First Peoples of Australia and Viral Hepatitis: Our Story

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Acknowledgements

• Mrs. Kumalie Riley
• WIPC VH Conference Committee

First Peoples of Australia

• In 1992 the Australian High Court handed down its decision in the Mabo Case, declaring the previous legal concept of terra nullius to be invalid.

• At the time of settlement estimated between 375,000- 1.25 million people

Aboriginal and Torres Strait Islander people

• In 2011 an estimated 669,000 representing 3% of the total Australian population

• Two main population groups Aboriginal and Torres Strait Islander people

Population pyramid

WHO Health Determinants for Health

- Education
- Income and social status
- Gender and culture
- Social Support networks
- Health care access
- Employment and conditions
- Healthy childhood development
Indigenous specific Health & Hepatitis C determinants

- Intergenerational trauma
- Cultural Continuity
- Poverty
- Colonisation
- Globalisation
- Territory and Land status

Important to note that health status and hepatitis not related to race...

Socio-economic indicators

- About twice as many Aboriginal and Torres Strait Islander households rented their homes as other households (59% compared with 29%).
- Over half (56%) of Aboriginal and Torres Strait Islander people reported an equivalised weekly household income between $200 and $799.
- In comparison, 51% of non-Indigenous people reported an equivalised weekly household income of between $400 and $1,249.
- In the 2011 Census, one-quarter (25%) of Aboriginal and Torres Strait Islander people aged 15 years and over reported Year 12 or equivalent as the highest year of school completed, compared with about half (52%) of non-Indigenous people.

What is driving the life expectancy (and morbidity) gap – explained by risk.

National Strategies

Hepatitis B

- The virus was not discovered until 1966 when Baruch Blumberg discovered the Australia antigen (later known to be hepatitis B surface antigen, or HBsAg) in the blood of Australian Aboriginal people.


Completeness of data related to Indigenous status and viral hepatitis

- Newly acquired hepatitis B
- Newly acquired hepatitis C
- Newly diagnosed hepatitis B
- Newly diagnosed hepatitis C

Hepatitis B and Australia

- Aboriginal & Torres Strait Islander people account for 16% of chronic HBV infections*

Prevalence of population vs HBV

- Before 2000, the pooled HBsAg prevalence estimate was 6.47% (95% CI: 4.56-8.39); 16.72% (95% CI: 7.38-26.06) among Indigenous and 0.36% (95% CI: 0.14-0.58) in non-Indigenous adults/pregnant women.

- Since 2000, the pooled HBsAg prevalence was 2.25% (95% CI: 1.26-3.23); 3.96% (95% CI: 3.15-4.77) among Indigenous and 0.90% (95% CI: 0.53-1.28) in non-Indigenous adults/pregnant women.

Prevalence of Hepatitis B among Indigenous and non Indigenous peoples after year 2000

<table>
<thead>
<tr>
<th>Author</th>
<th>% Indigenous</th>
<th>% Non-Indigenous</th>
<th>Weight</th>
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<tr>
<td>Indigenous</td>
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<tr>
<td>Microwave. 2006</td>
<td>6.60 (5.78, 7.46)</td>
<td>2.76</td>
<td></td>
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<tr>
<td>Romanes. 2005</td>
<td>4.09 (3.07, 5.10)</td>
<td>3.78</td>
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<tr>
<td>Shultz, 2007</td>
<td>3.61 (2.78, 4.47)</td>
<td>3.66</td>
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<tr>
<td>Shultz, 2008</td>
<td>5.70 (4.98, 6.50)</td>
<td>7.02</td>
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<tr>
<td>Subtotal (unpooled)</td>
<td>3.96 (3.29, 4.77)</td>
<td>17.77</td>
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<tr>
<td>Non-Indigenous</td>
<td></td>
<td></td>
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<tr>
<td>Microwave. 2006</td>
<td>0.78 (0.21, 1.87)</td>
<td>18.12</td>
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<tr>
<td>Romanes. 2005</td>
<td>1.18 (0.96, 1.40)</td>
<td>14.14</td>
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<tr>
<td>Shultz, 2007</td>
<td>0.61 (0.07, 1.16)</td>
<td>12.84</td>
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<tr>
<td>Shultz, 2008</td>
<td>0.00 (0.00, 0.11)</td>
<td>14.11</td>
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<tr>
<td>Subtotal (unpooled)</td>
<td>0.60 (0.00, 1.60)</td>
<td>82.23</td>
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<tr>
<td>Heterogeneity between groups: p = 0.006</td>
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<td></td>
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<tr>
<td>Overall (unpooled)</td>
<td>1.46 (0.18, 1.79)</td>
<td>166.00</td>
<td></td>
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</table>


HBV Prevalence

- Blood samples were collected from 65 Indigenous Australians with chronic HBV infection from across the Top End of the NT.

- Phylogenetic analysis of HBV from these samples revealed that 100% of the isolates were genotype C, sub-genotype C4, expressing the serotype ayw3.

Different strains of HBV

- This strain is a divergent group within the HBV/C genotype, and has only been described in Indigenous Australians.
**HBV and the workforce**

- A project interviewing 61 health service providers were conducted in 2011 in the Torres Strait and north Queensland region to explore issues affecting chronic hepatitis B management.

- Two critical issues were identified: (i) the absence of a systems-based approach to clinically managing the infection; and (ii) variable knowledge among the health workforce.

- Other issues identified were competing and more urgent health priorities, the silent nature of chronic hepatitis B infection at an individual and systems level, inadequate resources and the transient health workforce and an ad hoc approach to its clinical management.


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**Hepatitis C**

- Estimated between 16,000-22,000 Aboriginal and Torres Strait Islander people living with HCV.

- Representing 8% of total people living with hepatitis C in Australia.

- Disproportionate rates among women.

- Disproportionate rates among younger age groups.

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**Hepatitis C antibody positivity**

- At 30 June 2013, there were 8,430 prisoners who identified as Aboriginal and Torres Strait Islander.

- This represented just over one quarter (27%) of the total prisoner population (30,775) and remained consistent with 2012.

- The Northern Territory had the highest proportion of Aboriginal and Torres Strait Islander prisoners (86%).
Hepatitis C - other risk factors

Injecting drug use

- 10% of all ANSPS are Aboriginal/TSI
- 3% of a national cross sectional survey of young people aged 16-29 reported injecting drugs in the last year.
- 10% of OST clients Aboriginal or TSI

Access to Treatment for HBV and HCV

- Aboriginal and TSI people want to access viral hepatitis treatment
- Rates of uptake completion and SVR unknown quantity
- Thought to be extremely low
- Very few programs targeted towards Aboriginal and Torres Strait Islander people

Stigma, shame and discrimination

- Greater than 60% of the 203 Aboriginal and Torres Strait Islander people interviewed in a study conducted by Brener, Treloar et., al. felt that they are judged because of their status, its their fault they have HCV, were careful who they told.
- Over and above other people stigma and discrimination that one receives for being Aboriginal or Torres Strait Islander.

Attachment to community

- A strong sense of community attachment has positive effects after a HCV diagnosis.
- Those who perceived themselves as being more attached to their Aboriginal community reported
  - less perceived HCV stigma and
  - less perceived HCV related discrimination and exclusion from health care workers.
  - they showed greater resilience, and reported greater quality of life.
  - was also associated with increased lifestyle changes after their HCV diagnosis.
- On the other hand, HCV knowledge, HCV treatment intentions, age, education and gender were not associated with attachment to an Aboriginal community.

- Loren Brener, Hannah Wilson, L Clair Jackson, Priscilla Johnson, Veronica Saunders, Carla Treloar. The role of Aboriginal community attachment in promoting healthy lifestyle changes after diagnosis with HCV.

Cancer gap is widening

- Diseases of the liver contribute to almost 4% of deaths in the Indigenous population
- Age standardised mortality rates for cancer increased by 17% in the period 2001-2012 while the rates decreased by 7.5% in the non Indigenous population.
- Hepatitis B and C will no doubt contribute to this in the future

Co-infections- HIV and HCV

- HCV and HIV will become a problem in Australia for First Peoples if adequate attention is not given to these issues.
- Already HIV is starting to increase among people who inject drugs.
Summary

• Burden of disease profile is like many other health conditions.
• HBV improvements in community prevalence
• HCV diagnosis rates relentless
• Greater vaccination programs and treatment models are required
• Issues require addressing outside a western medical framework
• Stigma discrimination need to be addressed alongside continued efforts to reduce poverty and other SES indicators.