

Research Summary

Burden of disease due to health inequalities



VicHealth

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VicHealth has identified tackling health inequalities as an overarching theme of our *Strategic Priorities 2006–2009*. To do this, VicHealth focuses on three objectives: 1) Reduce health inequalities experienced by those most affected by social and economic inequality; 2) Improve knowledge in order to understand and respond to health inequalities; and 3) Influence social and economic policy that has an effect on health inequalities.

VicHealth seeks to improve the health of all Victorians but targets activities towards: disadvantaged areas, lower socioeconomic groups, Indigenous and refugee communities, people with disabilities, and disadvantaged children and young people.

This document presents some recent research related to health inequalities with a focus on:

1. Inequitable burden of disease internationally, nationally and in Victoria.
2. Cost of health inequalities for society, families and individuals.
3. The effect of health inequalities on specific populations.

Data has been drawn from evidence reviews and independent studies. This is one of two research summaries on health inequalities. The other summary has a focus on the key influences on health inequalities.

Key definitions and concepts

Health inequalities are differences in health status (such as rates of illness and death or self-rated health) that result from social, economic and geographic influences that are avoidable, unfair and unnecessary (Victorian Health Promotion Foundation 2005).¹

There are three dimensions to inequality:

Inequality of access refers to barriers to the services that support health and wellbeing. It includes barriers created through cost, physically inaccessible services, and through services not being culturally appropriate for all people living in Victoria.

Inequality of opportunity refers to barriers to the social, geographic and economic resources necessary to achieve and maintain good health such as education, employment, income and a safe place to live.

Inequality of impacts and outcomes refers to differences in health status between groups (for example in rates of death, illness or self-reported health). It is important to measure health outcomes so that it is possible to assess who is and who is not achieving good health and wellbeing in the community (Victorian Health Promotion Foundation 2008).

Health inequalities are complex, but can be explained largely by unequal access to material resources necessary for health, such as good housing, adequate income and healthy food. As well as having a direct impact on health, these may also result in psychological and social conditions which are health damaging. For example, low income and unemployment can lead to social isolation and exclusion, both of which have been found to influence health. In turn, these conditions can influence whether people adopt healthy behaviours. For example, a perception that they are being treated unfairly may undermine people's trust in others and in institutions, and hence their capacity to form the social connections understood to be important for good mental health (Victorian Health Promotion Foundation 2005).

Inequitable burden of disease: measuring differences

Health inequalities reflect inequitable access to the social, economic and geographic resources necessary for good health.

Health inequalities are observed in:

- self-assessed health and wellbeing,
- mortality,
- morbidity and
- health behaviour.

A range of measures of socioeconomic position have been used to demonstrate health inequalities, but these should not be taken as the only, or specific, cause of the inequality, as inequalities are caused by a complex range of factors.

For example, many studies use an area-based measure to assess differences in health outcomes. This does not mean that the inequalities would be reduced solely by improving the local area. This is because they may be caused by the people in that area all lacking access to a particular socioeconomic resource required for health (such as secure employment or higher education) (Shaw et al 2007). Improving access to these resources will require changes well beyond local communities.

Inequitable burden of disease: International data

International studies have shown that people from low-income households are more likely to:

- report their general health as fair or poor
- experience depression
- have days off work due to ill health
- report greater levels of physical impairment and functional limitation
- have greater difficulty accessing and affording appropriate health care, and
- be treated differently by the health care system than their more affluent counterparts [cited in (Turrell et al 2006)].

The health of people from lower occupational grades deteriorates faster with age compared with people from higher grades (Chandola et al 2007).

Emerging research from the United States suggests overall health in middle and late adulthood are shaped by socioeconomic conditions experienced during childhood, and from the accumulation of instances of disadvantage over an individual's lifetime (Turrell et al 2007)

In the US, adults who live in low socioeconomic neighbourhoods had a higher body mass index (BMI) than adults who live in high socioeconomic neighbourhoods (Wang et al 2007).

Although variable in size, health inequalities are observable in all European countries, with higher rates of mortality and lower rates of self-assessed health amongst men and women with lower socioeconomic positions (Kunst 2007).

Among boys and girls in the UK the prevalence of mental and behavioural disorders tends to rise as household income falls. The highest prevalence is found among children in households with a gross weekly income under £100: 18% of boys and 13% of girls in these households had some type of mental disorder. In contrast, children living in households with a gross weekly income of £600 or more were least likely to experience any type of mental disorder, at around 6–7% of boys and 4% of girls (UK Office for National Statistics 2007).

In the UK, obesity rates have been increasing most for children from poorer backgrounds, with a similar pattern also evident amongst adults (Law et al 2007).

In New Zealand, socially marginalised groups have poorer health, greater exposure to health hazards, and less access to high-quality health services than their more privileged counterparts. In addition, Māori people and ethnic minorities tend to have poorer health (Blakely et al 2007).

In the UK, those in the highest socioeconomic class had a smoking rate of 15% for men and 14% for women, compared with smoking prevalence rates of 45% for men and 33% for women in the lowest socioeconomic class (Crosier 2005).

Inequitable burden of disease: Australian data

Self-assessed health

People who are employed generally report higher levels of self-assessed health than do people who are unemployed or not in the labour force (Australian Bureau of Statistics 2007b).

In a wide-ranging, regular Australian survey, those with the consistently lowest wellbeing were:

- people with a household income of less than \$15,000
- people living alone or as single parents
- people who were unemployed
- people divorced or separated (Cummins et al 2006).

Mortality

For children aged 0–14, growing up in the least-advantaged areas was associated with a 233% higher death rate due to accidents and injury for males and a 156% higher rate for females (Nicholson et al 2004).

The death rate for all causes for blue-collar male employees is double that for male managers, administrators and professionals (Draper et al 2004).

Australians living in the most disadvantaged areas have higher death rates for most major causes, including:

- sudden infant death syndrome
- accidents and injury
- suicide
- all cancers
- diabetes, and
- diseases of the circulatory system (Draper et al 2004).

Compared with their counterparts in the highest income areas:

- Men living in the lowest income areas had death rates 107% higher for heart disease, 102% higher for lung cancer, 93% higher for stroke and 124% for accidents/injury
- Women living in the lowest income areas had death rates 170% higher for heart disease, 73% higher for lung cancer, 84% higher for stroke and 103% for accidents/injury (Walter & Siggers 2007).

In young males, suicide rates increased in the lowest socioeconomic group from 44.8 (per 100,000) in 1994–98 to 48.6 in 1999–2003 (an 8% increase). In contrast, suicide rates in the middle socioeconomic group decreased from a peak of 37.3 to 33.5 (a 10% decrease), and in the highest socioeconomic group from a peak of 33.0 to 27.9 (a 15% decrease) (Page et al 2006).

Australian child mortality is significantly associated with several indicators of disadvantage including low income, long duration of income support and living in socioeconomically disadvantaged areas (Yu 2007).

Morbidity

People from low income households report:

- higher levels of morbidity,
- poorer oral health, and
- lower rates of mammography and Pap smear screening [cited in (Turrell et al 2006)].

Compared to those on average and high incomes, respondents from low-income families report experiencing poorer health and being more likely to:

- engage in behaviours detrimental to health
- report food insecurity (ie. run out of food and be unable to buy more)
- use GP services overall but less likely to use health care services for preventive reasons (Turrell et al 2006).

Oral health outcomes are almost four times worse for low-income adults with 27.9% having problems with teeth, mouth and dentures severe enough to impact on their quality of life and health. This compares with 7.5% of high-income adults (Sanders 2007).

A study of almost 9000 schoolchildren around Australia found that among girls from affluent backgrounds the rate of obesity fell from 4.6% in 2000 to 3.9% in 2006. They were the only group to get slimmer. Overall rates among children (aged 6–18) rose from 5.1% to 6.4% (Stark 2007).

In South Australia, the highest proportion of overweight and obese 4-year-olds lived in the most disadvantaged areas, with 10% of 4-year-olds obese/overweight in the most advantaged areas and 18.4% of 4-year-olds obese/overweight in the least advantaged

areas (Hetzel et al 2004).

Parents who lack job security and control over their work are much more likely to suffer psychological distress than workers in better quality jobs. They are also more likely to report behaviour and emotional problems in their children (Alexander & Baxter 2005). People with limited socioeconomic resources (such as education) are more likely to be employed in jobs that lack security (Bill et al 2007; Curtain 2005)

Compared to other employees, women in casual or contract jobs have much higher levels of work stress, have less control of their jobs, and are more likely to be subjected to unwanted sexual advances at work (Ostry et al 2006). Unwanted sexual advances have been strongly linked with poorer health outcomes (Timmerman 2004; Victorian Health Promotion Foundation 2006).

People living in the most disadvantaged areas have a 31.7% greater burden of disease than people living in the most advantaged areas. This is due to higher burdens for most disease causes, but particularly for mental disorders and cardiovascular disease (Begg et al 2007).

Health-related behaviours

People on low incomes are more likely to engage in behaviours that negatively affect their health [cited in (Turrell et al 2006)].

They are more likely to:

- smoke cigarettes
- be less physically active during leisure time, and
- engage in dietary practices that put them at greater risk of chronic diseases such as coronary heart disease, diabetes and some cancers.

Gaps between groups continue to widen:

- Between 1989 and 2001 the proportion of people with a sedentary lifestyle decreased by 25.7% among the highest income earners, but only 3.3% among those on the lowest incomes (Najman et al 2006).
- There was a 35% decrease in smoking amongst the highest income earners between 1989 and 2004, but only 9% for those on the lowest incomes (Baum 2007).

Inequitable burden of disease: Victorian data

In 2006, 65.5% of people on low incomes in Victoria rated their health as good, very good or excellent, compared with 95.3% of people on the highest incomes. This has widened slightly since 2002 (Australian Bureau of Statistics 2004b; 2007b).

In 2004–05, 22% of people living in the most disadvantaged areas reported fair or poor health compared with 10% of those in the least disadvantaged areas (Australian Bureau of Statistics 2007b).

Rates of avoidable mortality are 1.34 times higher for males living in the most disadvantaged areas compared with the least disadvantaged. The rate for females in disadvantaged areas was 1.23 times higher (Piers et al 2007). Avoidable mortality is where death occurs as a result of a disease which is identifiable and for which effective interventions are known and health care services are available.

In 2004, 21.3% of males living in less disadvantaged areas were current smokers, compared with 29.7% living in the most disadvantaged areas (Department of Human Services 2005).

The more fast food outlets and the fewer walking tracks a suburb has, the more unhealthy its residents are likely to be. Disadvantaged areas have more fast food outlets per head of population and there are fewer connections between streets to encourage walking (Kavanagh et al 2007).

Costs of health inequalities for society, individuals and families

Recent international studies suggest the impact of socioeconomic inequalities in health are substantial. When measuring health as a resource necessary for labour productivity (“health as a capital good”), European economists conservatively calculate that the loss of labour productivity associated with the unequal burden of avoidable mortality decreases GDP by 1.4% or 141 billion euro each year. In addition, when valuing health as something that must be maintained through appropriate health service access and support (“health as a consumer good”), the unequal burden of avoidable mortality accounted for 15% of social security system costs and 20% of health care costs annually (Mackenbach et al 2007).

Using high-quality data modelling, researchers were able to demonstrate that if all Australians had the same health status as the most affluent 20% of the population, then each year health care costs would be around \$3 billion lower, and the government could save close to \$1 billion on the disability support pension annually (Walker 2005).

In a NSW study, hospital inpatient costs for those on the lowest incomes were 1.16 times greater than those on the highest incomes (Walker et al 2006).

Inequitable distribution of social inequality on specific populations

Particular sub-populations of the Australian community are more likely to lack access to the social, geographic and economic resources for good health and wellbeing. Aboriginal people, new arrivals/refugees and people with disabilities are more likely to be living in disadvantage. (Australian Bureau of Statistics 2007a; Borooah & Mangan 2007; SCRGSP 2007).

Aboriginal populations

Despite cultural strengths such as respect for elders, extended and supportive family networks, and a concept of health that incorporates connection with spirit and land, Aboriginal people experience entrenched disadvantage across generations which has been caused by structural problems and race-based discrimination since colonisation (Carson et al 2007; Victorian Indigenous Youth Affairs Council 2006).

The life expectancy of Indigenous people is estimated to be around 17 years lower than that for the total Australian population. This difference is the same for Indigenous people living in urban and remote communities (SCRGSP 2007).

Aboriginal youth are four times more likely to die before the age of 25 (mostly through suicide and car accidents), twice as likely to be obese, twice as likely to smoke, and 13 times more likely to be in prison (Australian Institute of Health and Welfare 2007).

New arrivals/refugees

Refugees show enormous courage and strength by coping with conditions of extreme deprivation and surviving against adversity. However, as a result of these conditions, those arriving in their new homelands often have health problems (Tong 2006). *These health problems continue through lack of access to the social and economic resources for health* (Taylor & Stanovic 2004).

Only 29% of Victorians born in non-English speaking countries with limited proficiency in English rated their health as excellent or very good. This compared with 53.1% of Victorians born in non-English speaking countries who were proficient in English and 63% of Victorians born in Australia (Australian Bureau of Statistics 2007a).

In 2004–05, the rate of diabetes among persons born in North Africa and the Middle East was double (6.6%) the rate of diabetes for persons born in Australia (3.3%), after adjusting for age differences (Australian Bureau of Statistics 2006). This discrepancy is partly due to environmental causes.

People with disabilities

20% of people living in Victoria report having a disability, ranging from 19% of people born in Australia to 40.8% of people born in Southern and Eastern Europe (Australian Bureau of Statistics 2004a). The relationship between health and disability is complex, being influenced by complications of the disability itself, the impact of functional limitations associated with the disability, and by broader social and economic conditions experienced by people with disabilities. There is also variability in the extent and nature of disability. Nevertheless, it is widely accepted that this group is 'deserving of attention in its own right from the perspective of health as well as disability' (Victorian Health Promotion Foundation 2005).

People with disabilities have been found to have demonstrably poorer access to the social and economic resources required for health, experiencing higher rates of social isolation, unemployment (9% compared with 5% for the general population) and violence; lower rates of workforce participation (53% compared with 81% in the general population) and lower average incomes. There is strong evidence that people with disabilities face barriers to accessing health care services and have lower rates of participation in illness prevention programs (Victorian Health Promotion Foundation 2005).

Only 52.25% of people with a disability rated their health as good, very good or excellent, compared with 85.4% of all Victorians (Australian Bureau of Statistics 2007a).

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