Issues in rural Aboriginal heart health: results from a mixed method study in Western Australia

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Objectives

To explore the extent and reasons for inequities in heart health outcomes in non-metropolitan Aboriginal Western Australians

1. Incidence of myocardial infarction (WA 2000-04) (quantitative)
2. Rural perspectives on reasons for inequities (qualitative)
**METHODS (Quantitative)**

**Study Design:** Descriptive study  
Age-standardised incidence rates

**Data Sources:**  
*WA Data Linkage System* = linked hospital admissions & deaths

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**Definitions**

<table>
<thead>
<tr>
<th>Incident cases (2000-04)</th>
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<tbody>
<tr>
<td>First-ever hosp admissions for heart attack + IHD deaths</td>
</tr>
<tr>
<td>(Only included if not admitted for heart attack in previous 15 yrs)</td>
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</tbody>
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**Aboriginal case**

<table>
<thead>
<tr>
<th>Ever identified as Aboriginal in Any hospital admission</th>
<th>Identified as Aboriginal on Death record</th>
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**Case Fatality**

Death within 28 days of heart attack
Remoteness categories
(Roughly based on ARIA+)

1. Metropolitan (Perth)
   Metro plus some inner regional

2. Regional
   (Remainder inner regional + Outer regional + Remote)

3. Very Remote
   (yellow)
Contrasting age and sex profiles of Aboriginal and non-Aboriginal WA first-ever heart attack cases: 2000-04
Age-specific myocardial infarction incidence rates, by sex and Aboriginality: WA 2000-04

**Males**

- Aboriginal: 16, 10, 5, 3, 2
- Non-Aboriginal: 21, 17, 12, 8, 4

**Females**

- Aboriginal: 25, 20, 15, 10, 5
- Non-Aboriginal: 30, 25, 20, 15, 10
Remoteness variations: Key findings

Combined Aboriginal and non-Aboriginal analysis:
• Very remote men and women had higher rates than metro counterparts
• Regional women had higher rates

Aboriginal analysis:
• Regional men had higher rates than metro
• All other analyses show no or inconclusive rural elevation

Non-Aboriginal analysis:
• Only very remote men 25-54 had higher rates than metro
Conclusion

• Much of higher MI incidence in remote areas can be explained by higher Aboriginal rates
• There is a complex interaction between sex, rurality and Aboriginality
• The non-metro populations are not uniformly disadvantaged relative to metro counterparts
• Results need to be interpreted with caution due to small sample sizes, address inaccuracies, crude geographical coding
• Primary prevention of heart attacks is a priority for Aboriginal people across WA
• Many barriers to early intervention exist for rural Aboriginal people
METHODS (Qualitative)

• Participants from Far North Western Australia opportunistically sampled & invited to participate
• Interviews semi structured using a narrative style
• Total 23 participants (Aboriginal patients n=12; health providers n=11)
• Interviews analysed thematically
• Field notes taken
Qualitative research questions

1. What are the issues facing Aboriginal patients from rural areas in getting access to optimal health care during a coronary event?

2. What are the challenges in transferring rural patients to tertiary settings for investigative/coronary procedures?

3. What are the discharge and secondary prevention issues for patients from these areas?
Challenges in patient journey

**PATIENT**
- Access/distance
- Symptom recognition & implications
- Cultural obligations
- Family priorities
- Expectation of illness
- Health service experience/racism

**PROVIDER**
- Guidelines
- Specialist access
- Symptom diagnosis
- Cultural mismatch/communication

**HOSPITAL ISSUES**
- Culture shock
- Communication
- Hospital resource limits
  Can contribute to premature discharge

**PATIENT TRANSFER/REFERRAL**
- Distance to hospital
- PATS/cultural needs
- Leaving country & family
- Fear

**BEHAVIOUR CHANGE**
- Compliance
- Depression
- Normalisation of sickness
- Social determinants

**DISCHARGE**
- Medication
- Discharge Information
- PHC/hospital linkages poor

**Symptoms of coronary disease**
- Issues getting timely medical care

Challenges in patient journey...
Promoting models that work

1. **Aboriginal Health Workers in hospitals**
   - Premature discharge numbers reduce
   - Discharge/follow up linkages with GP, PHC, community improve

2. **Dedicated remote nurses**
   - Improve the patient journey
   - Community linkages built
   - Patients access improves

3. **Community heart health programs**
   - Medical attendance improves
   - Better community knowledge
   - Earlier detection
   - Combat social isolation