

CARDIOVASCULAR DISEASE IN RURAL AUSTRALIA



NATIONAL RURAL HEALTH ALLIANCE INC.



...good health and wellbeing in rural and remote Australia

One in four people living in regional and rural areas is suffering from cardiovascular disease compared with one in five metropolitan areas. The further a person lives from a major city, the higher their chance of being hospitalised or dying from cardiovascular disease. These differences are largely preventable. They stem from unequal access to the conditions and opportunities needed for good heart health.



Cardiovascular disease (CVD) describes all diseases and conditions that affect the heart and blood vessels, including heart attack, coronary heart disease, stroke and heart failure. CVD is the leading cause of death and disability in Australia and the world. It is estimated that one in six (3.72 million) Australians have CVD and it kills one Australian every 12 minutes^[1].

The good news is that heart disease is largely preventable. There is no single cause of heart disease, but there are risk factors that increase the chance of developing it. A combination of risk factors contribute to the overall likelihood of having a heart attack or stroke in the next five years - this is known as the 'absolute cardiovascular disease (CVD) risk'. The more risk factors a person has, the higher their chance of having a heart attack or stroke. Over 90 per cent of adult Australians have at least one risk factor for CVD and 25 per cent have three or more risk factors^[1].

Some risk factors cannot be controlled, such as age, ethnic background and family history of heart disease. Other factors, however, are changeable. These include smoking, high blood cholesterol, high blood pressure, diabetes, physical inactivity, overweight, depression, social isolation and lack of quality support. However, changing these risk factors is not as simple as improving knowledge and skills. It also requires access to affordable services and supportive environments. This includes the availability of green space and good walking/cycle paths to be physically active; access to good quality affordable food for healthy eating; and access to public transport to connect people to quality health services, community networks and supports.

The disproportionate burden of CVD in rural and remote Australia

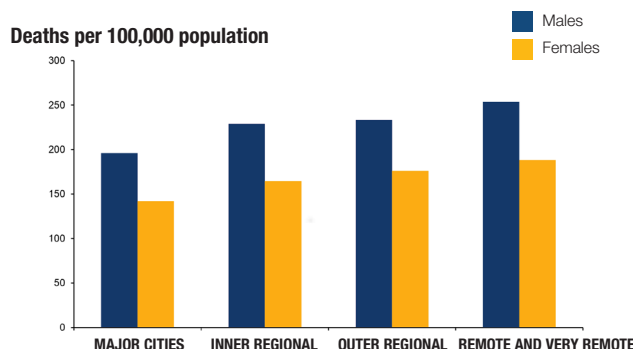
Improvements in the treatment and experience of CVD in recent years have not been equally distributed across the population. The burden of CVD is felt more by lower

socioeconomic groups, Aboriginal and Torres Strait Islander people, people from diverse cultural backgrounds, and those living in rural and remote communities.

Australians living in rural and remote Australia experience more CVD risk factors, higher rates of CVD-related hospitalisation and are more likely to die of CVD than those in metropolitan areas. The further a person lives from a metropolitan centre, the greater their risk of hospitalisation and death from cardiovascular disease^[2].

If Australians living in rural and remote areas had the same death rates as urban Australians, there would have been 3,632 fewer deaths due to coronary heart disease (16.5 per cent fewer) in rural areas in 2009-2011^[3].

Cardiovascular disease death rates, by remoteness and sex, 2009-2011^[4]



Source: AIHW Cardiovascular disease, diabetes and chronic kidney disease - Australian facts: Mortality

The disproportionate burden of CVD experienced by Aboriginal and Torres Strait Islander Peoples is further exacerbated for those living in remote communities. Aboriginal and Torres Strait Islander Peoples living in remote Australia are **twice** as likely to report having heart and

circulatory diseases as Aboriginal and Torres Strait Islander Peoples living in major cities (20 per cent compared with 10 per cent)^[5].

The higher rates of cardiovascular disease in rural and remote communities are the result of many compounding issues. Compared to people living in metropolitan areas, rural and remote people have lower incomes, lower levels of education and employment, and more limited control over their life. These factors play a major role in their heart health. Rural populations also have difficulty accessing affordable healthy food, sporting clubs, public transport and environments conducive to walking and cycling.

Rural areas have fewer health professionals, reduced health infrastructure and higher costs of health care delivery. Rural patients visit their GP, on average, 1-2 fewer times per year than other Australians^[6]. Furthermore, research suggests that throughout Australia there is substantial under-treatment by GPs of patients with high risk of CVD^[7]. There is evidence that many CVD medications and interventions are prescribed at lower rates in rural areas despite similar or higher burdens of disease than there are in metropolitan areas. An Australian Institute of Health and Welfare report found rural patients get fewer prescriptions for beta blockers, ACE inhibitors, statins and warfarin than other Australians - all critical medications used in the treatment of CVD^[8].

There are fewer GPs and fewer allied health professionals (such as dietitians, diabetes educators, physiotherapists and speech pathologists) with increasing remoteness. All of these, as well as nurses, play an important role in the prevention, rehabilitation and ongoing management of CVD.

People in rural and remote areas also encounter a range of challenges around participation in cardiac rehabilitation programs (e.g. the costs associated with travel to sites from which these programs are run). Such programs are important in reducing the morbidity and mortality associated with cardiovascular disease, as well as reducing the risk of recurrent cardiac events.

Prevention and management of cardiovascular disease in rural Australia

Preventing cardiovascular disease in rural and remote communities involves addressing the underlying 'causes of causes' of poor heart health. These relate to a combination of social and economic factors, including education, employment, work conditions, housing, racism and discrimination. This approach requires genuine partnerships across sectors, true community engagement and a commitment to long term solutions.

Public health programs aiming to address lifestyle risk factors need to be tailored to the specific needs of rural and remote communities. Local organisations are best placed to know the needs of their population, the contextual challenges, and ways to adapt national programs to their community's needs. Without specific consideration of rural and remote populations, there is the potential to inadvertently increase the gap in urban and rural CVD outcomes by disproportionately improving the health of urban populations.

The primary care workforce needs to be better supported in providing integrated health checks to promote early detection of those at risk of CVD. Ongoing health professional education -in the National Vascular Disease Prevention Alliance's *Guidelines for CVD absolute risk assessment and management of CVD risk factors* is needed. Programs that raise awareness of CVD risk in the general population are also needed; an example includes the promotion of simplified online CVD risk calculators.

In settings where health care resources are strained, supporting health promotion in pharmacies and non-clinical settings such as community centres, builds capacity and can improve access to prevention and treatment.

When it comes to heart attack, the best care includes access to expert clinical assessment, access to pathology services, risk stratification and resource-intensive cardiac reperfusion and revascularisation. Clearly, distance can make the provision of these services challenging. However, recent work in South Australia has shown the use of an Integrated Cardiovascular Clinical Network can reduce the gap in heart attack deaths between rural and urban patients^[9]. This network aimed to improve access to evidence-based cardiac care through standardised risk stratification, point-of-care pathology testing and cardiologist-supported decision making. This network approach also reduced 30 day readmission rates for cardiac events.

As the leading cause of death in rural and remote Australia, CVD prevention and management must be a policy and research priority. Small gains have been made in discrete areas, but these must be built on and monitored to ensure equity of CVD outcomes between urban and rural Australians.

References

- [1] Heart Foundation. *Data and statistics*. [cited 2015 January 15]; Available from: <http://www.heartfoundation.org.au/information-for-professionals/data-and-statistics/Pages/default.aspx>.
- [2] Australian Institute of Health and Welfare (AIHW), *Cardiovascular disease: Australian facts 2011*, in *Cardiovascular disease series Cat no. CVD 532011*, AIHW: Canberra.
- [3] Australian Institute of Health and Welfare, *Mortality inequalities in Australia: bulletin 124*, 2014, AIHW: Canberra.
- [4] Australian Institute of Health and Welfare, *Cardiovascular disease, diabetes and chronic kidney disease - Australian facts: Mortality*, in *Cardiovascular, diabetes and chronic kidney disease series no.1 Cat. no.CDK 1*.2014, AIHW: Canberra.
- [5] Australian Bureau of Statistics, *4727.0.55.001 - Australian Aboriginal and Torres Strait Islander Health Survey: First Results, Australia, 2012-13* 2013, ABS: Canberra.
- [6] Unger, C.C., et al., *Type 2 diabetes, cardiovascular disease and the utilisation of primary care in urban and regional settings*. Rural Remote Health, 2011. 11(4): p. 1795.
- [7] Heeley, E.L., et al., *Cardiovascular risk perception and evidence--practice gaps in Australian general practice (the AusHEART study)*. Med J Aust, 2010. 192(5): p. 254-9.
- [8] Australian Institute of Health and Welfare. *Medicines for cardiovascular health: are they used appropriately?* Cardiovascular disease series no. 27. Cat. no. 36. 2007 [cited 2014 10 November]; Available from: <http://www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=6442454975>.
- [9] Tideman, P.A., et al., *Impact of a regionalised clinical cardiac support network on mortality among rural patients with myocardial infarction*. Med J Aust, 2014. 200(3): p. 157-60. N:\Equity\OPERATIONS\Communications\Equity Comms Planning\Publications\CVD Rural Fact Sheet -NHRA and HF 20022015 (2).doc