

A national program to scale-up point-of-care testing for hepatitis C infection

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Finger-stick testing for current hepatitis C infection



- First study globally to evaluate a finger-stick test (venous cartridge) for current HCV (2 hours)¹
- Data used by Cepheid to develop a finger-stick version of this test that we evaluated (1 hour)², with good technical accuracy (100% sensitivity/specificity)²⁻³
- “Game-changer” – Enables single-visit diagnosis and treatment, increases testing acceptability, and reduces loss to follow-up
- Led clinical studies demonstrated improved time to treatment (6 vs 99 days in prisons)⁴ and proportion initiating treatment (93% vs 22% in prisons; 81% in needle/syringe programs)⁴⁻⁵

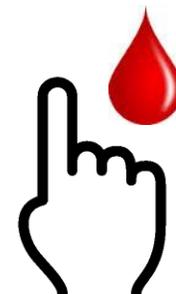
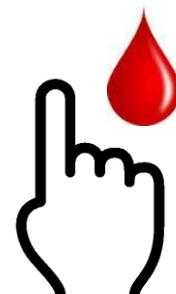
Point-of-care HCV RNA testing to enhance care



Initial
testing/diagnosis

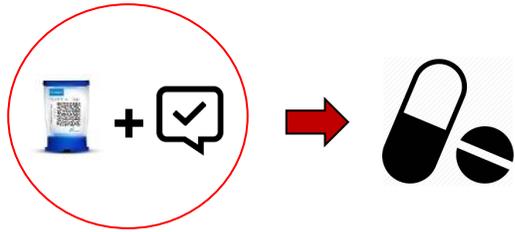


SVR
confirmation



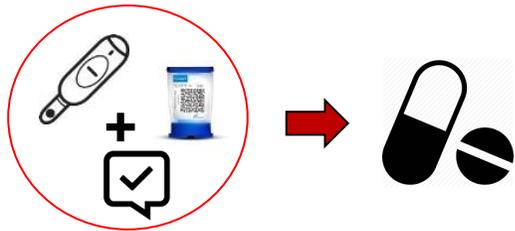
Post-treatment monitoring
for HCV reinfection

Single-visit strategies to improve testing



**Point-of-care HCV RNA and
diagnosis (Health care worker)**

Point-of-care HCV RNA
(high HCV prevalence setting)



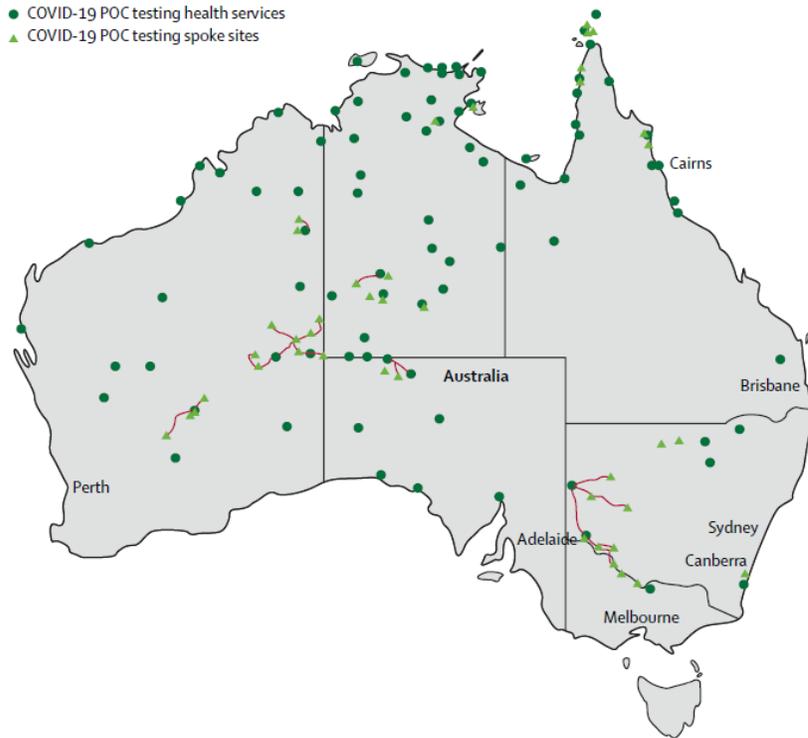
**Rapid anti-HCV antibody test,
point-of-care HCV RNA and
diagnosis (Health care worker)**

Rapid HCV antibody testing with
reflex point-of-care HCV RNA
(low HCV prevalence setting)

Point-of-care antibody testing should facilitate scale-up

- Point-of-care antibody testing is less expensive than HCV RNA testing
 - \$10 vs. \$60 per test
- Point-of-care antibody testing is a lower complexity test (easier to train operators)
- Improved acceptability of point-of-care antibody testing among patients/providers (RNA-60 mins)
 - Negative HCV antibody test (1-20 mins)
 - Positive HCV antibody test (1-5 mins)
- Improved efficiency of the GeneXpert platform
 - Limit of 4 tests per hour (one per module for a 4-module machine)
 - Use HCV antibody testing to triage patient samples for high-intensity testing campaigns

How did the Australian Hepatitis C Point-of-care Testing program get established?



12th Australasian Viral Hepatitis Conference



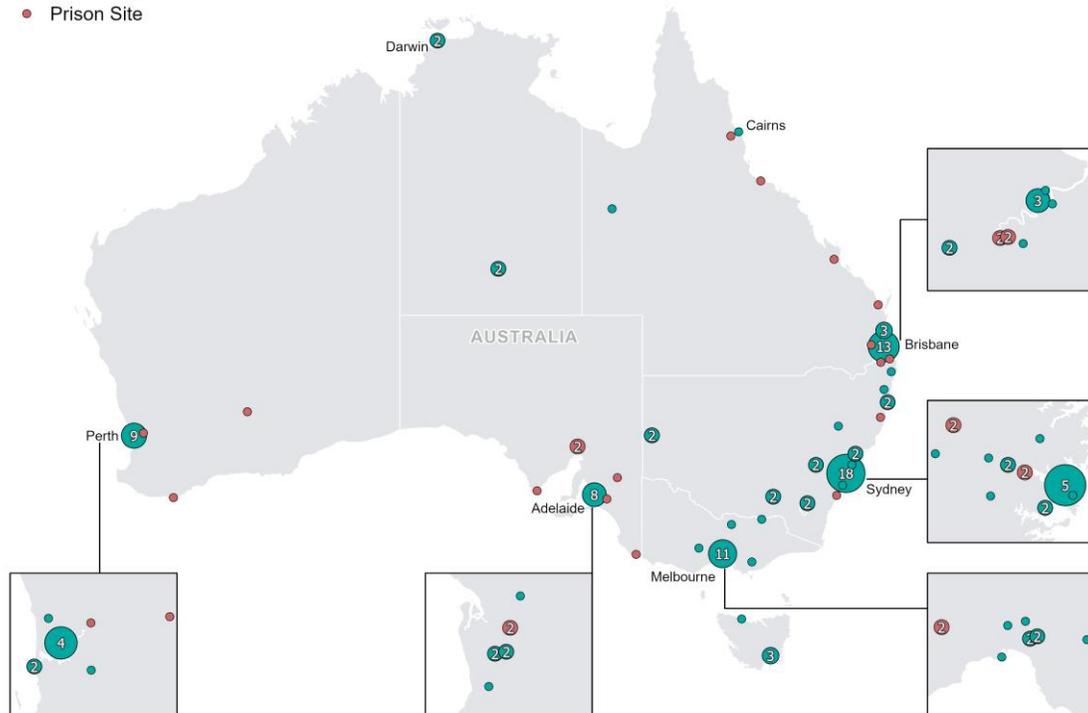
Australian Government

Department of Health

Australian Hepatitis C Point-of-Care Testing Program



- Community Site
- Prison Site



- 65 sites nationally with 50-60,000 people tested (2021-24)
- Drug treatment clinics, NSPs, prisons, mental health, mobile outreach models, homelessness services, Aboriginal Community Controlled Health Organisations
- Testing for anyone at risk of HCV or attending service
- Point-of-care testing for HIV and HBsAg
- Program includes:
 - 1) SOPs, logistics, deployment, and set-up
 - 2) Training
 - 3) Quality assurance program
 - 4) IT/connectivity
 - 5) Research and evaluation framework

Finger stick point-of-care HCV antibody testing (1-5 minutes)



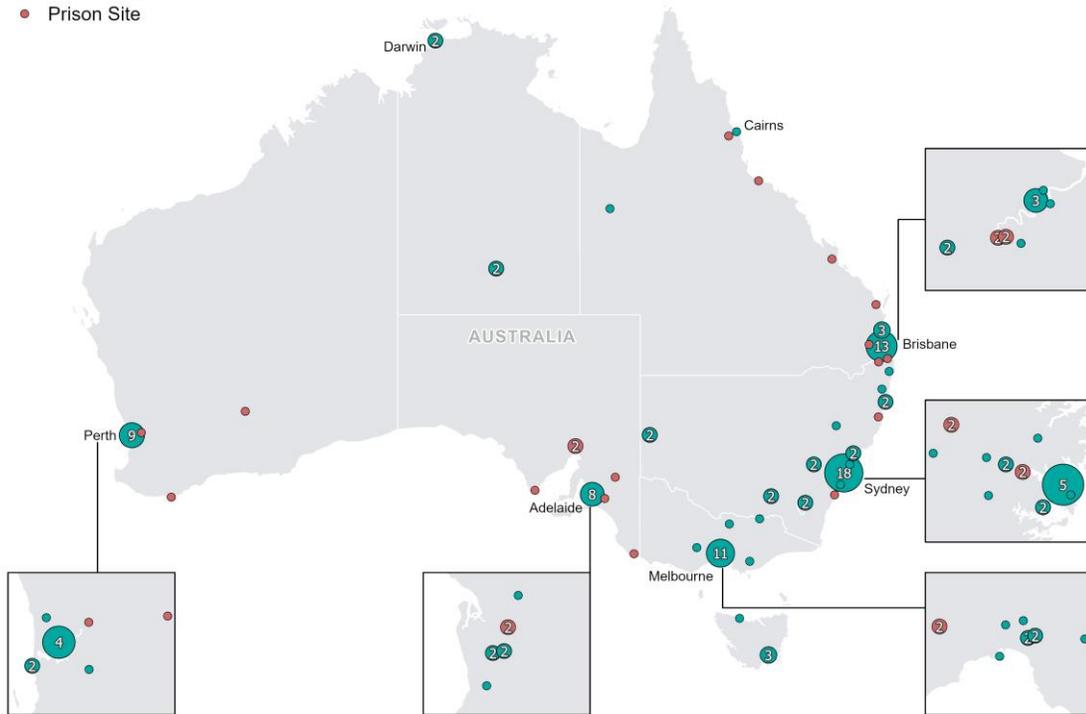
Finger stick point-of-care HCV RNA testing (60 minutes)



Program successes

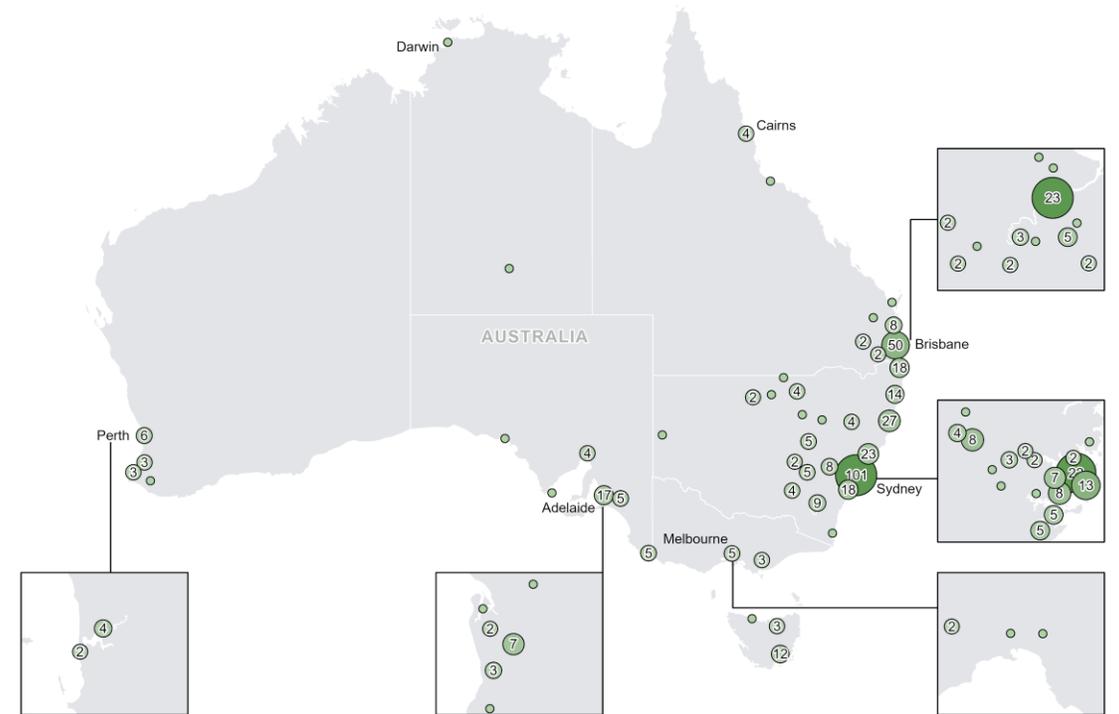
115 sites

- Community Site
- Prison Site



>400 testing locations

- Testing location

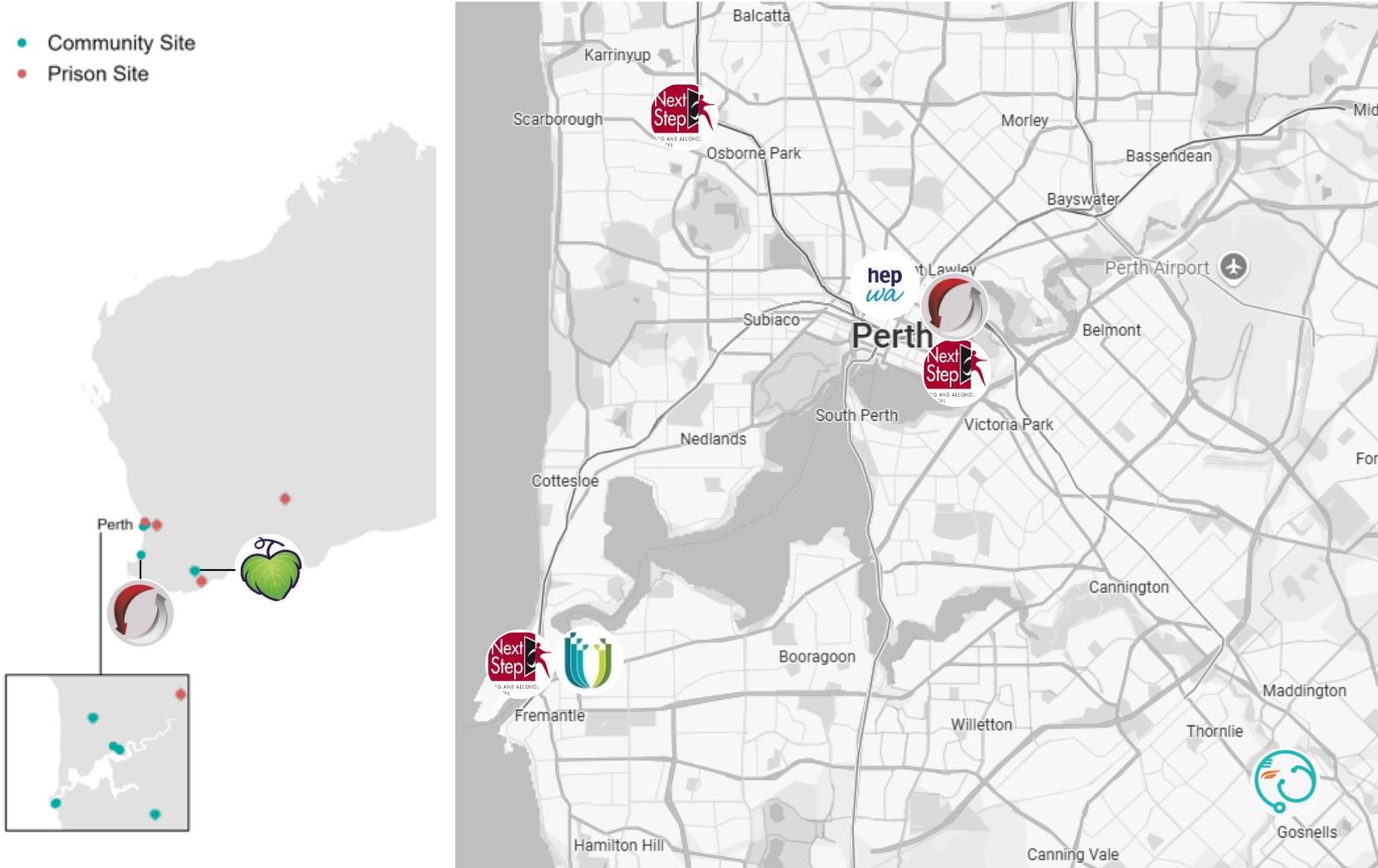


Program successes

- >430 operators have undergone training to date
- 28 high-intensity testing campaigns at 18 prisons (QLD, n=14; NSW, n=6; SA, n=2; VIC, n=2)
- 44,226 HCV point-of-care tests and 4,158 people with current HCV
- 2,893 people treated of 4,158 evaluable (36% retreatment)
 - Treatment uptake (within 12 weeks): 70%
 - 60% in community
 - 80% in prison
- 10% of all HCV treatment in Australia
 - 23% in Queensland



WA Study Sites



Testing Locations



WA Community Sites



Site Name	Type	Service Type	Devices
PBHR Perth	Private	Mobile Outreach & NSP	2
PBHR Bunbury	Private	Mobile Outreach & NSP	2
Hepatitis WA	Private	Community Health & NSP	2
South Terrace Clinic (Fremantle SHS)	Public	Sexual Health & NSP	1
Pramana Medical	Private	Primary Health	1
Next Step Fremantle	Public	Drug Treatment	1
Next Step Innaloo	Public	Drug Treatment	1
Next Step East Perth	Public	Drug Treatment	1 (not yet received)
Plantagenet Medical	Private	Primary Health	1 (not yet received)

Total - 12

WA Prison Sites

Site Name	Type	Devices
Albany Regional Prison	Public	1
Bandyup Women's Prison	Public	1
Acacia Prison	Private	1
Eastern Goldfields Regional Prison	Public	1 (not yet received)

Total - 4

WA Operators Trained

Site Name	Operators Trained
PBHR Perth	8
PBHR Bunbury	4
Hepatitis WA	3
South Terrace Clinic (Fremantle SHS)	2 1 – Currently Training
Pramana Medical	3
Next Step Fremantle	2 1 – Currently Training
Next Step Innaloo	3
Next Step East Perth	3 – Currently Training
Plantagenet Medical	3 – Pending Training
Acacia Prison	4
Albany Regional Prison	1
Bandyup Women’s Prison	1
Eastern Goldfields Regional Prison	2 – Currently Training

Total:
31 Complete
10 Pending

WA Testing numbers (up to June 2025)

	Community	Prison
# Tests performed	1607	13
# People tested	1251	12
# HCV Ab tests performed	752	0
# HCV Ab detectable tests	97	-
# HCV RNA tests performed	855 846 (POC) 9 (VP)	13 (POC)
# HCV RNA detectable	205 Tests 174 People (14%)	3

Patient Demographics (WA Community)

	Community
Aboriginal and/or Torres Strait Islander	350 (28%)
Male	806 (64%)
Age mean (SD)	44 (11)
Homeless	553 (44%)
On OAT Currently	97 (8%)
On OAT Previously	170 (13%)
Never	990 (79%)
History of HCV infection	496 (40%)
History of HCV treatment	303 (70%)
Previous injecting drug history n (%)	1017 (81%)
Yes, but not in the last 6 months	180 (14%)
Yes, in the last 6 months but not in the last 30 days	108 (9%)
Yes, in the last 30 days	729 (58%)

Treatment numbers (up to May 2025)

Total WA Sites	Treatment Uptake (%) by Wk 12	Treatment Uptake (%) Ever	Confirmed LTFU
Community	43%	47%	40%

Ongoing program challenges

Delivery of results into patient records and health departments

How to streamline training further?

Paperwork, survey, and data entry

Integrated testing (beyond HCV, HIV & HBV)

Programme funding does not include staffing costs

Clinician education of testing/treatment guidelines

Integration of point-of-care testing into business as usual

Strategies to enhance HCV treatment uptake



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*All **participants** who have contributed their time and data to our study, and:*

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