

3. Prevention of heart, stroke and vascular disease

Goal

To maximise the opportunities for prevention of heart, stroke and vascular disease, through uptake by consumers and providers of key evidence-based messages and strategies that are tailored to:

- *the general population;*
- *people and groups at high risk; and*
- *people with recognised heart, stroke or vascular disease.*

Rationale

Magnitude of the problem

Much of the death and illness caused by heart, stroke and vascular disease is preventable. However, levels of risk factors for heart, stroke and vascular disease continue to be unfavourable, with around 11.7 million adult Australians (90 per cent of the adult population) having at least one of the major risk factors for heart, stroke and vascular disease in 2001. Specifically (AIHW 2004):

- *tobacco smoking* — in 2001, 19.5 per cent of Australians smoked on a daily basis;
- *physical inactivity* — in 2000, 54 per cent of the population aged 18–75 years did not undertake physical activity at the levels recommended to achieve health benefits;
- *high blood pressure* — in 1999–2000, about 3.6 million Australians over the age of 25 (30% of those over 25 years) had high blood pressure or were on medication for that condition; and
- *overweight and obesity* — in 1999–2000, over seven million adult Australians aged 25 and over (60 per cent of those over 25 years) were overweight and of those, over 2.6 million (21 per cent of the population aged 25 and over) were obese.

While the prevalence of some risk factors is decreasing, physical inactivity and overweight and obesity are on the increase. Cardiovascular risk depends on the overall pattern of risk factors. Around 24 per cent of the adult population have three or more major risk factors, greatly increasing their risk of heart, stroke and vascular disease. Risk factors also tend to cluster according to socio-economic disadvantage, among Aboriginal and Torres Strait Islander peoples, and in those with diabetes or metabolic syndrome.

Depression, social isolation and lack of quality social support are independently associated with onset and prognosis of coronary heart disease and are of the same order of magnitude as standard risk factors such as smoking and high cholesterol. Australian data shows that nearly 50% of patients admitted to hospital with coronary heart disease have symptoms of depression compared with 5% of general population (Bunker et al, 2003).

Opportunities

A recently released report entitled *Returns on Investment in Public Health: An economic and epidemiological analysis* (Applied Economics 2003) estimates that public health programs to

reduce coronary heart disease over the last 30 years have averted approximately 450,000 early deaths resulting in a net return of over \$8.4 billion.

Modelling contained within the National Health Priority Area report on cardiovascular health (Commonwealth Department of Health and Aged Care & AIHW 1999) indicates that there are potentially significant gains from interventions to prevent heart, stroke and vascular disease.

Strategies may be most effective when targeted specifically towards people who are at high risk (Ebrahim et al 2000). Approaches to the general population (for example measures aimed at shifting whole population behaviours) and to high-risk individuals (with an appropriate combination of lifestyle, pharmacological and other medical approaches) are complementary.

The value of cardiovascular prevention through risk factor programs will be amplified because of their concurrent impact on other diseases — for example, the effects of tobacco control on cancers and lung disease, and of physical activity on type two diabetes and some cancers. The importance of secondary prevention is also emphasised for people with peripheral arterial disease as they are at much increased risk for and often die of coronary heart disease or stroke.

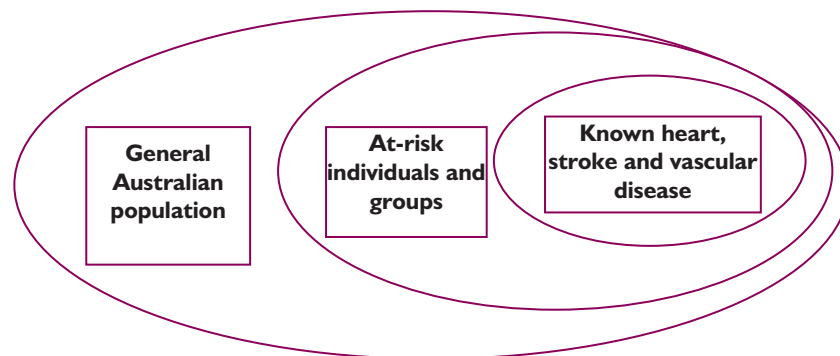
Reducing the prevalence of smoking is considered one of the most effective strategies for preventing cardiovascular disease. Around 13 per cent of heart, stroke and vascular deaths are due to smoking. Australia's National Tobacco Strategy (MCDS 2000) provides a strong framework for tobacco control and its ongoing implementation should be encouraged.

Prevention activities need to be carried out across the life cycle. For example long term public health benefits may be achieved through addressing maternal and infant nutrition to reduce the prevalence of low birth weight and increase the proportion of infants fully breastfed to six months.

Optimal health in-utero and childhood greatly increases the likelihood of healthy ageing in later life. Conversely, high levels of childhood obesity and related poor nutrition and underactivity are linked to poorer health in later life, including heart, stroke and vascular disease.

Many Divisions of General Practice have conducted programs in the prevention, treatment and management of heart, stroke and vascular disease. Learnings from these programs could lead to improved models for broader program delivery.

Strategies



Population-based strategies

- Link in with and support national coordinated approaches to promoting physical activity, healthy eating and healthy weight in the population to minimise the risk of heart, stroke and vascular disease.
- Continue support for activities relating to other risk factors such as tobacco control.
- Support initiatives to improve the food supply in rural and remote areas and to promote availability of good nutrition and physical activity at important points within the community, such as schools and workplace settings.

Support for activities that impact on peri-natal health, parental education and child health for example through linking with “Health Promoting Schools” programs.

Promote an understanding of the role of depression, lack of quality social support and social isolation as independent and significant risk factors in heart disease, amongst both the general public and health professionals.

People and groups at high risk

- Implement specific programs for Aboriginal and Torres Strait Islander peoples (see Section 1).
- Develop and promote targeted approaches to increase physical activity, promote healthy eating and increase the proportion of people with healthy weight for groups potentially at high risk, such as older people with comorbidities including diabetes and mental health conditions, Aboriginal and Torres Strait Islander peoples, people who are socio-economically disadvantaged, people who are living in remote areas and people with a mental health condition such as depression, or who are socially isolated or lack quality social support.
- Develop appropriate strategies directed at decreasing the burden associated with risk factors of heart, stroke and vascular disease such as elevated cholesterol and blood pressure.
- Promote appropriate strategies directed at increased awareness and improved management of atrial fibrillation and transient ischaemic attack.
- Develop information and tools to support consumers and general practitioners in assessing individual absolute risk for heart, stroke and vascular disease – this will enable

identification and appropriate cost-effective management of both low-risk individuals (by lifestyle changes) and high-risk individuals (by lifestyle and pharmacological therapies).

- Collaborate and forge closer links with those working in the area of chronic disease prevention and management particularly diabetes, chronic kidney disease and mental health conditions.

People with known disease

- Implement specific programs to address ill health among Aboriginal and Torres Strait Islander peoples (see Section 1).
- Encourage best practice in medication and lifestyle management to minimise chances of a further event, by disseminating nationally agreed guidelines and implementing other measures to support primary health care providers.
- Increase concordance with medication regimes by gaining a better understanding of the barriers to concordance in certain groups of patients, and attempting to remove these barriers.
- Extend the concept of nurse educator, a role that has been very successful in diabetes management. This would involve introducing multi-skilling, multidisciplinary and multi-disease approaches.
- Develop information support systems in health care to assist with risk factor monitoring, management and recall of patients with known disease (eg CARDIAB, CV-Data implementation and data linkage) while satisfying privacy requirements.
- Implement specific programs to identify and address barriers to improved recognition, management and treatment of depression in people with heart, stroke and vascular disease.

Priorities for national action

- *Support national coordinated approaches to nutrition, physical activity and tobacco control by building on existing work.*
- *Target appropriate measures to increase physical activity, improve nutrition and decrease smoking in groups potentially at high risk:*
 - *Aboriginal and Torres Strait Islander peoples;*
 - *socio-economically disadvantaged people;*
 - *older Australians;*
 - *people with a mental health condition such as depression and people who are socially isolated or lack quality social support;*
 - *people who are living in rural isolation; and*
 - *people with known or recognised disease.*
- *Develop information and tools to support consumers and general practitioners to match treatment to the level of risk of future heart, stroke and vascular events.*