

Re-setting the target for Hepatitis C micro-elimination in an isolated UK population

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Background

On the Isle of Wight (IOW) (UK) historical estimates indicate that there may be 200 undiagnosed cases of Hepatitis C (HCV). However, this figure is based on extrapolations from national data. This study describes a re-estimate of the prevalence of HCV in people who inject drugs (PWID) and the PWID population size on the IOW in order to provide a revised target for HCV elimination.

Method

- ❖ We used respondent driven sampling to identify PWID for an HCV bio-behavioural survey
- ❖ A population prevalence of anti-HCV was calculated using RDSanalyst software
- ❖ The participants were used as the 'capture' population in 3 capture-recapture population size estimates which used two service multipliers and one network multiplier as the recapture populations
- ❖ The revised PWID population size estimate and the revised PWID HCV prevalence estimates were combined in an existing public health England model
- ❖ A revised estimate for the total number of HCV cases on the IOW was then calculated

Results

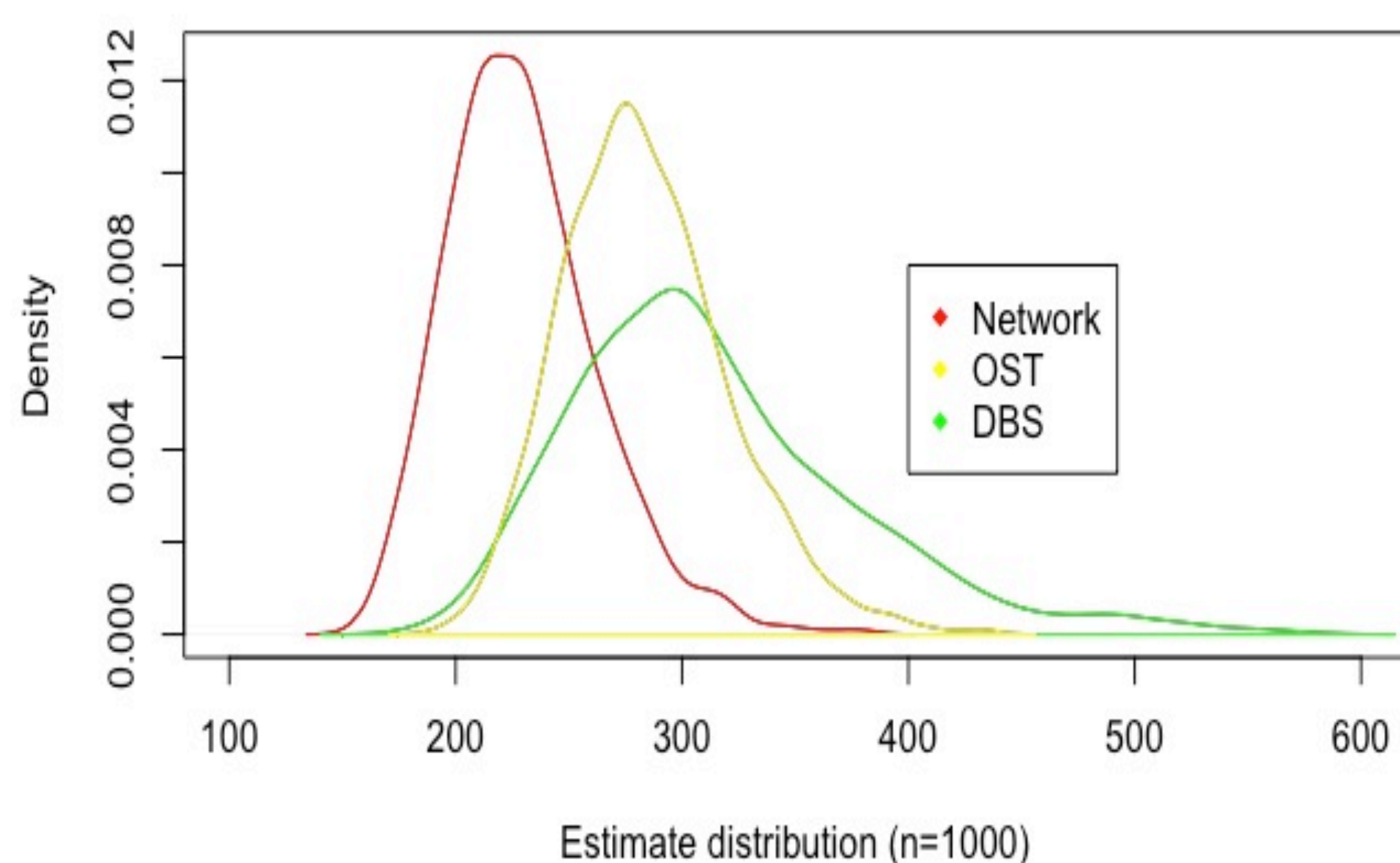


Figure 4 - Kernel plots showing a distribution of bootstrap estimates for the 3 capture-recapture PWID population size estimates

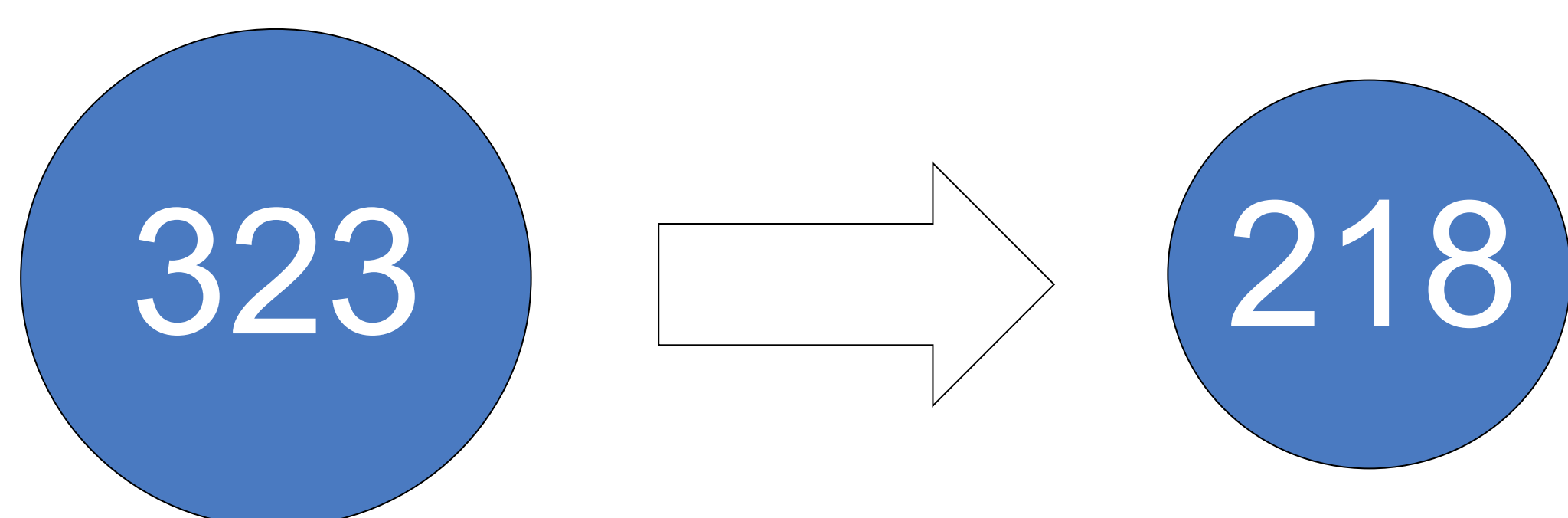


Figure 5 - When the revised estimates for PWID population size and HCV prevalence in PWID were added to the PHE model the estimated number of HCV cases reduced to 218



Figure 1 – A bus side poster from the IOW campaign to eliminate HCV. But are there really 200 missing cases?

Results

Population prevalence of HCV – 29.4%
(95% CI 13.3-44.4)

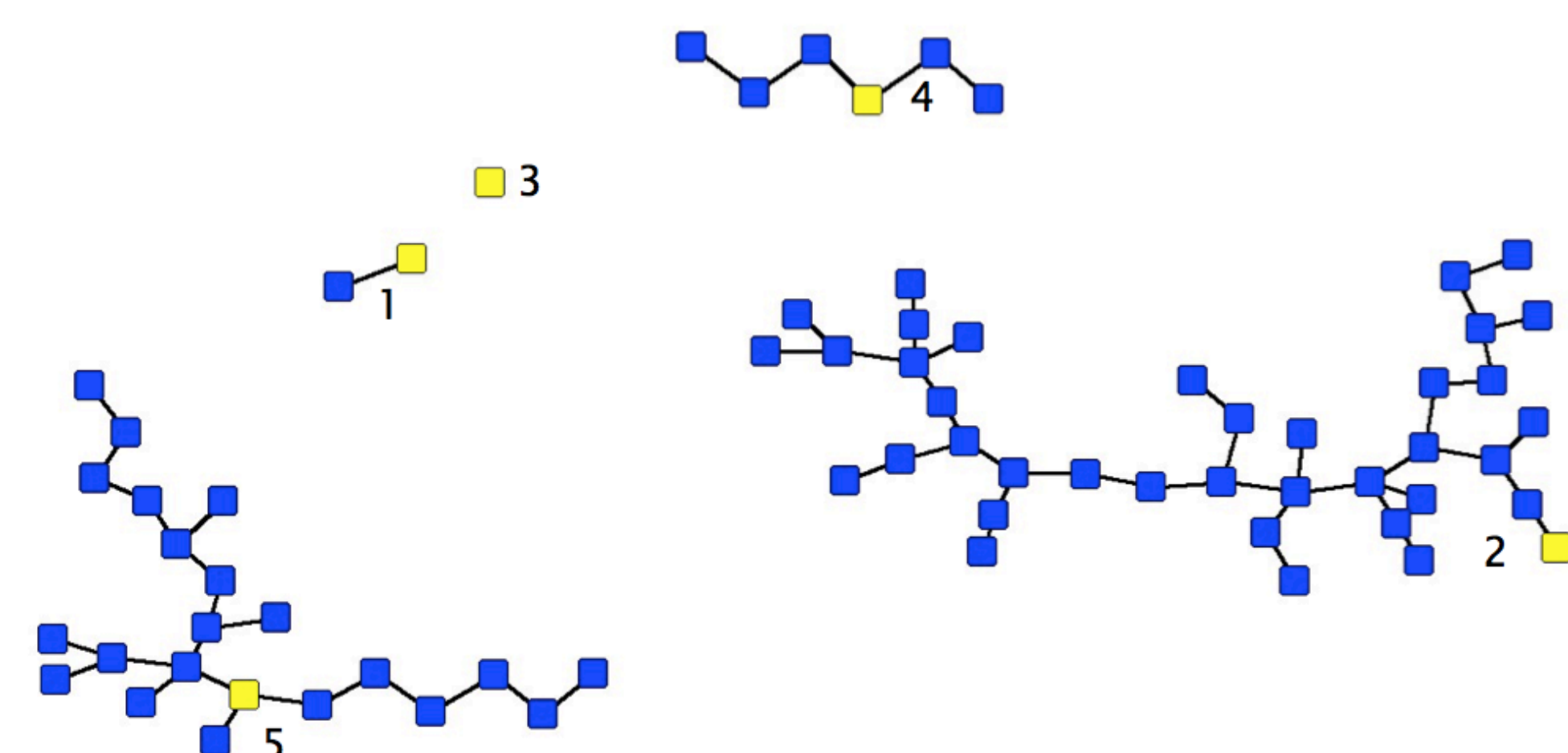


Figure 2 – Respondent-driven sampling recruitment chains showing 69 PWID (blue and yellow nodes), based on this sample the estimated population prevalence of HCV was 29.4%*

*calculated using RDSanalyst software

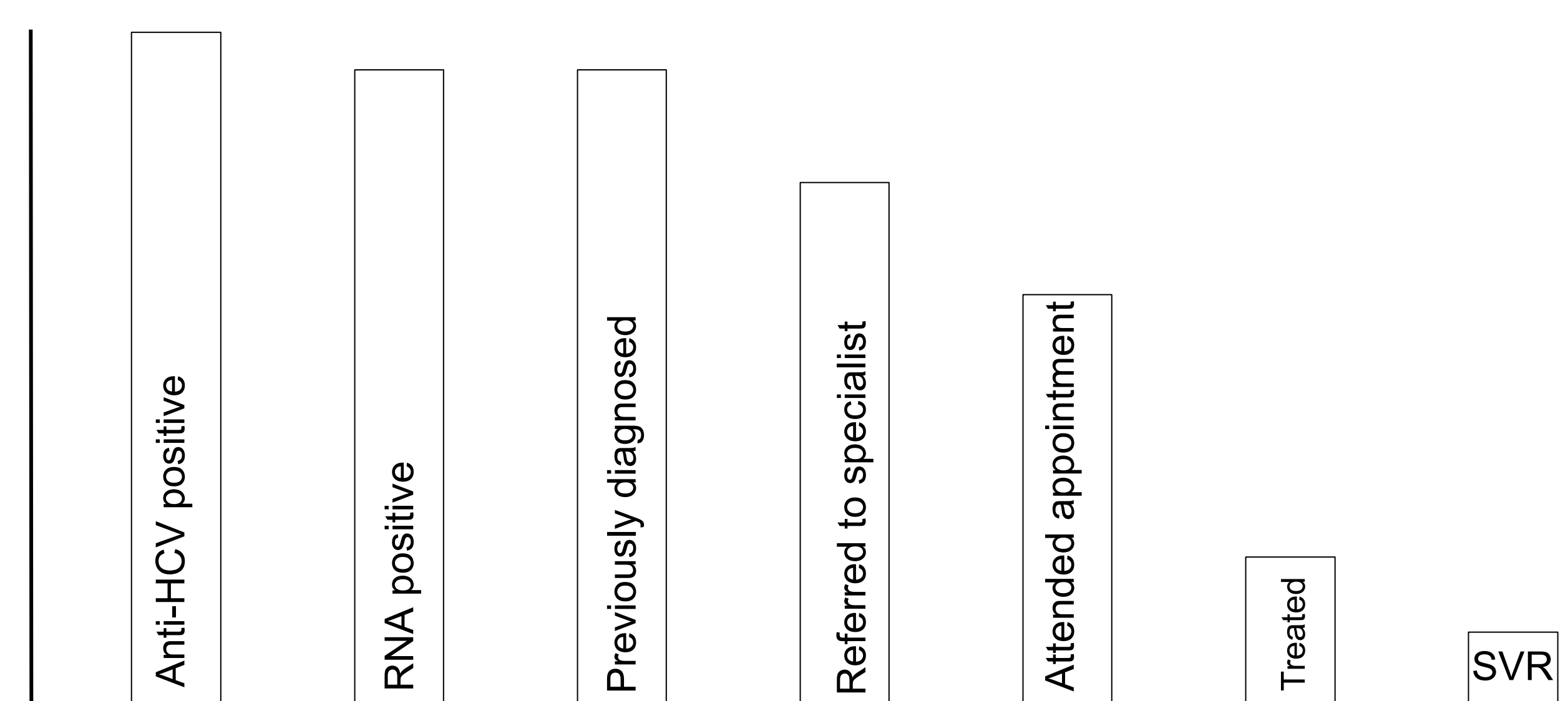


Figure 3 – HCV care cascade for positive participants. Only a minority had been treated but 100% had been previously diagnosed

Conclusion

- ❖ Case finding for HCV in PWID on the IOW is effective
- ❖ The number of undiagnosed cases of HCV in this isolated rural population is probably less than expected
- ❖ HCV elimination may therefore be more easily achieved

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