Chronic hepatitis B in Australia

- Estimated 240,000 living with CHB\(^1\)
- Majority acquired infection at birth or in early childhood in an endemic region

1. National Hepatitis B Mapping Project 2016
2. Polaris Observatory Collaborators 2018
Reflection in liver cancer data

Age-standardized rate of HCC according to country of birth and sex, Victoria, 2004-2013

Australia
Fiji
Philippines
Vietnam
Burma
Cambodia
Sudan
Egypt
China
Hong Kong
Indonesia
Malaysia
Italy
Greece

Age-standardized rates of HCC according to country of birth and sex, Victoria, 2004-2013

**Females**

**Males**

Carville 2018

Impacts for health

- Health literacy and navigating the system
- Impacts of racism and discrimination
- Access to resources and information
Estimating hepatitis B prevalence

- The last national serosurvey which assessed hepatitis B prevalence was in 2002
- Notifications only identify diagnosed cases
- Modelling methods incorporate existing data and the known epidemiology of chronic hepatitis B

Data sources

- Censuses of Population and Housing 2011 and 2016
  - Number of residents according to area of residence and country of birth and Aboriginal and Torres Strait Islander status
- Population-specific HBV seroprevalence data
  - Antenatal women\textsuperscript{1,2}, adjusted upwards\textsuperscript{3}
  - Aboriginal and Torres Strait Islander people\textsuperscript{4}
  - People who inject drugs and men who have sex with men\textsuperscript{5}
- Estimates of priority population size
  - National Drug Strategy Household Survey; Australian Study of Health and Relationships

Estimating hepatitis B prevalence

China: 7.6% prevalence
530,000 residents
→ 40,000 Chinese-born Australians living with CHB

Italy: 2.5% prevalence
180,800 residents
→ 4,400 Italian-born Australians living with CHB

Somalia: 14.7% prevalence
8,000 residents
→ 1,200 Sudanese-born Australians living with CHB

• Aboriginal and Torres Strait Islander people
• People who inject drugs
• Men who have sex with men

• Validated using other datasets:
  – Prevalence in blood donations
  – Notified cases by country of birth
  – National serosurvey data

• Allows identification of prevalence at geographically specific regions and for each community in Australia
Overall changes in Australia’s population living with CHB, 2011 to 2016

- Increased from 197,000 in 2011 to 238,000 in 2016
  - 20% increase
  - Compared to overall population increase of 8%

Proportional increase in Australia’s population (%)

- Australian-born non-Indigenous
- Overall population
- Overseas-born
- Aboriginal and Torres Strait Islander

Changes for most common countries of birth, 2011 to 2016

Country of birth: China, Vietnam, Philippines, Taiwan, Italy, Thailand, Cambodia, Hong Kong, South Korea, Malaysia, India, Myanmar, Pakistan, Somalia

Number of people living with CHB

- 2011
- 2016
Drivers of changes

• Increased numbers of skilled migrants and international students from some regions
  – Particularly China and Taiwan
• Shifts in predominant refugee populations
  – Increases from Middle East, decreases from Asia-Pacific
• Ageing in historically predominant populations, especially Mediterranean
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Implications for practice and policy

• Identifying priority populations
• Health needs based on migration stream:
  – Newly arrived refugees and asylum seekers
  – International students
  – Clinical impacts of age distribution
Future work

• More detailed age-specific estimates to account for impact of vaccination
• Improvement of cultural and linguistic diversity data in diagnosis, treatment data
• Application of language data to inform linguistic diversity

Summary

• Overall number of people living with CHB in Australia has continued to increase
• Distribution according to priority population has shifted
  – Increased representation from younger migrants from Asia-Pacific
• Implications for diagnosis and engagement in care
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