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| Victorian hepatitis C plan 2022–30 (accessible) |
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| **Victorian hepatitis C plan  2022–30 (accessible)** |
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| To receive this document in another format, [email the Policy and Programs Branch](mailto:email%20P) <bbvsti.information@health.vic.gov.au>.  Authorised and published by the Victorian Government, 1 Treasury Place, Melbourne.  © State of Victoria, Australia, Department of Health, September 2022.  In this document, ‘Aboriginal’ refers to both Aboriginal and Torres Strait Islander people.  ISBN 978-1-76096-843-4 (PDF/online/MS Word) or 978-1-76096-842-7 (Print)  Available from the [Department of Health website](https://www.health.vic.gov.au/victorian-sexual-reproductive-health-viral-hepatitis-strategy-2022-30) <https://www.health.vic.gov.au/victorian-sexual-reproductive-health-viral-hepatitis-strategy-2022-30>. |
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# Acknowledgement of Aboriginal Victorians

We recognise the diversity of Aboriginal people living throughout Victoria. In this strategy we have used the term ‘Aboriginal’ to include all people of Aboriginal and Torres Strait Islander descent living in Victoria.

The Victorian Government proudly acknowledges Victoria’s Aboriginal communities and the richness and depth of the world’s oldest living culture and pays respect to Elders past and present. We acknowledge Aboriginal people as Australia’s first peoples and as the Traditional Owners and custodians of the land and water on which we live, work and play. We recognise and value the ongoing contribution of Aboriginal people and communities to Victorian life and how this enriches our society more broadly. We embrace self-determination and reconciliation, working towards equality of outcomes and ensuring an equitable voice.

Within Aboriginal Victorian communities, there is a rich landscape of cultural and spiritual diversity, with varied heritages and histories both pre- and post-invasion. We understand and acknowledge that people may have multiple and intersecting gender and sexuality identities including: young people, women, gay, bisexual and other men who have sex with men, trans and gender diverse people including Sistergirls and Brotherboys. We also acknowledge priority groups within the Aboriginal Victorian population who particularly experience poor sexual and reproductive health outcomes. We recognise that these groups have a right to enjoy and have control over their own sexual and reproductive behaviours in line with cultural values, kinship practices and individual ethics, and may need support to access culturally inclusive reproductive health services and programs.

Victorian Aboriginal communities continue to lead with strength and resilience in the face of ongoing transgenerational trauma, systemic racism and the impacts of colonisation, dispossession and removal of families and Country. Cultural and social determinants of health affect Aboriginal Victorians’ experiences of wellbeing, blood-borne viruses (BBV), sexually transmissible infections (STI) and reproductive health choices. In this context, wellbeing is not a narrow experience of the physical body, it is a cultural, emotional and spiritual experience. This wellbeing includes the right to be free from diseases that may interfere with sexual life.

To achieve these freedoms, we have established a continued willingness to work in partnership to address BBV and STI and to promote reproductive health. This partnership, defined by the hallmarks of the community-controlled and -led response, is best practice and improves quality-of-life and health outcomes for individuals, families and communities.

The Victorian Government notes that, in partnership with the First Peoples’ Assembly of Victoria, Victoria is currently establishing a framework to begin treaty negotiations with Traditional Owners and Aboriginal Victorians. Government will work to ensure relevant actions outlined in this strategy align with treaty negotiations and delivering future treaties in Victoria. This includes corresponding funding, implementation of actions and governance mechanisms. We are deeply committed to Aboriginal self-determination and to supporting Victoria’s treaty process. We acknowledge that treaty will have wide-ranging impacts for the way we work with Traditional Owners and Aboriginal Victorians. We seek to create respectful and collaborative partnerships. We will develop policies and programs that respect Aboriginal self-determination and align with treaty aspirations.

We acknowledge that Victoria’s treaty process will establish a framework for transferring decision-making power and resources to support self-determining Aboriginal communities to take control of matters that affect their lives. We commit to working proactively to support this work in line with the aspirations of Traditional Owners and Aboriginal Victorians.

As we work together to ensure Victorian Aboriginal communities continue to thrive, the government acknowledges the invaluable contributions of generations of Aboriginal warriors and matriarchs that have come before us, who have fought tirelessly for the rights of their people and communities towards Aboriginal self-determination. We are now honoured to be part of that vision.

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# About this plan

The **Victorian hepatitis C plan 2022–30** is one of seven plans that form the **Victorian sexual and reproductive health and viral hepatitis strategy 2022–30**. The plans are:

* System enabler plan 2022-30
* Victorian Aboriginal sexual and reproductive health plan 2022–30
* Victorian hepatitis B plan 2022–30
* **Victorian hepatitis C plan 2022–30**
* Victorian HIV plan 2022–30
* Victorian sexually transmissible infections plan 2022–30
* Victorian women's sexual and reproductive health plan 2022–30.

This plan builds on the objectives, focus areas and outcomes in the Victorian hepatitis C strategy 2016–2020. It outlines the priority actions implemented to date and includes new and refocused priority actions needed to meet our 2030 elimination agenda.

It aligns with the **Fifth national hepatitis C strategy 2019–2022**, which provides a framework for a high-quality and coordinated national response. The plan also aligns with and supports the **Victorian public health and wellbeing plan 2019–2023** and the**Victorian cancer plan 2020–2024***.*

The hepatitis C plan was developed in consultation with people living with hepatitis C virus (HCV), clinicians, advocates, peer leaders, researchers and the broader blood-borne virus (BBV) and sexually transmissible infections (STI) sector. It reflects the Victorian Government’s commitment to working together to achieve our shared vision of virtual elimination of HCV as a public health concern by 2030.

The hepatitis C plan is supported by the strategy companion document made up of an and a system enabler plan.

The strategy overview frames our approach and details our guiding principles, priority populations and settings.

The system enabler plan acknowledges the enablers that make a significant contribution to achieving outcomes across Victoria’s sexual and reproductive health and viral hepatitis response, specifically:

* reducing stigma, racism and discrimination
* strengthening workforce capacity
* fostering partnerships and collaboration
* strengthening and supporting data and research.

This approach aims to strengthen shared priority actions across the sexual and reproductive health system to address common system challenges faced by Victorians in having their sexual and reproductive health and care needs understood and met.

This will involve establishing and deepening partnerships outside the viral hepatitis model of care, such as with organisations in the mental health, housing, alcohol and other drug, and refugee health sectors. These partnerships will help us develop pathways and programs tailored to our priority populations.

Our models of care must respond to intersectionality, diversity, increasing complexity, co-occurring needs and stigma, racism and discrimination as experienced by our priority populations.

Aboriginal Victorians are a priority population in the **Victorian sexual and reproductive health and viral hepatitis strategy 2022–30**. Recognising the unique needs of Aboriginal Victorians, the **Victorian Aboriginal sexual and reproductive health plan 2022–30** outlines priority actions needed to improve Aboriginal Victorians’ wellbeing through reducing the transmission and impact of BBV and STI and improving sexual and reproductive health outcomes.

The Victorian Government will undertake a mid-point review in 2025–26 to assess progress against achieving the 2025 stepped targets and 2030 elimination targets. The mid-cycle progress report will be used to refresh and refocus priority actions and activities outlined in this plan and aligned plans under the **Victorian sexual and reproductive health and viral hepatitis strategy 2022–30**.

# Introduction

The Victorian Government is committed to eliminating HCV as a public health concern by 2030 and to meeting the stepped targets to 2025 outlined in this plan. This is a bold, ambitious but entirely achievable vision. Critically, this means refocusing and accelerating our prevention, testing and treatment efforts.

Liver cancer is the fastest increasing cause of cancer death in Australia. But most cases are preventable and linked to identifiable risk factors (AIHW 2019; Carville et al. 2018). These factors include chronic hepatitis B and chronic HCV. Together, these are the main cause of liver cancer in Australians, as well as alcohol consumption, smoking and obesity (Hong et al. 2018; Whiteman et al. 2015). Liver cancer rates have increased by 230 per cent over the past 38 years (1982–2019). Between 47 and 63 per cent of primary liver cancers are the result of chronic hepatitis B or HCV infection (Cancer Council Victoria 2020).

New diagnoses of liver cancer in Victoria are increasing and are expected to double sometime between 2031 and 2035. Liver cancer mortality among Victorians is continuing to increase and is projected to increase further, with five-year survival only 16 per cent (Brown et al. 2017; Cancer Council Victoria 2021). Liver cancer is also one of the top 10 contributors to the burden of cancer (Akinyemiju et al. 2017).

This plan aims to reduce the burden of HCV on Victorians through population elimination of the disease and reducing the rising rate of HCV-related liver cancer in line with the **Victorian cancer plan 2020–2024**.

Now is the right time in the HCV epidemic to accelerate efforts towards our elimination targets. This next stage of HCV elimination efforts will require us to innovate, adapt, refine and refocus efforts. We will need to develop partnerships that allow deeper engagement with affected communities and scale up actions to reach the 50 per cent of people who are yet to be diagnosed and offered treatment.

To deliver against our elimination targets, it will be crucial to maintain and evolve our current partnership approach with priority populations. We must ensure people at risk of or living with HCV can access the services, education, resources, care and support they need. The Victorian Government is committed to this partnership approach and acknowledges the hard work of peers, community, researchers and others in leading Victoria’s HCV elimination efforts and model of care.

Through our collective efforts we can accelerate the public health response needed to achieve our 2030 goal.

The advent of simple direct-acting antiviral (DAA) treatments with cure rates greater than 95 per cent is one of the greatest medical advances in decades, having led to a reversal in liver-related mortality (Alavi et al. 2019). In Australia, while treatment uptake was initially strong, it declined between 2016 (32,200 people treated) and 2020 (8,100 people treated) (Burnet Institute and Kirby Institute 2021).

Data from the Burnet Institute and Kirby Institute in October 2021, from the **Australia’s progress towards hepatitis C elimination: annual report** (2020),shows that the number of people who started DAA treatment through the Pharmaceutical Benefits Scheme (PBS) in Victoria between March 2016 and December 2020 was 50 per cent of the estimated proportion of people living with chronic HCV infection (21,821 people) in 2016. This is an overall reduction of HCV prevalence and incidence ushered in by the new era of DAA treatments. It is a remarkable achievement for people who use drugs, peer-led agencies, organisations who support them, researchers, clinician advocates and services working alongside them. We now have the rare public health opportunity to accelerate our efforts to achieve our vision of HCV elimination as a public health threat by 2030.

As our elimination pathway progresses, our current model of care and delivery system must adapt if we are to make meaningful progress towards achieving targets and to reach people who are experiencing legal, geographic, cultural and social barriers to care.

This plan provides a framework and rationale for a system-wide approach to improving health outcomes for people at risk of or living with HCV. We will use this framework to work towards a responsive, tailored system of support across the continuum from prevention and testing to treatment and care.

HCV is a stigmatised condition. All people living with the virus experience some degree of stigma and discrimination. HCV continues to disproportionately affect people who use drugs and Aboriginal Victorians. Priority populations affected by HCV are mostly marginalised and can experience significant social and cultural disadvantage. The diversity of the affected population needs to be understood through separate – though at times, intersecting – groups, including:

* Aboriginal Victorians
* culturally diverse communities
* people born overseas
* people who have or do use drugs
* people in custodial settings.

Stigma, racism, discrimination and fear of judgement are critical barriers to effective responses for HCV. They can discourage people living with or affected by HCV from accessing essential health care and medical treatment, including testing, treatment and care for HCV.

In 2020, 28 per cent of Victorians surveyed said they would behave negatively towards people living with or at risk of HCV. This was a smaller proportion than the 53 per cent in 2017 (Broady et al. 2020). This stigma is amplified for people who inject or use drugs. In 2020, 76 per cent of the Victorians surveyed reported they would behave negatively towards other people because of their injecting drug use. This was a smaller proportion than the 87 per cent in 2017 (Broady et al. 2020). By acknowledging the impacts of stigma, racism and discrimination on individuals, organisations and service systems, we can develop and tailor stigma reduction approaches. Being able to quantify the expression of stigma towards people living with HCV and drug use is an important step in informing evidence-based strategies to eliminate its negative effects.

We need to strengthen our public health system response by having a greater understanding of how to engage priority populations and support access to prevention, testing, treatment and care. We need targeted and tailored engagement with communities to increase health literacy and to address and reduce stigma, racism and discrimination. We need to continually promote and consistently build non-judgmental non-discriminatory services so people can access the care they need, when and where they need it.

Local Public Health Units (LPHUs) provide the capacity for a stronger, more responsive public health system delivered in partnership with local communities and services. The local place-based role and function can support efforts to strengthen the Victorian sexual health service system. This will enable a more responsive and coherent public health system response to the priorities identified in this plan.

People living with or affected by HCV are a distinct group with specialised health needs within Australia’s rapidly ageing population (Mao et al. 2019). As this population ages, service gaps appear. But so do opportunities to evolve programs that are inclusive and free from stigma, racism and discrimination. Inclusive, person-centred care will support people to age well with the possible effects of HCV (for example, a small percentage of people may need ongoing care). Our future efforts will need to evolve our understanding of the long-term effects of living and ageing with HCV.

The next stage of our elimination will focus on strengthening our system response through building workforce capacity and capability, ensuring:

* proven practice advances and technologies such as point-of-care testing are scaled, evaluated and promoted
* we innovate and expand multidisciplinary models of care, including nurse- and peer-led models.

We need to maintain our current evidence-based and effective programs while adapting, refining and innovating approaches to prevention, testing and treatment to meet our elimination goal (Bryant et al. 2021). Increasing and strengthening earlier intervention and prevention activities through harm reduction activities and targeted screening will significantly reduce the rate at which HCV is passed on.

By effectively responding to and increasing HCV treatment access we can reduce the progression to liver cancer for most people living with HCV. For the first time, we have included targets for a reduction in HCV–attributable mortality in our plan.

By improving our data completeness, use of data insights, emerging evidence and surveillance we can, in partnership with affected communities, develop targeted approaches that support health-seeking behaviours and increase people’s awareness and understanding of transmission and HCV management.

The CHECCS (Coordinated Hepatitis responses to Enhance the Cascade of Care by optimising existing Surveillance systems) program is led by the WHO Collaborating Centre for Viral Hepatitis, Doherty Institute for Infection and Immunity, and funded by the Eliminate Hepatitis C Australia Partnership. It aims to use Victoria’s existing surveillance system and public health data environment to improve the delivery of care to Victorians living with chronic viral hepatitis. The program identifies people who have been diagnosed with viral hepatitis but have no evidence of follow-up testing or treatment.

## Coronavirus (COVID-19) recovery and care

The disruption caused by COVID-19 in Victoria and the associated restrictions have created service system capacity constraints, including deferred and interrupted usual health care.

Interruption and deferral of testing and treatment for viral hepatitis and, more broadly, for BBV and STI could have major public health impacts for individuals and the community.

HCV prevention, testing and treatment services were defined as essential services so continued during the 2020 and 2021 COVID-19 restrictions. Before the pandemic, the low level of HCV testing was challenging our ability to achieve HCV elimination (Scott et al. 2020). The pandemic has worsened this, with data showing sizeable decreases in hepatitis screening over the past two years.

The Australian Collaboration for Coordinated Enhanced Sentinel Surveillance of Blood Borne Viruses and Sexually Transmissible Infections (ACCESS) collates data nationally on consultations, HCV antibody and ribonucleic acid tests conducted. They also collate data on test outcomes from sites that offer targeted services for people at risk of HCV including people currently or with a history of injecting drugs, people accessing opioid agonist therapy and HIV‑positive gay and bisexual men.

ACCESS has data on HCV testing among attendees of primary care and sexual health clinics, and within primary care, for the priority population of people accessing opioid agonist therapy. Broadly, within ACCESS’s national sites, a decline in HCV testing activity was seen between 2019 and 2020. There were larger declines at primary care clinics compared with specialist clinics for gay and bisexual men and sexual health more generally. Most primary care clinics are in Victoria, which had the longest periods of COVID‑19-related restrictions in 2020 (Burnet Institute and Kirby Institute 2021).

Victorian statewide data supports these trends, with communities affected by HCV disproportionately affected by the pandemic. The number of hepatitis serology tests (includes hepatitis B and C) in Victoria declined by 25.3 per cent during April–December 2020 compared with April–December 2019. Testing numbers increased after the initial decline but have not yet returned to previous levels. They appear to have stabilised at a level 15 per cent lower than during 2019 (WHO & Doherty Institute 2021).

Victoria also saw declines in HCV monitoring (polymerase chain reaction tests while not on treatment) during 2020 compared with figures between 2018 (–34.3 per cent) and 2019 (–17.8 per cent). Because these tests are used for diagnostic assessment and evaluation before treatment, any changes could have a sizeable public health impact (WHO & Doherty Institute 2021).

Also, the decline in treatment uptake in Victoria during 2020 (–28.1 per cent) was also much greater than in 2019 (–17.8 per cent) (WHO & Doherty Institute 2021).

We will be in a sustained pandemic environment for some time. We will continually need to adapt our services and messaging to ensure people are getting the care they need.

Although the pandemic has created challenges in maintaining engagement and uptake of testing and treatment services, we have seen many health innovations. These include new community engagement and home-based care models, telehealth and e-prescribing. Encouraging patients who have deferred or interrupted their HCV care to re-engage with treatment and screening services is a priority. Community-controlled, community health and primary care settings are well placed to address delays in HCV testing and care.

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| In response to our learnings from COVID-19, we will:   * Re-engage people in testing, treatment and care * Build on understanding prevention, risk recognition, risk reduction, testing and contact tracing * Build on new and innovative models of care |

# Hepatitis C in Victoria

HCV is a BBV that causes inflammation and damage to the liver. If left untreated, chronic HCV can lead to cirrhosis, liver cancer and the potential need for a transplant.

Around 40,000 people in Victoria were living with HCV at the beginning of 2016 (MacLachlan et al. 2020). About 50 per cent of those had been treated by the end of 2020 (Burnet Institute and Kirby Institute 2020).

Around 20 per cent of people who inject drugs report receptive sharing of equipment. Aboriginal Victorians were almost twice as likely to report receptive needle and syringe sharing as non-Aboriginal respondents (Kirby Institute 2019a).

Between 2016 and 2021 there were 10,551 notified cases of HCV in Victoria. HCV notification rates declined by 29 per cent between 2016 and 2019. We saw a further decline of 21 per cent between 2019 and 2020 from 27.4 to 21.6 cases per 100,000 respectively. There were 1,277 notified cases of HCV in 2021, being a rate of 20.7 cases per 100,000. This was the lowest annual number and rate since notifiable conditions records began in Victoria. The number and rate of HCV infection in 2021 was a 4 per cent reduction compared with 2020.[[1]](#footnote-1)

Newly acquired cases accounted for 3 per cent of the total cases, and 49 per cent of the cases were in the 30–49-year age group.

Even though overall the number and rate of notified HCV infections have been declining over time, chronic HCV infection is still a significant public health burden in Victoria.

Notification rates continue to be higher among males than females (65 per cent of the total cases were males and 34 per cent were females).

Notification rates continue to be the highest among people who inject drugs, with injecting drug use being the risk factor for 73 per cent of the total newly acquired cases reported between 2016 and 2021. Seven per cent of the newly acquired cases reported having a sexual partner with HCV, 6 per cent were among HIV-positive men who have sex with men and for 5 per cent a risk of transmission was unknown or not stated. Rarer modes of transmission or risk factors (imprisonment, household contact with HCV, tattooing/piercing, needlestick injury and surgical procedure) were reported for the remaining cases ranging from less than 1 per cent to 3 per cent.

Notification data shows that 31 per cent of the total cases were Australian-born and 13 per cent were overseas-born. For 56 per cent of the total cases, country of birth is unknown because notifications are mostly received from a laboratory only, where country of birth is not a legislated data field. Among cases reported as born overseas, the highest proportion of cases were born in India and Vietnam (14 and 13 per cent respectively).

Between 2016 and 2021, there were 42 newly acquired HCV infections among the Aboriginal population, representing a rate 17 times higher than the non-Aboriginal population.

Notification data shows that 65 per cent of the cases were living in metropolitan Melbourne and 31 per cent were in regional Victoria. Most diagnoses were made at general practice clinics.

# Victorian hepatitis C plan

## Vision

Eliminate hepatitis C as a public health concern by 2030.

## Goals

* Victorians are supported to reduce their risk of acquiring hepatitis C.
* Victorians living with hepatitis C know their status.
* Victorians living with hepatitis C have access to best practice evidence-based treatment and care.
* Victorians living with hepatitis C are cured of the disease.
* Stigma, racism and discrimination are not a barrier to hepatitis C prevention, testing and treatment and care.

## Stepped targets for 2025[[2]](#footnote-2)

* Reduce the number of newly acquired hepatitis C infections, with a focus on priority populations, by 56 per cent (compared with 2015)
* Increase the proportion of people living with hepatitis C who are diagnosed to 91 per cent
* Increase the cumulative proportion of people living with chronic hepatitis C who have initiated DAA treatment to 72 per cent
* Reduce hepatitis C–attributable mortality by 16 per cent (compared with 2015)
* Reduce the reported experiences of stigma, racism and discrimination among people living with or affected by hepatitis C in health and social support settings to less than 10 per cent

## Targets for 2030[[3]](#footnote-3)

* Reduce the number of newly acquired hepatitis C infections, with a focus on priority populations, by 90 per cent (compared with 2015)
* Increase the proportion of people living with hepatitis C who are diagnosed to 97 per cent
* Increase the cumulative proportion of people living with chronic hepatitis C who have initiated DAA treatment to 96 per cent
* Reduce hepatitis C–attributable mortality by 67 per cent (compared with 2015)
* Reduce the reported experiences of stigma, racism and discrimination among people living with or affected by hepatitis C in health and social support settings to less than 10 per cent

This plan aims to reduce the burden of hepatitis C on Victorians and reduce the rising rates of liver cancer.

## Focus areas

* Increase prevention
* Increase testing
* Increase treatment
* System enablers
  + Reduce stigma, racism and discrimination
  + Strengthen workforce capacity
  + Foster partnerships and collaboration
  + Strengthen and support data and research

## Priority populations

Priority populations are based on social and cultural determinants of health, behavioural risk factors, medical/biological factors or conditions, epidemiological burden of disease, health service access and geographical factors.

People not eligible for Medicare may be at increased risk for BBV, STI and reproductive health issues. They may be a part of one or more priority population groups.

The specific priority populations for this plan are:

* people who use drugs (this includes people who inject drugs) and/or are accessing drug treatment programs
* people living with hepatitis C
* Aboriginal people
* people in custodial settings
* culturally diverse people
* HIV-positive men who have sex with men
* sex workers.

## Mid-point review

The Victorian Government will undertake a mid-point review in 2025–26 to assess progress against achieving the 2025 stepped targets and the 2030 elimination targets. The findings of the mid-cycle progress report will be used to refresh and refocus priority actions and activities outlined in this plan and aligned plans under the **Victorian sexual and reproductive health and viral hepatitis strategy 2022–30.**

# Prevent

Prevention is a critical part of the Victorian HCV elimination agenda.

Harm reduction strategies continue to be a priority in the elimination pathway. We need to improve the health literacy of priority populations around safer sexual practices and use of sterile injecting equipment. We will work with communities and stakeholders to improve and innovate our approaches to harm reduction. In doing this, we aim to support people living with or at risk of HCV to have the knowledge, skills and awareness needed to minimise the risk of disease transmission.

The Victorian Government funds a range of harm reduction initiatives aimed at minimising and preventing the harms associated with alcohol and other drug use including the transmission of HCV and other BBV including:

* increasing access to the drug naloxone and sterile injecting equipment through peer distribution
* continuing to invest in and expand authorised needle and syringe programs (NSP) across Victoria
* implementing the Medically Supervised Injecting Room (MSIR).

People who inject drugs accessing sterile injecting equipment reduces the risk of BBV transmission and injection-related injuries (Commonwealth Department of Health 2002). Every dollar spent on NSP saves the community $27 in healthcare costs, making it a good return on investment (Australian Federation of AIDS Organisations 2021).

NSP play a vital role in the lives of people who use drugs. They provide sterile injecting equipment to minimise their risk of contracting hepatitis and HIV. They also give clients information about safer ways of using, safe disposal of used needles and syringes, staying healthy and accessing services.

NSP operate through a wide range of service providers including funded primary NSP, community health services, hospital emergency departments, municipal councils, drug treatment agencies, youth organisations and participating pharmacies.

There are 16 primary outlets, 209 secondary outlets, 435 pharmacies and 14 syringe dispensing machines in Victoria. Services are provided through fixed-site, mobile, outreach and foot patrol services. Syringe dispensing machines supply injecting equipment at no cost to the consumer. Access to take-home naloxone programs is available through 37 outlets (12 primary and 25 secondary) in Victoria (Heard et al. 2019).

NSP workers may be the only contact that people who use drugs have with any health service. It is therefore vital that NSP staff build relationships with people who use drugs that enable them to make positive changes in their lives.

At least 20 per cent of all people in Australian custodial settings are seropositive for HCV. Custodial settings in Australia are a high-risk environment for transmission of HCV. They do not offer access to sterile needles and syringes or sterile tattooing and body piercing equipment. However, international research suggests that introducing NSP into Australian custodial settings would have a significant impact on decreasing HCV transmission (ASHM 2016; Stoové et al. 2015; Winter et al. 2022).

The Victorian Government began trialling an MSIR at North Richmond Community Health in June 2018. The MSIR review, published 18 months after the trial began, shows it is saving lives and reducing the harm caused by drugs (Medically Supervised Injecting Room Review Panel 2020).

The MSIR has provided screening, assessment and treatment initiation; monitoring of BBV (including HCV); and links to care. These programs are a cornerstone to achieve population-level elimination of HCV by 2030. They are key evidence-based parts of the government’s broader alcohol and other drug harm reduction agenda, and of community preparedness to prevent and reduce harm from drugs. This in turn reduces the risks of BBV transmission.

In August 2021 amended laws came into effect that legalise the secondary supply or ‘peer distribution’ of sterile injecting equipment from an NSP. This change supports the Victorian Government’s commitment to harm reduction initiatives in response to the 2018 Victorian Parliamentary Inquiry into Drug Law Reform.

The legal change now means it is no longer a crime for a person who collects sterile injecting equipment from an NSP to give that equipment to their peers. This helps ensure clean needles and syringes reach those that need them most in the community.

This supports the role of Victoria’s NSP in minimising transmission of BBV that can occur from shared injecting equipment. It also reduces stigma and sends a clear signal to people who may already be distributing to their peers that harm reduction practices are valued and encouraged.

## Key achievements in prevention (2016–20)

ILBIJERRI is one of Australia’s leading theatre companies, creating innovative works by First Nations artists.

Since 2005, the ILBIJERRI Theatre Company has been commissioned to produce and present health promotion messages via theatre productions aimed at Aboriginal and disadvantaged young people. The productions have been developed in partnership with a range of peak and peer organisations. Chopped Liver, which ran from 2006 to 2017, was an innovative play with HCV, drug use and harm-reduction themes. Since 2018, a new play, Viral: Are you the cure? was developed to focus on stigma and discrimination and reducing barriers to accessing HCV treatment. Due to COVID-19 restrictions in 2020, this play has been developed as a short film, including animations, to be used to increase access to prevention messages into the future.

In 2019, 13,560,889 syringes were distributed through Victorian NSP (Kirby Institute 2019b).

The MSIR offers services to people at high risk of BBV. Providing a NSP, and testing, assessment, counselling and treatment of these infections in conjunction with an injecting room, is clearly warranted. The MSIR can also offer HCV treatment on site while conducting screening and assessments (Medically Supervised Injecting Room Review Panel 2020).

On June 2020 the Victorian Government announced it will extend the MSIR trial in North Richmond for another three years and will set up a second trial site in the City of Melbourne.

Ongoing education and prevention programs are vital for increasing awareness of HCV and supporting key populations to reduce harm and demand. They also encourage use of NSP and opioid treatment programs. As part of increasing awareness of hepatitis and other relevant issues for people who use drugs, the Pennington Institute developed a suite of new resources for NSP, including the Safer Using Series booklets, covering issues such as safer sex, veins, overdose and linking to other services.

Harm Reduction Victoria runs a peer network program aimed at increasing access to sterile needles and syringes and providing information and education related to reducing the harms of injecting drugs and reducing the risk of BBV transmission.

LiverWELL has developed a range of resources and initiatives to increase knowledge about preventing HCV, which were informed by people with lived experience of HCV. LiverWELL offers a dedicated LiverLine and WebChat to provide free confidential, non-judgemental information and referral service to the public, including people in prison. LiverWELL continues to work with partners including the Burnet Institute, St Vincent’s Hospital, Doherty Institute and the ILBIJERRI Theatre on HCV projects, providing a lived experience perspective.

**Victorians are supported to reduce their risk of acquiring hepatitis C**

By 2030:

* Victorians know what to do to prevent HCV infection and reinfection and are supported to do so.
* There is an overall, and ongoing, reduction in new cases of HCV in Victoria.
* Safe sexual and injecting practices are understood and used among priority populations.
* Sterile injecting equipment is widely available to people who use drugs, including those in regional and rural Victoria.
* NSP are widely accessed by people who use drugs.

## Priority actions – prevention

**Increase knowledge, health literacy and awareness of HCV, with a focus on harm reduction among priority populations**

* Develop and implement co-designed and targeted prevention and education programs that focus on reducing transmission risks
* Foster capacity building and collaborations in priority settings to support community engagement and mobilisation
* Support and strengthen peer-led community initiatives to improve understanding of transmission risks
* Use digital platforms and tools to deliver targeted prevention and education programs where appropriate
* Build on the system response to COVID-19 and undertake assertive community engagement to promote access to prevention for priority populations

**Prevent cancers related to viral infections (aligned to action in the Victorian cancer plan 2020–2024)**

* Increase understanding among priority populations of the impact of viral hepatitis on liver health, with a focus on cancer prevention
* Develop liver cancer prevention capacity and capability in primary care
* Develop liver cancer prevention approaches to increase literacy and awareness of viral hepatitis screening in both the community and workforce, including stigma related to HCV and drug use

**Increase access to prevention and uptake of harm reduction tools for priority populations**

* Support increased access to prevention tools such as condoms, and harm reduction tools such as sterile injecting equipment and naloxone through peer distribution in partnership with priority populations
* Facilitate the sharing of successful prevention approaches and initiatives and support the adaptation of successful approaches to other priority populations and settings, including custodial settings
* Continue to improve and strengthen access to harm reduction tools and programs in custodial and other key settings

# Test

Eliminating HCV relies on finding people living with chronic HCV through diagnostic testing and facilitating appropriate care and treatment (Burnet Institute and Kirby Institute 2021). The populations of people living with HCV that are still to be reached are geographically, socially and demographically diverse and dispersed and experience a range of health inequalities. As we enter the next stage of our elimination efforts, our approach to engaging priority populations needs to evolve.

We need to increase access to testing for priority populations through:

* partnerships
* innovative testing technologies
* expanded programs for case finding
* clinical audits
* capacity building and other system enhancements
* increased community engagement and mobilisation.

This plan emphasises gaining a greater understanding of how to engage subpopulations at risk of or living with HCV and supporting access to testing and treatment to accelerate elimination efforts.

The plan offers guidance on identifying barriers to service access and co-designing interventions to reduce and remove these barriers to progress the Victorian HCV response.

We know that people living with HCV:

* may be marginalised
* experience reduced social and civic participation
* are represented across a range of diverse demographic, cultural and geographic domains (Primary Health Network [PHN] areas with high prevalence).

Other factors that can affect people accessing testing and treatment services include perceptions of risk, understanding of viral hepatitis, navigating the Victorian healthcare system, health literacy, confidentiality and community belonging.

Greater use of innovative testing programs and new testing technologies, such as point-of-care testing, will be a key feature of Victoria’s next stage of HCV elimination efforts. In May 2020 the Xpert HCV Viral Load Fingerstick assay was approved for use in Australia. The test can detect active HCV infection in one hour at the point of care, enabling diagnosis and treatment in a single visit, rapidly improving treatment uptake.

Eliminate Hepatitis C Victoria, a partnership of researchers, health services, community and government, led by the Burnet Institute, has shown point-of-care testing is highly acceptable, feasible and cost-effective in community-based health services (Latham et al. 2019; Palmer et al. 2021; Williams et al. 2019). Research led by the Kirby Institute has shown technical accuracy and clinical utility, with high treatment uptake in NSP and prisons (Grebely et al. 2017; Lafferty et al. 2021; Lamoury et al. 2018). This point-of-care test provides an unprecedented opportunity to overcome barriers to testing and help scale up HCV testing and treatment, particularly in settings with high prevalence including:

* NSP, supervised injecting services, drug treatment services, prisons and outreach settings.

It is critical that the Victorian Government works with PHNs to build the capability and capacity of the primary care workforce to include HCV testing and treatment as part of routine care and service delivery.

An innovative example of work that uses case finding and clinical audits in primary care settings is the Hepatitis and Liver cancer Outcomes in General practice Intervention Collaboration project (HepLOGIC), undertaken by the Doherty Institute and funded by the Victorian Cancer Agency. The project aims to design and test an intervention in primary health to support GPs in screening, diagnosing and managing patients with hepatitis B and HCV, to reduce their risk of liver cancer. It is underpinned by the Population Level Analysis and Reporting (POLAR) tool and data sharing program, where participating primary care practices make de-identified clinical data available for research. The intervention is a clinical decision support system that is integrated with existing clinical information systems and workflows. It uses and enhances the information in a practice’s patient management system to identify patients at risk of viral hepatitis for screening. It supports the clinical care of those diagnosed with integrated clinical guidance and timely patient recall. The project is due to conclude in late 2023.

The Victorian Integrated Hepatitis C Services, funded by the Department of Health, operate 12 sites in Victoria. These services are in 10 tertiary hospitals:

* The Alfred
* Austin Hospital
* Bendigo Health
* Box Hill Hospital
* Footscray Hospital
* University Hospital Geelong
* Goulburn Valley Health
* Monash Medical Centre
* the Royal Melbourne Hospital
* St Vincent’s Hospital Melbourne

And two community health centres:

* Ballarat
* Latrobe.

The integrated HCV nurses working in these services aim to increase prevention, testing, treatment and care through engaging with primary care and community health settings. Their services include:

* consulting, mentoring and capacity building for health professionals
* outreach, including co-locating clinics in services and individual client outreach
* education and training
* Fibroscan clinics.

Principles of informed consent for testing underpin all priority actions and activities in this plan. These are outlined in the **National hepatitis C testing policy 2020**. This means that the person being tested agrees to be tested based on:

* understanding the testing procedures
* knowing the reasons for testing
* being able to assess the personal effects of potential test results.

The person requesting the test should use their clinical judgement in getting informed consent (ASHM 2020).

## Key achievements in testing (2016–20)

The Eliminate Hepatitis C (EC) Victoria Partnership is a five-year project (2017–2021) led by the Burnet Institute in partnership with St Vincent’s Hospital Melbourne, the department and key stakeholders across the sector. It aims to increase HCV testing and treatment uptake among people who use drugs via a community-based, nurse-led model of care.

The partnership works across health promotion, training/education, clinical support, data systems/surveillance, prison programs, research and evaluation.

The partnership developed the **EC practice support toolkit**, a comprehensive resource for primary care providers to deliver HCV testing, treatments and engagement in HCV care. The resource includes patient, provider and practice support resources. It is used throughout Australia and has been adapted by countries overseas. The partnership has worked across 11 primary care services, supporting them to test 4,473 and treat 1,162 people. It also worked across 14 prison sites, supporting the sites to assess 2,465 and treat 1,928 people.

People attending the MSIR often have a range of competing priorities in addition to living with HCV. But links to traditional models of HCV care remain poor. St Vincent’s Hospital Melbourne has been providing BBV screening via an onsite integrated hepatitis nurse network at the MSIR. This program has been successful, screening 321 people for HCV over the first two years since the start of the MSIR, 143 of whom returned a positive HCV RNA result. Of these, 85 per cent started DAA therapy. While this has been a significant improvement in engaging these individuals in HCV care, many of the traditional barriers to the care cascade remain. This is only 7 per cent of the population attending the MSIR.

In 2020 the MSIR conducted a nine-week feasibility pilot study using a rapid point-of-care test for HCV screening in a clinical-led model. In those nine weeks alone, 228 people attending the MSIR agreed to HCV testing using the point-of-care test. Of the 64 people returning a positive test, 93 per cent started DAA therapy and are still in care. Limited questionnaires given to the clients during the pilot study show vast support for the point-of-care test. These are encouraging results that show point-of-care HCV testing is both feasible and highly successful in engaging high-risk individuals in HCV care and treatment. The department has provided funding to adapt this pilot study into a novel streamlined model of care using HCV point-of-care testing to rapidly screen and link marginalised people living with HCV to hepatitis care in the MSIR.

**Victorians with hepatitis C know their status**

By 2030:

* Victorians living with HCV are aware of their status, are diagnosed early and are supported to do so.
* Victorians understand the need to be tested for HCV if they are at greater risk.
* Testing services for HCV meet the needs of priority populations.
* Testing for priority populations is undertaken across community and primary care settings.

## Priority actions – testing

**Increase access to guideline-based HCV testing for priority populations**

* Work with key sector organisations to develop, implement and evaluate testing messages tailored for priority populations
* Collaborate with priority populations to co-design strategies that build awareness of HCV testing
* Collaborate with PHNs to target HCV elimination programs
* Enhance the focus of hepatitis testing and management in existing PHN practice support services implemented in partnership with key stakeholders
* Ensure strong links are in place to ensure comprehensive BBV testing
* Support innovative models of HCV testing (such as point-of-care testing), new diagnostic technologies and models of care (nurse- and peer-led)
* Integrate HCV testing and patient management into routine primary health care

**Improve collaborations with key settings to include HCV screening**

* Establish partnerships with key stakeholders to build awareness and capacity to include HCV screening in relevant sector programs

**Increase testing and support targeted community screening in areas of high HCV prevalence and among priority populations, using data to inform system refinement**

* Identify and address geographic, economic and other structural and cultural barriers to testing to facilitate access and early diagnosis
* Develop innovative, community-designed and targeted HCV testing approaches
* Develop easily understood information and tailored approaches to ensure people at risk of HCV know they should get tested and how to do so

**Improve the detection of advanced liver disease**

* Improve testing across primary and community care settings among people living with HCV (aligned to activity in the Victorian cancer plan 2020–2024)
* Develop processes to ensure patients meeting HCV risk factors including liver disease are screened

# Treat and care

Unrestricted access to DAA treatment was made available through the PBS in early 2016. DAA treatments provide an effective cure for people with HCV without enduring the side effects of the earlier treatments. The months following the listing of DAA saw a peak in HCV treatment initiations. However, the number of people with cirrhosis who are receiving treatment is now declining, consistent with the overall decline in treatment uptake.

Since 2016, more changes have been made to the PBS including:

* allowing GPs to prescribe without a specialist consultation
* allowing nurse practitioners to be included as authorised prescribers
* removing the requirement for health professionals to provide genotype to the PBS when applying for an authority script
* allowing adolescents (12–17-year-olds) living with HCV access to DAAs.

These changes have greatly improved access to treatment for priority populations.

A strengthened focus on increasing access to early diagnosis, treatment and care is essential if we are to achieve our elimination targets. Central to this work will be identifying and reducing the geographic, social and cultural challenges and other barriers to accessing treatment in primary care and specialist services.

The **Australia’s progress towards hepatitis C elimination: annual report**(Burnet Institute and Kirby Institute 2021)shows that the number of people who started DAA treatment through the PBS in Victoria between March 2016 and December 2020 was 50 per cent of the estimated proportion of people living with a chronic HCV infection (21,821 people) in 2016. Including new infections since 2015, an estimated 27,000 Victorians with chronic HCV remain to be treated.

However, data from the **Viral Hepatitis Mapping Project: national report 2020** (MacLachlan et al. 2020) shows variability in HCV prevalence and treatment uptake across Victorian PHNs and at the local level. At the end of 2020, treatment uptake was higher than the national average for all six Victorian PHNs, a remarkable achievement, with Western Victoria PHN having the highest DAA treatment uptake (65.4 per cent) in Victoria and nationally. Gippsland PHN followed closely with 62.6 per cent treatment uptake. The Western Victoria PHN has prevalence rates lower than the national average and has a strong HCV workforce including two integrated HCV services based in Barwon Health and Ballarat Community Health. They also have a high proportion of GPs (one per five people living with HCV) and hepatitis-related specialists (one per 135 people living with HCV).

This mapping data is invaluable for focusing testing efforts in geographically targeted areas with high prevalence. This will ensure we focus on subpopulations within geographical areas with insufficient testing and treatment including:

* culturally diverse people (and people born overseas)
* Aboriginal Victorians
* people who no longer use drugs
* people living with HCV living in geographic areas at risk of missing the 2030 elimination target.

Testing to confirm a sustained virological response after treatment to measure success is recommended in Australian clinical guidelines. This is despite the very high cure rates of DAA treatments (Thompson 2016). In mid-2019, 75.5 per cent of Victorians diagnosed with HCV who had undergone treatment had undertaken a sustained virological response test (MacLachlan et al. 2020). The challenge remains in identifying the one in six people who are undiagnosed and may not have symptoms and in decreasing the pool of possible reinfections. We need to have a greater understanding of how to engage sub-cohorts within priority populations and to support their access to treatment and care. We need targeted and tailored engagement with communities to increase health literacy and address and reduce stigma, racism and discrimination. And we need to continually promote and consistently build inclusive services so people can access the treatment and care they need, when and where they need it.

Strengthening the integration of primary care and community health services as part of the statewide model of care will help build local capacity and facilitate access to approaches that prevent or intervene earlier. As part of strengthening the coordination of care, this plan provides guidance on strengthening referral pathways to specialist and community support to promote improved health outcomes for people living with or at risk of HCV.

Access to specialist care is important for managing people living with HCV who have more complex needs, such as those with liver cirrhosis or other major comorbidities and/or co-infections. Ongoing management of people with cirrhosis is vital due to the risk of developing liver cancer even if they are cured of HCV.

## Key achievements in treatment and care (2016–20)

In 2015, Justice Health, in the Department of Justice and Community Safety, established the Statewide Hepatitis Program in partnership with St Vincent’s Hospital Melbourne. This provides a network of hepatitis clinics across Victorian custodial facilities to ensure people in prison are assessed and treated for chronic hepatitis B and C. On release, people who have been managed under the program are provided with a management plan and a referral to a community provider.

More than 3,200 people in prison have been assessed for HCV treatment, with more than 2,000 completing treatment. Of those, more than 700 are cured (blood tests negative 12 weeks post-treatment).

In partnership with the Australian Research Centre in Sex Health and Society (La Trobe University), the Victorian Integrated Hepatitis C Services were supported to expand nurse-led models of treatment and care. The nurses were also supported to build system links to care in community settings, establish partnerships to deliver HCV services and take part in a quarterly integrated HCV community of practice.

To enhance access to DAA treatment, Victoria set up online HCV clinical HealthPathways through all PHNs. An extensive workforce development program for GPs, nurses, pharmacists and community and peer organisations supported this.

**Victorians with hepatitis C have access to best practice evidence-based treatment and care**

By 2030:

* Victorians living with HCV receive the treatment and care they need (including monitoring of their liver health and antiviral treatment).
* Victorians living with HCV access medications in general practice, the community care sector and custodial settings.
* Treatment services meet the needs of priority populations through a process of co-design with communities and integrated pathways between community, primary and specialist care services.
* Victorians are aware of the long-term consequences of untreated chronic HCV infection (including liver cancer) and know how to access treatment and support.
* There are fewer liver transplants and deaths related to chronic HCV because of improved screening and chronic disease management models.

## Priority actions – treatment and care

**Increase access to timely, appropriate HCV treatment, care and support services and programs**

* Build awareness of HCV treatment and support options among priority populations
* Develop primary care and community health workforce capacity to understand and manage people who do not require specialist care
* Develop clear and coordinated shared care pathways with specialist services to improve outcomes for people who require specialist care
* Develop innovative and simplified models of HCV treatment and integrated patient management and care
* Improve links to care for all people living with HCV
* Collaborate with key services/sectors and community stakeholders to promote treatment engagement
* Engage priority populations through community mobilisation to increase access to HCV testing, treatment and care
* Support and strengthen community- and peer-led initiatives to improve treatment uptake and engagement in care
* Increase the capacity of social support services to refer and support people with HCV and ensure they are linked into care
* Advocate to the Commonwealth to reform the state–Commonwealth funding split, to allow the treatment of long-term inpatients in mental health facilities and people who use drugs who are admitted to hospital for protracted periods to treat complex conditions
* Improve links to care for all people living with the possible effects of HCV within aged care services and programs, considering the long-term consequences of living with the possible effects of HCV as they age

**Improve the early detection and management of liver cancer**

* Increase monitoring for liver cancer through patient management software/systems to improve engagement in treatment and care

# References

Akinyemiju T, Abera S, Ahmed M, Alam N, Alemayohu MA, et al. 2017, ‘The burden of primary liver cancer and underlying etiologies from 1990 to 2015 at the global, regional, and national level: results from the Global Burden of Disease Study 2015’, JAMA Oncology, 3(12): 1683–1691.

Alavi M, Law MG, Valerio H, Grebely J, Amin J, Hajarizadeh B, et al. 2019, ‘Declining hepatitis C virus-related liver disease burden in the direct-acting antiviral therapy era in New South Wales, Australia’, Journal of Hepatology, 71(2): 281–288.

Australasian Society for HIV, Viral Hepatitis and Sexual Health Medicine (ASHM) 2020, National hepatitis C testing policy 2020, ASHM, Sydney.

Australasian Society for HIV, Viral Hepatitis and Sexual Health Medicine (ASHM) 2016, Prisons Could Unlock Hepatitis C Free Future, press release, ASHM, Sydney.

Australian Federation of AIDS Organisations 2021, HIV in Australia, AFAO, Sydney.

Australian Institute of Health and Welfare (AIHW) 2019, Cancer in Australia 2019, AIHW, Canberra.

Broady T, Brener L, Cama E, Treloar C, Centre for Social Research in Health 2020, Stigma indicators monitoring project, general public – Victoria, UNSW Centre for Social Research in Health, Sydney.

Brown CR, Allard NL, MacLachlan JH, Cowie BC 2017, ‘Deaths from liver cancer continue to rise in Australia: is elimination by 2030 possible?’ Journal of Internal Medicine, 47(5): 604–605.

Bryant J, Rance J, Treloar C (eds) 2021, Annual report of trends in behaviour 2021: viral hepatitis in Australia, UNSW Centre for Social Research in Health, Sydney.

Burnet Institute and Kirby Institute 2020, Australia’s progress towards hepatitis C elimination: annual report 2020, Burnet Institute, Melbourne.

Burnet Institute and Kirby Institute 2021, Australia’s progress towards hepatitis C elimination: annual report 2021, Burnet Institute, Melbourne.

Cancer Council Victoria 2020, Cancer in Victoria: statistics and trends 2019. Retrieved 6 October 2021, <https://www.cancervic.org.au/downloads/cec/cancer-in-vic/Cancer-in-Victoria-statistics-and-trends-2019.pdf>.

Cancer Council Victoria 2021, Cancer in Victoria 2020, Melbourne. Retrieved 6 October 2021, <https://www.cancervic.org.au/downloads/cec/cancer-in-vic/Cancer-in-Victoria-statistics-and-trends-2020.pdf>.

Carville KS, MacLachlan J, Thursfield V, Cowie B 2018, ‘Hepatocellular carcinoma over three decades in Victoria, Australia: epidemiology, diagnosis, and trends, 1984–2013’, Journal of Internal Medicine, 48(7): 835–844.

Commonwealth Department of Health 2002, Return on investment in needle and syringe programs in Australia: report, Australian Government, Canberra.

Grebely J, Lamoury FMJ, Hajarizadeh B, Mowat Y, Marshall AD, Bajis S, et al. 2017, ‘Evaluation of the Xpert HCV Viral Load point-of-care assay from venepuncture-collected and finger-stick capillary whole-blood samples: a cohort study’, Lancet Gastroenterol Hepatology, 2(7): 514–520.

Heard S, Iversen J, Kwon JA, Maher L 2019, Needle Syringe Program national minimum data collection: national data report 2019, Kirby Institute, University of New South Wales, Sydney.

Hong TP, Gow PJ, Fink M, Dev A, Roberts SK, Nicoll A, et al. 2018, ‘Surveillance improves survival of patients with hepatocellular carcinoma: a prospective population-based study’, The Medical Journal of Australia, 209(8): 348–354.

Kirby Institute 2018, HIV, viral hepatitis and sexually transmissible infections in Australia: annual surveillance report 2018, Kirby Institute, University of New South Wales, Sydney.

Kirby Institute 2019a, Australian NSP survey national data report 2014–2018, Kirby Institute, University of New South Wales, Sydney.

Kirby Institute 2019b, Needle syringe program national minimum data collection, national data report, Kirby Institute, University of New South Wales, Sydney.

Lafferty L, Rance J, Grebely J, Dore GJ, Lloyd AR, Treloar C 2021, Correctional Officer and Justic Health Staff Perspectives of Hepatitis C Treatment-as-Prevention Scale Up within the Prison Setting, 12th Australasian Viral Hepatitis Conference, Sydney.

Lamoury FMJ, Bajis S, Hajarizadeh B, Marshall AD, Martinello M, Ivanova E, et al. 2018, ‘Evaluation of the Xpert HCV viral load finger-stick point-of-care assay’, Journal of Infectious Diseases, 217(12): 1889–1896.

Latham N, Pedrana A, Doyle J, Howell J, Williams B, Higgs P, et al. 2019, ‘Community-based, point-of-care hepatitis C testing: perspectives and preferences of people who inject drugs’, Journal of Viral Hepatitis, 26(7): 919–922.

MacLachlan JH, Smith C, Towell V, Cowie BC 2020, Viral Hepatitis Mapping Project: national report 2018–19, Australasian Society for HIV, Viral Hepatitis and Sexual Health Medicine (ASHM), Sydney.

Mao L, Guppy J, Moss P, Drysdale K, Habel P, Thomson C, et al. 2019, Ageing among people with HIV or chronic HBV/HCV in the ACT: a brief report, The AIDS Action Council, Canberra.

Medically Supervised Injecting Room Review Panel 2020, Review of the Medically Supervised Injecting Room, State of Victoria, Melbourne.

Palmer A, Chan K, Gold J, Layton C, Elsum I, Hellard M, et al. 2021, ‘A modelling analysis of financial incentives for hepatitis C testing and treatment uptake delivered through a community-based testing campaign’, Journal of Viral Hepatitis, 28(11); 1624–1634.

Scott N, Sacks-Davis R, Wade AJ, Stoové M, Pedrana A, Doyle JS, et al. 2020, ‘Australia needs to increase testing to achieve hepatitis C elimination’, Medical Journal of Australia, 212(8): 365–370.

Stoové M, Treloar CL, Maher L, Tyrell H, Wallace J 2015, ‘Salvaging a prison needle and syringe program trial in Australia requires leadership and respect for evidence’, Medical Journal of Australia, 203(8): 319–320.

Thompson AJ 2016, ‘Australian recommendations for the management of hepatitis C virus infection: a consensus statement’, Medical Journal of Australia, 204(7): 268–272.

Whiteman DC, Webb PM, Green AC, Neale RE, Fritschi L, Bain CJ, et al. 2015, ‘Cancers in Australia in 2010 attributable to modifiable factors: summary and conclusions’, Australian and New Zealand Journal of Public Health, 39(5): 477–484.

WHO Collaborating Centre for Viral Hepatitis, Doherty Institute for Infection and Immunity (WHO & Doherty Institute) 2021, Impacts of COVID-19 on BBVSTI testing, care and treatment: Medicare data analysis. Updated data to December 2020 (data extracted March 2021).

Williams B, Howell J, Doyle J, Thompson A, Draper B, Layton C, et al. 2019, ‘Point-of-care hepatitis C testing from needle and syringe programs: an Australian feasibility study’, International Journal of Drug Policy, 72: 91–98.

Winter RJ, Sheehan Y, Papaluca TJ, Macdonald G, Rowland J, Colman A, et al., on behalf of the National Prisons Hepatitis Network 2022, Consensus statement on the management of hepatitis C in Australia’s prisons, National Prisons Hepatitis Network.

1. 1 The decline in disease notifications seen in 2020 and 2021 should be interpreted with caution. They are likely to under-represent true disease incidence. Disease reductions are likely to be strongly influenced by the ongoing COVID-19 pandemic, resulting in changes in sexual behaviours, health care access, health seeking and testing practices and interstate and international travel restrictions. [↑](#footnote-ref-1)
2. Data used to set targets is based on mapping and methodology undertaken by the Burnet Institute, using data from: Burnet Institute and Kirby Institute 2020 and Kirby Institute 2018. [↑](#footnote-ref-2)
3. See footnote 2. [↑](#footnote-ref-3)