Kirby Institute

Treatment uptake for chronic hepatitis C in Australia following availability of interferon-free treatment

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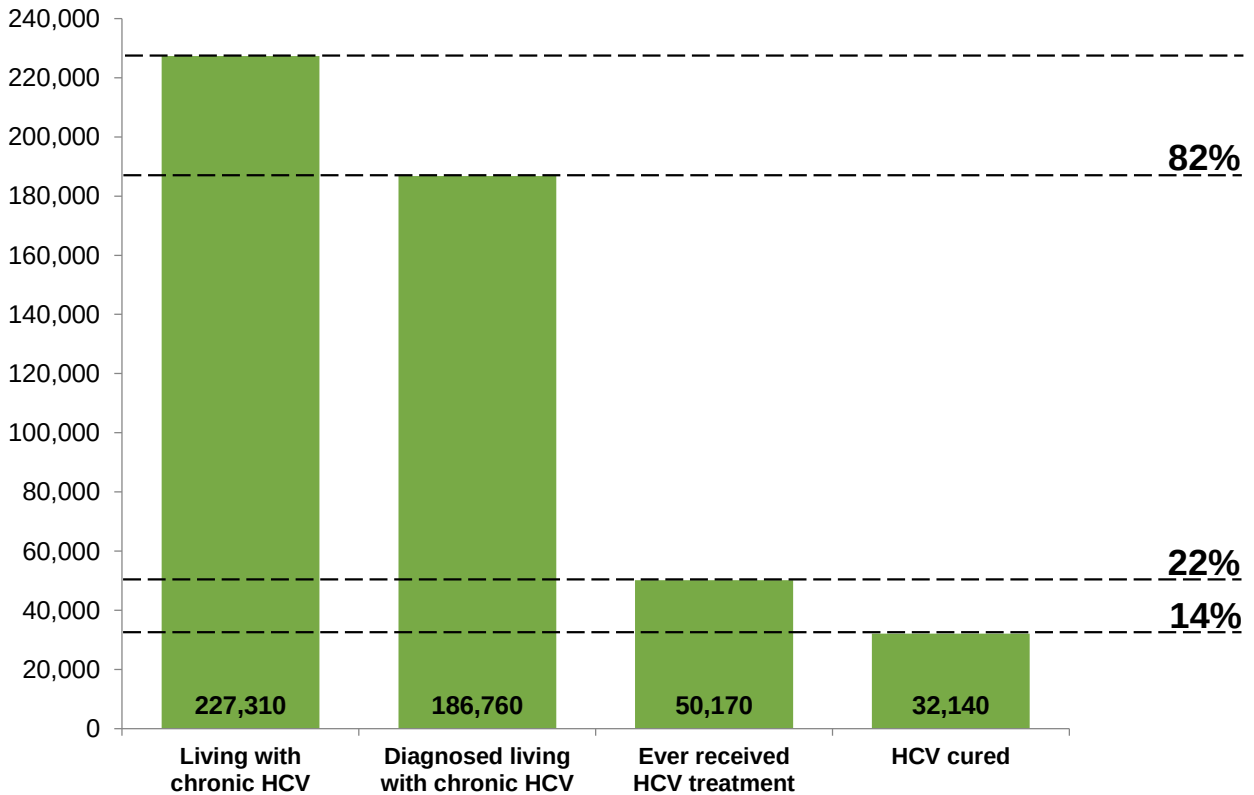
Background: HCV care cascade



Background: PBS listing of DAAs

- In March 2016, interferon-free direct-acting antiviral (DAA) regimens for HCV infection were listed on the Pharmaceutical Benefits Scheme (PBS)
- No liver disease stage or drug and alcohol restrictions

Generic name	Commercial name	Genotype	Duration
Sofosbuvir/Ledipasvir	Harvoni®	GT1	8-24 wks
Sofosbuvir/Daclatasvir	Sovaldi®/Daklinza®	GT1, 3	12-24 wks
Sofosbuvir/Ribavirin	Sovaldi®/Ibavyr®	GT2	12 wks
Sofosbuvir/Pegylated interferon-alfa-2a/Ribavirin	Sovaldi®/Pegasys RBV®	GT1, 3, 4-6	12 wks
Paritaprevir/Ritonavir/Ombitasvir/ Dasabuvir +/- Ribavirin	Viekira PAK® [in May 2016]	GT1	12-24 wks

Objectives

During March to July 2016:

- To estimate the number of individuals initiating DAA treatment, by month and jurisdiction
- To estimate the proportion of individuals living with chronic HCV who initiated DAA treatment, by jurisdiction
- To assess the number of PBS reimbursement-based DAA prescriptions, by jurisdiction, regimen, and PBS schedule.

Methodology

Data sources:

- PBS monthly reports of DAA prescriptions processed for reimbursement
  - Pharmacies submit prescriptions for reimbursement 2-12 weeks after dispensing.
  - PBS reports of the number of prescriptions are subject to a time lag between drug dispensing and reimbursement submissions.

- DAA wholesale and expenditure data
  - DAA sales during March to July 2016
  - Medicare expenditure for PBS reimbursement in the same period
  - The proportion of wholesale to Medicare expenditure at the same period was used as an adjustment factor

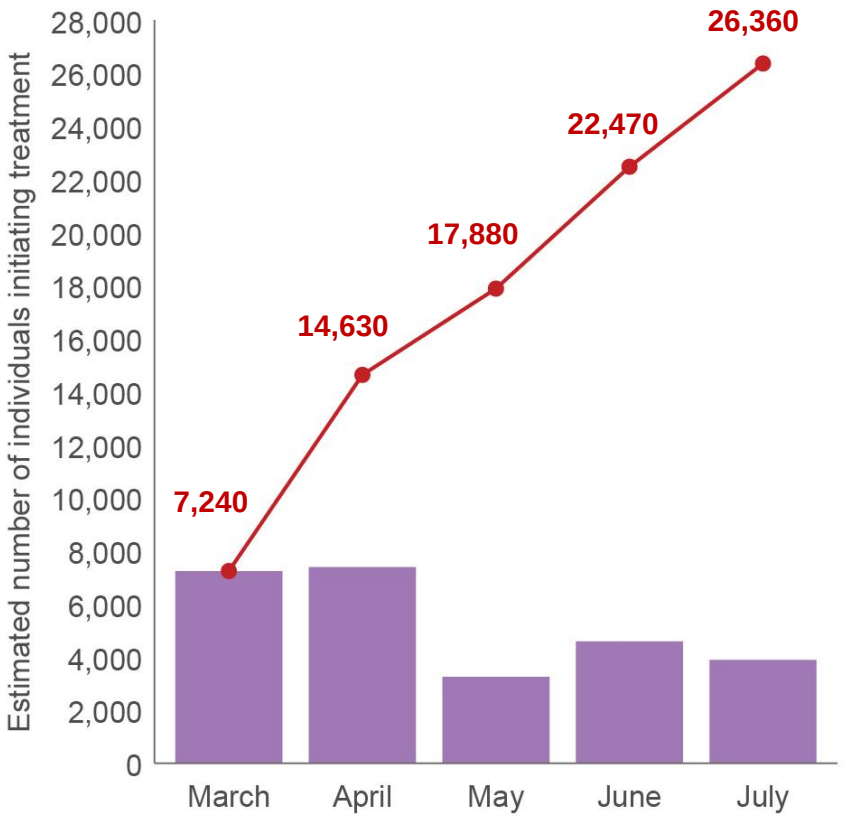
Methodology

- The wholesale price expenditure on DAA drugs during March to July was at 1.30 times wholesale price equivalent for PBS reimbursements reported for the same period.
- An adjustment factor of **1.3 (uncertainty range: 1.1-1.5)** was used to estimate the number of individuals initiated on HCV treatment in this period.
- July PBS data was used as the core data, considering the following assumptions and adjustments:
  - All individuals prescribed 24 weeks DAA, continued treatment up to July.
  - The number of individuals prescribed 8 and 12 weeks DAA and completed the treatment before July was added.
  - 5% drop-out for those initially authorised for 12 weeks treatment with sofosbuvir/ledipasvir but stopped treatment after 8 weeks due to the clinician's decision after re-evaluating the patient's situation.

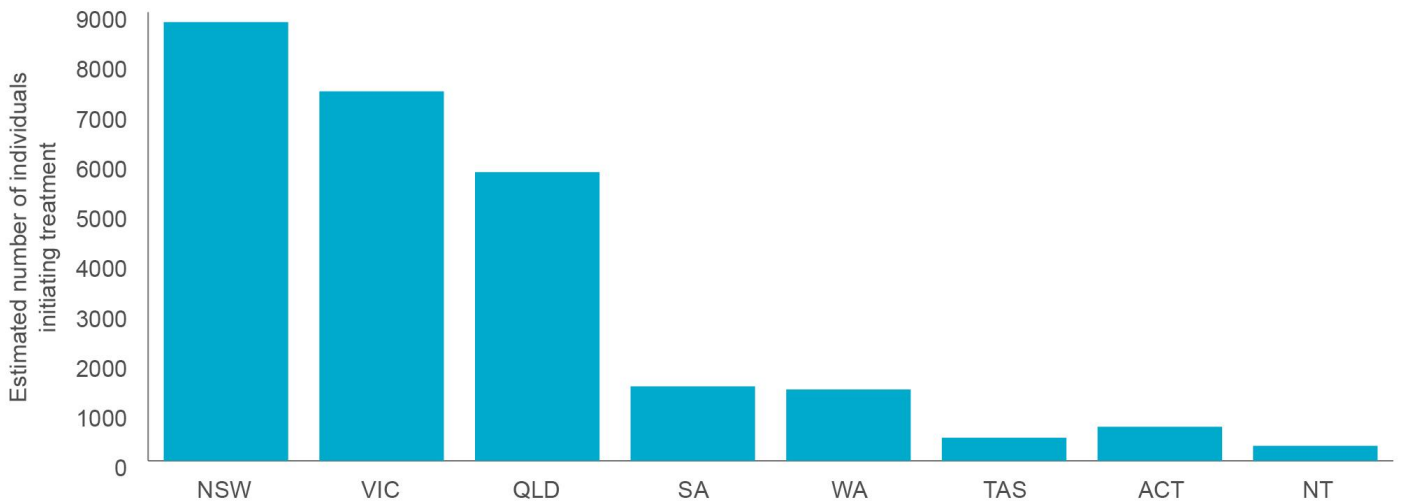
Results: DAA treatment: March-July 2016

- Number of patient DAA prescriptions submitted to PBS: **18,581**

- Estimated number of individuals initiating DAA: **26,360**
(range: 22,304 – 30,415)



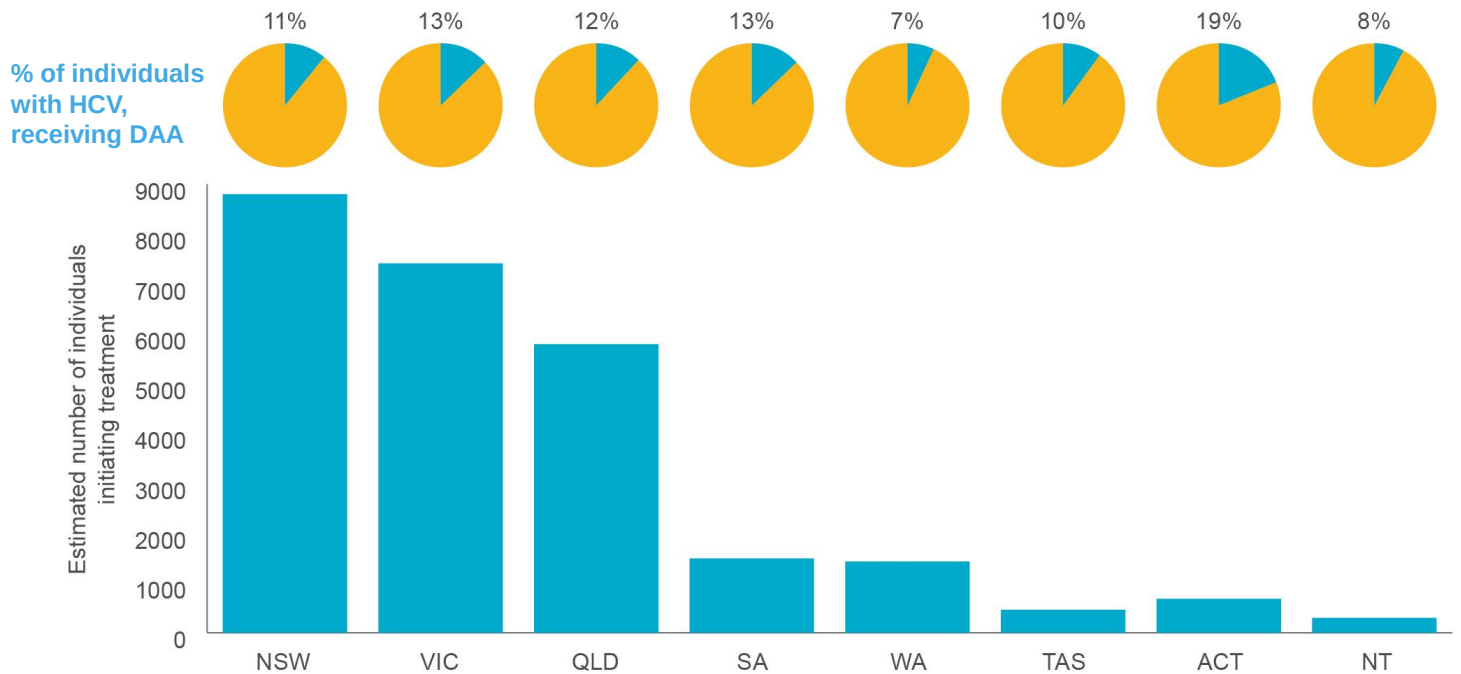
Results: DAA treatment by jurisdiction, March-July 2016



NSW: New South Wales; VIC: Victoria; QLD: Queensland; SA: South Australia; WA: Western Australia; ATC: Australian Capital Territory; TAS: Tasmania; NT: Northern Territory

Results: DAA treatment by jurisdiction, March-July 2016

Australia: 12% (uncertainty range: 10 – 13%)



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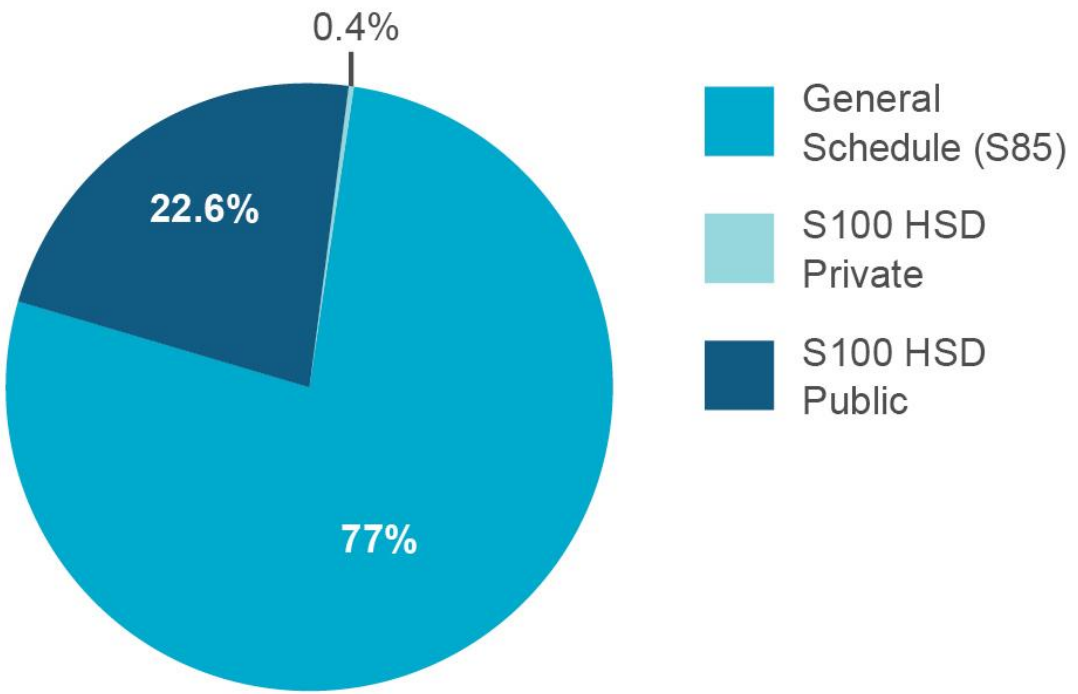
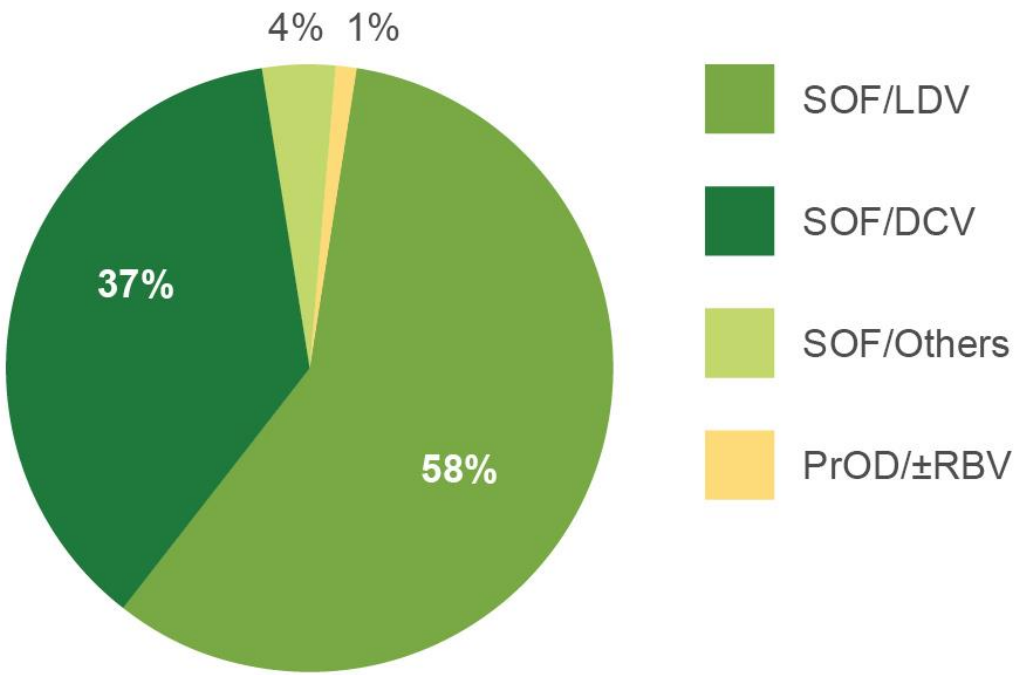
Results: DAA treatment by scheme, March-July 2016

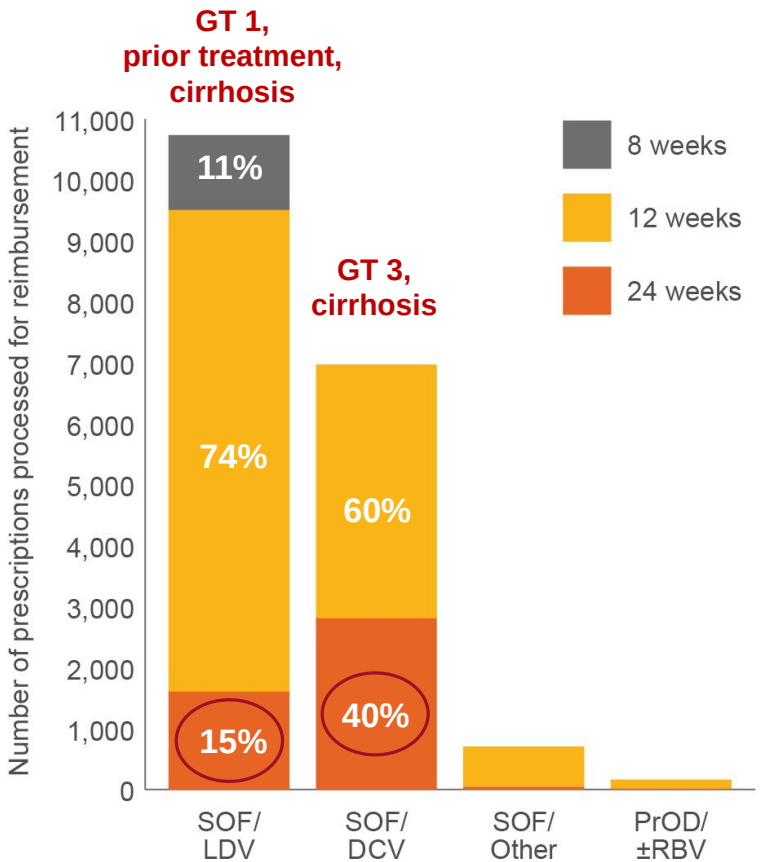


Results: DAA treatment by regimen, March-July 2016



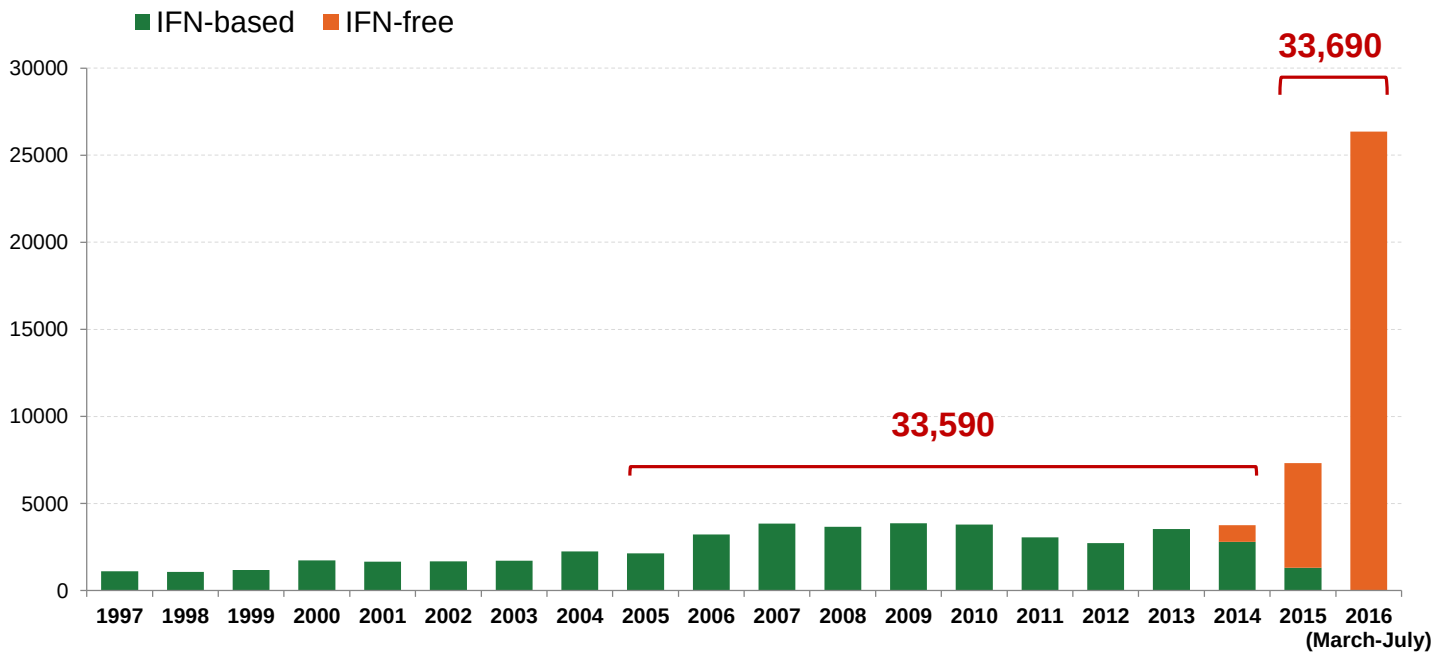
SOF: Sofosbuvir; LDV: Ledipasvir; DCV: Daclatasvir; RBV: Ribavirin;
PrOD: Parataprevir/ritonavir/Ombitasvir/Dasabuvie

Results: DAA treatment by duration, March-July 2016



Discussion

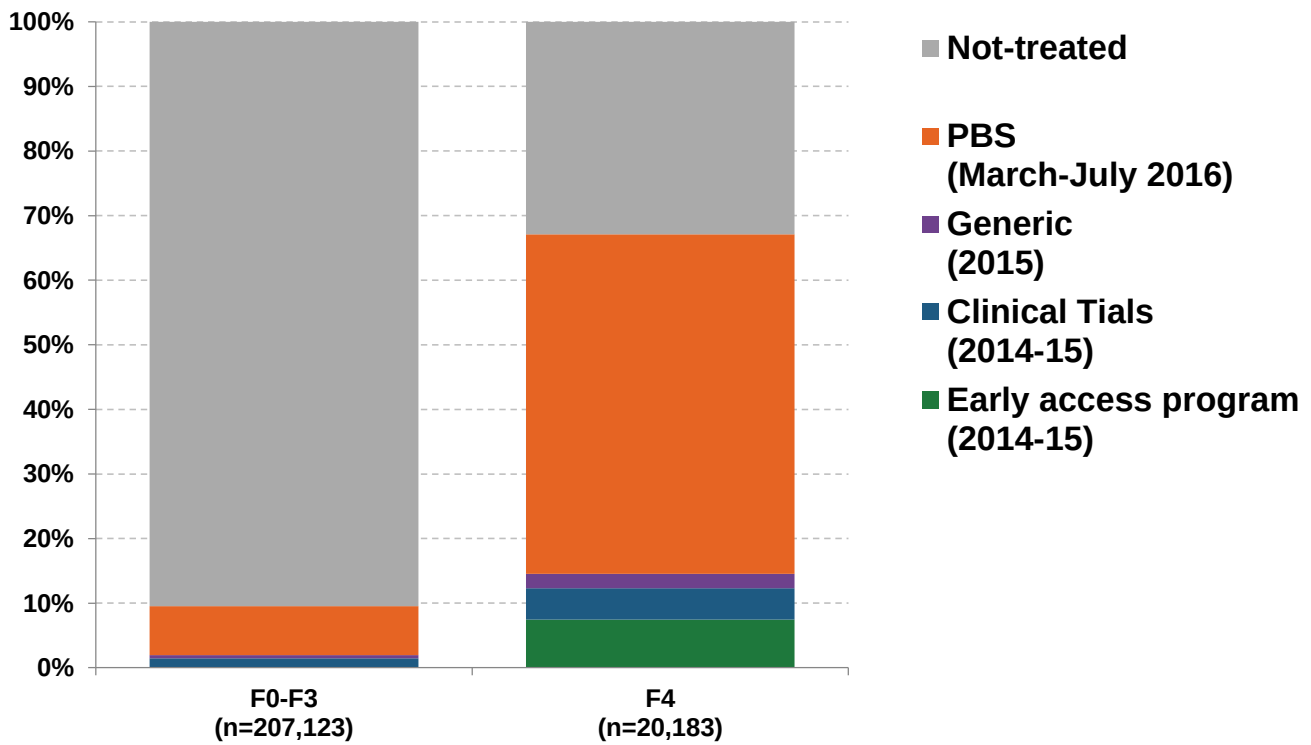
Number of individuals initiating HCV treatment in Australia, 1997-2016



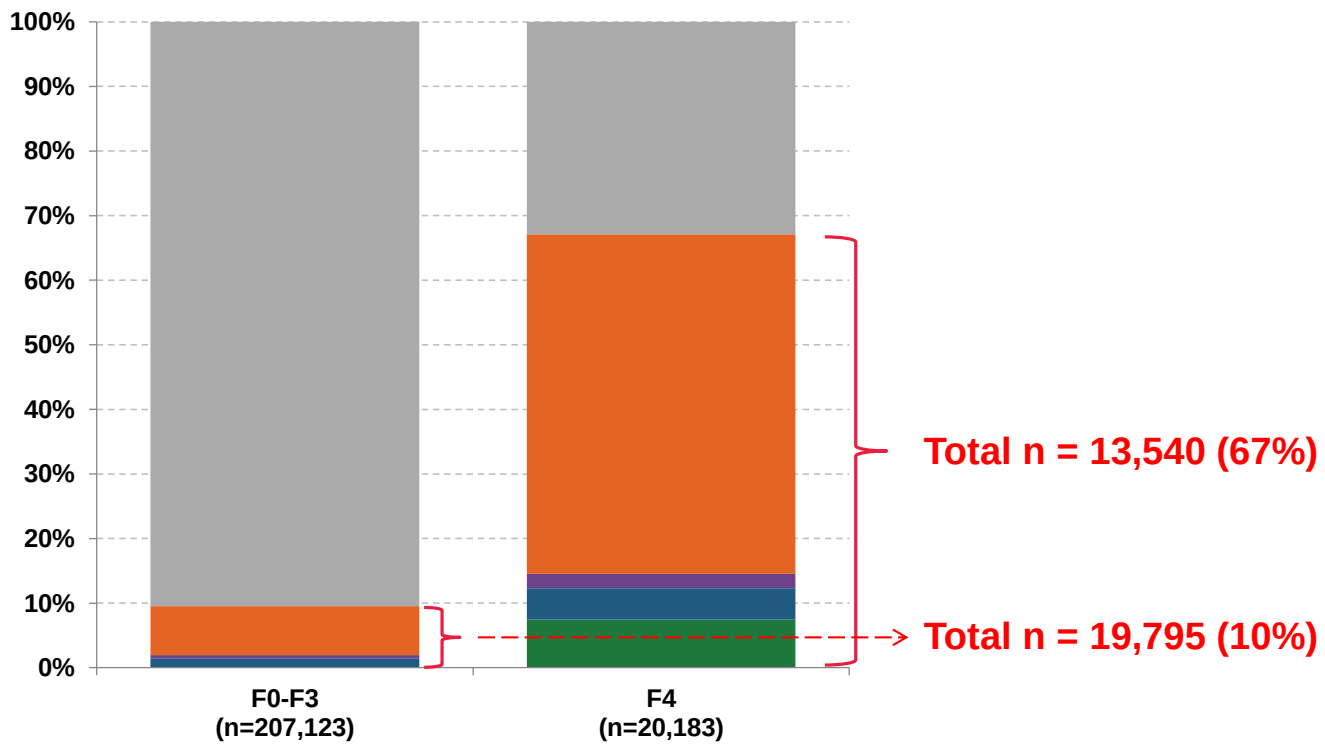
Hajarizadeh B, et al. J Gastroenterol Hepatol 2016 [updated]

Discussion

DAA treatment in 2014-16 by liver fibrosis stage



Results: DAA treatment in 2014-16 by liver fibrosis stage



Conclusion

- Substantial treatment uptake was observed during the first five months of DAA therapy in Australia, equating to 12% of total individuals living with chronic HCV.
- A high proportion of people with cirrhosis (67%) received DAA therapy during the last three years.
- The current estimate of treatment uptake is a minimum estimate due to possible delay in submit prescriptions to PBS.
- Ongoing monitoring of the treatment uptake is required
- More detailed analysis of the treatment scale-up, including assessment of treatment by geography, patient demographics and prescriber type are required.
- http://kirby.unsw.edu.au/research-programs/vhcrp-newsletters

Acknowledgements

The Kirby Institute, UNSW Australia:
- Dr Skye McGregor,
- Dr Richard Gray
- A/Professor Rebecca Guy

Center for Disease Analysis, USA:
- Dr Homie Razavi

Funding:
- The Kirby Institute is funded by the Australian Government Department of Health.

- This study is funded by:
  - NSW Ministry of Health through the Blood-borne viruses and sexually transmissible infections Research, Strategic Interventions and Evaluation (BRISE) program
  - National Health and Medical Research Council of Australia