



A point-of-care HCV testing intervention to improve hepatitis C diagnosis and treatment uptake among people attending Aboriginal Community Controlled Health Services: the SCALE-C study

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Introduction

Hepatitis C Virus (HCV) poses a significant global health challenge, disproportionately affecting marginalized communities with limited healthcare access. In Australia, First Nations Peoples are a priority population for HCV elimination, with 16% of all hepatitis C notifications in 2021 reported among them.

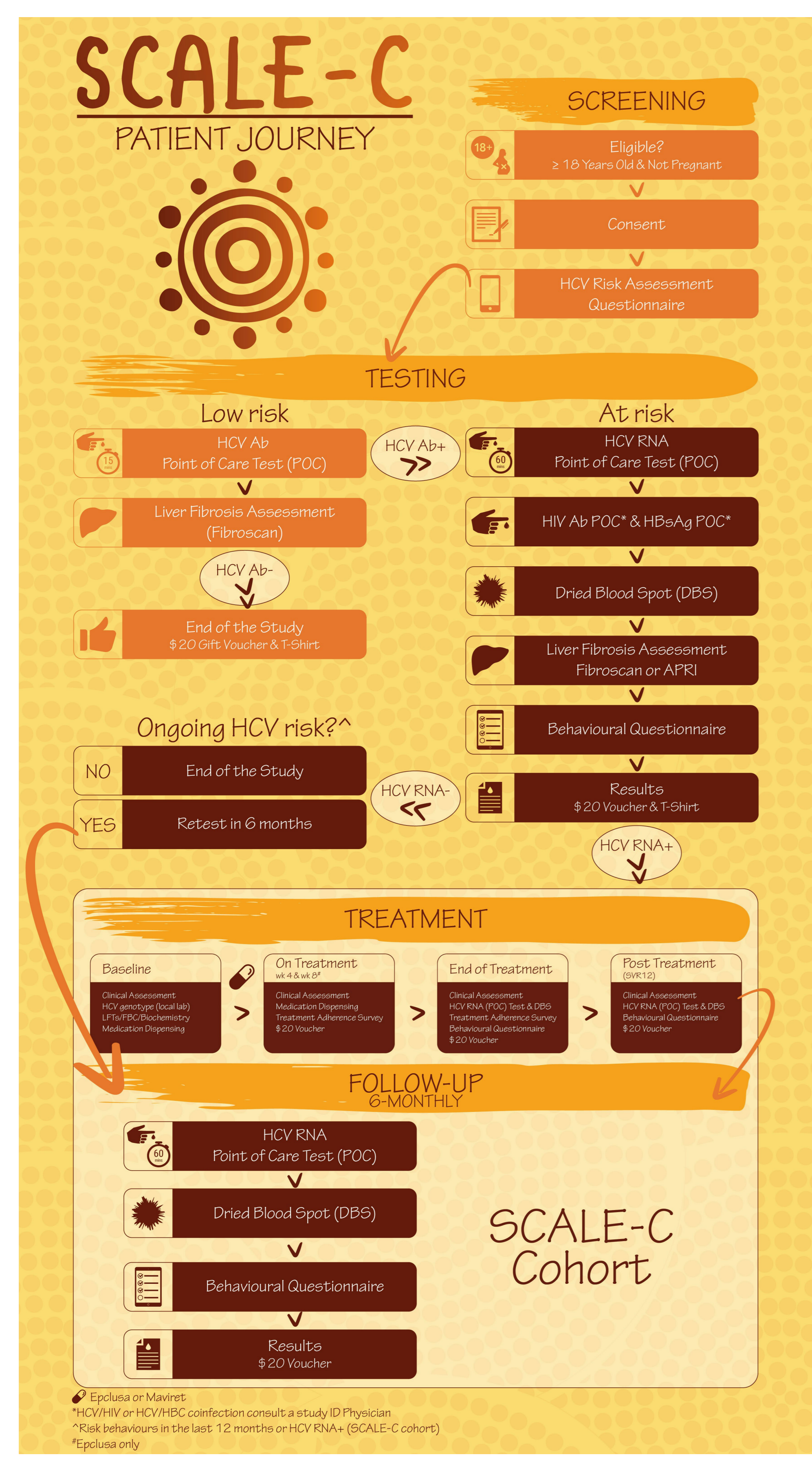
“Strategies for hepatitis C testing and treatment in Aboriginal communities that Lead to Elimination” (SCALE-C) was a community-based “test and treat” intervention integrating point-of-care HCV testing, non-invasive liver fibrosis assessment, and linkage to care in Aboriginal Community Controlled Health Services in regional Australia.

Method

Participants were enrolled between 28 May 2019, and 21 July 2022, from four sites (2 in South Australia and 2 in New South Wales).

At enrollment, a standardized risk assessment questionnaire guided choice of hepatitis C point-of-care test:

- Participants with no history of HCV infection, injecting drug use, incarceration, or opioid substitution therapy were considered at **no or low risk** and received an HCV antibody test, followed by an HCV RNA test if the antibody test was positive.
- Participants with a history of HCV infection, injecting drug use, incarceration, or opioid substitution therapy were considered at **risk** and received an HCV RNA test.



Participants who had a detectable HCV RNA or reported risk in the last 12 months were enrolled in the SCALE-C Cohort, with follow-up visits every 6 months for up to three years. Participants with detectable HCV RNA were offered DAA therapy (sofosbuvir-velpatasvir 12 weeks or glecaprevir-pibrentasvir 8 weeks) per standard of care, with on- and post-treatment assessments.

This analysis evaluated:

- HCV infection status among the SCALE-C population, overall and stratified by socio-demographic characteristics and risk behaviour.
- Factors associated with current HCV infection among those with known HCV status and reported lifetime risk.
- Factors associated with current HCV infection were analyzed using logistic regression.

Results

A total of **536** people were enrolled into the SCALE-C Study.

- Age (median) **39**
- Women **49%**
- First Nations **79%**

A total of **531** people received HCV Ab and/or RNA testing

- Point of care anti-HCV antibody test, n= 278
- Point of care HCV RNA test, n= 257
- DBS anti-HCV antibody test, n= 247
- Standard of care HCV RNA test, n= 7
- DBS HCV RNA tests, n= 5

HCV Test

- No history of HCV infection and no lifetime risk reported, n=252
- History of HCV infection and/or lifetime risk reported, n=260
 - Risk in 12 months prior to screening, n=194
 - Risk more than 12 months prior to screening, n=66
- Risk unknown, n=24

HCV Risk

Current HCV infection (enrolment)	Total population	Never risk	Lifetime risk (>12 month)	Recent risk (<12 months)
	9%	<1%	8%	20%

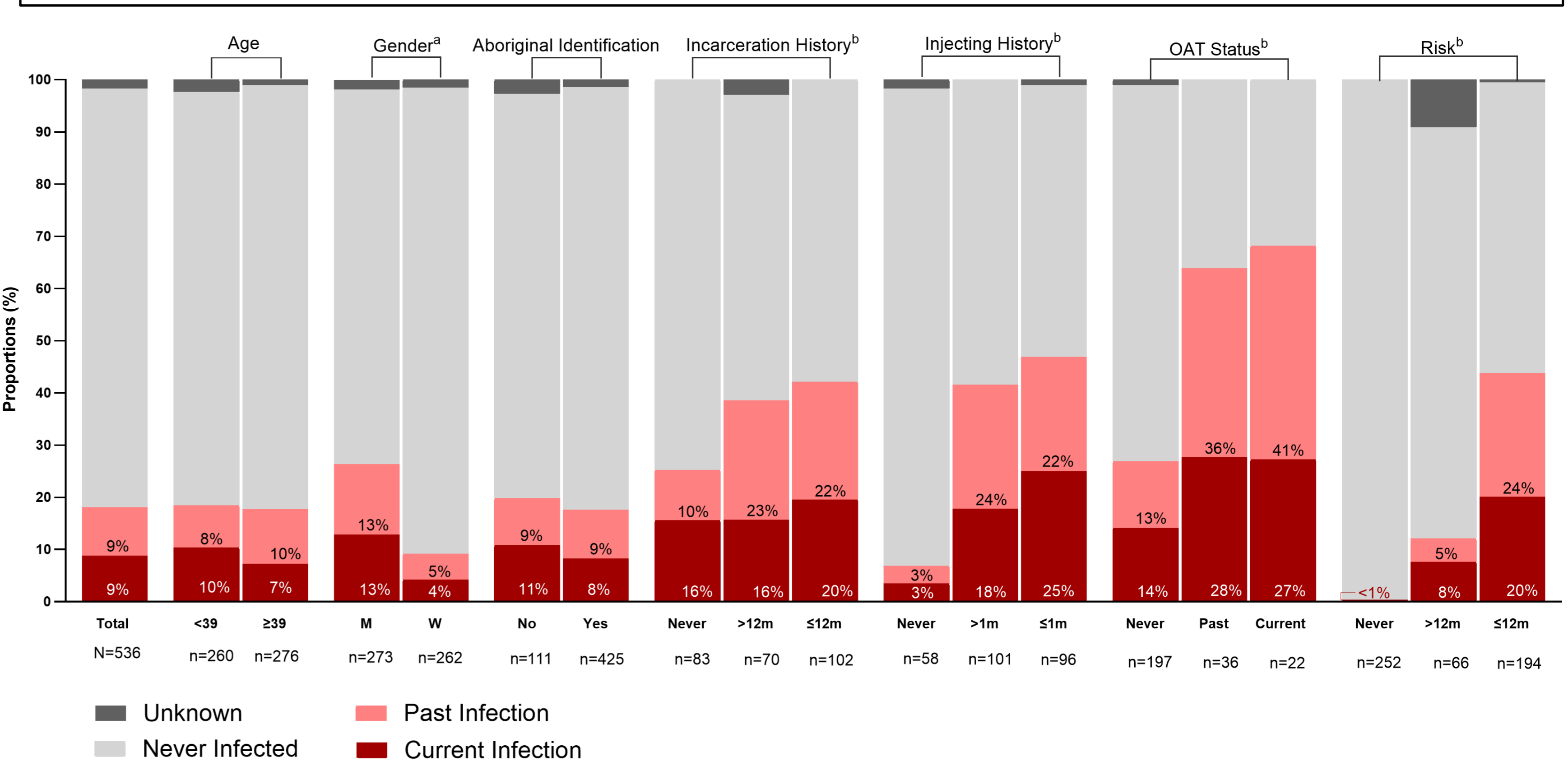
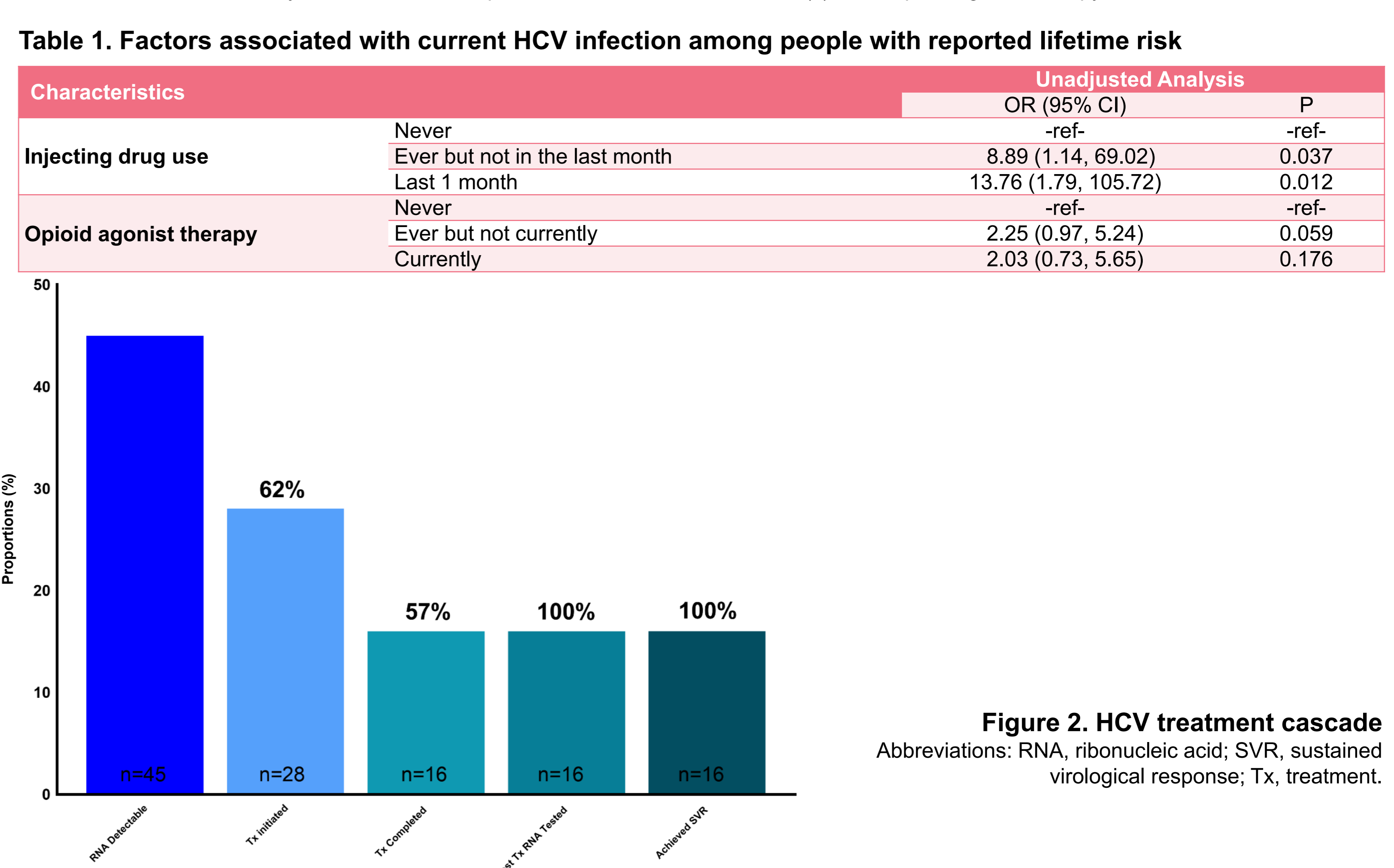


Table 1. Factors associated with current HCV infection among people with reported lifetime risk

Characteristics	Unadjusted Analysis	
	OR (95% CI)	P
Injecting drug use	Never	-ref-
	Ever but not in the last month	8.89 (1.14, 69.02)
	Last 1 month	13.76 (1.79, 105.72)
Opioid agonist therapy	Never	-ref-
	Ever but not currently	2.25 (0.97, 5.24)
	Currently	2.03 (0.73, 5.65)



Conclusion

Risk-based screening using point-of-care HCV testing facilitated diagnosis at regional Aboriginal Community Controlled Health Services. HCV infection was associated with a history of injecting drug use.

Additional interventions are required to improve treatment uptake and reduce HCV burden among at-risk Aboriginal and Torres Strait Islander Australians, particularly people who inject drugs.