

Big Mob Big Job: Hep B sero-coding the Top End



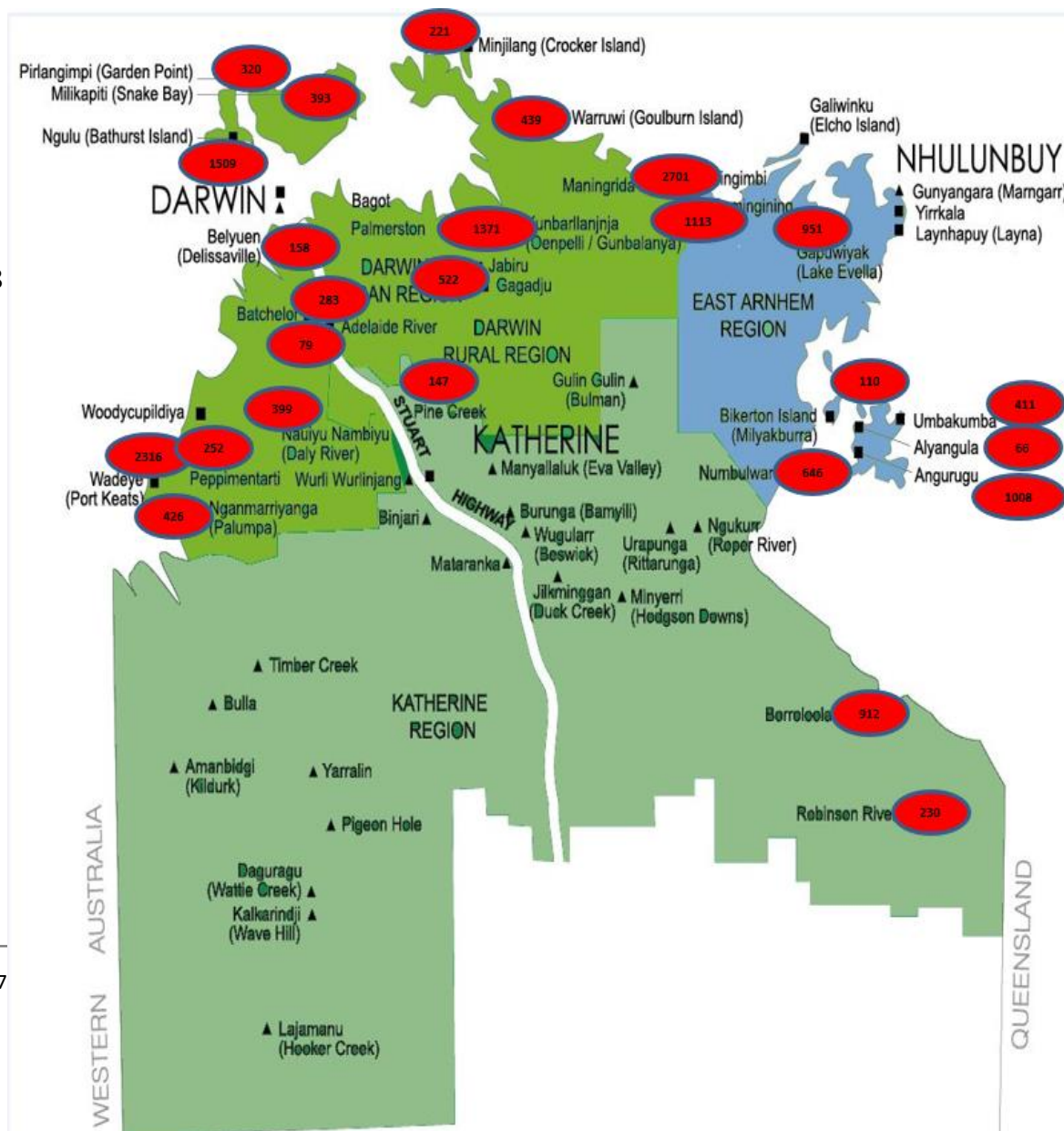
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Map of the Top End Health Service (TEHS) clinics

NT Context

- 1.3 million km²
- N=246,105*
- Aboriginal pop = 58,248



*Australia Bureau of Statistics, 2017

Background

- Chronic hepatitis B infection (CHB) is endemic in Indigenous communities of the NT, estimated prevalence of 3-12%
- 25% of people living with CHB will die liver cancer
- Liver cancer is the fastest growing cause of cancer death in Australia
- Liver disease 3rd most important contributor to the gap in life expectancy between Indigenous and non-Indigenous Australians

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1. Schultz R et al. Hepatitis B prevalence and prevention: antenatal screening and protection of infants at risk in the NT
 2. Carroll E et al. Screening for hepatitis B in East Arnhem Land: a high prevalence of chronic infection despite incomplete screening.
 3. Dent E, et al. Incomplete protection against hepatitis B among remote Aboriginal adolescents despite full vaccination in infancy.
 4. MacLachlan J, Cowie B. Hepatitis B Mapping Project: Estimates of chronic hepatitis B prevalence, diagnosis, monitoring and treatment by Primary Health Network, 2014/15 – National report. Australia: Australian Society for HIV and Viral Hepatitis and Sexual Health Medicine (ASHM), 2016.

**Deaths could be prevented with currently
available treatments**

Background

- 2014 the NT Hepatitis B action plan was developed including representatives from key stakeholders
- In the NT, the majority of Hep B infection is acquired at birth or in early childhood and is chronic
- Agreement to reframe CHB care from a communicable disease to chronic condition management model
- Emphasis on building Primary Health Care (PHC) capacity

Aims

Improve the outcomes of people living with CHB in the NT, by

1. Increasing the number of people living with CHB engaged in care, monitoring and treatment
2. Identifying and following up all non-immune people and offering vaccination
3. Increasing awareness and reducing stigma

Determine and record the hepatitis B sero-status of all Indigenous people who attend Top End Health Service (TEHS) Primary Health Care Centres

5. Department of Health. Second National Hepatitis B Strategy 2014-2017.
6. Aratchige P et al. Hepatitis B in the Northern Territory – An analysis of hepatitis B notifications.

Method: TEHS sero-coding project

- Project nurse recruited and trained
- Standardised messages with specific instructions and recall developed
- Guidelines, flowcharts developed and education delivered
- Regular engagement with, Aboriginal Health Boards, managers and clinicians throughout the project
- TEHS communities (n=23) with a total Aboriginal population 14,919

Data systems reviewed

Manually reviewed electronic Health Records from 3 data systems, for 23 TEHS Primary Health Care Centres (n=14,919)

Data systems used:

1. Primary Care Information System (PCIS) data
 - Demographics, Hepatitis B markers
2. Northern Territory Pathology Service, hospital data
 - Hepatitis B markers since 1998
3. NT Immunisation register
 - Hepatitis B vaccinations since 1990

A Hep B sero-status was decided based on the combination of the available serology and vaccination records

Hepatitis B sero-code, per sero-status code for Aboriginal population for TEHS

	TOTAL	%
Aboriginal population July 2018	14919	
Hep B: Fully Vaccinated	9810	66%
Hep B: Immune by Exposure	2552	17%
Hep B: Infected ON Treatment	46	0.3%
Hep B: Infected NOT on Treatment	284	1.9%
Hep B: Non-immune	706	5%
No data	1524	10%
TOTAL (with serocode):	13395	90%
TOTAL population who require follow up	2230	15%

83% immune, protected
No further action

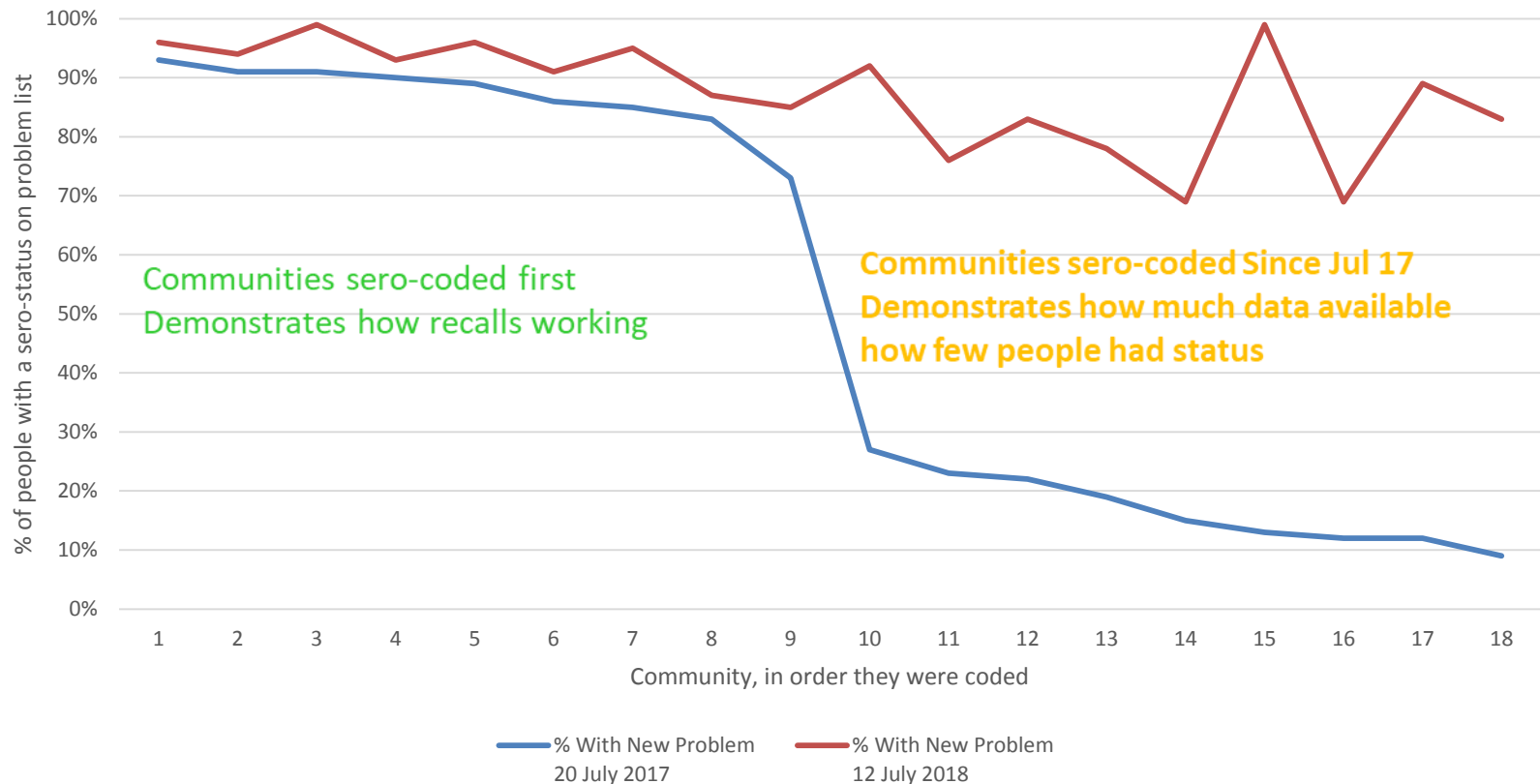
2.5%* have Hep B.
Need regular Health checks

15% need blood test
and/or vaccination

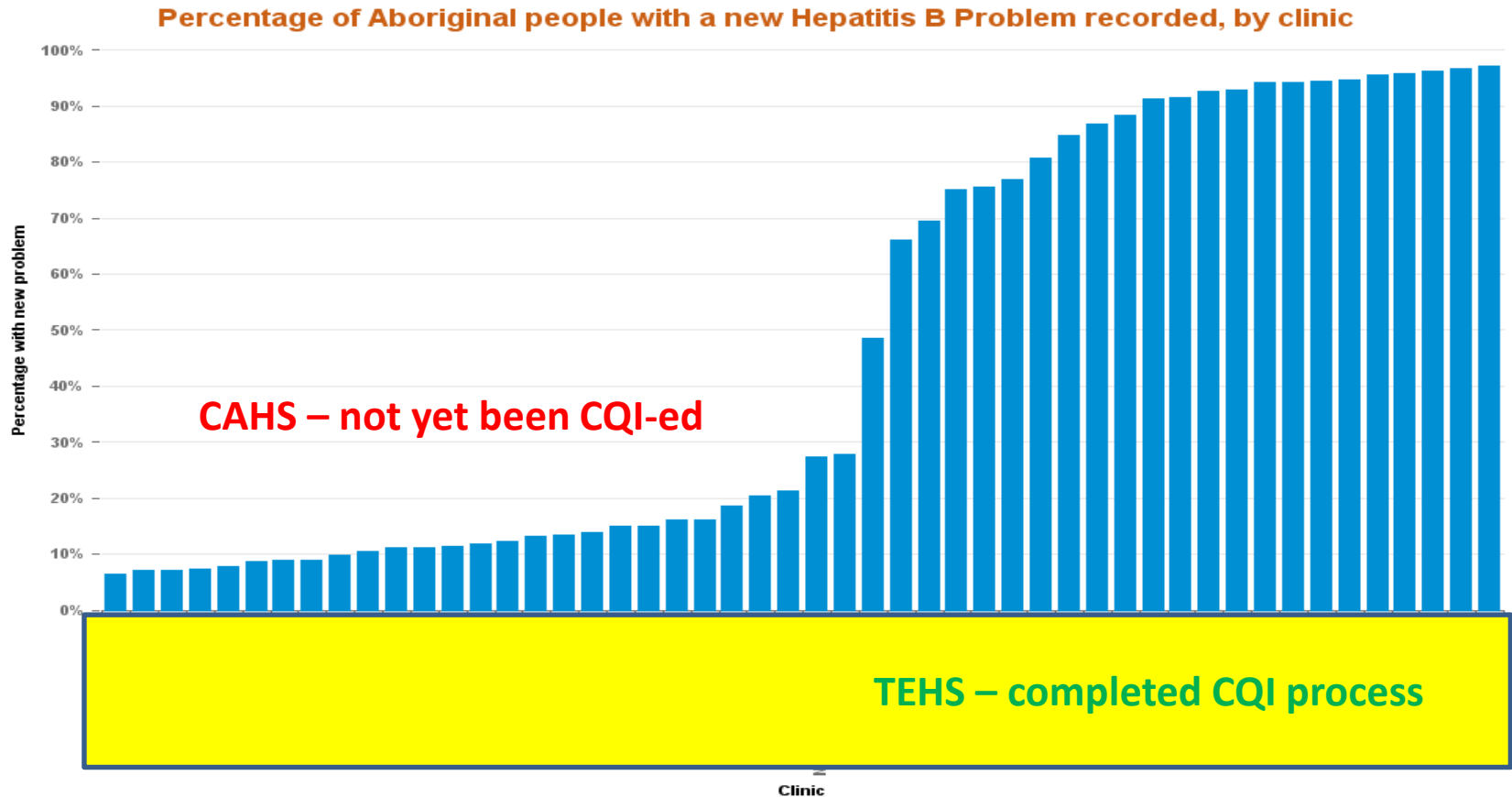
CQI-ed the existing data

- Thorough clinical audit on all existing data
- Up to 80% of clients had information but nothing being done about it
- Ethical issue not to using it
- TEHS ~15,000 people now all allocated to an appropriate care pathway

Percentage of clients with new problem, by clinic and year



Systematic Clinical Audit of available data WORKS



Good news from the Top End

Aware of diagnosis and engaged in care

- 31 new cases – all have new care plan added and clinician informed.
- All 330 CHB infected clients have sero-status added to EHR problem list and have a care plan
- 82% of those diagnosed are engaged in care

Good news from the NT - Treatment

Increase in treatment rates from 2.4% to 4.9%

Total infected = 330

Total on treatment = 46

= 14% of infected people on treatment

In our Arnhem Land pilot sites **20%** (26/127) of CHB infected people are on treatment

Cascade of Care – Pilot sites v's NT v's Targets

Table 1: the Cascade of care for CHB, National Target 's NT 2016 estimates V's Pilot sites

	NT	WAM Pilot	TEHS Pilot	National Target
Aware of infection	61%	96%	90%	80%
Engaged in Care	15%	83%	82%	No specific (but all)
On treatment	3.1%	20%	14%	15%

The not so good news – liver cancer

- High incidence 22.7/100,000 Aboriginal versus 4.0/100,000 non-Aboriginal (more than 5 times higher)
- 2000-2010 in the NT there were 46% of the 80 liver cancers where in Aboriginal people
- In 2017 there were 37 of which 57% were Indigenous (unpublished data)

12. Parker C et al. Hepatocellular carcinoma in Australia's Northern Territory: high incidence and poor outcome. Med J Aust 2014. 201 (8) : 470-474

Things to consider

- Education opportunities were identified
 - Serology interpretation
 - Vaccination minimum intervals
 - Management of Children born to Hep B positive mums
 - Resource implication to action recalls and provide better CHB care is a challenge in remote context
 - High turn over of staff need strong systems in place AND “back up” systems - **MORE CQI-ing!**
 - A systematic approach we can have a massive improvement of the cascade of care
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Hep B: PAST

Partnership Approach to Sustainably eliminating CHB in the NT

NHMRC-funded partnership project 2018-2023

Goal: Elimination of CHB from Indigenous Australians in the NT

Aim 1: Improve health literacy

Aim 2: Improve the cascade of care



Resources

Hep B story https://www.menzies.edu.au/page/Resources/Hep_B_Story/ can download on app or use on PC

Hepatitis B Story St Vincent Hospital <https://www.svhm.org.au/health-professionals/specialist-clinics/g/gastroenterology/publications>

ASHM <https://www.ashm.org.au/HBV/prescriber-programs/prescribers-resources-hepb/>
<https://www.ashm.org.au/resources/HBV-Resources/>

B Positive – all you wanted to know about hepatitis B – a guide for primary care providers
<https://www.ashm.org.au/products/product/1976963310>

Hepatitis B vaccination and Public Health Guideline
<https://digitallibrary.health.nt.gov.au/prodjsui/bitstream/10137/710/1/Northern%20Territory%20Hepatitis%20B%20Public%20Health%20Guidelines.pdf>

Hepatitis B Sero-coding Programme Guidelines (attached) on PGC too

Health Promotion Resources

There are so many good health promotion resources on the Menzies site <https://www.menzies.edu.au/page/Resources/>
You should save a full set of PDFs from Menzies site. Try to ensure all teams are aware of these too so they can use them during consults on their PC or laptop or tablet

Also Edith Cowan indigenous health info net

Acknowledgments

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Steven Skov: CDC
Josh Davis: Menzies

All the Aboriginal Health Practitioners, Nurses and Remote Medical Officers actioning the recalls

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9. Davies J et al. “Only your blood can tell the story” – a qualitative research study using semi-structured interviews to explore the hepatitis B related knowledge, perceptions and experience of remote dwelling Indigenous Australians and their health care providers in northern Australia. *BMC Public Health* 2014 14:1233
10. Gardner KL, Dowden M, Togni S, Bailie R. Understanding uptake of continuous quality improvement in Aboriginal primary health care: lessons from a multi-site case study of the Audit and Best Practice for Chronic Disease project. *Implement Sci* 2010;5:21.
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Thank you

