

Uptake of testing, linkage to care, and treatment for hepatitis C infection among people who inject drugs in Australia: The ETHOS Engage Study

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Introduction

- Direct-acting antiviral (DAA) treatment has the potential to reduce the HCV disease burden, including among individuals who use drugs.
- People who inject drugs (PWID) have poor access to HCV treatment in many settings. Unrestricted direct-acting antiviral (DAA) therapy has been available in Australia since March 2016.

Aims

This aims of this study were to evaluate (1) the uptake of, and factors associated with HCV treatment initiation among PWID living with HCV; and (2) the reduction in population prevalence of HCV among PWID in an era of unrestricted DAA therapy

Methods

- **ETHOS Engage** is an observational cohort evaluating HCV burden, treatment uptake, and reduction in HCV RNA prevalence among PWID in a network of 21 drug treatment clinics and needle and syringe programs in Australia.
- Recruitment occurred from May 2018-July 2019 and is ongoing (target n=1,500).
- Inclusion criteria: ≥ 18 years of age, written informed consent, history of injecting drug use, either (1) in the previous 6 months or (2) currently receiving opioid substitution therapy (OST).

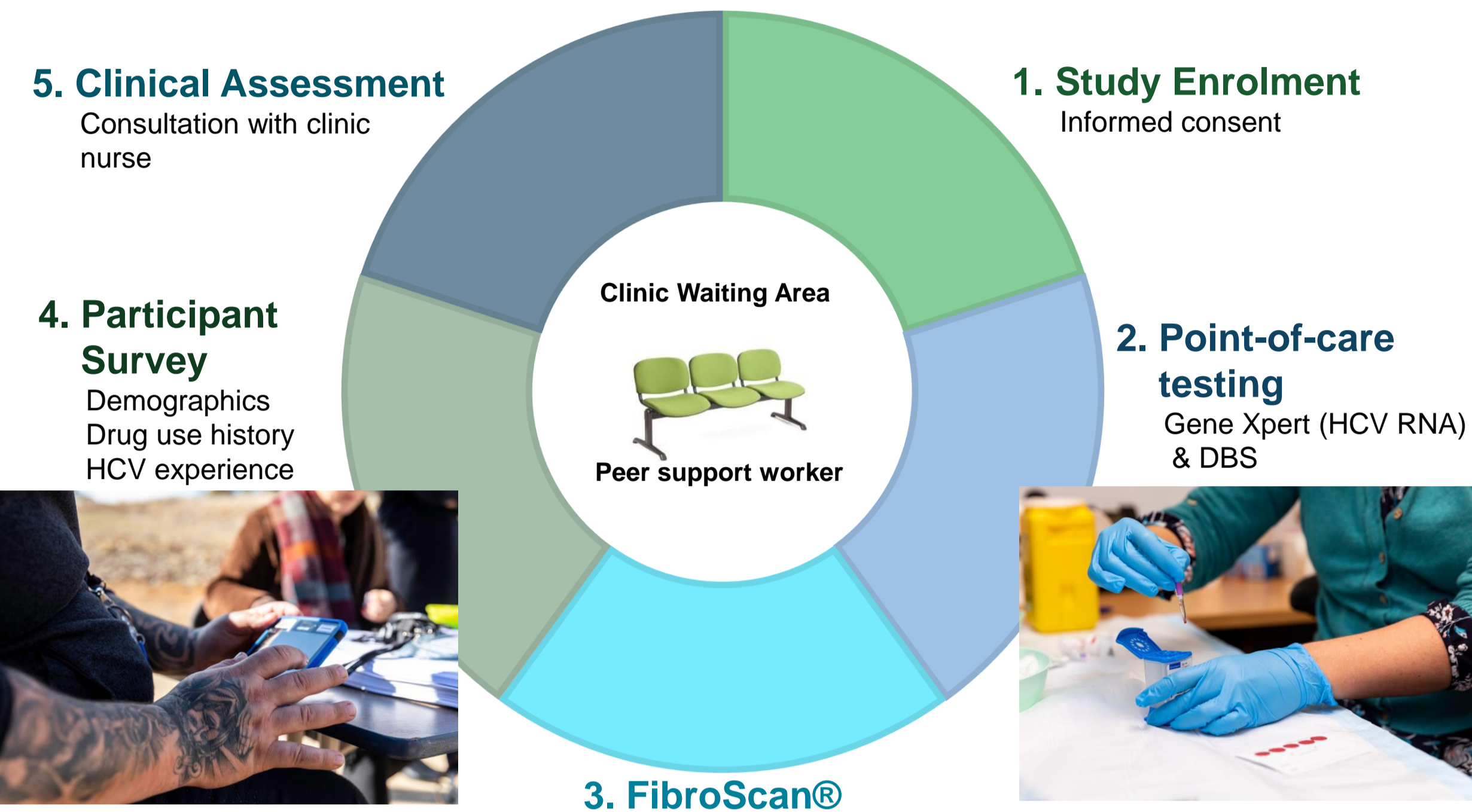


Figure 1: ETHOS Engage Campaign Days

Results

Characteristic	Total Enrolled	Treated, n (%Chronic HCV [ever])	aOR (95%CI)
Total	1345	482 (66%)	
Age at enrolment			
<35	243 (18%)	56 (60%)	-ref-
35-44	510 (38%)	175 (62%)	0.88 (0.54 – 1.46)
45+	592 (44%)	251 (70%)	1.24 (0.75 – 2.07)
Gender			
Male	862 (64%)	343 (68%)	-ref-
Female	480 (36%)	138 (61%)	0.69 (0.49 – 0.98)
Other	3 (<1%)	1 (33%)	0.18 (0.15 – 2.09)
Indigenous ethnicity			
No	1021 (76%)	380 (67%)	-ref-
Yes	324 (24%)	102 (61%)	0.82 (0.56 – 1.19)
Homeless			
No	1194 (88%)	446 (68%)	-ref-
Yes	151 (11%)	36 (47%)	0.53 (0.32 – 0.87)
Current OST			
No	368 (27%)	81 (51%)	-ref-
Yes	977 (72%)	401 (70%)	1.81 (1.22 – 2.68)
Imprisonment			
Never	422 (31%)	117 (66%)	-ref-
>1 year ago	668 (50%)	266 (66%)	0.87 (0.58 – 1.31)
Within last year	255 (19%)	99 (64%)	0.93 (0.56 – 1.53)
Recency of injecting			
>12 months ago	204 (15%)	85 (77%)	-ref-
Within 1-12 months	289 (21%)	100 (66%)	0.66 (0.37 – 1.16)
Last month, <daily	455 (34%)	173 (69%)	0.82 (0.48 – 1.41)
Last month, \geq daily	397 (30%)	124 (56%)	0.50 (0.29 – 0.87)
Commonest drug injected in last month			
None	493 (37%)	185 (71%)	
Heroin	280 (21%)	115 (69%)	
Other opioids	120 (9%)	41 (55%)	-omitted-
Amphetamines	425 (32%)	133 (61%)	
Other	27 (2%)	3 (53%)	
Excessive alcohol use[†]			
No	589 (43%)	214 (68%)	-ref-
Yes	756 (56%)	268 (64%)	0.91 (0.69 – 1.26)

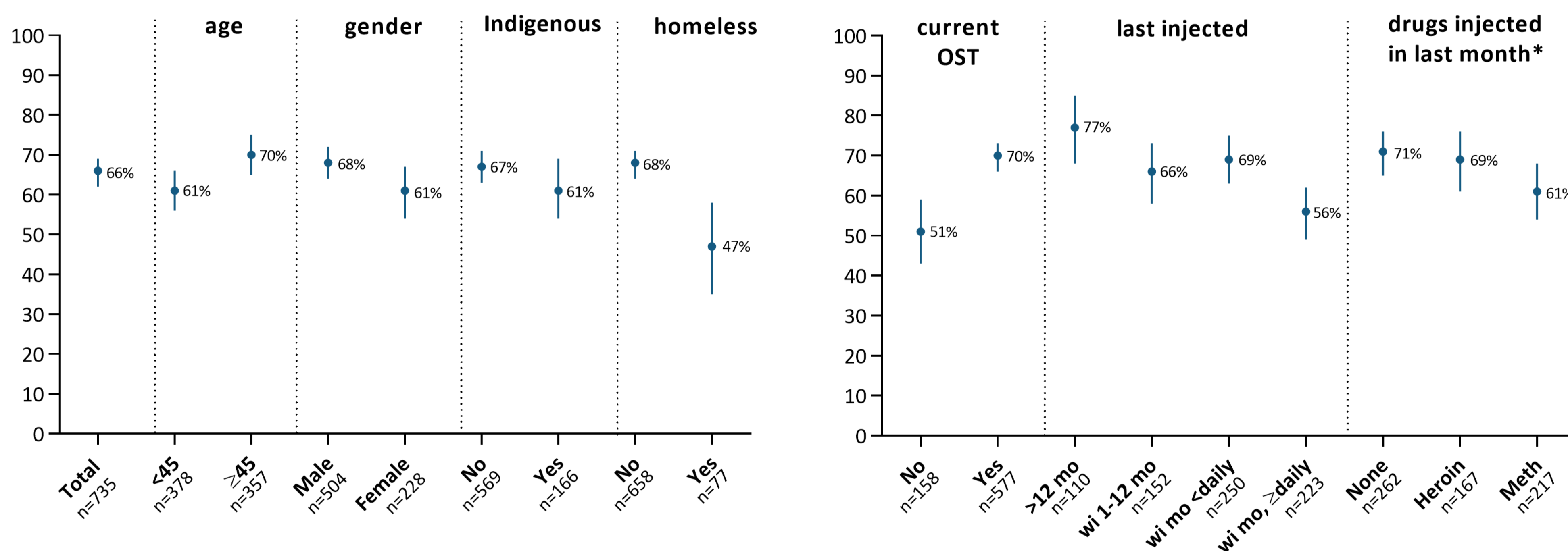
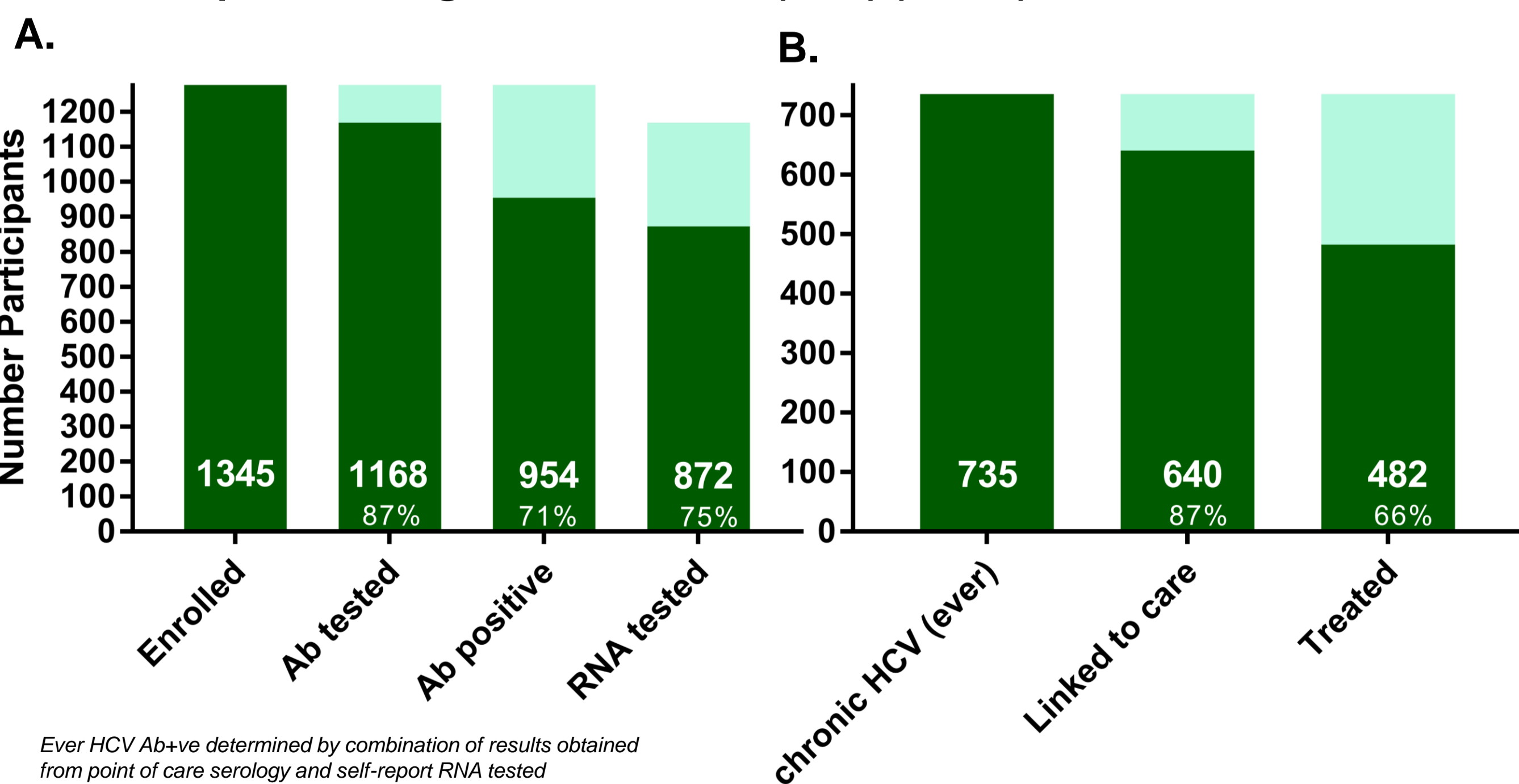


Figure 3: HCV treatment uptake among all those HCV chronic (ever) (n=735), by demographic and behavioural sub-populations *data not shown for participants injecting other drugs (n=89)

Table 1: Participant characteristics (n=1345), and factors associated with treatment uptake among all HCV chronic (ever) (n=735)



Ever HCV Ab+ve determined by combination of results obtained from point of care serology and self-report RNA tested determined by self-reported RNA testing status at enrolment

Figure 2: Uptake of A) HCV testing and B) HCV treatment among participants enrolled in ETHOS Engage

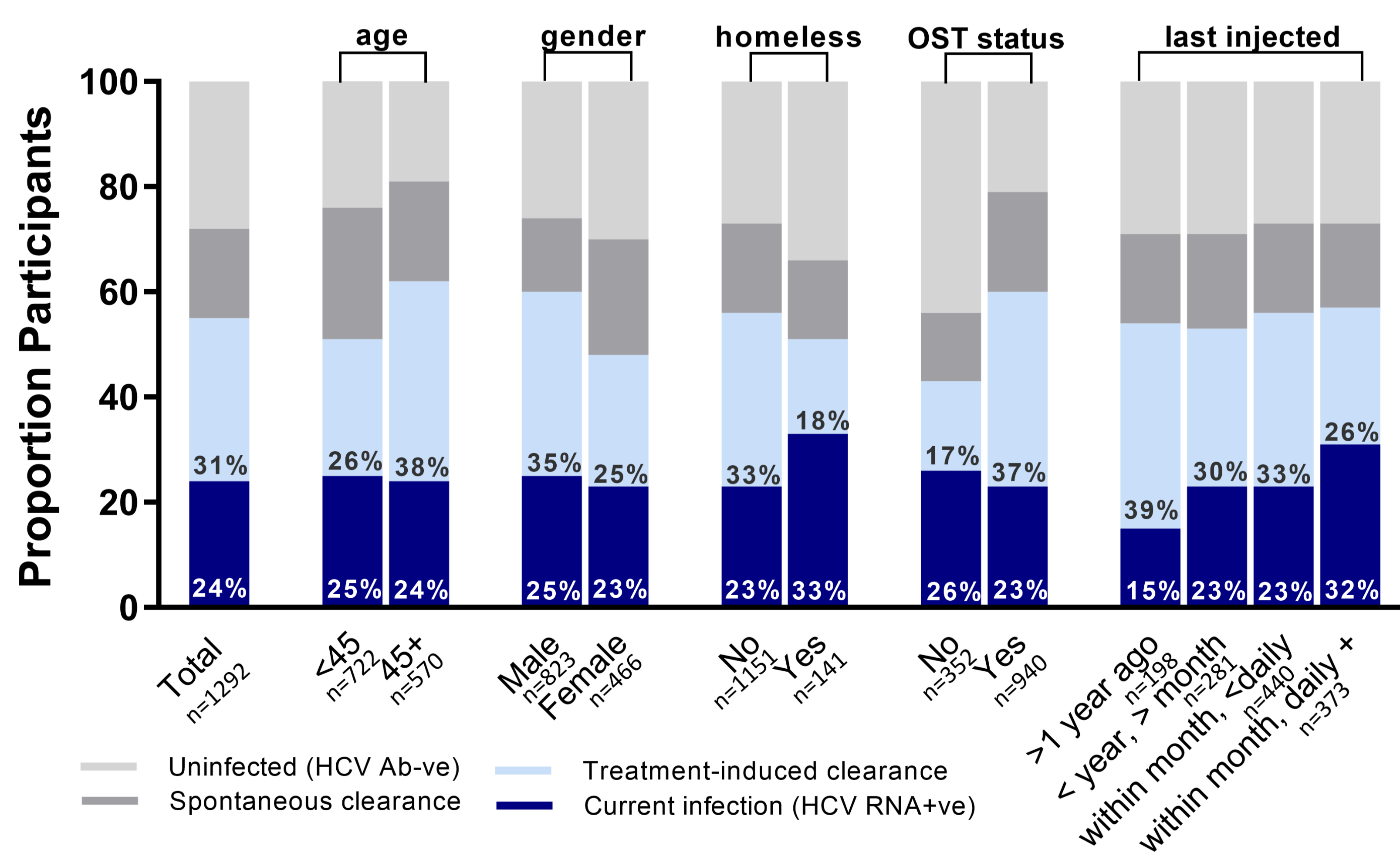


Figure 4: Current HCV prevalence by demographic and behavioural sub-populations, confined to those with valid point-of-care HCV result (n=1292)

Key Finding: Among the total population, 55% had ever been infected with chronic HCV, 56% of which had cleared through treatment, and 44% of which have current HCV viremia; can assess across sub-populations

Conclusion

Unrestricted DAA access in Australia has produced high treatment uptake in marginalised populations. Treatment uptake was significantly associated with gender, homelessness status, receipt of OST and recency/frequency of injecting. To achieve elimination targets, sub-populations with higher viremia and higher risk, and those significantly less likely to initiate HCV therapy may require additional support to encourage engagement with HCV care.

For more information about this study, contact Heather Valerio: hvalerio@kirby.unsw.edu.au @ETHOSII