The cascade of care for chronic hepatitis B in Australia, 2013-2014

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Disclosure of Interest

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Why a cascade of care?

• Provide insight into gaps in health service provision and access
• Identify priorities for intervention
• Measure progress to National Strategy Targets
• Focus on entire population affected by chronic hepatitis B
• ‘The series of steps a person takes from initial diagnosis through successful treatment’

1. www.aids.gov
The National Strategy targets

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

• Other objectives:
  – Increase access to appropriate management and care
  – Reduce burden of disease
Measurement

• No large-scale cohorts of Australians living with CHB
• Limited specific serosurveys
• Very few surveys of diagnosis, awareness of status or uptake of care

→ Routinely collected and administrative data
Data sources

PREVALENCE

• Based on known epidemiology of CHB – focused in priority populations
• Local\(^1,2\) and international\(^3\) seroprevalence data
• Population estimates:
  – ABS Census 2011 and subsequent projections by country of birth, Indigenous status
  – Surveys of drug use\(^4\) and sexual behaviour\(^5\)

## Prevalence

<table>
<thead>
<tr>
<th>Population group</th>
<th>Population size, 2011</th>
<th>Estimated CHB seroprevalence</th>
<th>Estimated population with CHB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aboriginal and Torres Strait Islander people</td>
<td>548,366</td>
<td>3.9%</td>
<td>21,386</td>
</tr>
<tr>
<td>People born overseas:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>318,969</td>
<td>8.1%</td>
<td>25,836</td>
</tr>
<tr>
<td>People who inject drugs</td>
<td>314,013</td>
<td>4%</td>
<td>12,561</td>
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<td>...</td>
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<tr>
<td>Australian total</td>
<td>21,507,719</td>
<td>1.02%</td>
<td>218,567</td>
</tr>
</tbody>
</table>
Diagnosis

• Mathematical model: estimation of the number of people who have ever lived with CHB in Australia since 1950
  – Migration, overseas seroprevalence, vaccination, births, deaths

• Number of notifications of CHB infection in Australia since 1970
Treatment and care

- Department of Human Services records of testing and treatment provided through Medicare
  - Prescribed a treatment indicated for CHB (excludes HIV; individual patients)
  - Received a viral load test while not on treatment (item 69492)
Clinical monitoring for CHB
The cascade of care for CHB, 2015

239,167 people living with CHB (1.0% prevalence)

148,284 diagnosed (62%)

21,898 monitored

14,636 on treatment

36,534 (15.3%) in care

14,636 on treatment (6.1% uptake)
Progress, 2013-2015

- **Treatment uptake (%):**
  - 2013: 5.0%
  - 2014: 5.8%
  - 2015: 6.1%

- **Proportion in care:**
  - 2013: 13.5%
  - 2014: 15.0%
  - 2015: 15.3%

- **Proportion diagnosed:**
  - 2013: 61%
  - 2014: 62%
  - 2015: 62%

Proportion diagnosed reached 80% in 2015.
Disparities in the cascade, 2014

Figure 6: Treatment uptake by Primary Health Network, 2014 - proportion of people living with CHB who received treatment

Data source: Department of Human Services Medicare statistics.
Limitations

• Cascade as a indicator of underlying barriers
  – Geographic and population-specific analyses
• Source data
  – Routinely collected, administrative
  – Medicare exclusions, missed notifications
  – Applicability of prevalence estimates
  – External validation, other studies
Summary

• The largest gap in the cascade of care is between diagnosis and engagement in ongoing care
• Treatment uptake is increasing more rapidly than other indicators
• Large gap between current levels and National Strategy targets
Further work

• Improving data sources and estimates
• Linkage of data to identify individual trajectories of care, validate assumptions
• Continuing to measure progress, impact of initiatives and policy changes
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