Chronic hepatitis B in Australia: Domestic progress report

Jennifer MacLachlan
Epidemiology, The Doherty Institute
jennifer.maclachlan@mh.org.au

World Hepatitis Day Symposium
From Vaccine to Cure: The Road to Viral Hepatitis Elimination
July 28th, 2017
Outline

• The current burden of chronic hepatitis B in Australia
• The cascade of care and progress towards targets
• Diversity and disparities
• Implications for cure implementation
Chronic hepatitis B in Australia: overview and burden

• In 2015, an estimated 239,000 Australians were living with CHB
• Two-thirds either born overseas or Aboriginal and Torres Strait Islander people
• Liver cancer now the 6th most common cause of cancer death in Australia
• Large disparities exist in burden according to area
Strategy and targets

By 2017:
- Proportion diagnosed 80%
- Treatment uptake 15%
- Immunisation coverage 95%
- Increase priority population coverage

- Increase access to management and care
- Reduce burden of disease
Progress so far: immunisation

Overall coverage: 93.4%

- NSW
- VIC
- QLD
- SA
- WA
- TAS
- NT
- ACT
- AUS

Proportion of one year olds fully immunised (%)

Progress so far: immunisation

• Approaching 95% target
• Disparity persists in Aboriginal and Torres Strait Islander children: coverage 91.2%
• Birth dose not systematically measured
• Relative impact of local immunisation limited
The cascade of care

Figure 1: The cascade of care for chronic hepatitis B in Australia, 2015.

239,167 living with chronic hepatitis B infection

Diagnosed (62%)

Undiagnosed (38%)

Engaged in care 36,534 (15.3%)
Receiving monitoring or treatment

Not in care 203,009 (84.7%)

14,636 (6.1%)
Receiving treatment

Of 35,875 estimated to need treatment
(15% of total), 21,239 currently not receiving it

MacLachlan 2017 ANZJPH
Progress so far: diagnosis, treatment and care

- **Diagnosed**:
  - 2013: 61%
  - 2014: 62%
  - 2015: 62%
  - 2016: 63%

- **In care**:
  - 2013: 15.4%
  - 2014: 15.7%
  - 2015: 16.8%

- **Treatment**:
  - 2013: 4.6%
  - 2014: 5.9%
  - 2015: 6.3%
  - 2016: 6.8%

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

National Viral Hepatitis Mapping Project
Comparisons

Estimated annual number of individuals with chronic HCV infection initiating HCV treatment from 1997 to 2016 in Australia.

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

The Kirby Institute, July 2017.
Comparisons

Estimated annual number of individuals with chronic HCV infection initiating HCV treatment from 1997 to 2016 in Australia.

- IFN-free
- IFN-based

- IFN+RBV combination available
- PegIFN+RBV combination available
- Liver biopsy requirement removed
- First generation DAA available (in combination with PegIFN+RBV)

The Kirby Institute, July 2017.
Progress so far: diagnosis, treatment and care

• Minimal movement towards targets
• At current rates of increase:
  - Treatment by 2022
  - Care by 2037
  - Diagnosis by 2043
• These data vary greatly by region, and local program impacts can be seen
Geographic diversity and disparity

• Driven by determinant of CHB prevalence – population group distribution
• Allows for targeting of interventions to areas of highest need
• Identification of areas of improvement and effective intervention
Geographic diversity and disparity
Treatment and care uptake by PHN

<table>
<thead>
<tr>
<th>State/Territory</th>
<th>Primary Health Network</th>
<th>Prevalence</th>
<th>Diagnosis</th>
<th>Treatment</th>
<th>Care</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Proportion of the population living with CHB</td>
<td>CHB notification rate per 100,000</td>
<td>Proportion of people receiving CHB treatment</td>
<td>Proportion of people receiving CHB treatment or monitoring</td>
</tr>
<tr>
<td>NT</td>
<td>Northern Territory</td>
<td>1.77%</td>
<td>61.6</td>
<td>3.1%</td>
<td>17.0%</td>
</tr>
<tr>
<td>NSW</td>
<td>South Western Sydney</td>
<td>1.61%</td>
<td>41.1</td>
<td>13.7%</td>
<td>31.2%</td>
</tr>
<tr>
<td>NSW</td>
<td>Western Sydney</td>
<td>1.55%</td>
<td>64.8</td>
<td>10.0%</td>
<td>23.3%</td>
</tr>
<tr>
<td>NSW</td>
<td>Central and Eastern Sydney</td>
<td>1.44%</td>
<td>52.3</td>
<td>8.8%</td>
<td>22.8%</td>
</tr>
<tr>
<td>VIC</td>
<td>North Western Melbourne</td>
<td>1.35%</td>
<td>48.1</td>
<td>6.8%</td>
<td>21.4%</td>
</tr>
<tr>
<td>QLD</td>
<td>Western Queensland</td>
<td>1.19%</td>
<td>26.9</td>
<td>0.8%</td>
<td>1.8%</td>
</tr>
<tr>
<td>VIC</td>
<td>Eastern Melbourne</td>
<td>1.14%</td>
<td>32.7</td>
<td>7.6%</td>
<td>23.0%</td>
</tr>
</tbody>
</table>

- Proportion in care increasing faster
  - Adelaide, Grampians, N Qld, Murrumbidgee PHNs
- Primary care access a focus: NT, TAS, ACT
Developments in policy and action

• National and State strategies
• Commonwealth community grants
• Support for epidemiology and surveillance
• GP prescribing
• Expansion of immunisation eligibility

➢ Implementation, scale up, evaluation
Progress in the context of a cure

• CHB care inadequate despite high development and overall access
• Significant scale up is needed to reach those affected and improve outcomes
• Cure initiatives could target affected areas
• Community engagement, awareness and empowerment are key
Conclusions

• CHB continues to cause significant burden and adverse outcomes
• Progress has been gradual in improving population level measures
• Evidence offers opportunity for focused and evidence-based interventions
Acknowledgements

• The Viral Hepatitis Mapping Project & Surveillance of Hepatitis B Indicators Project funded by the Australian Government Department of Health

• National Hepatitis B Mapping Project 2012-2016 was a joint project with the Australasian Society for HIV, Viral Hepatitis, and Sexual Medicine
  — Vanessa Towell, Katelin Haynes

• Our work also supported by The Royal Melbourne Hospital Research Program and the Department of Health and Human Services

• Epidemiology Unit, The Doherty Institute
  — Nicole Allard, Benjamin Cowie

• Australian Government Departments of Health and of Human Services; Australian Bureau of Statistics; National Health Performance Authority
Thank you

-doherty.edu.au