Strengthening CVD prevention in remote Indigenous communities in Australia’s Northern Territory

**Background**

- Chronic Conditions account for >70% of ‘The Gap’ in Indigenous life expectancy
- CVD is the single largest cause of death and disability
- Incidence of Indigenous AMIs has risen 60% since 1992
- Earlier onset and worse outcomes in remote Australia*

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<thead>
<tr>
<th>Age Group</th>
<th>Incidence Rate Ratio</th>
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<tr>
<td>20-39</td>
<td>10.2</td>
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<tr>
<td>40-64</td>
<td>3.3</td>
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<tr>
<td>65+</td>
<td>0.9</td>
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Clinical context – tough job

- 25,000 patients, 49 clinics over, 1.4 million Km²
- Triple whammy: IFD/Low SES/Chronic diseases
- Nurse led primary care + Aboriginal practitioners
- High staff turnover (non-Aboriginal)
- Language/Cultural barriers
- Evolving IT
- Distance!

NT Chronic Conditions interventions

- NT Chronic Conditions Strategy
- Chronic Care pathways within CARPA Standard Treatment Manual
- CVD risk Assessment – starting at 20 with 5% Indigenous loading
- Single Electronic Health Record with CVD decision support
- Continuous Quality Improvement
- Workforce reforms – dedicated to Chronic Conditions
- 2012: Chronic Conditions Management Model (G. Sinclair et al.)
Chronic Conditions Management Model (CCMM)

- Monthly “Actionable” task lists to frontline staff

<table>
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<tr>
<th>Client Name</th>
<th>DOB</th>
<th>Age</th>
<th>Provider Type</th>
<th>Item Description</th>
<th>Due Date</th>
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- Quarterly Traffic Light Reports
- Frontline staff and managers
Chronic Conditions Management Model (CCMM)

- Quarterly **Trend Reports**
- System managers
- Managing variation
- Sharing successes
- “Learning Organisation”

**Objective & Outcomes**

- To evaluate CVD outcomes associated with CCMM implementation between 2012-14

**Primary Outcome**
- % aged ≥20 with CVD risk documented in past 2 years

**Secondary Outcomes**
- % of ‘high CVD risk’ prescribed risk lowering medication
- % of ‘high CVD risk’ achieving treatment targets
Methods

- **Inclusion criteria**
  - All Indigenous NT residents aged ≥20 years registered with a NT Government clinic

- **Exclusion criteria**
  - Non-Indigenous residents and visitors from out of service areas

- 3-monthly clinical audit of primary and secondary outcomes
  - Descriptive statistics

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Results - Primary Outcome

CVRA increased from 23% to **59%**
~10% aged 20-34 have high CVD risk

BP Goal: Systolic $\leq 130$ mmHg
Lipid Goal: Total Chol ≤ 4.0 mmol/L

Discussion
- Smoking prevalence unchanged at 50%
- Strengths
  - Data-driven population health approach
  - Empowering frontline PHC teams
- Limitations
  - No control group
  - No data on medication dispensing
  - Indigenous specific CVD risk calculators are required
Take home messages

- Even in challenging PHC settings health care improvements are achievable by:
  - Setting clear program goals
  - Providing care guidelines and technical assistance
  - Empowering frontline teams with data to close evidence-practice gaps
  - Leveraging intrinsic motivation through transparent reporting

**Chronic Disease: The Big Picture**

**NT: Death Rate per 100,000 standard population 1998-2031**

- Actual Indigenous
- Projected Indigenous rate
- Indigenous variability bands
- Actual non-Indigenous
- Projected non-Indigenous rate
- Indigenous trend 2006-2011
- Indigenous trend 1998-2011

Source: ABS and AIHW—see Appendix D.
Acknowledgements

- Dr Gary Sinclair and co-authors
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