

DESIRED OUTCOMES

Everybody has the opportunity to enjoy a long and healthy life. Avoidable deaths, disease and injuries are prevented. Everybody has the ability to function, participate and live independently or appropriately supported in society.

Health

INTRODUCTION

Good health is critical to wellbeing. Without good health, people are less able to enjoy their lives to the fullest extent, their options are limited and their general levels of contentment and happiness are likely to be reduced.

Good health has two core dimensions: how long people live and the quality of their lives. The desired outcomes recognise both aspects. As well as enjoying long lives, people want to be free from the pain, suffering and incapacity that result from injury or illness.

The desired outcomes also acknowledge that not everybody can live a fully independent life. For some people, illness or disability means they need support from families, government agencies or other networks to overcome barriers to their participation in society. Getting this support is an important part of social wellbeing.

People with injuries or illness (both mental and physical) may experience barriers to participating in education, training and employment, thus reducing their economic standard of living. These barriers can also reduce people's ability to participate in other areas of life, such as family life, socialising with friends, joining community activities and taking part in recreation and leisure pursuits, which can lead to feelings of frustration and isolation.

A range of factors affect and are affected by health outcomes, including genetic predisposition, behaviour, the physical and social environment and the availability of health services. Increasing attention is being paid to the interaction between socio-economic and health outcomes. People with low incomes, poor housing and few qualifications are likely to have disproportionately poorer health.¹⁶

INDICATORS

Five indicators are used in this chapter. Together they provide a picture of the current state of the nation's health and the likely trends in the future. They cover the length and quality of life and include both physical and mental health. The indicators are: health expectancy, life expectancy, suicide, cigarette smoking and obesity.

The first three indicators are relevant to the current state of the nation's health. Together, they directly measure the desired outcomes relating to long and healthy lives, and people's ability to participate in society. The last two indicators are strong predictors of future health outcomes.

Health expectancy refers to the number of years a person can expect to live independently, ie free of any disability requiring the assistance of another person or complex assistive device. This is a summary measure of population health integrating both fatal (life expectancy) and non-fatal (disability requiring assistance) health outcomes.

Life expectancy measures the survival experience of the population: how long people live. It is an indicator of fatal health outcomes.

The suicide death rate serves as a proxy for the mental health status and social wellbeing of the population. The indicator covers the suicide death rate for society as a whole and includes details for subsets of the population. New Zealand's suicide death rates are trending down, but our youth suicide death rates remain high compared with other OECD countries.

The links between cigarette smoking and poor health are widely recognised. For example, cigarette smoking (active and passive) is a risk factor for many cancers and respiratory and cardiovascular diseases, and has been linked with low birth weight, Sudden Infant Death Syndrome, and other adverse child health outcomes. Obesity is linked with poor health outcomes, such as an increased risk of heart attacks, strokes, type 2 diabetes and some cancers.¹⁷

Health expectancy

DEFINITION

The number of years a person could expect to live in good health if current mortality and morbidity rates persist.

The particular measure of health expectancy used here is the number of years a person could expect to live independently, ie live without any functional limitation requiring the assistance of another person or complex assistive device. Hence it is also described as independent life expectancy.

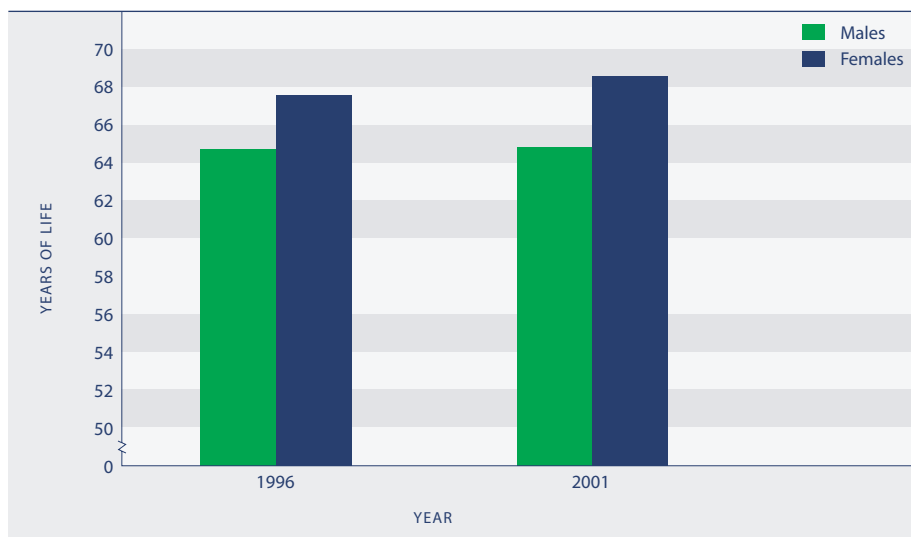
RELEVANCE

Health expectancy is a summary measure of population health that captures both the “quantity” and “quality” of life dimensions of physical and mental health. Independent life expectancy at birth is a positive measure, capturing expectations of a life free from functional limitation that requires assistance. Improvements in health expectancy reflect changes in social and economic conditions, lifestyle changes, medical advances and better access to health services.

CURRENT LEVEL AND TRENDS

In 2001, males had an independent life expectancy at birth of 64.8 years. The figure for females was 68.5 years, a difference of 3.7 years. For the total population, independent life expectancy at birth improved for females since 1996 (67.5 years) but not for males (64.7 years). This resulted in an increase of almost one year in the overall sex gap in independent life expectancy at birth between 1996 and 2001.

Figure H1.1 **Independent life expectancy at birth, by sex, 1996 and 2001**



Source: Ministry of Health, revised data

ETHNIC DIFFERENCES

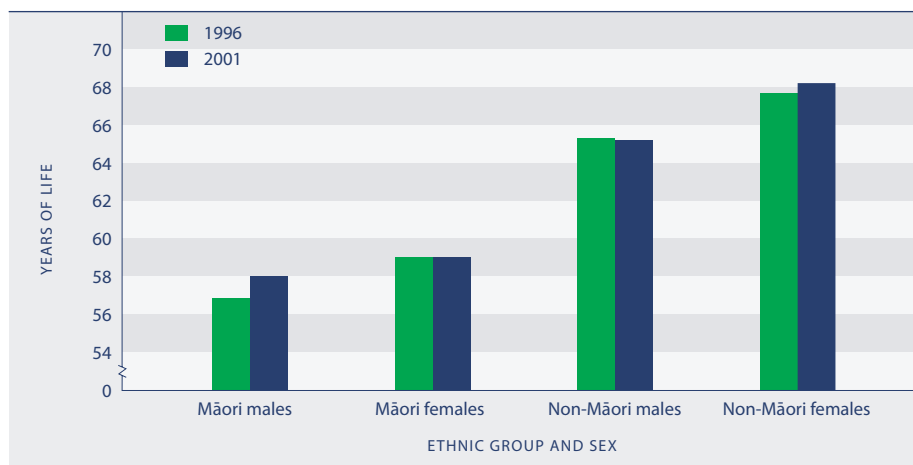
Only partial (0–85 years) independent life expectancy can be estimated for ethnic comparisons because of the small number of Māori aged over 85 years. These ethnic-specific statistics are not comparable with those for the total population.

There are large differences between Māori and non-Māori in their probability of living a long and healthy life. Revised estimates for 2001 show a newborn Māori male had a partial (0–85 years) independent life expectancy of 58.0 years, compared to 65.2 years for a non-Māori male, a gap of 7.2 years. The difference is greater for females: a Māori female born in 2001 could expect to have a partial independent life expectancy 9.2 years less than her non-Māori counterpart (59.0 years, compared to 68.2 years for non-Māori females).

Between 1996 and 2001, partial (0–85 years) independent life expectancy improved marginally for Māori males and non-Māori females, but there was no change for non-Māori males and Māori females.

The sex gap in independent life expectancy at birth for Māori narrowed between 1996 and 2001.

Figure H1.2 **Partial independent life expectancy at birth, Māori and non-Māori, by sex, 1996 and 2001**



Source: Ministry of Health, revised data

Note: These Māori/non-Māori comparisons in independent life expectancy are based on estimates for the 0–85 years age group because of the small number of Māori over 85 years of age

Life expectancy

DEFINITION

Life expectancy at birth indicates the total number of years a person could expect to live, based on the mortality rates of the population at each age in a given year or period.

RELEVANCE

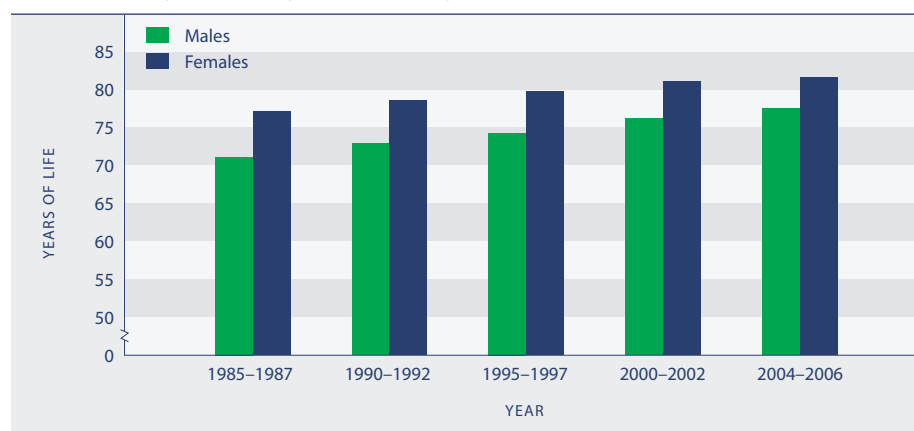
Life expectancy at birth is a key summary indicator of fatal health outcomes, ie the survival experience of the population.

CURRENT LEVEL AND TRENDS

Based on the mortality experiences of New Zealanders in the period 2004–2006, life expectancy at birth was 77.9 years for males and 81.9 years for females. Since the mid-1980s, gains in longevity have been greater for males than for females. Between 1985–1987 and 2004–2006, life expectancy at birth increased by 6.8 years for males and 4.8 years for females. As a result, the sex gap in life expectancy decreased from 6 years to 4 years over this period.

With the decline in the infant mortality rate (from 11.2 deaths per 1,000 live births in 1986 to 5.1 per 1,000 in 2006), the impact of infant death on life expectancy has lessened. The gains in life expectancy since the mid-1980s can be attributed mainly to reduced mortality in the middle-aged and older age groups (45–84 years).

Figure H2.1 **Life expectancy at birth, by sex, selected years, 1985–1987 to 2004–2006**



Source: Statistics New Zealand

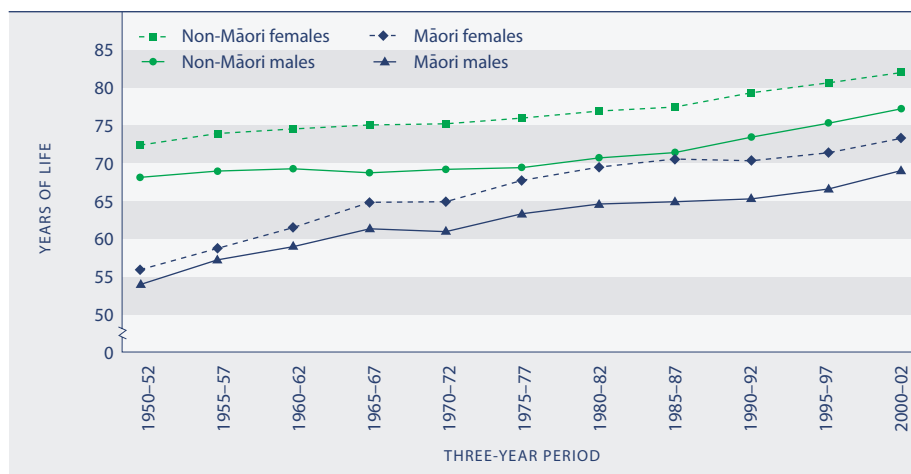
ETHNIC DIFFERENCES

There are marked ethnic differences in life expectancy. In 2000–2002, male life expectancy at birth was 77.2 years for non-Māori and 69.0 years for Māori, a difference of 8.2 years. Female life expectancy at birth was 81.9 years for non-Māori and 73.2 years for Māori, a difference of 8.8 years.

The pace of improvement in life expectancy has varied by ethnic group. For non-Māori, there was a fairly steady increase in life expectancy at birth over the period from 1985–1987 to 2000–2002, with males gaining 5.8 years and females 4.5 years. For Māori, there was little change during the 1980s, but a dramatic improvement in the five years to 2000–2002. While the gain in Māori life expectancy over the whole period 1985–1987 to 2000–2002 (4.1 years for males, 2.7 years for

females) was less than that for non-Māori, Māori gained more than non-Māori in the latter five-year period. As a result, the gap in life expectancy at birth between non-Māori and Māori, which widened by 2.4 years between 1985–1987 and 1995–1997, reduced by 0.6 years in the five years to 2000–2002.

Figure H2.2 **Life expectancy at birth, by ethnic group and sex, 1950–1952 to 2000–2002**



Sources: Statistics New Zealand; Ministry of Health

Note: Figures for 1981–1996 have been adjusted for undercount, using the New Zealand Census – Mortality Study

SOCIO-ECONOMIC DIFFERENCES

There is an association between life expectancy and the level of deprivation in the area where people live. In 2000–2002, males in the least deprived 10th of small areas in New Zealand could expect to live 8.9 years longer than males in the most deprived 10th of small areas (79.9 versus 71.0 years). For females, the difference was smaller, but still substantial, at 6.6 years (83.8 versus 77.2 years). These figures illustrate the links between socio-economic status and health.¹⁸

INTERNATIONAL COMPARISON

In 2003–2004, New Zealanders' life expectancy at birth was 81.3 years for females and 77.0 years for males. This was about the same as the OECD median of 81.4 years for females and slightly above the median of 76.1 years for males in 2003–2004. New Zealand was ranked 17th out of 30 countries for females, and ninth for males. New Zealand's ranking was higher than this in 1960 (sixth for males, seventh for females). Over the 1970s and 1980s, longevity improved faster in many other OECD countries than in New Zealand. In the 1990s, faster-than-average gains in life expectancy in New Zealand improved its relative position. In 2003–2004, life expectancy at birth was highest for females in Japan (85.6 years) and highest for males in Iceland (79.2 years). Compared to New Zealand, female life expectancy was higher in Australia (83.0) and Canada (82.4), but lower in the United Kingdom (80.7 years) and the United States (80.1 years). Male life expectancy was higher in Australia (78.1 years), similar in Canada (77.4 years), and lower in the United Kingdom (76.2 years) and the United States (74.8 years).¹⁹

Suicide

DEFINITION

The number of suicide deaths per 100,000 population, expressed as a three-year moving average age-standardised rate, for the population aged 5 years and over.

RELEVANCE

Suicide is an indicator of the mental health and social wellbeing of society and a major cause of injury-related death in the population.

CURRENT LEVEL AND TRENDS

In 2004, 486 people died by suicide, a decline from the 517 people who died in 2003.²⁰ The three-year moving average age-standardised²¹ suicide death rate was 13.1 per 100,000 population in 2002–2004, compared with 13.5 per 100,000 in 2001–2003. Over the 1980s and 1990s there was an upward trend in the suicide death rate, which reached a peak of 16.3 per 100,000 in 1995–1997 and 1996–1998. Since then the rate has fallen and the 2002–2004 rate was the same as the 1985–1987 rate of 13.1 suicide deaths per 100,000 people.

Figure H3.1 **Age-standardised suicide death rate, three-year moving average, by sex, 1985–2004**



Source: Ministry of Health, New Zealand Health Information Service
 Notes: (1) The three-year moving average rates are plotted on the mid-point year (eg 2003 is the mid-point year of 2002–2004)
 (2) 2004 figures are provisional (3) Age-standardised to WHO standard population

AGE DIFFERENCES

People aged 25–34 years had the highest three-year moving average suicide death rate in 2002–2004 (18.5 per 100,000 population, with 94 deaths in 2004), followed by people aged 15–24 years (17.7 per 100,000, with 112 deaths in 2004).

Figure H3.2 **Suicide death rate, three-year moving average, by age, 1985–2004**



Source: Ministry of Health, New Zealand Health Information Service
 Notes: (1) Age-specific three-year moving average rates, plotted on the mid-point year (eg 2003 is the mid-point year of 2002–2004)
 (2) 2004 figures are provisional

For many decades, the suicide death rate was consistently highest at ages 65 years and over but this changed in the late 1980s during a steep increase in youth (15–24 year olds) suicide. The youth suicide death rate peaked at 27.2 per 100,000 people aged 15–24 years in 1995–1997. It has fallen by 35 percent since then, but is still higher than the 1985–1987 rate of 15.8 per 100,000. The pattern is similar for 25–34 year olds. Suicide death rates have been falling among people aged 45 years and over. These age patterns may reflect, in part, cohort effects.

SEX DIFFERENCES

Males have a much higher rate of death by suicide than females, with 20.1 deaths per 100,000 males in 2002–2004, compared with 6.4 deaths per 100,000 females.²² The male suicide rate increased sharply in the late 1980s, declined after 1996–1998, and in 2004 was almost the same as the 1985–1987 rate of 20.3 deaths per 100,000 males. In comparison, the female rate has been relatively stable over the last 20 years. Because of the small numbers involved, it is more reliable to consider the trend over several years.

While the suicide death rate is higher for males, more females than males are hospitalised for intentional self-harm. In 2005, the female–male rate ratio for intentional self-harm in New Zealand was 2.0 female hospitalisations to every male hospitalisation per 100,000 population. Females more commonly choose methods that are less likely to be fatal.²³

ETHNIC DIFFERENCES

In 2004, there were 110 Māori deaths from suicide, accounting for 23 percent of all suicide deaths in that year. The three-year moving average age-standardised rate of suicide deaths in 2002–2004 was 17.1 per 100,000 population for Māori, compared to 12.0 for non-Māori. The suicide death rate for Māori youth (15–24 year olds) in 2002–2004 was 32.3 per 100,000, compared with the non-Māori rate of 14.3 per 100,000. Suicide death rates for both Māori and non-Māori – all ages and youth – were lower in 2002–2004 than in 1996–1998. Because of the small numbers, trends in Māori suicide rates should be treated with caution.

INTERNATIONAL COMPARISON

A comparison of the latest age-standardised suicide death rates in 14 OECD countries between 2001 and 2004 shows New Zealand's (2003) rate was the fourth highest for males (21.0 per 100,000 males) and the fourth highest for females (7.5 per 100,000 females).²⁴ Finland had the highest male suicide death rate (31.1 per 100,000 in 2004), while Japan had the highest female rate (10.4 per 100,000 in 2004). Australia (17.6) had a lower rate of male suicide deaths than New Zealand, as did Canada (18.4) and the United States (18.0). The United Kingdom had the lowest male suicide death rate (10.8). Canada (5.3), Australia (4.8), the United States (4.2) and the United Kingdom (3.2) all reported lower female suicide death rates than New Zealand.

New Zealand had the third highest male youth (15–24 years) suicide death rate, after Finland and Ireland, and the highest female youth suicide death rate. New Zealand is one of a small number of countries which have higher suicide rates at younger ages than at older ages.²⁵

Cigarette smoking

DEFINITION

The proportion of the adult population who currently smoke cigarettes. Up to 2005, the survey population was people aged 15 years and over (ACNielsen survey). From 2006, the survey population is people aged 15–64 years (New Zealand Tobacco Use Survey).

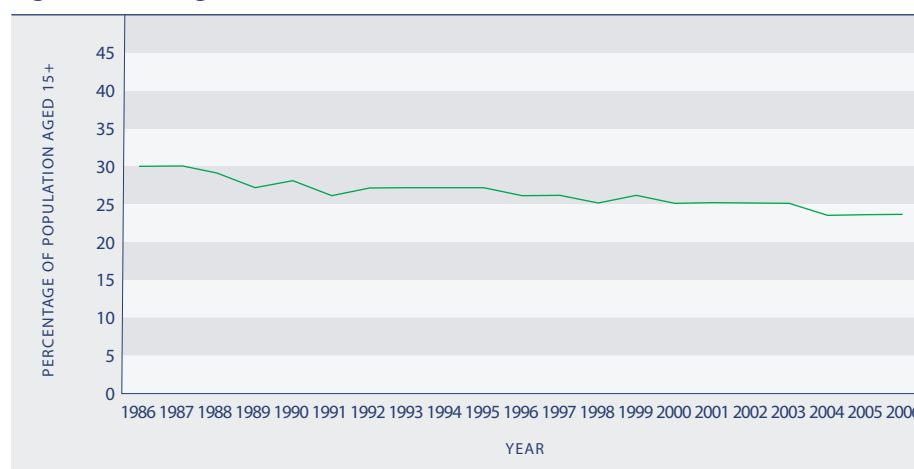
RELEVANCE

Tobacco smoking is a well-recognised risk factor for many cancers and for respiratory and cardiovascular diseases. In addition, exposure to environmental tobacco smoke (particularly maternal smoking) has been identified as a major risk factor for Sudden Infant Death Syndrome (SIDS) and respiratory problems in children. Internationally, smoking has been identified as the major cause of preventable death in OECD countries.²⁶

CURRENT LEVEL AND TRENDS

In 2006, 24 percent of New Zealanders aged 15–64 years were cigarette smokers. This prevalence estimate is the same as that derived from the ACNielsen survey for 2005, although it is important to note the estimates from the two data sources are not strictly comparable. Smoking has declined from 30 percent in 1986, with most of the decline occurring between 1987 and 1991.

Figure H4.1 **Cigarette smoking, 1986–2006**



Source: Ministry of Health (2006c) Tables B1, C2
Notes: (1) Data not standardised for age (2) 1986–2005: population aged 15+ years; 2006: population aged 15–64 years

AGE AND SEX DIFFERENCES

Smoking rates for females and males have been similar since the mid-1980s. Over the 1990s, both sexes became less likely to smoke. In 2006, 25 percent of males and 23 percent of females smoked.

Smoking is most prevalent among people aged 20–29 years, followed by those aged 15–19 years and those aged 30–39 years. People aged 50 years and over are much less likely to smoke than younger people and have experienced the greatest decline in smoking prevalence over the past 20 years. However, the biggest decrease in smoking between 2002 and 2006 occurred among those aged 15–24 years.

ETHNIC DIFFERENCES

Māori women have the highest smoking rate (50 percent in 2006), followed by Māori men (40 percent). Among Pacific peoples, smoking is more prevalent among men (41 percent) than among women (34 percent). Asian men (19 percent) and women (5 percent) have the lowest smoking rates and the biggest difference between the sexes.

Since 1990, smoking prevalence has declined by five percentage points for the European/Other and Māori ethnic groups, while it has increased for Pacific peoples. Time series data for the Asian population alone is not available.²⁷

Table H4.1 **Age-standardised prevalence (%) of cigarette smoking, by sex and ethnicity, 2006**

	Percentage in each ethnic group who smoke cigarettes				
	Māori	Pacific	Asian	European/Other	Total
Male	40.0	41.3	18.6	21.3	24.6
Female	50.0	33.8	4.7	20.0	23.3
Total	45.2	37.4	12.3	20.6	24.0

Source: Ministry of Health (2006c) Table 1

Note: Rates are age-standardised using the WHO world population

SOCIO-ECONOMIC DIFFERENCES

Smoking is more prevalent among those with lower incomes, beneficiaries and those living in the most deprived areas. An analysis of 1996 Census data shows the proportion of smokers in the most deprived (decile 10) areas is two to three times the proportion of smokers in the least deprived (decile 1) areas for all age groups, and for both sexes.²⁸

INTERNATIONAL COMPARISON

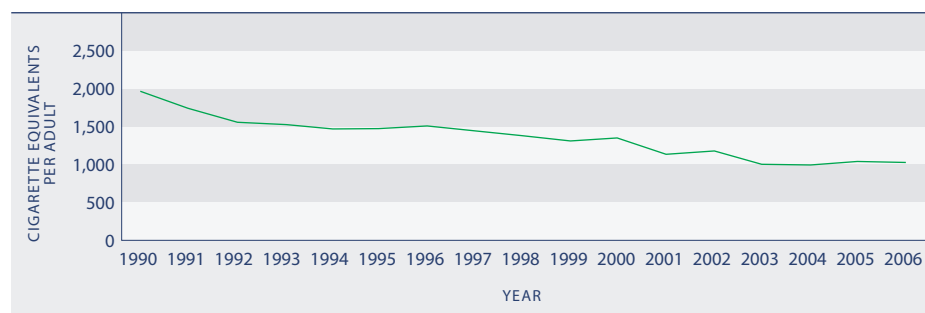
In a 2003 comparison of daily adult smoking, New Zealand had a rate of 22 percent, compared with an OECD median of 25 percent.²⁹ New Zealand ranked eighth lowest out of 30 OECD countries. Smoking prevalence was highest in Greece (39 percent in 2004) and lowest in Canada (15 percent). New Zealand's rate was lower than that of the United Kingdom (25 percent), but considerably higher than those of Australia (18 percent) and the United States (17 percent). Compared to other developed countries, New Zealand's smoking levels are relatively low for males and relatively high for females.³⁰

TOBACCO CONSUMPTION

Tobacco consumption, measured from customs data or tobacco company returns, complements the smoking prevalence data above and provides a different perspective on tobacco use. In 2006, tobacco consumption was 1,016 cigarette equivalents per person aged 15 years and over, down slightly from 1,033 in 2005.

Since 1990, tobacco consumption has decreased from 1,971 cigarette equivalents per person, or by 48 percent. Over this period, the drop in tobacco consumption has been more rapid than the drop in smoking prevalence.

Figure H4.2 **Tobacco consumption, cigarette equivalents per person aged 15 years and over, 1990–2006**



Sources: Ministry of Health (2006c) Table D1; Statistics New Zealand (2007a)

Obesity

DEFINITION

The proportion of the population aged 15 years and over who are obese.

Obesity is defined as having a Body Mass Index (BMI) greater than 30 for European and Other ethnicities, or greater than 32 for Māori and Pacific peoples. For the population aged under 15 years, the measure is the proportion of children aged 5–14 years whose BMI meets internationally defined thresholds of obesity.³¹

RELEVANCE

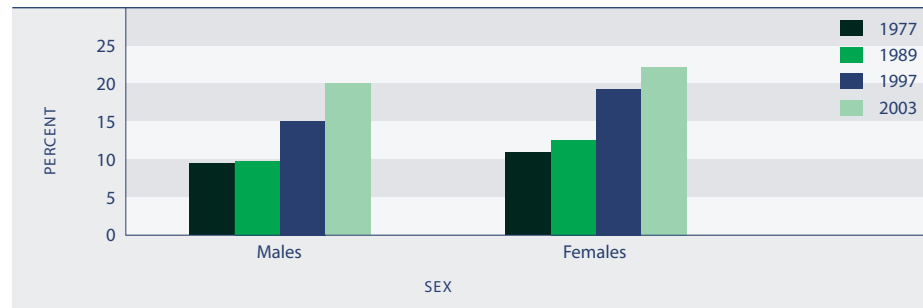
Obesity is associated with heart disease, diabetes, strokes, high blood pressure and some cancers. The increase in the prevalence of obesity has been identified as a major cause of the projected increase in diabetes.³²

CURRENT LEVEL AND TRENDS

In 2003, 21 percent of adults aged 15 years and over were obese, an increase from 17 percent in 1997. In 2002, 10 percent of children aged 5–14 years were obese.

Between 1977 and 1989, there was a small increase in the prevalence of obesity among New Zealand adults aged 15–74 years. Between 1989 and 2003, male obesity doubled from 10 percent to 20 percent, and female obesity increased from 13 percent to 22 percent.³³ The major drivers of the increase in obesity rates have been changing dietary and physical activity patterns, reflecting an environment that promotes the over-consumption of energy-dense foods and drinks and limits the opportunities for physical activity.³⁴

Figure H5.1 **Prevalence of obesity, total population aged 15–74 years, by sex, 1977–2003**



Source: Ministry of Health (2004b) Table 19, p 89

AGE AND SEX DIFFERENCES

Age-standardised prevalence rates for 2003 showed no significant sex difference in the proportion of adults who were obese (males, 19 percent; females, 21 percent). Obesity increased with age up to the 55–64 years age group (males, 29 percent; females, 31 percent), then declined in the older age groups. This age pattern may reflect in part a cohort effect.³⁵ Among children aged 7–14 years in 2002, females were more likely than males to be obese.

Table H5.1 **Prevalence (%) of obesity, population aged 15 and over, by age group and sex, 2003**

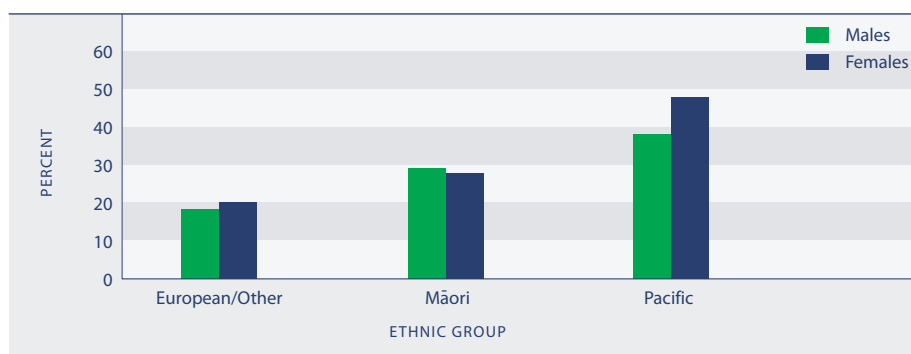
	15–24	25–34	35–44	45–54	55–64	65–74	75+	Total 15+
Males	9.7	16.1	21.0	26.1	29.0	24.0	19.4	19.2
Females	12.4	20.7	22.0	24.6	30.9	27.2	17.1	21.0

Source: Ministry of Health (2004a) pp 85–86

ETHNIC DIFFERENCES

Obesity is more prevalent among Pacific peoples and Māori than other ethnic groups. Among adults in 2003, the age-standardised obesity prevalence rate was 48 percent for Pacific females and 38 percent for Pacific males. For Māori adults, the figures were 28 percent for females and 29 percent for males. This compares with 20 percent for European/Other females and 18 percent for European/Other males. Among children aged 5–14 years in 2002, there was a similar pattern (Pacific children: 31 percent and 26 percent for females and males respectively; Māori children: 17 percent, 16 percent; European/Other: 6 percent, 5 percent).

Figure H5.2 **Age-standardised prevalence of obesity, population aged 15 years and over, by ethnic group and sex, 2003**



Source: Ministry of Health (2004a) Tables 13 and 14, pp 103–104
Note: Rates are age-standardised using the WHO world population

Obesity has increased for all groups since 1989, but there was little change in the rates for Māori between 1997 and 2003.³⁶

SOCIO-ECONOMIC DIFFERENCES

The association between socio-economic status and female obesity has been found consistently over time and using different measures of socio-economic status. For example, in 2003, 28 percent of females living in quintile 5 small areas (the most disadvantaged fifth of small areas in New Zealand) were obese, while only 16 percent of those in quintile 1 areas were obese. The link between male obesity and socio-economic status is less well-established.³⁷

INTERNATIONAL COMPARISON

New Zealand has a relatively high prevalence of obesity compared with other OECD countries, with a rate of 21 percent in 2003, compared to an OECD median of 13 percent. New Zealand ranked 24th out of 30 countries reporting obesity prevalence in 1999–2004. However, most countries use the self-reporting method to measure obesity whereas New Zealand and four other countries use actual measurements recorded by an interviewer. New Zealand's rate was lower than the other four countries: the United States (with the highest rate of obesity, at 32 percent in 2004); the United Kingdom (23 percent in 2004), Canada (22 percent in 2004) and Australia (22 percent in 1999). Of all countries, Japan and Korea had the lowest prevalence of obesity (3 percent in 2003 and 2001, respectively).³⁸