The Health of New Zealand Total Population
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Introduction

The ‘Health of New Zealand’ booklet is the first in a series of summaries of the current health status of the New Zealand population produced by the Public Health Intelligence team (PHI) in the Ministry of Health. Further summaries will be published on the health status of Māori and Pacific peoples.

Each booklet gives an overview of the demographic makeup of the New Zealand population. Included in the booklet are statistics on a range of risk factors that impact of health, such as smoking and physical activity, followed by morbidity-related indicators such as cancer and disability. This is followed by the main causes of mortality in New Zealand as well as suicide and infant mortality.

For more detailed information refer to the Ministry of Health and New Zealand Health Information Service websites.

http://www.moh.govt.nz/phi
http://www.nzhis.govt.nz
## Key Statistics

### Table 1: Key statistics of New Zealand’s total population, 2001

<table>
<thead>
<tr>
<th>Population (usually resident census count)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>1,903,200</td>
</tr>
<tr>
<td>Female</td>
<td>1,977,300</td>
</tr>
<tr>
<td>Total</td>
<td><strong>3,880,500</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ethnic Groups¹ (percentage)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>European</td>
<td>80.1%</td>
</tr>
<tr>
<td>Māori</td>
<td>14.7%</td>
</tr>
<tr>
<td>Pacific peoples</td>
<td>6.5%</td>
</tr>
<tr>
<td>Asian</td>
<td>6.6%</td>
</tr>
<tr>
<td>Other</td>
<td>0.7%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Life Expectancy (at birth – years)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>76.2</td>
</tr>
<tr>
<td>Female</td>
<td>81.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Infant Mortality Rate (per 1,000 live births)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td><strong>5.3</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fertility Rate (mean number of births per woman)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td><strong>2.0</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Disability requiring assistance prevalence (Number)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>358,900</td>
</tr>
<tr>
<td>Female</td>
<td>384,900</td>
</tr>
<tr>
<td>(Age-standardised rate per 100,000 years for 0–85 years)</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>9.7</td>
</tr>
<tr>
<td>Female</td>
<td>8.9</td>
</tr>
</tbody>
</table>

Source: Statistics New Zealand and PHI

¹ Due to people being able to affiliate with more than one ethnic group in the 2001 Census, the ethnic group percentages add to more than 100, as people can be counted more than once.
Age Distribution

Figure 1: Age Distribution of the New Zealand population, male and female, 1991 and 2001

Age distribution of the New Zealand population: male and female, 1991

Age Group (years) | Percent | Male | Female
0–4 | 15 | 10 | 5 | 0 | 5 | 10 | 15
5–9 | 10 | 5 | 0 | 5 | 10 | 15
10–14 | 5 | 0 | 5 | 10 | 15
15–19 | 0 | 5 | 10 | 15
20–24 | 0 | 5 | 10 | 15
25–29 | 0 | 5 | 10 | 15
30–34 | 0 | 5 | 10 | 15
35–39 | 0 | 5 | 10 | 15
40–44 | 0 | 5 | 10 | 15
45–49 | 0 | 5 | 10 | 15
50–54 | 0 | 5 | 10 | 15
55–59 | 0 | 5 | 10 | 15
60–64 | 0 | 5 | 10 | 15
65–69 | 0 | 5 | 10 | 15
70–74 | 0 | 5 | 10 | 15
75–79 | 0 | 5 | 10 | 15
80–84 | 0 | 5 | 10 | 15
85+ | 0 | 5 | 10 | 15

Age distribution of the New Zealand population: male and female, 2001

Age Group (years) | Percent | Male | Female
0–4 | 15 | 10 | 5 | 0 | 5 | 10 | 15
5–9 | 10 | 5 | 0 | 5 | 10 | 15
10–14 | 5 | 0 | 5 | 10 | 15
15–19 | 0 | 5 | 10 | 15
20–24 | 0 | 5 | 10 | 15
25–29 | 0 | 5 | 10 | 15
30–34 | 0 | 5 | 10 | 15
35–39 | 0 | 5 | 10 | 15
40–44 | 0 | 5 | 10 | 15
45–49 | 0 | 5 | 10 | 15
50–54 | 0 | 5 | 10 | 15
55–59 | 0 | 5 | 10 | 15
60–64 | 0 | 5 | 10 | 15
65–69 | 0 | 5 | 10 | 15
70–74 | 0 | 5 | 10 | 15
75–79 | 0 | 5 | 10 | 15
80–84 | 0 | 5 | 10 | 15
85+ | 0 | 5 | 10 | 15

Source: Statistics New Zealand.

• Both male and female populations have aged between 1991 and 2001.
• The female population has a higher proportion of older people than the male population.
Life Expectancy

Figure 2: Distribution of life expectancy by District Health Board, male and female, 1996–2000

- In 2001, the life expectancy for the whole population was 76.2 years for males and 81 years for females.

Source: NZHIS, Statistics New Zealand
Snapshot of 2002/03 New Zealand Health Survey

Protective factors

• Half of all adults do the recommended 30 minutes or more of physical activity a day on five or more days of the week.\(^2\)\(^3\)

• Two out of three adults eat the recommended three or more servings of vegetables each day.

• Just over half of adults eat the recommended two or more servings of fruit each day.

Risk factors

• More than half of adults are overweight (including 21 percent of adults who are obese).

• Just over one fifth of adults reported they currently smoke tobacco.

• One in seven adults have used marijuana in the last year.

• Nearly one in five adults have a pattern of hazardous drinking.\(^4\)

Selected diseases

• One out of five adults aged over 45 years reported they have been diagnosed with heart disease.

• One in 12 adults over 45 years reported they have been diagnosed with diabetes.

• One in five adults aged 45 years and under reported they have asthma.

Health status

• Ninety percent of adults rate their health as good, very good or excellent.

• Approximately 5 percent of adults are limited in caring for themselves in some way.

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\(^2\) Adults include people aged 15 years and over.

\(^3\) At least 30 minutes a day of moderate intensity physical activity on five or more days of the week, so exercise is regular.

\(^4\) A hazardous drinking pattern is established from an alcohol use test called the Alcohol Use Disorders Identification Test (AUDIT). Further information on AUDIT can be found at http://www.who.int/substance_abuse/activities/sbi/en/
Use of health services

- Four out of five adults visited their general practitioner in the last year.

Notes:
Percentages are age-standardised to the WHO standard population.
2002/03 data is provisional.

## Health Risk Behaviours

### Table 2: Health risk behaviours, male and female, 2002/03

<table>
<thead>
<tr>
<th>Total population</th>
<th>Male (%)</th>
<th>Female (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Body Mass Index (BMI)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Underweight</td>
<td>2.6</td>
<td>3.6</td>
</tr>
<tr>
<td>Normal</td>
<td>38.0</td>
<td>47.9</td>
</tr>
<tr>
<td>Overweight (includes obese)$^5$</td>
<td>59.5</td>
<td>48.5</td>
</tr>
<tr>
<td>Obese$^6$</td>
<td>19.0</td>
<td>21.2</td>
</tr>
<tr>
<td><strong>Tobacco smoking</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-smoker</td>
<td>50.2</td>
<td>57.2</td>
</tr>
<tr>
<td>Ex-smoker</td>
<td>26.3</td>
<td>20.6</td>
</tr>
<tr>
<td>Smoker</td>
<td>23.5</td>
<td>22.1</td>
</tr>
<tr>
<td><strong>Hazardous drinking$^7$</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hazardous drinking</td>
<td>27.1</td>
<td>11.7</td>
</tr>
<tr>
<td><strong>Physical activity</strong> (past week)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physically active: at least 2.5 hours per week on one or more days of the week$^8$</td>
<td>78.9</td>
<td>70.3</td>
</tr>
<tr>
<td>Physically active: at least 30 minutes per day on five or more days of the week$^9$</td>
<td>56.9</td>
<td>48.3</td>
</tr>
<tr>
<td><strong>Vegetable and fruit consumption</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eat at least three servings of vegetables each day</td>
<td>62.7</td>
<td>71.3</td>
</tr>
<tr>
<td>Eat at least two servings of fruit each day</td>
<td>43.9</td>
<td>64.1</td>
</tr>
<tr>
<td>Eat at least three servings of vegetables and two servings of fruit each day</td>
<td>30.9</td>
<td>49.6</td>
</tr>
</tbody>
</table>

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$^5$ BMI greater than or equal to 25 for European. Includes people who are obese.

$^6$ BMI greater than or equal to 30 for European and 32 for Māori.

$^7$ A hazardous drinking pattern is established from an alcohol use test called the Alcohol Use Disorders Identification Test (AUDIT). Further information on AUDIT can be found at http://www.who.int/substance_abuse/activities/sbi/en/

$^8$ 2.5 hours of moderate intensity physical activity per week, on one or more days, so the exercise does not have to be regular.

$^9$ At least 30 minutes a day of moderate intensity physical activity on five or more days of the week, so exercise is regular.
Notes:
Percentages are age-standardised to the WHO standard population. 2002/03 data is provisional.

Source: Ministry of Health, A Snapshot of Health: Provisional results of the 2002/03 New Zealand Health Survey available on the Ministry of Health website: http://www.moh.govt.nz
Cancer

Females

• Breast cancer was the most common cancer for incidence and mortality rates among females.
• One-third of breast cancer incidence results in death.
• The incidence of lung cancer was the fourth highest in 1996 and the third highest in 2000.
• Over 80 percent of lung cancer incidence among females results in death.

Figure 3: Major causes of cancer registrations and mortality, females, 1996 and 2000
Males
- Colorectal cancer was the most common cancer for incidence rate for males in 1996 and 2000.
- Similar to females, lung cancer was one of the most common cancers for males with respect to both incidence and mortality. The majority of lung cancer incidence among males resulted in death in both 1996 and 2000.

Figure 3: Major causes of cancer registrations and mortality, males, 1996 and 2000

Notes:
Age-standardised to WHO standard population.
The high prostate cancer incidence in 2000 is due to widely used prostate specific antigen (PSA) testing since the mid 1990s. It is expected that this 'PSA effect' is likely to be transient.

Source: NZHIS
Disability

- In 2001, over 85 percent of life expectancy at birth is expected to be free from disability requiring assistance:
  - 64.6 out of 76.0 years for males
  - 68.4 out of 81.0 years for females.
- This represents a relative reduction of 2 percent for males and no change for females since 1996.

**Figure 5: Age-standardised disability prevalence rate, all ages, by sex and level of disability, total population, 1996 and 2001**

Notes:
Age-standardised to WHO standard population.
Level 1 is functional limitation not needing assistance.
Level 2 is functional limitation needing intermittent (non-daily) assistance from another person or a complex assistive device to carry out instrumental tasks.
Level 3 is functional limitation needing continuous (daily) assistance from another person (or persons) or a complex assistive device to carry out self-care tasks.

Source: Disability Trends, Ministry of Health
Mental Health

- There are two factors which could affect these rates.
  - Service utilisation – if more people access mental health care the rates will increase.
  - Reporting completeness – as 2001 was the first full calendar year that data was collected, there are probably some data quality issues associated with incomplete reporting.

Figure 6: Age-specific rates for total New Zealand mental health clients seen at DHBs by team type, 2001

Source: Mental Health Information National Collection, NZHIS
Suicide

- After increases in the suicide rate for the total population, the rate decreased and in 2000 the rate was lower than in 1991.

**Figure 7: Suicide rates, 1991–2000**

![Graph showing suicide rates from 1991 to 2000.](image)

**Notes:**
Age-standardised rate per 100,000 population to WHO standard population.
Source: NZHIS

- The suicide rate for males is about four times the rate for females.

**Figure 8: Suicide rates, male and female, 1991–2000**

![Graph showing suicide rates for males and females from 1991 to 2000.](image)

**Note:**
Age-standardised rate per 100,000 population to WHO standard population.
Causes of Death by Risk Factor

- Figure 9 shows the mortality burden attributable to major risk factors.
- Tobacco causes the most deaths of all risk factors in the graph.
- Nutrition-related risk factors rank highly in the league table of causes of death in New Zealand.
- BMI is rapidly increasing at the same time as tobacco consumption, blood cholesterol and systolic blood pressure are decreasing and as a result the ranking of the leading five risk factors may be very different in 10 or 20 years time.

**Figure 9: Mortality burden attributable to major risk factors, 1996–1998**

Notes:

Body mass index (BMI) is calculated by dividing weight in kilograms by height, in metres squared. Prediabetes includes impaired glucose tolerance and impaired fasting glucose.

Source: Modified from the Ministry of Health report *Nutrition and the Burden of Disease*, 2003
Major Causes of Death

- The major cause of death for males and females in 1996 and 2000 was ischaemic heart disease, followed by stroke.

Table 3: Major causes of death for the New Zealand population, male and female, 1996 and 2000

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ischaemic heart disease</td>
<td>185.0</td>
<td>143.8</td>
</tr>
<tr>
<td>Stroke</td>
<td>50.9</td>
<td>45.2</td>
</tr>
<tr>
<td>All other cardiovascular disease</td>
<td>38.4</td>
<td>32.0</td>
</tr>
<tr>
<td>Breast cancer</td>
<td>-</td>
<td>0.1</td>
</tr>
<tr>
<td>Lung cancer</td>
<td>43.6</td>
<td>37.6</td>
</tr>
<tr>
<td>Chronic obstructive pulmonary disease (COPD)</td>
<td>45.8</td>
<td>35.9</td>
</tr>
<tr>
<td>Colorectal cancer</td>
<td>28.8</td>
<td>25.0</td>
</tr>
<tr>
<td>Diabetes</td>
<td>15.0</td>
<td>18.0</td>
</tr>
<tr>
<td>Dementia</td>
<td>7.6</td>
<td>8.2</td>
</tr>
<tr>
<td>Motor vehicle traffic crash</td>
<td>20.6</td>
<td>16.0</td>
</tr>
<tr>
<td>Aortic aneurysm</td>
<td>11.1</td>
<td>10.5</td>
</tr>
<tr>
<td>Suicide</td>
<td>23.7</td>
<td>20.9</td>
</tr>
<tr>
<td>Stomach cancer</td>
<td>8.6</td>
<td>8.1</td>
</tr>
<tr>
<td>Prostate cancer</td>
<td>23.9</td>
<td>25.2</td>
</tr>
<tr>
<td>All other causes</td>
<td>215.9</td>
<td>203.0</td>
</tr>
</tbody>
</table>

Notes:
Age-standardised to WHO standard population.
Heart failure (428) has been recoded to be 50 percent ischaemic heart disease (410-414), 50 percent to all other cardiovascular disease.
Source: NZHIS
Infant Mortality

- Infant mortality seems to have decreased over the 10 years between 1991 and 2001.

Figure 10: Infant mortality, 1991–2001

Source: Statistics New Zealand
Public Health Intelligence (PHI) is a group of epidemiologists, statisticians, geographers and social scientists in the Public Health Directorate of the Ministry of Health.

PHI carries out the Ministry of Health’s statutory responsibility to monitor the health of the New Zealand population by:

- measuring how healthy the New Zealand population is over time by analysing population health outcomes risks and determinants
- examining inequalities in health across regional boundaries and between population groups (including age, sex, ethnic and socioeconomic groups).

The guiding principles and behaviours for Public Health Intelligence are:

- professionalism in the pursuit of excellence
- scientific and evidence-based
- stakeholder driven and client focused.

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