

## 10 Social inequalities in health

**This section presents an overview of the distribution of health among key social groups in Victoria. This initial review of data from the VPHS demonstrates that amidst overall strong performance, there is a pattern of social inequalities in health that, if it persists, may limit the life chances of some Victorians. As well as its effect on individuals, there is an economic burden for society associated with this excess morbidity. In 2005, the Victorian government released *A Fairer Victoria*, a social action plan that outlines a series of strategies to create opportunities and address disadvantage, including health inequalities. *A Fairer Victoria 2008* continues the commitment to strong people and strong communities, and to address disadvantage. The plan's portfolio of initiatives recognises the multiple causality of health inequalities and the fact that it is not only the health sector that can contribute to tackling the causes effectively.**

Governments have for many years recognised the importance of ensuring access to clean water, good housing and sanitation as being key prerequisites for good health. Advances in clinical practice and medical technology have also enabled the health system to better diagnose and treat many diseases, and to know more about certain risk factors for poor health. These advances have undoubtedly resulted in significant increases in life expectancy and general improvements in population health. However, there is evidence that the health gains realised over the past several decades have not been equally shared across the entire population. There are certain groups in our society that have poorer health than others. The differences in health status that exist between subpopulations are often referred to as 'health inequalities'. Some health differences are due to genetic or biological variations and/or result from personal lifestyle choices. Other disparities in people's health are not so easily explained.

Over the last century significant achievements were made in public health in Victoria, including reductions in premature mortality from most diseases<sup>1</sup>. However, the evidence on socioeconomic status (SES) and health in Australia, taken as a whole, is unequivocal: those who occupy positions at lower levels of the socioeconomic hierarchy fare significantly worse in terms of their health. Specifically, persons variously classified as 'low' SES have higher mortality rates for most major causes of death. Their morbidity profile indicates that they experience more ill-health (both physiological and psychosocial), and their use of health care services suggests that they are less likely to act to prevent disease or detect it at an asymptomatic stage. Moreover, socioeconomic differences in health are evident for both females and males at every stage of the life-course (birth, infancy, childhood and adolescence, and adulthood), and the relationship exists irrespective of how SES and health are measured<sup>2</sup>.

1 Piers LS, et al, 2007, 'Avoidable mortality in Victoria between 1979 and 2001', *Australian and New Zealand Journal of Public Health* 31: 5–12.

2 Turrell G, Oldenburg B, McGuffog I, Dent R, 1999, *Socioeconomic determinants of health: towards a national research program and a policy and intervention agenda*, Queensland University of Technology, School of Public Health, AusInfo, Canberra.

Socioeconomic status is typically measured by attributes that include the level of educational attainment, occupational status, and income. Greater levels of educational attainment are associated with higher levels of knowledge and other non-material resources likely to promote a healthy lifestyle. Education also provides formal qualifications that affect occupational status and income level. Occupational status reflects social status and power, and material conditions related to paid work. Individual and household incomes derive primarily from paid employment. Income provides individuals and families necessary material resources and determines their purchasing power. Thus income contributes to resources needed in maintaining good health<sup>3</sup>.

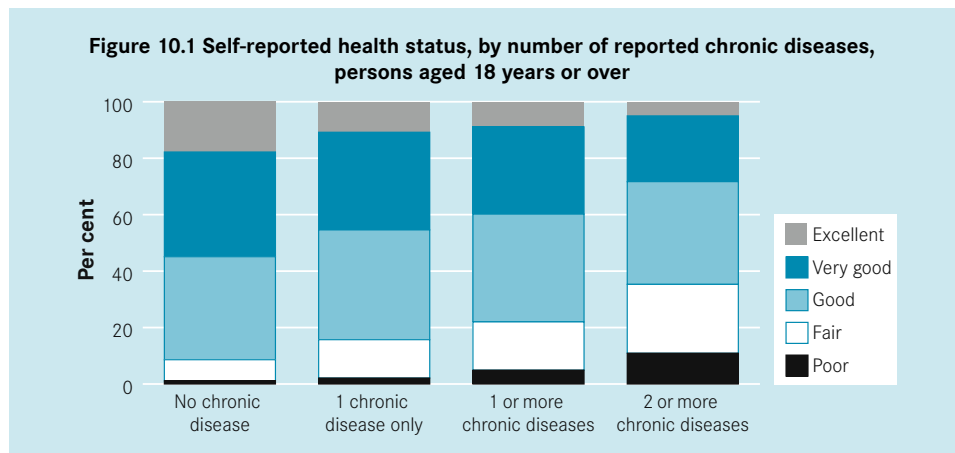
In order to tackle social inequalities in health, it must be accepted that they exist, that they have significant socioeconomic consequences and that they can be prevented. The VPHS provides a valuable source of data in this regard because it measures socioeconomic differences and a range of health and behavioural variables. The following section describes the relationship of various socioeconomic factors and the inequalities observed for self-rated physical and mental health.

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3 Lahelma, E, Martikainen, P, Laaksonen, M and Aittomäki, A, 2004, 'Pathways between socioeconomic determinants of health', *Journal of Epidemiology and Community Health*, 58: 327-332.

## Self-rated health

Self-rated health is a simple but good overall measure of health status. Figure 10.1 shows the relationship between diagnosed chronic diseases and self-rated health. There is a stepwise, or linear gradient in the proportion of individuals who reported that their health as fair or poor and the number of chronic diseases. Among individuals with no chronic disease approximately nine per cent rated their health as fair or poor, compared with 15.7 per cent of those with one chronic disease and 35.3 per cent of those with two or more chronic diseases. Similarly, among those who rated their health status as excellent or very good, more than half (54.9 per cent) had no chronic disease, 45.2 per cent had one chronic disease and 28.1 per cent had two or more chronic diseases.



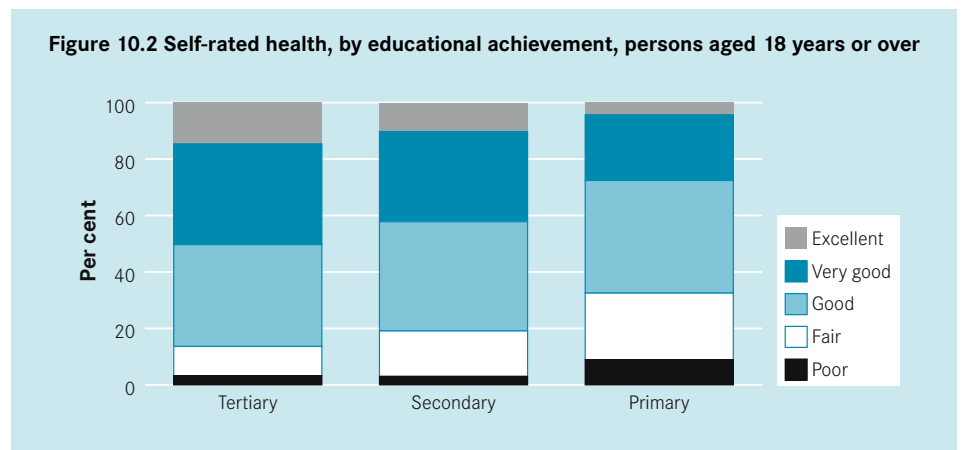
**Table 10.1 Self-reported health status, by number of reported chronic diseases, persons aged 18 years or over**

Self-rated health	No chronic disease		1 chronic disease only		1 or more chronic diseases		2 or more chronic diseases	
	Per cent	SE (%)	Per cent	SE (%)	Per cent	SE (%)	Per cent	SE (%)
Poor	1.1	0.3	2.1	0.3	4.9	0.5	10.9	1.4
Fair	7.5	0.6	13.6	1.0	17.1	0.9	24.4	1.9
Good	36.5	1.2	38.9	1.4	38.2	1.2	36.4	2.1
Very good	37.1	1.2	34.6	1.4	30.9	1.1	23.3	1.8
Excellent	17.8	1.0	10.6	0.8	8.7	0.6	4.8	0.7

Note: SE = standard error. Figures may not add to 100 per cent due to a proportion of 'don't know' or 'refused' responses.

Socioeconomic conditions and lifestyle factors have been found to be related to self-rated health status, which is an established predictor of morbidity and mortality. The Victorian Population Health Survey includes a number of socioeconomic variables, including educational achievement, employment status and household income. Figures 10.2–10.4 illustrate the associations between each of these indicators and self-rated health.

**Education:** A significantly higher proportion of those with a tertiary education (86.8 per cent) reported being in good, very good or excellent health, as compared to those with only a primary education (70.6 per cent).



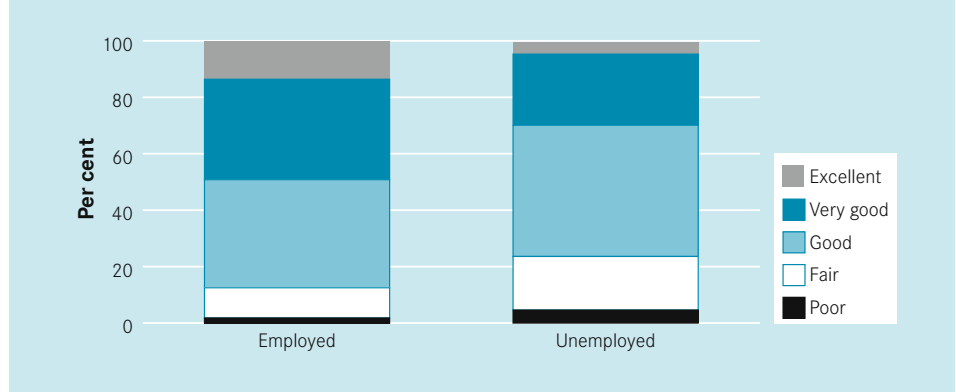
**Table 10.2 Self-rated health, by educational achievement, persons aged 18 years or over**

Self-rated health	Highest level of education attained					
	University/TAFE		High school		Primary school	
	Per cent	SE (%)	Per cent	SE (%)	Per cent	SE (%)
Excellent	14.7	0.8	10.4	0.7	6.8	2.3
Very Good	34.9	1.2	32.3	1.1	25.3	4.7
Good	37.2	1.2	38.4	1.2	38.5	4.8
Fair	10.0	0.7	15.6	0.8	21.2	3.5
Poor	3.2	0.4	3.0	0.3	8.1	2.6

Note: SE = standard error. Figures may not add to 100 per cent due to a proportion of 'don't know' or 'refused' responses.

**Employment:** Individual and household incomes derive primarily from paid employment. Poor health limits the capability of people to participate in gainful employment. The proportion of the population who rated their health as being fair or poor was less than half in those who were employed (12.5 per cent), as compared to those who were unemployed (23.6 per cent) (Figure 10.3).

**Figure 10.3 Self-reported health status, by employment status, persons aged 18 years or over**

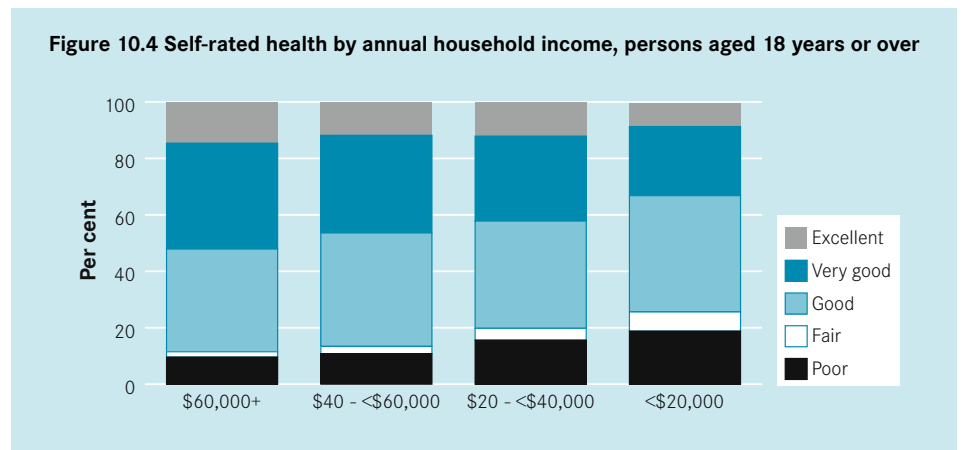


**Table 10.3 Self-reported health status, by employment status, persons aged 18 years or over**

Self-rated health	Employment status			
	Employed		Unemployed	
	Per cent	SE (%)	Per cent	SE (%)
Excellent	13.5	0.8	4.3	1.7
Very Good	35.6	1.1	25.2	4.3
Good	38.3	5.2	46.5	5.2
Fair	10.7	3.5	19.0	3.5
Poor	1.8	1.8	4.6	1.8

Note: SE = standard error. Figures may not add to 100 per cent due to a proportion of 'don't know' or 'refused' responses.

**Income:** The association between self-rated health and household income reflects a social gradient: the proportion of the population that report being in good, very good or excellent health progressively increases with increasing annual household income. Of those households earning \$60,000 or more, 88.4 per cent reported being in good, very good or excellent health, compared with 74.0 per cent of households earning less than \$20,000 per annum (Figure 10.4).



**Table 10.4 Self-rated health by annual household income, persons aged 18 years or over**

Self-rated health	Annual household income							
	More than \$60,000		From \$40,000 to \$60,000		From \$20,000 to \$40,000		Less than \$20,000	
	Per cent	SE (%)	Per cent	SE (%)	Per cent	SE (%)	Per cent	SE (%)
Excellent	14.5	1.0	11.7	1.3	12.1	1.3	8.3	1.1
Very Good	37.5	1.3	34.6	2.0	30.1	1.8	24.5	1.7
Good	36.4	1.3	40.2	2.1	38.0	2.0	41.2	2.3
Fair	9.6	0.8	10.8	1.2	15.6	1.4	18.8	1.5
Poor	1.9	0.4	2.6	0.7	4.2	0.7	6.8	1.0

Note: SE = standard error. Figures may not add to 100 per cent due to a proportion of 'don't know' or 'refused' responses.

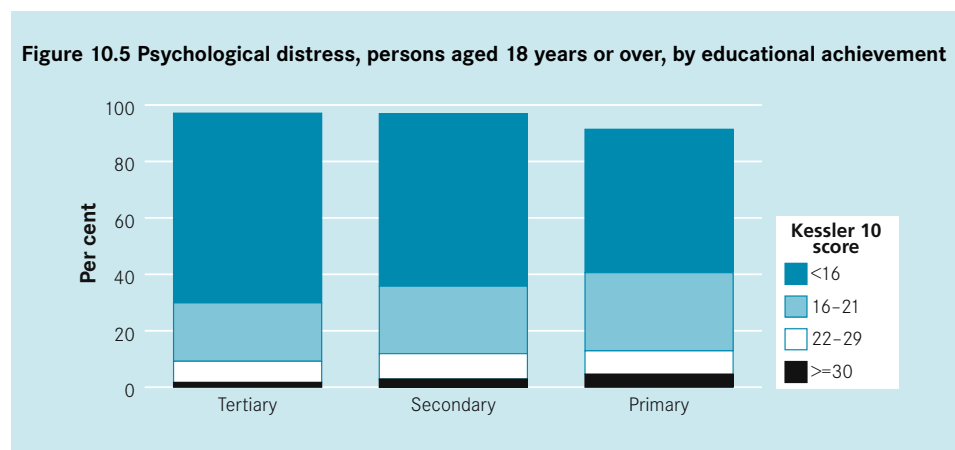
While a cross-sectional study does not allow definite conclusions as to which factors are determinants and which are consequences of poor self-rated health, the present results support the notion that socio-economic conditions are independently related to poor self-rated health.

## Psychological distress

Population studies frequently employ a single item dependent variable for overall health, namely self-rated health. The validity of self-rated overall health has been firmly established and frequently studied. Self-rated mental health has been the focus of attention less often but is important in its own right. The international public health community has placed increasing emphasis on mental health. It is identified within the “new morbidities” cluster of chronic diseases in which prevention and a population health approach can make a major contribution<sup>4</sup>. Modern societies are stressful, partly due to income inequalities.<sup>5</sup>

Measurement of mental health in population studies has evolved from complex diagnostic instruments toward shorter scales. Shorter item measures of mental health are valid because, rather than seeking to assign a clinical diagnosis, they simply reflect the respondent’s perceptions of his or her own mental health. Perceived or self-rated mental health is inherently valid because the respondent is the best judge of his or her own perceptions. Figures 10.5–10.7 illustrate the associations between the Kessler 10 measure of psychological distress and a number of socio-economic indicators included in the VPHS 2007. As with the relationships between self-rated health and socio-economic status reported above, it is important to recognise that it is not possible to disentangle determinants and consequences of poor mental health in a cross-sectional study.

**Education:** A significantly higher proportion of those with a tertiary education (67.2 per cent) had Kessler 10 scores in the range (< 16) associated with low levels of psychological distress, compared with those with only a primary education (50.8 per cent).



4 National Public Health Partnership (NPHP), 2001, *Preventing Chronic Disease: A Strategic Framework*. Melbourne: National Public Health Partnership.

5 Rohrer JE, 2004, Medical care usage and self-rated mental health, *BMC Public Health*, Volume 4:3. Wilkinson R, 2004, Linking social structure and individual vulnerability, *Journal of Community Work and Development*, Volume 5:31–48.

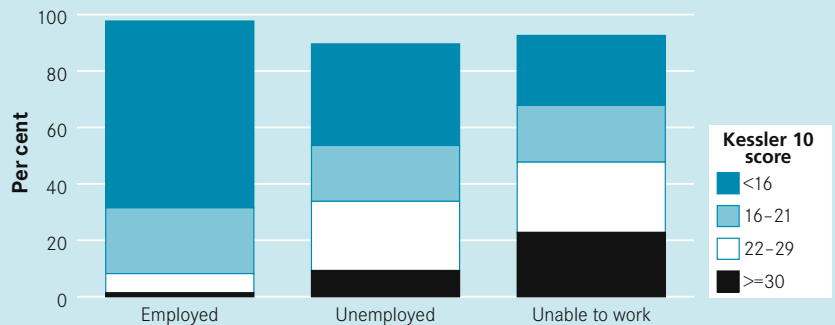
**Table 10.5 Psychological distress, persons aged 18 years or over, by educational achievement**

Kessler 10 category score	Highest level of education attained					
	Tertiary		Secondary		Primary	
	Per cent	SE (%)	Per cent	SE (%)	Per cent	SE (%)
<16	67.2	1.2	61.1	1.2	50.8	4.9
16-21	20.7	1.0	23.9	1.1	27.7	4.2
22-29	7.5	0.7	9.0	0.7	8.3	2.4
>=30	1.7	0.3	2.9	0.4	4.6	1.9

Note: SE = standard error. Figures may not add to 100 per cent due to a proportion of incomplete-‘don’t know’ or ‘refused’ – responses to individual Kessler 10 items.

**Employment:** The proportion of the population with Kessler 10 scores in the high and very high ranges among those who were unemployed (33.8 percent) was more than four times greater in those who were employed (8.2 percent). Among those who described their employment status as ‘unable to work’ the proportion (22.8 per cent) with very high (> 30) Kessler 10 scores was significantly greater than for those who were unemployed (9.3 per cent) or employed (1.4 per cent).

**Figure 10.6 Psychological distress, persons aged 18 years or over, by employment status**



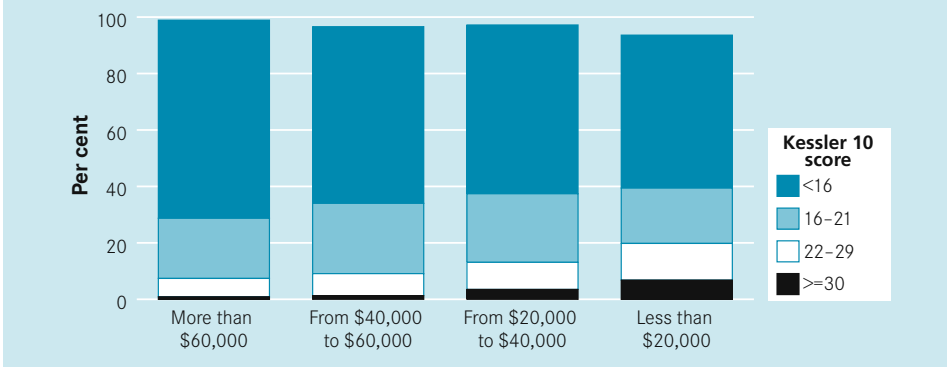
**Table 10.6 Psychological distress, persons aged 18 years or over, by employment status**

Kessler 10 category score	Employment status					
	Employed		Unemployed		Unable to work	
	Per cent	SE (%)	Per cent	SE (%)	Per cent	SE (%)
<16	66.2	1.1	36.0	5.1	24.8	3.5
16-21	23.3	1.0	19.8	4.2	20.1	3.2
22-29	6.8	0.6	24.5	4.3	24.9	4.1
>=30	1.4	0.3	9.3	2.5	22.8	3.9

Note: SE = standard error. Figures may not add to 100 per cent due to a proportion of incomplete-‘don’t know’ or ‘refused’ – responses to individual Kessler 10 items.

**Income:** A significantly higher proportion of individuals living in households with incomes greater than \$60,000 per year (70.2 per cent) had Kessler 10 scores in the range (< 16) associated with low levels of psychological distress, compared with those living in households with incomes of less than \$20,000 per annum (54.2 per cent). Conversely, the proportion of individuals with scores in the ranges indicative of high or very high levels of psychological distress was significantly greater among those with low household incomes (\$20,000 or less per year) compared with those with higher household incomes (\$60,000 or more per annum). More than one in twenty (6.8 per cent) lower income households had very high (Kessler 10 scores compared with less than one per cent (0.9 per cent) of households with incomes of more than \$60,000 per year. More than one in seven (13.0 per cent) of low income households had Kessler 10 scores in the range 22–29, compared with 6.5 per cent of households with incomes in excess of \$60,000 per year.

**Figure 10.7 Psychological distress, persons aged 18 years or over, by annual household income**



**Table 10.7 Psychological distress, persons aged 18 years or over, by annual household income**

Kessler 10 category score	Annual household income							
	More than \$60,000		From \$40,000 to \$60,000		From \$20,000 to \$40,000		Less than \$20,000	
	Per cent	SE (%)	Per cent	SE (%)	Per cent	SE (%)	Per cent	SE (%)
<16	70.2	1.3	62.6	2.1	59.8	2.0	54.2	2.3
16-21	21.3	1.2	24.9	1.9	24.3	1.8	19.6	1.6
22-29	6.5	0.7	7.8	1.1	9.6	1.3	13.0	2.0
>=30	0.9	0.2	1.3	0.4	3.5	0.9	6.8	1.1

Note: SE = standard error. Figures may not add to 100 per cent due to a proportion of incomplete-‘don’t know’ or ‘refused’-responses to individual Kessler 10 items.

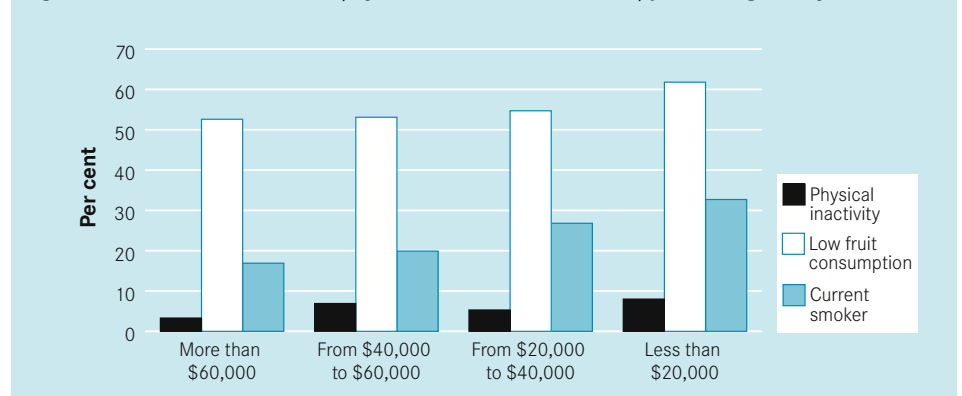
### What causes social inequalities in health?

The recent report *A Fairer Victoria 2008* identifies a number of mechanisms that drive unfair disparities including:

1. The uneven distribution of material and social resources that influence health.
2. Differences in health behaviours and disease risk factors, otherwise known as lifestyle-related risk factors; for example, poor nutrition, smoking, and the misuse of alcohol<sup>6</sup>.

Figure 10.8 shows that the higher the household income, the lower the prevalence of a range of lifestyle-related risk factors. There were statistically significant differences between those in the highest and lowest levels of annual household income with respect to levels of smoking and physical inactivity (Table 10.8). The proportion of individuals who were current smokers ranged from 16.9 percent of those from households with incomes of \$60,000 or more to 32.7 per cent of those from households with incomes of less than \$20,000 per annum (Figure 10.8). Levels of physical inactivity were greater (8.0 per cent) among individuals in lowest household income category compared with those in the highest household income category (3.3 per cent). Differential exposure to behavioural risk factors, such as smoking and physical inactivity, can be expected to contribute to the manifestation of health differences in later life.

**Figure 10.8 Selected risk factors, by level of household income, persons aged 18 years or over**



**Table 10.8 Selected risk factors, by level of household income, persons aged 18 years or over**

Annual household income	Physical inactivity		Low fruit consumption		Current smoker	
	Per cent	SE (%)	Per cent	SE (%)	Per cent	SE (%)
More than \$60,000	3.3	0.6	52.6	1.5	16.9	1.1
From \$40,000 to \$60,000	6.9	1.1	53.1	2.2	19.9	1.6
From \$20,000 to \$40,000	5.3	0.8	54.7	2.3	26.8	2.1
Less than \$20,000	8.0	1.5	61.8	2.3	32.7	2.5

Note: SE = standard error. Low fruit consumption is defined as less than 2 serves of fruit per day.

<sup>6</sup> Ezzati M, et al. Estimates of global and regional potential health gains from reducing multiple major risk factors. *Lancet* 2003, 362, 271–80.

### **Action to reduce social inequalities in health**

Socioeconomic status (SES) underlies three major determinants of health: health care, environmental exposure, and health behaviour. In addition, chronic stress associated with lower SES may also increase morbidity and mortality<sup>7</sup>. People also need to be supported to make better decisions about their own health and welfare.

In Victoria, action to reduce social inequalities in health has been integrated into the Government's overall social policy agenda. In 2005, the Government released *A Fairer Victoria*, an inter-sectoral action plan that outlines a series of strategies to create opportunities and address disadvantage, including health inequalities. The emphasis has been on using public policy to shape the broader social environment in ways that are conducive to better health. Specific initiatives are also a feature of a number of health-specific strategies. The action is focused on three directions:

- Reducing the disadvantage and discrimination that leads to illness: in 2008, *A Fairer Victoria* outlined a \$1 billion package of initiatives aimed at addressing disadvantage, this was in addition to over \$3 billion spent since 2005.
- Promoting health for all by ensuring that health promotion activities reach all Victorians: the Tobacco Control Strategy includes explicit targets to reduce the prevalence of smoking among low income Victorians, for example.
- Improving health care services ensuring affordability and accessibility.

Other initiatives in the areas of housing and education recognise the multi-causality of health inequalities and the fact that it is not only the health sector that can contribute to tackling the causes effectively. The underlying philosophy is that there is merit in prevention because the effects of social inequalities in health extend beyond those individuals directly affected and to society as a whole.

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<sup>7</sup> Adler & Newman, Socioeconomic Disparities In Health: Pathways And Policies, *Health Affairs*, 2002; 21(2): 60–76.