



# 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

Definitions

**Incident cases (2000-04)**



**First-ever hosp admissions for heart attack + IHD deaths**

**(Only included if not admitted for heart attack in previous 15 yrs)**

**Aboriginal case**

Ever identified as Aboriginal in  
Any hospital admission

OR

Identified as Aboriginal on  
Death record

**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

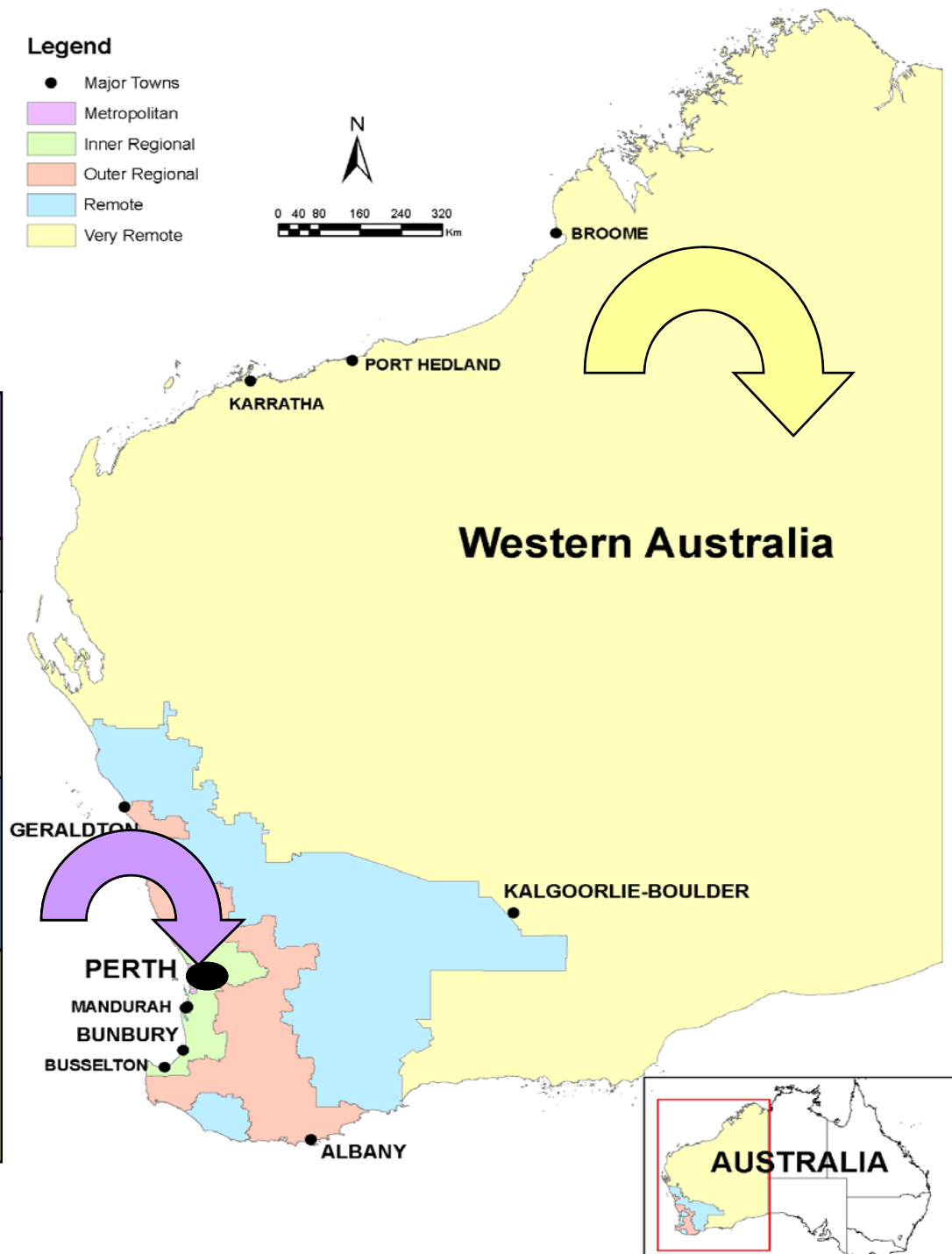
(Remainder inner regional +  
Outer regional + Remote)

## 3. Very Remote

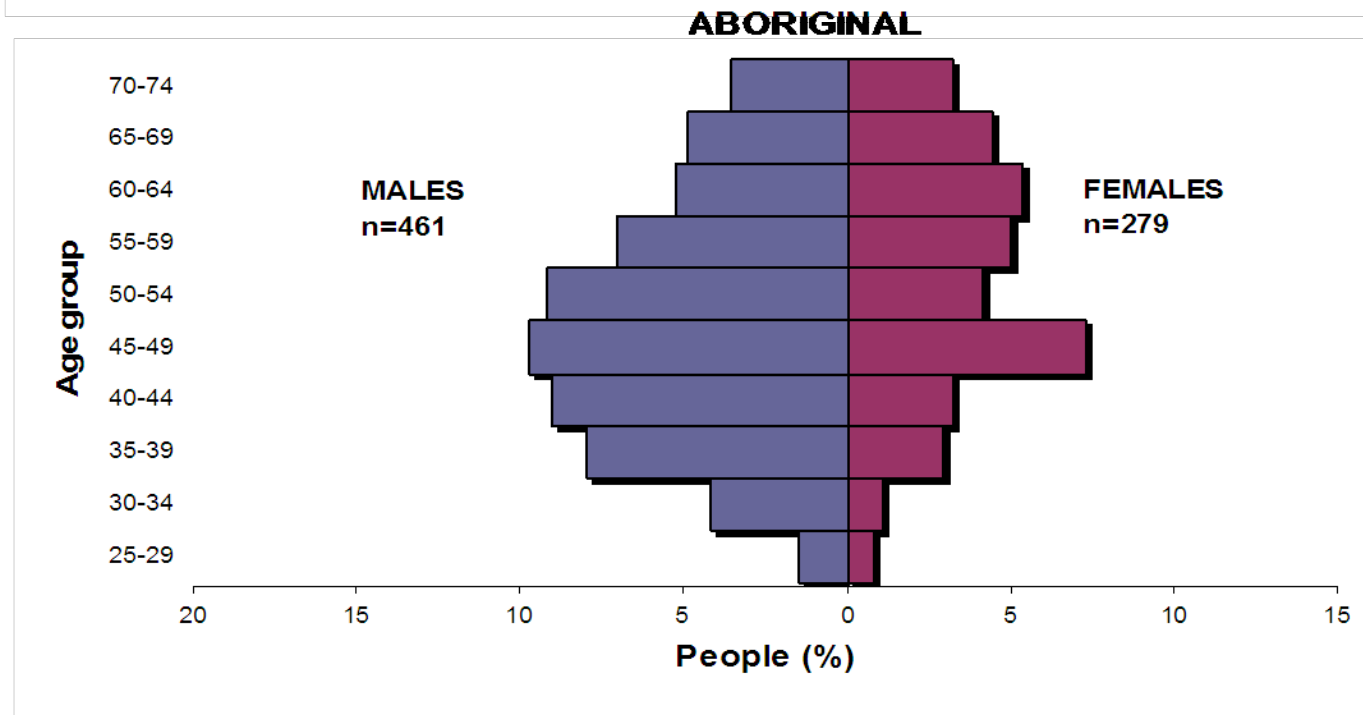
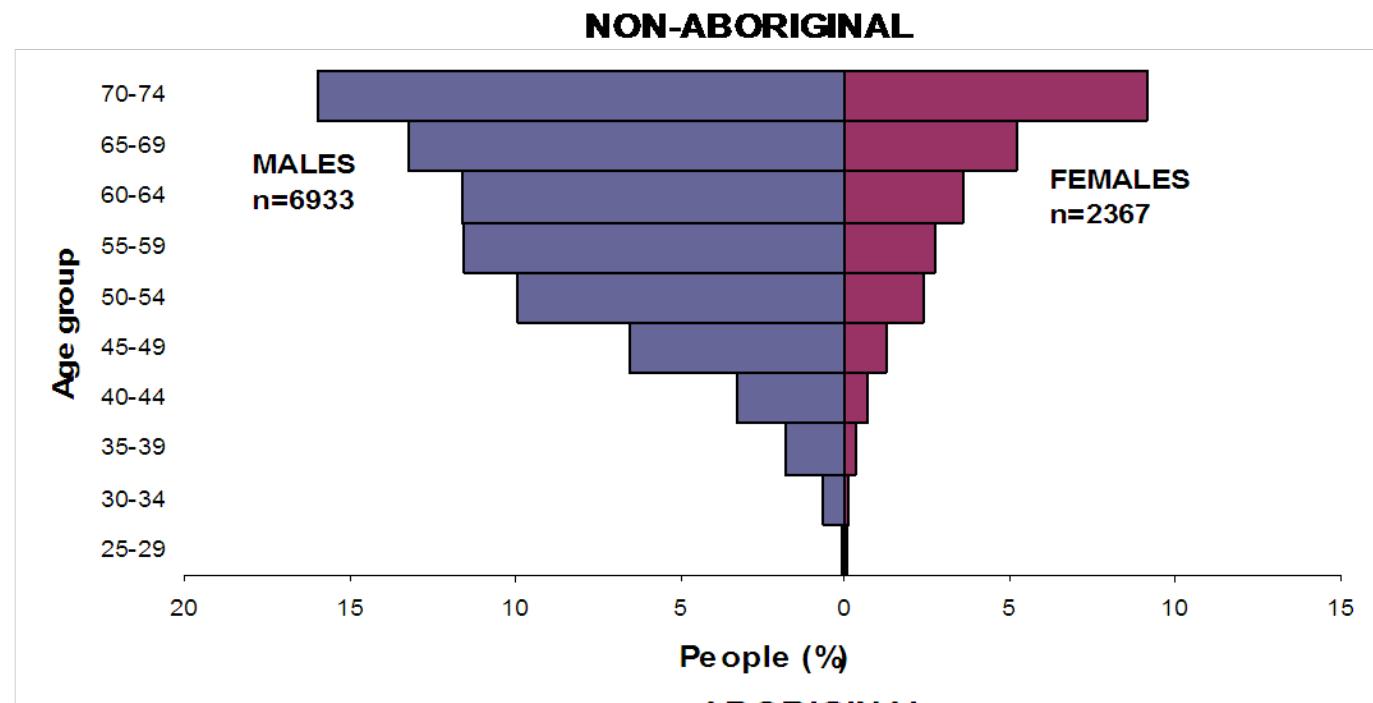
(yellow)

### Legend

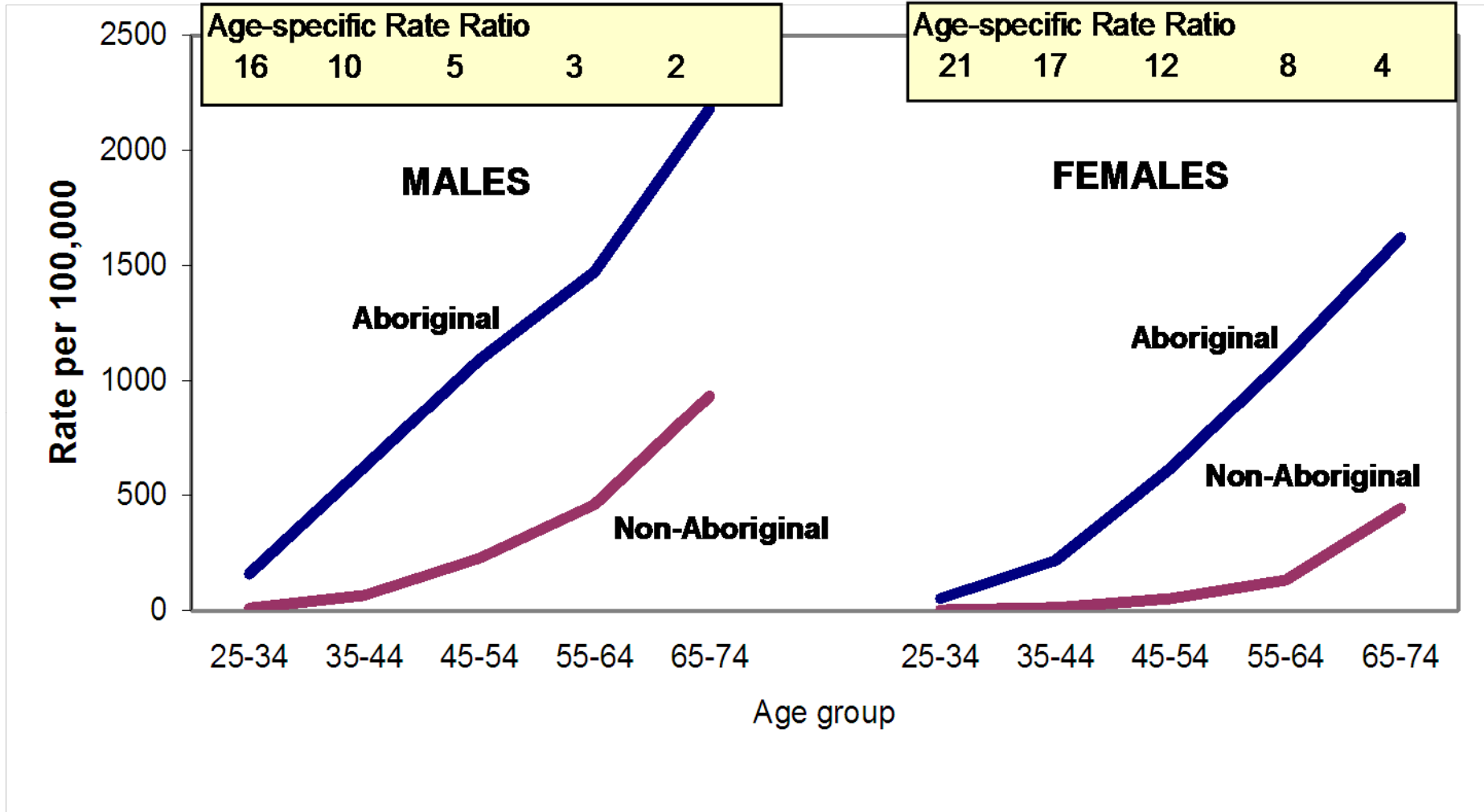
- Major Towns
- Metropolitan
- Inner Regional
- Outer Regional
- Remote
- Very Remote



# 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



# 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



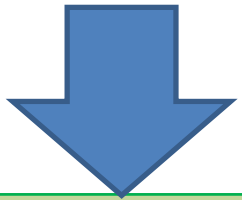


# Qualitative research questions

- 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..

Symptoms of coronary disease



Issues getting timely medical care

## 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

## PATIENT

### TRANSFER/ REFERRAL

- Distance to hospital
- PATS/ cultural needs
- Leaving country & family
- Fear

## HOSPITAL ISSUES

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

## BEHAVIOUR CHANGE

- Compliance
- Depression
- Normalisation of sickness
- Social determinants

## DISCHARGE

- Medication
- Discharge Information
- PHC/ hospital linkages poor

# 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

