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.

There are multiple non-modifiable risk factors for CVD including age, gender, family history and ethnicity. However, many risk factors, such as smoking, high blood cholesterol, high blood pressure, diabetes, being physically inactive, being overweight and lack of quality support are modifiable through lifestyle change and other interventions.

The burden of cardiovascular disease in Australia

It is estimated that one in six (3.72 million) Australians have CVD and that it kills one Australian every 12 minutes. Furthermore, 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.

CVD is the leading cause of death for Aboriginal and Torres Strait Islanders, accounting for 26 per cent of deaths during 2006-2010. Indigenous Australians are more likely to die from CVD in every age group, particularly in the younger ages, than non-Indigenous Australians. In 2002-2005, age-specific death rates from CVD in Indigenous Australians aged less than 65 years were between 5 and 12 times higher than rates for non-Indigenous Australians.

Mortality rates from heart attack and stroke have been declining in recent years but improvements in treatment and disease rates are not equally distributed across the population. The burden of CVD is felt more by lower socioeconomic groups, Aboriginal and Torres Strait Islander peoples, people from diverse cultural backgrounds, and those living in rural and remote communities.

The disproportionate burden of CVD in rural and remote Australia

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.

As a result, age standardised death rates for cardiovascular disease rise with remoteness.

Cardiovascular disease death rates, by remoteness and sex, 2009-2011

Similar patterns are seen when data for CVD hospitalisations and risk factors are examined by remoteness.

According to a recent Australian Institute of Health and Welfare (AIHW) report, 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.

In addition to a higher burden of CVD risk factors amongst...
Aboriginal and Torres Strait Islander people in general, recent Australian Bureau of Statistics data indicate significant differences between urban and remote Indigenous populations.

The uneven distribution of CVD burden across geographic areas is compounded by increasing levels of socioeconomic disadvantage, ethnicity, poorer access to services, higher levels of personal risk and hazardous occupational, environmental and transportation conditions.

Despite an increased need for CVD risk factor and disease management, rural and remote Australians have less access to the preventive and acute health services required for early detection and management of CVD. Furthermore, rural areas have fewer health professionals, reduced health infrastructure and higher costs of health care delivery.

There is also evidence that many CVD medications and interventions are prescribed at lower rates in rural areas despite the higher burden of disease. An AIHW report found rural patients get fewer prescriptions for beta blockers, ACE inhibitors, statins and warfarin than other Australians.

Rural populations also have less access to affordable healthy food, fewer sporting clubs, less access to health-promoting built environments such as walking and bike paths and fewer public transport opportunities.

Prevention and management of cardiovascular disease in rural Australia

Action is needed to improve the cardiovascular health of rural and remote Australians. Key to this is the prevention of new CVD through identifying and reducing risk factors, optimising care for those with established disease and preventing hospital admissions.

Differences in risk factors in urban and rural and remote Australia mean programs must be better nuanced to meet the specific needs of rural and remote Australians. Programs such as the National Tobacco Strategy have identified the need for specific smoking cessation approaches that are targeted at Australians with a high prevalence of smoking, including those in rural and remote areas. It is widely accepted that effective public health work in Aboriginal and Torres Strait Islander populations requires consideration of the cultural and social context in which the work is being conducted. However targeted approaches are not yet common in CVD risk factor prevention work with rural populations.

To effectively impact specific CVD risk groups in rural and remote communities, public health initiatives need to be delivered in partnership with community-based organisations, local governments and non-clinical service agencies. In settings where health care resources are strained, supporting health promotion in non-clinical settings such as pharmacies and community centres, builds capacity and provides opportunities for sustainable health promotion work beyond a specific campaign. Recent evaluation work in rural Tasmania found good uptake of a package of physical activity and nutrition programs through partnership of regional and local council areas. Local organisations are better placed to know the needs of their population and the contextual challenges to implementation, and to adapt to community needs.

Without specific consideration of rural and remote populations, risk reduction work has the potential to inadvertently increase the gap in urban and rural CVD outcomes by disproportionately effecting change in urban populations.

Despite prevention efforts, CVD risk factors are highly prevalent and are likely to be first identified at a patient’s GP. However rural patients visit their GPs, on average, 1-2 fewer times per year than other Australians. Furthermore, research suggests that throughout Australia there is substantial undertreatment by GPs of patients with high risk of CVD. GPs and primary health care need to be better supported in providing integrated health checks to promote early detection of those at risk of CVD. Ongoing GP education regarding the National Vascular Disease Prevention Alliance guidelines for CVD absolute risk assessment and management of CVD risk factors is needed, as are programs to raise awareness of CVD risk in the general population, for example through promotion of simplified online CVD risk calculators.

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 timely 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. 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, however these must be built on and monitored to ensure the better equity in CVD health outcomes between urban and rural Australians.