Health risk factors affect the onset and prognosis of a variety of chronic diseases. A wide body of research has demonstrated complex yet robust connections between a number of biomedical and behavioural factors and major chronic diseases and conditions (AIHW 2002d), including the fact that the major chronic diseases share common risk factors (AIHW 2004b). Environmental factors from cultural, socioeconomic and physical domains have also been shown to have a strong association with both disease and ill-health.

Socioeconomic status is a significant determinant of the likelihood that individuals and populations are exposed to health risk factors (Blakely, Hales & Woodward 2004). As outlined in other chapters in this report, Aboriginal and Torres Strait Islander people experience widespread disadvantage across a range of socioeconomic indicators including income, education, employment and housing conditions. These factors may all contribute to the high rates of environmental and behavioural risk factors reported by Indigenous Australians in 2002.

Understanding risk factors facilitates early intervention and management strategies to prevent or ameliorate disease and so achieve health gains for individuals and populations (NPHP 2001). The World Health Organization (2000) states that:

‘Much is known about the prevention of non-communicable diseases. Experience clearly shows that they are to a great extent preventable through interventions against the major risk factors and their environmental, economic, social and behavioural determinants in the population’.

The health risk factors presented in this chapter focus on behavioural risk factors, including smoking, alcohol, illicit substance use and physical inactivity, as well as selected environmental risk factors, such as stress, exposure to violence and removal from natural family. Associations between risk factors and other health indicators are also presented. However, in some cases it is not known whether the risk factor leads to poor health or whether poor health leads to increased exposure to that risk factor. A brief section on nutrition and body weight is included at the end of the chapter.

The 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS) provides the most recent data for the majority of risk factors presented in this Chapter. Where possible, information from the 2002 General Social Survey (GSS) has also been included in order to provide comparisons between the Indigenous and non-Indigenous populations. Data from various other sources, such as the 2001 National Health Survey (NHS), the 2001 National Drug Strategy Household Survey (NDSHS) and the National Hospital Morbidity Database (NHMD) are also included (see the Data Sources for further details).
It is widely accepted that health risk factors are strongly associated with socioeconomic status (AIHW 2004b). The 2002 NATSISS showed that in general, high rates of both behavioural and environmental risk factors were reported among Indigenous people aged 15 years or over who had low levels of educational attainment, who were unemployed or who had below-average incomes (table 8.1). For example, unemployed people were more likely than employed people to smoke on a daily basis, to have used illicit substances in the last 12 months, to be physically inactive, to have experienced at least one stressor in the last 12 months, to have been a victim of physical or threatened violence and to have been removed from their natural family.

8.1 HEALTH RISK FACTORS, by selected socioeconomic variables—Indigenous persons aged 15 years or over—2002

<table>
<thead>
<tr>
<th>Health risk factors</th>
<th>Highest year of school completed (a)</th>
<th>Labour force status (b)</th>
<th>Equivalised gross household income (c)</th>
<th>Indigenous persons aged 15 years or over</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current daily smoker</td>
<td>55.5</td>
<td>48.2</td>
<td>63.0</td>
<td>39.0</td>
</tr>
<tr>
<td>Risky/high risk alcohol consumption (e)</td>
<td>17.4</td>
<td>15.2</td>
<td>16.9</td>
<td>14.6</td>
</tr>
<tr>
<td>Used substances (e) (g)</td>
<td>22.4</td>
<td>25.2</td>
<td>21.4</td>
<td>20.9</td>
</tr>
<tr>
<td>Did not participate in sport/physical activity (e)</td>
<td>66.7</td>
<td>44.5</td>
<td>39.8</td>
<td>40.6</td>
</tr>
<tr>
<td>Experienced at least one stressor (e)</td>
<td>82.3</td>
<td>83.2</td>
<td>80.4</td>
<td>79.3</td>
</tr>
<tr>
<td>Victim of physical or threatened violence (e)</td>
<td>21.6</td>
<td>26.1</td>
<td>20.6</td>
<td>19.1</td>
</tr>
<tr>
<td>Has been removed from natural family</td>
<td>11.2</td>
<td>6.6</td>
<td>6.0</td>
<td>6.7</td>
</tr>
</tbody>
</table>

Indigenous persons aged 15 years or over no. 108 100 154 900 130 400 38 800 88 600 96 100 282 200

(a) Excludes persons still at secondary school. (b) Excludes persons not in the labour force. (c) See the Glossary for more information on equivalised gross household income. (d) Includes persons who never attended school.

**SMOKING**

Smoking tobacco increases the risk of coronary heart disease, stroke, peripheral vascular disease, numerous cancers and a variety of other diseases and conditions. As a single risk factor, it causes the greatest burden of disease for the total Australian population, accounting for 12% of the burden of injury and disease in males and 7% in females (Mathers, Vos & Stevenson 1999). As chapters 7 and 9 show, Aboriginal and Torres Strait Islander people are at greater risk than non-Indigenous Australians of hospitalisation and/or death from these conditions.

In 2002, just over half (51%) of the Indigenous population aged 15 years or over were cigarette smokers (49% current daily smokers and 2% occasional smokers), consistent with the rate reported in 1994 (52%). Similar proportions of men (51%) and women (47%) were current daily (or regular) smokers, and the highest rates were reported by those aged 25–44 years (graph 8.2). While there was little difference between the overall proportions of Indigenous people in remote and non-remote areas who smoked, males in remote areas were more likely than males in non-remote areas to smoke on a daily basis (56% compared with 48%).
Several surveys have shown that, while Aboriginal and Torres Strait Islander people are less likely than non-Indigenous Australians to consume alcohol, those who do so are more likely to drink at hazardous levels (ABS 2002c; AIHW 2003a). Excessive alcohol consumption is associated with a variety of adverse health and social consequences. It is a major risk factor for conditions such as liver disease, pancreatitis, diabetes and some types of cancer. Alcohol is also a frequent contributor to motor vehicle accidents, falls, burns and suicide (AIHW 2004b) and has the potential to evoke anti-social behaviour, domestic violence and family breakdown. Excessive alcohol consumption was associated with 3.4% of all deaths in Australia in 1996 and 4.8% of the total burden of disease (Mathers, Vos & Stevenson 1999).

**SMOKING continued**

![CURRENT DAILY SMOKERS, Indigenous persons aged 15 years or over—2002](chart)

Source: ABS, 2002 NATSISS

Smoking was associated with poorer health outcomes among Aboriginal and Torres Strait Islander people in 2002. For example, regular smokers were more likely than those who did not smoke to report being in fair or poor health (26% compared with 21%) and were less likely to report being in excellent or very good health (40% compared with 48%). Current daily smokers were also more likely than non-smokers to have a disability or long-term health condition (39% compared with 34%).

Indigenous smokers also reported higher rates of other substance use. In 2002, those who regularly smoked were more than twice as likely as those who did not smoke to usually consume risky or high risk amounts of alcohol (21% compared with 10%) (see the Glossary for further details on alcohol consumption risk levels). Moreover, regular smokers in non-remote areas were two and a half times as likely as non-smokers to have recently used illicit substances (34% compared with 14%). This was particularly the case for marijuana use, where 29% of regular smokers had used marijuana in the last 12 months, compared with 9% of non-smokers.

Results from the 2001 NHS indicate that smoking is more prevalent among Indigenous Australians than non-Indigenous Australians. After adjusting for age differences, Indigenous people aged 18 years or over were twice as likely as non-Indigenous people to be current smokers.

**ALCOHOL**

Several surveys have shown that, while Aboriginal and Torres Strait Islander people are less likely than non-Indigenous Australians to consume alcohol, those who do so are more likely to drink at hazardous levels (ABS 2002c; AIHW 2003a). Excessive alcohol consumption is associated with a variety of adverse health and social consequences. It is a major risk factor for conditions such as liver disease, pancreatitis, diabetes and some types of cancer. Alcohol is also a frequent contributor to motor vehicle accidents, falls, burns and suicide (AIHW 2004b) and has the potential to evoke anti-social behaviour, domestic violence and family breakdown. Excessive alcohol consumption was associated with 3.4% of all deaths in Australia in 1996 and 4.8% of the total burden of disease (Mathers, Vos & Stevenson 1999).
Two measures of alcohol consumption risk level were derived from the 2002 NATSISS. The first measure was designed to capture long-term risk and was based on a person’s reported usual daily consumption of alcohol and the frequency of consumption in the previous 12 months. The second measure was designed to capture short-term risk, or binge drinking, and was based on the largest quantity of alcohol consumed in a single day during the fortnight prior to interview. Alcohol consumption risk levels were based on the National Health and Medical Research Council’s (NHMRC) Australian Drinking Guidelines (box 8.3). See the Glossary for further details.

### 8.3 SUMMARY OF AUSTRALIAN ALCOHOL GUIDELINES FOR SHORT-TERM AND LONG-TERM PATTERNS OF DRINKING

<table>
<thead>
<tr>
<th>Consumption Pattern</th>
<th>Males</th>
<th>Females</th>
<th>Persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low risk</td>
<td>52.7</td>
<td>40.0</td>
<td>46.1</td>
</tr>
<tr>
<td>Risky/high risk</td>
<td>17.1</td>
<td>13.4</td>
<td>15.1</td>
</tr>
<tr>
<td>Total</td>
<td>75.6</td>
<td>63.6</td>
<td>69.4</td>
</tr>
</tbody>
</table>

For women the equivalent limit is four standard drinks.

Source: NHMRC 2001 (AIHW 2004).

In 2002, approximately one in six Indigenous people (15%) aged 15 years or over reported risky/high risk alcohol consumption in the last 12 months. The rate of risky/high risk consumption was higher for Indigenous males than for females (table 8.4) and peaked among those aged 35–44 years (20%).

### 8.4 CHRONIC ALCOHOL CONSUMPTION, Indigenous persons aged 15 years or over—2002

<table>
<thead>
<tr>
<th>Consumption Pattern</th>
<th>Males</th>
<th>Females</th>
<th>Persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drank alcohol in last 12 months</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low risk</td>
<td>52.7</td>
<td>40.0</td>
<td>46.1</td>
</tr>
<tr>
<td>Risky/high risk</td>
<td>17.1</td>
<td>13.4</td>
<td>15.1</td>
</tr>
<tr>
<td>Total</td>
<td>75.6</td>
<td>63.6</td>
<td>69.4</td>
</tr>
<tr>
<td>Did not drink alcohol in last 12 months</td>
<td>24.4</td>
<td>36.4</td>
<td>30.6</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Indigenous persons aged 15 years or over** no. 135 200 147 000 282 200

(a) Includes persons who consumed alcohol on one day or less in the last 12 months and whose risk level was not determined.

(b) Includes persons who consumed alcohol in the last 12 months but did not state their alcohol consumption level.

Source: ABS, 2002 NATSISS
The term ‘illicit drugs’ refers to a variety of substances that are either illegal to possess (e.g. heroin) or legally available, but used inappropriately (e.g. misuse of prescription medication, inhalation of petrol) (AIHW 2004b). The use of illicit drugs is linked to various medical conditions for individuals. Injecting drug users, for example, have an increased risk of blood-borne viruses such as hepatitis or HIV. For communities, there is increased potential for social disruption, such as that caused by domestic violence, crime and assaults (Gray et al. 2002; McAllister & Makkai 2001).

Excessive alcohol consumption in the long term was associated with higher rates of poor health and disability among Indigenous Australians in 2002. Those who drank alcohol at risky/high risk levels were more likely to report being in fair or poor health (27% compared with 20%) and were less likely to report being in excellent or very good health (40% compared with 48%) than those who drank at low risk levels. They were also more likely to report having a disability or long-term health condition (40% compared with 32%).

Like smoking, harmful consumption of alcohol was associated with higher rates of other health risk behaviours. In 2002, Indigenous people who had consumed alcohol at risky/high risk levels in the last 12 months were more likely than those who had consumed alcohol at low risk levels to regularly smoke (67% compared with 50%), to have been physically inactive (59% compared with 45%) and, for those in non-remote areas, to have used illicit substances in the last 12 months (41% compared with 25%).

The NHMRC also states that heavy drinkers are more likely to be both offenders and victims of alcohol-related violence (NHMRC 2000a). The 2002 NATSISS showed that those who usually consumed alcohol at risky or high risk levels were one and a half times as likely as those who drank at low risk levels to report being a victim of physical or threatened violence in the last 12 months (36% compared with 24%).

Results from the 2001 NHS indicate that when age differences were taken into account, Indigenous adults were less likely than non-Indigenous adults to have consumed alcohol in the week prior to interview (ABS 2002c). However, among those who did drink alcohol, Indigenous Australians were more than one and a half times as likely as non-Indigenous Australians to consume alcohol at risky or high risk levels.

Over one-third (35%) of Indigenous people aged 15 years or over reported consuming risky or high risk amounts of alcohol in the two weeks prior to interview. Males were nearly twice as likely as females to drink at risky/high risk levels (45% compared with 26%). Indigenous Australians who had consumed harmful amounts of alcohol in the last two weeks did not report higher rates of poor health or disability compared with those who drank at low risk levels. However, risky/high risk binge drinking was associated with higher rates of smoking (61% compared with 43%), victimisation (32% compared with 19%) and substance use in the last 12 months (35% compared with 19% in non-remote areas).

The term ‘illicit drugs’ refers to a variety of substances that are either illegal to possess (e.g. heroin) or legally available, but used inappropriately (e.g. misuse of prescription medication, inhalation of petrol) (AIHW 2004b). The use of illicit drugs is linked to various medical conditions for individuals. Injecting drug users, for example, have an increased risk of blood-borne viruses such as hepatitis or HIV. For communities, there is increased potential for social disruption, such as that caused by domestic violence, crime and assaults (Gray et al. 2002; McAllister & Makkai 2001).
The 2002 NATSISS provides the most recent information on illicit substance use within the Indigenous population. However, due to data quality concerns associated with the method used to collect substance use data from respondents in remote areas, the statistics presented in this chapter are limited to Indigenous people living in non-remote areas.

The 2002 NATSISS shows that one-quarter (24%) of Indigenous people aged 15 years or over in non-remote areas reported having recently used an illicit substance (that is, they had used a substance in the 12 months prior to interview) and 40% reported having tried at least one illicit substance in their lifetime. Information on frequency of substance use was not collected.

Substance use was more prevalent among Indigenous males, of whom 43% had tried illicit drugs (compared with 37% of females) and 27% had used at least one substance in the last 12 months (compared with 21% of females). Indigenous people aged 25–34 years were the most likely to have ever tried substances (55%), whereas recent substance use peaked among those aged 15–24 years (30%).

As shown in graph 8.5, marijuana was the most commonly reported illicit drug used by Aboriginal and Torres Strait Islander people in 2002. One-third (34%) reported having tried marijuana and 19% had used it in the last 12 months. Amphetamines/speed and painkillers or analgesics (for non-medical use) were the next most frequently reported substances either experimented with or recently used by Indigenous Australians.

Substance use alone was not directly associated with poorer self-assessed health in 2002. Similar rates of excellent or very good health (41% compared with 43%) and fair or poor health (24% compared with 25%) were reported among those who had recently used substances and those who had never used substances.

However, substance use was associated with other health risk factors. For example, Indigenous people who had used substances in the last 12 months were more likely than those who had never used substances to regularly smoke (69% compared with 39%) and to usually consume alcohol at risky or high risk levels (25% compared with 9%). They
Physical inactivity was strongly associated with self-assessed health status. One-third (33%) of people who did not participate in sport or physical recreation activities rated their health as fair or poor, compared with 14% of people who did participate. Moreover, 34% of people who were not physically active rated their health as excellent or very good compared with more than one-half (55%) of people who were physically active.

Those who did not play sport or participate in physical activities were also more likely to regularly smoke (54% compared with 43%) and to usually consume alcohol at risky or high risk levels (18% compared with 13%).

Although no direct comparisons can be made between Indigenous and non-Indigenous people in 2002, the 2001 NDSHS showed that Indigenous respondents aged 14 years or over were one and a half times as likely as non-Indigenous respondents to have tried illicit substances and were nearly twice as likely to have used them in the last 12 months (AIHW 2003a).

Physical inactivity is second only to tobacco use as a contributor to population ill-health (accounting for 7% of the total burden of disease and injury in Australia in 1996) and is the leading contributor to preventable illness and morbidity among women (Mathers, Vos & Stevenson 1999). A sedentary lifestyle doubles the risk of cardiovascular disease, Type II diabetes and obesity. It also increases the risks of colon and breast cancer, high blood pressure, lipid disorders, osteoporosis, depression and anxiety (WHO 2002a).

In 2002, just over half (51%) of Indigenous people aged 15 years or over had not played sport or participated in physical recreation activities in the last 12 months. Women (58%) were more likely than men (43%) to have been physically inactive and rates of inactivity increased with age (graph 8.6).

Physical inactivity was strongly associated with self-assessed health status. One-third (33%) of people who did not participate in sport or physical recreation activities rated their health as fair or poor, compared with 14% of people who did participate. Moreover, 34% of people who were not physically active rated their health as excellent or very good compared with more than one-half (55%) of people who were physically active.

Those who did not play sport or participate in physical activities were also more likely to regularly smoke (54% compared with 43%) and to usually consume alcohol at risky or high risk levels (18% compared with 13%).

Graph 8.6: Non-participation in sport/physical recreation activities (a), Indigenous persons aged 15 years or over—2002

(a) In the last 12 months
Source: ABS, 2002 NATSISSS

Physical inactivity was strongly associated with self-assessed health status. One-third (33%) of people who did not participate in sport or physical recreation activities rated their health as fair or poor, compared with 14% of people who did participate. Moreover, 34% of people who were not physically active rated their health as excellent or very good compared with more than one-half (55%) of people who were physically active.

Those who did not play sport or participate in physical activities were also more likely to regularly smoke (54% compared with 43%) and to usually consume alcohol at risky or high risk levels (18% compared with 13%).
Major life changes that alter a person’s social roles and relationships, such as divorce, serious illness, or the death of a loved one, can increase susceptibility to stress, especially when several of these changes occur within a brief time period (Bryce 2001). Chronic life stress is detrimental to a person’s health as it elevates the risk of developing depression, diabetes, high cholesterol and high blood pressure (Wilkinson & Marmot 2003).

In 2002, 82% of Indigenous people aged 15 years or over reported experiencing at least one life stressor in the last 12 months. The most common types of stressors reported were the death of a family member or close friend (46%), serious illness or disability (31%) and inability to get a job (27%). However, for those living in remote areas the most frequently reported stressors were death of a family member or close friend (55%), overcrowding at home (42%) and alcohol and drug-related problems (37%) (graph 8.8).

When age differences between the Indigenous and non-Indigenous populations are taken into account, Indigenous people aged 18 years or over were one and a half times as likely as non-Indigenous people to have been physically inactive in 2002. Both Indigenous and non-Indigenous females were less likely than their male counterparts to have participated in sport or physical recreation activities in the last 12 months.
Exposure to violence is a health risk factor that is at times overlooked, despite its potential to result in permanent disability, psychological trauma and even death. The World Health Organization (2002b) reports that in addition to direct physical injury, victims of violence are at greater risk of a wide variety of psychological and behavioural problems including depression, anxiety, suicidal behaviour, and alcohol and substance misuse. Victims of sexual violence are also at increased risk of developing reproductive health problems and contracting sexually transmitted diseases (WHO 2002b).

High rates of multiple life stressors were reported by Aboriginal and Torres Strait Islander people in 2002. Just under one-half (44%) reported experiencing at least three life stressors in the last 12 months and one in eight (12%) reported experiencing at least seven life stressors during this time period. Multiple stressors were particularly prevalent among those living in remote areas, who were twice as likely as those living in non-remote areas to have experienced seven or more stressors in the last year (20% compared with 9%).

Exposure to life stressors was associated with poorer self-assessed health and higher rates of health risk behaviour. Indigenous people who had reported experiencing at least one stressor in the last 12 months were more likely than those who had not experienced a stressor to report being in fair or poor health (25% compared with 17%) and were less likely to report being in excellent or very good health (42% compared with 54%). They were also more likely to have a disability or long-term health condition (38% compared with 29%), to regularly smoke (50% compared with 41%), to have recently used illicit substances (24% compared with 14% in non-remote areas) and to have been a victim of physical or threatened violence in the last 12 months (28% compared with 8%).

When age differences between the Indigenous and non-Indigenous populations were taken into account, Indigenous people aged 18 years or over were almost one and a half times as likely as non-Indigenous people to report having experienced at least one stressor in 2002. However the types of stressors experienced by both Indigenous and non-Indigenous people were similar, with serious illness or disability, death and inability to get a job being the three most frequently reported stressors by non-Indigenous people in 2002.

Exposure to violence is a health risk factor that is at times overlooked, despite its potential to result in permanent disability, psychological trauma and even death. The World Health Organization (2002b) reports that in addition to direct physical injury, victims of violence are at greater risk of a wide variety of psychological and behavioural problems including depression, anxiety, suicidal behaviour, and alcohol and substance misuse. Victims of sexual violence are also at increased risk of developing reproductive health problems and contracting sexually transmitted diseases (WHO 2002b).
EXPOSURE TO VIOLENCE continued

In 2002, nearly one-quarter (24%) of Indigenous people aged 15 years or over reported being a victim of physical or threatened violence in the previous 12 months, nearly double the rate reported in 1994 (13%). However, some of this increase may reflect the different wording of victimisation questions used in the 1994 and 2002 surveys.

Rates of victimisation were similar for people living in remote and non-remote areas (23% compared with 25%) and for men and women overall (26% compared with 23%). Younger people were more likely to have been a victim of physical or threatened violence in 2002, with men aged 15–24 years having the highest rate of any age group (36%) (graph 8.9).

Those who were victims of physical or threatened violence in 2002 reported higher rates of fair or poor health (28% compared with 22%) and lower rates of excellent or very good health (38% compared with 46%) than those who had not been victimised. Moreover, people who had been victimised were more likely to report having a disability or long-term health condition (43% compared with 34%). They were also more likely to regularly smoke (61% compared with 45%), to usually consume alcohol at risky or high risk levels (22% compared with 13%) and to have used at least one illicit substance in the last 12 months (38% compared with 19% of persons in non-remote areas).

When age differences between the Indigenous and non-Indigenous populations are taken into account, Indigenous people aged 18 years or over experienced double the victimisation rate of non-Indigenous people in 2002. These data are consistent with the very much higher rates in the Indigenous population of hospitalisation due to assault. As shown in Chapter 7, hospital separations for assault-based injuries were seven times higher for Indigenous males and 31 times higher for Indigenous females in 2003–04 (AIHW National Hospital Morbidity Database).

REMOVAL FROM NATURAL FAMILY

In 1997, the Human Rights and Equal Opportunity Commission published *Bringing them Home: Report of the National Inquiry into the Separation of Aboriginal and Torres Strait Islander Children from their Families*. This report highlighted the very damaging effects that forced separation and institutionalisation have had, and continue to have, on Indigenous Australians. Evidence to the Inquiry clearly established that people who were
Effects of Forced Separation on the Social and Emotional Wellbeing of Aboriginal Carers and their Children

The Western Australian Aboriginal Child Health Survey (WAACHS) obtained information about the effects of forced separations on the social and emotional wellbeing of Aboriginal carers and their children. An estimated 2,760 Aboriginal children (12%) aged 4–17 years in Western Australia had a primary carer who had been forcibly separated from his/her family. The WAACHS showed that those carers who were forcibly separated from their natural family were more likely to live in households where there were problems caused by gambling or overuse of alcohol. They were also one-and-a-half times as likely to have contact with WA Mental Health Services and were almost twice as likely to have been arrested or charged by police at some point in their lifetime.

In 2002, around one in twelve (8%) of Indigenous Australians aged 15 years or over reported having been personally removed from their natural family. A further 29% reported having relatives who were removed from their family when they were children. The most frequently reported relatives removed were grandparents (15%), aunts or uncles (11%) and parents (9%).

Consistent with the findings of the Inquiry, the 2002 NATSISS showed that Indigenous people who were personally removed from their natural families reported poorer health outcomes. In comparison with those who were not removed from their families, those who had been taken away were more likely to report being in fair or poor health (40% compared with 22%) and were less likely to report being in excellent or very good health (33% compared with 46%). They were also more likely to regularly smoke cigarettes (65% compared with 47%) and to have a disability or long-term health condition (54% compared with 35%).

Removal was also associated with increased risk of mental health problems in 2002. The NATSISS did not explicitly identify persons in remote areas with a psychological disability. However in non-remote areas, rates of psychological disability were two and a half times higher among those who had been separated from their families compared with those who had not been separated (20% and 8% respectively).

In this chapter, risk factors such as smoking, alcohol consumption and stress have been assessed largely in isolation from one another. However, the level of risk of a particular factor may depend on whether other factors are also present, as risk factors tend to coexist and be interactive in their effects (AIHW 2002c). For example, diet-related illnesses may be associated with environmental, behavioural, biological and genetic factors, making it difficult to determine the extent to which diet contributes to the disease (AIHW 2004b). The diets of many Indigenous people have undergone rapid change from a fibre-rich, high protein, low saturated fat ‘traditional’ diet, to one in which refined carbohydrates predominated (NHMRC 2000b). In addition, external factors such as the physical environment, dispossession of land, socioeconomic status, historical and cultural issues, and access to fresh food in remote areas all affect the choices Indigenous Australians have in terms of nutrition and diet.

The 2002 NATSISS did not collect information about diet or nutrition. However, results from the 2001 NHS show that while similar proportions of Indigenous and non-Indigenous people aged 15 years or over in non-remote areas reported a medium to high vegetable intake (two or more serves a day), Indigenous people were less likely than non-Indigenous people to report a medium to high intake of fruit. They were also more likely to consume whole (full cream) milk rather than reduced fat alternatives, and to add salt to food after cooking. For more information on nutrition, see chapters 3 and 6.

Relative body weight is important both as an indicator of past and current health and as a predictor of future health. Being underweight may reflect poor nutrition or illness, and under-nutrition is still a significant health problem, particularly for children in some Indigenous communities (NHMRC 2000c). Obesity, on the other hand, is a risk factor for kidney disease, Type II diabetes, cardiovascular disease and other chronic health conditions (AIHW 2004b).

Calculations of body weight in the 2001 NHS were based on reported measurements of height and weight. After adjusting for age differences between the Indigenous and non-Indigenous populations and survey non-response, Indigenous people aged 15 years or over were 1.3 times as likely as non-Indigenous people to be overweight. For both males and females, a higher proportion of Indigenous than non-Indigenous Australians were classified as obese in every 10-year age group from 15–24 years to 55 years or over. The proportion of both Indigenous and non-Indigenous people aged 18 years or over who were classified as obese increased between 1995 and 2001.

For more information on nutrition and body weight, see Chapter 8 in the 2003 edition of this report. New data will be available from the 2004–05 National Aboriginal and Torres Strait Islander Health Survey, due for release in 2006 (see Data Sources for further details).

In this chapter, risk factors such as smoking, alcohol consumption and stress have been assessed largely in isolation from one another. However, the level of risk of a particular factor may depend on whether other factors are also present, as risk factors tend to coexist and be interactive in their effects (AIHW 2002c). For example, for smokers who are physically inactive, the risks associated with smoking may combine with those of
The relative socioeconomic disadvantage experienced by Aboriginal and Torres Strait Islander people compared with non-Indigenous people places them at greater risk of exposure to behavioural and environmental health risk factors.

In 2002, about half (49%) of the Indigenous population aged 15 years or over smoked on a daily basis. One in six (15%) reported consuming alcohol at risky or high risk levels in the last 12 months and just over half (51%) had not participated in sport or physical recreation activities during this period. One-quarter (24%) of Indigenous people living in non-remote areas reported having used illicit substances in the 12 months prior to interview and 40% reported having tried at least one illicit drug in their lifetime. With the exception of substance use, these behavioural risk factors were associated with poorer self-assessed health among Indigenous people in 2002.

In 2002, about eight in ten (82%) Indigenous people reported experiencing at least one life stressor in the last 12 months and nearly one-quarter (24%) reported being a victim of physical or threatened violence during this period. Higher rates of fair or poor health and health risk behaviour were reported among Indigenous people who had been exposed to these environmental risk factors. Indigenous people who had been removed from their natural families as children also reported poorer health outcomes in comparison with those who were not removed from their families.

The NATSISS shows that, on average, Indigenous people aged 15 years or over were exposed to 2.3 health risk factors in 2002. Approximately 5% reported no health risk factors and 16% reported at least four risk factors (graph 8.11). The most common combinations of multiple risk factors included stress, regular smoking and physical inactivity.

**SUMMARY**

The relative socioeconomic disadvantage experienced by Aboriginal and Torres Strait Islander people compared with non-Indigenous people places them at greater risk of exposure to behavioural and environmental health risk factors.

The NATSISS shows that, on average, Indigenous people aged 15 years or over were exposed to 2.3 health risk factors in 2002. Approximately 5% reported no health risk factors and 16% reported at least four risk factors (graph 8.11). The most common combinations of multiple risk factors included stress, regular smoking and physical inactivity.

**NUMBER OF RISK FACTORS REPORTED (a), Indigenous persons aged 15 years or over – 2002**

<table>
<thead>
<tr>
<th>Risk factors</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>8.11</td>
</tr>
<tr>
<td>One</td>
<td>10</td>
</tr>
<tr>
<td>Two</td>
<td>20</td>
</tr>
<tr>
<td>Three</td>
<td>30</td>
</tr>
<tr>
<td>Four</td>
<td>40</td>
</tr>
<tr>
<td>Five or six</td>
<td>50</td>
</tr>
</tbody>
</table>

(a) Risk factors include regular cigarette smoking, risky/high risk alcohol consumption in the last 12 months, non-participation in sport/physical activity in the last 12 months, experience of at least one stressor in the last 12 months, being a victim of physical or threatened violence in the last 12 months, and having been removed from natural family.

Source: ABS, 2002 NATSISS