

The Role of Geographic Mapping of Viral Hepatitis - Monitoring the Care Cascade and Driving Local Responses

- Benjamin Cowie
Director, WHO Collaborating Centre for Viral Hepatitis,
Doherty Institute
benjamin.cowie@mh.org.au
Australasian Viral Hepatitis Conference
Adelaide SA
August 14th 2018



A joint venture between The University of Melbourne and The Royal Melbourne Hospital

Disclosures

I receive no funding or support of any kind from any pharmaceutical or for-profit health care related industry.

Measuring Progress Towards Elimination - No One Left Behind

Slide 3

The Peter Doherty Institute for Infection and Immunity
A joint venture between The University of Melbourne and The Royal Melbourne Hospital

Data for action

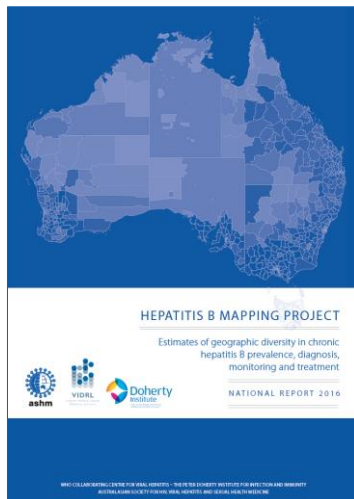
1. How can we measure progress towards viral hepatitis elimination?
2. What targets? What's feasible?

The Peter Doherty Institute for Infection and Immunity
A joint venture between The University of Melbourne and The Royal Melbourne Hospital

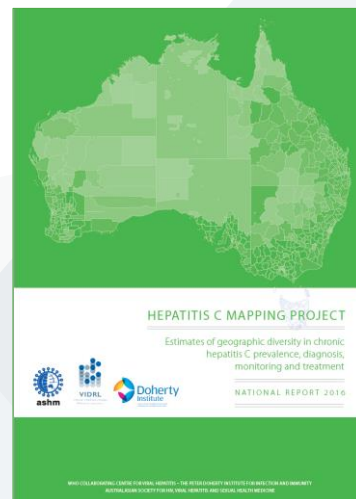
Data for action

1. How can we measure progress towards viral hepatitis elimination?
2. What targets? What's feasible?
3. *How do we use data to enable ACTION to stop people being left behind?*

The Peter Doherty Institute for Infection and Immunity
A joint venture between The University of Melbourne and The Royal Melbourne Hospital



Hepatitis B Mapping Project: 4th National Report, 2018
www.ashm.org.au/HBV/hepatitis-b-mapping-reports/



Hepatitis C Mapping Project: 1st National Report, 2018
www.ashm.org.au/HCV/hepatitis-c-mapping-reports/

National Viral Hepatitis Mapping Project

- Funded by the Australian Government
- Hepatitis B mapping from 2012 in partnership with ASHM
- Expanded to include hepatitis C from 2016
- Provide locally relevant, geographically specific estimates of the burden of disease and of access to treatment and care
- Identifying priority areas, progress, gaps and disparities

The Peter Doherty Institute for Infection and Immunity
A joint venture between The University of Melbourne and The Royal Melbourne Hospital

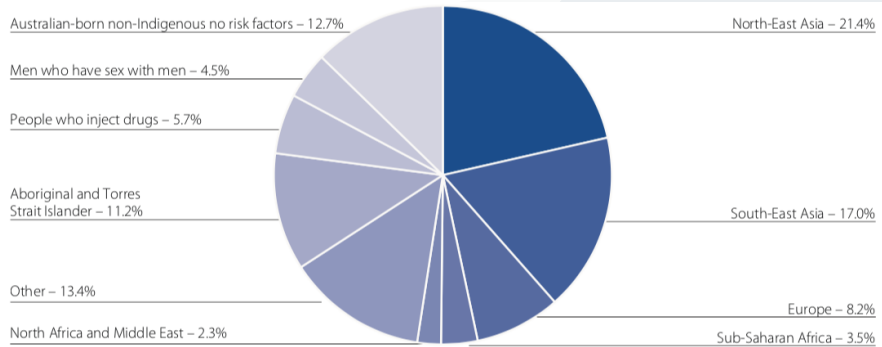
Questions we can answer

- Which local areas in my catchment have the highest burden of hepatitis C?
- Where should we target health workforce development to improve access to care?
- Who are the priority affected communities living with hepatitis B in my region? What languages do they speak?
- What is occurring with uptake of treatment and care over time – and over place?

The Peter Doherty Institute for Infection and Immunity
A joint venture between The University of Melbourne and The Royal Melbourne Hospital

1. Identifying priority populations

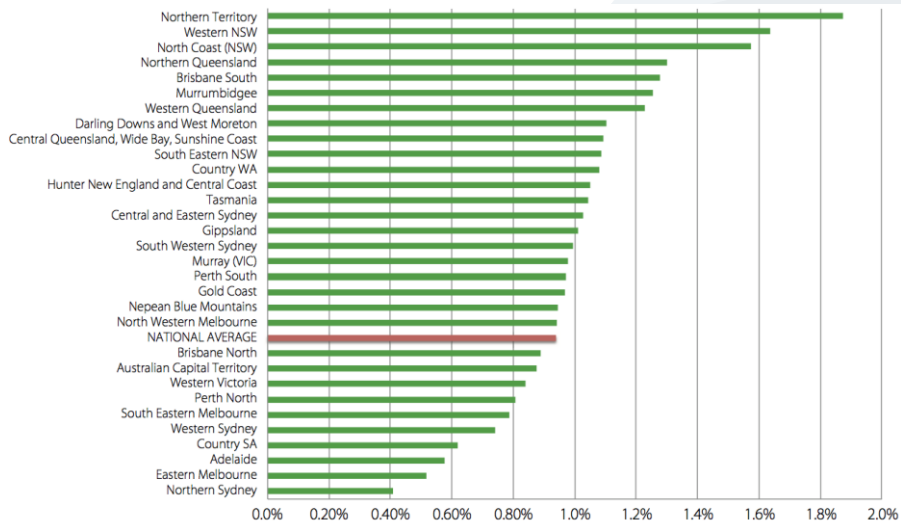
Hepatitis B prevalence according to region of birth, 2016



The Peter Doherty Institute for Infection and Immunity
A joint venture between The University of Melbourne and The Royal Melbourne Hospital

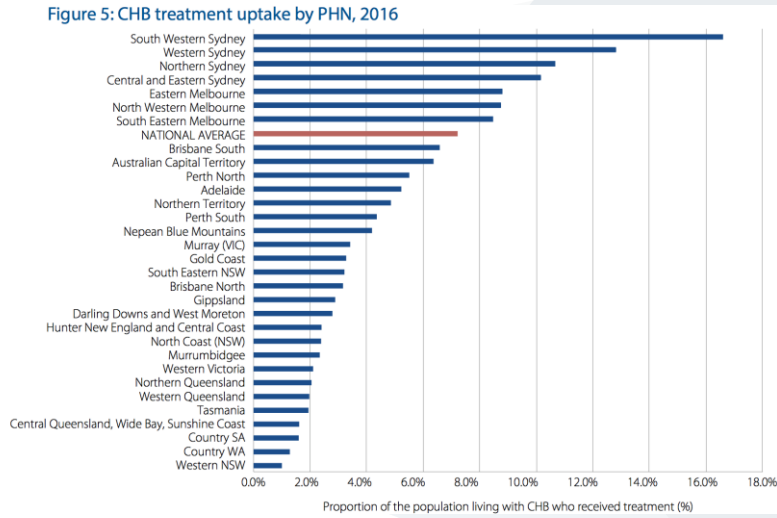
1. Identifying priority populations

Hepatitis C prevalence according to Primary Health Network, 2016



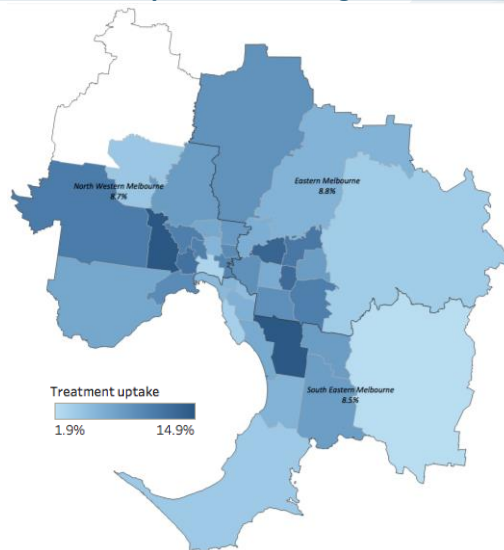
2. Assessing disparities in progress

Hepatitis B treatment uptake according to Primary Health Network, 2016



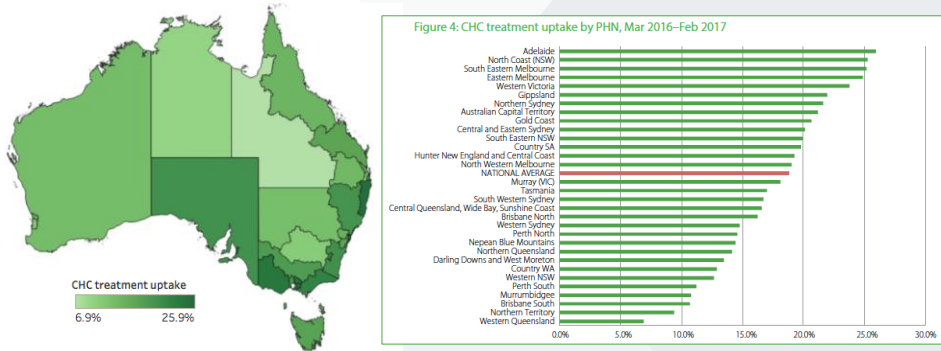
2. Assessing disparities in progress

Hepatitis B treatment uptake according to SA3, Melbourne, 2016



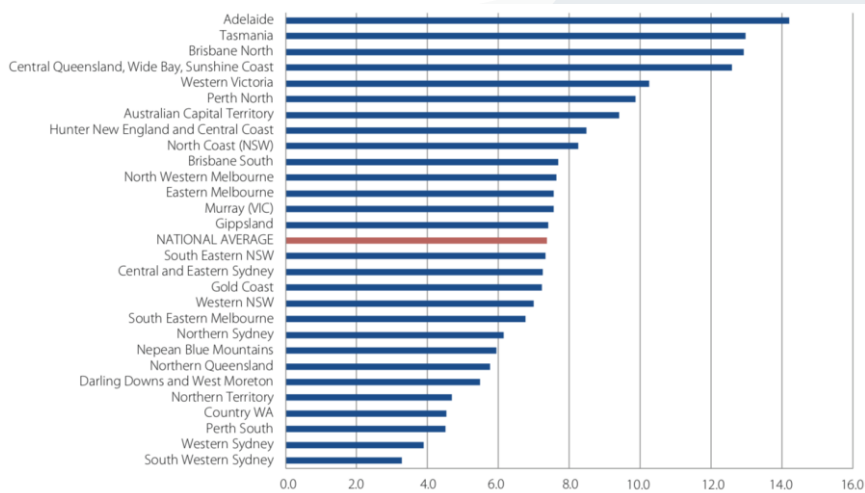
2. Assessing disparities in progress

Hepatitis C treatment uptake according to Primary Health Network, 2016



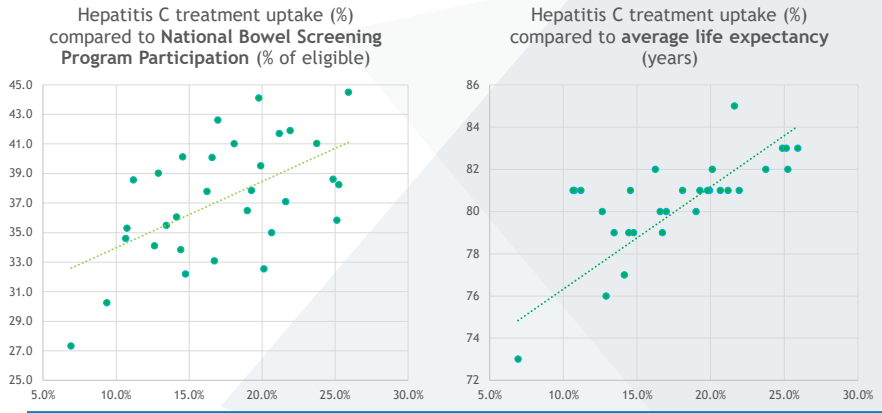
3. Identifying drivers of access

Specialists per 1,000 people living with hepatitis B according to Primary Health Network, 2016



3. Identifying drivers of access

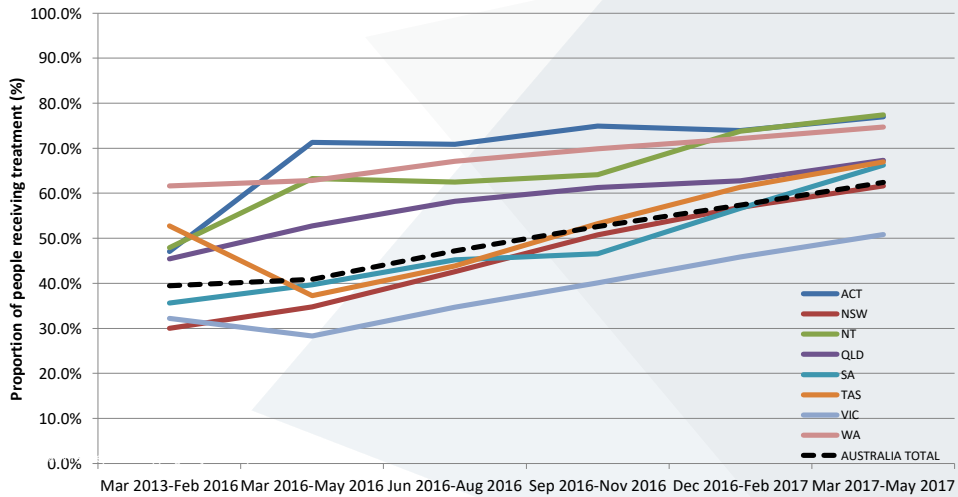
Association between hepatitis C treatment uptake and other health indicators



The Peter Doherty Institute for Infection and Immunity
A joint venture between The University of Melbourne and The Royal Melbourne Hospital

3. Identifying drivers of access

Prescribing of hepatitis C treatment by providers other than specialists



3. Supporting the design and delivery of programs

- Health workforce education - ASHM
- Australian Government / Hepatitis Australia Hepatitis B Community Education grants
- Victorian Integrated Hepatitis C Nurses
- NT viral hepatitis service
- Priority languages for resources
- Estimates used in many presentations at this conference already!

The Peter Doherty Institute for Infection and Immunity
A joint venture between The University of Melbourne and The Royal Melbourne Hospital

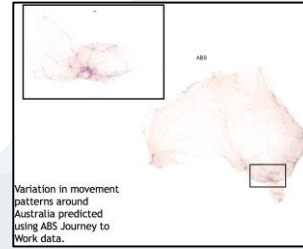
4. Identifying success stories and model programs

- South Australia viral hepatitis nurses
 - Adelaide HCV treatment uptake
- South Western Sydney B Positive Program
 - Only PHN to achieve National Hepatitis B Strategy Treatment target
- NT hepatitis B response – access to care / monitoring among highest in the country by PHN
- Increased focus on chronic hepatitis B in Far North Queensland

The Peter Doherty Institute for Infection and Immunity
A joint venture between The University of Melbourne and The Royal Melbourne Hospital

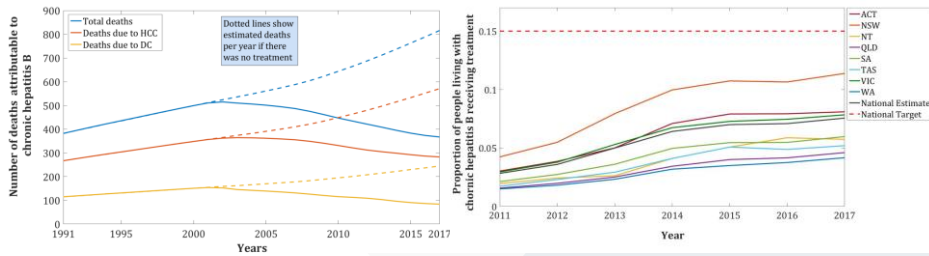
Ongoing work

- CRC-SI work – geospatial analysis, predictors, associations with access to health care
- Health record linkage studies providing individual level of care, maintenance in care, outcomes
- Surveillance for Hepatitis B Indicators mathematical modelling modelling – what will be the future impact of treatment scale up now in your local area?



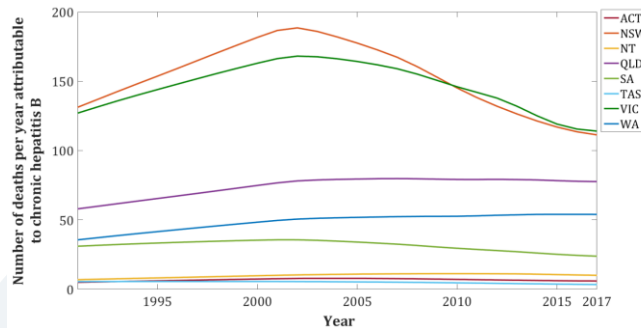
Slide 19

The Peter Doherty Institute for Infection and Immunity
A joint venture between The University of Melbourne and The Royal Melbourne Hospital



Surveillance for Hepatitis B Indicators – modelling

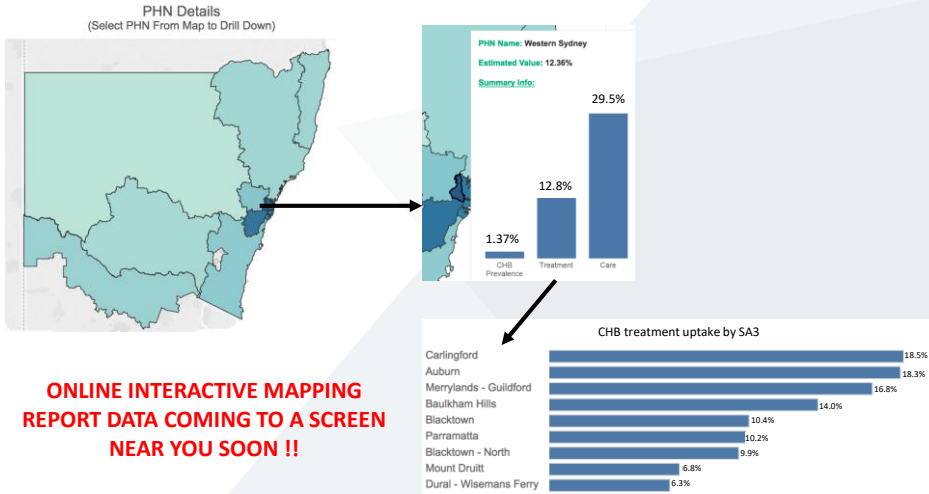
Tuesday 14 August
4.00pm – 5.30pm
City Room 2



Slide 20

The Peter Doherty Institute for Infection and Immunity
A joint venture between The University of Melbourne and The Royal Melbourne Hospital

Making data WORK for elimination



Slide 21

The Peter Doherty Institute for Infection and Immunity
A joint venture between The University of Melbourne and The Royal Melbourne Hospital

Elimination of viral hepatitis is the goal



The Peter Doherty Institute for Infection and Immunity
A joint venture between The University of Melbourne and The Royal Melbourne Hospital

Acknowledgements

WHO Collaborating Centre for Viral Hepatitis
VIDRL, Doherty Institute – Epidemiology Unit

Nicole Allard, Chelsea Brown, Benjamin Cowie,
Jennifer MacLachlan, Karen McCulloch,
Ashleigh Qama, Nicole Romero, Laura Thomas



Research & Programmatic Funding

Department of Health and Ageing, Australian Government
Department of Health and Human Services, Victoria
Melbourne Health Office for Research & RMH Foundation
Cooperative Research Centre for Spatial Information
Peter Doherty Institute for Infection and Immunity



www.doherty.edu.au/whoccvh



Download the Mapping Reports:

Hepatitis B

ashm.org.au/products/product/HepB-Mapping-Report-2016

Hepatitis C

ashm.org.au/products/product/HepC-Mapping-Report-2016

Visit us:

doherty.edu.au/whoccvh

For more information, contact:

jennifer.maclachlan@mh.org.au

The Peter Doherty Institute for Infection and Immunity
A joint venture between The University of Melbourne and The Royal Melbourne Hospital