Medical
director, Vancouver
Infectious Diseases
Centre

Chelsea Cook, HELP
Network coordinator,
Manitoba Harm
Reduction Network

Chance Cordon, Provincial
hep C coordinator,
PASAN

André Corriveau,
Médecin-conseil en
santé publique et
médecine préventive,
Commission de la
santé et des services
sociaux des Premières
Nations du Québec
et du Labrador

Susan Cuvelier (she/they),
Hepatologist, University
of Manitoba

Peter Daley, Infectious
diseases physician,
Memorial University

Karen Delina, Policy
analyst, Public Health
Agency of Canada

Melisa Dickie, Director,
hepatitis C knowledge
mobilization, CATIE

***Courtney Dowd-
Schmidtke**, Senior policy
manager, Public Health
Agency of Canada

Scott Elliott, CEO,
Dr. Peter Centre

***Ghayas Fadel**, Directeur
de la prévention des
ITSS, Ministère de la
Santé et des Services
sociaux du Québec

Jordan Feld, Co-director,
Canadian Network on
Hepatitis (CanHepC),
Hepatologist, Toronto
General Hospital

Lorraine Fradette,
Associate director of
operations, Canadian
Network on Hepatitis C
(CanHepC)

Rita Gad, Medical officer
of health, **Regional
Medical Officer of
Health (Office)**,
Government of New
Brunswick

Lesley Gallagher,
Research nurse,
Saskatchewan Infectious
Disease Care Network

Chelsea Giesel, Senior
project coordinator,
Pauktuutit Inuit Women
of Canada

Kayley Goralczyk,
Provincial assistant head
nurse, Alberta Health
Services

***Shawn Greenan**, HCV
program coordinator,
Health PEI

Nicole Greenspan, Lead,
hepatitis C elimination
(Ontario), CATIE

Heidi Hay, Executive
advisor, Health
Commons

Jessica Helwig, Senior
policy analyst, Public
Health Agency of
Canada

Chris Hoy, Associate
director, Ontario
Hepatitis C and Harm
Reduction Program,
CATIE

Naveed Zafar Janjua,
Co-director, Canadian
Network on Hepatitis C
(CanHepC), Executive
director, Data & Analytic
Services, BC Centre for
Disease Control

A. Mark Joffe, Chief
medical officer of health,
Government of Alberta

Christie Johnston,
Director, education and
HIV/STI knowledge
mobilization, CATIE

Jody Jollimore, Executive
director, CATIE

Kami Kandola, Chief
public health officer,
Government of
Northwest Territories

Charu Kaushic, Scientific
director, CIHR Institute
of Infection and
Immunity

Ibrahim Khan, Regional
medical health officer,
Indigenous Services
Canada

- Lori Kiefer**, Senior medical consultant, Ontario Ministry of the Solicitor General
- Alexandra King**, Cameco Chair in Indigenous Health and Wellness, University of Saskatchewan
- Margaret Kîsikâw Piyêsis**, Okimaw, CAAN Communities, Alliances & Networks
- Marina Klein**, Professor of medicine, McGill University Health Centre Research Institute
- Nadine Kronfli**, Clinician-scientist, McGill University Health Centre
- Marlene Larocque**, Senior policy advisor, Assembly of First Nations
- Santina Lee**, Medical officer of health, Manitoba Health, Seniors and Long-Term Care
- Lynne Leonard**, Adjunct professor, University of Ottawa
- Joanne Lush**, Manager, Ontario Ministry of Health
- Jean-François Mary**, Directeur général, CACTUS Montréal
- *Renee Masching**, Independent researcher and consultant, Seven Directions Consulting
- Stefanie Materniak**, Research manager, Horizon Health – Infectious Disease Research Unit
- Veronica McKinney**, Director, Northern Medical Services, University of Saskatchewan
- Brittany Merpaw**, A/director, communicable disease control, Indigenous Services Canada
- Laurence Mersilian**, Directrice, CAPAHC Centre Associatif Polyvalent d'Aide Hépatite C
- Dan Miller**, Knowledge specialist, HIV care and STI, CATIE
- Dr. Kieran Moore**, Chief medical officer of health, Ontario Ministry of Health
- Tina Morden**, Manager, Public Health Agency of Canada
- Danielle Myrah**, RN, Saskatchewan Health Authority
- *Devan Nambiar**, Manager of capacity building, Gay Men's Sexual Health Alliance
- Sophie Neumann**, Policy analyst, Public Health Agency of Canada
- Jill Norman**, Executive Director, Public Health Agency of Canada
- Raymond Obed**, Policy advisor, Inuit Tapiriit Kanatami
- Jasmine Pawa**, Public health physician, Multiple
- *Heather Percy**, Public health manager, Department of Health and Community Services Newfoundland
- Meghan Perrin**, Facilitator/ Facilitatrice, Services-conseils IMPACT MP Consulting
- Valérie Pierre-Pierre**, Senior program consultant, Ontario Ministry of Health
- Nashira Popovic**, Manager, STBBI estimates and field surveillance Public Health Agency of Canada
- Sara Pyke**, Clinical nurse specialist STBBI, First Nations Health Authority
- Sudit Ranade**, Chief medical officer of health, Yukon Territory
- *Sandra Romain**, Senior policy advisor, Inuit Tapiriit Kanatami
- Janet Rowe**, Executive director, PASAN
- Paul Sandstrom**, Director, National Sexually Transmitted and Blood-Borne Infections Laboratories
- *Deb Schmitz**, Executive director, BC Hepatitis Network
- Craig Shankar**, Director general, migration health, Immigration, Refugees and Citizenship Canada
- Donald Sheppard**, Vice president, Public Health Agency of Canada
- Jonathan Smith**, Manager, public health, Correctional Service Canada
- Dan Smyth**, Physician, Horizon Health
- Mark Swain**, Professor of medicine, University of Calgary
- Fozia Tanveer**, Manager, immigrant and newcomer hepatitis C programming, CATIE
- *Reyna Uriarte Beauregard**, Manager of health, Pauktuutit Inuit Women of Canada
- Carole Rosine Uwiteka**, Program officer, Public Health Agency of Canada
- Jennifer van Gennip**, Executive director, Action Hepatitis Canada
- Joseph van Veen**, Specialist, events and membership, CATIE
- Jason Wong**, Chief medical officer, BC Centre for Disease Control
- Tom Wong**, Chief medical officer of public health, Indigenous Services Canada
- Gerard Yetman**, Executive director, AIDS Committee of Newfoundland & Labrador

APPENDIX B

Agenda

DAY ONE - Monday, February 5th, 2024

7:30-8:30 Registration & Breakfast

8:30-9:15 Welcome – Facilitator: Meghan Perrin

- **Opening remarks**
 - Grandma Karen MacInnis
 - Jody Jollimore, executive director, CATIE
 - Naveed Janjua, co-director, Canadian Network on Hepatitis C (CanHepC)
 - Donald Sheppard, vice president, Infectious Diseases and Vaccination Programs Branch, Public Health Agency of Canada

9:15-9:45 **Setting the stage on hepatitis C elimination in Canada: a health equity priority and public health threat**

Guiding question: Why is eliminating hepatitis C in Canada important, urgent and achievable?

- Setting the stage – Jordan Feld, co-director, Canadian Network on Hepatitis C (CanHepC)
- Q/A and discussion

9:45-10:30 **Hepatitis C in Canada: Public Health Agency of Canada's hepatitis C estimates and priorities to address hepatitis C elimination in Canada**

Guiding question: What do the data tell us about progress toward elimination in Canada and how will hepatitis C fit in within the Public Health Agency of Canada's new five-year action plan on sexually transmitted and blood-borne infections?

- **Hepatitis C elimination targets and what the data tell us about progress toward elimination in Canada**, Nashira Popovic, manager, STBBI Estimates and Field Surveillance, Public Health Agency of Canada
- **Government of Canada's five-year action plan on sexually transmitted and blood-borne infections**, Jill Norman, a/executive director, Centre for Communicable Diseases and Infection Control, Public Health Agency of Canada
- Q/A and discussion

10:30-10:50 Break

10:50-11:30

**Experiences of hepatitis C linkage to care, treatment and cure:
Voices from the community**

Guiding question: Why are adaptive, health equity approaches to hepatitis C important to address hepatitis C among marginalized communities, and how can policymakers and system leaders account for this in regional elimination efforts?

Moderator: Chris Hoy, associate director, hepatitis C and harm reduction, CATIE

- Chelsea Cook, Manitoba Harm Reduction Network
- Jennifer Broad, South Riverdale Community Health Centre, Ontario
- Chance Cordon, PASAN, Ontario
- Q/A and discussion

11:30-12:00

Group discussion

- What have you heard this morning that has resonated with you?
- Is enough being done to eliminate hepatitis C in your region/jurisdiction?

12:00-1:00

Lunch and networking

1:00-4:00

Hepatitis C elimination is achievable: Successful implementation of elimination approaches in programming and health systems

Guiding question: What are “game changers” for achieving hepatitis C elimination through prevention, testing, treatment or care that are working well, how have barriers been overcome, and how might these be scaled up?

Overview presentation, followed by 15 minutes of large group discussion (30 minutes)

- **Evidence-based approaches to achieving hepatitis C elimination through prevention, testing, treatment and care**, Julie Bruneau, Centre de Recherche du Centre hospitalier de l'Université de Montréal, Quebec

Real-world examples: each panel will be followed by 25 minutes of large group discussion

- **What's working: Spotlight on real-world hepatitis C prevention approaches (45 minutes)**
 - Alexandra King, Cameco Chair in Indigenous Health and Wellness, University of Saskatchewan
 - Jason Altenberg, CEO, South Riverdale Community Health Centre, Ontario
 - Gerard Yetman, executive director, AIDS Committee of Newfoundland and Labrador
- **What's working: Real world hepatitis C testing and linkage to care approaches in programming and health systems (45 minutes)**
 - Sofia Bartlett, scientific director (interim), Clinical Prevention Services, BC Centre for Disease Control, **Viral Hepatitis Testing BC Guidelines**
 - Paul Sandstrom, director, National Sexually Transmitted and Blood-Borne Infections Laboratories, National Microbiology Laboratory Branch

- **What's working: Real-world hepatitis C treatment approaches in programming and health systems (45 minutes)**

- Shawn Greenan, HCV program coordinator, Health PEI
- Jonathan Smith, manager, Public Health, Correctional Service Canada

Group discussion questions

- What is needed to move this (i.e., prevention, testing, treatment) forward?
- What is missing from this discussion (on prevention, testing or treatment)?
- What is the potential for scale-up?

****This session will include a 15-minute break from approximately 3:00 to 3:15****

4:00-4:30 **End of Day 1 wrap-up** – Facilitator: Meghan Perrin

Group discussion/reflection

- What are some of your key takeaways?
- How do we move hepatitis C elimination forward based on what you have heard today?

4:30-5:30 **Networking reception**

DAY TWO - Tuesday, February 6th, 2024

7:30-8:30 **Registration & Breakfast**

8:30-9:00 **Welcome to Day 2** – Facilitator: Meghan Perrin

9:00-10:00 **So what, now what?** – Facilitator: Jody Jollimore

Guiding question: How can hepatitis C elimination be achieved within different health systems in Canada?

10:00-10:30 **Break and travel to breakout rooms listed below**

10:30-11:45 **Regional-level breakouts: Identifying opportunities regionally**

Guiding question: What game changers to hepatitis C elimination could be integrated into programming and systems in your region to help achieve elimination?

- British Columbia and Yukon (Room: British Columbia, level 2)
- Prairies and Northwest Territories (Room: Confederation II, level 4)
- Ontario and Nunavut (Room: Saskatchewan, level 3)
- Quebec (Room: Governor General II/III, level 4)
- Atlantic Provinces (Room: Manitoba, level 2)

***Representatives who work across more than one region are invited to join regional-level discussions.**

11:45-12:00 **Transition time back to the main room (Governor General II/III, level 4)**

12:00-12:30 **Report back/discussion from regional breakouts and concurrent session**

- What learnings or ideas can your region learn from other examples shared here today?
- Are there learnings from your own regional process you would like to share with other regions?
- Next steps: Opportunities to advance a coordinated elimination plan at the regional level

12:30 – 1:15 **Lunch**

1:15 – 2:15 **Breakout sessions – Identifying potential solutions**

- Hepatitis C elimination within prison settings (co-facilitated by Nadine Kronfli, McGill University Health Centre, and Chris Hoy, CATIE) (Room: Governor General II/III, level 4)
- Health systems surveillance and data coordination (co-facilitated by Naveed Janjua, BC Centre for Disease Control, and Nashira Popovic, Public Health Agency of Canada) (Room: Saskatchewan, level 3)
- Additional topics to be determined in Day 1–2. (Room: British Columbia, level 2)

2:15 – 2:30 **Break**

2:30 -3:30 **Where to from here? Next steps and closing** – Facilitator: Meghan Perrin

Guiding question: Why is igniting momentum toward the elimination of hepatitis C important and achievable?

Closing remarks

- Jill Norman, a/executive director, Centre for Communicable Diseases and Infection Control, Public Health Agency of Canada
- Jordan Feld, co-director, Canadian Network on Hepatitis C (CanHepC)
- Jody Jollimore, executive director, CATIE
- Grandma Karen MacInnis

List of pre-meeting materials:

Hepatitis C elimination as a public health threat by 2030

- **Reducing the health impact of sexually transmitted and blood-borne infections in Canada by 2030: A pan-Canadian STBBI framework for action** (PHAC)
- **Accelerating our response: Government of Canada five-year action plan on sexually transmitted and blood-borne infections** (PHAC)
- **Blueprint to inform hepatitis C elimination efforts in Canada** (CanHepC)
- Webinars
 - **The roadmap to eliminating hepatitis C in Ontario** (CATIE, Ontario Hepatitis C Elimination Roadmap)
 - Prerecorded webinar **Hepatitis C in Canada: What do the data tell us?** (CATIE, PHAC, CanHepC)
 - Prerecorded webinar **Lessons from the U.S. and Australia's hepatitis C elimination strategies** (CATIE, CanHepC, International Network on Health and Hepatitis in Substance Users (INHSU), the Coalition for Global Hepatitis Elimination, a program of The Task Force for Global Health)

Surveillance data and tracking elimination progress:

- Report: **Hepatitis C estimates in Canada, 2019** (PHAC, 2022)
- Fact sheet: **The epidemiology of hepatitis C in Canada** (CATIE, 2023)
- Infographic: **Canada's progress towards hepatitis C elimination targets** (CATIE, 2023)

Hepatitis C elimination primer documents:

- **Three Canadian provinces not on track to eliminate hepatitis C by 2030** (CATIE, 2023)
- **Blueprint to Inform Hepatitis C Elimination Efforts in Canada: What do service providers need to know?** (CATIE, 2019)

APPENDIX C

List of meeting organizers and advisory committee members

CORE PLANNING TEAM

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REFERENCES

1. Kwong JC, Ratnasingham S, Campitelli MA et al. The impact of infection on population health: results of the Ontario burden of infectious diseases study. *PLOS ONE*. 2012 Sep 4;7(9):e44103.
2. Myers RP, Krajden M, Bilodeau M et al. Burden of disease and cost of chronic hepatitis C virus infection in Canada. *Canadian Journal of Gastroenterology and Hepatology*. 2014 May 1;28(5):243-50.
3. Uhanova J, Tate RB, Tataryn DJ et al. The epidemiology of hepatitis C in a Canadian Indigenous population. *Canadian Journal of Gastroenterology and Hepatology*. 2013 Jun 1;27(6):336-40.
4. Nelson PK, Mathers BM, Cowie B et al. Global epidemiology of hepatitis B and hepatitis C in people who inject drugs: results of systematic reviews. *Lancet*. 2011 Aug 8;378(9791):571-83.
5. Lockart I, Matthews GV, Danta M. Sexually transmitted hepatitis C infection: the evolving epidemic in HIV-positive and HIV-negative MSM. *Current Opinion in Infectious Diseases*. 2019 Feb 1;32(1):31-7.
6. Greenaway C, Makarenko I, Tanveer F et al. Addressing hepatitis C in the foreign-born population: a key to hepatitis C virus elimination in Canada. *Canadian Liver Journal*. 2018 Jul 17;1(2):35-50.
7. Kouyoumdjian F, Schuler A, Matheson FI et al. Health status of prisoners in Canada: narrative review. *Canadian Family Physician*. 2016 Mar 1;62(3):215-22.
8. Lazarus J V., Wiktor S, Colombo M et al. Micro-elimination – a path to global elimination of hepatitis C. *Journal of Hepatology*. 2017 Oct 1;67(4):665-6.
9. Bartlett SR, Buxton J, Palayew A et al. Hepatitis C virus prevalence, screening, and treatment among people who are incarcerated in Canada: leaving no one behind in the direct-acting antiviral era. *Clinical Liver Disease*. 2021 Feb 28;17(2):75-80.
10. World Health Organization. Global hepatitis report 2024: action for access in low- and middle-income countries. 2024. Available from: <https://www.who.int/publications/i/item/9789240091672>
11. World Health Organization. Global health sector strategy on viral hepatitis 2016–2021: towards ending viral hepatitis. 2016. Available from: <https://www.who.int/publications/i/item/WHO-HIV-2016.06>
12. Krajden M, Cook D, Janjua NZ. Contextualizing Canada's hepatitis C virus epidemic. *Canadian Liver Journal*. 2018 Dec 25;1(4):218-30.
13. Mendlowitz A, Bremner KE, Walker JD et al. Health care costs associated with hepatitis C virus infection in First Nations populations in Ontario: a retrospective matched cohort study. *CMAJ Open*. 2021 Sep 28;9(3):E897-906.
14. Krajden M, Kuo MPH M, Zagorski B et al. Health care costs associated with hepatitis C: a longitudinal cohort study. *Canadian Journal of Gastroenterology and Hepatology*. 2010 Dec 1;24(12):717-26.
15. Wong WWL, Haines A, Bremner KE et al. Health care costs associated with chronic hepatitis C virus infection in Ontario, Canada: a retrospective cohort study. *CMAJ Open*. 2021 Mar 8;9(1):E167-74.
16. Feld JJ, Klein MB, Rahal Y et al. Timing of elimination of hepatitis C virus in Canada's provinces. *Canadian Liver Journal*. 2022 Nov 7;5(4):493-506.
17. Tian F, Forouzannia F, Feng Z et al. Feasibility of hepatitis C elimination by screening and treatment alone in high-income countries. *Hepatology*. 2024 Aug 1;80(2):440-50.
18. Grebely J, Matthews S, Causer LM et al. We have reached single-visit testing, diagnosis, and treatment for hepatitis C infection, now what? *Expert Review of Molecular Diagnostics*. 2024 Mar 1;24(3):177-91.
19. Feld JJ. What is needed to move toward single-step diagnosis of current HCV infection? *The Journal of Infectious Diseases*. 2024 May 8;229(Suppl 3):S316-21.
20. Tonin FS, Alves da Costa F, Fernandez-Llimos F. Impact of harm minimization interventions on reducing blood-borne infection transmission and some injecting behaviors among people who inject drugs: an overview and evidence gap mapping. *Addiction Science and Clinical Practice*. 2024 Feb 4;19(1):1-22.
21. Platt L, Minozzi S, Reed J et al. Needle and syringe programmes and opioid substitution therapy for preventing HCV transmission among people who inject drugs: findings from a Cochrane Review and meta-analysis. *Addiction*. 2018 Mar 1;113(3):545-63.
22. Public Health Agency of Canada. Reducing the health impact of sexually transmitted and blood-borne infections in Canada by 2030: a pan-Canadian STBBI framework for action. 2018. Available from: <https://www.canada.ca/en/public-health/services/infectious-diseases/sexual-health-sexually-transmitted-infections/reports-publications/sexually-transmitted-blood-borne-infections-action-framework.html>
23. Public Health Agency of Canada. Accelerating our response: Government of Canada five-year action plan on sexually transmitted and blood-borne infections. 2019. Available from: <https://www.canada.ca/en/public-health/services/reports-publications/accelerating-our-response-five-year-action-plan-sexually-transmitted-blood-borne-infections.html>
24. Public Health Agency of Canada. Government of Canada's sexually transmitted and blood-borne infections (STBBI) action plan 2024–2030. 2024. Available from: <https://www.canada.ca/en/public-health/services/publications/diseases-conditions/sexually-transmitted-blood-borne-infections-action-plan-2024-2030.html>

25. Canadian Network on Hepatitis C. Blueprint to inform hepatitis C elimination efforts in Canada. 2019. Available from: canhepc.ca/sites/default/files/media/documents/blueprint_hcv_2019_05.pdf
26. Popovic N, Williams A, Périnet S et al. National Hepatitis C estimates: incidence, prevalence, undiagnosed proportion and treatment, Canada, 2019. *Canada Communicable Disease Report*. 2022 Dec 14;48(11/12):540-9.
27. Mitra S, Bouck Z, Larney S et al. The impact of the COVID-19 pandemic on people who use drugs in three Canadian cities: a cross-sectional analysis. *Harm Reduction Journal*. 2024 May 16;21(1):1-13.
28. Ledlie S, Tadrous M, Bayoumi AM et al. Trends in opioid toxicities among people with and without opioid use disorder and the impact of the COVID-19 pandemic in Ontario, Canada: a population-based analysis. *International Journal of Drug Policy*. 2024 May 1;127:104392.
29. Morrow RL, Binka M, Li J et al. Impact of the COVID-19 pandemic on hepatitis C treatment initiation in British Columbia, Canada: an interrupted time series study. *Viruses*. 2024 Apr 23;16(5):655.
30. Thompson LA, Plitt SS, Zhuo R et al. The effect of first-wave COVID-19 restrictions on HCV testing in Alberta, Canada: a trend analysis from 2019 to 2022. *Canadian Liver Journal*. 2024 May 8;7(2):273-85.
31. Binka M, Bartlett S, Velásquez García HA et al. Impact of COVID-19-related public health measures on HCV testing in British Columbia, Canada: an interrupted time series analysis. *Liver International*. 2021 Dec 1;41(12):2849-56.
32. Mandel E, Peci A, Cronin K et al. The impact of the first, second and third waves of COVID-19 on hepatitis B and C testing in Ontario, Canada. *Journal of Viral Hepatitis*. 2022 Mar 1;29(3):205-8.
33. Kronfli N, Buxton JA, Jennings L, et al. Hepatitis C virus (HCV) care in Canadian correctional facilities: where are we and where do we need to be? *Canadian Liver Journal*. 2019 Jun 12;2(4):171-83.
34. Feld JJ. Hepatitis C virus diagnostics: the road to simplification. *Clinical Liver Disease*. 2018 Dec 14;12(5):125-9.
35. World Health Organization. Updated recommendations on simplified service delivery and diagnostics for hepatitis C infection: policy brief. 2022. Available from: <https://iris.who.int/bitstream/handle/10665/357086/9789240052697-eng.pdf?sequence=1>
36. Tao Y, Tang W, Fajardo E et al. Reflex hepatitis C virus viral load testing following an initial positive hepatitis C virus antibody test: a global systematic review and meta-analysis. *Clinical Infectious Diseases*. 2023 Oct 13;77(8):1137-56.
37. Grebely J, Applegate TL, Cunningham P et al. Hepatitis C point-of-care diagnostics: in search of a single visit diagnosis. *Expert Review of Molecular Diagnostics*. 2017 Dec 1;17(12):1109-15.
38. Soulier A, Poiteau L, Rosa I et al. Dried blood spots: a tool to ensure broad access to hepatitis C screening, diagnosis, and treatment monitoring. *The Journal of Infectious Diseases*. 2016 Apr 1;213(7):1087-95.
39. Smith BD, Drobeniuc J, Jewett A et al. Evaluation of three rapid screening assays for detection of antibodies to hepatitis C virus. *The Journal of Infectious Diseases*. 2011 Sep 15;204(6):825-31.
40. Khuroo MS, Khuroo NS, Khuroo MS. Diagnostic accuracy of point-of-care tests for hepatitis C virus infection: a systematic review and meta-analysis. *PLOS ONE*. 2015 Oct 16;10(3):e0121450.
41. Smookler D, Vanderhoff A, Biondi MJ et al. Reducing read time of point-of-care test does not affect detection of hepatitis C virus and reduces need for reflex RNA. *Clinical Gastroenterology and Hepatology*. 2021 Jul 1;19(7):1451-1458.e4.
42. Grebely J, Lamoury FMJ, Hajarizadeh B et al. Evaluation of the Xpert HCV viral load point-of-care assay from venepuncture-collected and finger-stick capillary whole-blood samples: a cohort study. *The Lancet Gastroenterology and Hepatology*. 2017 Jul 1;2(7):514-20.
43. Grebely J, Catlett B, Jayasinghe I et al. Time to detection of hepatitis C virus infection with the Xpert HCV viral load fingerstick point-of-care assay: facilitating a more rapid time to diagnosis. *The Journal of Infectious Diseases*. 2020 Jun 11;221(12):2043-9.
44. Bajis S, Dore GJ, Hajarizadeh B et al. Interventions to enhance testing, linkage to care and treatment uptake for hepatitis C virus infection among people who inject drugs: a systematic review. *International Journal of Drug Policy*. 2017 Sep 1;47:34-46.
45. Snell G, Marshall AD, van Gennip J et al. Public reimbursement policies in Canada for direct-acting antiviral treatment of hepatitis C virus infection: a descriptive study. *Canadian Liver Journal*. 2023 Jul 23;6(2):190-200.
46. Mandel E, Underwood K, Masterman C et al. Province-to-province variability in hepatitis C testing, care, and treatment across Canada. *Canadian Liver Journal*. 2023 Jul 26;6(2):234-48.
47. Blach S, Kondili LA, Aghemo A et al. Impact of COVID-19 on global HCV elimination efforts. *Journal of Hepatology*. 2021 Jan 1;74(1):31-6.
48. Clark EC, Neumann S, Hopkins S et al. Changes to public health surveillance methods due to the COVID-19 pandemic: scoping review. *JMIR Public Health and Surveillance*. 2024 Jan 19;10(1):e49185.
49. Lazarus J V, Pericas JM, Pericàs JM et al. Viral hepatitis: "E" is for equitable elimination. *Journal of Hepatology*. 2018 Oct 1;69(4):762-4.
50. Biondi MJ, Feld JJ. Hepatitis C models of care: approaches to elimination. *Canadian Liver Journal*. 2020 Apr 10;3(2):165-76.

51. Smookler D, Beck A, Head B et al. A collaborative approach to hepatitis C testing in two First Nations communities of northwest Ontario. *Canadian Liver Journal*. 2022 Aug 16;5(3):329-38.
52. Pandey M, Konrad S, Reed N et al. Liver health events: an indigenous community-led model to enhance HCV screening and linkage to care. *Health Promotion International*. 2022 Feb 17;37(1):daab074.
53. Special Advisory Committee on the Epidemic of Opioid Overdoses. Opioid- and stimulant-related harms in Canada. 2023. Available from: <https://health-infobase.canada.ca/substance-related-harms/opioids-stimulants/>
54. Bonn M, Palayew A, Bartlett S et al. Addressing the syndemic of HIV, hepatitis C, overdose, and COVID-19 among people who use drugs: the potential roles for decriminalization and safe supply. *Journal of Studies on Alcohol and Drugs*. 2020 Oct 1;81(5):556-60.
55. Popovic N, Williams A, Périnet S et al. National hepatitis C estimates: incidence, prevalence, undiagnosed proportion and treatment, Canada, 2019. *Canada Communicable Disease Report*. 2022 Dec 14;48(11-12):549.
56. Oru E, Trickey A, Shirali R et al. Decentralisation, integration, and task-shifting in hepatitis C virus infection testing and treatment: a global systematic review and meta-analysis. *The Lancet Global Health*. 2021 Apr 1;9(4):e431-45.