

Progress towards hepatitis C elimination in Australia

Dr Alisa Pedrana Senior Research Fellow | Burnet Institute Adjunct Research Fellow | Monash University

Equity Through Better Health **burnet.edu.au**

Disclosures

- Investigator- initiated research grants from Gilead Sciences, AbbVie, Merck
- Honoraria from Gilead Sciences for educational purposes





8/08/2019

9600

Overview

- Big picture
- Australia's progress towards elimination
- Gaps
- New spaces:
 - New data sources
 - Integrated community models
 - Central role of peer and community led organisations

Burnet Institute Medical Research. Practical Action.

Australia is aiming to eliminate hepatitis C as a public health threat by 2030



9600

Australia is aiming to eliminate hepatitis C as a public health threat by 2030

- Australia is one of the few countries that are on track to achieve the elimination of hepatitis C
- We have benefited from strong political leadership and an active community of researchers, implementation scientists, government, health services and community organisations all working together to implement an effective national elimination strategy.



Burnet Institute Medical Research. Practical Action.

Australia is aiming to eliminate hepatitis C as a public health threat by 2030



- 1. Reduce new infections
- 2. Ensure people living with hepatitis C know their status
- 3. Ensure people diagnosed with hepatitis C can access treatment and cure
- 4. Reduce stigma and discrimination for people living with hepatitis C
- 5. Access to high quality harm reduction services to prevent people acquiring hepatitis C
- 6. Ensure equity in access to treatment and cure
- 7. Model progress towards elimination targets

Australia is aiming to eliminate hepatitis C as a public health threat by 2030



Summary of Report

The good

- ~70,000 people have received DAA therapy by the end of 2018
- Treatment rates have been accompanied by declines in new infections

The bad

- Rates of DAA treatment uptake have declined in the past 2 years
- $~~^{\rm 2/3}$ of the estimated population living with hepatitis C is yet to be treated

The optimistic

- Increased efforts to engage hepatitis C-affected populations in testing, treatment and prevention is needed
- Modelling data suggests that without significant increases in testing of at-risk populations to prevent further treatment declines, Australia's progress towards elimination will slow

1. Reduce new infections

Hepatitis C infection incidence* among individuals tested at PWID clinics and tested HCV antibody negative less than two years ago; ACCESS clinical network, 2012–2018 Hepatitis C infection incidence* among HIV-positive GBM tested at GBM clinics and tested HCV antibody negative less than two years ago; ACCESS clinical network, 2012–2018



Source: ACCESS clinical network, 2012-2018, *Australian Government. Hepatitis C (newly acquired) case definition.

Proportion of ANSPS respondents reporting recent (last 12 months) hepatitis C

2. Ensure people living with hepatitis C know their status



Source: Australian Needle Syringe Program Survey National Report 2014–2018: Prevalence of HIV, HCV and injecting and sexual behaviours among NSP attendees.*

2. Ensure people living with hepatitis C know their status



Number of individuals enrolled in ETHOS Engage that were HCV antibody tested, HCV antibody positive and HCV RNA tested, May 2018 to March 2019

Source: ETHOS Engage study.+



2. Ensure people living with hepatitis C know their status

Number of claims to the MBS for items 69499 and 69500 (detection of HCV RNA, new infections only), 2012 to Q3 2018

Source: Source: Medicare Australia Statistics.

Notes: MBS item numbers 69499 and 69500 are used for testing to detect current hepatitis C infection and not used for tests associated with treatment monitoring.

3. Ensure people diagnosed with hepatitis C can access treatment and cure

Estimated number of individuals initiating DAA treatment and the proportion of individuals living with hepatitis C who initiated DAA treatment, by jurisdiction, March 2016 to December 2018



As of Dec 2018, an estimated 70,260 people living with chronic hepatitis C had been treated with DAAs

Source: Monitoring hepatitis C treatment uptake in Australia, 10% random sample of the PBS database.



3. Ensure people diagnosed with hepatitis C can access treatment and cure

Estimated number of individuals initiating DAA treatment, by prescriber type, March 2016 to December 2018

Source: Monitoring hepatitis C treatment uptake in Australia, 10% random sample of the PBS database.

3. Ensure people diagnosed with hepatitis C can access treatment and cure

Proportion of ANSPS respondents who tested HCV antibody positive and did not report spontaneous clearance, self-reporting lifetime history of hepatitis C treatment, by gender, 2012–2018



Source: Australian Needle Syringe Program Survey National Report 2014–2018: Prevalence of HIV, HCV and injecting and sexual behaviours among NSP attendees.



The hepatitis C diagnosis and care cascade, 2017

3. Ensure people diagnosed with hepatitis C can access treatment and cure

Source: Kirby Institute, HIV, viral hepatitis and sexually transmissible infections in Australia: annual surveillance report 2018.

4. Hepatitis C-attributable mortality

Annual observed mortality cases, mean number of cases and predicted number of cases without DAA treatment access among individuals notified with hepatitis C, related to: A) decompensated cirrhosis:

- B) hepatocellular carcinoma
- C) liver related deaths
- D) and all-cause mortality



● Observed diagnosis ● Observed deaths - Predicted -- Predicted without DAAs

Source: Data from NSW, 2004–2017 Data Linkage Alavi et al., Journal of Hepatology. 2019

5. Stigma and discrimination experienced by people living with hepatitis C

Experience of hepatitis C-related stigma or discrimination in the last 12months by people living with hepatitis C, 2016 and 2018



Experience of IDU related stigma or discrimination in the last 12 months by PWID, 2016 and 2018



Source: Stigma Indicators Monitoring Project.

6. Six Prevention of hepatitis C acquisition



Number of needle and syringe units distributed, by public and pharmacy sector, 2007/08–2016/17

Source: Needle Syringe Program National Minimum Data Collection: National Data Report 2017.

Borrowing and lending of needles, sharing of injecting equipment, and re-use of needles in the past month, national, 2000–2018



Source: Australian Drug Trends 2018 ^National Illicit Drug Reporting System

7. Health equity mapping



Geographic variation in hepatitis C treatment uptake, March 2016 to December 2017

Source: Source: The National Viral Hepatitis Mapping Project (WHO Collaborating Centre for Viral Hepatitis, The Doherty Institute).

8. Modelling





Sources Kwon J, et al. J Viral Hepat. 2019;26(1):83-92.



Model projections for the additional requirements for Australia to reach the targets Red: continued current trends in testing and treatment. Pink: a 50% increase in testing

Source: Scott N, et al. (in review) Medical Journal of Australia

Gaps in elimination response

- Current challenges to achieving hepatitis C elimination include gaps in our knowledge of the epidemic among some priority populations and settings, with limited data to accurately assess progress towards hepatitis C elimination among some priority populations including
 - Aboriginal and Torres Strait Islanders
 - Prison populations
 - People living in rural and remote areas
- We need to better understand the hepatitis C epidemic among these priority populations and identify their needs and appropriate responses

New spaces to explore

New Data Sources

- Aboriginal and Torres Strait Islanders
 - ATLAS: THE ABORIGINAL AND TORRES STRAIT ISLANDER SEXUAL HEALTH SURVEILLANCE NETWORK a national sentinel surveillance network designed to track and interpret patterns of STI and blood-borne virus testing and treatment, monitor trends, evaluate interventions and inform policy development.
 - **GOANNA** a national study of young Aboriginal people that involved every state/territory Australian health department and peak Aboriginal health organisation.



New spaces to explore

New Data Sources

• Prison populations

National Prisons Hepatitis Network Activities:

- Enhanced surveillance 'bottom up' figures regarding the number of prisoners assessed and/or treated in the first 12 months of DAA access via the PBS.
- Establishing Key Performance Indicators for prison-based HCV services
- Plan for a National Prisons HCV Service Dashboard



Burnet Institute Medical Research. Practical Action.

0000

New spaces to explore

VIRAL HEPATITIS MAPPING PROJECT

New Data Sources

- People living in rural and remote areas
- Utilising existing and new data systems to get a better picture of these populations

Doherty



New spaces to explore

New Data Sources

The impact of nurses and nurse practitioners

Distribution of prescriber types for individuals initiating DAA treatment during 2016 to 2018, in Australia and by jurisdiction



Number of EC nurse activities, by type, by clinic, December 2018 to June 2019

9600

Burnet Institute

New spaces to explore

Integrated community models and their role in providing....

Workforce development opportunities and service delivery in a range of settings, particularly primary care, to promote and deliver hepatitis C testing and treatment will be fundamental to Australia's hepatitis C elimination efforts

50

00

50

00

50

00

50

📕 cimhosis 📕 follow-up 📕 work-up 📕 fibroscan 📕 education 📕 tests

ractitioners

ectious Diseases

Enabling access to treatment without visiting the hospital

	NT Viral Hepatitis Steering Committee				
ve development	<section-header></section-header>	Presenter PRIMARY HEALTH CARE Control		Evaluation	
lterative	Community hepatitis C nurse				
	Darwin Peer support wo	orker	Alice Springs peer support worker		
	Darwin and Alice Springs Viral Hepatitis Service				

'A partnership approach to enabling access to Hep C treatment without visiting the hospital in a remote setting' Dr. Jane Davies on behalf of the NT Viral Hepatitis Steering Group



SA EC Australia Outreach Project, Associate Professor David Shaw, Head of Unit, Infectious Diseases, Royal Adelaide Hospital



New spaces to explore

Central role of peer and community led organisations to provide....

Convenient, accessible and acceptable models of care to help ensure all people living with hepatitis C benefit from curative treatment and reduce stigma among communities affected by hepatitis C



Hepatitis C PHRE Project

- Recruit and train injecting drug users who have completed and/or undergoing HCV treatment for hepatitis C
- ✓ In addition to information and training on role of peer educators, routes of BBV transmission, testing and treatment, key messages and resources are developed targeting the injecting drug user community throughout life of project
- ✓ Peer educators collect quantitative and qualitative data in a structured "peer diary"
- ✓ Diaries submitted month, mentoring by peer project officer, resource replenishment and remuneration is provided
- ✓ Where identified a hepatitis C peer worker follows up consumer to support testing and treatment
- ✓ Incentive payments will be provided to peers who facilitated other peers to access testing and treatment where indicated.

WA Hepatitis C PHRE Project, Angela Corry, Peer based harm reduction WA



peer based harm reduction wa

New spaces to explore - People who use drugs and people living with HCV in research & program delivery

W3 Framework	Definition	Indicators	Outcomes	Ideas for Best Practice
	(What is it?)	(What does it look like?)	(What changes?)	(How do we create it?)
Engagement Plugged into the injecting drug using community	The depth and variety of the programs responses to the dynamic cultures in the injecting community including anticipating their needs, understanding their experiences and how to most effectively interact.	 The peer worker and program ensure the community have access to the latest information and technologies while expanding their reach and influence with other relevant networks. Community members recognise the program as a part of their networks and cultures and feel a sense of ownership over its work. Peer workers use personal experience as well as cultural knowledge to communicate and work effectively with community. The peer program identifies emerging practises and unintended consequences of changes on policy or services. 	 Clients feel they are welcome and have a valuable contribution to make to the shared sense of ownership of the program. Strategic opportunities created with new relationships with people and organisations; strategic opportunities taken at every opportunity to enhance communication and cross referral. Increased willingness of community to engage in sector consultation and leadership opportunities. 	 The organisation recruits and supports diversity of peer workers that reflect the community's populations. Programs encourage input from community in a number of ways and at a number of organisational levels such as workshops, meetings and casual conversations. Programs work from a variety of locations to maximise community interactions. Pregrams work from a variety of locations to maximise community interactions. Peer workers have a professional network of peer workers (within the organisation) to collect and share stories of success to sustain broader momentum. These are communited within the network and outside the network Peer workers attend internal committees and meetings and are supported to contribute to the broader organisation. Peer workers are supported to undertake a variety of training to support them in their job.

Figure 1: An example of the W3 Framework adapted into AIVL's Peer Workforce Capacity practice guide



Asso. Prof Graham Brown, ARCSHS, http://www.w3project.org.au/

Function

New spaces to explore - People who use drugs and people living with HCV in research & program delivery

Indicator

Functions

└→ <u>Indicators</u> that the function is occurring (quality and impact)

> → <u>tools and practices</u> for monitoring that are practical and sustainable in small peer organisations



Engagement, participation and peer skill (Process)	 Range of participants Peer to peer interaction Peer to content interaction/engagement Peer skill of facilitators 	 Facilitator monitoring tool/form Participant evaluation and feedback form
Alignment and partnership (Process)	 # of venues # of partner organisations #repeat requests from organisations 	 Coordination data Organisation feedback
Adaptation and peer skill	Tracking of topics and questions raised in workshops Tracking of emerging needs identified by partner orgs Tracking of feedback from one month follow up. Relevant workshops refined/adapted Targeting of workshop promotion refined/adapted	 Facilitator monitoring tool/form Participant evaluation and feedback form One month follow up
Influence	Knowledge indicators Community Referral Indicators	 Participant evaluation and feedback form One month follow up
(Impact)	Policy · Feedback incorporated into policy (Leadership) advice of/from HRVic	Workshop biannual reports

Source/data

Asso. Prof Graham Brown, ARCSHS, http://www.w3project.org.au/

New spaces to explore - People who use drugs and people living with HCV in research & program delivery





\$700

Summary

• Importantly, to achieve hepatitis C elimination, DAA therapy needs to be combined with effective primary prevention measures, raised awareness about hepatitis C treatment and cure, and increased testing and linkage to care among people at risk of hepatitis C infection.

"In a rapidly changing landscape, timely and persuasive community insights from will be key. Recognising peer-led organisations as active participants and drivers within community and policy space will be critical. Evaluation that values this will more clearly provide evidence for their unique and critical role in the HCV response."

Angela Corry, Peer based harm reduction WA

Acknowledgements

Slides from key partners:

Dr. Jane Davies on behalf of the NT Viral Hepatitis Steering Group

SA EC Australia Outreach Project, Associate Professor David Shaw, Head of Unit, Infectious Diseases, Royal Adelaide Hospital

Brett Walley, Aboriginal Health Council of Western Australia

Asso. Prof Graham Brown, ARCSHS, http://www.w3project.org.au/

WA Hepatitis C PHRE Project, Angela Corry, Peer based harm reduction WA

Progress Report Prepared by: Anna Wilkinson

Editors: Margaret Hellard, Mark Stoové, Gregory Dore, Jason Grebely, Alisa Pedrana, Joseph Doyle, Alexander Thompson, Campbell Aitken

Data Contributors:

Australian Collaboration for Coordinated Enhanced Sentinel Surveillance (ACCESS): Margaret Hellard, Mark Stoové, Carol El-Hayek, Jason Asselin, Long Nguyen, Victoria Polkinghorne, Michael Traeger
and Jennifer Dittmer, Burnet Institute; Rebecca Guy, Basil Donovan and Tobias Vickers, Kirby Institute.

Australian Needle Syringe Program Survey: Jenny Iversen and Lisa Maher, Kirby Institute.

• Enhancing Treatment of Hepatitis C in Opioid Substitution Settings (ETHOS) Engage study: Heather Valerio, Maryam Alavi, David Silk, Carla Treloar, Andrew Milat, Adrian Dunlop, Jo Holden, Charles Henderson, Phillip Read, Janaki Amin, Louisa Degenhardt, Gregory Dore and Jason Grebely, Kirby Institute.

• Monitoring hepatitis C treatment uptake in Australia: Behzad Hajarizadeh and Gregory Dore, Kirby Institute.

Real world Efficacy of Antiviral therapy in Chronic Hepatitis C in Australia (REACH-C) project: Jasmine Yee, Joanne Carson, Josh Hanson, David Iser, Phillip Read, Annie Balcomb, Pip Marks, Gregory Dore, Gail Matthews, Kirby Institute.

• Stigma Indicators Monitoring Project: Timothy Broady, Elena Cama, Loren Brener, Max Hopwood, John de Wit, Carla Treloar, Centre for Social Research in Health, University of New South Wales (UNSW).

• Gay Community Periodic Survey: Limin Mao, Timothy Broady and Martin Holt, Centre for Social Research in Health, UNSW; Benjamin Bavinton and Garrett Prestage, Kirby Institute.

• Viral Hepatitis Mapping Project: Jennifer MacLachlan, Benjamin Cowie, Doherty Institute for Infection and Immunity, University of Melbourne.

Mathematical modelling: Jisoo Kwon, Gregory Dore, Jason Grebely, Behzad Hajarizadeh, Rebecca Guy, Evan Cunningham, Cherie Power, Chris Estes, Homie Razavi, Richard Gray, On behalf of the HCV
Estimates and Projections Reference Group, Kirby Institute; Nick Scott, Rachel Sacks-Davis, Amanda Wade, Mark Stoové, Alisa Pedrana, Joseph Doyle, Alexander Thompson, David Wilson, Margaret
Hellard, Burnet Institute.

