

Declining Hepatitis C Prevalence Among Priority Populations Accessing Dried Blood Spot Testing in Community and Prison Settings in New South Wales

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Background: To achieve hepatitis C (HCV) elimination in NSW by 2028, testing and treatment must reach people most at-risk. Dried blood spot (DBS) testing provides a simple and acceptable alternative to venepuncture. It can be collected via finger-stick and remains stable at room temperature, enabling sampling in non-clinical environments such as outreach, community or prison settings. This study reports HCV prevalence and trends among people tested through the New South Wales (NSW) DBS Pilot between 2018 and 2025.

Methods: The NSW DBS Pilot is an observational study of people testing for HCV RNA from DBS samples collected across 45 community sites (including drug treatment clinics and needle and syringe programs) and 21 prisons. Baseline patient demographics were summarised, and HCV RNA prevalence was examined overall, by setting type and over time.

Results: Between September 2018 and December 2025, 32,324 DBS HCV tests were conducted (28% female, 34% Aboriginal and/or Torres Strait Islander, 38% injected drugs in the last month). Overall, 9% (2,819/32,324) had current HCV infection, with higher prevalence in prisons (10%) compared to community sites (8%). Prevalence declined overall from 13% in 2018-2021 to 7% in 2022-2025, with similar reductions seen across both community sites (13% vs. 7%) and prisons (12% vs. 8%).

Conclusion: The NSW DBS Pilot has enabled sustained large-scale access to HCV RNA testing among priority populations across diverse settings. Declining prevalence indicates progress towards elimination however, persistent infection in custodial and high-risk community populations highlights the need for continued harm reduction measures, testing scale-up and strengthened linkage-to-care pathways to close remaining gaps along the care cascade.

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