THE DETERMINANTS OF HEALTH IN RURAL AND REMOTE AUSTRALIA

NATIONAL RURAL HEALTH ALLIANCE INC.

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

'Health' is a very broad notion, affected by a wide range of individual characteristics, behaviours and contextual factors. Those contextual factors that fall within social, economic and environmental domains are usually referred to as 'the social determinants of health'.

It is widely understood that the health status of an individual is much more than a measure of their physical wellbeing. For one thing there is also mental welfare – a state of being that can vary through time and between individuals, from acute illness to euphoria or contentment. For another there are the habitual and random behaviours that will predispose an individual to good or poor health: what they ingest, how they spend their time, and what risks they take.

As well as such individual behaviours there are also contextual factors that affect a person's health: how much education they have, where they live, whether they have a job, what kind of work they do, and the quality of their food, home life and recreation. Those among these contextual factors that fall within social, economic and environmental domains are the social determinants of health.

If people living in rural and remote areas are to attain equal health by the year 2020, it is not just access to health services that must be improved. Their living conditions must also be improved so that they experience social determinants of health no worse than those experienced by people in major cities.

The extent to which people in rural and remote areas are 'less healthy', or have their health needs less well or less immediately looked after, can be assessed in what is called 'excess mortality'. This is a measure of the number of extra deaths among the people of rural and remote areas compared with the number there would be if the same death rate applied to them as for the people of the major cities.

Excess mortality is due to the whole range of issues impacting on health status and the efficacy of health service interventions. While it is not possible to say what proportion of the excess mortality is due to the social determinants of health, one can be certain they play a major role. Lower incomes, lower levels of education and employment, and poorer access to health services are among the social determinants of poor health for people in rural and remote areas, who are also disadvantaged by a higher prevalence of common risk factors for health, such as higher rates of smoking, greater rates of disability and lower rates of physical activity.

Rural people are also served by poorer health-related infrastructure, poorer (but less expensive) housing, less secure and costlier access to fresh food and water, and greater exposure to inherently dangerous occupations.

Another measure of the health of a human population is 'burden of disease'. This is an estimate of the total amount of illness and injury experienced in the nation – often expressed as a measure of the years of life lost due to premature death coupled with the years of 'healthy' life lost due to disability.

It has been estimated that just 14 risk factors are responsible for 32 per cent of Australia's burden of disease[1]: tobacco, high blood pressure, high body mass, physical inactivity, high blood cholesterol, alcohol, low fruit and vegetable consumption, illicit drugs, occupational exposures and hazards, intimate partner violence, child sexual abuse, urban air pollution, unsafe sex and osteoporosis. It is vital for the nation to consider how the effects of these risk factors can be reduced so that there are fewer illnesses to be diagnosed, managed and cured through the health sector.

However poorer health outcomes are measured, it is certain that illness and injury entail personal and economic costs for the individual, their family, the workforce and society at large. It is to everyone's advantage to foster healthy communities and environments.

1 Begg S, Vos T, Barker B, Stevenson C, Stanley L & Lopez AD 2007. The burden of disease and injury in Australia 2003. AIHW cat. no. PHE 82. Canberra: Australian Institute of Health and Welfare. **www.aihw.gov.au/publication-detail/?id=6442467990**

Personal characteristics

Table 1 shows the relative incidence, by location, of some of the common health risk factors.

Table 1: Personal and behavioural risk factors 2004/05

Risk factors	Major Cities (MC)	Inner Regional (IR)	(Outer Regional (OR) +Remote)	All regional and remote
	Age standardised prevalence ratio			
Behavioural risk factors				
Tobacco smoking	1.00	***1.15**	***1.30**	***1.21**
Hazardous/harmful alcohol consumption	1.00	***1.16**	***1.30**	***1.21**
Sedentary levels of physical activity	1.00	***1.09**	***1.24**	***1.15**
Consume reduced fat milk	1.00	***0.94**	***0.83**	***0.89**
Consume 2+ serves of fruit per day	1.00	0.98	***0.90**	***0.95**
Consume 4+ serves of vegetables per day	1.00	***1.44**	***1.54**	***1.48**
Experience food insecurity in past 12 months	1.00	1.19	1.21	*1.20
Personal risk factors				
High blood pressure	1.00	***1.11**	1.13	***1.12**
High cholesterol	1.00	***0.88**	***0.82**	***0.85**
Obese/overweight	1.00	***1.05**	***1.12**	***1.08**
Changes (1995-2004/05)				
Smoking (males)	***0.83**	0.95	0.94	0.95
Smoking (females)	***0.84**	0.96	1.09	1.01
Alcohol (males)	***1.39**	***1.40**	***1.40**	***1.40**
Alcohol (females)	***1.69**	***1.73**	***2.29**	***1.91**
Sedentary (persons)	***0.95**	1.03	***1.08**	***1.05**
Obesity (persons)	***1.13**	***1.14**	***1.18**	***1.15**

Source: AIHW 2008[2]

Some of these risk factors are greater in rural and remote areas because of a failure of measures to reduce them over the years. For example, while smoking rates in major cities declined by about 15 per cent between 1995 and 2004/05, they appear not to have done so in regional and remote areas.

This suggests that public health campaigns and other preventive interventions are not working as well in rural and remote areas as in the major cities.

The ground-breaking 'Whitehall Studies' of men and women in the British civil service have shown that stress related to lower levels of control over one's life is associated with substantially poorer health and higher death rates. Many (including Indigenous) people in some smaller and isolated communities have lower levels of access to real jobs and greater reliance on social security, and so have limited control over their lives, higher levels of stress and the resultant health consequences.

Economies reliant on the beneficence of the seasons are inherently less stable than others. The resultant income and employment insecurity has the potential for substantial negative impacts on health and illness.

The biomedical determinants of health can also vary substantially between urban and regional areas. For example, children in some regional and remote communities have high rates of skin and other infections, as well as higher rates of rheumatic fever, dental caries and abuse. The consequences of these can be to adversely affect health in adulthood through higher rates of chronic disease or poorer life opportunities generally.

Access to health services

Affordable and timely access to a range of health services can prevent illness in the first place, cure, arrest, make more bearable or slow the development of illness or chronic conditions, and provide emergency care after trauma.

The lower availability of services in regional and remote communities should therefore be seen as a health risk factor and a determinant of poorer health.

The physical, social and economic environment

Globally, the factor most closely associated with health status is income. This is because income provides people with an ability to control their lives: to have access to good food and housing, to afford a range of health care options, to live in a 'safe' neighbourhood, afford time to recreate, and with increased opportunity to be better educated.

In Australia, incomes are some 20 per cent lower in regional areas than in the major cities. In addition, income is affected by the natural environment. Poor seasons affect the incomes of farmers and of people in regional centres who rely on servicing farming communities. As a rule of thumb a good season boosts agricultural incomes and those of businesses most closely related to it. Climate change is expected to increase the variability of agricultural incomes and in many areas is likely to depress them.

It is difficult to be sure about the relative cost of living in major cities compared with regional and remote areas. The cost of housing in regional and remote areas is 60-80 per cent of what it is in major cities, but the costs of fuel, transport and food are substantially higher. (Where fuel and transport are concerned these higher costs relate to both unit price – eg per litre – and to the required rate of usage.)

The cost of food is about 20 per cent higher in remote areas, while the variety decreases and quality tends to be poorer.

The level of education attained by an individual is an important determinant of workforce status and therefore income. Because income is universally associated with health status it is a matter of importance that, compared with those in major cities, regional/remote students have lower educational attainment. Secondary school completion rates are lower and progression to tertiary education is less common.

The former is at least to some degree a product of the limited range of employment options outside major cities (and therefore of the perceived irrelevance of education), while the latter in large part reflects the additional costs rural students must bear if they are to attend university far away from their family homes.

2 http://www.aihw.gov.au/publications/index.cfm/title/10519