

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

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Judith Katzenellenbogen has a history of working with disadvantaged communities and in health services research. She has worked as an epidemiologist on research projects in South Africa, New Zealand and Australia on health conditions, including women and child health; abortion; cancer; cardiovascular diseases and diabetes. In New Zealand she worked predominantly for health purchasing authorities in the public sector. In Western Australia (WA), she was centrally involved in the WA Burden of Disease Project at the WA Health Department, completing a PhD through the University of Western Australia on the burden of stroke utilising the WA Data Linkage System. Subsequently, she has worked in the area of Aboriginal chronic disease, particularly in applying linked data methods to the study of Aboriginal ischaemic heart disease, building capacity in Aboriginal health and in developing upstream approaches to health. Judith has experience in teaching epidemiology at various tertiary institutions in South Africa and New Zealand at both under- and postgraduate levels. She authored an epidemiology textbook suited to the South African context.

Kate Taylor originally trained and worked in Ayurvedic Indian medicine and Yoga before completing academic studies in Anthropology and International Health which took her to India working with children with HIV. For the last few years, Kate has worked primarily in Aboriginal health in the areas of cross cultural organizational partnerships, health workforce development, cardiovascular disease and equitable access to heart health services. Kate is also currently working on a PhD.

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## Introduction

Indigenous Australians suffer disproportionate burden of morbidity, mortality and premature deaths from cardiovascular disease. This presentation will focus on non-metropolitan results from a study investigating the extent and reasons for inequities in heart health outcomes in Aboriginal Western Australians.

## Methods

Mixed quantitative and qualitative methods were employed. Incident (first-ever) heart attack cases were identified from linked hospital and death data using the WA Data Linkage system, with geo-coding allowing categorisation into metropolitan, regional and very remote cases. Aboriginal and non-Aboriginal incidence rates were compared for the state as a whole as well as by remoteness. Interviews were also conducted with health providers and Aboriginal patients in rural regions to explore the challenges for patients in accessing and receiving optimal cardiovascular care.

## Results

Very remote rates were significantly higher than metropolitan and regional rates for the combined population. Aboriginal rates were substantially higher than non-Aboriginal rates in all remoteness sub-strata. However, when controlling for Aboriginality, remoteness imparted excess risk among Aboriginal males living in regional areas only, while non-Aboriginal males 25-54 years living in very remote areas also had higher rates than their counterparts elsewhere. Data suggest that the proportion of deaths within 28 days of a heart attack increases with decreased geographical accessibility.

Challenges in symptom recognition, prioritising individual health needs over competing socio-cultural demands and relationships with health services affect patient behaviour delays in responding to symptoms. Service issues include the complexities of co morbid diagnosis and regional disparities in service capacity. While admission to urban hospitals can be a fraught experience for many rural Aboriginal patients, poor outcomes post-discharge can be affected by social/ environmental factors, and poor linkages between hospital and primary health settings.

## **Conclusion**

Much of the poor heart health in rural areas can be explained by higher rates among Aboriginal rural residents. Primary prevention of heart disease is a priority for Aboriginal people across WA, while distance and remoteness are formidable challenges in improving service access and outcomes for rural Aboriginal patients. Recommendations to improve rural Aboriginal heart health outcomes will be discussed.