

THE INCIDENCE OF HEPATITIS C VIRUS INFECTION AMONG PEOPLE WHO INJECT DRUGS IN AUSTRALIA: THE ETHOS ENGAGE STUDY

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Background

Hepatitis C virus (HCV) infection incidence is a key indicator of transmission and progress toward elimination. The WHO's 2030 HCV elimination targets include reducing incidence to <2 per 100 person-years (PY) among people who inject drugs. We estimated HCV incidence in this population in Australia using repeated surveys.

Methods

ETHOS Engage is an observational cohort study of people who inject drugs attending drug treatment clinics and needle and syringe programs (NSPs) in Australia. Cross-sectional bio-behavioural surveys, including point-of-care HCV RNA testing, were conducted over three periods (Wave 1: May 2018-September 2019, 25 sites; Wave 2: November 2019-June 2021, 21 sites; Wave 3: May 2023-January 2025, 28 sites). Participants from prior waves were eligible for re-screening. Participants in Wave 1 or 2 with undetectable HCV RNA and ≥ 1 test(s) in subsequent waves were eligible for analysis. Incident HCV was defined as detectable HCV RNA following an undetectable test and classified as primary infection (no prior HCV history) or re-infection (self-reported history of infection/treatment).

Results

Among 1,855 participants with undetectable HCV RNA, 332 had subsequent test(s) and were included (66% male; median age 46 years; 85% on opioid agonist therapy; 74% injected drugs in the past six months). Over 1,077 PY of follow-up (median 2.9 years), HCV incidence was 1.2 per 100PY (95%CI: 0.7–2.1), including 1.6 per 100PY (95%CI: 0.8–3.0) for primary infection and 0.8 per 100PY (95% CI: 0.3–2.1) for re-infection. Among participants reporting injecting drugs in the past six months (n=247; 824 PY follow-up), incidence was 1.3 per 100PY (95%CI: 0.7–2.4).

Conclusion

HCV incidence among people who inject drugs attending drug treatment clinics and NSPs in Australia was below the WHO target, consistent with declining HCV RNA prevalence in this population. Further studies among broader populations of people who inject drugs are crucial to monitor HCV elimination.

Disclosure of Interest Statement

We recognise the need for transparency of disclosure of potential conflicts of interest by acknowledging these relationships in publications and presentations.