

# DRUG DEPENDENCE AND HEPATITIS C RNA TESTING AND TREATMENT IN THE ERA OF DIRECT-ACTING ANTIVIRAL THERAPY AMONG PEOPLE WITH A HEPATITIS C NOTIFICATION IN NEW SOUTH WALES, AUSTRALIA

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## Introduction

- WHO 2030 goals for the elimination of hepatitis C virus infection include 90% diagnosis, and 80% treatment.
- Enhanced and timely HCV treatment uptake among people who inject drugs is important for elimination.

## Aims

- We aimed to measure the association between drug dependence (as a potential barrier to HCV testing/treatment) and timely HCV RNA testing and treatment following HCV notification in the DAA era in New South Wales (NSW), Australia.

## Methods

- We conducted a cohort study of people who had a first record of HCV notification in the DAA era (2016-2017).
- HCV notifications were linked to administrative data sources including HCV treatment (Pharmaceutical benefit schedule) and non-hospital services, including HCV RNA testing (Medicare Benefit Scheme) (Figure 1).
- HCV RNA testing within four weeks and treatment within six months of HCV notification were defined as “timely”.
- Drug dependence was defined by receipt of opioid agonist therapy or hospitalization for injecting drug use related causes.
- The study population were categorized as those with evidence of recent (2016-2018), distant (before 2016), or no drug dependence.
- Two multivariable logistic regression models were developed to measure the association of drug dependence and timely RNA testing and timely treatment uptake.

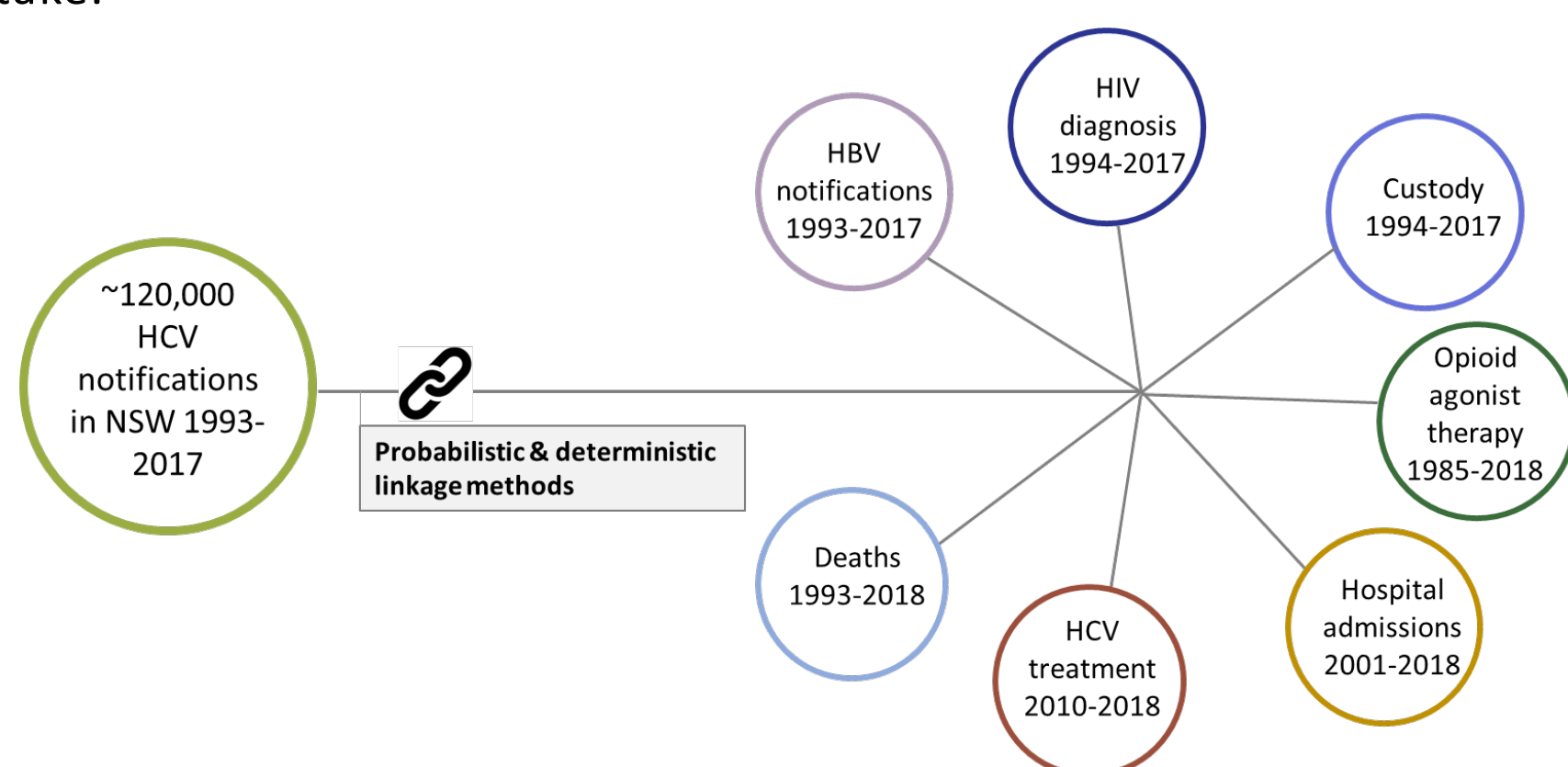


Figure 1: Linkage and databases

## Results

- Of 115,669 HCV notifications as of end 2017, 5582 were notified during 2016-2017 and analyzed in this study (figure 2).
- Among 5582, 1849 (33%), 656 (12%), and 3077 (55%) had evidence of recent, distant, and no drug dependence, respectively.
- Among an estimated 3,925 people with chronic HCV infection, treatment was initiated in 59% (27% timely) of those with recent, 64% (38% timely) distant, and 61% (39% timely) no drug dependence. (figure 3)
- Timely HCV RNA testing and treatment was lower among those with evidence of recent compared to no drug dependence (adjusted odds ratio 0.63; 95% CI: 0.55, 0.72 and 0.65; 95% CI: 0.55, 0.77, respectively).

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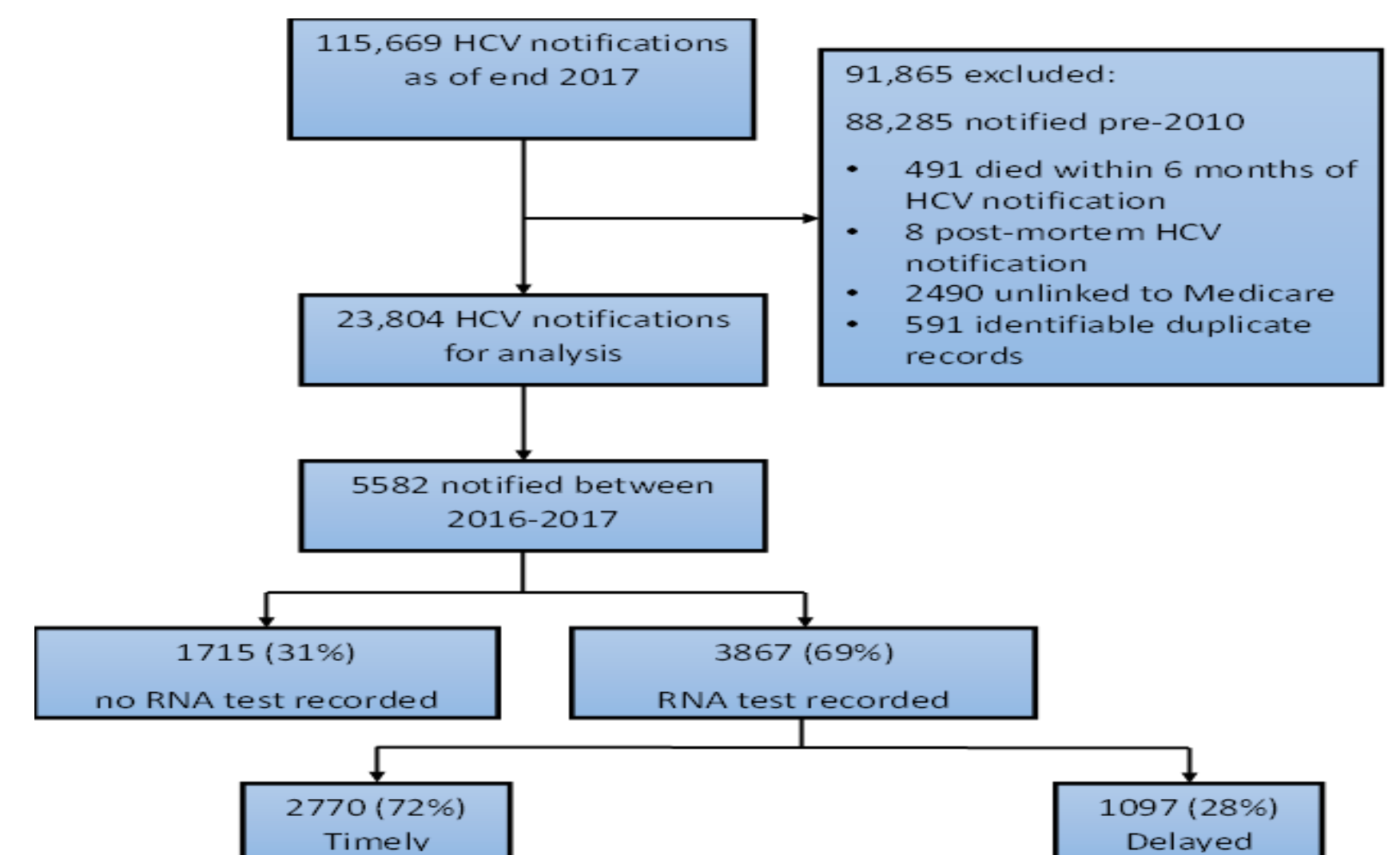


Figure 2: Cohort disposition

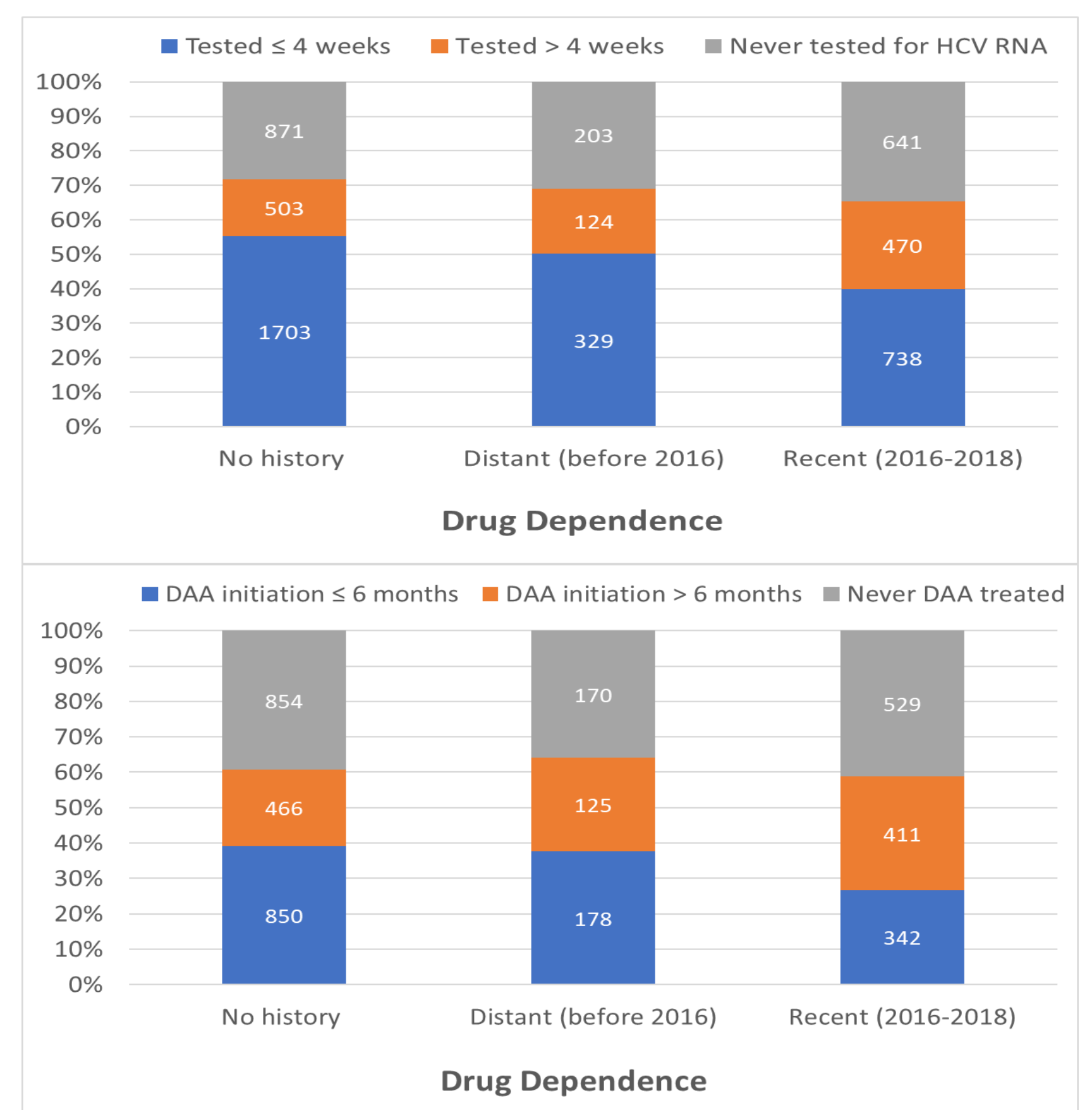


Figure 3: Drug dependence and (a) Hepatitis C RNA testing & (b) DAA treatment uptake among people with hepatitis C notification in NSW, Australia

## Conclusion

- Overall, HCV treatment uptake was similar among those with and without drug dependence.
- Timely HCV RNA testing and HCV treatment were both less common among those with recent drug dependence.
- Innovative strategies to enhance timely diagnosis and treatment including point-of-care technologies, and simplified models of care are required to optimize HCV elimination efforts.

This study is published and reference to full publication is given below:

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