



# Evidence Review: Acceptability and Feasibility of Point-of-Care Hepatitis C RNA Testing in Prison Settings

December 2025

## **Executive Summary**

This evidence review presents current research on the acceptability and feasibility of point-of-care (POC) hepatitis C virus (HCV) RNA testing in prison settings. The evidence demonstrates that POC testing significantly improves testing uptake, treatment initiation rates, and care cascade completion in correctional facilities. Prison populations represent a critical opportunity for HCV elimination efforts given the high prevalence of infection (approximately 8-31% globally) and concentrated vulnerable populations who may not access community healthcare services.

- POC testing increases HCV testing rates by 2.6-fold compared to standard laboratory testing
- Treatment uptake improves dramatically (from 22% to 93% within 12 weeks in some studies)
- Time to treatment initiation is significantly reduced (from 99 days to 6 days median)
- High patient acceptability across diverse prison populations
- Cost-effective compared to community-based testing models
- Critical component for achieving WHO HCV elimination goals by 2030

### What we did

This evidence update employed a search strategy to address the question: "What is the acceptability and feasibility of point-of-care Hepatitis C RNA testing in prison settings?" Four databases were searched (Proquest, Scopus, Medline, Embase), yielding 977 initial results, reduced to 309 after deduplication.

## What we found

Following screening for relevance to prison settings and HCV testing/treatment, 40 published articles were included, along with 10 grey literature sources. The review focused on studies from 2016 - 2024 following direct-acting antiviral availability, with some international studies retained for broader insights into acceptability and implementation approaches.

Prisons are central to HCV elimination **strategies** due to disproportionately high prevalence. A global meta-analysis (Moradi et al., 2018) found significantly higher rates in prisoners compared to the general population, with Australian prisons having the highest prevalence worldwide (26.4%). Scale-up of prisonbased testing and treatment is recommended to achieve elimination (Winter et al., 2023). Modelling from NSW and beyond (Bretana et al., 2020; Lim et al., 2021; Stone et al., 2023) showed that without prison-based interventions, elimination is unattainable.

Australian treatment programs have demonstrated the potential for HCV elimination in prisons and beyond. A

Queensland-based study (Bartlett et al., 2018) achieved micro-elimination through rapid direct-acting antiviral therapy (DAA) scale-up. Victoria's nurseled POC testing model in prisons (Papaluca et al., 2019; MacIsaac et al., 2024) delivered thousands of treatments with >93% cure rates.

Long-term analyses (Griffin et al., 2024) confirmed that prison-based treatment contributes to statewide elimination, with Australian modelling studies demonstrating scaling up of treatment in prisons is cost-effective (Shih, et al., 2024; Kwon et al., 2021; Palmer et al., 2021). Internationally, an Irish-based study (Crowley et al., 2021) found no new HCV infections after treatment, despite a low number of prisoners continuing to engage in high-risk behaviour.

**POC** testing implementation studies demonstrate effectiveness and feasibility. The PROMPt study (McCartney et al., 2024), PIVOT trial (Sheehan et al., 2023), a whole-prison screen (Wallis et al., 2023), the NSW dried blood spot pilot (Carrington, et al., 2023), and a mixed-methods evaluation in Scotland (Byrne et al., 2023) demonstrated high uptake of POC testing, faster diagnosis-to-treatment pathways, and feasibility of whole-ofprison testing. Early nurse-led interventions (Winter et al., 2016) increased BBV testing, with modelling showing the cost-effectiveness of POC testing (Shih et al., 2023). Patient perspectives (Lafferty et al., 2022) found testing "quick and easy," and showed testing reduces HCV-related stigma (Lafferty et al., 2023; Rance et al., 2020).

Enablers to the scale-up of POC testing include designated officers, compatibility with sentence length, peer champions, and cultural leadership (Lafferty et al., 2021; 2022). International experience (Halford et al., 2023) and UK and US policy reviews (McNamara et al., 2024; Byrne et al., 2023) confirmed feasibility of intensive opt-out test-and-treat approaches.

While POC testing and prison-based treatment are effective, prevention, testing and treatment needs are ongoing. The SToP-C trial found high incidence and reinfection linked to injecting drug use in prison (Hajarizadeh et al., 2024), with challenges in treatment completion due to release or transfer (Ryan et al., 2024). An Australian study with correctional staff identified mental health issues and injecting drug use as a barrier to treatment (Mina et al., 2016), with a need for needle and syringe programs within prisons (Harkness et al., 2017; Rance et al., 2021a; Rance et al., 2021b), highlighted by the higher rates of HCV among those who recently shared injecting equipment (Bah et al., 2024a). An American study (Harris et al., 2019) identified challenges and gaps in testing and treatment cascades.

A qualitative study (Sheehan et al., 2024a) suggested significant HCV health literacy gaps, with a suite of codesigned resources for the Hepatitis in Prisons Education (HepPEd) program suggested to enhance health literacy (Sheehan et al., 2024b).

effective beyond prison-based settings. Spanish-based peer navigator programs with non-custodial sentences (Cabezas et al., 2021) demonstrated feasibility beyond custodial prisons. Retrospective analysis showed low screening and linkage-to-care among adults on probation, suggesting a need to focus on this population (Kamis et al., 2022).

## **Key Implications for Practice**

#### For Health Promotion Professionals

- POC testing significantly improves engagement with hard-to-reach populations
- Educational components should address identified health literacy gaps
- Peer education and navigator models enhance program effectiveness
- Integration with harm reduction services optimises outcomes

#### **For Clinicians**

- POC testing enables same-day diagnosis and treatment initiation
- Nurse-led models with telemedicine support are highly effective
- Simplified protocols reduce clinical burden while maintaining quality
- Treatment outcomes in prison settings match community standards

#### **For Educators**

- Comprehensive staff training required across correctional and health personnel
- Cultural change initiatives necessary for successful implementation
- Ongoing education needed to address stigma and misconceptions
- Evidence-based educational resources available through national programs

#### For Policy and Service Development

- POC testing is cost-effective compared to standard care models
- Prison-based programs essential for population-level elimination goals
- Coordination between corrections and health sectors critical
- Investment in dedicated staffing and infrastructure required for scale-up

## Research Gaps and Future Directions

- Long-term follow-up studies on sustained virological response rates
- Comparative effectiveness of different POC testing technologies
- Implementation research on scaling successful models
- Economic evaluations from correctional sector perspective
- Studies on optimal integration with community-based care
- Research on POC testing in specialised prison populations (women, youth, Indigenous peoples)

## Conclusion

The evidence strongly supports the acceptability and feasibility of POC HCV RNA testing in prison settings. POC testing represents a paradigm shift, enabling rapid diagnosis, immediate linkage to care, and significantly improved treatment outcomes. For Western Australia's sexual health and blood-borne virus sector, implementing POC testing in correctional facilities offers a high-impact intervention supporting both individual health outcomes and population-level elimination goals.

The convergence of evidence from multiple jurisdictions, study designs, and stakeholder perspectives provides a robust foundation for policy and practice decisions. The remaining challenge is not whether to implement POC testing in prisons, but how to optimise implementation, ensure sustainability, and integrate with broader elimination strategies.

## **Annotated Bibliography**

#### **Systematic Reviews and Meta-Analyses**

**Moradi, G. et al. (2018)** - Prevalence of hepatitis B and C in prisons worldwide: A metaanalysis during the years 2005-2015

Comprehensive meta-analysis of 43 studies showing global HCV prevalence in prisoners of 13.22% overall, with Australia having the highest prevalence at 26.4%. Demonstrated significantly higher rates in prisoners compared to general population, emphasising prisons as priority settings for intervention. **Relevance:** Provides epidemiological foundation justifying prison-focused testing strategies.

#### **Australian Prison Treatment Programs and Outcomes**

Bartlett, S.R. et al. (2018) - Demonstration of near-elimination of Hepatitis C virus among a prison population: The Lotus Glen Correctional Centre

Landmark study demonstrating micro-elimination in an Australian prison through rapid DAA scale-up. During 22 months, 119 patients initiated treatment with HCV prevalence declining from 12% to 1%. Relevance: Proof-of-concept that prison-based elimination is achievable with appropriate treatment scale-up.

**Papaluca, T. et al. (2019)** - Outcomes of treatment for hepatitis C in prisoners using a nurse-led, statewide model of care

Evaluation of Victoria's statewide nurse-led program across 14 adult prisons over 13 months. 416 prisoners treated with 96% SVR12 rate. Demonstrated that decentralised, nurse-led care with telemedicine support can effectively reach large numbers of prisoners. **Relevance:** Model for scalable, nurse-led POC programs in prison settings.

MacIsaac, M.B. et al. (2024) - Long-term outcomes of a decentralized, nurse-led, statewide model of care for hepatitis C among people in prison in Victoria

Long-term follow-up (2015-2021) of Victoria's program showed 3,133 treatment courses to 2,768 people in prison. Program contribution increased from 6% of total Victorian DAA prescriptions in 2016 to 23% in 2020. Achieved 93% SVR12 rate among those with complete follow-up. Relevance: Demonstrates sustainability and scalability of nurse-led models incorporating POC testing.

#### **Point-of-Care Testing Implementation Studies**

McCartney, E.M. et al. (2024) - Point-of-Care Testing for Hepatitis C in the Priority Settings of Mental Health, Prisons, and Drug and Alcohol Facilities - the PROMPt Study Multi-setting study (reception prison, mental health, alcohol/drug units) with 1,549 participants. POC testing increased HCV antibody testing rates 2.57-fold and RNA testing 1.62-fold compared to historical controls. Treatment uptake was significantly higher during POC intervention (86% vs 61%). Relevance: Direct evidence of POC testing effectiveness across multiple high-risk settings.

Sheehan, Y. et al. (2023) - A 'one-stop-shop' point-of-care hepatitis C RNA testing intervention to enhance treatment uptake in a reception prison: The PIVOT study Controlled study comparing standard care (n=239) with POC intervention (n=301) at Australian reception prison. POC group showed 93% treatment initiation vs 22% in standard care within 12 weeks. Median time to treatment: 6 days vs 99 days. Relevance: Strongest evidence for POC testing impact on treatment cascade in prison settings.

Lafferty, L. et al. (2022) - "That was quick, simple, and easy": Patient perceptions of acceptability of point-of-care hepatitis C RNA testing at a reception prison Qualitative study (n=24) exploring patient acceptability using Sekhon's Theoretical Framework. Participants found POC testing highly acceptable across four key components: affective attitude ("quick and easy"), reduced burden (swift results alleviating anxiety), improved self-efficacy (accessible for those with needle phobia/poor veins), and perceived effectiveness (confidence in results). Relevance: Essential evidence on patient acceptability supporting POC implementation.

Wallis, C. et al. (2023) - Hepatitis C virus point-of-care RNA testing: Experience from screening an entire high-security Australian prison population over 3 days
Rapid implementation study at Brisbane Women's Correctional Centre testing 211 of 244 inmates (86% participation) over 3 days. Found 8% HCV prevalence with 14 of 17 positive cases commencing treatment within 1 week. Demonstrated feasibility of whole-prison POC screening. Relevance: Model for rapid, comprehensive prison POC testing implementation.

#### **Treatment as Prevention and Elimination Studies**

Bretana, N.A. et al. (2020) - Combined treatment and prevention strategies for hepatitis C virus elimination in the prisons in New South Wales: a modelling study

Mathematical modelling study projecting treatment scale-up effects in NSW prisons.

Increasing treatment to 2,000 prisoners annually could reduce HCV incidence to 8.69 per 100 person-years. Combined treatment and prevention strategies necessary to achieve elimination targets. Relevance: Evidence supporting integrated POC testing and treatment programs for elimination.

Lim, A.G. et al. (2021) - Evaluating the Prevention Benefit of HCV Treatment: Modeling the SToP-C Treatment as Prevention Study in Prisons

Modelling analysis of SToP-C trial data showing 48.5% decrease in HCV incidence following treatment scale-up, with 85.1% of reduction attributable to treatment intervention. Relevance: Quantifies prevention benefits of prison-based treatment programs enabled by POC testing.

**Stone, J. et al. (2023)** - Prison-based interventions are key to achieving HCV elimination among people who inject drugs in New South Wales

Modelling study demonstrating that incarceration contributes 23% of new HCV infections over 2020-2029. Without prison-based interventions, elimination targets drop from 98.8% probability to 10.1%. **Relevance:** Critical importance of prison POC programs for population-level elimination goals.

#### **Implementation Science and Scaling Studies**

**Lafferty, L. et al. (2022)** - "You need a designated officer" - Recommendations from correctional and justice health personnel for scaling up hepatitis C treatment-asprevention

Qualitative study with 41 prison personnel identifying scaling requirements: compatibility with sentence length, dedicated funded positions, stakeholder engagement across prison workforce, peer champions, and cultural change leadership. **Relevance:** Implementation guidance for POC program scale-up.

**Halford, R. et al. (2023)** - Chronic hepatitis C elimination prison initiative: HCV-intensive test and treat program in England

UK program across 13 prisons achieving 95.9% testing coverage with 79% treatment initiation among RNA-positive individuals. Demonstrated feasibility of rapid test-and-treat approaches. **Relevance:** International evidence supporting intensive POC testing models.

#### **Cost-Effectiveness Studies**

**Palmer, A. et al. (2021)** - A costing analysis of a state-wide, nurse-led hepatitis C treatment model in prison

Economic analysis of Victoria's program showing average non-drug cost of AUD\$1,802 per prisoner treatment initiation, 11% cheaper than primary care and 56% cheaper than hospital-based care in community. **Relevance:** Economic justification for prison POC programs.

**Shih, S.T.F. et al. (2023)** - Optimizing point-of-care testing strategies for diagnosis and treatment of hepatitis C virus infection in Australia

Cost-effectiveness analysis showing POC testing costs A\$890-1,406 per treatment initiation, up to 35% lower than standard care. Combined POC antibody/RNA testing most cost-effective when HCV antibody prevalence <74%. **Relevance:** Economic evidence supporting POC testing implementation.

**Kwon, J.A. et al. (2021)** - Hepatitis C treatment strategies in prisons: A cost-effectiveness analysis

Modelling study showing DAA treatment in prisons highly cost-effective across different sentence lengths, with ICERs ranging from cost-saving to \$569/QALY. **Relevance:** Strong economic case for prison-based treatment programs utilising POC testing.

#### **Incidence and Transmission Studies**

**Hajarizadeh, B. et al. (2024)** - Incidence of hepatitis C virus infection in the prison setting: The SToP-C study

Longitudinal study (n=1,643) showing HCV incidence of 6.11/100 person-years in prison, with higher reinfection rates (9.34) than primary infection (4.60). Identified inprison drug injection as key risk factor (aHR: 10.55). **Relevance:** Epidemiological evidence supporting need for rapid POC testing and treatment.

**Shih, S.T.F. et al. (2024)** – Scale-up of direct-acting antiviral treatment in prisons is both cost-effective and key to hepatitis C virus elimination

Dynamic modelling of incarceration and HCV transmission in NSW, incorporating custodial and community settings, evaluated a 44% prison DAA treatment scale-up (as per SToP-C) sustained for 10 years. Projected mean ICER was A\$12,968/QALY gained (A\$6,054/QALY excluding drug costs), with 100% probability of cost-effectiveness under varied scenarios. **Relevance:** Strong economic evidence supporting prison-based testing and treatment scale-up—key justification for investment in POC testing programs.

#### **Qualitative Studies on Acceptability and Barriers**

**Lafferty, L. et al. (2021)** – Hepatitis C treatment as prevention in the prison setting: Assessments of acceptability of treatment scale up efforts by prison correctional and health personnel

Qualitative interviews with correctional (n=24) and health personnel (n=17) in four NSW prisons from the SToP-C trial explored acceptability of HCV treatment. Broad support was reported, citing benefits for in-prison prevalence reduction and post-release community health. **Relevance:** Highlights operational and attitudinal factors influencing staff acceptance, critical for scaling POC testing-linked treatment programs.

**Lafferty, L. et al. (2023)** – Reducing barriers to the hepatitis C care cascade in prison via point-of-care RNA testing

Qualitative study of 24 men in a NSW reception prison participating in the PIVOT 'one-stop-shop' intervention (POC RNA testing, Fibroscan, treatment). POC testing was viewed as timely, reduced clinic visits, and supported routine opt-out testing on intake. Perceived as fostering normalisation and increasing treatment uptake. **Relevance:** Direct evidence of prisoner support for POC RNA testing as a strategy to streamline diagnosis and care engagement.

Rance, J. et al. (2020) - 'Behind closed doors, no one sees, no one knows': hepatitis C, stigma and treatment-as-prevention in prison

Qualitative analysis (n=32) exploring HCV stigma in prison settings. Found complex patterns from normalisation to potential disciplinary/social consequences. Suggests POC testing may help reduce stigma through routine implementation. **Relevance:** Understanding social context crucial for POC program design.

Rance, J. et al. (2021a) – Expert stakeholder perspectives on the acceptability of treatment-as-prevention in prison

Qualitative interviews with 19 HCV experts involved in SToP-C, analysed using Sekhon's acceptability framework. While universal DAA rollout was supported, some participants prioritised expanding harm reduction over treatment-as-prevention. **Relevance:** Highlights tensions between treatment-focused and prevention-focused approaches, informing balanced POC testing program design.

Rance, J. et al. (2021b) – Considering treatment-as-prevention scale-up for Australian prisons

Qualitative analysis of the same 19 HCV experts identified political/policy support, staff engagement, schedule flexibility, prison stability, retreatment availability, and adequate clinical space as critical for scale-up success. **Relevance:** Maps systemic and operational enablers needed for POC testing-driven treatment expansion.

#### **Recent Surveillance and Prevalence Studies**

**Bah, R. et al. (2024a)** - Prevalence of blood-borne virus infections and uptake of hepatitis C testing and treatment in Australian prisons: the AusHep study
National bio-behavioural survey (n=1,599) across 23 representative prisons showing 31.7% anti-HCV prevalence and 8.0% HCV RNA prevalence. Despite high testing (70.4%) and treatment uptake (84.6%), substantial disease burden remains in some subpopulations. **Relevance:** Current epidemiological context supporting continued POC testing expansion.

#### **International and Community Justice Studies**

**Cabezas, J. et al. (2021)** - Hepatitis C Micro-Elimination beyond Prison Walls: Navigator-Assisted Test-and-Treat Strategy for Subjects Serving Non-Custodial Sentences

Spanish study of non-custodial sentence population (n=548) achieving 93% screening rate and 100% SVR among treated. Demonstrated feasibility of POC testing with navigator support. **Relevance:** Model for extending POC approaches beyond traditional prison settings.

Kamis, K.F. et al. (2022) - A retrospective, descriptive study of hepatitis C testing, prevalence, and care continuum among adults on probation

US study (n=8,903) of probation population showing only 15% ever tested for HCV, with 30% of tested having current infection. Highlights opportunity for POC testing in community corrections. Relevance: Evidence for expanding POC testing beyond incarcerated populations.

Harris, A.M. et al. (2019) - An evaluation of the hepatitis C testing, care and treatment program in the country of Georgia's corrections system, December 2013 – April 2015 US study of ~30,000 prisoners over 16 months. Of those screened (n=13,500, 45%), 38% (n=5,175) tested anti-HCV positive. Of those, 74% received RNA testing, 32% met treatment eligibility, 66% enrolled, 69% completed treatment, and 50% achieved SVR12 with interferon-based therapy. **Relevance:** Shows systematic approach to prison HCV programs and identifies care cascade gaps that POC testing could address.

**Crowley, D. et al. (2021)** - New hepatitis C virus infection, re-infection and associated risk behaviour in male Irish prisoners: a cohort study

18-month follow-up cohort study in Irish male prison (n=99) examining HCV incidence among prisoners previously negative, self-cleared, or successfully treated. No new HCV infections identified in any group despite 51% having history of drug use and 39% history of IDU. **Relevance:** Demonstrates potential for low HCV incidence in prison settings with adequate harm reduction services.

**Byrne, C.J. et al. (2023)** - Mixed-methods evaluation of point-of-care hepatitis C virus RNA testing in a Scottish prison

Mixed-methods evaluation in Scottish prison (n=296) showing POC testing significantly improved treatment transition and reduced time to treatment initiation (19 vs 33-50 days). POC testing was costlier than conventional methods but achieved better clinical outcomes. **Relevance:** Provides robust evidence on POC testing effectiveness with detailed implementation guidance for prison settings.

McNamara, M. et al. (2024) - Advancing hepatitis C elimination through opt-out universal screening and treatment in carceral settings, United States

Comprehensive policy review examining strategies for implementing universal opt-out HCV screening and treatment in U.S. correctional facilities. Relevance: Provides policy framework and implementation strategies essential for scaling POC testing programs within broader universal screening initiatives in correctional settings.

#### **Additional Prison-Based Testing and Treatment Studies**

**Mina, M.M. et al. (2016)** - Hepatitis C in Australian prisons: a national needs assessment

National stakeholder consultation (n=55) across all Australian states and territories examining HCV testing and treatment rates. Of >50,000 individuals in custody in 2013, ~8,000 were HCV antibody positive but only 313 received treatment. Identified multiple barriers including fear of side effects, stigma, mental health issues, and inadequate specialist staffing. **Relevance:** Foundational needs assessment highlighting systemic barriers that POC testing can address.

**Winter, R.J. et al. (2016)** - A nurse-led intervention improved blood-borne virus testing and vaccination in Victorian prisons

Evaluation of nurse-led intervention across three Victorian prisons (n=300) showing significant increases in BBV testing from 21% to 62% post-intervention, and HBV vaccination from 2% to 19%. **Relevance:** Early evidence supporting nurse-led models for prison-based testing programs.

**Harkness, B. et al. (2017)** - Why is there still hepatitis C transmission in Australian prisons? A case report

Case report of HCV reinfection in prisoner treated with DAA, highlighting need for comprehensive harm reduction including needle and syringe programs alongside treatment. Demonstrates that treatment alone insufficient without prevention measures. **Relevance:** Emphasises need for integrated prevention strategies with POC testing programs.

**Carrington, N. et al. (2024)** - Testing, diagnosis, and treatment following the implementation of a program to provide dried blood spot testing for HIV and hepatitis C infections: the NSW DBS Pilot

Large-scale evaluation of dried blood spot testing program (n=7,392) across community sites and prisons in NSW. Among 5,960 tested for HCV, 15% had detectable RNA and 45% initiated treatment within six months. Demonstrated feasibility of DBS testing in prison settings. **Relevance:** Evidence for alternative POC testing approaches using dried blood spot technology.

**Griffin, S. et al. (2024)** - Contribution of prison-based hepatitis C treatment initiations to overall treatment uptake in Victoria, Australia

Analysis of prison-based treatment contribution to statewide DAA prescriptions in Victoria, showing significant impact on overall treatment numbers. **Relevance:** Demonstrates population-level impact of prison-based programs using POC testing.

**Lafferty, L. et al. (2018)** – A policy analysis exploring hepatitis C risk, prevention, testing, treatment and reinfection within Australia's prisons

Review of 18 current health and prison-health policy documents across Australian jurisdictions post-DAA availability (March 2016). Found variable commitments to harm reduction and treatment scale-up, with many jurisdictions lacking updated guidance.

Relevance: Identifies policy gaps that may limit integration of POC testing into national HCV elimination strategies.

**Ryan, H. et al. (2024)** - Hepatitis C treatment outcome among people in prison: The SToP-C study

Treatment outcome analysis from SToP-C study (n=324 commenced treatment) showing 96% SVR in per-protocol population but highlighting challenges with treatment completion due to release/transfer (ITT SVR: 44%). **Relevance:** Real-world treatment outcomes data essential for POC program planning.

**Winter, R.J. et al. (2023)** - Consensus recommendations on the management of hepatitis C in Australia's prisons

Expert consensus statement establishing best practice standards for Australian prison HCV management. Recommends universal opt-out testing, POC testing, simplified assessment protocols, and early cure confirmation. **Relevance:** Clinical practice guidelines supporting POC testing implementation.

#### **Educational Programs**

Sheehan, Y. et al. (2024a) – Understanding hepatitis C virus (HCV) health literacy and educational needs among people in prison to enhance HCV care in prisons

National needs assessment (n=40 interviews) and co-design process involving healthcare providers, custodial officers, and people in prison informed the creation of multi-modal HCV education resources. Found significant health literacy gaps outside hepatitis-specialist staff, with peer-led education recommended. Relevance:

Education framework that can complement POC testing programs by improving health literacy and reducing stigma.

**Sheehan, Y. et al. (2024b) -** Development of an evidence-based hepatitis C education program to enhance public health literacy in the Australian prison sector: The Hepatitis in Prisons Education program (HepPEd).

Describes the co-design and development of HepPEd, a national multi-modal hepatitis C education program tailored for Australia's prison sector. Resources include audience-specific print and digital materials, videos, and peer-education modules promoting testing and treatment engagement. **Relevance:** Provides an evidence-based, co-designed education framework to enhance HCV health literacy and complement point-of-care testing and treatment initiatives in prisons

#### **Grey Literature Sources**

**University of Queensland (2021)** - *Breaking chains of Hepatitis C in Prisons*Educational resource examining HCV transmission and prevention strategies in prison settings. Provides foundational information on prison-based HCV programs and elimination approaches. **Relevance:** Educational framework for understanding prison HCV context.

**Hepatitis Australia** - Responding to blood-borne viruses in Australian Prisons
Policy briefing on comprehensive approaches to BBV management in Australian
prisons, including testing, treatment, and prevention strategies. **Relevance:** Policy
context for integrated prison BBV programs.

**University of Washington** - *Treatment of HCV in a correctional setting*Clinical guidance document providing core concepts for HCV treatment implementation in correctional facilities. **Relevance:** Clinical practice resource for prison-based treatment programs.

**Kirby Institute (UNSW)** - Media release: Access to testing and treatment in prisons crucial to hep c elimination, study finds

Research communication highlighting critical role of prison-based programs in achieving elimination goals. **Relevance:** Communication tool for stakeholder engagement.

#### ASHM (2020) - National Hepatitis C Testing Policy 2020

National policy framework establishing standards and recommendations for HCV testing across all settings including prisons. Supports POC testing implementation. **Relevance:** Authoritative policy guidance for testing protocols.

**National Prisons Hepatitis Network (2022)** - Consensus statement on the management of Hepatitis C in Australia's Prisons

Expert consensus establishing best practice standards for prison HCV management, explicitly supporting POC testing approaches. **Relevance:** Clinical practice standards for prison-based programs.

**Queensland Health (2024)** - Hepatitis B and C Roundtable 2024 summary report Recent stakeholder consultation identifying current priorities and gaps in BBV responses including prison settings. **Relevance:** Current policy priorities and implementation challenges.

**Australian Government Department of Health (2023)** - 6th National Hepatitis C Strategy 2023-2030

National strategic framework guiding HCV elimination efforts with specific recognition of prison settings as priority. **Relevance:** Strategic policy context for prison POC programs.

**RACGP (2nd edition)** - Standards for health services in Australian prisons
Clinical standards establishing minimum requirements for prison health services including BBV testing and treatment. **Relevance:** Quality standards framework for prison health programs.

**Health Equity Matters** - Why are we waiting? The urgent need for NSPS in Australian prisons

Advocacy document highlighting gaps in harm reduction services in Australian prisons, complementing treatment-focused approaches. **Relevance:** Broader harm reduction context for comprehensive prison programs.

## Reference list

Australian Government Department of Health and Aged Care. (2023). 6th National Hepatitis C Strategy 2023–2030. Canberra, ACT: Australian Government.

ASHM. (2020). *National Hepatitis C Testing Policy 2020*. Canberra, ACT: Australasian Society for HIV, Viral Hepatitis and Sexual Health Medicine and Commonwealth of Australia.

Bah, R., Sheehan, Y., Li, X., Dore, G. J., Grebely, J., Lloyd, A. R., Hajarizadeh, B., Lloyd, A., Hajarizadeh, B., Sheehan, Y., Bah, R., Li, C., Byrne, M., Butler, T., Musarurwa, B., Hooshmand, E., Simpson, A., Alrayyani, M., Grebely, J., . . . Groom, M. (2024). Prevalence of blood-borne virus infections and uptake of hepatitis C testing and treatment in Australian prisons: the AusHep study. *The Lancet Regional Health – Western Pacific*, 53. https://doi.org/10.1016/j.lanwpc.2024.101240

Bartlett, S. R., Fox, P., Cabatingan, H., Jaros, A., Gorton, C., Lewis, R., Priscott, E., Dore, G. J., & Russell, D. B. (2018). Demonstration of near-elimination of hepatitis C virus among a prison population: The Lotus Glen Correctional Centre Hepatitis C Treatment Project. *Clinical Infectious Diseases*, 67(3), 460-463. <a href="https://doi.org/10.1093/cid/ciy210">https://doi.org/10.1093/cid/ciy210</a>

Bretaña, N. A., Gray, R. R., Cunningham, E. B., Betz-Stablein, B., Ribeiro, R., Graw, F., Luciani, F., and Lloyd, A. R. (2020) Combined treatment and prevention strategies for hepatitis C virus elimination in the prisons in New South Wales: a modelling study. *Addiction*, 115, 901–913. https://doi.org/10.1111/add.14830

Byrne, C. J., Malaguti, A., Inglis, S. K., Dillon, J. F., & others. (2023). Mixed-methods evaluation of point-of-care hepatitis C virus RNA testing in a Scottish prison. *BMJ Open, 13*(4), e068604. https://doi.org/10.1136/bmjopen-2022-068604

Cabezas, J., Llerena, S., Mateo, M., Álvarez, R., Cobo, C., González, V., Martró, E., Cuadrado, A., & Crespo, J. (2021). Hepatitis C Micro-Elimination beyond Prison Walls: Navigator-Assisted Test-and-Treat Strategy for Subjects Serving Non-Custodial Sentences. Diagnostics, 11(5), 877. <a href="https://doi.org/10.3390/diagnostics11050877">https://doi.org/10.3390/diagnostics11050877</a>

Carrington, N., Conway, A., Grebely, J., Starr, M., Catlett, B., Stevens, A., Prain, B., McGrath, C., Causer, L., Guy, R., Holden, J., Keen, P., Kingsland, M., Lu, H., Power, C., Read, P., Murray, C., McNulty, A., Cunningham, P., & on behalf of the NSW DBS Pilot Study Group (2024). Testing, diagnosis, and treatment following the implementation of a program to provide dried blood spot testing for HIV and hepatitis C infections: the NSW DBS Pilot. *BMC Infectious Diseases*, *24*(1), 137. <a href="https://doi.org/10.1186/s12879-024-08989-8">https://doi.org/10.1186/s12879-024-08989-8</a>

Crowley, D., Avramovic, G., Cullen, W., Farrell, C., Halpin, A., Keevans, M., Laird, E., McHugh, T., McKiernan, S., Miggin, S. J., Murtagh, R., Connor, E. O., O'Meara, M., Reilly, D. O., & Lambert, J. S. (2021). New hepatitis C virus infection, re-infection and associated risk behaviour in male Irish prisoners: a cohort study, 2019. *Archives of Public Health*, 79(1), 97. https://doi.org/10.1186/s13690-021-00623-2

Griffin, S., Lee Wilkinson, A., Winter, R., Hajarizadeh, B., MacIsaac, M., Papaluca, T., Holmes, J., Lloyd, A. R., Carson, J., Craigie, A., Hellard, M., Stoové, M., & Thompson, A. (2024). Contribution of prison-based hepatitis C treatment initiations to overall treatment uptake in Victoria, Australia. *The Lancet Regional Health – Western Pacific*, 48. https://doi.org/10.1016/j.lanwpc.2024.101139

Hajarizadeh, B., Carson, J. M., Byrne, M., Grebely, J., Cunningham, E., Amin, J., Vickerman, P., Martin, N. K., Treloar, C., Martinello, M., Lloyd, A. R., Dore, G. J., & group, t. S.-C. s. (2024). Incidence of hepatitis C

virus infection in the prison setting: The SToP-C study. *Journal of Viral Hepatitis*, 31(1), 21-34. https://doi.org/https://doi.org/10.1111/jvh.13895

Halford, R., Christensen, L., Cox, S., Sheehan, J., Brew, I., Gillyon-Powell, M., Threadgold, G., O'Moore, É., Troke, P. J. F., & Jones, A. (2023). Chronic hepatitis C elimination prison initiative: HCV-intensive test and treat, a whole prisoner population HCV test-and-treat program in England. *Health Science Reports*, 6(12), e1724. https://doi.org/https://doi.org/10.1002/hsr2.1724

Harkness, B., Levy, M., Evans, R., & Wenke, J. (2017). Why is there still hepatitis C transmission in Australian prisons? A case report. *Harm Reduction Journal*, *14*(1), 75. https://doi.org/10.1186/s12954-017-0201-y

Harris, A. M., Chokoshvili, O., Biddle, J., Turashvili, K., Japaridze, M., Burjanadze, I., Tsertsvadze, T., Sharvadze, L., Karchava, M., Talakvadze, A., Chakhnashvili, K., Demurishvili, T., Sabelashvili, P., Foster, M., Hagan, L., Butsashvili, M., Morgan, J., & Averhoff, F. (2019). An evaluation of the hepatitis C testing, care and treatment program in the country of Georgia's corrections system, December 2013 – April 2015. *BMC Public Health*, 19(3), 466. https://doi.org/10.1186/s12889-019-6783-4

Duvnkaj, A., Wiggins, N., & Crawford, S. (2017). Why are we waiting? The urgent need for NSPS in Australian prisons. Health Equity Matters. <a href="https://www.healthequitymatters.org.au/resources/waiting-urgent-need-nsps-australian-prisons">https://www.healthequitymatters.org.au/resources/waiting-urgent-need-nsps-australian-prisons</a>

Kamis, K. F., Wyles, D. L., Minturn, M. S., Scott, T., McEwen, D., Hurley, H., Prendergast, S. J., Gunter, J., & Rowan, S. E. (2022). A retrospective, descriptive study of hepatitis C testing, prevalence, and care continuum among adults on probation. *Health & Justice*, *10*(1), 26. https://doi.org/10.1186/s40352-022-00191-9

Kirby Institute (UNSW). (2021). *Media release: Access to testing and treatment in prisons crucial to hep C elimination, study finds*. University of New South Wales. <a href="https://www.kirby.unsw.edu.au/news/access-testing-and-treatment-prisons-crucial-hep-c-elimination-study-finds">https://www.kirby.unsw.edu.au/news/access-testing-and-treatment-prisons-crucial-hep-c-elimination-study-finds</a>

Kwon, J. A., Chambers, G. M., Luciani, F., Zhang, L., Kinathil, S., Kim, D., Thein, H.-H., Botha, W., Thompson, S., Lloyd, A., Yap, L., Gray, R. T., & Butler, T. (2021). Hepatitis C treatment strategies in prisons: A cost-effectiveness analysis. *PLOS ONE*, *16*(2), e0245896. https://doi.org/10.1371/journal.pone.0245896

Lafferty, L., Wild, T. C., Rance, J., & Treloar, C. (2018). A policy analysis exploring hepatitis C risk, prevention, testing, treatment and reinfection within Australia's prisons. *Harm Reduction Journal*, *15*(1), 39. https://doi.org/10.1186/s12954-018-0246-6

Lafferty, L., Rance, J., Dore, G. J., Grebely, J., Lloyd, A. R., & Treloar, C. (2021). Hepatitis C treatment as prevention in the prison setting: Assessments of acceptability of treatment scale up efforts by prison correctional and health personnel. *International Journal of Drug Policy*, 98, 103379. https://doi.org/10.1016/j.drugpo.2021.103379

Lafferty, L., Cochrane, A., Sheehan, Y., Treloar, C., Grebely, J., & Lloyd, A. R. (2022). "That was quick, simple, and easy": Patient perceptions of acceptability of point-of-care hepatitis C RNA testing at a reception prison. *International Journal of Drug Policy*, 99, 103456. https://doi.org/https://doi.org/10.1016/j.drugpo.2021.103456

Lafferty, L., Rance, J., Byrne, M., Milat, A., Dore, G. J., Grebely, J., Lloyd, A. R., & Treloar, C. (2022). "You need a designated officer" – Recommendations from correctional and justice health personnel for scaling up hepatitis C treatment-as-prevention in the prison setting. *International Journal of Drug Policy*, 106, 103746. https://doi.org/https://doi.org/10.1016/j.drugpo.2022.103746

Lafferty, L., Sheehan, Y., Cochrane, A., Grebely, J., Lloyd, A. R., & Treloar, C. (2023). Reducing barriers to the hepatitis C care cascade in prison via point-of-care RNA testing: a qualitative exploration of men in prison using an integrated framework. *Addiction*, *118*(6), 1153-1160. https://doi.org/https://doi.org/10.1111/add.16137

Lim, A. G., Stone, J., Hajarizadeh, B., Byrne, M., Chambers, G. M., Martin, N. K., Grebely, J., Dore, G. J., Lloyd, A. R., & Vickerman, P. (2021). Evaluating the Prevention Benefit of HCV Treatment: Modeling the SToP-C Treatment as Prevention Study in Prisons. *Hepatology*, 74(5).

https://journals.lww.com/hep/fulltext/2021/11000/evaluating\_the\_prevention\_benefit\_of\_hcv.11.aspx

MacIsaac, M. B., Papaluca, T., McDonald, L., Craigie, A., Edwards, A., Layton, C., Gibson, A., Winter, R. J., Iyer, K., Sim, A., Evans, S., Kumaragama, K., Howell, J., Desmond, P., Iser, D., Scott, N., Hellard, M., Stoové, M., Wilson, D., . . . Thompson, A. J. (2024). Long-Term Outcomes of a Decentralized, Nurse-Led, Statewide Model of Care for Hepatitis C Among People in Prison in Victoria, Australia. *Clinical Infectious Diseases*, 80(4), 826-834. https://doi.org/10.1093/cid/ciae471

McCartney, E. M., Ralton, L., Dawe, J., Richmond, J., Zobel, J., Wigg, A., Cock, V., Tse, E. Y., Rees, T., Shaw, D., Ferguson, C., & on behalf of the Eliminate Hepatitis C (EC) Australia Partnership (2024). Point-of-Care Testing for Hepatitis C in the Priority Settings of Mental Health, Prisons, and Drug and Alcohol Facilities—the PROMPt Study. *Clinical Infectious Diseases*, 79(4), 965-973. https://doi.org/10.1093/cid/ciae155

McNamara, M., Furukawa, N., & Cartwright, E. J. (2024). Advancing Hepatitis C Elimination through Opt-Out Universal Screening and Treatment in Carceral Settings, United States. *Emerg Infect Dis*, 30(13), S80-s87. <a href="https://doi.org/10.3201/eid3013.230859">https://doi.org/10.3201/eid3013.230859</a>

Mina, M. M., Herawati, L., Butler, T., & Lloyd, A. (2016). Hepatitis C in Australian prisons: a national needs assessment. *International Journal of Prisoner Health*, *12*(1), 3-16. <a href="https://doi.org/10.1108/IJPH-08-2015-0025">https://doi.org/10.1108/IJPH-08-2015-0025</a>

Moradi, G., Goodarzi, E., & Khazaei, Z. (2018). Prevalence of Hepatitis B and C in prisons worldwide: A meta-analysis during the years 2005-2015. *Biomedical Research and Therapy*, 5(4), 2235-2251. https://doi.org/10.15419/bmrat.v5i4.436

National Prisons Hepatitis Network. (2022). *Consensus statement on the management of hepatitis C in Australia's prisons*. Sydney, NSW: National Prisons Hepatitis Network.

Palmer, A., Papaluca, T., Stoové, M., Winter, R., Pedrana, A., Hellard, M., Wilson, D., Thompson, A., & Scott, N. (2021). A costing analysis of a state-wide, nurse-led hepatitis C treatment model in prison. *International Journal of Drug Policy*, *94*, 103203.

https://doi.org/https://doi.org/10.1016/j.drugpo.2021.103203

Papaluca, T., McDonald, L., Craigie, A., Gibson, A., Desmond, P., Wong, D., Winter, R., Scott, N., Howell, J., Doyle, J., Pedrana, A., Lloyd, A., Stoove, M., Hellard, M., Iser, D., & Thompson, A. (2019). Outcomes of treatment for hepatitis C in prisoners using a nurse-led, statewide model of care. *Journal of Hepatology*, 70(5), 839-846. https://doi.org/https://doi.org/10.1016/j.jhep.2019.01.012

Queensland Health. (2024). *Hepatitis B and C Roundtable 2024 summary report*. Queensland Government.

RACGP. (n.d.). Standards for health services in Australian prisons (2nd ed.). Royal Australian College of General Practitioners.

Rance, J., Lafferty, L., & Treloar, C. (2018). 'Behind closed doors, no one sees, no one knows': hepatitis C, stigma and treatment-as-prevention in prison. Critical Public Health, 30(2), 130-140. https://doi.org/10.1080/09581596.2018.1541225

Rance, J., Lafferty, L., Treloar, C., & The SToP-C Study Group (2021a). Expert stakeholder perspectives on the acceptability of treatment-as-prevention in prison: a qualitative substudy of the 'Surveillance and Treatment of Prisoners with Hepatitis C' project (SToP-C). Addiction, 116(10), 2761-2769. https://doi.org/https://doi.org/10.1111/add.15477

Rance, J., Lafferty, L., Treloar, C., Loveday, S., Dore, G., Lloyd, A., Grebely, J., Butler, T., Martin, N., Chambers, G., Treloar, C., Byrne, M., Donnelly, R., McGrath, C., Bowman, J., Trevethan, L., Grant, L., Murrell, T., Bath, N., . . . & The SToP-C Study Group (2021b). Considering treatment-as-prevention scaleup for Australian prisons: a qualitative sub-study of expert stakeholders from the Australian 'surveillance and treatment of prisoners with hepatitis C' project (SToP-C). Harm Reduction Journal, 18(1), 46. https://doi.org/10.1186/s12954-021-00494-4

Ryan, H., Dore, G. J., Grebely, J., Byrne, M., Cunningham, E. B., Martinello, M., Lloyd, A. R., & Hajarizadeh, B. (2024). Hepatitis C treatment outcome among people in prison: The SToP-C study. Liver International, 44(11), 2996-3007. https://doi.org/https://doi.org/10.1111/liv.16074

Sheehan, Y., Cunningham, E. B., Cochrane, A., Byrne, M., Brown, T., McGrath, C., Lafferty, L., Tedla, N., Dore, G. J., Lloyd, A. R., & Grebely, J. (2023). A "one-stop-shop" point-of-care hepatitis C RNA testing intervention to enhance treatment uptake in a reception prison: The PIVOT study. Journal of Viral Hepatitis, 79(3), 635-644. https://doi.org/10.1016/j.jhep.2023.04.019

Sheehan, Y., Cochrane, A., Treloar, C., Grebely, J., Tedla, N., Lloyd, A. R., & Lafferty, L. (2024a). Understanding hepatitis C virus (HCV) health literacy and educational needs among people in prison to enhance HCV care in prisons. International Journal of Drug Policy, 130, 104516. https://doi.org/https://doi.org/10.1016/j.drugpo.2024.104516

Sheehan, Y., Lafferty, L., Tedla, N., Byrne, M., Dawson, O., Stewart, S., Leber, B., Habraken, N., & Lloyd, A. R. (2024b). Development of an evidence-based hepatitis C education program to enhance public health literacy in the Australian prison sector: The Hepatitis in Prisons Education program (HepPEd). International Journal of Drug Policy, 129, 104461.

https://doi.org/https://doi.org/10.1016/j.drugpo.2024.104461

Shih, S. T. F., Cheng, Q., Carson, J., Valerio, H., Sheehan, Y., Gray, R. T., Cunningham, E. B., Kwon, J. A., Lloyd, A. R., Dore, G. J., Wiseman, V., & Grebely, J. (2023). Optimizing point-of-care testing strategies for diagnosis and treatment of hepatitis C virus infection in Australia: a model-based cost-effectiveness analysis. The Lancet Regional Health - Western Pacific, 36. https://doi.org/10.1016/j.lanwpc.2023.100750

Shih, S. T. F., Stone, J., Martin, N. K., Hajarizadeh, B., Cunningham, E. B., Kwon, J. A., McGrath, C., Grant,

L., Grebely, J., Dore, G. J., Lloyd, A. R., Vickerman, P., & Chambers, G. M. (2024). Scale-up of direct-acting antiviral treatment in prisons is both cost-effective and key to hepatitis C virus elimination. Open Forum Infectious Diseases, 11(2), ofad637. https://doi.org/10.1093/ofid/ofad637

Stone, J., Lim, A. G., Dore, G. J., Borquez, A., Geddes, L., Gray, R., Grebely, J., Hajarizadeh, B., Iversen, J., Maher, L., Valerio, H., Martin, N. K., Hickman, M., Lloyd, A. R., & Vickerman, P. (2023). Prison-based interventions are key to achieving HCV elimination among people who inject drugs in New South Wales, Australia: A modelling study. Liver International, 43(3), 569-579.

https://doi.org/https://doi.org/10.1111/liv.15469

University of Queensland. (2021). *Breaking chains of hepatitis C in prisons*. Brisbane, QLD: University of Queensland.

University of Washington. (2024). *Treatment of HCV in a correctional setting*. Hepatitis C Online, University of Washington. <a href="https://www.hepatitisc.uw.edu/go/key-populations-situations/treatment-corrections/core-concept/all">https://www.hepatitisc.uw.edu/go/key-populations-situations/treatment-corrections/core-concept/all</a>

Wallis, C., O'Flynn, M., Fenech, M., & Grimstrup, D. (2023). Hepatitis C virus point-of-care RNA testing: Experience from screening an entire high-security Australian prison population over 3 days. *Australian and New Zealand Journal of Public Health*, *47*(5), 100083.

https://doi.org/https://doi.org/10.1016/j.anzjph.2023.100083

Winter, R. J., White, B., Kinner, S. A., Stoové, M., Guy, R., & Hellard, M. E. (2016). A nurse-led intervention improved blood-borne virus testing and vaccination in Victorian prisons. *Australian and New Zealand Journal of Public Health*, 40(6), 592-594. https://doi.org/https://doi.org/10.1111/1753-6405.12578

Winter, R. J., Sheehan, Y., Papaluca, T., Macdonald, G. A., Rowland, J., Colman, A., Stoove, M., Lloyd, A. R., & Thompson, A. J. (2023). Consensus recommendations on the management of hepatitis C in Australia's prisons. *Medical Journal of Australia*, *218*(5), 231-237.

https://doi.org/https://doi.org/10.5694/mja2.51854



## About the WA Sexual Health and Blood-borne Virus Applied Research and Evaluation Network

The Western Australian Sexual Health and Blood-borne Virus Applied Research and Evaluation Network (SiREN) supports service providers, researchers and policy makers working in the sexual health and blood-borne virus space to engage in research and evaluation. The SiREN network comprises over 400 professionals working in the sexual health and blood-borne virus space. Through this network SiREN shares the latest sexual health and blood-borne virus evidence, news, events, jobs, funding opportunities and more. SiREN can provide strategic planning, evaluation and research support and advice to people with an interest in the WA sexual health and blood-borne virus sector.

#### SiREN's services include:

- 1. Providing tailored project planning, evaluation and research support.
- 2. Undertaking applied research and evaluation.
- 3. Identifying and promoting opportunities for collaboration.
- 4. Developing research and evaluation skills.
- 5. Sharing research and evaluation evidence.

Learn more about SiREN at <a href="https://siren.org.au/">https://siren.org.au/</a>

#### **Suggested citation**

Sexual Health and Blood-Borne Virus Applied Research and Evaluation Network. (2025). Evidence Review: Acceptability and Feasibility of Point-of-Care Hepatitis C RNA Testing in Prison Settings. Perth: School of Population Health, Curtin University.

© WA Sexual Health and Blood-borne Virus Applied Research and Evaluation Network, 2025





