



Burnet Institute

Medical Research. Practical Action.

Strategies, targets and indicators: how will we measure our progress towards hepatitis B and hepatitis C elimination

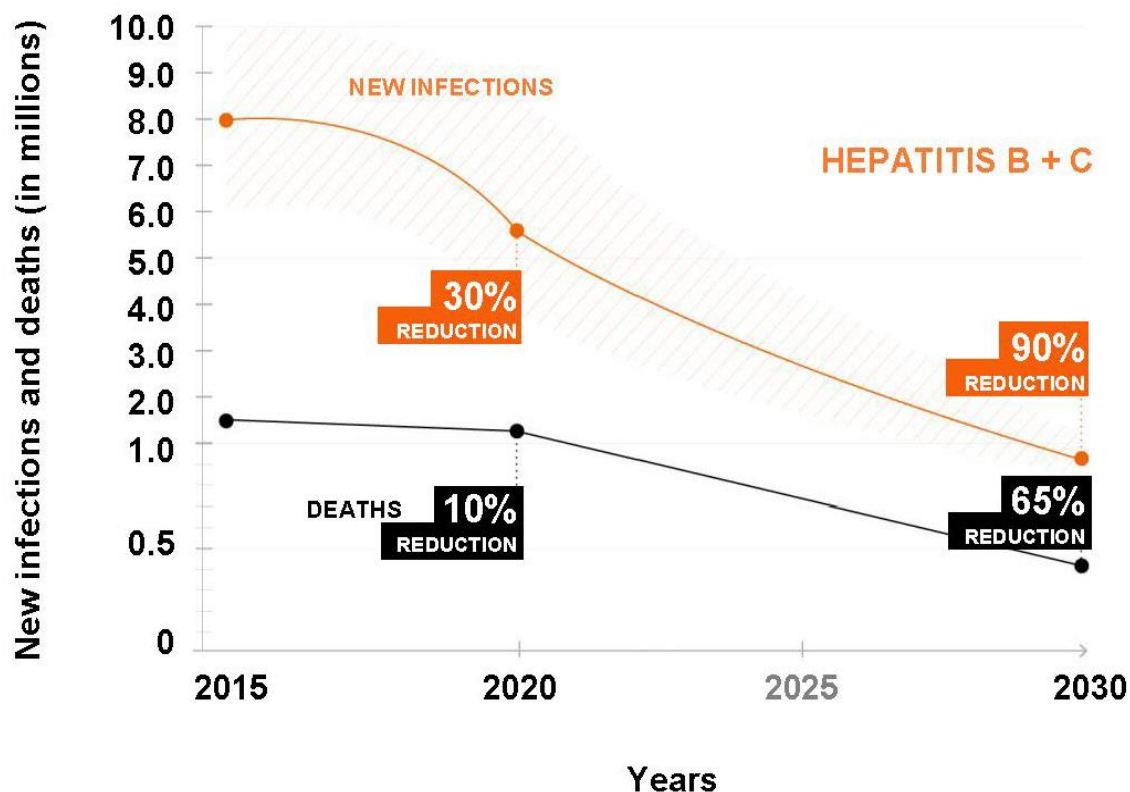
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The Alfred Hospital

Disclosures

- I receive fellowship support from the National Health and Medical Research Council (Australia).
- The Burnet Institute receives infrastructure support from the Victorian Government Operational Infrastructure Fund.
- Investigator initiated research funds from Gilead Science, Abbvie, BMS

What we trying to achieve.

The elimination of viral hepatitis as a public health threat



Elimination scorecard

| Target | Performance indicators |
|---|---|
| 1. Information for action (Know your epidemic and response) | <ul style="list-style-type: none"> ▪ Diagnosis of HCV is high in Australia ▪ RNA testing could improve |
| 2. Interventions for impact (Cover the range of services needed) | <ul style="list-style-type: none"> ▪ Testing options could improve ▪ Treatment locations are improving ▪ Harm reduction could be enhanced |
| 3. Delivering for equity (Cover the populations in need of services) | <ul style="list-style-type: none"> ▪ Probably doing well, but need to record information (eg PWID status) better |
| 4. Financing for sustainability (Cover the financial costs of services) | <ul style="list-style-type: none"> ▪ Testing, treatment and care largely free at point of care ▪ Some financial barriers remain (OST, remote areas) |
| 5. Innovation for acceleration (Looking towards the future) | <ul style="list-style-type: none"> ▪ Lots of activity and options for jurisdictions to trial/adopt |
| | |

National Strategies



National Strategies: 2018 – 2022 - due for release soon

- Hepatitis B – 3rd National Strategy
- Hepatitis C – 5th National Strategy



- **Likely goals**

Make significant progress towards eliminating these diseases as a public health threats

Reduce mortality and morbidity of hepatitis B and hepatitis C

Eliminate the negative impact of stigma, discrimination, and legal and human rights issues on people's health

Minimise personal and social impact of viral hepatitis

Will have targets



2022 targets for hepatitis B

- Achieve and maintain hepatitis B childhood vaccination coverage – likely around 95 per cent at 12 and 24 months as has previously been the case
- Reduce the number of newly acquired hepatitis B infections - focus on priority populations.
- Increase the proportion of people living with chronic hepatitis B
- Increase the cumulative proportion of people diagnosed with chronic hepatitis B receiving care
- For people diagnosed with chronic hepatitis B, increase the proportion receiving antiviral treatment Reduce hepatitis B attributable mortality by 30 per cent
- Reduce the reported experience of stigma and the expression of stigma, in respect to hepatitis B status

2022 targets for hepatitis C

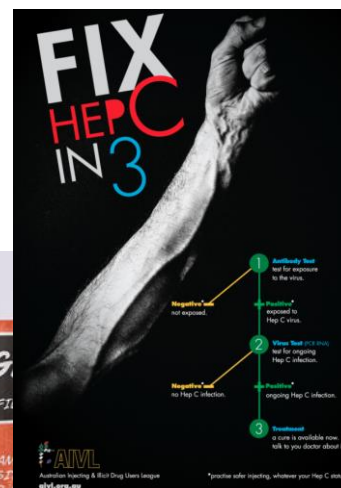
- Reduce the number of newly acquired hepatitis C infections - focus on priority populations
- Increase the proportion of people with hepatitis C who are diagnosed
- Increase the cumulative proportion of people with chronic hepatitis C who have initiated direct acting antiviral treatment
- Reduce hepatitis C attributable mortality
- Minimise the negative impact of stigma and discrimination on people's health

We need to do whole lot of stuff to try and reach these targets!

First we need to raise awareness.



HEP C CAN BE CURED
SPEAK TO YOUR DOCTOR ABOUT NEW SAFE TREATMENTS



**GET TESTED.
GET TREATED.
GET CURED.**

coHealth Braybrook
107-139 Churchill Avenue, Braybrook
Hep C Clinic runs every Tuesday
Call 9448 5507 to book an appointment



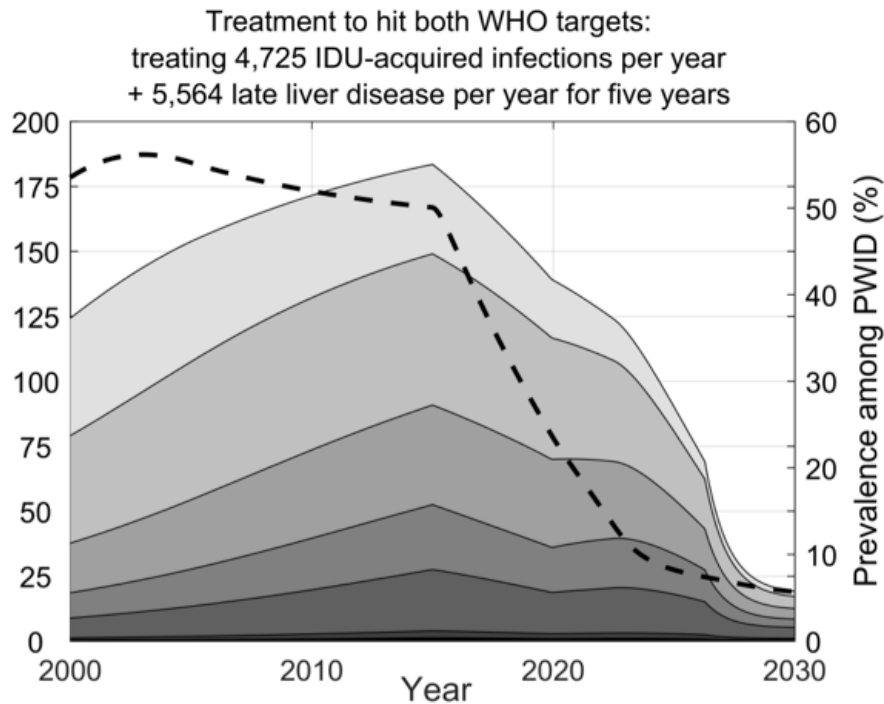
#StigmaStops
Are you playing your part?



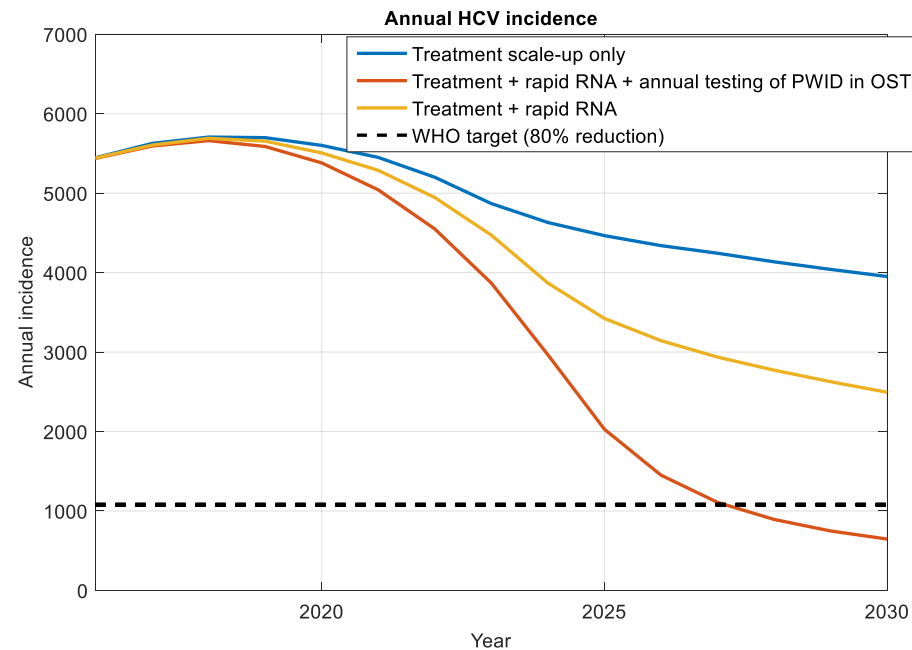
HEPATITIS VICTORIA
GET TESTED HERE:



Models show we need to increase testing and treatment

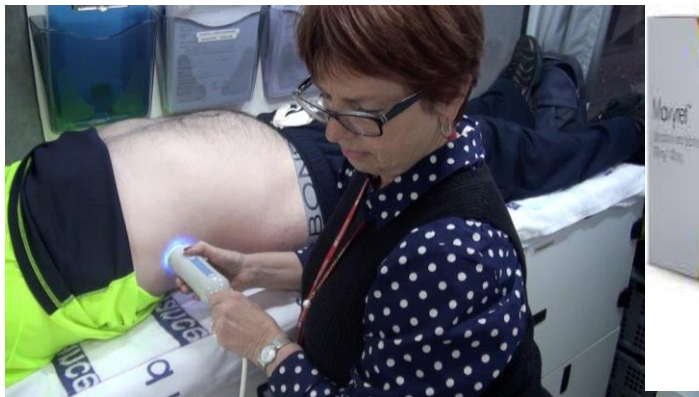


Scott et al, Gut 2017



Scott et al, IJDP 2017

Testing and treatment



We need to increase treatment in primary care settings

Getting everyone involved in eliminating Hepatitis C

This Hep C Task List[®] helps you easily involve everyone in your practice. Different tasks can be assigned to reception staff, community health workers, NSP program workers, case managers, alcohol and other drug (AOD) workers/counsellors, nurses and GPs.

TIP:

Create a hep C friendly space

TIP:

See Supplementary Material Pack for instruction sheets on these patient management system tasks

TIP:

Request reflexive testing to reduce number of blood draws needed – if antibody positive, do PCR; if PCR positive, do genotype and viral load

TIP:

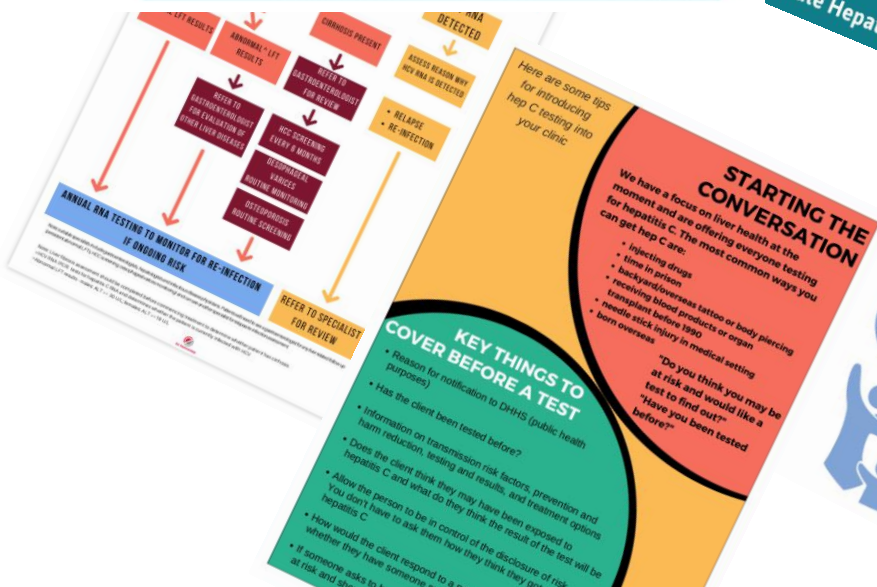
See Supplementary Material Pack for instruction sheets on these patient management system tasks

Hep C Task List

| Task | People who can do this: |
|---|--|
| Promoting that your practice tests, treats and cures hepatitis C (see Health Promotion Catalogue) | e.g. nurse, reception staff, NSP staff, community health workers, Aboriginal health workers |
| Getting patients onboard with hepatitis C testing and treatment | e.g. GP, nurse, reception staff, NSP staff, community health workers, Aboriginal health workers |
| Searching patient management systems and recalling patients | e.g. GP, nurse, reception staff |
| Establishing patient management system shortcuts to make hepatitis C management easier | e.g. practice manager, nurse |
| Testing patients for hepatitis C | e.g. GP, nurse, community health worker, NSP worker |
| Giving patients their results and completing pre-treatment workup | e.g. GP, and if reviewed by GP and in their scope of practice, nurse and community health workers can deliver result |
| Entering information into practice management system to improve data collection | e.g. practice manager, nurse |
| Reviewing blood test results and creating a treatment plan | e.g. GP, nurse |
| Prescribing medications and monitoring treatment follow-up | e.g. GP, Nurse Practitioner |
| Monitoring for side effects and finding when to find when | e.g. nurse, GP |



Eliminate Hepatitis C Partnership
EC Partnership



**To ensure we reach our goals it is important we monitor
our progress along the way**

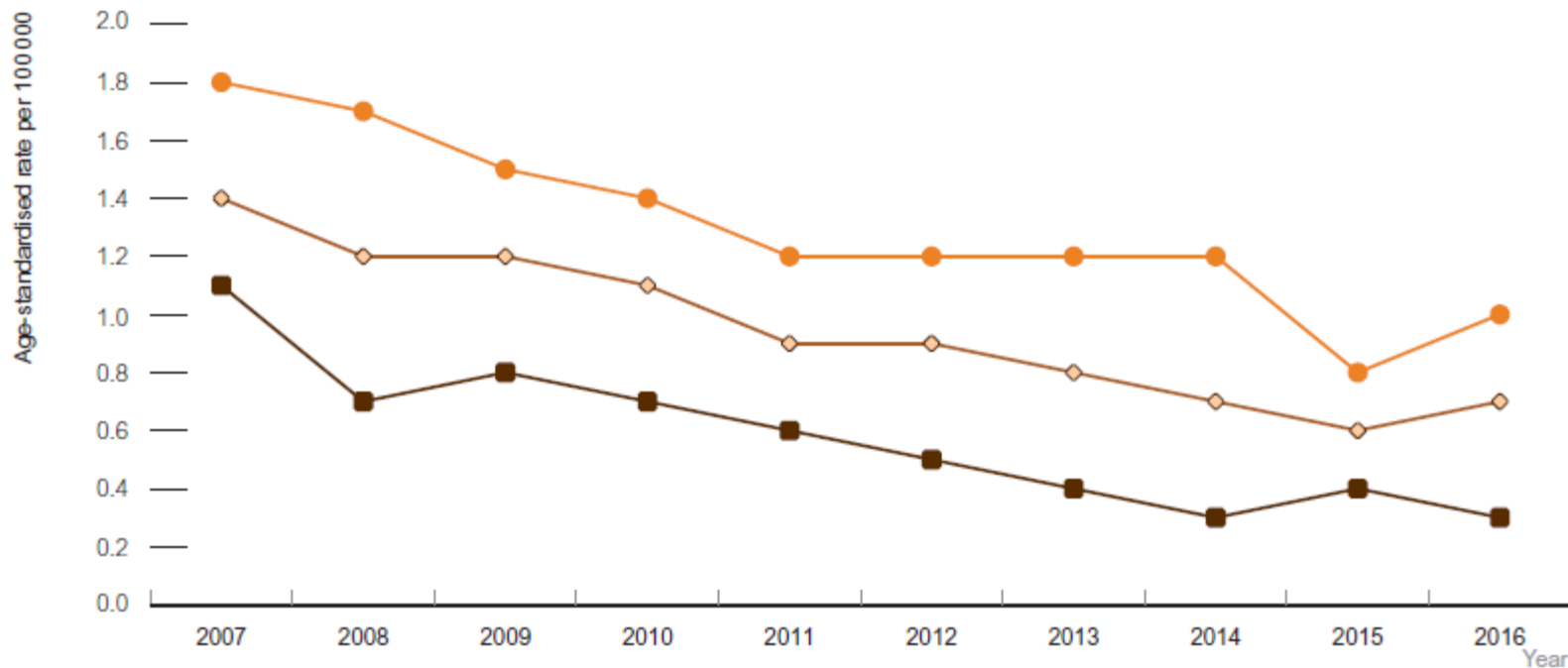


So what should we be measuring?

- New cases of HBV and HCV (incidence)
- Vaccine coverage for hepatitis B
- Chronic infection, not past infection
- HBV and HCV related disease burden
- Treatment numbers – in a timely way
- Treatment coverage/uptake among key populations – people who inject drugs, Aboriginal and Torres Strait Islander people living with HCV, prisoners, HIV positive gay and bisexual men
- Treatment coverage data at a finer geographical level
- Adherence to testing guidelines
- Barriers to accessing services – stigma and discrimination
- Treatment outcomes

Newly acquired hepatitis B infections

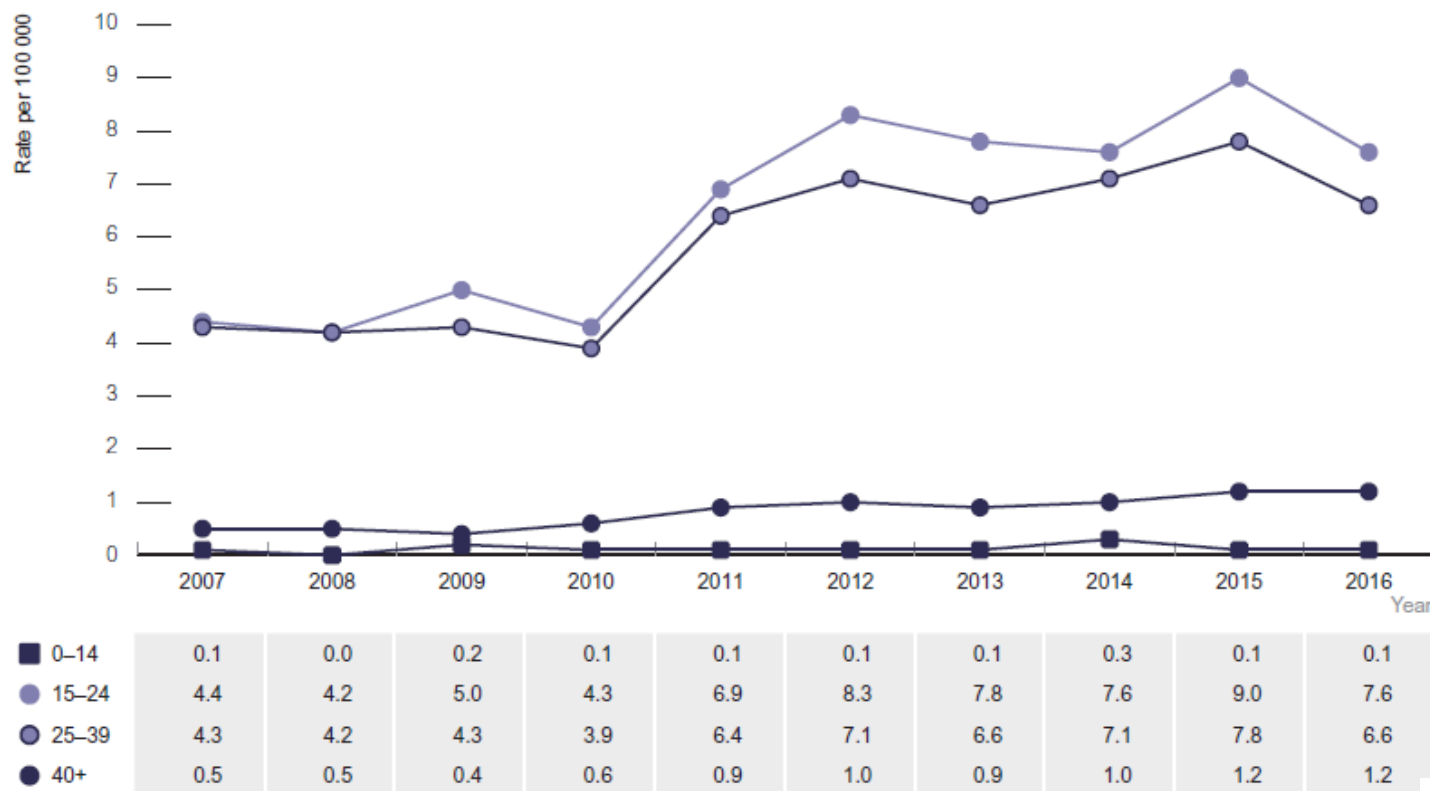
- Passive surveillance



Source: Australian National Notifiable Diseases Surveillance System.

Newly acquired hepatitis C

- Passive surveillance

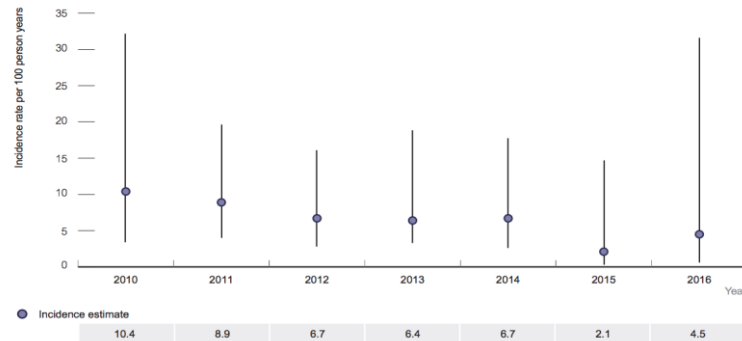


Source: Australian National Notifiable Diseases Surveillance System.



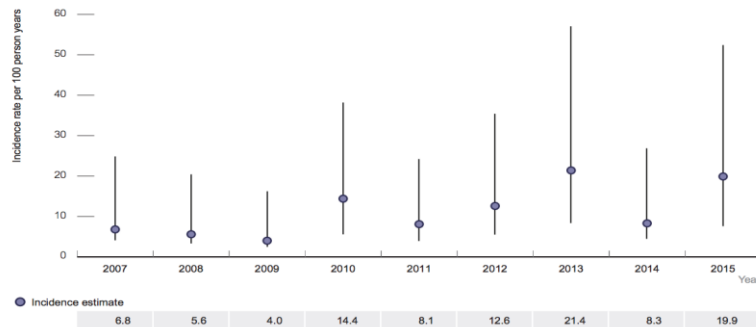
Hepatitis C incidence

Figure 2.1.15 Estimated annual incidence of hepatitis C in a cohort of people who inject drugs in Melbourne, 2010–2016



Source: MIX: Melbourne injecting drug user cohort study;²¹ see Methodology for detail.

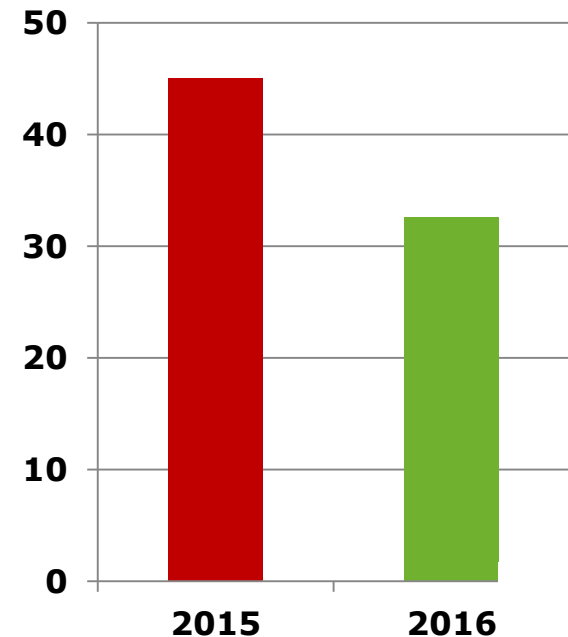
Figure 2.1.13 Estimated annual incidence of hepatitis C among people who inject drugs seen at needle and syringe programs, 2007–2015



Source: Australian Needle and Syringe Program Survey; see Methodology for detail.

- ANSP
- Cohort studies
- ACCESS

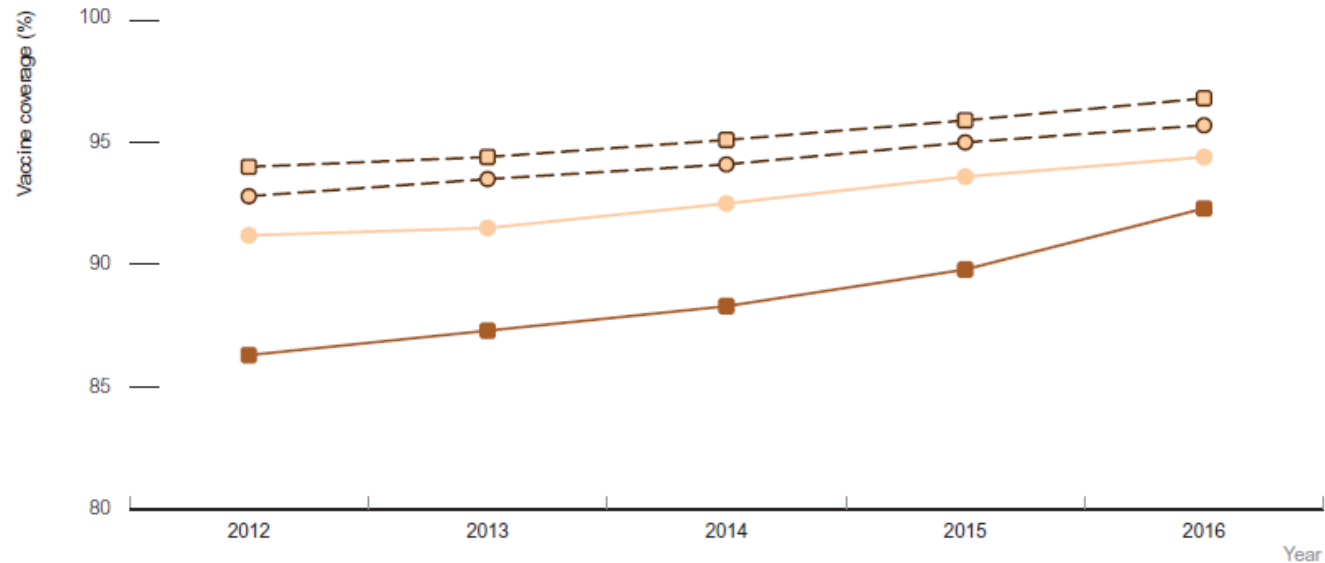
HCV RNA+ (%) from Annual Needle Syringe Program Survey (n=2,500)



Hepatitis C incidence

- ANSP
- Cohort studies
- ACCESS

Hepatitis B – vaccination coverage



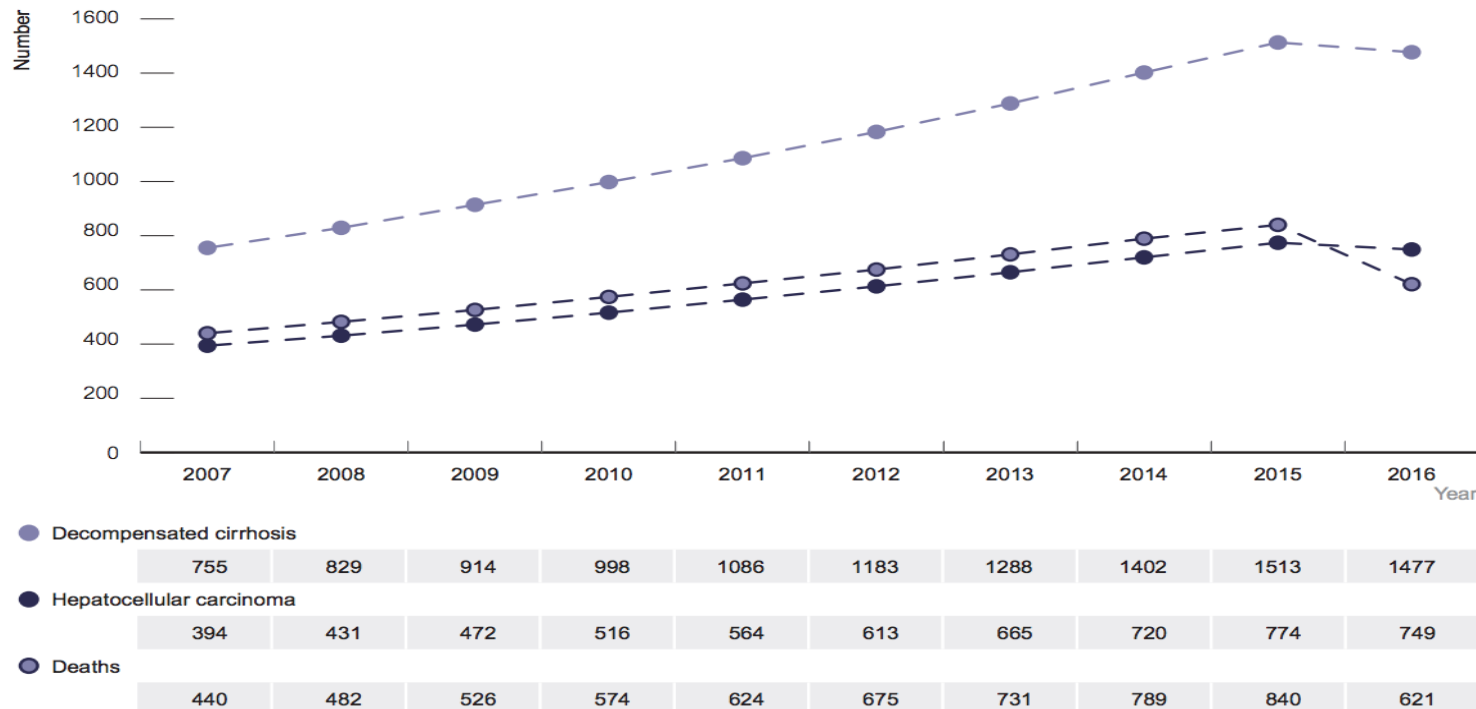
| | | | | | |
|---|------|------|------|------|------|
| ■ Aboriginal and Torres Strait Islander 12 months (%) | 86.3 | 87.3 | 88.3 | 89.8 | 92.3 |
| ■ Aboriginal and Torres Strait Islander 24 months (%) | 94.0 | 94.4 | 95.1 | 95.9 | 96.8 |
| ● Non-Indigenous 12 months (%) | 91.2 | 91.5 | 92.5 | 93.6 | 94.4 |
| ● Non-Indigenous 24 months (%) | 92.8 | 93.5 | 94.1 | 95.0 | 95.7 |

Source: National Centre for Immunisation Research and Surveillance of Vaccine Preventable Diseases; see Methodology for detail.

HBV and HCV related disease burden

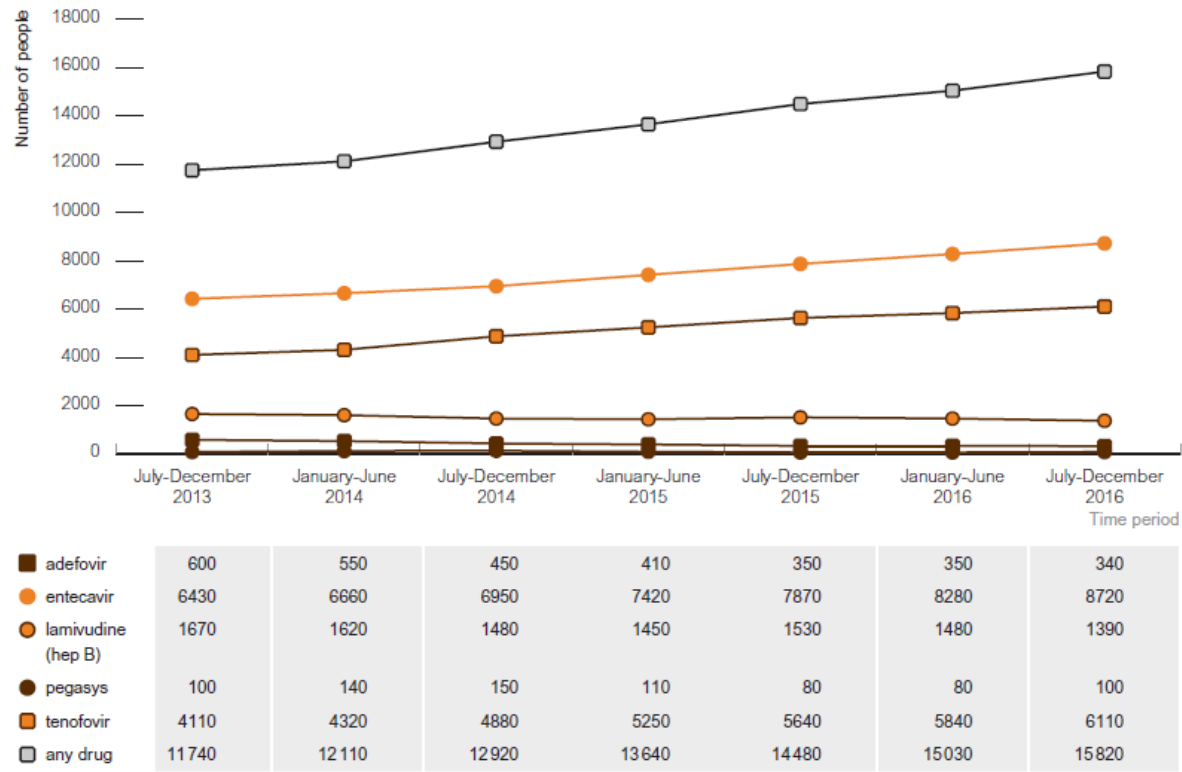
- Modelling
- Data linkage

Figure 2.1.21 Estimated number of incident cases of hepatitis C-related decompensated cirrhosis, hepatocellular carcinoma and deaths, 2007–2016



Hepatitis B treatment uptake

- Prospection data set
- PBS data

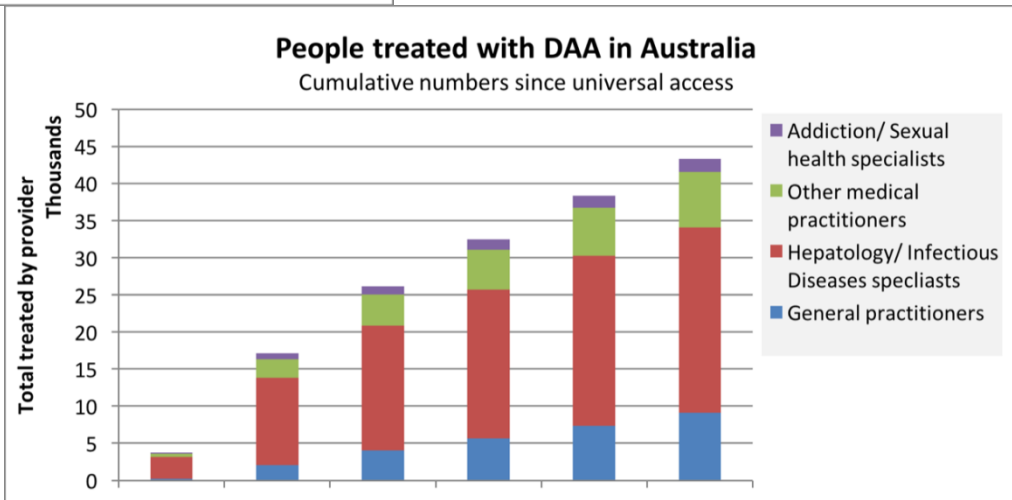
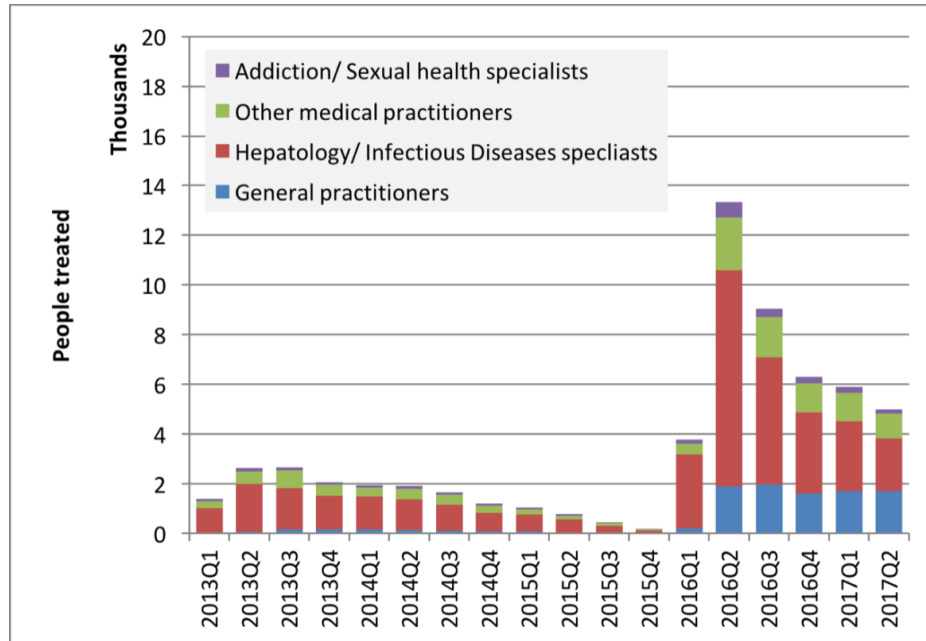


Note: Excludes tenofovir dispensing for HIV co-infected patients. Patients on telbivudine are excluded; there were no more than 30 for most time periods.

Source: Pharmaceutical Benefits Scheme 10% sample using Pharmdash. Excludes temporary residents who are ineligible for Medicare. See Methodology for detail.

Hepatitis C treatment uptake

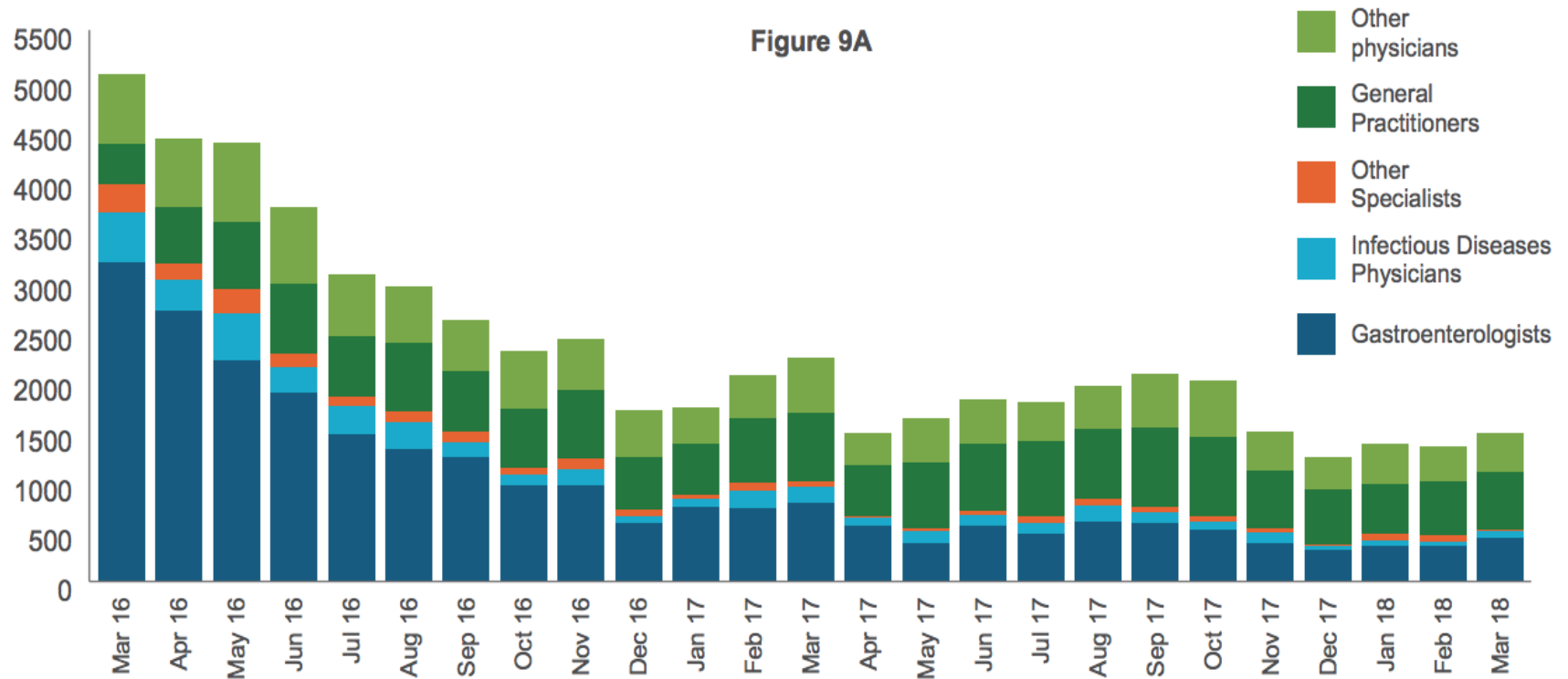
- Prospection data set
- PBS data



Doyle et al - under review AP&T

Hepatitis C numbers uptake

- Prospection
- PBS data



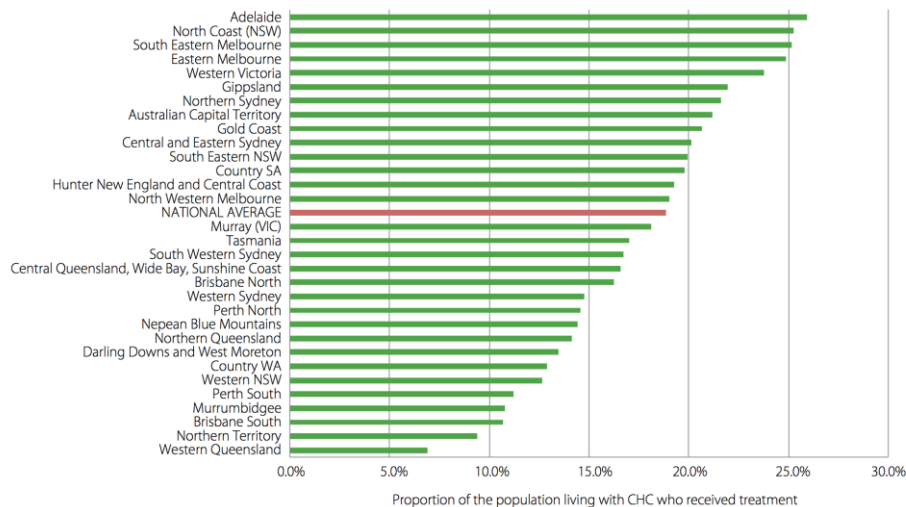
The Kirby Institute. Monitoring hepatitis C treatment uptake in Australia (Issue 9)



Treatment coverage

- PBS data
- ABS data
- Linkage and modelling

Figure 4: CHC treatment uptake by PHN, Mar 2016–Feb 2017



Data source: Department of Human Services Medicare and PBS statistics. Estimates of CHC prevalence based on published national estimates and notifications distribution. Data suppressed where number receiving treatment was <6.

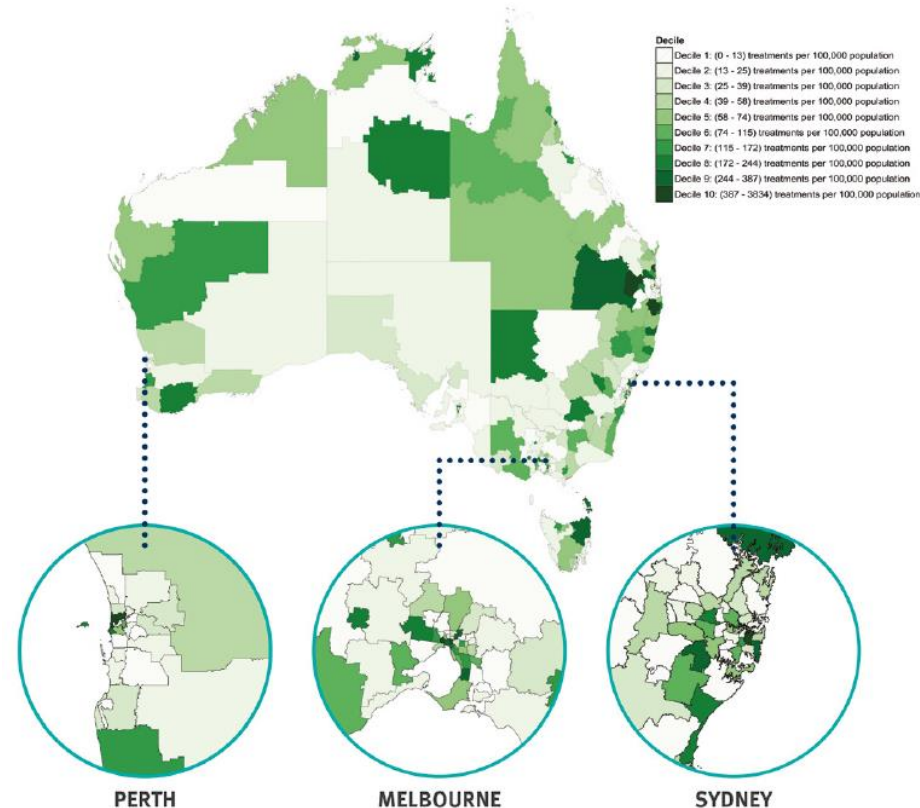
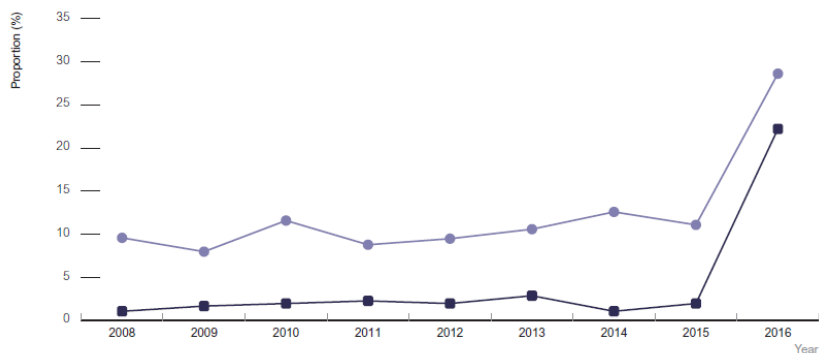


Figure 4: DAA treatments per capita for the period March 2016 to June 2017 in each of Australia's SA3 geographical regions.

Monitoring key populations



● Lifetime history of treatment^a (%)

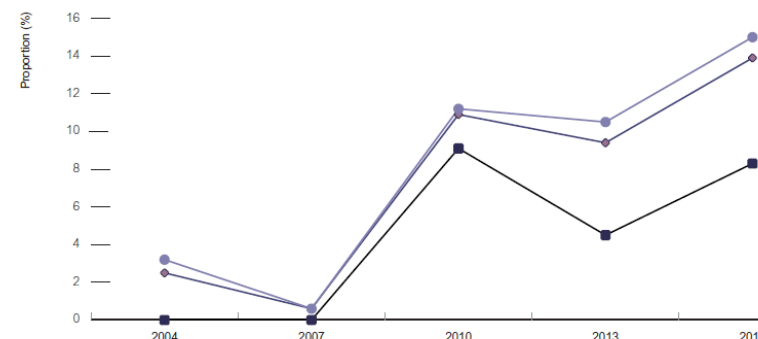
■ Treatment in the last 12 months^b (%)

a Denominator for lifetime history of treatment is restricted to people with hepatitis C antibody positive serology and excludes people who self-reported spontaneous clearance. Denominator for treatment in the last 12 months is restricted to people with hepatitis C antibody positive serology and excludes people who self-reported spontaneous or treatment-induced viral clearance.

b Prior to 2012 commenced treatment in the last 12 months was 'current treatment'.

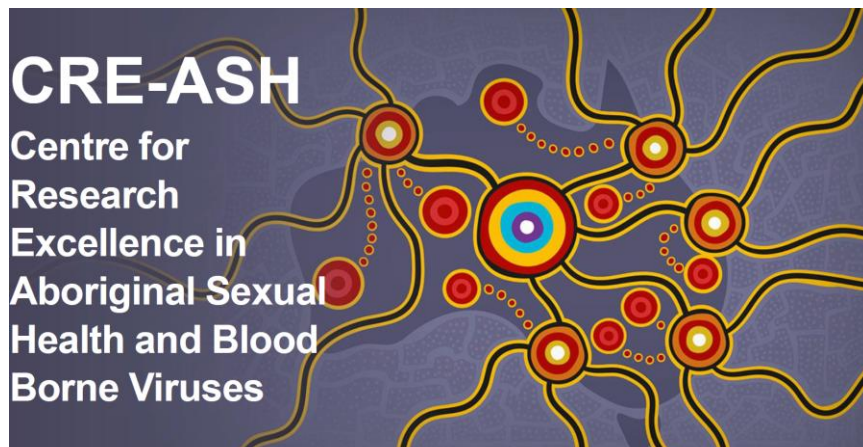
Source: Australian Needle and Syringe Program Survey; see Methodology for detail.

- ANSP
- ACCESS
- National Prison Entrants BBV Survey
- ATLAS



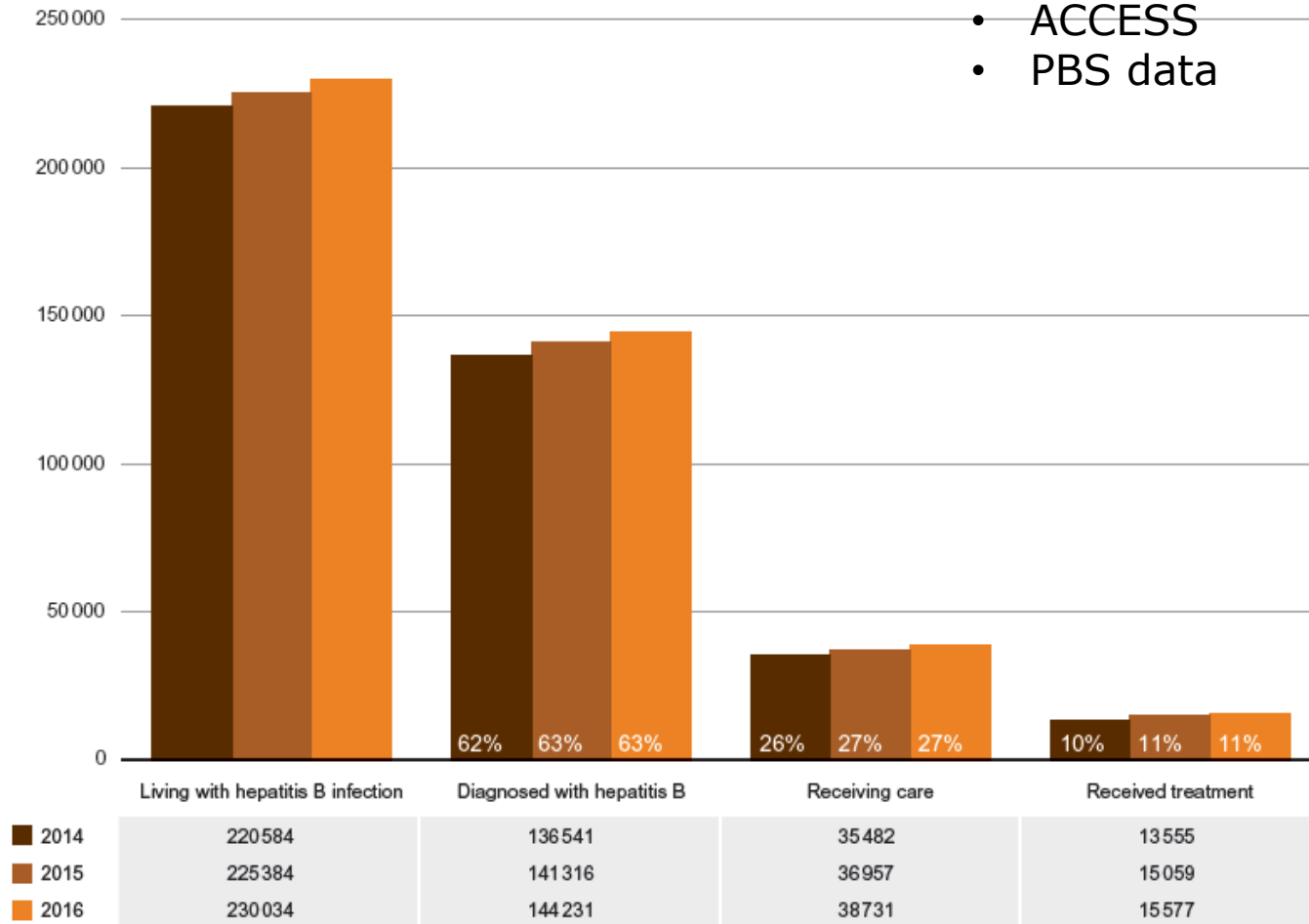
| | | | | | |
|-------|-----|-----|------|------|------|
| Men | 3.2 | 0.6 | 11.2 | 10.5 | 15.0 |
| Women | 0.0 | 0.0 | 9.1 | 4.5 | 8.0 |
| Total | 2.5 | 0.6 | 10.9 | 9.4 | 13.0 |

Source: National Prison Entrants' Bloodborne Virus Survey; see Methodology for detail.



Hepatitis B cascade of care 2014 - 2016

- Modelling
- ACCESS
- PBS data

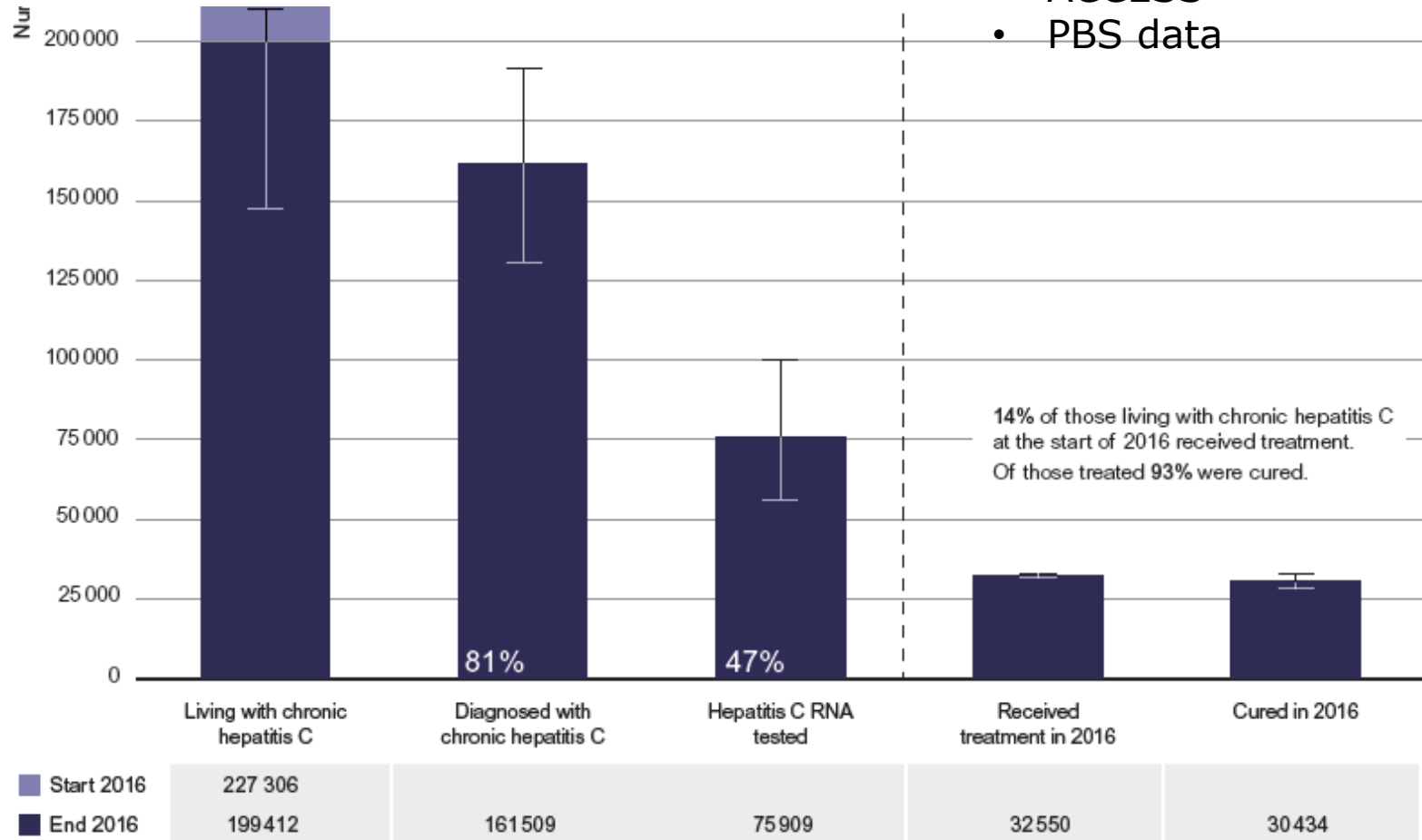


Note: Due to updated modelling methods, estimates may be different from figures presented in previous years of reporting.

Source: WHO Collaborating Centre for Viral Hepatitis, Doherty Institute; see Methodology for detail.

Hepatitis C cascade of care 2016

- Modelling
- ACCESS
- PBS data

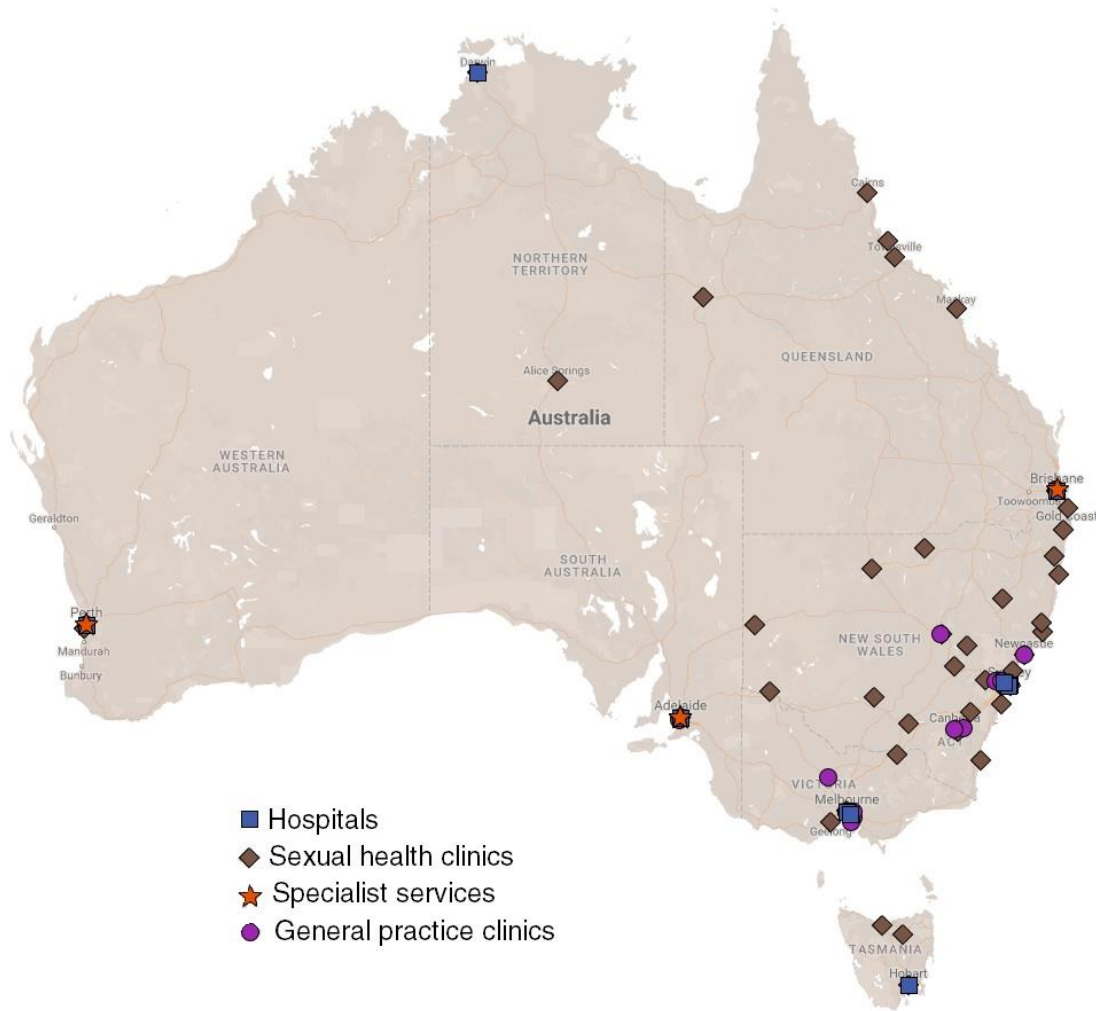


Note: Due to updated modelling methods, estimates may be different to figures presented in previous years of reporting

Source: See Methodology for details of mathematical modelling used to generate estimates.



ACCESS Network



ACCESS

Australian Collaboration for Coordinated Enhanced Sentinel Surveillance

Can we eliminate HIV and hepatitis C in Australia?

With new ways to treat and prevent HIV and hepatitis C, Australia is among the first countries globally to contemplate elimination. This exciting prospect is bolstered by political and financial support from around the country.

Achieving elimination requires health surveillance that can assess targets and identify gaps. That is why the Australian Department of Health has funded ACCESS, a sentinel surveillance system that can evaluate and inform health policy, assess interventions, and monitor population health.

Started in 2008, today ACCESS collates de-identified data on blood borne viruses and sexually transmissible infections from over 120 health services and pathology laboratories in every state and territory. ACCESS is an essential component of Australia's efforts to eliminate and manage these infections.

The Australian Collaboration for Coordinated Enhanced Sentinel Surveillance of STIs and BBVs



Site Report: Clinic A

This is a report of hepatitis C testing, hepatitis C treatment work-up, hepatitis C treatment, and SVR12 at your clinic between June 2017 and December 2017. The data have been extracted from your service via ACCESS which collects data on hepatitis C. Please note that data are subject to change as we update our analysis procedures. Number of patients tested and proportion positive may differ from clinic-level data due to data cleaning and analysis procedures.

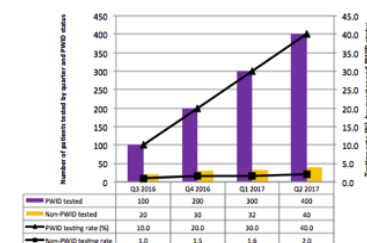
Summary of consults

The number of patients who attended Clinic A was 1000 (Table 1). Proxy variable of having a prescription for opioid substitution therapy or naloxone is used for 'at risk of hepatitis C'. 895 patients are at risk of hepatitis C.

Table 1. Number of patients attending Clinic A by risk status

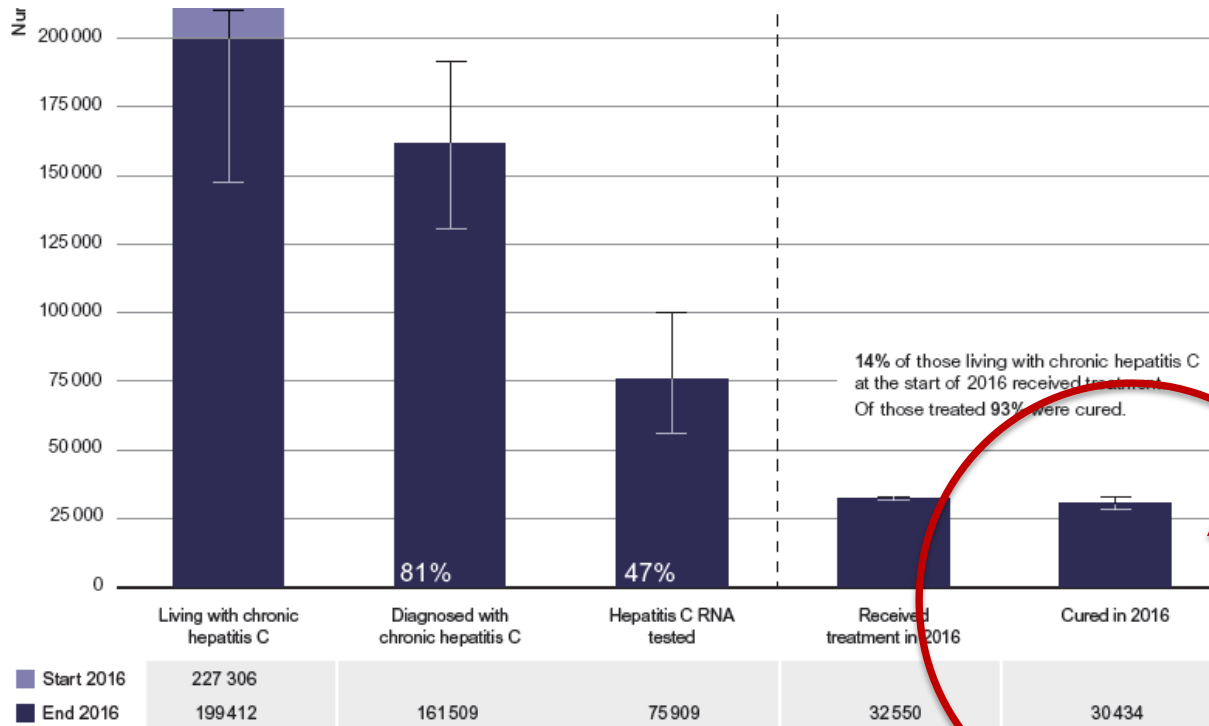
| Time period | Number of patients | Number of patients at risk of hepatitis C |
|---------------------------|--------------------|---|
| June 2017 – December 2017 | 1000 | 895 |

Figure 2: Number of patients tested for Hepatitis C (Ab and/or RNA) and testing rate at Clinic A by HCV status, 2016-2017



Monitoring treatment outcomes

- ACCESS
- REACH
- PBS data



Must we?

Note: Due to updated modelling methods, estimates may be different to figures presented in previous years of reporting

Source: See Methodology for details of mathematical modelling used to generate estimates.

But do we really need to care?



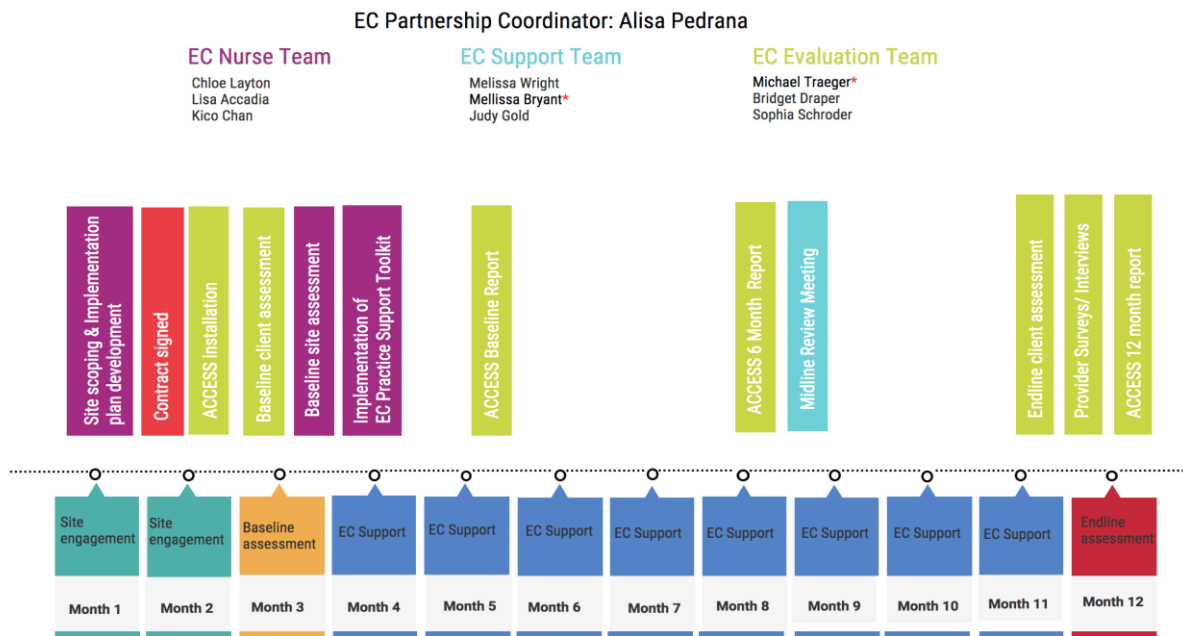
Stigma and Discrimination Indicators

- The national strategy for viral hepatitis has a clear goal to eliminate the negative impact of stigma and discrimination on people's health.
- Stigma Indicators Monitoring project (CSRH) - over half of participants reported experiencing stigma within the last 12 months related to their injecting drug use (59%) or hepatitis C status (56%).

| In the last 12 months, to what extent have you experienced any stigma or discrimination avoidance, pity, blame, shame, rejection, verbal abuse, bullying) in relation to your: | | | | | |
|--|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| | Never | Rarely | Sometimes | Often | Always |
| Sexual orientation | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> | 3 <input type="checkbox"/> | 4 <input type="checkbox"/> | 5 <input type="checkbox"/> |
| Use of drugs for injecting | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> | 3 <input type="checkbox"/> | 4 <input type="checkbox"/> | 5 <input type="checkbox"/> |
| HIV status | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> | 3 <input type="checkbox"/> | 4 <input type="checkbox"/> | 5 <input type="checkbox"/> |
| Hepatitis B status | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> | 3 <input type="checkbox"/> | 4 <input type="checkbox"/> | 5 <input type="checkbox"/> |
| Hepatitis C status | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> | 3 <input type="checkbox"/> | 4 <input type="checkbox"/> | 5 <input type="checkbox"/> |
| Sex work | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> | 3 <input type="checkbox"/> | 4 <input type="checkbox"/> | 5 <input type="checkbox"/> |
| Other (please specify) | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> | 3 <input type="checkbox"/> | 4 <input type="checkbox"/> | 5 <input type="checkbox"/> |

| In the last 12 months, to what extent do you agree that the following occurred? | | | | | |
|---|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| | Never | Rarely | Sometimes | Often | Always |
| Health workers treated me negatively or different to other people | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> | 3 <input type="checkbox"/> | 4 <input type="checkbox"/> | 5 <input type="checkbox"/> |
| People didn't want to have sex or an intimate relationship with me | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> | 3 <input type="checkbox"/> | 4 <input type="checkbox"/> | 5 <input type="checkbox"/> |

Stigma and discrimination – hepatitis C



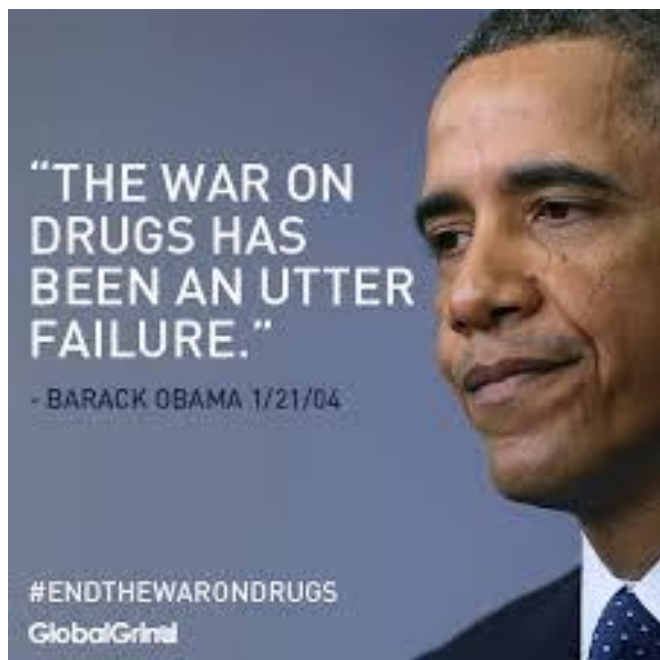
EC Partnership will be following a cohort of ~300 people who inject drugs recruited from of health services – who will be asked to complete behavioural risk questionnaire, stigma indicators and PREMs/PROMS.

In Summary

- We have a plan or road map – the National Strategies
- The plan can't just be aspirational – needs targets and need funding support and a cohesive team effort to achieve the targets
- Work needs to be done – and this has to be our focus
- Indicators are important – they hold us to account and to help us modify our work and our response – informed by the outcomes we are achieving along the journey
- Central to all this has to be the affected community and the individual
- Today – there is no time to discuss the **Sustainable Development Goals** and **Universal Health Coverage** – but the viral hepatitis response needs to be seen with this lens if we are to have sustained success within Australia and also globally.

Acknowledgements

- Alisa Pedrana, Joe Doyle, Mark Stoove, Bridget Draper, Brendan Harney, Michael Traeger
- The ACCESS team
- Greg Dore, Rebecca Guy and others at the Kirby Institute
- Clare Bradley - SAHMRI
- Community organisations



Acknowledging three leaders in the field



Burnet Institute
Medical Research. Practical Action.



Equity Through Better Health

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TheAlfred