

## Declining Prevalence of Current HCV Infection Associated with Increased Treatment Uptake Among People Who Inject Drugs: The ETHOS Engage Study

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**Background:** Evaluating trends in HCV treatment and prevalence is crucial for monitoring elimination efforts. We evaluated the impact of HCV treatment uptake on prevalence of current HCV infection among PWID.

**Method:** ETHOS Engage is an observational cohort study of PWID attending drug treatment clinics and needle and syringe programs in Australia. Participants completed a questionnaire and underwent point-of-care HCV RNA testing (Xpert<sup>®</sup> HCV Viral Load Fingerstick). We evaluated HCV treatment and prevalence of current infection during recruitment Wave 1 (May 2018-September 2019) and Wave 2 (November 2019-April 2021). Logistic regression was used to identify factors associated with current HCV infection in Wave 2.

**Results:** During Wave 1, 1,443 participants were enrolled across 25 sites (64% recent injecting [last month], 74% receiving opioid agonist therapy [OAT]). During Wave 2, 953 participants were enrolled across 15 sites (64% recent injecting, 74% receiving OAT). Between Wave 1 and 2, HCV therapy increased from 66% (520/788) to 78% (393/504) ( $p < 0.001$ ) and HCV infection decreased from 24% (331/1,388) to 16% (147/930) ( $p < 0.001$ ). Wave 2 participants who were homeless (2.29; 1.33, 3.96), incarcerated (>6 months ago: 2.22, 1.31, 3.78;  $\leq 6$  months ago: 2.64; 1.42, 4.91), and had injected in the previous month (<daily: 2.52; 1.18, 5.35;  $\geq$ daily: 2.61; 1.22, 5.61) were more likely to have HCV infection. Among participants enrolled in both recruitment waves ( $n=227$ ), HCV infection decreased from 19% to 9% ( $p=0.001$ ).

**Conclusion:** The increase in HCV treatment and decrease in prevalence among PWID is encouraging; however, sub-populations may require additional support to enhance elimination.

**Figure 1: HCV prevalence among ETHOS Engage participants recruited in Wave 1 (A) and Wave 2 (B) with known HCV RNA result**

