

World Indigenous Peoples  
Conference on Viral Hepatitis  
14-16 September 2014  
Alice Springs Convention Centre

## First Peoples of Australia and Viral Hepatitis: Our Story





A/Prof James Ward  
Baker IDI  
Alice Springs

## Acknowledgements

- Mrs. Kumalie Riley
- WIPC VH Conference Committee

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## First Peoples of Australia

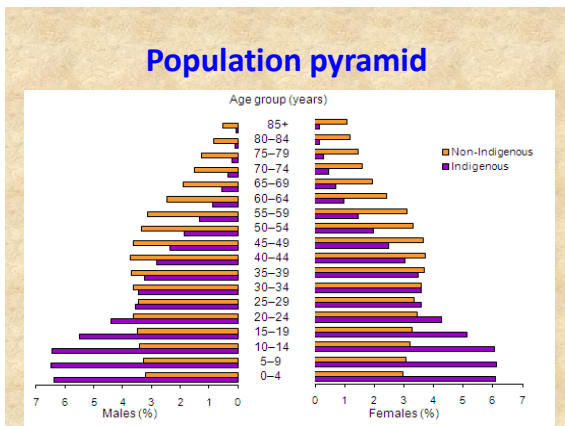
- In 1992 the Australian High Court handed down its decision in the *Mabo Case*, declaring the previous legal concept of *terra nullius* to be invalid.
- At the time of settlement estimated between 375,000- 1.25 million people

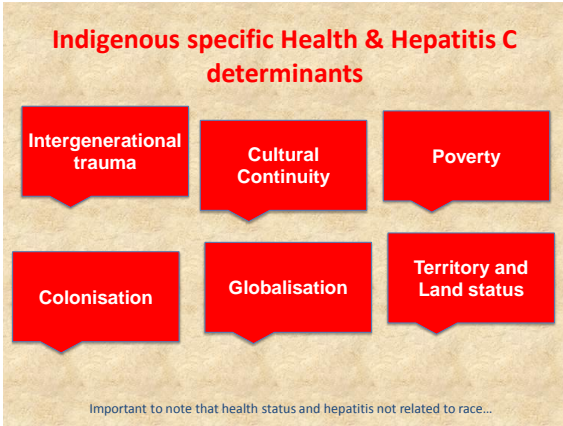
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## Aboriginal and Torres Strait Islander people

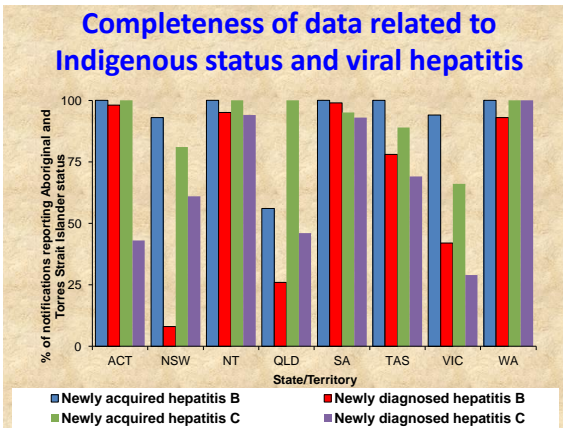
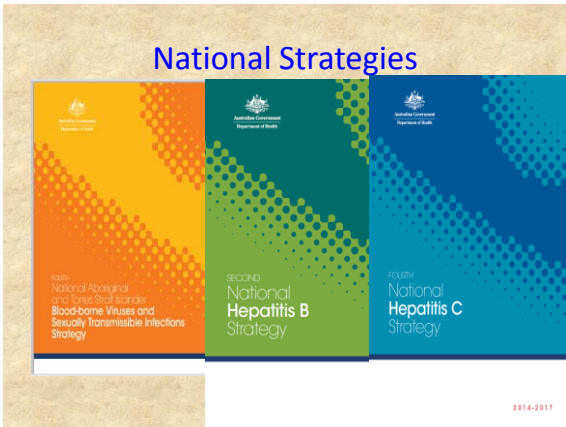
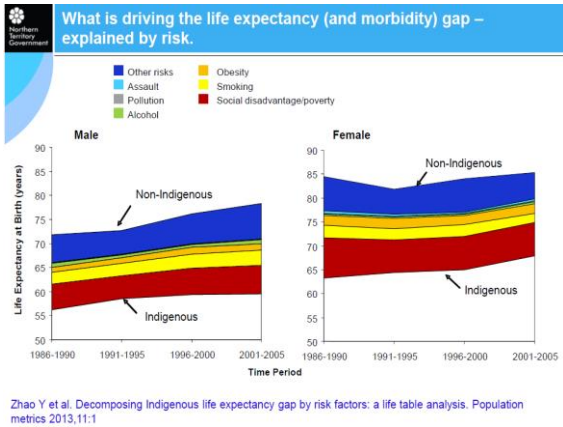
- In 2011 an estimated 669,000 representing 3% of the total Australian population
- Two main population groups Aboriginal and Torres Strait Islander people

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- ### 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.



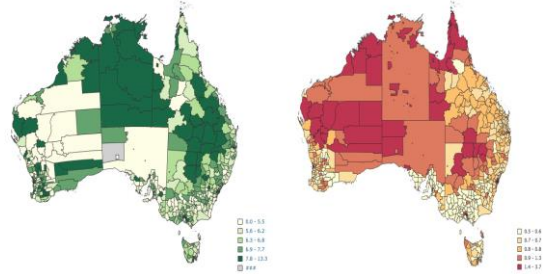
- ### Hepatitis B
- The virus was not discovered until 1966 when Baruch Blumberg discovered the Australia antigen (later known to be hepatitis B surface antigen, or HBsAg) in the blood of Australian Aboriginal people.
  - Ref: Alter HJ, Blumberg BS (March 1966). "Further studies on a "new" human isoprecipitin system (Australia antigen)". *Blood* 27 (3): 297–309.

## Hepatitis B and Australia

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

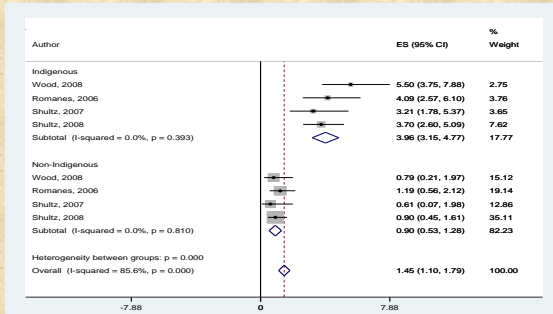
\*O'Sullivan BG, Gidding HF, Law M, Kaldor JM, Gilbert GL, Dore GJ. Estimates of chronic hepatitis B virus infection in Australia, 2000. *Aust NZ J Public Health* 2004;28:212-6.

## Prevalence of population vs HBV



Ref: Hepatitis B Mapping Project, VIDRL / ASHM, 2014.

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

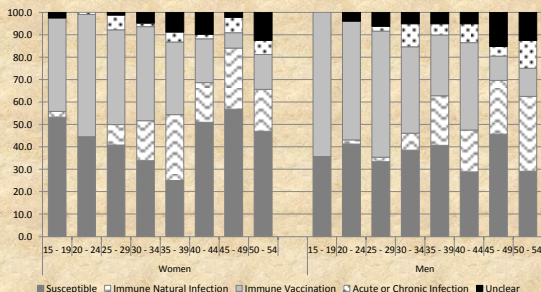


Ref: Simon Graham<sup>1</sup>, Rebecca J Guy<sup>1</sup>, Benjamin Cowie<sup>2,3</sup>, Handan C Wandi<sup>1</sup>, Basil Donovan<sup>4,5</sup>, Snehal P Akre<sup>1</sup> and James S Ward<sup>1</sup>: Chronic hepatitis B prevalence among Aboriginal and Torres Strait Islander Australians since universal vaccination: a systematic review and meta-analysis. *BMC Infectious Diseases*

## HBV Prevalence

- 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:-0.14-0.86) 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.
- Ref: Simon Graham<sup>1</sup>, Rebecca J Guy<sup>1</sup>, Benjamin Cowie<sup>2,3</sup>, Handan C Wandi<sup>1</sup>, Basil Donovan<sup>4,5</sup>, Snehal P Akre<sup>1</sup> and James S Ward<sup>1</sup>: Chronic hepatitis B prevalence among Aboriginal and Torres Strait Islander Australians since universal vaccination: a systematic review and meta-analysis. *BMC Infectious Diseases*

## Challenges of HBV



REF: Harrod ME, Couzos SC, Delaney-Thiele D, Dore G, Hammond B, Saunders M, Bellfrage M, Williams S, JM Kaldor, Ward J. Markers of hepatitis B infection and immunity in patients attending Aboriginal community controlled health services MJA

## Different strains of HBV

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

REF: Littlejohn M<sup>1</sup>, Davies J, Yuen L, Edwards B, Sozzi T, Jackson K, Cowie B, et al. Molecular virology of hepatitis B virus, sub-genotype C4 in northern Australian Indigenous populations. *J Med Virol*. 2014 Apr;86(4):695-704

## HBV and the workforce

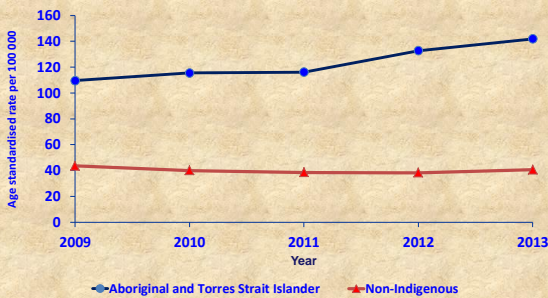
- A project interviewing 61 health service providers were conducted in 2011 in the Torres Strait and north Queensland region to explore issues affecting chronic hepatitis B management.
- Two critical issues were identified (i) *the absence of a systems-based approach to clinically managing the infection; and (ii) variable knowledge about the infection by 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.*

REF: Jack Wallace, Marion Pitts, James Ward and Stephen McNally. Management of chronic hepatitis B in the Torres Strait Islands: an identified need for a comprehensive public health approach to chronic hepatitis B in remote Australian Indigenous communities. Australian Journal of Primary Care

## 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.

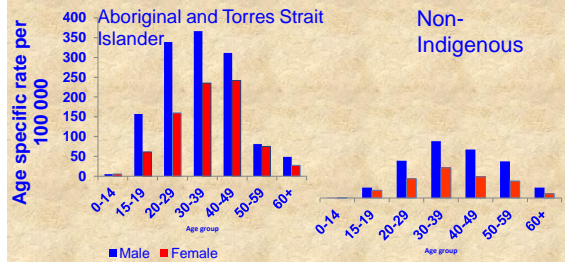
### Notification rates of newly diagnosed hepatitis C infection by Aboriginal and Torres Strait Islander status<sup>1</sup> and year



<sup>1</sup> Jurisdictions (NT, SA, TAS & WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses

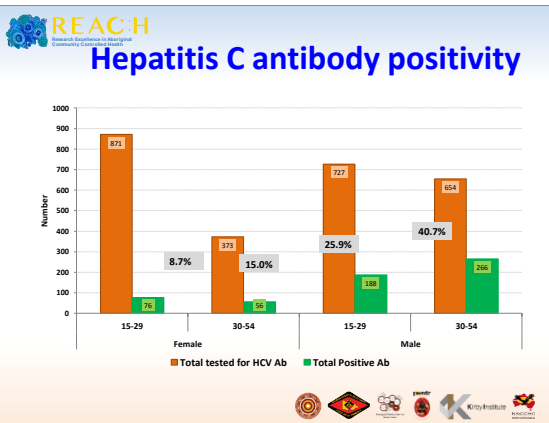
Source: State/Territory health authorities

### Notification rates of newly diagnosed HCV infection in 2013, by Aboriginal and TSI status<sup>1</sup>, sex & age group



<sup>1</sup> Jurisdictions (NT, SA, TAS & WA) in which Aboriginal and Torres Strait Islander status was reported for more than 50% of diagnoses

Source: State/Territory Health Authorities



## Hepatitis C- other risk factors

- 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 toward 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 Brenner, 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.

Ref: Loren Brenner, 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

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## 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.

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## 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.