

**Tupu ola moui**

“Growing a prosperous and healthy life” Niuean

In Samoan, Tongan, Niuean and Tokelauean, “tupu ola” conveys the sense of “growing life”.

In Tongan and Niuean “moui” conveys the sense of the “essence of life force”.

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Foreword

Pacific peoples currently make up 6.5% of the New Zealand population. Furthermore, the Pacific population is growing at a rate of 2.2% per year, compared to a growth rate of only 0.6% for the New Zealand population as a whole. So it is vitally important that the health of the Pacific population is carefully monitored and its changing needs accurately assessed.

The current report, Pacific Health Chart Book 2004, is the first comprehensive review of Pacific health since the Public Health Commission carried out such an assessment in 1996. Unlike the latter review, the current report adopts an indicator approach in order to focus attention on specific issues of particular importance to Pacific peoples. It was developed jointly by the Ministry of Health and the Ministry of Pacific Island Affairs.

Pacific Health Chart Book 2004 provides a stocktake of the health needs of the Pacific population. The report shows that, compared to the total New Zealand population, Pacific peoples:

- have poorer health status
- are more exposed to risk factors for poor health
- experience barriers to accessing health services.

Ensuring that health care and disability services are informed by accurate and useful information, that is relevant and reliable is one of the priority areas of the Pacific Health and Disability Action Plan.

Addressing inequalities in health, education, employment and housing for all disadvantaged groups is one of the government’s key goals. Reducing inequalities in health is also a key goal of the New Zealand Health Strategy, released by the Minister of Health in December 2000. This report, which brings together information on more than 150 health and social indicators of relevance to Pacific peoples, will help in identifying priorities and assessing progress towards reducing inequalities in health for Pacific peoples in New Zealand.

Comments on this report are welcomed and should be addressed to Public Health Intelligence, Ministry of Health, PO Box 5013, Wellington.

Karen O Poutasi (Dr)    Fuimaono Les McCarthy
Director-General of Health    Chief Executive
Ministry of Health     Ministry of Pacific Island Affairs
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Summary of Indicators

The indicators included in this report are summarised in Table 1 (see text for description of indicators).

‘Key’ indicators have been highlighted in the summary table. The criteria used to select these indicators were:

- high impact
- high inequality
- modifiable
- good data quality

(Note: ASR = rate standardised for age by the direct method, using the WHO world population as the standard.)

Table 1: Summary of Indicators

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<th>Indicator</th>
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<td>69.7 (66.6–72.9)</td>
<td>65.9 (63.5–68.2)</td>
<td>67.7 (65.7–69.7)</td>
<td>67.8 (66.9–68.7)</td>
<td>62.4 (61.6–63.1)</td>
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<td>SF-36 Mental health scale mean scores, 2002/03</td>
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<td>81.5 (79.2–83.7)</td>
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### Health outcomes

#### Whole of life continued...

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<td>Infant mortality, 1997–2001, rate per 1000 livebirths</td>
<td>7.9 (6.6–9.3)</td>
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<td>• birth defects</td>
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<td>Mean number of missing or filled teeth at school entry, 2002</td>
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<td>Asthma hospitalisations, ASR per 100,000 children</td>
<td>815 (773–858)</td>
<td>679 (640–719)</td>
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<td>20.1</td>
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<td><strong>0–14 years – infants and children continued...</strong></td>
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<tr>
<td>Rheumatic fever notifications, ASR per 100,000 children</td>
<td>3.6</td>
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<td>Tuberculosis notifications, ASR per 100,000 children</td>
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<td>Lower respiratory tract infection hospitalisations, ASR per 100,000 children</td>
<td>1663 (1604–1723)</td>
<td>1375 (1321–1431)</td>
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<tr>
<td><strong>15–24 years – young people</strong></td>
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<tr>
<td>Pregnancies 2002, rate per 1000 females (10–19 years)</td>
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<td>65 (62–69)</td>
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<td>Births 2002, rate per 1000 females (10–19 years)</td>
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<td>41 (20–44)</td>
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<tr>
<td>Abortions 2002, rate per 1000 females (10–19 years)</td>
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<td>15 (13–16)</td>
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<td>Sexually transmitted infections, all types, 1999–2002, rate per 100 young people attending sexual health clinics</td>
<td>34.8</td>
<td>17.8</td>
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<td>Suicide mortality, 1996–2000, rate per 100,000 young people</td>
<td>33 (22–48)</td>
<td>9 (4–18)</td>
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<td><strong>Health outcomes</strong></td>
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<td><strong>25+ years – adults</strong></td>
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<td>Total NZ population</td>
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<tr>
<td>Health outcomes</td>
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<tr>
<td>25+ years – adults continued…</td>
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<tr>
<td>Ischaemic heart disease mortality, 1996–2000, 65+ years, rate per 100,000 older people</td>
<td>1521 (1304–1772)</td>
<td>882 (743–1040)</td>
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<td>Stroke mortality, 45–64 years, 1996–2000, rate per 100,000 middle-aged adults</td>
<td>73 (52–100)</td>
<td>70 (50–95)</td>
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<td>Self-reported high blood pressure, 2002/3, ASR per 100 adults</td>
<td>16.2 (11.0–21.4)</td>
<td>18.2 (13.0–23.4)</td>
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<td>Self-reported high blood cholesterol, 2002/3, ASR per 100 adults</td>
<td>9.5 (4.8–14.1)</td>
<td>11.1 (6.9–15.2)</td>
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<td>Self-reported diabetes, 15+ years, 2002/03, ASR per 100 persons (15+ years)</td>
<td>8.1 (4.6–11.5)</td>
<td>11.9 (7.7–16.2)</td>
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<td>Vitrectomy in adults, 25+ years, ASR per 100,000</td>
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<td>Lower limb amputation in adults, 25+ years, ASR per 100,000</td>
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<td>Renal failure in adults, 25+ years, ASR per 100,000</td>
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<td>Lung cancer registrations, 1996–2000, 65+ years, ASR per 100,000 older people</td>
<td>751</td>
<td>181</td>
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<td>Indicator</td>
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<tr>
<td><strong>Health outcomes</strong></td>
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<tr>
<td><strong>25+ years – adults continued...</strong></td>
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<tr>
<td>Lung cancer mortality, 1996–2000, 65+ years, rate per 100,000 older people</td>
<td>524</td>
<td>201</td>
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<td>Colorectal cancer registrations, 1996–2000, 65+ years, rate per 100,000 older people</td>
<td>181</td>
<td>98</td>
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<tr>
<td>Colorectal cancer mortality, 1996–2000, 65+ years, rate per 100,000 older people</td>
<td>182</td>
<td>56</td>
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<td>Cervical cancer registrations, 1996–2000, 65+ years, rate per 100,000 older women</td>
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<tr>
<td>Cervical cancer mortality, 1996–2000, 65+ years, rate per 100,000 older women</td>
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<tr>
<td>Breast cancer registrations, 1996–2000, 65+ years, rate per 100,000 older women</td>
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<td>254</td>
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<tr>
<td>Breast cancer mortality, 1996-2000, 65+ years, rate per 100,000 older women</td>
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<td>136</td>
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<tr>
<td>Prostate cancer registrations, 1996–2000, 65+ years, rate per 100,000 older men</td>
<td>1272</td>
<td>-</td>
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<tr>
<td>Prostate cancer mortality, 1996–2000, 65+ years, rate per 100,000 older men</td>
<td>463</td>
<td>-</td>
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<tr>
<td>Chronic obstructive pulmonary disease (COPD) mortality, 1996–2000, rate per 100,000 adults</td>
<td>144</td>
<td>42</td>
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<tr>
<td>Chronic obstructive pulmonary disease (COPD) hospitalisation, 1998–2002, ASR per 100,000 adults</td>
<td>873</td>
<td>458</td>
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## Primary care services

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<tr>
<td></td>
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<tr>
<td><strong>Health service utilisation</strong></td>
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<td></td>
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<tr>
<td>Have usual carer, 2002/03, ASR per 100 adults</td>
<td>92.8</td>
<td>97.3</td>
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<tr>
<td></td>
<td>(88.8–96.9)</td>
<td>(95.7–98.9)</td>
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<tr>
<td>Saw doctor last year, 2002/03, ASR per 100 adults</td>
<td>75.1</td>
<td>83.7</td>
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<tr>
<td></td>
<td>(68.3–81.9)</td>
<td>(79.1–88.3)</td>
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<td>GP visits, 2002/03, number, age-standardised mean per adult</td>
<td>3.1</td>
<td>4.1</td>
</tr>
<tr>
<td></td>
<td>(2.5–3.7)</td>
<td>(3.4–4.7)</td>
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<tr>
<td>Saw dentist last year, 2002/03, ASR per 100 adults</td>
<td>18.8</td>
<td>22.3</td>
</tr>
<tr>
<td></td>
<td>(12.0–25.5)</td>
<td>(17.6–26.9)</td>
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<tr>
<td>Registered with PHO, 2004, percent</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Saw Pacific worker in the past year, 2002/3, ASR per 100 adults</td>
<td>9.0</td>
<td>10.4</td>
</tr>
<tr>
<td></td>
<td>(3.5–14.5)</td>
<td>(6.6–14.2)</td>
</tr>
<tr>
<td>Attended private A&amp;E or after hours clinic, 2002/03, ASR per 100 adults</td>
<td>7.9</td>
<td>13.3</td>
</tr>
<tr>
<td></td>
<td>(3.4–12.4)</td>
<td>(8.4–18.1)</td>
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<tr>
<td>Saw complementary provider in the past year, 2002/03, ASR per 100 adults</td>
<td>11.2</td>
<td>12.8</td>
</tr>
<tr>
<td></td>
<td>(6.5–16.0)</td>
<td>(8.0–17.6)</td>
</tr>
<tr>
<td>Saw Pacific healer in the past year, 2002/03, ASR per 100 adults</td>
<td>3.1</td>
<td>3.3</td>
</tr>
<tr>
<td></td>
<td>(0.8–5.3)</td>
<td>(0.1–6.5)</td>
</tr>
<tr>
<td>Reasons for most recent primary care visit, 2002/03, ASR per 100 adults</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• chronic disease or disability</td>
<td>15.5</td>
<td>20.5</td>
</tr>
<tr>
<td></td>
<td>(8.9–22.0)</td>
<td>(13.4–27.5)</td>
</tr>
<tr>
<td>• short-term illness</td>
<td>40.7</td>
<td>40.2</td>
</tr>
<tr>
<td></td>
<td>(30.9–50.6)</td>
<td>(35.2–45.3)</td>
</tr>
<tr>
<td>• clinical preventive service use</td>
<td>3.8</td>
<td>10.4</td>
</tr>
<tr>
<td></td>
<td>(0.2–7.4)</td>
<td>(6.1–14.7)</td>
</tr>
<tr>
<td>Proportion of children fully immunised at 2 years, 1996, Northern RHA Region, percent</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Uptake of cervical screening, 2002, percent</td>
<td>-</td>
<td>49</td>
</tr>
<tr>
<td>Uptake of breast screening, 2002, percent</td>
<td>-</td>
<td>42</td>
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</table>
### Health service utilisation

#### Primary care services continued...

**Opportunistic screening in primary health care setting, 2002/03, ASR per 100 adults:**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Pacific peoples</th>
<th>Total NZ population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td><strong>blood pressure test</strong></td>
<td>51.7</td>
<td>(43.5–60.0)</td>
</tr>
<tr>
<td><strong>diabetes test</strong></td>
<td>25.4</td>
<td>(17.8–33.1)</td>
</tr>
<tr>
<td><strong>cholesterol test</strong></td>
<td>20.3</td>
<td>(14.2–26.5)</td>
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<tr>
<td><strong>discussed smoking</strong></td>
<td>2.2</td>
<td>(0.5–3.9)</td>
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**Needed to but did not see GP, 2002/03, ASR per 100 adults:**

<table>
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<tr>
<th>Indicator</th>
<th>Pacific peoples</th>
<th>Total NZ population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td><strong>blood pressure test</strong></td>
<td>17.6</td>
<td>(11.9–23.4)</td>
</tr>
</tbody>
</table>

**Reasons for not seeing GP despite perceived need, 2002/03, ASR per 100 adults:**

<table>
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<tr>
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<th>Pacific peoples</th>
<th>Total NZ population</th>
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<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td><strong>high cost</strong></td>
<td>53.8</td>
<td>(33.6–74.0)</td>
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</table>

**Did not collect prescription, 2002/03, ASR per 100 adults:**

<table>
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<tr>
<th>Indicator</th>
<th>Pacific peoples</th>
<th>Total NZ population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td><strong>blood pressure test</strong></td>
<td>12.4</td>
<td>(6.5–18.3)</td>
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**Reasons for not collecting prescription, 2002/03, ASR per 100 adults:**

<table>
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<th>Pacific peoples</th>
<th>Total NZ population</th>
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<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td><strong>cost too much</strong></td>
<td>37.9</td>
<td>(14.6–61.1)</td>
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#### ACC claims

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Pacific peoples</th>
<th>Total NZ population</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td><strong>Visits that were ACC related, 2002/03, ASR per 100 adults</strong></td>
<td>11.1</td>
<td>(5.5–16.7)</td>
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</table>

**ACC claims, 2003, rate per 100,000**

<table>
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**New serious injury ACC claims, 2003, rate per 100,000**

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**Ongoing serious injury ACC claims, 2003, rate per 100,000**

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#### Secondary care services

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<tbody>
<tr>
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<td>Female</td>
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<tr>
<td><strong>Saw medical specialist, 2002/03, ASR per 100 adults</strong></td>
<td>20.5</td>
<td>(14.3–26.7)</td>
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</table>

**Proportion of people who saw medical specialist in private rooms, 2002/03, ASR per 100 adults**

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<tbody>
<tr>
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<tr>
<td><strong>blood pressure test</strong></td>
<td>53.9</td>
<td>(33.2–74.5)</td>
</tr>
<tr>
<td>Indicator</td>
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</tr>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
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<tr>
<td>Health service utilisation</td>
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<tr>
<td>Attended hospital emergency department, 2002/03, ASR per 100 adults</td>
<td>3.6 (1.1–6.1)</td>
<td>6.1 (1.0–3.2)</td>
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<td>Attended hospital outpatients, 2002/03, ASR per 100 adults</td>
<td>5.4 (2.9–7.9)</td>
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<tr>
<td>Attended hospital inpatients (including day patients), 2002/03, ASR per 100 adults</td>
<td>8.6 (4.6–12.7)</td>
<td>20.5 (14.6–26.4)</td>
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<td>Pacific medical admissions, 2002/03, percent of expected (standard discharge ratio)</td>
<td>115</td>
<td>116</td>
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<tr>
<td>Pacific surgical admissions, 2002/03, percent of expected (standard discharge ratio)</td>
<td>91</td>
<td>89</td>
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<td>Mental health services</td>
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<td>Use of mental health services, 2001, rate per 100,000:</td>
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<td>• substance abuse related</td>
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<td>• day programme, rehab</td>
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<td>• community outpatient care</td>
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<td>• mental health crisis attendances</td>
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<td>• inpatient bed days</td>
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<td>• forensic</td>
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<td>Disability support services</td>
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<td>Use of help with everyday services by people with a disability, 2002, percent</td>
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<tr>
<td>Disability equipment use by people with a disability, 2002, percent</td>
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<tr>
<td>Health service utilisation</td>
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<tr>
<td>Access to needs assessment for adults by people with a disability, 2001,</td>
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<tr>
<td>percent</td>
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<tr>
<td>Access to needs assessment for children by people with a disability, 2001,</td>
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<tr>
<td>percent</td>
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<tr>
<td>People with a disability living in a residential facility, 2001, percent</td>
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<td>Risk factors</td>
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<td>Physical activity</td>
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<td>Physically active children (5–17 years), 1997–2000, percent</td>
<td>53</td>
<td>52</td>
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<td>Physically active adults (18+ years), 1997–2000, percent</td>
<td>68</td>
<td>58</td>
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<td>Diet</td>
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<td>Mean percent energy from total fat, children (5–14 years), 1997, percent</td>
<td>35</td>
<td>34.3</td>
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<tr>
<td>(33.9–36.1)</td>
<td>(33.3–35.3)</td>
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<td>Mean percent energy from total fat, adults (15+ years), 1997, percent</td>
<td>35</td>
<td>33</td>
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<td>(32.5–37.6)</td>
<td>(31.0–35.0)</td>
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<td>Consumption of at least three servings of vegetables per day, children (5–14 years), 2002, rate per 100 children</td>
<td>59</td>
<td>65</td>
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<tr>
<td>Consumption of at least two servings of fruit per day children (5–14 years), 2002, rate per 100 children</td>
<td>51</td>
<td>50</td>
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<tr>
<td>Consumption of at least three servings of vegetables per day, adults (15+ years), 2002/03, ASR per 100 adults</td>
<td>42.9</td>
<td>39.4</td>
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<tr>
<td>(35.0–50.8)</td>
<td>(32.2–46.7)</td>
<td>(35.1–47.0)</td>
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<tr>
<td>Indicator</td>
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<td>Total NZ population</td>
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</tr>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
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<tr>
<td>Diet continued...</td>
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<tr>
<td>Consumption of at least two servings</td>
<td>53.5</td>
<td>57.5</td>
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<tr>
<td>of fruit per day, adults (15+ years),</td>
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<tr>
<td>2002/03, ASR per 100 adults</td>
<td>(46.1–61.0)</td>
<td>(50.8–64.2)</td>
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<tr>
<td>Risk factors</td>
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</tbody>
</table>

Food Security

Households with children (5–14 years) that can afford to eat properly, 2002, percent:

- only sometimes: 47.9, 20.1
- often: 1.2, 0.8
- sometimes: 18.1, 8.6

Households with children (5–14 years) that use foodbanks, 2002, percent:

- often: 1.2, 0.8
- sometimes: 18.1, 8.6

Full breastfeeding at 3 months, percent, 2002/03:

- 50.1, 55.2

Overweight and obesity

<table>
<thead>
<tr>
<th>Overweight children (5–14 years), 2002, rate per 100 children</th>
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<td>33.9</td>
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<td>34.8</td>
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Tobacco consumption

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<td>13.8</td>
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<th>Tobacco smoking (15+ years), 2002, rate per 100</th>
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<td>28.5</td>
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<td>31.9</td>
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Alcohol consumption

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<th>Hazardous drinking, adults (15+ years), 2002/03, ASR per 100</th>
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<td>18.9</td>
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(22.1–39.6) (4.0–11.3) (13.7–23.5) (24.7–29.5) (10.1–12.7) (17.6–20.3)
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<td>Female</td>
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<td><strong>Neighbourhood deprivation</strong></td>
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<td>Proportion of population living in 10% of most deprived areas (NZDep01 Decile 10), 2001, percent</td>
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<tr>
<td><strong>Education</strong></td>
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<tr>
<td>Participation in early childhood education, 0–4 years, 2001, percent</td>
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<td>Participation in tertiary education, 18–24 years, 2001, percent</td>
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<td>Proportion of adults (18+ years) with no formal qualification, 2001, percent</td>
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<tr>
<td><strong>Employment</strong></td>
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<tr>
<td>Labourforce participation, 2004, percent</td>
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<td>Unemployment, 2004, percent</td>
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<tr>
<td>Proportion of labour force by occupation and industry, 2001, percent</td>
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</tr>
<tr>
<td>• legislators, administrators and managers</td>
<td>-</td>
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<tr>
<td>• professionals</td>
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<td>• technicians and associate professionals</td>
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<td>• clerks</td>
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<td>• service and sale workers</td>
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<td>• agriculture and fisheries workers</td>
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<td>• trades workers</td>
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<tr>
<td>• plant and machine operators and assemblers</td>
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## Socioeconomic determinants of health

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<th>Total NZ population</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
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</tbody>
</table>

### Income

| Real median annual income (15+ years), 2001, dollars                       | -    | -      | $14,600 | -    | -      | $18,600 |

### Housing

| Proportion of people owning (with or without mortgage) the dwelling in which they usually live, 2001, percent | -    | -      | 26      | -    | -      | 55      |
| Proportion of people renting the dwelling in which they usually live, 2001, percent                     | -    | -      | 59      | -    | -      | 29      |
| Proportion of people living in dwellings with more than two occupants per bedroom, 2001, percent        | -    | -      | 20.9    | -    | -      | 3.3     |

### Family structure

| Proportion of people living in extended families, 2001, percent            | -    | -      | 29.4    | -    | -      | 8.3     |
| Proportion of parents with dependent children who were sole parents, 2001, percent | 8.9  | 32.0   | 21.9    | 6.4  | 25.7   | 17.3    |

### Acculturation and discrimination

| Proportion of Pacific people born in NZ able to speak languages, 2001, percent: | - | - | 28 | - | - | - |
| • Pacific language(s)                                                        | - | - | - | - | - | - |
| Proportion of Pacific people born overseas able to speak languages, 2001, percent: | - | - | 81 | - | - | - |
| • English                                                                  | - | - | - | - | - | - |
| Proportion of people acknowledging belonging to a religion, 2001, percent  | - | - | 80 | - | - | 60 |
Executive Summary

Mandate and objectives

- The New Zealand Health Strategy (Ministry of Health 2000) and the New Zealand Disability Strategy (Ministry of Health 2001a) set out goals and objectives for the health sector.
- Prominent among these is reducing inequalities in health and independence outcomes between ethnic groups. To this end, the Ministry of Health has long sought to engage with Pacific communities to foster the development of Pacific providers and the Pacific health workforce.
- The Pacific Health and Disability Action Plan sets out the strategic direction and actions for improving health outcomes for Pacific peoples.
- One of the six priority areas of this plan is to ensure that health care and disability services are informed by accurate and useful information that is relevant and reliable.
- The Ministry of Health also has a statutory obligation, under section 3(c) of the Health Act 1956 to monitor the health of New Zealanders, including Pacific peoples.
- The Ministry of Pacific Island Affairs, given its focus on the social and economic outcomes of Pacific peoples, including health, participated in and supported this project.
- This report is intended to provide reliable and easily accessible information about key Pacific health indicators and can be used for a variety of purposes, such as needs assessment, prioritisation, resource allocation, and the development and evaluation of policies, programmes and services.
- This report will be used as a baseline for future assessment of progress in Pacific health.

Indicator logic

- Health outcomes are the result of exposure to proximal risk and protective factors, which may be behavioural (‘lifestyle’) or biological, acting through disease and injury pathways.
- These risk exposures are in turn shaped by distal historical, socioeconomic, cultural and political determinants, influenced by demographic forces and environmental conditions.
- Health services are conceptualised as a bridge between risk and outcome.
- For each information domain, indicators were selected using conventional criteria relating to their ability to signal wider health concerns, to focus on salient health issues, to be reliably and validly monitored, and for their responsiveness to change.
- Indicators are aligned (where possible) with those already selected for use at the national level in the annual monitoring report An Indication of New Zealanders’ Health (Ministry of Health).

Health outcomes

Whole of life

- Pacific peoples in New Zealand currently experience an independent life expectancy at birth of approximately 62.5 years, about four years less than the national average.
• This health expectancy reflects a life expectancy of approximately 74 years at birth (compared with a national average of 78 years) and a dependent disability prevalence of approximately 12% (compared with 10%).

• The Pacific population experiences relatively high rates of avoidable mortality and ambulatory sensitive hospitalisation, with excess rates of 50% or more compared with the national average.

• The avoidable mortality rate for Pacific peoples is nearly double that of the total New Zealand population at 604 (compared with 397) per 100,000, and the ambulatory sensitive hospitalisation rate is 4655 (compared with 2856) per 100,000.

• This suggests that public health strategies and primary care services are not yet fully meeting the needs of Pacific peoples.

• Mental health is closely linked to culture, which makes inter-ethnic comparisons challenging. Nevertheless, using SF-36 measures, it appears that Pacific peoples enjoy much the same level of mental health as the total New Zealand population (SF-36 mental health scale mean scores of 81.9 and 82.9 for Pacific peoples and the total New Zealand population respectively).

• However, reliable prevalence estimates for mental illness are lacking.

• Pacific peoples also experience similar or lower levels of injury to the total New Zealand population.

0–14 years – infants and children

• Pacific infants have a good birthweight distribution, with a low birthweight rate of 5 per 100 livebirths compared with 6 per 100 livebirths for the total New Zealand population.

• Infant mortality is still higher than average, at 7 per 1000 live births in 1997–2001 (compared with 5 per 1000).

• Pacific children have an unacceptably high hearing failure rate on audiometry at school entry (18% compared with a national benchmark of 8%). Hearing loss in early childhood impairs school readiness and academic performance.

• Pacific children experience above average risks of infection, including lower respiratory tract infection (hospitalisation rates of 1523 compared with 590 per 100,000), meningococcal meningitis (notification rates of 21.8 compared with 8.6 per 100,000) and rheumatic fever (notification rates of 7 compared with 1.4 per 100,000).

• Pacific children are also more likely than others to be admitted to hospital for control of asthma (hospitalisation rate of 748 compared with 491 per 100,000).

• Pacific children – like older Pacific age groups – have a below average risk of motor vehicle or other unintentional injury. However they are at higher risk for certain types of injury, including pedestrian injuries and burns.

15–24 years – young people

• Reproductive health is of concern, with Pacific rates of teen pregnancy and birth approximately twice the national average (65 and 41 versus 37 and 19 per 1000 girls aged 10–19 years respectively).

• However, the cultural specificity of fertility timing should be acknowledged and negative health consequences of early childbearing not simply assumed.

• Pacific youth have similar or slightly lower rates of completed suicide compared with the total New Zealand population (21 compared with 24 per 100,000).

• Pacific youth also experience lower risks of serious injury than average, in particular from motor vehicles (road traffic mortality rates of 17 compared with 24 per 100,000).

• Young people’s health is of particular importance to Pacific communities, given their youthful age structure.
25+ years – adults

- Pacific adults have higher than average rates of a number of major chronic diseases.
- In particular, middle-aged Pacific men and women have ischaemic heart disease rates approximately twice the national average (middle-age mortality rates of 217 compared with 115 per 100,000), and almost three times the risk of death from stroke (71 compared with 26 per 100,000).
- But most outstanding is the high prevalence of self-reported (type 2) diabetes: over 10% among persons aged 15 years or older compared with fewer than 4% for the general New Zealand population in 2002/03.
- Indeed, almost one-third of older Pacific peoples self-report diabetes, and the true prevalence (including undiagnosed disease) may be twice this.
- Cancer rates among Pacific peoples are mostly similar to or higher than the national average, depending on the type of cancer. This applies to both tobacco-related (eg, lung) and non-tobacco-related cancers.
- Prominent among the non-tobacco-related cancers are breast and cervical cancer in Pacific women aged 45–64 years, with mortality rates from these two cancers of 85 (compared with 63) per 100,000 and 14 (compared with 8) per 100,000.
- Pacific men aged 65+ years have a mortality rate for lung cancer 1.5 times the national average (524 compared with 340 per 100,000).

Health service utilisation

- Pacific peoples are familiar with, and connected into, the health care system yet still experience significant barriers to accessing primary care and some secondary care services.
- These barriers are often cost related but may also reflect other dimensions of access, including cultural.
- Most Pacific peoples have a regular primary care provider, with over 96% of the Pacific population enrolled in PHOs (primary health organisations) (although there may be some double counting).
- The average number of GP visits per adult in the past year was 3.6 for Pacific peoples (compared with 3.2 for the total New Zealand population).
- Pacific peoples are less likely than average to visit the dentist, with the percentage of Pacific peoples aged 15+ years having visited the dentist in the past year being half that of the total New Zealand population (21% compared with 41%).
- Approximately 10% of Pacific adults are regular users of ‘by Pacific, for Pacific’ health care providers.
- Reliable recent national immunisation coverage rates are not available yet. From the data presented (Northern RHA, 1996), Pacific children are 10% less likely than the national average to be fully immunised at two years, with a coverage rate of only 50%.
- Uptake of breast and cervical screening programmes is lower for Pacific women than the national average, with uptake for these two programmes being less than 50% in 2002 (49% and 42% compared with 73% and 63% respectively).
- Pacific peoples are more likely to have foregone visiting a GP in the past year, despite a perceived need to do so, although this difference was not statistically significant (18% compared with 13%).
- Pacific peoples were less likely than the national average to have seen a medical specialist in the past year (20% compared with 30%).
• Pacific rates of medical admissions to public hospital inpatient services are higher than the national average once adjusted for age and NZDep (standardised discharge ratio of 116%). This still may not be fully proportional to need.
• Pacific rates of surgical admissions to public hospital inpatient services are lower than the national average once adjusted for age and NZDep (standardised discharge ratio of 90%). It therefore appears that Pacific peoples face more barriers to surgical than to medical care.
• Pacific peoples are relatively low users of mental health services, particularly community mental health services and hospital inpatient care (rates of 141 and 20 compared with 290 and 28 per 100,000 adults).
• It appears that reporting of ethnicity on admission to hospital is improving, but that some outpatient and community services remain reluctant to ascertain ethnic affiliation, so Pacific rates of health service utilisation (especially outpatient and community services) may have been underestimated.
• The geographic distribution of the Pacific population means that the pattern of service utilisation reflects local Auckland issues to a greater extent than does that of the total New Zealand population. Regional variation will be explored further in the next edition of this report.

Health risks
• Pacific children (52% compared with 68%) and adults (63% compared with 68%) are less likely than their total population counterparts to be physically active.
• Pacific adults are more likely to consume at least two servings of fruit (67% compared with 41%) and equally or slightly less likely to consume at least three servings of vegetables (54% compared with 56%) per day than their total population counterparts.
• Pacific households with children had low levels of food security, being more than twice as likely to be able to afford to eat properly only sometimes than the national average (48% compared with 20%).
• Half of Pacific infants (50%) were fully breastfed at three months compared with a slightly higher national average of 55%.
• Pacific children, youth and adults have much higher rates of overweight and (especially) obesity than the national average.
• Using the accepted thresholds, more than one-quarter of Pacific school-age children were obese (26% and 31% for Pacific boys and girls compared with 9% and 11% for total New Zealand population boys and girls). Four out of ten Pacific adults (15+ years) were classified as obese in 2002/03 (43% compared with 20%).
• These high rates of obesity reflect passive overconsumption of calories and low levels of physical activity.
• There are relatively high rates of smoking among adult Pacific males (35% compared with 26% for the total New Zealand population) and increasing rates among Pacific females, especially adolescents (23% of Pacific 14-year-old girls smoked at least weekly in 2002).
• Pacific men aged 25–64 years (but not youth or females of any age) also exhibit a relatively high prevalence of potentially hazardous drinking patterns (over one-third had an AUDIT score more than 8 compared with a national benchmark of approximately one-quarter, although the difference did not reach the conventional threshold for statistical significance).
Sociodemographic determinants of health

• At the 2001 Census, 42% of Pacific peoples lived in the 10% most deprived small areas of the country (NZDep2001 decile 10).

• The participation of Pacific children and adults in early childhood and tertiary education is half the national average (33% compared with 63% and 15% compared with 32% respectively).

• Consistent with this, Pacific workers earn median wages and salaries only 78% of the national median annual income.

• As at March 2004, unemployment among the Pacific labour force was 8%, or almost twice the national average (4.6%).

• Furthermore, the Pacific labour force participation rate, which dropped dramatically during the economic restructuring of the late 1980s and early 1990s, has never fully recovered.

• Although Pacific workers are no longer as occupationally segregated into a narrow range of manufacturing and service industries as during the 1980s, even today 25% of Pacific males remain factory workers (and 15% are still engaged in elementary occupations).

• Half the Pacific female workforce are clerical or low-skilled sales and service workers.

• By contrast, Pacific peoples are markedly under-represented among legislators, administrators, managers and professionals compared with the national average (13% compared with 28%).

• Only 26% of Pacific families own their own homes (versus 55% nationally) and 21% experience crowding, defined as more than two occupants per bedroom (versus 3% nationally). However, home ownership, extended family living and ‘crowding’ are to some extent culturally specific, and adverse consequences on health should not simply be assumed.

Policy implications

• This report collates evidence relating to the health status and health service utilisation of the New Zealand Pacific population. It will contribute to assessment of Pacific peoples’ health needs and provide an input into evidence-informed policy for Pacific peoples.

Monitoring implications

• This report is a starting point. It is a benchmark report on the health status of Pacific peoples in New Zealand, which will require regular updating.

• PHI has undertaken to update the report every three years. The report will continue to evolve, with new indicators being added and some existing ones being dropped, as a result of feedback from users and as new information sources become available.

• This report covers a wide range of indicators, drawing together data available on the health of Pacific peoples into one accessible publication.

• Although each indicator is described only in brief outline, depth is achieved through linking the reader to further sources of information for each indicator.

• A bibliography of research into Pacific health in New Zealand is also provided as an additional resource (See Ministry of Health or Ministry of Pacific Island Affairs websites).

• No trend data was included in this report, due to the lack of a reliable historic time series for most indicators. Future editions will include trend information for the indicators, as this becomes available.
Future reports

- A key focus of future reports will therefore be the analysis of time series to assess progress in Pacific health, and identify issues where corrective action or further policy development is needed.

- Future reports will also attempt to explore differences between the health experience of different ethnic groups within the Pacific population, and contrast the health trajectories of the New Zealand born and overseas born generations.

- The impact on Pacific health of migration, acculturation and the experience of discrimination in New Zealand will also be explored in more detail.
Introduction

Mandate and objective

The *New Zealand Health Strategy* (Minister of Health 2000) and the *New Zealand Disability Strategy* (Minister of Disability Issues 2001) set out goals and objectives for the health sector. Prominent among these is reducing inequalities in health and independence outcomes between ethnic groups. To this end, the Ministry of Health has long sought to engage with Pacific communities and foster the development of Pacific providers and the Pacific health workforce. For Pacific peoples, the *Pacific Health and Disability Action Plan* (Minister of Health 2002) sets out a strategic direction and actions for improving health outcomes. One of the six priority areas of this plan is to ensure that health care and disability services are informed by accurate and useful information that is relevant and reliable. The Ministry of Health also has a statutory obligation, under section 3(c) of the Health Act 1956, to monitor the health of New Zealanders, including Pacific peoples. Such information contributes to needs assessment, prioritisation, resource allocation, and the development and evaluation of policies, programmes and services. The Ministry of Pacific Island Affairs is concerned with the social and economic outcomes of Pacific peoples, including health, and so chose to work in partnership with the Ministry of Health to produce a monitoring report on Pacific health.

The *Pacific Health Chart Book 2004* is intended to provide reliable and easily accessible information about key Pacific health indicators for all individuals and organisations in a position to make use of such information, including the ministries themselves. It also provides a baseline for future assessment of progress in Pacific health.

Tagata Pasifika

The Pacific population in New Zealand comprises more than 20 different ethnic communities, each with its own distinctive culture, language, history of settlement in New Zealand and health status. Within each of these ethnic communities, there is further diversity between those born in the Pacific Islands and those born in New Zealand. The majority of Pacific people living in New Zealand now were born here: in the 2001 Census 58% of the Pacific population was born in New Zealand.

This report does not focus on Pacific ethnicities, migrant status or the diasporic and transnational dimension of the Pacific population. Instead, we adopt a ‘tagata Pasifika’ perspective to emphasise emergent pan-Pacific health risks and outcomes, and the ‘by Pacific for Pacific’ health services that are emerging to meet these common needs.

Concepts of health

Both qualitative (Laing and Mitaera 1994) and quantitative (Scott et al 1999) evidence supports the widely held view that Pacific constructs of health are holistic, reject notions of mind–body dualism, and emphasise health as a property of the (extended) family rather than representing a purely individual attribute.
Such notions of health are unfortunately not supported by the available health information systems, which necessitates the use of a more reductionist and biomedical model for this report. Even within this limited frame, we make no attempt to provide a comprehensive narrative of Pacific health in its historical context, preferring instead to focus attention on a set of current indicators. For the purpose of reporting to Government on the state of health of Pacific peoples (or any other social group), an indicator approach has some advantages.

Health indicators are summary measures that provide an indication of wider health concerns (e.g., immunisation coverage signals participation in preventive care more generally). Indicators thus reduce the amount of information that decision-makers must absorb, and simplify the communication process whereby the results of monitoring are transferred to the user. Indicators also serve to focus attention on key issues.

**Indicator logic**

The indicator logic for this report is illustrated in Figure 1.

**Figure 1: Relationships between health information domains**

Health outcomes (fatal and non-fatal) are the result of exposure to proximal risk and protective factors, which may be behavioural ('lifestyle') or biological, acting through disease and injury pathways. These risk exposures are in turn shaped by distal historical, socioeconomic, cultural and political determinants, influenced by demographic forces and environmental conditions. Health services are conceptualised as a bridge between risk and outcome.

**Indicator selection and presentation**

For each information domain, indicators were selected using conventional criteria relating to their ability to signal wider health concerns, to focus on salient health issues, to be reliably and validly monitored, and for their responsiveness to change. To the extent possible, indicators were aligned with those already selected for use at the national level in the annual monitoring report *An Indication of New Zealanders’ Health* (Ministry of Health). Domains were then ordered as shown in Figure 2.
For each indicator, the key information is presented as a chart (data for which are provided in the statistical annexe), and elaborated in bulletpoints.

In addition to the indicators, the report includes a number of ‘story boxes’ and photographs scattered throughout the text. These tell the stories of some Pacific health providers in New Zealand.

**Further resources**

The following are available alongside this report on the Ministry of Health or Ministry of Pacific Island Affairs websites:

- **Bibliography of Literature Review on the Health of Pacific people in New Zealand**: this literature review was carried out by the Clearing House for Health Outcomes and Health Technology Assessment based at the Christchurch School of Medicine and Health Sciences
- **Statistical Annexe**: tables of all data presented in the report.
# Data sources

Data for the indicators were derived from multiple sources, including the population census and vital statistics, administrative databases, disease registers, national and regional surveys, and research studies. Key sources are listed below.

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<td>1998/99–2002/03</td>
<td>Vitrectomy, lower limb amputation, renal failure</td>
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<tr>
<td>Diabetes screening and treatment</td>
<td>Get Checked programme (Ministry of Health)</td>
<td>2002</td>
<td>Several indicators of diabetes care in the community</td>
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<tr>
<td>Cancer registrations</td>
<td>New Zealand Cancer Registry</td>
<td>1996–2000</td>
<td></td>
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<tr>
<td>Use of primary health care services</td>
<td>New Zealand Health Survey 2002/03</td>
<td>2002/03</td>
<td>Self-reported (national survey)</td>
</tr>
<tr>
<td>Data</td>
<td>Source (agency or collection)</td>
<td>Period</td>
<td>Comments</td>
</tr>
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<td>PHO registration</td>
<td>Ministry of Health</td>
<td>2004</td>
<td></td>
</tr>
<tr>
<td>Immunisation rate</td>
<td>Northern Regional Health Authority Immunisation Survey</td>
<td>1996</td>
<td>National data not available; unpublished report</td>
</tr>
<tr>
<td>Cancer screening uptake</td>
<td>National Screening Unit</td>
<td>2002/03</td>
<td></td>
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<tr>
<td>Cardiovascular screening</td>
<td>New Zealand Health Survey 2002/03</td>
<td>2002/03</td>
<td>Self-reported (national survey)</td>
</tr>
<tr>
<td>ACC claims</td>
<td>ACC</td>
<td>2003</td>
<td></td>
</tr>
<tr>
<td>Use of secondary care</td>
<td>New Zealand Health Survey 2002/03</td>
<td>2002/03</td>
<td>Self-reported (national survey)</td>
</tr>
<tr>
<td>Mental health services</td>
<td>Mental Health Information National Collection (New Zealand Health Information Service)</td>
<td>2002</td>
<td>Episodes of mental health care in the community</td>
</tr>
<tr>
<td>Physical activity levels</td>
<td>New Zealand Sport and Physical Activity Surveys (SPARC)</td>
<td>1997–2001</td>
<td>National survey</td>
</tr>
<tr>
<td>Smoking</td>
<td>Action on Smoking and Health, AC Nielsen</td>
<td>2002</td>
<td>Youth (Action on Smoking and Health), adults (AC Nielsen)</td>
</tr>
<tr>
<td>Alcohol consumption</td>
<td>New Zealand Health Survey 2002/03</td>
<td>2002/03</td>
<td>National survey</td>
</tr>
<tr>
<td>Neighbourhood deprivation</td>
<td>Statistics New Zealand Based on index developed by Salmond and Crampton (2002)</td>
<td>2001</td>
<td>NZDep 2001</td>
</tr>
<tr>
<td>Education</td>
<td>Pacific Progress (Statistics New Zealand)</td>
<td>2001</td>
<td>2001 Census data</td>
</tr>
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<td>Occupation and industry</td>
<td>Pacific Progress (Statistics New Zealand)</td>
<td>2001</td>
<td></td>
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<tr>
<td>Income</td>
<td>Pacific Progress (Statistics New Zealand)</td>
<td>2001</td>
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<tr>
<td>Housing</td>
<td>Pacific Progress (Statistics New Zealand)</td>
<td>2001</td>
<td></td>
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<tr>
<td>Family structure</td>
<td>Pacific Progress (Statistics New Zealand)</td>
<td>2001</td>
<td></td>
</tr>
<tr>
<td>Acculturation and discrimination</td>
<td>Pacific Progress (Statistics New Zealand)</td>
<td>2001</td>
<td></td>
</tr>
</tbody>
</table>
Variable definitions

Definitions for key variables common to all (or most) indicators are provided below. Definitions of, or specific to, each indicator are provided in the appropriate section.

Ethnicity

The definition of ethnicity is (Statistics New Zealand 2004):

An ethnic group is made up of people who have some or all of the following characteristics:

- a common proper name
- one or more elements of common culture which need not be specified, but may include religion, customs, or language
- unique community of interests, feelings and actions
- a shared sense of common origins or ancestry
- a common geographic origin.

Ethnicity is self-perceived and individuals may identify with more than one ethnic group.

For many indicators, the ‘prioritised’ output of ethnicity was used, in keeping with usual Ministry of Health practice. For the analysis of these indicators, people were assigned to one ethnic group. Priority for ethnicity was given in the following order: Māori, Pacific peoples, Asian people, Other and European. This means that individuals who acknowledge both Māori and Pacific identities are excluded from the Pacific group (approximately 13% of the ‘Pacific’ population in 2001).

For other indicators, including the socioeconomic indicators of Section 4, the ‘total ethnic group’ output was used. For most indicators, the ‘total New Zealand population’ rate is presented alongside the Pacific rate, as a benchmark.

Age groups

The life-cycle stages used were: infants and children (0–14 years); young people (15–24 years); and adults (25+ years), comprising young adults (25–44 years), middle-aged adults (45–64 years) and older people (65+ years). Sometimes, however, the term adult is used to include the entire population aged 15 years or older.

Time periods

Reliable data for most indicators are lacking for Pacific peoples prior to the mid-1990s, making meaningful trend analysis impossible, so the decision was made not to present trend data for any of the indicators in this initial report.

Consequently, this report constitutes a baseline for trend analysis in future reports. With regular updates, the report will progressively increase in value as a monitoring tool, as description and analysis of time trends become an increasingly prominent feature.

For many indicators, five years worth of data (eg, 1998–2002) had to be aggregated to provide stable rate estimates (so preventing the analysis of short-term trends). These are presented as annualised averages.
Statistical methods

Most of the indicators are presented simply as rates; 95% confidence intervals, calculated by conventional parametric techniques, are shown where possible. Age-specific rates are sometimes summarised using direct age standardisation methods, with the WHO world population as the standard (WHO 2000). In Section 2: Health Service Utilisation hospitalisation rates are presented as standardised discharge ratios, which are indirectly age and NZDep2001 standardised.

For some indicators (e.g., health expectancy), more specialised statistical methods were necessary. These are referenced in the appropriate sections.

For mortality rates, the New Zealand Census Mortality Study (NZCMS) adjustors (Ajwani et al 2003) were not used, as numerator–denominator bias was small for the period 1996–99, and adjustors are in any case not available for more recent years. Note that undercounting of Pacific people (numerator–denominator bias) is a concern not only for deaths, but also for hospitalisations, and in particular outpatient visits, emergency department attendances and primary health care consultations.

For most indicators, the total New Zealand population rate is provided alongside the Pacific rate. This is done to provide a context for interpreting the Pacific rate, but comparison with the ‘national benchmark’ is not a focus of this report. However, if their respective 95% confidence intervals do not overlap, the difference is likely to be statistically significant. For many indicators, confidence intervals for the Pacific population estimate are in fact very wide, reflecting small numbers.

For survey data, when an unweighted cell contained a value of less than 10, the results were suppressed for reasons of reliability and confidentiality.

Key references for surveys

Details of the surveys from which much of the non-administrative data used for this report were drawn are available in the following references.

<table>
<thead>
<tr>
<th>Survey</th>
<th>Reference</th>
</tr>
</thead>
</table>
Section 1: Health Outcomes

The health status of the Pacific population in the late 1990s to the early 2000s is profiled using a set of headline indicators from a ‘whole of life’ perspective, followed by more specific indicators representing major health concerns for each life-cycle stage (e.g., infection and asthma for children, sexual health for young people, and chronic diseases such as diabetes, heart disease, stroke and cancer for middle-aged and older adults).

Whole of Life

The current health status of the Pacific population is captured from a whole-of-life perspective in a single summary measure of population health: health expectancy.

Health expectancy is then split into its two components: life expectancy (survival) and disability (functional limitation), representing the ‘quantity of life’ and ‘quality of life’ dimensions of health respectively.

An aspect of each of these dimensions of health of particular policy relevance is then separately represented: avoidable mortality and ambulatory sensitive hospitalisations, respectively.

Finally, an indicator is included to represent mental health, as a critical aspect of the quality of life dimension of health. Injury is also included, as a key health and safety issue that extends across all life-cycle stages.

Health expectancy

Indicator definition

Independent life expectancy is the number of years, on average, that a person can expect to live independently (free of disability requiring assistance).

Notes

All health expectancy measures integrate fatal and non-fatal outcomes (i.e., the two dimensions of health), but differ in the way non-fatal outcomes are represented in the index. For independent life expectancy (ILE), the non-fatal or ‘quality of life’ dimension of health is operationalised as ‘functional limitation requiring assistance (daily or non-daily)’. ILE was calculated by Sullivan’s method (Sullivan 1971) using mortality data provided by Statistics New Zealand and disability data extracted from the New Zealand Disability Survey 2001 (Statistics New Zealand).

ILE is the health expectancy measure used in The Social Report (Ministry of Social Development, 2003), the Ministry of Health’s Statement of Intent (Ministry of Health 2004b) and the Health and Independence Report (Ministry of Health 2003d).
**Current situation**

**Figure 3: Independent life expectancy at birth, by sex, 2000–2002**

![Chart showing life expectancy by sex for Pacific peoples and Total NZ population.](chart)

Source: Ministry of Health

**Figure 4: Years expected to be lived with disability requiring assistance, by sex, 2000–2002**

![Chart showing years expected to be lived with disability by sex for Pacific peoples and Total NZ population.](chart)

Source: Ministry of Health
On average ILE at birth for Pacific males is 61.8 years for Pacific females is 63.1 years, a relatively small female advantage of 1.3 years.

Pacific males and females have an ILE at birth lower than the all New Zealand average: 2.7 years lower for males and 4.5 years lower for females.

Pacific females can expect to live 13.6 years dependently, compared with only 9.7 years for males.

Pacific females can expect to spend the same time living dependently as the all New Zealand female average, while Pacific males can expect to spend less time living dependently.

In keeping with this, Pacific males can expect to spend a higher proportion of their lives living independently than their female counterparts, or than the all New Zealand male average. By contrast, the opposite holds for Pacific females.

The ILE and ILE:LE ratio estimates presented above should be used with caution, however, as health expectancy estimates for Pacific people are highly uncertain, both in their survival and disability dimensions. Much of this uncertainty results from numerator–denominator bias and is not captured in conventional confidence intervals.

Independent life expectancy (ILE) at birth is 2.7 years lower for Pacific males and 4.5 years lower for Pacific females, than the national average. However, the ratio of independent to total life expectancy is higher for Pacific males than the national average, and only slightly lower for Pacific females. The gender gap for ILE is low among Pacific peoples (1.3 years). However, these results are uncertain and should be treated with caution.
Related indicators

- life expectancy
- disability requiring assistance

Further information

- Longer Life, Better Health? New Zealanders’ health expectancies, 1996–2001. (Ministry of Health In press) (Note: this report does not provide Pacific estimates but is a good general account of health expectancy)
  http://www.moh.govt.nz
- Statistics New Zealand data and publications on life expectancy and disability
  http://www.stats.govt.nz

Life expectancy

Indicator definition

The number of years, on average, that a person can expect to live.

Notes

Life expectancy is a pure period indicator\(^1\) and does not reflect the actual experience of a real birth cohort. As a form of survival analysis, this indicator captures the ‘quantity of life’ dimension of health and represents one component of health expectancy.

The life expectancies shown here were calculated by Statistics New Zealand at the request of the Ministry of Health. Statistics New Zealand does not produce life tables for the Pacific population as part of its official information release because of small numbers of deaths. Caution should therefore be exercised in using these life expectancy estimates.

\(^1\) Represents the survivorship of the population at one point in time.
**Current situation**

**Figure 6: Life expectancy at birth, by sex, years, 2000–2002**

- On average, Pacific males can expect to live for 71.5 years and Pacific females for 76.7 years, a gender gap of 5.2 years.
- Pacific males and females have life expectancy at birth lower than the average for New Zealand: 4.8 years lower for males and 4.4 years lower for females.
- Pacific mortality was seriously undercounted in the 1980s and early 1990s (Ajwani et al 2003). However, since then the extent of numerator–denominator bias appears to have decreased markedly.
- Despite attempts at correction for numerator–denominator bias\(^2\), a fully reliable time series for Pacific life expectancy or mortality does not yet exist in New Zealand. However, it seems safe to conclude that Pacific life expectancy improved relatively slowly over the 1980s and 1990s (Ajwani et al 2003).

\(^2\) Inaccurate rates are calculated due to ethnicity data being collected differently in mortality (numerator) and census (denominator) records. The ethnicity question was based on biological ‘race’ in death registration forms until 1995 whereas the census has used a cultural concept of ethnicity since 1986. This resulted in a severe undercounting of Pacific and Māori deaths in the 1980s and early 1990s (Ajwani et al 2003).
Table 2: Top five causes of death for Pacific peoples, by sex and age group, 1996–2000

<table>
<thead>
<tr>
<th>Age</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–14 years</td>
<td>Road traffic injury, Brain cancer, Pneumonia and influenza, Chronic rheumatic heart disease, Leukaemia</td>
<td>Pneumonia and influenza, Other cardiovascular disease, Leukaemia, Road traffic injury, Brain cancer</td>
</tr>
<tr>
<td>15–24 years</td>
<td>Suicide, Road traffic injury, Brain cancer, Chronic rheumatic heart disease, Leukaemia</td>
<td>Suicide, Road traffic injury, Brain cancer, Other cardiovascular disease, Chronic obstructive pulmonary disease</td>
</tr>
<tr>
<td>25–44 years</td>
<td>Ischaemic heart disease, Road traffic injury, Suicide, Other cardiovascular disease, Chronic rheumatic heart disease</td>
<td>Breast cancer, Other cardiovascular disease, Ischaemic heart disease, Road traffic injury, Chronic rheumatic heart disease</td>
</tr>
<tr>
<td>45–64 years</td>
<td>Ischaemic heart disease, Lung cancer, Diabetes, Stroke, Liver cancer</td>
<td>Breast cancer, Diabetes, Ischaemic heart disease, Stroke, Other cardiovascular disease</td>
</tr>
<tr>
<td>65+ years</td>
<td>Ischaemic heart disease, Chronic obstructive pulmonary disease, Stroke, Lung cancer, Diabetes</td>
<td>Ischaemic heart disease, Stroke, Diabetes, Lung cancer, Chronic obstructive pulmonary disease</td>
</tr>
</tbody>
</table>

Source: New Zealand Health Information Service

- The causal structure of mortality of Pacific peoples does not differ markedly from that of the rest of the population.
- Injury (intentional and unintentional) is a leading cause of death in childhood, youth and young adulthood (together with breast cancer in young adult females).
- Cardiovascular disease (especially ischaemic heart disease and stroke), type 2 diabetes, certain cancers (especially lung and breast cancer) and chronic obstructive lung disease dominate from middle age onwards.

Pacific peoples’ life expectancy is about 4.5 years less than the national average, but this estimate is relatively uncertain. The gender gap in life expectancy is about five years in favour of women, much the same as for the New Zealand population as a whole.

Related indicators
- health expectancy (independent life expectancy)
- avoidable mortality

Further information
- Statistics New Zealand data and publications on life expectancy [http://www.stats.govt.nz]
**Disability**

**Indicator definition**

Disability from a population health perspective needs to be clearly distinguished from disability as the lived experience of the individual. As a population measure, ‘disability’ refers solely to the functional and/or role limitation experienced by the population. Discussion of environmental barriers to independence or human rights issues are beyond the scope of this report.

Functional limitation requiring the assistance of another person or a complex assistive device to carry out everyday routines.

**Notes**

The functional limitation must result from a health condition (disease, disorder, or defect) and last (or be expected to last) for six months or more (Health Funding Authority and Ministry of Health 1998).

Functional limitation represents the non-fatal dimension of health, and forms one component of health expectancy (the other being mortality).

Functional limitation can be graded by severity as follows (Health Funding Authority and Ministry of Health 1998):

- **Level 1**: person acknowledges a functional limitation, but does not require assistance.
- **Level 2**: person acknowledges a functional limitation and requires intermittent (non-daily) assistance to live independently.
- **Level 3**: person acknowledges a functional limitation and requires continuous (daily) assistance, generally in the self-care domain.

People in health states defined as Levels 2 and 3 are classified as having a ‘disability requiring assistance’.
Current situation

Figure 7: Prevalence of disability, by level, ages 15–84 years, 2001\(^1,2,3\)

Age-standardised rate per 100

![Bar chart showing prevalence of disability by level and gender for Pacific peoples, Total NZ population, and females.](chart.png)

Notes:
1. Due to small numbers and differences in survey instruments used, those <15 and >84 were excluded from age-standardised calculations.
2. Age-standardised to WHO standard population.
3. DRA = disability requiring assistance.
Source: 2001 Disability Survey, Statistics New Zealand

- The prevalence of all disability (L1 + 2 + 3) for Pacific peoples appears similar to the all New Zealand average, but this may reflect different expectations or willingness to acknowledge limitations, especially for ‘mild’ (Level 1) disability.
- Controlling for age, Pacific peoples aged 15–84 years appear to have a 15–20% higher prevalence of disability requiring assistance than the total population, but this is not statistically significant.
- The prevalence of disability requiring daily assistance (Level 3) is twice as high in Pacific males and 2.5 times as high in Pacific females compared with their respective national averages. However, these differences are not statistically significant, perhaps because of small numbers.
- Pacific boys (0–14 years) are more likely to have a disability than Pacific girls, with prevalence (all levels of disability combined) of 10% and 6% respectively. These prevalence rates appear lower than those of boys and girls in the total population, who have corresponding rates of 13 and 9% respectively, although the differences are not statistically significant (data not shown graphically).
- The prevalence of disability increases with age. Eight percent of Pacific children reported a disability, compared with 26% of Pacific peoples aged 45–64 years, and more than half of Pacific people aged 65–84 years (sexes pooled).
Figure 8: Types of disability as a proportion of all disabilities, sexes pooled, 2001*

- Physical disabilities (mobility and agility) are the most common type of disability reported by Pacific people (and by the total population), followed by sensory (hearing and vision) disabilities.

- The three most common types of disability experienced by Pacific peoples are mobility (age-standardised prevalence of 9.8% of Pacific adults living in households), followed by agility (7.2%) and hearing (3.6%).

* Percentages do not add up to 100% as people can report more than one type of disability and more than one cause.
The most common cause of disability is a disease or illness, reported by four out of ten Pacific peoples living with a disability. The late effect of injury is also an important cause reported by three out of ten Pacific peoples.

Common conditions resulting in disability in the Pacific population are mental illness (including dementia), arthritis and other musculoskeletal disorders, vision and hearing loss, chronic pain, respiratory diseases, stroke, heart disease and diabetes.

Human rights issues relating to disability are not addressed here. Such issues are included in the New Zealand Disability Strategy (Minister of Disability Issues 2001), and the Ministry of Health’s Disability Services Directorate is currently addressing a number of these issues as they affect the Pacific population.

Approximately one in eight Pacific adults (both male and female) have at least one functional limitation requiring assistance, with prevalence increasing sharply with age. Physical and sensory limitations are the most common.

Related indicators

- health expectancy (independent life expectancy)
- disability support services
Further information

- 2001 New Zealand Disability Survey reports
  http://www.stats.govt.nz/domino/external/web/Prod_Serv.nsf/htmldocs/Disability
- Chapter 9 Pacific people and disability, Disability in New Zealand (Ministry of Health In press)
  http://www.moh.govt.nz

Avoidable mortality

Indicator definition

Deaths occurring under age 75 years that could theoretically have been avoided, given current understanding of causation and potentially available prevention and health care technologies.

Notes

Focusing on deaths that could potentially have been avoided highlights the gains that can be made through better health promotion, disease prevention and treatment services. It provides a measure of performance for the health system (including but not limited to the health care subsystem) as a whole.

The concept of avoidability includes deaths that are preventable through population-based interventions as well as those responsive to preventive and curative interventions at an individual level. An age threshold of 75 years is applied because of the high prevalence of co-morbidity at advanced ages.

Appendix 2 of this report provides the list of conditions considered to be avoidable.

Current situation

Figure 10: Rate of avoidable mortality for Pacific peoples and total NZ population, by sex, 1996–2000*

* Age-standardised to the WHO world population
Source: New Zealand Health Information Service
• Pacific males and females have higher rates of avoidable mortality than the ‘all New Zealand’ benchmark – approximately a 50% excess risk.

Table 3: Top five causes of avoidable death for Pacific peoples, by sex and age group, 1996–2000

<table>
<thead>
<tr>
<th>Age</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–14 years</td>
<td>Complications of perinatal period</td>
<td>Complications of perinatal period</td>
</tr>
<tr>
<td></td>
<td>Birth defect</td>
<td>Birth defect</td>
</tr>
<tr>
<td></td>
<td>Bacterial and protozoal infection</td>
<td>Bacterial and protozoal infection</td>
</tr>
<tr>
<td></td>
<td>Drownings</td>
<td>Leukaemia</td>
</tr>
<tr>
<td></td>
<td>Road traffic injury</td>
<td>Viral pneumonia and influenza</td>
</tr>
<tr>
<td>15–24 years</td>
<td>Suicide and self-inflicted injuries</td>
<td>Suicide and self-inflicted injuries</td>
</tr>
<tr>
<td></td>
<td>Road traffic injury</td>
<td>Road traffic injury</td>
</tr>
<tr>
<td></td>
<td>Drownings</td>
<td>Nephritis and nephrosis</td>
</tr>
<tr>
<td></td>
<td>Rheumatic and other valvular heart disease</td>
<td>Bacterial and protozoal infection</td>
</tr>
<tr>
<td></td>
<td>Violence</td>
<td>Birth defect</td>
</tr>
<tr>
<td>25–44 years</td>
<td>Ischaemic heart disease</td>
<td>Breast cancer</td>
</tr>
<tr>
<td></td>
<td>Suicide</td>
<td>Ischaemic heart disease</td>
</tr>
<tr>
<td></td>
<td>Road traffic injury</td>
<td>Road traffic injury</td>
</tr>
<tr>
<td></td>
<td>Rheumatic and other valvular heart disease</td>
<td>Rheumatic and other valvular heart disease</td>
</tr>
<tr>
<td></td>
<td>Violence</td>
<td>Suicide</td>
</tr>
<tr>
<td>45–64 years</td>
<td>Ischaemic heart disease</td>
<td>Breast cancer</td>
</tr>
<tr>
<td></td>
<td>Lung cancer</td>
<td>Diabetes</td>
</tr>
<tr>
<td></td>
<td>Diabetes</td>
<td>Ischaemic heart disease</td>
</tr>
<tr>
<td></td>
<td>Cerebrovascular disease</td>
<td>Cerebrovascular disease</td>
</tr>
<tr>
<td></td>
<td>Liver cancer</td>
<td>Lung cancer</td>
</tr>
<tr>
<td>65+ years</td>
<td>Ischaemic heart disease</td>
<td>Ischaemic heart disease</td>
</tr>
<tr>
<td></td>
<td>Cerebrovascular disease</td>
<td>Cerebrovascular disease</td>
</tr>
<tr>
<td></td>
<td>Chronic obstructive pulmonary disease (COPD)</td>
<td>Diabetes</td>
</tr>
<tr>
<td></td>
<td>Lung cancer</td>
<td>Lung cancer</td>
</tr>
<tr>
<td></td>
<td>Diabetes</td>
<td>Breast cancer</td>
</tr>
</tbody>
</table>

Source: New Zealand Health Information Service

• The causal structure of avoidable mortality is similar for Pacific peoples and the total New Zealand population.

• Among infants and young children, complications of the perinatal period and birth defects are important causes of avoidable death, along with a range of infectious diseases.

• Injury (intentional and unintentional) dominates the picture in youth and young adults.

• From middle age onwards, chronic diseases relating to tobacco use, nutrition and physical activity are the major causes (including ischaemic heart disease, stroke, lung cancer and COPD).

• As for the total New Zealand population, avoidable deaths account for over 75% of all deaths of Pacific people less than 75 years of age.

Pacific peoples’ relatively high rate of avoidable mortality is a key contributor to health inequalities. Pacific males have avoidable mortality rates about 1.5 times those of their female counterparts.
Related indicators

- life expectancy
- ambulatory sensitive hospitalisations

Further information

- *Looking Upstream: Causes of death cross classified by risk and condition – New Zealand 1997* (Ministry of Health 2004c)
  http://www.moh.govt.nz

Ambulatory sensitive hospitalisation

Indicator definition

Hospitalisations of persons aged less than 75 years resulting from conditions responsive to interventions deliverable in primary health care settings.

Notes

Ambulatory sensitive hospitalisations define a subset of hospital inpatient admissions that could potentially have been prevented through effective access to and quality of primary health care. The age threshold of 75 years reflects the high prevalence of co-morbidity at advanced ages.

A list of conditions for which hospitalisations were considered to be ambulatory sensitive (preventable through primary health care) is given in Appendix 5.

Current situation

**Figure 11: Rate of ambulatory sensitive hospitalisation, by sex, 1998–2002**

*Age-standardised to the WHO world population
Source: New Zealand Health Information Service*
• Pacific males and females have high rates of ambulatory sensitive hospitalisation relative to the ‘all New Zealand’ benchmark – approximately a 60% excess.

• Ambulatory sensitive hospitalisation rates increase progressively with age, but there are few significant gender differences.

**Related indicators**

- avoidable mortality
- use of primary care services
- barriers to primary health care

**Further information**

- *Our Health, Our Future. Hauora Pakari, Koiora Roa.* (Ministry of Health 1999a)


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**Mental health**

**Indicator definition**

Three sub-indicators are included, defined as the mean scores achieved on the relevant SF-36 scales:

- positive mental health
- psychological distress
- mental health impact on social functioning.

**Notes**

Reliable estimates of the prevalence of psychiatric morbidity (eg, anxiety and depressive disorders) in the Pacific (or other) population are not currently available for New Zealand. The national *Mental Health and Wellbeing Survey, Te Rau Hinengaro,* currently in the field, will provide such data in future.
In the absence of information on the prevalence of mental illness, we use data from the SF-36 (a standardised health status instrument included in the New Zealand Health Survey) to provide a measure of (self-reported) positive mental health (the ‘Vitality’ scale), psychological distress (the ‘Mental Health’ scale), and the impact of mental illness / psychological distress on social functioning (the ‘Social Functioning’ scale).  

It does need to be acknowledged that concepts of mental health are strongly culture-specific, so the following results should be interpreted with care. Evidence from both qualitative (Laing & Mitaera 1994) and quantitative (Scott et al 1999) studies suggest that traditional concepts of mental health and illness place great emphasis on the spiritual dimension. Perhaps for this reason, Pacific people may sometimes prefer traditional healers rather than mainstream psychiatric services for mental health problems, and rates of mental illness may appear lower than they actually are. On the other hand, traditional Pacific belief systems and lifestyles (including extended family living and strong social support) may confer some protection against mental illness. As a result, acculturation may be associated with rising rates of alcohol and drug abuse and mental illness, especially if accompanied by low socioeconomic position and associated stress.

**Current situation**

**Positive mental health**

**Figure 12: SF-36 VT scale mean scores, by sex, 2002/03**

<table>
<thead>
<tr>
<th>SF-36 VT scale age-standardised mean scores</th>
<th>Males</th>
<th>Females</th>
<th>Persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pacific peoples</td>
<td>69.7</td>
<td>65.9</td>
<td>67.7</td>
</tr>
<tr>
<td>Total NZ population</td>
<td>67.8</td>
<td>62.4</td>
<td>65</td>
</tr>
</tbody>
</table>

**Notes:**
1. Age-standardised to the WHO world population
2. VT = Vitality scale
Source: 2002/03 New Zealand Health Survey

---

3 A mental component summary (MCS) score is not calculated from the eight SF-36 scale scores, as it has previously been shown (by factor analysis) that the MCS is uninterpretable for Pacific peoples (Scott et al 1999), reflecting the cultural specificity of mental health constructs. For the same reason, the ‘Role Emotional’ scale is not used to indicate the impact of mental health on role performance. However, factor analysis confirms that the selected individual scale scores (ie. VT, MH and SF) can be interpreted for Pacific peoples, albeit with caution.
• Pacific males and females may have higher ‘vitality’ scores than the national average, once adjusted for age (the confidence intervals do overlap for males but not females, but this is perhaps a reflection of the small number of Pacific peoples).

• Pacific males may have higher ‘vitality’ scores than their female counterparts (as is the case for other ethnic groups).

Psychological distress

Figure 13: SF-36 MH scale mean scores, by sex, 2002/03\(^1,2\)

Notes:
1. Age-standardised to the WHO World population
2. SF = Social Functioning scale
Source: 2002/03 New Zealand Health Survey

• Self-reported level of psychological distress, as defined by mean score on the SF-36 MH scale, is slightly lower for Pacific peoples than the all New Zealand average (but not statistically significantly so).

• Pacific males self-report less psychological distress than their female counterparts, similar to the total New Zealand pattern. However, the gender gap is narrower and not significant among Pacific peoples.

• Young adult females experience the highest rates of self-reported psychological distress of any group within the Pacific population, again in keeping with experience in the New Zealand population.
Impact of mental health status on social functioning

Figure 14: SF-36 SF scale mean scores, by sex, 2002/03¹,²

Notes:
1. Age-standardised to the WHO World population
2. SF = Social Functioning scale
Source: 2002/03 New Zealand Health Survey

- Self-reported social functioning, as defined by mean score on the SF-36 SF scale, is higher for Pacific females and lower for Pacific males than their respective national averages, but the differences are not statistically significant.
- Pacific females self-report better social functioning than their male counterparts (although the difference is again not statistically significant). This is opposite to the national pattern.

The self-reported mental health of Pacific peoples is close to the national average, if measured by selected SF-36 scales. Pacific females report less positive mental health and more psychological distress than their male counterparts, as is the case for the total New Zealand population.

Related indicators
- youth suicide
- mental health services

Further information
- 2002/03 New Zealand Health Survey reports http://www.moh.govt.nz
- Pacific Mental Health Profile. (Ministry of Health In press)
Vakaola

Helping Pacific peoples with mental health problems move to greater independence and involving their fanau in the process is the overall goal for Vakaola – a Pacific health provider working in the greater Wellington area.

It’s also committed to making the Pacific community more aware of mental health issues.

‘Our emphasis is on getting people to feel better, in control of their lives and able to tackle their problems,’ says manager Tevita Finau.

‘We take the holistic approach and can offer everything but clinical services – social, cultural and spiritual support, development of healthy lifestyles, raising self-esteem, referral into training or education opportunities, monitoring and advocacy.’

Most of the consumers are referred from acute mental health services or are self-referred, with fewer than five percent coming out of long-term institutional care.

Vakaola aims to be culturally aware and sensitive to the needs and aspirations of Pacific peoples. It’s not just a matter of adding ‘Pacific flavour’ to existing ways of doing things. Their community support workers come from five of the Pacific nations – Cook Islands, Samoa, Niue, Tokelau and Tonga – and are fluent in both their Pacific language and in English.

‘…we support and encourage people to move out into the community, let them get on with their lives,’ says Tevita.

That doesn’t mean just dropping them once discharged, though.

‘We’ll make sure that person continues to have friendly support, family connections, a social network. We know that without that safety net, they may well relapse.’

Moving towards discharge from the service can be threatening to the clients, says team leader Ene Nonumalo. The more the community is aware of mental health issues, he says, the more accommodating, less fearful and less discriminatory they will be.

While Vakaola has three offices in Porirua, the Hutt and Wellington City, much of their work is in the community. Their day activities for clients and families make best use of familiar Pacific contexts – Pacific Island churches, halls and homes. However, they are hoping to extend the facilities at their main base in Porirua by installing a computer with internet connection and a telephone for client use.
The work doesn’t stop at individual care. Vakaola runs two weekly radio programmes, on the regional Access Radio and Samoan 783 stations. They are heavily involved in the *Like Minds, Like Mine* campaign by the Ministry of Health to counter stigma and discrimination against people with mental illness, focusing particularly on Pacific Island communities.

That’s quite a challenge. There are cultural attitudes that have to be overcome, says Ene.

‘Understanding of mental illness varies,’ he says. ‘Sometimes there is little awareness – the person or the family may suffer discrimination, are regarded as just being silly.’

Over time, core Vakaola work has evolved into a ‘fono fale’ model, with services focused on the living cultures of each island group and community leaders knowing and trusting the staff.

Vakaola has a commitment to staff development and involving consumers in its plans to have consumer-driven services. Consumer input is critical to its involvement in the *Like Minds, Like Mine* project and their radio programmes.

Interest in the services Vakaola offers is wider than just the Wellington region – it gets inquiries from as far away as Horowhenua and Manawatu, and it already has a waiting list.

It also continues to explore new options that could help its clients, such as the possibilities opening up in the new Primary Health Organisation environment.
**Injury**

**Indicator definition**

Death or hospitalisation resulting from unintentional injury.

**Notes**

Unintentional injury includes motor vehicle and other transport-related injuries, injuries occurring in the work setting, at home (mainly falls and poisonings), and during recreation (sports injuries, drownings). Alcohol is an important risk factor in some types of unintentional (and intentional) injury among young people and adults. Preschool children and the very old are at high risk of falling.

Total unintentional injury (all types and settings aggregated) is presented in this section as a ‘headline’ indicator. Specific injury types (eg, motor vehicle injuries) are presented later, under the life-cycle stage most heavily affected (youth).

**Current situation**

**Injury mortality**

**Figure 15: Rate of injury related mortality by sex, 1996–2000***

<table>
<thead>
<tr>
<th>Age-standardised rate per 100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
</tr>
<tr>
<td>45</td>
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<tr>
<td>40</td>
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<tr>
<td>35</td>
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<td>20</td>
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<tr>
<td>15</td>
</tr>
<tr>
<td>10</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>0</td>
</tr>
</tbody>
</table>

Pacific peoples

- Males: 36
- Females: 13
- Persons: 24

Total NZ population

- Males: 37
- Females: 15
- Persons: 26

* Age-standardised to WHO standard population
Source: New Zealand Health Information Service

- Pacific males die from unintentional injury at two-and-a-half times the rate of their female counterparts. A similar sex difference is seen for the total New Zealand population, and indeed for almost all populations throughout the world.
- For both sexes, Pacific people experience risks of dying from injury similar to the all New Zealand average (the difference does not reach conventional thresholds for statistical significance).
Injury hospitalisation

Figure 16: Rate of unintentional injury hospitalisations, by sex, 1998–2002*

* Age-standardised to WHO standard population
Source: New Zealand Health Information Service

Current situation

- Hospitalisation rates for unintentional injuries are higher for Pacific males than for Pacific females by approximately 60%.
- Hospitalisation rates for unintentional injuries are *higher* for Pacific males and females than the all New Zealand average (by approximately 15%). This is despite the corresponding mortality rates being similar (or slightly *lower*). The explanation for this inconsistency is unclear.
- Falls are the leading cause of injury hospitalisation and motor vehicle crashes are the leading cause of injury mortality for Pacific peoples.

Related indicators

- road traffic injuries
- ACC use

Further information

- New Zealand Health Information Service (NZHIS) data and publications http://www.nzhis.govt.nz
- Injury Prevention Research Unit, University of Otago, data and publications http://www.otago.ac.nz/ipru
- Injury Prevention Research Centre, University of Auckland, data and publications http://www2.auckland.ac.nz/ipc
- Accident Compensation Corporation data and publications http://www.acc.govt.nz
Summary

Pacific peoples in New Zealand currently experience an independent life expectancy at birth of approximately 62.5 years, about three and a half to four years less than the national average. This health expectancy reflects a life expectancy of approximately 74 years at birth (compared with 78 years) and a dependent disability prevalence of approximately 12% (compared with 10%).

However, it should be emphasised that these average levels may disguise considerable heterogeneity based on ethnicity, socioeconomic position, migrant status and acculturation.

Furthermore, the Pacific population experiences relatively high rates of avoidable mortality and ambulatory sensitive hospitalisation (excess rates of 50% or more compared with the national benchmark), suggesting that public health strategies and primary care services are not yet fully meeting the needs of Pacific peoples.

Mental health is closely linked to culture, making inter-ethnic comparisons challenging. Nevertheless, using SF-36 measures, it appears that Pacific peoples enjoy much the same level of mental health as the total New Zealand population. However, reliable prevalence estimates for mental illness are lacking.

Pacific peoples also experience similar or lower levels of unintentional injury to the New Zealand population.
0–14 years – Infants and Children

Key issues in infant health, for Pacific peoples as well as for other ethnic groups, include low birthweight (whether resulting from premature delivery or intra-uterine growth retardation), breastfeeding (a protective factor rather than an outcome), and perinatal and infant mortality.

Infectious diseases are a particular problem for Pacific infants and young children. In particular, New Zealand is currently in the grip of a group B meningococcal epidemic, which is affecting Pacific infants and children disproportionately.

Hearing impairment – generally the result of recurrent otitis media with effusion – is a highly prevalent health issue among Pacific children, affecting their socialisation, cognitive and language development and school readiness.

Asthma is by far the most prevalent chronic disease of childhood, with potentially far-reaching consequences for growth and development.

Injury (intentional and unintentional) is also of concern in childhood, but it is considered in this report mainly from a whole-of-life perspective.

Infant mortality rate

Indicator definition

Three sub-indicators are used:

• the number of deaths in the first year of life per 1000 live-born infants
• types of infant mortality
• causes of infant mortality.

Notes

The infant mortality rate depends on (1) the birthweight distribution and (2) the birthweight specific risks of dying.

Traditionally, the infant mortality rate (and especially its postneonatal component) has been regarded as a sensitive indicator of the socioeconomic performance of a society, although this may be less so in developed economies such as New Zealand (Ministry of Health 1999a).
Current situation

Figure 17: Rate of infant mortality, 1997–2001

Rate per 1000 live births

Source: Statistics New Zealand

- The infant mortality rate for the Pacific population is 40% higher than the all New Zealand average.
- This results entirely from higher birthweight specific mortality rates, not from a lighter birthweight distribution (see related indicator).
- The infant mortality rate is higher for males than for females, both for Pacific peoples and the total New Zealand population.

Table 4: Infant mortality, by type, 1997–2001

<table>
<thead>
<tr>
<th>Type</th>
<th>Pacific peoples</th>
<th>Total NZ Population</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rate per 1000 live births</td>
<td>Rate per 1000 live births</td>
<td></td>
</tr>
<tr>
<td>Neonatal</td>
<td>4.0 (3.3–4.7)</td>
<td>2.8 (2.6–3.0)</td>
<td>1.4</td>
</tr>
<tr>
<td>Post-neonatal</td>
<td>3.1 (2.5–3.7)</td>
<td>2.3 (2.1–2.4)</td>
<td>1.4</td>
</tr>
</tbody>
</table>

Source: Statistics New Zealand

- Both neonatal and post-neonatal mortality components of the infant mortality rate are elevated for Pacific peoples versus the total New Zealand population, and the rate ratios are about the same in each case (approximately 40% higher).
- This suggests that both factors related to neonatal mortality (eg, obstetric care) and factors related to post-neonatal mortality (eg, paediatric care, primary health care, infections and Sudden Infant Death Syndrome) are important in explaining the disparity.
- Both Pacific peoples and total infant mortality rates have declined over the past several decades.
Table 5: Causes of infant mortality, 1997–2001

<table>
<thead>
<tr>
<th>Type</th>
<th>Pacific peoples</th>
<th>Total NZ Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rate per 1000 livebirths</td>
<td>Proportion (%)</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Prematurity complications</td>
<td>1.3 (0.9–1.7)</td>
<td>18</td>
</tr>
<tr>
<td>Birth complications (eg, foetal distress)</td>
<td>0.3 (0.1–0.5)</td>
<td>4</td>
</tr>
<tr>
<td>Sudden Infant Death Syndrome</td>
<td>0.7 (0.4–1.0)</td>
<td>10</td>
</tr>
<tr>
<td>Birth defects</td>
<td>0.6 (0.4–0.9)</td>
<td>8</td>
</tr>
<tr>
<td>All other causes</td>
<td>4.2 (3.2–4.8)</td>
<td>58</td>
</tr>
</tbody>
</table>

Source: Statistics New Zealand

- The causal structure of infant mortality is similar for Pacific infants and all infants.
- Pacific rates appear higher for complications relating to prematurity and to the birth process, although the differences just fail to reach the 95% level of statistical significance. Nevertheless, these results suggest a need for better maternity care for Pacific women.
- Pacific rates for SIDS are not significantly different to the national average.

Related indicators
- Low birthweight

Further information
- New Zealand Health Information Service data and publications
  http://www.nzhis.govt.nz
- Statistics New Zealand data and publications
  http://www.stats.govt.nz

Low birthweight

Indicator definition
A weight of less than 2500 grams at birth.

Notes
Low birthweight may result from premature delivery or from intra-uterine growth retardation, or both. The causes and health consequences differ.
Premature delivery is associated with perinatal complications leading to high neonatal mortality. Infants who are small for their gestational age have elevated risks of postneonatal mortality and possibly chronic diseases such as type 2 diabetes and ischaemic heart disease in adult life.

**Current situation**

**Figure 18: Rate of low birthweight, sexes pooled, 2001**

- Pacific infants tend to be heavier than the all New Zealand average at birth.
- Rates for both premature delivery and intra-uterine growth retardation are correspondingly lower for Pacific infants.
- Low birthweight cannot therefore be an explanation (in whole or in part) for the higher infant mortality experienced by Pacific infants.

On average, Pacific infants are heavier at birth than the national average, and the risk of low birthweight is correspondingly low.

**Related indicators**
- infant mortality rate

**Further information**
- Statistics New Zealand
Hearing loss

Indicator definition

Failure on audiometry at school entry.

Notes

Hearing loss in early childhood can interfere with the development of speech and language, socialisation and cognition, and so can affect school readiness and school performance. Hearing loss in children is most often caused by recurrent otitis media with effusion (glue ear). Risk factors for glue ear include frequent upper respiratory tract infections, exposure to second-hand smoke, low rates of breastfeeding, overcrowding, and attendance at childcare centres (Public Health Commission 1995).

Current situation

Figure 19: Percentage of five-year old children failing school entry hearing screening test, 2001/02

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Pacific peoples</th>
<th>Total NZ population</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.1</td>
<td>8.4</td>
<td></td>
</tr>
</tbody>
</table>

Source: National Audiology Centre

- The proportion of five-year old Pacific children failing the school-entry hearing screening test (18.1%) is over twice that of the national average (8.4%).

Hearing failure at school entry is a key contributor to educational and health inequalities for Pacific children.

Related indicators

- education
- housing
Further information

• National Audiology Centre

Oral health

Indicator definition

The MFT (missing and filled teeth) index at year 8 and at school entry.

Notes

About 95% of primary school children are seen by the School Dental Service (Ministry of Health 1999b), and have their MFT score assessed.

The MFT score is the sum of the number of teeth that are missing or filled because of decay. (The MFT index assumes that all decay has been treated prior to the data being recorded; ie, it is a ‘treatment outcome’ index).

In New Zealand (and internationally) child oral health is strongly correlated with the fluoridation of water supplies.

Current situation

Figure 20: Average number of missing or filled teeth at year 8, by ethnicity and fluoridation of water supply, 2002*

* Confidence intervals not available
Source: Ministry of Health

• The average number of missing or filled teeth is higher for Pacific children than the all New Zealand average.
• Being exposed to a fluoridated water supply results in fewer missing or filled teeth, irrespective of ethnicity.

Figure 21: Average number of missing or filled teeth at school entry, by ethnicity and fluoridation of water supply, 2002

Source: Ministry of Health

• The average number of missing or filled deciduous teeth is much higher for Pacific children at school entry than the all New Zealand average.

• Being exposed to a fluoridated water supply results in fewer missing or filled teeth in younger as in older children, irrespective of ethnicity.

• However, the relative disparity between Pacific and total New Zealand children persists despite fluoridation.

Pacific children have below average dental health. Having a fluoridated water supply reduces the disparity in absolute terms, but does not eliminate it.

Related indicators
• use of primary health care services (dentist)

Further information
• Ministry of Health publications
http://www.moh.govt.nz

Pacific Health Chart Book 2004
Asthma

Indicator definition

The rate of inpatient hospital admissions for control of acute asthma attacks.

Notes

Asthma is characterised by episodic, reversible airflow obstruction (experienced as wheeze, breathlessness and cough). It is a common chronic disease in affluent societies, and the prevalence of the disease has increased over recent decades.

The findings of the New Zealand arm of the International Study of Asthma and Allergies in Childhood (ISAAC) suggests that 25–30% of New Zealand children and adolescents have symptoms of asthma (Asher et al 2001).

Hospitalisation is used as an indicator of the impact of asthma on New Zealand children. High hospitalisation rates can reflect high prevalence, lack of access to primary health care and asthma education, or both.

Current situation

Figure 22: Rate of asthma hospitalisations among 0–14-year-olds, by sex, 1998–2002*

* Age-standardised to WHO standard population
Source: New Zealand Health Information Service

- Pacific children have higher hospitalisation rates (approximately 50% higher) for asthma than the all New Zealand average.
- For Pacific and other children, males have higher asthma hospitalisation rates than females.
- The excess risk of hospitalisation for asthma among Pacific children may reflect higher underlying prevalence of asthma, or poorer control of asthma in the community, but ISAAC results suggest that the former explanation is unlikely. Thus this excess risk probably reflects lesser access to primary health care or poorer quality community care for Pacific compared to other children, or both.
Asthma is a leading cause of morbidity for Pacific children. Most probably, Pacific children’s higher asthma hospitalisation rates reflect poorer management of asthma in the community.

**Related indicators**

- use of primary health care services

**Further information**

- New Zealand Health Information Service data and publications
  http://www.nzhis.govt.nz
- Ministry of Health publications
  http://www.moh.govt.nz
- International Study of Asthma and Allergies in childhood (ISAAC), New Zealand
  http://isaac.auckland.ac.nz

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**Infectious diseases**

**Indicator definition**

The impact of infectious disease on the Pacific population (predominantly but not exclusively children) is measured here through two indicators:

- notification rates for selected major infectious diseases: meningococcal disease, rheumatic fever, tuberculosis and hepatitis B
- hospitalisation rate for lower respiratory tract infection.

**Notes**

Meningococcal disease (meningitis and septicaemia) is a bacterial illness due to *Neisseria meningitidis*. New Zealand has been experiencing an epidemic of group B meningococcal disease since 1991 (Ministry of Health 2002d).

Rheumatic fever is an auto-immune disease that follows repeated group A streptococcal infection of the throat. A serious complication of repeated bouts of rheumatic fever is damage to the valves of the heart (rheumatic heart disease). Crowding, poverty and lack of access to primary health care increase the chance of developing rheumatic fever.

In 1993 the WHO declared tuberculosis (TB) to be a global emergency. TB is an important cause of death in Pacific Island countries. Although the incidence of TB in New Zealand is low, there has recently been a resurgence of TB in this as in other developed countries (Ministry of Health 2002d).
Hepatitis B virus infection is an established cause of acute and chronic hepatitis, cirrhosis, and primary liver cancer. In New Zealand, hepatitis B infection contributes to more deaths than any other vaccine-preventable disease apart from influenza (Ministry of Health 2002d). Currently only acute hepatitis B is notifiable.

Lower respiratory tract infections include pneumonia and influenza.

**Current situation**

**Figure 23: Rate of infectious disease notifications among 0–14-year-olds, by sex, 1998–2002**

<table>
<thead>
<tr>
<th>Disease</th>
<th>Rate per 100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meningococcal disease</td>
<td>20.1 7 8.6</td>
</tr>
<tr>
<td>Rheumatic fever</td>
<td>3.6 6.2 0</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>1.4 10 0.0</td>
</tr>
<tr>
<td>Hepatitis B</td>
<td>1.1 6.2 1.0</td>
</tr>
</tbody>
</table>

**Pacific peoples**

- Males: 20.1 3.6 6.2
- Females: 7 8.6 1.0
- Persons: 8.6 1.0

**Total NZ population**

- Males: 9.9 1.2 0.0
- Females: 9.9 1.2 0.0
- Persons: 9.9 1.2 0.0

**Notes:**
1. Age standardised to WHO standard population.
2. Confidence intervals not available.
3. For meningococcal disease and rheumatic fever there were notifications with unknown gender.

Source: Institute for Environmental Science and Research Limited

- Pacific infants and children have twice the rate of meningococcal disease, five times the rate of rheumatic fever and six times the rate of TB as the all New Zealand average for infants and children.
- There are no significant differences between the genders, for the Pacific or the total New Zealand populations.
Figure 24: Rate of infectious disease notifications among the whole population, 1998–2002¹,²

Notes:
1. Age standardised to WHO standard population.
2. Confidence intervals not available.
Source: Institute for Environmental Science and Research Limited

- Pacific peoples have twice the rate of meningococcal disease, six times the rate of rheumatic fever, four times the rate of TB, and three times the rate of hepatitis B (adjusting for age) as the total New Zealand population.
- There are no significant differences between the sexes, for the Pacific or the total New Zealand populations.
- Household crowding, large family size, extended family living and inadequate primary health care are thought to be important risk factors for these serious infectious diseases. More generally, child poverty and low family income are underlying determinants.
Figure 25: Rate of lower respiratory tract infection hospitalisations among 0–14-year-olds, by sex, 1998–2002*

* Age-standardised to WHO standard population
Source: New Zealand Health Information Service

- Pacific children are approximately 2.5 times more likely to be hospitalised for lower respiratory tract infection than the national average.
- Causes are probably similar to those noted above (ie, household crowding and inadequate primary health care).

Meningococcal disease, rheumatic fever, tuberculosis (TB), hepatitis B and lower respiratory tract infection are all key contributors to health inequalities for Pacific peoples, especially children. Household crowding and inadequate primary health care are thought to be major causes of these inequalities.

Related indicators
- use of primary health care services (especially immunisation)
- barriers to care
- breastfeeding rate
- housing (crowding)
- family structure
- deprivation

Further information
- Institute for Environmental Science and Research Limited data and publications
  http://www.esr.cri.nz
Summary

Pacific infants have low rates of low birthweight and close to average rates of breastfeeding (approximately 50% at three months), yet experience mortality rates in excess of the national average (approximately 6 per 1000 live births compared with 4 per 1000 in 2000–2002). Neonatal and post neonatal mortality contribute about equally to this inequality.

Pacific children (1 to 4 years) have low mortality rates, but experience significant morbidity from infectious diseases, including such serious diseases as meningococcal meningitis and septicaemia, rheumatic fever, TB, hepatitis B and lower respiratory tract infection. Crowded housing is thought to explain much of this higher risk of infection, although there is also scope for improvement in primary health care, including further improvement in immunisation coverage. One of the goals of the Primary Health Care Strategy (Ministry of Health 2001b) is to reduce barriers to care, particularly financial barriers.

Reflecting in part this elevated risk of infection, Pacific children have an unacceptably high hearing failure rate on audiometry at school entry (18% compared with a national benchmark of 8%). Hearing loss in early childhood impairs school readiness and academic performance.

Pacific children experience relatively high rates of hospitalisation for asthma, again a reflection of inadequate primary care. The dental health of Pacific children is also below average. On the other hand, Pacific children (like older age groups) are less likely than the national average to experience a serious injury. However, Pacific children are still at high risk of some specific types of injury, including pedestrian injuries, driveway reversal injuries and burns. Injury remains the leading cause of death for Pacific children and youth, as for other ethnic groups.

Pacific children are more likely to be overweight and less likely to participate in sport than other ethnic groups, with serious implications for adult health (see Section 3: Risk Factors).
Kids in Action Pasefika Challenge is a South Auckland intervention programme for Pacific school-age children who are obese.

Children and families are in the programme because they recognise the lifelong medical and social complications of being obese and they want to do something about it.

Integrating hospital, health services and community services in South Auckland, the project is the result of hospital and community health professionals deciding they could pool their current resources and work together.

Dr Teuila Percival is a paediatrician at KidzFirst, Middlemore Hospital. She works with Pacific provider South Seas Healthcare’s nurse Christina Tapu, TaPasefika dietician Soana Muimuiheata and To’o Vaega and Filipo Saena, both ex-Manu Samoa rugby players who provide fitness training and coaching.

The Kids in Action team help children and families with fitness, sports skills and healthy food choices.

About one quarter of the children have health complications ranging from high blood pressure to obstructive sleep apnoea. Some are also pre-diabetic, with glucose intolerance.

Billed as ‘fun and fitness for all the family’, Kids in Action is based on four ‘Fs’, says Teuila.

‘Four critical things need to happen to help our children – fun, friends, family and feeling good. Children and families will attend if it’s fun – they won’t if they feel they’re going to get ‘talked at’ or ‘educated’. A lot of the children have been teased or bullied and have poor self-esteem. Helping them make friends and feel good about themselves is often the first step before you can make any difference with weight. That is why we set small goals, make the programme fun and give prizes at the end of term.’

The health side of the programme involves doctor and dietitian assessment, analysis of eating patterns and knowledge of food, talking about levels of physical activity and fitness, and the medical complications of obesity. The next stage is setting goals for the child and his or her family, with a weekly exercise programme and medical or nursing follow up every two weeks.

The Kids in Action clinic is held once a week at the Faaola Clinic, which is an Outreach Paediatric Clinic of Middlemore Hospital, held at the South Seas HealthCare GP practice in Otara.
Children see the paediatrician and dietitian in this clinic. The weekly exercise and support programme is held at Otahuhu College and is run by the nurse and coaches, who are there to inspire and provide role models as well as actual technique.

‘We enrol children for a term,’ Teuila explains, ‘but many of them come to the exercise segment for much longer.’

‘We take referrals from school nurses and hospital services, and welcome self-referrals (which means the families are very motivated).’

Families are urged to involve everybody in healthy eating and to ensure regular attendance at both clinic and exercise programme. If parents are overweight or have a health problem, they are advised to see their own doctor for a check-up.

Promotion of the programme emphasises the enjoyable and fun side for children.

‘Your child will learn about healthy eating and take part in physical activity, they will make friends, gain confidence and learn sports skills.’

During 2003, 71 children were referred, nearly half of them Samoan. Thirteen Tongan children, 11 Cook Island and 11 Māori children came along, with two from Niue, two with Asian or Indian backgrounds and one Pākehā child.

While one child was under 5, most were attending primary or intermediate schools.

Early indications are promising. Of those who attended regularly, almost 70 percent either lost or maintained their weight – an important goal for youngsters who are still growing.

Most weight loss was small, but some lost as much as 10kg.

In March this year, the programme’s first prize-giving ceremony for 2004 rewarded achievement, with former All Black Michael Jones giving out the awards.

One girl shed 28kg, dropping from 112kg to 84kg, and her clinic nurse remarked on how much brighter and more positive she was. ‘Before, she was always tired and breathless.’

Other children also commented on how much better they were feeling, even if giving up takeaways and fizzy drinks wasn’t easy.
15–24 years – Young People

Youth is generally a time of good physical health. The main health challenges faced by young people of all ethnicities and social classes include risk-taking behaviour and injury, in particular road traffic crashes, and issues relating to mental health and to sexual and reproductive health.

Key indicators selected for this life-cycle stage are early unintended pregnancy and sexually transmitted infections (both markers of unsafe sex), suicide (a marker of depressive disorder), and road traffic injury.

Early unintended pregnancy

Indicator definition

Three sub-indicators are included under this topic:

- the adolescent pregnancy rate, which includes live and stillbirths, induced abortions and (an estimate\(^4\) of) spontaneous miscarriages among females aged 10–19 years
- the adolescent birth rate, which is restricted to live and stillbirths only (in this age group).
- the adolescent abortion rate, which refers to medically induced terminations of pregnancy in the same age group.

Notes

While teenagers with adolescent conduct problems, poor school achievement and family adversity may be more likely to become teenage mothers, teenage pregnancy often represents an additional disadvantage in itself (Woodward et al 2001). Teenage parenthood is strongly associated with subsequent educational under-achievement, unemployment and poverty (UNICEF 2001, Ministry of Health 2000b).

Also, children born to teenage mothers are at risk of adverse health outcomes such as low birthweight, perinatal mortality, and eventual behavioural problems and educational under-achievement (Woodward et al 2001).

Teenage pregnancy, birth and abortion rates collectively provide an indirect measure of sexual health status among teenagers, although fertility timing is also partly culturally determined, and the evidence relating early childbearing per se to adverse health outcomes for mother or infant is disputed (Geronimus 2003).

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\(^4\) The number of early miscarriages has been estimated as 10% of induced abortions plus 20% of live births (Dickson et al 2000).
**Current situation**

**Figure 26: Rate of teenage pregnancy, 10–19 years, 2002**

<table>
<thead>
<tr>
<th></th>
<th>Pacific peoples</th>
<th>Total NZ population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pregnancy</td>
<td>65</td>
<td>37</td>
</tr>
<tr>
<td>Abortion</td>
<td>15</td>
<td>13</td>
</tr>
<tr>
<td>Birth</td>
<td>41</td>
<td>19</td>
</tr>
</tbody>
</table>

**Notes:**
1. Pregnancy rate includes live births, stillbirths, induced abortions and an estimate of early miscarriages.
2. Birth rate includes live and stillbirths only.
Source: Statistics New Zealand

- Pacific teenagers have higher pregnancy and birth rates than the all New Zealand average, but a similar abortion rate.
- Contrary to popular belief, the Pacific abortion rate is now significantly lower than the national average relative to their respective pregnancy rates (23% of pregnancies among Pacific adolescents are medically terminated, compared with a national average of 35%).

The incidence of teenage pregnancy among Pacific peoples is 75% higher than the national average, suggesting limited access to contraceptive services. Yet the cultural specificity of fertility timing should also be considered when interpreting this indicator.

**Related indicators**
- sexually transmitted infections
- use of primary health care services (contraception/family planning)

**Further information**
Sexually transmitted infections

Indicator definition

The incidence of four major sexually transmitted infections (STIs) (chlamydia, gonorrhoea, genital warts, genital herpes) among sexual health clinic attenders aged 15–24 years.

Notes

STIs are not notifiable in New Zealand, and surveillance is restricted to sexual health clinics (including Family Planning and student health clinics). Because clinic attendees are self-selected and probably at higher than average risk, the data may not reflect the incidence of STIs in the general population. However, trends in attenders may reflect trends in the general population.

Chlamydia is the most commonly diagnosed STI. Gonorrhoea is much less common, but has been resurgent since 1996 (Gilmore et al 2002). Genital warts are caused by infection with the human papillomavirus, but not the genotypes associated with cervical cancer. Genital herpes generally results from infection with herpes simplex virus type 2.

Current situation

Figure 27: Incidence of sexually transmitted infections (STIs) at sexual health clinics, among youth, by sex, 1999–2002*

* Confidence intervals not available
Source: Institute for Environmental Science and Research Limited

- Pacific youth have higher rates of chlamydia and gonorrhoea, but not of genital warts or herpes, than the national youth average (among clinic attenders).
- This may reflect different patterns of health care rather than differences in underlying risks.
- The most common STI for Pacific youth is chlamydia, followed by genital warts, as for the total New Zealand youth population.
Pacific youth have higher than average rates of chlamydia (and some other STIs), suggesting limited access to sexual health services or cultural differences in the acceptability of available services.

Related indicators

- early unintended pregnancies
- use of primary health care services

Further information

- Environmental Science and Research Ltd data and publications http://www.esr.cri.nz

Youth suicide

Indicator definition

Completed suicide within the 15–24 years age group.

Notes

New Zealand is currently experiencing an ‘epidemic’ of suicide, involving mainly young people (15–24 years) and – more recently – young adults (25–44 years). Almost one in five people who died by suicide in 2000 were aged from 15 to 24 years.

At the individual level, over 90% of youth suicides are associated with depressive disorders or other serious mental illness (Beautrais 1996).
Current situation

Figure 28: Rate of youth suicide, by sex, 1996–2000

- The rate of suicide among Pacific youth (both males and females) is similar to the national average.
- Among Pacific (and other) youth, males have at least three times the rate of completed suicide as their female counterparts (although females have higher rates of suicide attempts).

Pacific youth have similar suicide rates to the national average. Among young people, males are much more likely to complete suicide than females.

Related indicators
- mental health
- mental health services
- employment (youth unemployment)

Further information
- New Zealand Health Information Service data and publications on suicide and youth suicide
  http://www.nzhis.govt.nz
- Ministry of Health publications on youth suicide, suicide and mental health
  http://www.moh.govt.nz
- Injury Prevention Research Unit, University of Otago website
  http://www.otago.ac.nz/ipru
- Injury Prevention Research Centre, University of Auckland, Data and Publications
  http://www2.auckland.ac.nz/ipc
Drama and music are integral to the sexual health education programme provided for intermediate and secondary schools by Family Life Education Pasefika (FLEP), in South Auckland.

‘It began in 1997 following concern over young Pacific people’s sexual health – high abortion, pregnancy and STI rates,’ says FLEP manager William Pua.

‘Originally it was a pilot public health contract to promote positive views of sexuality and well-being within Pacific communities in South Auckland. In 2001 it set up a performing arts team, using drama to bring home the issues, and the following year the band 2XL developed a community music programme.

‘Now we merge performing arts, educational theory and pedagogy with humour and Pasefika culture, which gives us a unique flavour. And it gets the serious stuff across in a way that the young people relate to.’

Schools, churches and community groups are the main audiences.

There are three strands to the school-based programme, Tupulaga Taeao (youth of tomorrow).

A preliminary parents’ session – Natura Ole Olaga, the natural things of life – provides general information, details about how FLEP works, and opens it up for discussion and dialogue. It also helps parents to understand better some of the issues facing their adolescent children and encourages them to follow up matters raised and be open about discussion.

The student programme – Fa’asoa, (to distribute) – is a four-session package based
on the health curriculum requirements for the age group. It provides clear, accurate information, and encourages questions that the students don’t feel comfortable to ask at home; as an example male students have asked ‘why did I get circumcised?’

As William explains it, ‘These questions would be best answered at home. But as a Pacific organisation, we respectfully stand in the breach for parents and design our programmes to actively support parents and families to develop an awareness around these issues’.

The celebration concert ending the programme is a form of Pacific reciprocity, William explains.

‘They allowed us to come into their classrooms and the concert acknowledges this privilege.

William says 2XL encourages the students ‘to excel’ at whatever they do.

‘They play a range of music, carefully chosen popular and current stuff with good messages. We’re still experimenting with the power of music as a medium for communication and change in our work with adolescents.’

The third strand is professional development – Lu’itu, (the challenge) – and is offered to teachers and other educators. The strategy section explores techniques that have proven effective in reaching and engaging Pacific students – action methods, critical thinking, music, movement, humour – to maximise learning.

Running alongside this is a course to explore how a Pacific cultural framework can help in teaching sexual health. It looks at personal values and beliefs and how those influence and affect the way educators teach and communicate.

So far FLEP has conducted more than 5000 school-based sessions, performed its music to more than 12,000 people and its drama to over 20,000. Evaluation and reviews are built in to the process and quickly incorporated into the programme.

Feedback from churches and colleges is encouraging about the ways FLEP makes the students relaxed and open about sometimes difficult topics. As one wrote, ‘It was an awesome experience because it taught me how to be safe and how to overcome some of my fears’.

Hilda Fa’asalele is developing the FLEP clinical health service in South Auckland schools. This team includes a doctor and a nurse who will be working with existing school health clinics and local health providers for care and appropriate referral.

As well as improving access to specialist sexual and reproductive health services, over time it aims to reduce high teenage pregnancy and abortion rates and sexually transmitted infections among Pacific young people. This can only be achieved by improving the dialogue with Pasefika communities about sexual health and wellbeing, she says.

School-based health clinics are acknowledged as effective in improving safer sex practices and reducing pregnancies.
Road traffic injuries

Indicator definition

Inpatient hospital admissions or deaths in the 15–24 years age group resulting from road traffic injury or late effects of such injury, including both on-road and off-road events.

Current situation

Mortality

Figure 29: Rate of youth road traffic injury mortality, by sex, 1996–2000

- Pacific young people have significantly lower rates of mortality from road traffic injuries compared with the national average for young people, consistent with the hospitalisation data.
- This may simply reflect lesser access to motor vehicles, or greater use of alternative forms of transport, by Pacific youth. Their higher level of urbanisation may also offer Pacific youth some protection against road traffic injuries. Evidence for this is the relatively high ratio of pedestrian to driver/passenger injuries among Pacific youth.
- As with hospitalisation, males of all ethnicities have higher rates of mortality from road traffic injuries than their female counterparts (approximately three times higher).
Hospitalisations

Figure 30: Youth road traffic injury hospitalisations, by sex, 1998–2002

- Pacific young people have lower rates of hospitalisation related to road traffic injuries compared with the national average – approximately one third-lower.
- Males have much higher rates of hospitalisation for road traffic injuries compared with females, irrespective of ethnicity.
- Part of the low rate of hospitalisation or death for road traffic injuries among Pacific peoples may reflect persistence of undercounting of Pacific ethnicity in health records, as occurred in the 1980s and early 1990s (Ajwani et al 2003). However, this is unlikely to be a major explanation as the low rates are not seen for other causes of hospitalisation and death.

For Pacific young people, risks of hospitalisation or death resulting from motor vehicle crashes or related injuries are notably lower than the all New Zealand average.
Related indicators

- injury
- ACC use

Further information

- New Zealand Health Information Service data and publications
  http://www.nzhis.govt.nz
- Injury Prevention Research Unit, University of Otago, data and publications
  http://www.otago.ac.nz/ipru
- Injury Prevention Research Centre, University of Auckland, data and publications
  http://www2.auckland.ac.nz/ipc

Summary

Young people’s health is of particular importance to Pacific communities, given their youthful age structure. Pacific youth (and older age groups) appear to enjoy good mental health, as reflected in high mean SF-36 scores for vitality, social functioning and psychological distress (data not presented). However, the cross-cultural validity of the SF-36 instrument is questionable, and more direct population-based estimates of the incidence or prevalence of mental illness are not available.

While by no means immune to the increase in youth suicide risk that occurred in the 1980s and early 1990s, Pacific youth suicide rates remain slightly below average (21 per 100,000 compared with 24 per 100,000 in 1996–2000, pooling sexes).

Pacific youth also experience lower risks of serious injury than average, in particular from motor vehicles.

On the other hand, sexual and reproductive health is of concern, with Pacific rates of teen pregnancy and birth approximately twice the national average (65 and 41 versus 37 and 19 per 1000 respectively). However, the cultural specificity of fertility timing should be acknowledged and negative health consequences of early childbearing not simply assumed.

Drug use by Pacific youth also gives cause for concern, with smoking rates among teenage girls and hazardous drinking patterns among teenage boys particularly worrying (see Section 3: Risk Factors). Such patterns of drug use are in part a reflection of acculturation.
25+ years – Adults

The major health issue facing adults of all ethnic groups in New Zealand today is the risk of chronic disease. While onset occurs in adulthood, often in old age, chronic disease is generally the consequence of exposures over the life course – hence the importance of a healthy childhood and adolescence for adult health. Risk factors for chronic disease are considered in a separate section of this report, as are the disabling consequences of such diseases.

In this part, we focus on selected major chronic diseases – cardiovascular diseases (in particular, ischaemic heart disease and stroke), diabetes, cancer (in particular, lung, colorectal, breast and prostate cancer), and chronic lung disease. Mental illness and musculoskeletal disorders are also important chronic diseases in all ethnic groups, but could not be included due to data limitations.

Yet adult health is not solely a matter of chronic disease. Sexual and reproductive health is of concern to adults as it is to young people, but in this report it is given a youth focus. Like all other age groups, adults are vulnerable to injury, both unintentional and intentional. However, in this report we adopt a whole-of-life perspective on injury rather than focusing on a particular age group (again, we do provide age-specific injury indicators for youth as well, given the particularly high risks of road traffic injury and suicide in that age group, compared with adults).

Cardiovascular disease

Indicator definition

Three mortality sub-indicators are used in this report:

- mortality rates from cardiovascular disease as a whole
- ischaemic heart disease
- stroke.

Major cardiovascular risk factors are also included here5 as additional subindicators: self-reported doctor-diagnosed high blood pressure (except during pregnancy), whether currently receiving medication or not, and self-reported doctor-diagnosed high blood cholesterol, whether currently receiving medication or not.

Notes

Cardiovascular diseases are major causes of death for all ethnic groups in New Zealand. Ischaemic heart disease, ischaemic and haemorrhagic stroke, hypertensive heart disease, rheumatic and other valvular heart disease and dysrhythmias are major diseases within this category.

Risk and protective factors for ischaemic heart disease and stroke include diet (especially saturated fat, energy, salt, fruit and vegetable and folate intakes), physical activity level, (pre)diabetes, overweight and obesity, high blood cholesterol, high blood pressure, and tobacco and alcohol consumption.

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5 These variables are included here rather than in Section 3 in view of the poor quality of the data, which does not warrant their inclusion as separate indicators. Future national health and nutrition surveys may be able to address this information need by oversampling Pacific people.
Factors that influence blood pressure include nutrition (especially salt intake), body weight, physical activity, and alcohol intake. Factors influencing blood cholesterol levels include nutrition (especially intake of saturated fats), body weight, and physical activity level.

Unfortunately, usable data on measured blood pressure in representative samples of Pacific people are not available. Data on measured blood cholesterol levels in Pacific people are available from the 1997 National Nutrition Survey and from regional church-based studies (Bell et al 2001). However, this information is limited by small sample size in the former and selection bias in the latter case, and is not used here. We must therefore rely on self-reported hypertension and high blood cholesterol (from the 2002/03 New Zealand Health Survey). These estimates should be treated with extreme caution, both because they are self-reported and because they are based on a relatively small sample of Pacific people.

**Current situation**

**Cardiovascular disease (total)**

**Figure 31: Rate of cardiovascular disease mortality for Pacific peoples 45+ years, by sex and age group, 1996–2000**

*Age-standardised within each age group to WHO standard population
Source: New Zealand Health Information Service*
Figure 32: Rate of cardiovascular disease mortality for the total NZ population 45+ years, by sex and age group, rate per 100,000, 1996–2000*

* Age-standardised within each age group to WHO standard population
Source: New Zealand Health Information Service

- Pacific cardiovascular disease mortality rates are consistently and significantly higher than those of the total population (about twice as high in middle-age and 1.5 times higher in old age).
- Male cardiovascular disease mortality rates are higher than the corresponding female rates for all adult age groups.
- As age increases, the risk of dying from cardiovascular disease increases for both Pacific and other adults.
Ischaemic heart disease

Figure 33: Rate of ischaemic heart disease mortality for Pacific peoples 45+ years, by sex and age group, rate per 100,000, 1996–2000*

* Age-standardised within each age group to WHO standard population
Source: New Zealand Health Information Service

Figure 34: Rate of ischaemic heart disease mortality for the total NZ population 45+ years, by sex and age group, 1996–2000*

* Age-standardised within each age group to WHO standard population
Source: New Zealand Health Information Service
Pacific adults have significantly higher rates of ischaemic heart disease mortality than the national average, for both sexes and at all adult ages up to old age (approximately twice as high).

This difference disappears in old age.

**Stroke**

**Figure 35: Rate of stroke mortality for Pacific peoples 45+ years, by sex and age group, 1996–2000**

*Age-standardised within each age group to WHO standard population
Source: New Zealand Health Information Service

**Figure 36: Rate of stroke mortality for total NZ population 45+ years, by sex and age group, 1996–2000**

*Age-standardised within each age group to WHO standard population
Source: New Zealand Health Information Service
• Middle-aged and older Pacific adults have significantly higher rates of stroke mortality than the national average.

• Males have higher mortality rates from stroke than their female counterparts and the difference between male and female stroke mortality increases with increasing age. The gender gap is more noticeable among Pacific peoples.

• The mortality rate from stroke increases dramatically as age increases, for both Pacific and other adults.

**Cardiovascular risk factors**

**Figure 37: Prevalence of self-reported high blood pressure, by sex (15+ years), 2002/03***

*Age-standardised to WHO standard population
Source: 2002/03 New Zealand Health Survey
Figure 38: Prevalence of self-reported high blood cholesterol, by sex (15+ years), 2002/03*

* Age-standardised to WHO standard population
Source: 2002/03 New Zealand Health Survey

- Pacific male (16%) and female (18%) adults have similar prevalence rates of self-reported high blood pressure similar to the total population (18% and 19% respectively), when adjusted for age.
- Pacific male (10%) and female (11%) adults have lower prevalence rates of self-reported high blood cholesterol than their total population counterparts (15% and 13% respectively), when adjusted for age.

Cardiovascular disease is a major cause of death for Pacific as for other ethnic groups. Both ischaemic heart disease and stroke mortality in middle age (45–65 years) are key contributors to health inequalities for Pacific peoples.

Reliable recent population-based surveys of measured blood pressure and blood cholesterol are not available for Pacific peoples. Associated indicators of risk such as obesity and overweight, salt intake and low physical activity, and high rates of haemorrhagic stroke, suggest that Pacific peoples should have higher average blood pressure and total blood cholesterol when compared with the total population. The relatively low prevalence of self-reported high blood pressure and high blood cholesterol among Pacific peoples may reflect diagnostic or reporting bias. These results should be used only with extreme caution.

Related indicators
- avoidable mortality
- clinical preventive service use
- barriers to care
• physical activity
• diet
• overweight and obesity
• alcohol consumption
• tobacco consumption

Further information

• New Zealand Health Information Service data and publications
  http://www.nzhis.govt.nz
• Ministry of Health publications
• 2002/03 New Zealand Health Survey reports (1&2)
  http://www.moh.govt.nz

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Diabetes

Indicator definition

Three sub-indicators are included:

• self-reported prevalence of doctor-diagnosed diabetes (except during pregnancy), whether currently on insulin or oral hypoglycaemic medication or not
• incidence of inpatient hospitalisation for diabetic microvascular complications (vitrectomy, lower limb amputation and renal failure)
• screening and treatment information from the Get Checked programme.

Notes

Diabetes is a heterogenous collection of metabolic disorders characterised by raised blood glucose levels. Most people with diabetes (85–90% in New Zealand) have type 2 diabetes. Type 2 diabetes usually develops in adults who are overweight or obese.

In the absence of measured prevalence, this report uses self-reported diabetes from the 2002/03 New Zealand Health Survey. However, up to half of all people with diabetes may be undiagnosed, and the rate of diagnosis may be lower in Pacific than in other ethnic groups (due to limited access to primary health care).

Diabetes is associated with serious macrovascular complications (ischaemic heart disease and ischaemic stroke), as well as microvascular complications often leading to blindness (diabetic retinopathy), kidney disease (diabetic nephropathy), and foot amputation (diabetic neuropathy).

A free screening programme for the detection and monitoring of diabetes, known as Get Checked, was initiated in 2001 by the Ministry of Health.
Current situation

Prevalence (self-reported)

Figure 39: Prevalence of self-reported diabetes for Pacific peoples, by sex and age group (15+ years), 2002/03\(^1\)^\(^2\)

Rate per 100

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Rate per 100 (Males)</th>
<th>Rate per 100 (Females)</th>
<th>Rate per 100 (Persons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25–44 years</td>
<td>52</td>
<td>6.2</td>
<td>3.8</td>
</tr>
<tr>
<td>45–64 years</td>
<td>8.1</td>
<td>20.1</td>
<td>13.8</td>
</tr>
<tr>
<td>65+ years</td>
<td>11.9</td>
<td>33</td>
<td>42</td>
</tr>
<tr>
<td>15+ years</td>
<td>10.1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1. Age-standardised to WHO standard population.
2. When ethnic and age groups were not represented in adequate numbers for reliable estimates results are suppressed and bars are not shown in the graph.
Source: 2002/03 New Zealand Health Survey

Figure 40: Prevalence of self-reported diabetes for the total NZ population, by sex and age group (15+ years), 2002/03\(^1\)^\(^2\)

Rate per 100

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Rate per 100 (Males)</th>
<th>Rate per 100 (Females)</th>
<th>Rate per 100 (Persons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25–44 years</td>
<td>7.9</td>
<td>15.7</td>
<td>4.5</td>
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<tr>
<td>45–64 years</td>
<td>1.4</td>
<td>6.2</td>
<td>12.9</td>
</tr>
<tr>
<td>65+ years</td>
<td>3.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15+ years</td>
<td>4.1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1. Age-standardised to WHO standard population
2. When ethnic and age groups were not represented in adequate numbers for reliable estimates results are suppressed and bars are not shown in the graph.
Source: 2002/03 New Zealand Health Survey
• Pacific adult males (8%) and females (12%) have higher prevalence rates of self-reported diabetes than the national average (4.5% and 3.7% respectively).

• The prevalence of self-reported diabetes increases with increasing age, with those aged 65 years and older reporting the highest rates for both Pacific peoples and the total population.

• Pacific females appear to have a higher prevalence of self-reported diabetes than their male counterparts, whereas there is no significant sex difference nationally.

• Pacific people in New Zealand are estimated to have more than a 25% lifetime risk of developing diabetes, and lose on average 12 years of life as a result (Ministry of Health 2002e).

Microvascular complications

Vitrectomy

Figure 41: Rate of vitrectomy in adults (25+ years), sexes pooled, by age group, 1998/99–2002/03*

* Age-standardised to WHO standard population
Source: Ministry of Health

• Pacific peoples have vitrectomy rates over five times the national average, but even this may not be proportionate to need.

• The high rate of diabetic eye disease in Pacific peoples may reflect lower rates of early detection and poorer diabetes management.

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6 Vitrectomy is the surgical removal of the vitreous gel between the retina and the lens (and its replacement with a gas bubble).
Lower limb amputation

**Figure 42: Rate of lower limb amputation in adults (25+ years), sexes pooled, by age group, 1998/99–2002/03**

- Lower limb (mainly foot) amputation rates for Pacific peoples are over 2.5 times the national average, but still may not be proportionate to need.
- Again the high rate of amputation may reflect (in part) lower rates of early detection and poorer management of diabetes among Pacific peoples.

Renal failure

**Figure 43: Rate of renal failure in adults (25+ years), sexes pooled, by age group, 1998/99–2002/03**

* Age-standardised to WHO standard population
Source: Ministry of Health
• Pacific peoples experience renal failure at about five times the national rate.
• This reflects a higher risk of renal complications of diabetes, as well as possibly later detection and poorer management of diabetes among Pacific peoples.

Screening and treatment

**Figure 44: Screening and treatment for people with diabetes, Get Checked participants, 2002**

<table>
<thead>
<tr>
<th></th>
<th>Pacific peoples</th>
<th>Total NZ population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cholesterol tested</td>
<td>97</td>
<td>94</td>
</tr>
<tr>
<td>Retinal screening</td>
<td>54</td>
<td>67</td>
</tr>
<tr>
<td>Haemoglobin HBA1c&lt;8</td>
<td>49</td>
<td>72</td>
</tr>
<tr>
<td>Cholesterol &lt;9</td>
<td>98</td>
<td>94</td>
</tr>
<tr>
<td>Statins prescribed</td>
<td>18</td>
<td>22.5</td>
</tr>
<tr>
<td>ACE inhibitors prescribed</td>
<td>49</td>
<td>46</td>
</tr>
</tbody>
</table>

*Source: Get Checked programme, Ministry of Health*

• Given the high incidence of diabetes in Pacific peoples, the Get Checked programme is of particular significance for them. A total of 4087 Pacific people with diagnosed diabetes had an annual check in 2002. The total number of Pacific people with diagnosed diabetes is estimated to be approximately 14,000.
• Access to the Get Checked programme for Pacific peoples was as good, or better, than for the general population for District Health Boards with substantial Pacific populations (elsewhere reporting of Pacific ethnicity may not be complete).
• Cholesterol had been checked in 97% of Pacific peoples with diabetes attending the programme (compared with 94% of New Zealand people with diabetes).
• Retinal screening had been undertaken in 54% of Pacific peoples with diabetes (compared with 67% of the New Zealand diabetic population), but it should be noted that, in districts where screening was easily available in the community, Pacific access equalled that of the general population.
• ACE inhibitors had been prescribed for 49% of Pacific peoples with diabetes (compared with 46% for the New Zealand diabetic population).
Diabetes is a leading cause of premature mortality and disability for Pacific peoples and a key contributor to health inequalities. We estimate that diabetes accounts for approximately one-quarter of the gap in life expectancy between Pacific and European ethnic groups (Ministry of Health 2002e). Diabetes imposes significant disability on the Pacific population through heart disease, stroke, blindness, kidney failure and lower limb amputation (among other conditions). Pacific participation in the Get Checked programme is equivalent to other ethnic groups, but still well below ideal. Pacific participants were as likely to have received appropriate care as others, but were less likely to have good glycaemic control.

**Related indicators**

- cardiovascular disease
- use of primary health care services
- secondary care
- physical activity
- diet
- overweight and obesity

**Further information**

- 2002/03 New Zealand Health Survey reports
- *Modelling Diabetes: A summary* (Ministry of Health 2002e) and other Ministry of Health publications (1&2)
  http://www.moh.govt.nz
Diabetes Screening and Care

A Tongan Primary Health Organisation (PHO) is taking a comprehensive approach to tackle one of New Zealand’s biggest health challenges – diabetes.

The Tongan Health Society in Auckland has only been going since 1997, but in the current year it provides 14 services ranging from general practice medicine to screening, immunisation, nursing, asthma management and a preschool for sick children to the Auckland-wide Tongan community.

One of the newer PHOs, it was registered on 1 October 2003 and now has about 6000 people on its register.

Diabetes management nurse Fifita McGready was born in Tonga and trained at Manukau Polytechnic where she specialised in cardio-thoracic nursing.

Through friends and common interests, she heard about the Langimalie Health Centre run by the Tongan Health Society in Onehunga and offered to help as a practice nurse. When she joined the practice nearly three years ago, diabetes care operated out of a small room in the centre. This year however a whole new stand-alone diabetes facility opened in an adjoining building and the service has expanded along with the space.

Integration with health services at all levels and also with the community is the essence of Langimalie diabetic care. Every patient seeing a doctor at the centre for the first time gives a finger-prick blood sample which is tested for diabetes. All those who test positive are referred for a full check and, once their condition is confirmed and stabilised, has an individual follow-up every three months.

‘Our full assessment covers all existing and potential diabetic problems,’ says Fifita. ‘We check weight, diet, feet, retinal condition and test for lipids and glucose levels. The early intervention and computerised recall system helps us identify patients earlier, enables diet control and education, managing their condition and dealing with complications.

‘We explain what the different tests mean and show them their computer printouts for their glucose results.’

‘The aim is to make sure they don’t get so sick.’

In early days, diabetic patients once diagnosed used to be sent off to hospital-run diabetic centres in South Auckland or the central city. Now Langimalie doctors offer sessions twice weekly at which patients can be started on insulin and have other medical concerns dealt with. A hospital diabetic specialist visits Langimalie once a
month and sees three or four patients in familiar surroundings with language support. Fifita does the pre-appointment checks for each specialist visit and knows what to follow up with patients subsequently.

She also wants to take some of her regulars into the hospital to see dialysis in action. ‘Not to scare them, but to help them understand,’ she says carefully. ‘They need to know how important it is to keep their condition under control, that there is no treatment once the kidneys have failed.’

She has asked the Mangere Diabetes Health Trust to come to Langimalie one day with their retinal camera to do photo-screening for all the patients whose sight is at risk or deteriorating. This will give a base-line for continuing retinal screening checks by the Langimalie doctors.

Keeping in touch with the 500-plus, mostly Tongan-speaking diabetics is a big job – people move house, move jobs, try out other GPs, travel to and from Tonga.

‘We do it the Pacific way,’ says Fifita. ‘We know their families, their churches. We try to make their visits relaxing – play familiar music, don’t rush them, help them to feel more comfortable.’

Home visits are provided for about eight of the frailer patients for whom leaving home is too difficult, and the occasional patient needing surgery will be escorted to the hospital for personal and language support, and later for post-operative checks. Pregnant women with diabetic concerns are immediately referred to National Women’s Hospital.

A podiatrist visits Langimalie once a month to give foot care, include checks for injuries and prevention advice on topics like suitable shoes. The TaPasefika dietician also visits once a month, and food and cooking classes in the new diabetic centre are proving very popular.

‘The main problem with Tongan people is that food is always tempting to them,’ says Fifita. ‘The Heart Foundation offers demonstrations on cooking traditional food to keep the fat content low, ways to get the fat out of corned beef and taking the skin off chicken, along with information about alternative sweeteners.’

‘It’s important to get the people who do the food purchasing as well as the cooking along to these sessions. I’m planning to take a group of daughters – who do most of the shopping – along to the supermarket with the diet people so they know what to buy as well as how to cook it.’

Exercise is another critical element in staying well. Weekly classes at the Langimalie centre are attended by mostly middle-aged patients who enjoy up to an hour of Tongan music and dancing as well as more formal exercises. Another exercise class operates out of the Healthstar facility in Glen Innes.

‘As soon as this service started, we aimed to make it a one-stop shop,’ says Fifita. ‘Now we’re starting to get there.’
## Cancer

### Indicator definition

Age-specific registration and mortality rates for selected cancers.

### Notes

Cancer is a major cause of premature mortality and disability for all ethnic groups, and cancer control is a high priority within the New Zealand Health Strategy (Ministry of Health 2000).

Lung, breast and prostate cancers are among the most common cancers in all ethnic groups. Colorectal cancer, although often thought to be uncommon among Pacific peoples, appears to be increasing in incidence in this ethnic group (Ajwani et al 2003). Pacific peoples experience relatively high rates of cervical, ovarian and primary liver cancer, but low rates of melanoma (Ministry of Health 2002a).

Ovarian and liver cancer are not included as indicators in this report because of their low absolute incidence and mortality.

### Current situation

#### Cancer registrations

##### Females

**Figure 45: Rate of female cancer registrations, selected cancers, Pacific peoples and total NZ population, by age group, 1996–2000**

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>Rate per 100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>25–44 years</td>
</tr>
<tr>
<td>Breast</td>
<td></td>
</tr>
<tr>
<td>Cervical</td>
<td></td>
</tr>
<tr>
<td>Lung</td>
<td></td>
</tr>
<tr>
<td>Colorectal</td>
<td></td>
</tr>
</tbody>
</table>

*Age-standardised within each age group to WHO standard population
Source: New Zealand Health Information Service
• Among Pacific females, the highest rate of registration in all age groups is for breast cancer.
• Rates of cancer registration increase with age for all the selected cancers except cervical cancer (among both Pacific and other women).
• Pacific females have registration rates similar to the national average at all ages for breast and lung cancer, but higher rates for cervical cancer (45–64 years) and lower rates for colorectal cancer (45–64 and 65+ years).

Males

Figure 46: Rate of male cancer registrations, selected cancers, Pacific peoples and total NZ population, by age group, 1996–2000*

* Age-standardised within each age group to WHO standard population
Source: New Zealand Health Information Service

• For Pacific males aged 45–64 years, the most common type of cancer is lung cancer, while for those aged 65 years and older it is prostate cancer.
• Pacific men have higher prostate (65+ years age group) and lung (all age groups) cancer registration rates than the corresponding national averages. However, their colorectal cancer registration rates for age groups 45+ years are lower.
Cancer mortality

Females

Figure 47: Rate of female cancer mortality, selected cancers, Pacific peoples and total NZ population, by age group, 1996–2000*

- Among Pacific women, breast cancer is the leading cause of cancer mortality in the 25–44 and 45–64 age groups, while lung cancer ranks first for older Pacific women.
- The mortality rate increases with age for all ethnic groups for all of the selected cancer types, except cervical cancer (most noticeably among Pacific women).
- Pacific women have higher than average mortality rates for breast cancer (all age groups), lung cancer (65+ age group) and cervical cancer (45–64 age group).
- They have below average mortality for colorectal cancer (45–64 and 65+ age groups), although there is evidence that colorectal cancer mortality rates have been increasing in Pacific peoples over the past two decades (Ajwani et al 2003).

* Age-standardised within each age group to WHO standard population
Source: New Zealand Health Information Service
Males

Figure 48: Rate of male cancer mortality, selected cancers, Pacific peoples and total NZ population, by age group, 1996–2000*

- Mortality rates for all types of cancer are higher for Pacific and other men aged 65 years and older compared with those aged 45–64 years.
- For prostate and lung cancer, Pacific men aged 65 and older have above average mortality rates, while the opposite holds for colorectal cancer.

Cancer is a major cause of mortality and morbidity for Pacific peoples, and there is some evidence that the burden of cancer is increasing in this ethnic group (especially lung and colorectal cancer), and is making an increasing contribution to health inequalities as cardiovascular disease declines.

The relatively high rates of breast and cervical cancer mortality in Pacific women may reflect lower rates of access to and participation in the national cancer screening programmes (for which there is empirical evidence from the National Cervical Screening Register and the Breastscreen Aotearoa programme).
Related indicators

- use of primary health care services
- clinical preventive service use
- secondary care
- physical activity
- diet
- tobacco consumption

Further information

- New Zealand Cancer Registry, New Zealand Health Information Service
  http://www.nzhis.govt.nz
- Ministry of Health publications
  http://www.moh.govt.nz

Chronic lung disease

Indicator definition

Two sub-indicators are used:

- mortality rates
- inpatient hospitalisation.

Notes

COPD (chronic obstructive pulmonary disease) is a prevalent and potentially serious disorder of lung function, characterised by symptoms such as shortness of breath, chronic cough and excessive mucus production. More commonly known as chronic bronchitis and emphysema, COPD usually (approximately 80% of cases in New Zealand) results from prolonged tobacco smoking.
Current situation

Mortality

Figure 49: Rate of COPD related mortality for Pacific peoples, by sex and age group, 1996–2000*

Rate per 100,000

* Age-standardised to WHO standard population
Source: New Zealand Health Information Service

Figure 50: Rate of COPD related mortality for total NZ population, by sex and age group, 1996–2000*

* Age-standardised to WHO standard population
Source: New Zealand Health Information Service
• Pacific males have mortality rates for COPD approximately twice the national average, while there is no statistically significant difference for females.

• Pacific males have mortality rates for COPD that are more than three times higher than those for Pacific females. This most probably reflects the different magnitudes and time courses of the tobacco epidemic in the two genders.

Hospitalisation

Figure 51: Rate of COPD related hospitalisations for Pacific peoples, by sex and age group, 1998–2002*

* Age-standardised to WHO standard population
Source: New Zealand Health Information Service
Figure 52: Rate of COPD related hospitalisations for total NZ population, by sex and age group, 1998–2002*

* Age-standardised to WHO standard population
Source: New Zealand Health Information Service

- Pacific males and females have higher hospitalisation rates for COPD compared with the national average for each gender (about three times and twice as high respectively).

COPD is a significant contributor to health disparities for Pacific peoples, in terms of both premature mortality and disability. This largely reflects the relatively high prevalence of tobacco smoking among Pacific males, and the increasing prevalence among Pacific females.

**Related indicators**
- tobacco consumption

**Further information**
- New Zealand Health Information Service data and publications
  http://www.nzhis.govt.nz
- Ministry of Health publications
  http://www.moh.govt.nz
Treasured Older Adults

The name Treasured Older Adults – Pacific speaks for itself; it’s a service that meets the needs of a much-valued group of older Pacific peoples.

In touch with more than 50 groups and with a membership of almost 2000 people from seven ethnic communities in the Auckland area, Treasured Older Adults (TOA) focuses on drawing Pacific older people together into a network to support and extend their activities.

TOA manager Malia Hamani says ‘we’re a wrap-around service to make sure existing groups are interlinked, and to identify the gaps in meeting the needs of our valued and treasured old people’.

TOA’s mission is to support older people to have time out, attend interest groups, be safe, have a say in how their money is spent, visit older people who need to live in rest homes or hospitals and promote respect of older people within the wider Pacific community. Many groups are connected to churches, and to join up they must share the same objectives as TOA.

One major part of TOA work is the Time Out programme, a day activity for older people who live alone, are at home by themselves during the day or whose carers need a break.

Time Out operates three days a week at Mt Roskill or Otahuhu and one day at Avondale. It offers daily activities such as cards and dominoes, music, sit-down and stand-up exercise, crafts, time to talk with others in Pacific languages, health and wellbeing information and occasional organised outings.

Integrated into this are opportunities for safety education such as fall prevention training and abuse prevention. A more formal daycare programme for older people with physical or mental disabilities is in the planning stages, but finding a venue with suitable showering and toileting facilities is difficult.

While TOA staff do some home visiting (the Asiasiga programme for home-bound older people), they find that many Pacific people turn down home support services when they are offered to them.

‘Sometimes they feel there are just too many dos and don’ts that go with the service,’ says Malia.

‘Other times they don’t want a stranger in their homes.’
‘There are also cultural constraints. Usually someone quits work to look after the old person, and that’s what they expect.

‘But we can organise needs assessments and safety aids in homes if that’s needed.’

The overall aim of TOA is prolonged independence and ageing safely in the community.

Malia says while TOA’s vision is to be a national body, it’s not their immediate task.

‘We take the strengths-based approach,’ she says. ‘That’s what toa means – “strength” or “chief” or “warrior”. We have developed a for Pacific by Pacific service ... it’s important that our community knows about it and uses it.’
**Summary**

Chronic disease is the major health concern of Pacific adults, with relatively high rates of type 2 diabetes, cardiovascular disease, cancer and chronic lung disease accounting for much of the inequality in Pacific adult health.

Middle-aged Pacific men and women have coronary heart disease rates approximately twice the national average, while for stroke the excess risk is even greater (approximately 2.5 times).

Type 2 diabetes is a major risk factor for both these diseases, with a self-reported prevalence of over 10% among Pacific adults (15+) in 2003 (compared with a national rate of approximately 4%). The prevalence increases with age, such that over one-third of older Pacific peoples (65+ years) self-report diabetes (the true prevalence may be twice this).

While cardiovascular mortality has been declining over several decades, no such trend is noticeable in cancer registration or mortality for Pacific peoples. Lung cancer rates are now relatively high among both Pacific men and women, despite the relative immaturity of the tobacco epidemic in the latter gender. This suggests that Pacific female rates will rise even higher due to a cohort effect.

Breast and cervical cancer mortality is also relatively high among Pacific women – in part reflecting their below average participation in cancer screening. Colorectal cancer rates have traditionally been low in Pacific peoples, but this advantage appears to be diminishing with acculturation (in particular, changing diet and physical activity patterns).

Chronic lung disease is also a major chronic disease concern for Pacific peoples, with COPD, lung cancer and asthma all taking their toll. Once again, relatively high rates of tobacco consumption among Pacific men – and increasingly women – provide the explanation.

Pacific adults share with other Pacific age groups relatively low rates of injury mortality and good mental health (see ‘Whole of Life’ in Section 1). The major adult health concerns are obesity, type 2 diabetes and cardiovascular disease, which are underpinned largely by dietary and physical activity patterns (See Section 3: Risk Factors). Other major concerns are increasing rates of both tobacco-related and non-tobacco-related cancers.
Section 2: Health Service Utilisation

People use health services to meet real or perceived needs for preventive, curative or rehabilitative care. However, utilisation is poorly matched to need, being modified by a person’s knowledge of, and access to, health services. People may be unaware that they are at risk of health problems or that health services could ameliorate their condition. There may also be barriers to access, including cost and cultural discomfort with health care institutions. The identification and amelioration of gaps between need and utilisation (‘unmet need’) can be expected to lead to better health for the Pacific population, as for other populations.

This section documents utilisation of health services by Pacific peoples and compares this with the utilisation patterns of the New Zealand population as a whole. The data are drawn from multiple sources including self-reported data from the 2002/03 New Zealand Health Survey and ‘objective’ data from health service records (see ‘Methods’).

Indicators relating to primary health care use (including patterns of use, reasons for use, barriers to use and levels of unmet need) are presented first. This is followed by similar indicators relating to ACC-funded care, secondary (hospital) services, mental health services and disability support services.

Patient satisfaction with care – or, more broadly, the ‘responsiveness’ of health services to the expectations of Pacific patients – is not included. Instead, the focus of the report is on patterns of use and identification of perceived barriers to use.

Primary Health Care Services

Primary health care services are services that a person can access without a referral and are generalist in nature. The largest component is obtained from general practices and related services, including those that specifically serve Pacific peoples.

The Primary Health Care Strategy was launched in 2001 (Minister of Health 2001). This strategy is being delivered progressively through Primary Health Organisations (PHOs). People may choose to register with a PHO and receive their primary health care through their PHO.
Use of primary health care services

Indicator definition

Four sub-indicators are used:

- having a usual carer
- PHO registration rate
- self-reported use of conventional providers
- self-reported use of complementary/traditional providers.

Notes

Many people have an ongoing relationship with a specific general medical practitioner and his or her team; some use accident and emergency clinics as a primary carer and some use public hospital emergency departments for this purpose. Having a regular care provider has been shown to be associated with higher quality care and better health outcomes (National Health Committee 2000). Registration with a PHO is related to this, and may be correlated with better access to and quality of clinical preventive services in particular. Patterns of use of conventional, complementary or traditional providers reflect preferences and needs modified by access, including perceptions of cultural competence.

Current situation

Regular care provider

Figure 53: Percentage of people who self-report having a usual carer, 2002/03*

* Age-standardised to WHO standard population
Source: 2002/03 New Zealand Health Survey, Ministry of Health
Figure 54: Percentage of people who self-report having been to the doctor in the past year, 2002/03*

* Age-standardised to WHO standard population
Source: 2002/03 New Zealand Health Survey, Ministry of Health

Figure 55: Self-reported average number of GP visits in the past year, 2002/03*

* Age-standardised to WHO standard population
Source: 2002/03 New Zealand Health Survey, Ministry of Health
Figure 56: Percentage of people who self-report having been to a dentist in the past year, 2002/03*

* Age-standardised to WHO standard population
Source: 2002/03 New Zealand Health Survey, Ministry of Health

- Ninety-five percent of Pacific peoples had a ‘usual carer’ (total New Zealand population 93%).
- Eighty percent of Pacific peoples had seen a doctor in the previous year (total New Zealand population 81%).
- The average number of visits to the GP in the previous year reported by Pacific people was approximately 3.6 (total New Zealand population 3.2). However, the number was relatively low for young Pacific people and high among the middle-aged and older adults (data not shown graphically).
- The use of conventional providers still may not be proportionate to need for Pacific peoples (as demonstrated, for example, by ambulatory sensitive hospitalisation rates).
- Only one-fifth of Pacific adults visited a dentist in the previous year, compared with two-fifths of all New Zealanders, a statistically significant difference.
PHO registration

Figure 57: Rate of PHO registration, 2004

Source: Yan, Ministry of Health, personal communication 2004

- In January 2004, 96% of all Pacific peoples were registered with a PHO, compared with about 62% for the total population.
- For Pacific peoples living in deprived areas (NZDep 9 and 10) the figure was 102% (of all people in these areas 70% were registered).
- There are duplicates in the PHO registration system, which may be one reason why the Pacific registration rate appears high (over 100% in some areas).
- The higher rate of PHO registration of Pacific peoples is, however, likely to be largely a reflection of the geographic concentration of the Pacific population, with two-thirds living in the Auckland region.
- This high rate of PHO registration suggests that access to and quality of primary health care for Pacific peoples has the potential to improve in the near future. This may apply particularly to clinical preventive services.
- The data suggest that Pacific peoples are linked to primary health care, but at present may not be receiving the necessary high-quality care, reflected in poorer health outcomes, such as high ambulatory sensitive hospitalisation rates.
Use of conventional providers

Figure 58: Rate of having seen a Pacific worker in the past year, 2002/03\(^1,2\)

![Bar chart showing rate per 100 for Pacific peoples and Total NZ population by sex.]

**Notes:**
1. Age-standardised to WHO standard population
2. ‘By Pacific for Pacific service’
Source: 2002/03 New Zealand Health Survey, Ministry of Health

Figure 59: Rate of having used a private A&E clinic in the past year, 2002/03*

![Bar chart showing rate per 100 for Pacific peoples and Total NZ population by sex.]

* Age-standardised to WHO standard population
Source: 2002/03 New Zealand Health Survey, Ministry of Health
Almost 10% of Pacific adults reported using a Pacific-focused health service provider in the previous year.

Pacific people were slightly less likely to have visited a private accident and emergency clinic or an after-hours service than the general population, although the difference is not statistically significant.

Use of complementary/traditional providers

**Figure 60: Rate of having seen a complementary provider in the past year, 2002/03***

<table>
<thead>
<tr>
<th>Rate per 100</th>
<th>Pacific peoples</th>
<th>Total NZ population</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Males</strong></td>
<td>11.2</td>
<td>18.4</td>
</tr>
<tr>
<td><strong>Females</strong></td>
<td>12.8</td>
<td>29.2</td>
</tr>
<tr>
<td><strong>Persons</strong></td>
<td>12</td>
<td>24</td>
</tr>
</tbody>
</table>

* Age-standardised to WHO standard population
Source: 2002/03 New Zealand Health Survey, Ministry of Health

**Figure 61: Rate of having seen a Pacific traditional provider in the past year, 2002/03***

<table>
<thead>
<tr>
<th>Rate per 100</th>
<th>Pacific peoples</th>
<th>Total NZ population</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Males</strong></td>
<td>3.1</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>Females</strong></td>
<td>3.3</td>
<td>0.3</td>
</tr>
<tr>
<td><strong>Persons</strong></td>
<td>3.2</td>
<td>0.3</td>
</tr>
</tbody>
</table>

* Age-standardised to WHO standard population
Source: 2002/03 New Zealand Health Survey, Ministry of Health
• Pacific peoples were half as likely to have visited a complementary health worker (eg, massage therapist, chiropractor, homoeo-, naturo- or osteo-path) as the general population (12% compared with 24%).

• Around 3% of Pacific adults reported using a traditional Pacific healer in the previous year.

Ninety-six percent of Pacific peoples are registered with a primary health organisation (PHO), suggesting that barriers to accessing primary health care experienced in the past may lessen in the future. About 10% of Pacific peoples use ‘by Pacific for Pacific’ primary health care services, and 3% use traditional Pacific healers (often as a complement to rather than a substitute for conventional services). Only 20% of Pacific adults visited a dentist in the past year – half the national rate. Pacific peoples appear to use private accident and emergency services at below average rates.

Related indicators

• ambulatory sensitive hospitalisations

Further information

• 2002/03 New Zealand Health Survey reports
  http://www.moh.govt.nz

• primary health care and primary health organisations information
  http://www.moh.govt.nz/primaryhealth care
TaPasefika Primary Health Organisation (PHO) is one of the oldest kids on the block.

Formed from three Pacific health providers on 1 July 2002, it was one of the first two PHOs to be formed in the country.

With offices in South Auckland, TaPasefika draws together Health Pacifica Doctors in Mangere, South Seas Healthcare in Otara (both GP services with allied health services) and Health Star Pacifica, health promotion services in Glen Innes. Pasifika Healthcare, based in Henderson, has now joined the group.

TaPasefika chief executive Dr Siro Fuatai says ‘being paid per head is a better way of helping us meet Pacific health needs rather than being paid in arrears, as we were before we became a PHO’.

‘We don’t have to justify what we do and we can do it in our Pacific way so long as we meet the requirements for governance and accountability.’

So in medical terms how different is the Pacific way?

For Pacific people, the hospital is traditionally the focus for health care, Dr Fuatai says.

‘Yet that’s only 20 percent of where the health care actually happens.

‘Most of our patients need a lot of extra work – they will wait until they have many problems. They have to be encouraged to participate more in their care, to be less passive, less reactive. They will bring extra people with them to the consultation (which means bigger surgeries and waiting rooms), they find it hard to meet transport and medication costs. There will be wider health issues – housing, education.

‘Multiple health workers are involved – all the practices have social workers, the nurses and the receptionists are part of the team approach, and the PHO employs a dietitian.

‘No consultation is ever straightforward.’
Dr Fuatai says the PHO has had particular challenges dealing with three District Health Boards (DHBs).

‘Patients don’t recognise DHB boundaries. They will have multiple registrations depending on needs – one near where they work, one close to home and then they’ll register with a different provider again if they need one while they’re visiting family somewhere else in the weekend.

‘Somehow we need to work out a way in which the funding follows the patient.’

Being able to take on contracts for different services under the one umbrella is good, however. TaPasefika has some funding from ALAC (the Alcohol and Liquor Advisory Committee) and an integrated diabetes chronic care programme covering two providers.

Infrastructure is still developing. Health Pacifica Doctors already had computerised records, but the PHO demands meant significant hardware upgrading and staff training, neither of which were covered in the contract. Fortunately the local DHB helped with costs, but compliance requirements continue to add extra complexity.

Organisational and management structure also needs continuing attention. The basic structures required by any PHO – the board with member representatives, the Community Advisory Committee, the external auditor – are there, but a lot of co-ordination between practices is needed.

TaPasefika has its own community advisory group and clinical advisory committee. As well as the clinical director, there is a business and IT manager, an administration support manager and a part-time communications manager whose task ranges from the traditional pamphlets, bookmarks and fridge magnets to radio broadcasting and church promotions.

Dr Fuatai says the PHO would benefit from better resourcing for the services it provides, feedback from its statistics and data and a borderless approach to patient registration.

‘We’d like to be able to buy secondary health services on behalf of our people. Many patients get quite lost once they leave the secondary system,’ he says.

He’d also like to see secondary-level specialist clinics in the community, underpinned by TaPasefika.

‘... and a level three rest home for older Pacific peoples whose families can’t care for them could also be part of our future.’
Reasons for using primary health care services

Indicator definition

Self-reported reason(s) for most recent visit to the doctor.

Notes

People use primary health care services for a variety of reasons, such as for a check up or advice, management of chronic diseases or disabilities, clinical preventive services or care of short-term illnesses.

Current situation

Figure 62: Self-reported reasons for most recent primary health care visit, Pacific peoples, 2002/03\(^1,2\)

Rate per 100

![Chart showing reasons for visits](chart.png)

Notes:  
1. Age-standardised to WHO standard population  
2. When ethnic and age groups were not represented in adequate numbers for reliable estimates results are suppressed and bars are not shown in the graph.

Source: 2002/03 New Zealand Health Survey, Ministry of Health
• Pacific peoples were less likely to seek help for contraception or disease prevention, treatment of an injury, or for mental or emotional problems than the total New Zealand population.
• In particular, Pacific women were less likely than other women to have sought contraception or a cervical smear test.
• Pacific women (12%) were more likely to have needed maternity care than total New Zealand women (5%), after adjusting for age.
• Pacific peoples are more likely than the national average to seek help for a short-term illness and for ‘other check up or advice’.

Related indicators
• use of primary health care services
• clinical preventive service use

Further information
• 2002/03 New Zealand Health Survey reports
http://www.moh.govt.nz

Pacific peoples are less likely than average to access contraception (family planning) or other clinical preventive services. They are also less likely to seek help from ‘mainstream’ providers for mental or emotional problems.
Clinical preventive service use

Indicator definition

Three sub-indicators are included under this topic:

• percentage of children fully immunised at two years
• uptake of the cancer screening programmes
• uptake of (opportunistic) cardiovascular screening.

Notes

Formal screening programmes for cervical cancer (using cytology) and breast cancer (using mammography) have been established in New Zealand.

Current situation

Immunisation

Figure 64: Proportion of children fully immunised at two years, Northern Regional Health Authority, 1996*

* Total calculated from ethnic estimates
Source: Northern Regional Health Authority Immunisation Survey, unpublished report.

• The percentage of children fully immunised at two years is less for Pacific people than for the total population approximately 53% compared with 63%.
• The only data available are eight years old and restricted to the northern half of the North Island (although that includes a high proportion of the Pacific population).
• The National Immunisation Register, currently under development, has the potential to improve coverage estimates for Pacific and other children in the future.
Cancer screening

Figure 65: Rate of uptake of cervical\(^1\) and breast\(^2\) cancer screening programmes, 2002

Notes:
1. Screening within three years, adjusted for hysterectomy and age adjusted.
2. Screening within two years.
Source: National Screening Unit, Ministry of Health

- Pacific women have an uptake of cervical and breast screening that is one-third lower than the general population.
- This could be a contributor to the relatively high incidence (and mortality rates) of these cancers among Pacific women.
Cardiovascular screening

Figure 66: Self-reported opportunistic cardiovascular screening episodes in primary health care settings, Pacific peoples, 2002/03*

* Age-standardised to WHO standard population.
Source: 2002/03 New Zealand Health Survey, Ministry of Health

Figure 67: Self-reported opportunistic cardiovascular screening episodes in primary health care settings, total NZ population, 2002/03*

* Age-standardised to WHO standard population.
Source: 2002/03 New Zealand Health Survey, Ministry of Health
• Pacific people, were more likely than the total New Zealand population to report having been tested for diabetes or to have had their blood pressure checked.
• They were, however, less likely to report being counselled or given advice on smoking.
• Pacific people access help lines less frequently than average (eg, Quitline).

Pacific children may be less likely to be immunised than average, although up-to-date data will not be available until the National Immunisation Register, currently under development, becomes fully operational. Only about half of eligible Pacific women access cervical smears and screening mammograms, compared with the national average of over two-thirds. Pacific peoples report diabetes and cardiovascular risk assessment in primary care at rates similar to or higher than the total New Zealand population. However, they are less likely to receive smoking cessation services.

Related indicators
• cancer
• use of primary health care services

Further information
• 2002/03 New Zealand Health Survey reports
  http://www.moh.govt.nz
• National Screening Unit information
  http://www.healthywomen.org.nz/MoHpro/DEFAULT.aspx
Screening Programmes

Promoting the importance of breast screening to Pacific Island women is something of a delicate nature.

‘The topic of breasts, especially in the public arena, is a subject considered taboo for our women, and as such, emotions can be frail,’ says Vaifagaloa Naseri Moepogai of Health Star Pacific Trust, an Auckland based health promotion service.

‘You have to take this into consideration and be delicate and sensitive about overcoming these beliefs.’

Health Star Pacific has been in operation since 1994, starting with two regional services – the promotion of the benefits of immunisation and a pregnancy support service. The breast screening promotion contract has been running for two years and has recently been renewed for another two.

Promotion involves community education sessions with groups – from churches, cultural communities, preschool settings for teachers and participating parents as well as grandparents, regular radio programmes on Pacific airwaves, together with a mobile health unit where women can ask more detailed questions and register for regular mammography through Breastscreen Aotearoa. Health Star Pacific staff also runs sessions for doctors.

Getting over the cultural barriers so breasts can be discussed is a huge challenge.

‘It is a very sensitive topic,’ says Vai.

‘Presenters have to use the appropriate words. It is important that the appropriate ethnic and cultural processes are followed. This involves being respectful by firstly acknowledging the sensitiveness of the topic to your audience group, and secondly seeking their forbearance and understanding for the anticipated use of specific terms during the presentation and discussions. This smooths the way, allowing for the presenter/educator to proceed.

‘The programme acknowledges and encourages the participation of husbands/partners in group sessions. It is even more interesting when men are present in the group. They are addressed first, to express our pleasure at their presence and to congratulate them for supporting their wives in this important issue.’
‘Pacific peoples are becoming increasingly aware of the dangers of breast cancer now,’ Vai says.

‘They have seen women in their churches, getting sicker and dying of breast cancer. It is imperative we get the message across, that if breast cancer can be found early, women have a better chance of living to see their grandchildren grow. We especially encourage those women with a family history of breast cancer to enroll early and to keep up their attendance. Entering the programme at 50 is OK but we would like to see it extended to the younger age groups.’

Health Star Pacific’s breast screen educators are from many various Pacific Islands and all are fluent in their mother tongue as well as English. They find communication between people who have a common language and cultural understanding is much more effective.

One of the main outreach methods is via Pacific radio.

‘We take the same approach as we do for a group,’ says Vai.

‘Culturally appropriate words are chosen, and the same careful approach undertaken for groups is followed. We address the men first. We want them to hear this message and encourage their wives to take care of their health. Talkback is really helpful. It gives us good feedback as to what people want to know. Most of the callers are men wanting to know how to make appointments for their wives to attend screening services. This is very encouraging. We see a lot more openness now; our women are becoming more vocal and more proactive. At least for our regular listeners we believe we have made a difference.’

As well as the promotion and education, Health Star Pacific helps the screening service with formal recruitment and also with follow up. The mobile health unit that travels around the Auckland shopping centres has enrolment forms and staff speaking a range of Pacific languages on hand to answer questions and help complete the paperwork.

Health Star Pacific also helps the lead provider in find ‘lost’ patients. Similarly, those who don’t respond to the initial mammography appointment can often be located through Pacific networks – many Pacific families are mobile, with adults working in different parts of Auckland and sometimes away in home islands for family reasons.

‘With our staff coming from a range of ethnicities, we are more likely to know about a lot of those.’

Knowing how effective their work is can be difficult.

‘When we first began, we were getting hundreds of enquiries a month through office calls, talkback and homevisiting,’ says Vai.

‘Now we believe we’re receiving about 20 new enrolments each month.’ The lead provider, Breastscreen Aotearoa, identifies Pacific women in their statistics, but takes no details about how they entered the programme. Women can also enrol directly through the 0800 number.
New directions? Vai would like to see a support group for Pacific women who have been diagnosed with breast cancer.

‘We could reach them through call backs to the screening service and offer them support and help. Our women are so shy about discussing this part of their body, they need privacy to talk about things like reconstructive surgery and prosthesis.

‘As a health educator, I would be satisfied to know that our women had somewhere to go to build their confidence and receive support through those difficult decisions.’
**Barriers to care**

**Indicator definition**

Two sub-indicators are used:
- GP visits foregone
- prescriptions foregone.

In each case reasons for the unmet need are explored.

**Notes**

Although there are practical barriers to care such as cost, lack of time and difficulty in obtaining an appointment, Pacific people may face the additional constraint of lack of cultural comfort with health care providers.

**Current situation**

**GP visits foregone**

Figure 68: Proportion reporting one or more foregone GP visit(s), Pacific peoples and total NZ population, 2002/03*

* Age-standardised to WHO standard population
Source: 2002/03 New Zealand Health Survey, Ministry of Health

- Pacific peoples were more likely than average (18% compared with 13%) not to have seen a doctor even though they perceived a need to (a statistically significant difference).
- Rates of unmet need were highest among younger age groups and among non-labour force participants (data not shown graphically).
- Unmet need was highest in relation to injury care, mental health problems and cancer screening (data not shown graphically).
Figure 69: Self-reported reasons for foregoing GP visit, Pacific peoples, 2002/03[^1][^2]

![Chart showing self-reported reasons for foregoing GP visit among Pacific peoples, 2002/03.](chart)

**Notes:**
1. Age-standardised to WHO standard population
2. When ethnic and age groups were not represented in adequate numbers for reliable estimates results are suppressed and bars are not shown in the graph.

Source: 2002/03 New Zealand Health Survey, Ministry of Health

Figure 70: Self-reported reasons for foregoing GP visit, total NZ population 2002/03[^*](

![Chart showing self-reported reasons for foregoing GP visit among total NZ population, 2002/03.](chart)

* Age-standardised to WHO standard population

Source: 2002/03 New Zealand Health Survey, Ministry of Health
• The most common reasons for not seeing (despite perceived need to do so) a doctor were high cost, inability to get an appointment and inability to spare the time.

• High cost was given as a reason slightly more often by Pacific people than the national average (54% compared with 49%), although the difference is not statistically significant.

Foregone prescription

Figure 71: Self-reported percentage of people who did not collect one or more prescription(s), 2002/03*

* Age-standardised to WHO standard population
Source: 2002/03 New Zealand Health Survey, Ministry of Health

• Pacific peoples were about as likely to report that they had foregone a prescription as the national average (approximately 17% of prescriptions were not filled).

Figure 72: Self-reported reasons for foregoing a prescription, Pacific peoples, 2002/031,2

Notes:
1. Age-standardised to WHO standard population
2. When ethnic and age groups were not represented in adequate numbers for reliable estimates results are suppressed and bars are not shown in the graph.
Source: 2002/03 New Zealand Health Survey, Ministry of Health
Figure 73: Self-reported reasons for foregoing a prescription, total NZ population, 2002/03*

* Age-standardised to WHO standard population
Source: 2002/03 New Zealand Health Survey, Ministry of Health

- Pacific peoples reported cost, dislike of drugs and spontaneous recovery with greater frequency than the general New Zealand population, as reasons for not filling a prescription.

Pacific peoples are more likely than average to report unmet need for primary health care (18% compared with 13%). Cost was given as the reason by half of those reporting unmet need. Data on cultural comfort were not collected in the 2002/03 New Zealand Health Survey, but this could be another explanation for Pacific peoples’ higher rate of GP visits foregone, as well as a partial explanation for failing to fill prescriptions.

Related indicators
- ambulatory sensitive hospitalisation
- use of primary health care services
- clinical preventive service use
- income
- deprivation

Further information
- 2002/03 New Zealand Health Survey reports http://www.moh.govt.nz
Summary

While Pacific peoples have established connections to the primary health care system, they experience greater barriers to care than the New Zealand population in general. These barriers seem particularly to affect consultations for mental health and screening, and may also impact on the ability to collect prescriptions. Utilisation of primary care services by young people and those not in the workforce is disproportionately low. Barriers include cost and possibly cultural comfort (as seen, for instance, in ‘dislike of drugs’ as a prominent reason for failure to fill a prescription).
**ACC Claims**

**Indicator definition**

Two sub-indicators are used:

- proportion of GP visits that are ACC related
- ACC claim rates, including total claim rates and serious claims rates.

**Notes**

In New Zealand ACC covers the costs of injury, including primary medical care fees, support in the home and income replacement.

**Current situation**

**ACC visits**

**Figure 74: Percentage of visits that were ACC related, 2002/03**

- For Pacific males, the percentage of visits to primary health care providers that are ACC related is similar to the total population. Most of these injuries would have occurred ‘in public’ at work or during sports events.
- Pacific females reported only half the proportion of ACC-related visits compared with total females. It seems possible that they may be less likely than other women to report ‘accidents’ in the home.
- Visits to a primary health care provider are almost four times as likely to be ACC related for Pacific males compared with Pacific females.
Claim rates

Total claims

Figure 75: ACC claim rates, 2003

Source: Accident Compensation Corporation

- In general, Pacific peoples claim at a lower rate than the non-Pacific population. They make new entitlement claims at only 45% of the rate of the general population.
- Pacific claimants tended to be younger and were more often male (70% compared with 61%) than claimants from the remainder of the population. They had a higher proportion of sporting and work injuries and fewer non-earner claims (data not shown graphically).

Serious claims

Figure 76: Rate of serious injury claims, by type, 2003

Source: Accident Compensation Corporation
• Although Pacific people make similar numbers of serious injury claims to the general population, they make up a much smaller percentage of ongoing serious injury claims in any one year. The duration of injury claims is, therefore, less and it may be that the claim process presents a significant barrier to Pacific people.

A lower than average proportion of visits made by Pacific people to their doctor are ACC–related, and ACC claim rates are correspondingly lower. While this may reflect a different injury distribution, it may also partly reflect greater barriers experienced by Pacific people in the claims process.

**Related indicators**

• disability
• injury
• road traffic injuries
• use of primary care services

**Further information**

• Accident Compensation Corporation data and publications
  http://www.acc.govt.nz
• Injury Prevention Research Unit, University of Otago, data and publications
  http://www.otago.ac.nz/ipru
Secondary Care Services

Indicator definition

Three sub-indicators are used:

- self-reported visit to medical specialist in the past year,
- self-reported use of hospital services
- hospital admission rates.

Notes

Secondary care is accessed by referral, usually from a general practitioner. Its largest components are inpatient and outpatient care in hospitals. The hospital emergency department can be accessed directly and is the source of many hospital admissions.

Current situation

Medical specialist visits

Figure 77: Self-reported percentage of Pacific peoples who saw a medical specialist in the previous year, in private rooms\(^1\) and total, 2002/03\(^2\)

<table>
<thead>
<tr>
<th>Rate per 100</th>
<th>Saw medical specialist</th>
<th>Saw medical specialist in private rooms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>20.5</td>
<td>53.9</td>
</tr>
<tr>
<td>Females</td>
<td>20.1</td>
<td>39.3</td>
</tr>
<tr>
<td>Persons</td>
<td>20.2</td>
<td>46.3</td>
</tr>
</tbody>
</table>

Notes:
1. Proportion of people who saw medical specialist
2. Age-standardised to WHO standard population.
Source: 2002/03 New Zealand Health Survey, Ministry of Health
Figure 78: Self-reported percentage of total NZ population who saw a medical specialist in the previous year, in private rooms\textsuperscript{1} and total, 2002/03\textsuperscript{2}

<table>
<thead>
<tr>
<th></th>
<th>Saw medical specialist</th>
<th>Saw medical specialist in private rooms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>28</td>
<td>47.1</td>
</tr>
<tr>
<td>Females</td>
<td>32.6</td>
<td>43.2</td>
</tr>
<tr>
<td>Persons</td>
<td>30.4</td>
<td>44.9</td>
</tr>
</tbody>
</table>

Notes:
1. Proportion of people who saw medical specialist.
2. Age-standardised to WHO standard population
Source: 2002/03 New Zealand Health Survey, Ministry of Health

- Pacific peoples were much less likely to have seen a medical specialist than the New Zealand population (20% compared with 30%).
- Pacific men who had seen a medical specialist appear more likely than the general population to have seen the specialist in private rooms (54% compared with 47%), but the difference is not statistically significant.
- Pacific women who had seen a medical specialist, however, appear less likely than the general population to have seen the specialist in private rooms (39% compared with 43%), but again the difference is not statistically significant.
- If this apparent gender difference is not due to chance, it could be related to the frequency with which private care is subsidised by ACC.
Hospital services

Figure 79: Self-reported use of hospital services by Pacific peoples, 2002/03\(^1,2\)

<table>
<thead>
<tr>
<th>Rate per 100</th>
<th>Emergency department</th>
<th>Hospital outpatients</th>
<th>Hospital inpatients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>3.6</td>
<td>5.4</td>
<td>8.6</td>
</tr>
<tr>
<td>Females</td>
<td>6.1</td>
<td>6.4</td>
<td>20.5</td>
</tr>
<tr>
<td>Persons</td>
<td>4.9</td>
<td>5.9</td>
<td>14.9</td>
</tr>
</tbody>
</table>

Notes:
1. Age-standardised to WHO standard population.
2. The hospital inpatients category is only publicly funded hospitals and includes day patients.
Source: 2002/03 New Zealand Health Survey, Ministry of Health

Figure 80: Self-reported use of hospital services by total NZ population, 2002/03\(^1,2\)

<table>
<thead>
<tr>
<th>Rate per 100</th>
<th>Emergency department</th>
<th>Hospital Outpatients</th>
<th>Hospital Inpatients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>7.9</td>
<td>9</td>
<td>8.8</td>
</tr>
<tr>
<td>Females</td>
<td>7.7</td>
<td>12.3</td>
<td>13.7</td>
</tr>
<tr>
<td>Persons</td>
<td>7.8</td>
<td>10.7</td>
<td>11.3</td>
</tr>
</tbody>
</table>

Notes:
1. Age-standardised to WHO standard population.
2. The hospital inpatients category is only publicly funded hospitals and includes day patients.
Source: 2002/03 New Zealand Health Survey, Ministry of Health
• Pacific women reported a significantly higher level of hospital admission than the New Zealand population (20.5% compared with 13.7%). Many of these admissions will have been for maternity and related reasons.

• By contrast, Pacific men reported a similar level of hospital admission to the New Zealand population (8.6% compared with 8.8%).

• Pacific females are just over twice as likely as their male counterparts to be admitted to hospital.

• Pooling genders, 15% of Pacific people use public hospital inpatient services each year, compared with 12% for the New Zealand population as a whole. Pacific people are, however, less likely to be admitted to private hospitals.

• The use of hospital emergency departments (4.9% compared with 7.8%) and, especially, outpatients (5.9% compared with 10.7%) by Pacific people was lower than that for the general population. However, collection of ethnicity data in emergency departments and outpatient clinics is incomplete, so Pacific rates may be underestimated. The latter explanation is compatible with previous research in this area, and would be consistent with Pacific peoples’ higher than average hospitalisation (including ambulatory sensitive hospitalisation) rates.

**Reasons for admission to hospital**

**Figure 81: Medical and surgical admissions for Pacific peoples, percentage of expected rate (standard discharge ratio)*, 2002/03**

<table>
<thead>
<tr>
<th>Standard discharge ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>120</td>
</tr>
<tr>
<td>110</td>
</tr>
<tr>
<td>100</td>
</tr>
<tr>
<td>90</td>
</tr>
<tr>
<td>80</td>
</tr>
<tr>
<td>70</td>
</tr>
<tr>
<td>60</td>
</tr>
<tr>
<td><strong>Medical</strong></td>
</tr>
<tr>
<td>116</td>
</tr>
<tr>
<td><strong>Surgical</strong></td>
</tr>
<tr>
<td>90</td>
</tr>
</tbody>
</table>

* Standardised discharge ratio (SDR) is the ratio of observed to expected discharge rates. SDRs are standardised by the indirect method for both age and level of deprivation (NZDep2001).

Source: New Zealand Health Information Service

• The rate of hospital discharges was 16% higher than expected for medical admissions and 10% lower for surgical admissions comparing the Pacific to total New Zealand population after adjusting for both age and NZDep distributions.

• The higher standard discharge ratio for medical admissions reflects the higher need of Pacific peoples. The difference between medical and surgical discharge rates suggests that Pacific peoples experience greater barriers in access to surgery.
Table 6: Medical admissions, by sex and age group, 2002/03

<table>
<thead>
<tr>
<th>Age</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>SDR*</td>
<td>Number</td>
</tr>
<tr>
<td>0–14 years</td>
<td>5983</td>
<td>117</td>
<td>4789</td>
</tr>
<tr>
<td>15–24 years</td>
<td>816</td>
<td>101</td>
<td>906</td>
</tr>
<tr>
<td>25–44 years</td>
<td>1898</td>
<td>112</td>
<td>2056</td>
</tr>
<tr>
<td>45–64 years</td>
<td>1871</td>
<td>110</td>
<td>1902</td>
</tr>
<tr>
<td>65+ years</td>
<td>1539</td>
<td>149</td>
<td>1461</td>
</tr>
<tr>
<td>Total</td>
<td>12,107</td>
<td>115</td>
<td>11,114</td>
</tr>
</tbody>
</table>

* Standardised discharge ratio (SDR) is the ratio of observed to expected discharge rates. SDRs are standardised by the indirect method for both age and level of deprivation (NZDep2001).

Source: New Zealand Health Information Service

• Even though medical admission rates are slightly higher than the national average for Pacific peoples, they still may not be high enough relative to need.

• This differential disappears in the 15–24 years age group and thereafter increases progressively with age.

Table 7: Surgical admissions, by sex and age group, 2002/03

<table>
<thead>
<tr>
<th>Age</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>SDR*</td>
<td>Number</td>
</tr>
<tr>
<td>0–14 years</td>
<td>1349</td>
<td>91</td>
<td>905</td>
</tr>
<tr>
<td>15–24 years</td>
<td>592</td>
<td>106</td>
<td>309</td>
</tr>
<tr>
<td>25–44 years</td>
<td>1015</td>
<td>98</td>
<td>1297</td>
</tr>
<tr>
<td>45–64 years</td>
<td>780</td>
<td>87</td>
<td>884</td>
</tr>
<tr>
<td>65+ years</td>
<td>400</td>
<td>76</td>
<td>482</td>
</tr>
<tr>
<td>Total</td>
<td>4136</td>
<td>91</td>
<td>3877</td>
</tr>
</tbody>
</table>

* Standardised discharge ratio (SDR) is the ratio of observed to expected discharge rates. SDRs are standardised by the indirect method for both age and level of deprivation (NZDep2001).

Source: New Zealand Health Information Service

• Pacific peoples are admitted less frequently for surgical procedures than expected on the basis of their need. This differential is consistent across the age groups but is more marked after age 65.

• It appears that Pacific peoples face more barriers to surgical than to medical care. It should be noted that most medical admissions are on an emergency basis while many surgical ones are arranged (‘elective’).

• There has been an increase in the rate of both medical and surgical admissions among Pacific peoples from 1998 to 2003. These increases may partly be due to improved identification of Pacific ethnicity in hospital records.
• Reasons for hospitalisation may be briefly summarised as follows (data not shown graphically):
  - discharges related to disease of the eye (156%), the respiratory system (146%) and the kidney and urinary tract (144%) are well above the national average
  - maternity discharges are also higher (139%)
  - discharges related to diseases of the musculoskeletal system (82%), the digestive system (81%), the male reproductive system (73%) and mental illness (58%) are well below the national average

• These statistics cannot indicate whether the rates of admission of Pacific people for secondary medical and surgical inpatient care correspond to their level of need.

Related indicators
• ambulatory sensitive hospitalisations

Further information
• New Zealand Health Information Service data and publications
  http://www.nzhis.govt.nz
• Ministry of Health publications
  http://www.moh.govt.nz
  http://www.vuw.ac.nz

Summary

Public hospital admission rates for medical treatment are approximately 16% higher for Pacific peoples than for the general population after adjusting for age and deprivation. However, surgical admission rates are about 10% lower. Pacific peoples access outpatient services at lower rates than the total New Zealand population. The much higher rate of ‘ambulatory sensitive’ hospitalisations experienced by Pacific peoples (see ‘Whole of Life’ section on page 21) suggests a significant disparity in the uptake of hospital care in other categories, particularly elective surgery.
Mental Health Services

Indicator definition

Utilisation of different types of mental health services, including inpatient services, daypatient and community mental health services, alcohol and drug rehabilitation services, and forensic psychiatry services.

Notes

Mental health services provide help ranging from intensive care admission to family counselling. The range of problems covered include affective (emotional) and behavioural disorders, cognitive disorders (eg, dementia), alcohol and drug use disorders, and problem gambling. It is not uncommon for one problem to be accompanied by others (dual diagnosis). To some extent, concepts of mental health and illness are culturally specific, and this may impact on the use of both mainstream mental health services and traditional healers.

Current situation

Figure 82: Rate of use of mental health services, 2001

Notes:
1. Substance abuse related = Service Code T16-T20
2. Day programme, rehab etc. = Service Code T21-32
3. Community outpatient care = Service Code T06-10
4. Mental health crisis attendances = Service Code T01
5. Inpatient bed days = Service Code T02-T05
7. Not standardised for age or NZDep distributions.
Source: Mental Health Information National Collection, New Zealand Health Information Service
• Pacific peoples’ utilisation of day programmes (39% of national average), outpatient care (49% of expected) and, particularly, substance abuse assistance (21% of national average) is low.

• Utilisation of mental crisis teams and admission is low (56% and 71% of national average respectively).

• Utilisation of forensic psychiatric services is significantly elevated compared to the general population (164%).

• While approximately 40% of Pacific clients were referred to mental health services by a general practitioner, about 20% were referred by Police or the Courts, a rate 66% higher than the national average.

• Although the pattern of referral and use may differ, when aggregated and adjusted for age and deprivation, the overall rate of use of mental health services is not significantly lower for Pacific peoples than for the total New Zealand population (Ministry of Health 2004e).

• After adjusting for age and deprivation, Pacific peoples are 17% less likely than the national average to use alcohol or drug services. Utilisation is particularly low for Pacific women and for older age groups, possibly reflecting access barriers and/or cultural discomfort with the available services (data not shown graphically).

• About 14% of Pacific clients seen by mental health services were also seen by an alcohol or drug service – the same rate of dual diagnosis as the general population (data not shown graphically).

Related indicators
• mental health
• youth suicide
• alcohol consumption

Further information
• Mental Health Information National Collection data and publications http://www.nzhis.govt.nz
• Pacific Mental Health Profile (Ministry of Health In press)

Summary

Pacific peoples have similar overall rates of utilisation of mental health services as the general population, controlling for age and deprivation. However, there are marked differences in patterns of use and referral. It is possible that the low rates of uptake of formal community or outpatient care reflect greater recourse to community support and/or traditional Pacific healers, as well as stigma and cultural discomfort with ‘mainstream’ services. Pacific peoples are more likely than the national average to be referred to mental health services via the justice system.
Disability Support Services

Indicator definition

Three sub-indicators are used:

- uptake of disability support services
- uptake of needs assessment services
- use of residential care facilities.

Notes

Disability support services assist those unable to undertake usual activities whether as a result of a congenital anomaly, an accident, an illness or ageing. All persons living with disabilities should undergo regular needs assessments, leading to access to co-ordinated packages of subsidised support services.

Current situation

Disability support services

Figure 83: Rate of uptake of disability support services by Pacific peoples with a disability, 2001

Rate per 100 disabled people

Notes:
1. Help with everyday activities includes help with meal preparation, shopping, housework, personal care, etc.
2. Calculated from Disability Services Directorate data on non-Pacific people (Pacific people make up 3.8% of the disabled population).

- Pacific people with disabilities are more likely than average to receive personal assistance with everyday activities but less likely to receive assistive devices to ameliorate their disability.
- Pacific people living with a disability report a similar, and low, level of unmet need for services as the general population (data not shown graphically).
Needs assessment

Figure 84: Rate of access to needs assessment services by Pacific peoples with a disability, 2001*

* Calculated from Disability Services Directorate data on non-Pacific peoples (Pacific peoples make up 3.8% of the disabled population).
Source: New Zealand Disability Survey, Ministry of Health, in press

• Pacific people living with disability, especially adults, are less likely than their non-Pacific counterparts to have had a needs assessment within the previous year.

Residential care facilities

Figure 85: Percentage of Pacific peoples with a disability living in a residential facility, 2001*

* Calculated from Disability Services Directorate data on non-Pacific peoples (Pacific peoples make up 3.8% of the disabled population).
Source: New Zealand Disability Survey, Ministry of Health, in press
• Only 2% of Pacific peoples living with disabilities (compared with 4% of non-Pacific peoples) were in residential care. This may reflect the younger age structure of the Pacific disabled population as well as different patterns of care and support.

Related indicators

• disability requiring assistance
• use of primary health care services
• ACC use

Further information

• 2001 New Zealand Disability Survey reports
• Chapter 9 Pacific people and disability, Disability in New Zealand (Ministry of Health In press)
  http://www.moh.govt.nz
‘In Samoa, blind people are called tau’aso, which means “your days are numbered”,’ says the Rev Leao Si’itia, a registered member with the Royal New Zealand Foundation of the Blind.

‘But I don’t believe that. Our faith gives us hope and we’ve got to go on living. We are not dead yet.’

Rev Leao co-ordinates the Petesa group for Pacific peoples, which meets twice a month in Avondale, Auckland, to share information and plan activities.

They also have guest speakers, including social workers who talk about special benefits for the blind people as well as general benefits, and doctors.

Rev Leao said the doctors talk about a range of issues, including the importance of medication.

‘Most of us lost our sight through diabetes, so we have to make sure we do what the doctors say or we’ll get sick,’ he says.

‘Because we come from different islands we speak English when we’re together but we break into groups to speak our own languages. We laugh a lot, we cry a lot, we need to be able to express our views and share our frustration at not being able to see.’

What about Pacific attitudes towards blind people?

‘It says it all, calling us tau’aso,’ says Rev Leao. ‘We meet the same attitude in church. They feel sickness is a punishment so in some places we can’t work, can’t lead.’

Rev Leao gave a paper recently to the Pacific Islander’s Church Fono Samoa on using Samoan customs and culture in Christian Worship Service.

He also does interviews on Pacific radio about the importance of Diabetic Screening, holding himself up as a living example of the consequences of delay.

Rev Leoa says his dream is to get the Samoan Bible on audio tape.
‘A lot of our peoples’ eyesight is bad. We get talking books from the library in Hastings, but having the Bible in our own language would be wonderful.’

It’s a dream that’s shared by Veta Endemann, manager of Pacific Services of the Blind Foundation.

She says this is a goal for many other Pacific Island blind and vision impaired people.

The Foundation’s Pacific Services have only been a separate entity since 2001. Veta, who is Samoan, is their first manager and there are two other staff with different language skills.

‘We’ve had to develop everything from scratch and build awareness of our services at the same time,’ she says. ‘There are so many island groups, and very few volunteers.

‘We also have to translate some of our material into the island languages.’

There are also comparatively few referrals to the foundation, and Veta says they could take more. Referrals have to come from eye specialists or GPs with information from eye specialists, after which patients can receive a full needs assessment and access to rehabilitation services. These include staff who can teach people how to get around safely, prepare meals and so on. They can teach communications skills and refer on to other external agencies for extra support or assistance.

Some of the Pacific Service’s work involves blindness awareness and prevention, providing information to the Pacific community on preventable eye conditions such as diabetic retinopathy, cataract and glaucoma and other causes of preventable blindness. She promotes the foundation’s services and encourages people to register. Next year’s focus areas also include outreach to isolated and older blind Pacific people, education and the employment of younger ones.

Veta’s medium to long-term goal is to see the service become a Pacific Trust under the umbrella of the foundation, to improve services to Pacific Island blind and vision-impaired people. She’d also like to move out into the community.

‘Being out in the community will encourage more Pacific people to visit us, make enquiries and access our services.

‘The more they see us, the more they will come.’
Summary

A clear picture emerges from this description of the utilisation of health services by Pacific peoples. Pacific people are familiar with, and are connected into, the health care system yet still experience significant barriers in accessing primary care and some areas of secondary care. These barriers are often cost related, but may also reflect other dimensions of access, including cultural. This may be ameliorated in future by improvements in access and quality resulting from the Primary Health Care Strategy.

Evidence that Pacific peoples, relative to the general population, experience greater barriers to health care access include a disproportionately low use of screening services, many fewer visits to dentists, more occasions when a needed doctor visit was foregone, less use of hospital outpatient clinics, and much less use of mental health services. Evidence that this results in poorer health include more ambulatory sensitive hospital admissions and greater use of forensic mental health services.

On the other hand, the picture is not all bleak. For example, Pacific peoples with diabetes participate in the Get Checked programme to the same extent as the total New Zealand population and are as likely to receive appropriate diabetes care as other participants. Approximately 10% of Pacific people make use of ‘by Pacific for Pacific’ providers, some of whose stories are told in the report (see ‘story boxes’).

Reporting of ethnicity by health services has often underestimated the number of Pacific people using the service. Further work is required to improve the quality of ethnicity reporting, particularly in outpatient and community services.

Finally, the geographic distribution of the Pacific population means that the pattern of service utilisation reflects local Auckland issues to a greater extent than that of the total New Zealand population. Regional variation will be explored further in the next edition of this report.
Section 3: Risk Factors

Risk and protective factors are the proximal or ‘downstream’ causes of the diseases and injuries that ultimately determine health outcomes. Monitoring exposure of the population to these risks is therefore critical for planning health promotion and disease and injury prevention services: the risk factors of today are the diseases of tomorrow.

Although lifestyles are shaped by the social context and cultural norms, the focus of this section is on key lifestyle behaviours (physical activity, dietary pattern and drug use) and on body weight, the direct outcome of physical activity and dietary patterns. Other major biological risk factors for (mainly cardiovascular) diseases – blood lipids and blood pressure – are considered briefly in Section 1 of this report under cardiovascular disease (mainly because of the poor quality of the data available). Diabetes (and pre-diabetic states) could be considered another biological risk factor, but instead is also included under Section 1 of this report (ie, as a disease).

Physical Activity

Indicator definition

Participating in at least 150 minutes per week of physical activity equivalised to moderate intensity.

Notes

Physical activity can reduce the risk of many major diseases (such as cardiovascular diseases, certain cancers, diabetes, osteoporosis, obesity, and possibly depression (US Department of Health and Human Services 1996).

For benefits to health, the current recommendation is that all adult New Zealanders should do at least 30 minutes of moderate intensity physical activity (equivalent to brisk walking) on most, if not all, days of the week (Hillary Commission 2001).

The New Zealand Sport and Physical Activity Survey, carried out by SPARC (Sport and Recreation New Zealand), categorises people as ‘active’ (or inactive) based on the 150 minutes per week criterion, and as ‘regularly active’ (or not) based on the 30 minutes per day criterion. Here the former definition is used, while acknowledging the importance for health of regular activity. Children and adults are treated separately (note that the SPARC definition of ‘children’ is that used in the education sector (5–17 years), not that used in the health sector (0–14 years).
Current situation

Children (5–17 years)

Figure 86: Percentage of children physically active*, by sex, 1997–2001

* Active – took part in at least 2.5 hours of physical activity in the seven days before the survey interview, as reported by parent.

- Just over 50% of Pacific children are active, which is significantly less than the national average.
- Pacific children spend an average of 5.6 hours per week taking part in sport and leisure activities, compared with the national average of 6.6 hours per week.
- There has been a significant increase in the proportion of sedentary Pacific young people (those that participate in no sport or leisure) from 6% in 1997 to 33% in 2001.
- On the other hand, Pacific young people have an interest in becoming more active. In 2001, 75% were interested in participating in a new sport or leisure activity, up from 56% in 1997.

Adults (18+ years)

Figure 87: Percentage of adults physically active*, by sex, 1997–2001

* Active – took part in at least 2.5 hours of physical activity in the seven days before the survey interview.
• Pacific adults spend less time taking part in sport and active recreation than the national average, (8.6 hours per week and 9.3 hours per week respectively).

• Pacific women are significantly less likely to be physically active than women overall, but the difference is small (not statistically significant) for men.

• While 63% of Pacific adults are active for more than 2.5 hours per week, only around one-third (36%) are regularly active (ie meet the recommendation of 30 minutes or more on at least five days per week). This compares with 52% of the total population.

• There has been little overall change in Pacific adults’ levels of activity from 1997 to 2001.

On average, Pacific children and young people, and (to a lesser extent) Pacific adults, are less physically active than the total population.

Related indicators
• cardiovascular disease
• diabetes
• cancer
• overweight and obesity

Further information
• SPARC Facts 1997–2001  
  http://www.sparc.org.nz/research
• NZ Food, NZ Children: Key results of the National Children’s Nutrition Survey  
  http://www.moh.govt.nz
• 2002/03 New Zealand Health Survey reports  
  http://www.moh.govt.nz
Service consistency and quality that builds trust is proving a recipe for success for South Waikato Pacific Island Health (PIHC), in Tokoroa.

One of South Waikato PIHC’s first contracts was to provide a sexual health education and promotion service for the Pacific people of the South Waikato young people.

Like many other areas, the teenage pregnancy and abortion rates in the district were high. Now part of the regular high school programme, they find the education works best when Pacific students are taken out of the school environment for a whole day, three or four times a year. This enables the sexual health messages to be integrated with general teenage issues such as personal values and self-esteem.

‘The parents are very happy about what we do,’ says manager Isabelle Teokotai White.

‘If requested, we give them a copy of everything we hand out and the programme. The young people are empowered through having accurate information, knowing about choices, options for safe sex – and the parents have the right to feel safe about it too.’

South Waikato PIHC operates in partnership with the Raukawa Trust Board and the provider arm of fund-holder for the district health board to offer a home visiting service that includes six Pacific people out of the 14 staff. It covers Tokoroa to Mangakino and anybody living in the rural area between. This service began as a pilot in the late 1990s but is now well established.

‘The home visiting services covers all ages and is largely one of advocacy and support rather than formal social work,’ says Isabelle.
‘For example, if we get a person with diabetes referred to us, we support that person to ensure they’re getting the help and support they need at home, that they’re managing their medication regime, that they’re eating well and staying healthy.’

From these two initiatives has grown a wide range of community health, health promotion, activity and support services.

Youth mental health is another Pacific service offering activities for youth and drawing in health promotion and education.

Two groups meet, one on Mondays (attended by 60-90 young people) and the other on Wednesdays. Those attending get a ‘PHAT Pack’ giving information about issues such as drug and alcohol abuse and domestic violence. A young people’s committee does the organisation – ‘they run the show’ says Isabelle – and integrate five-minute ‘care messages’ into the programme. It seems to be working – the crime rate and teenage pregnancies among Pacific youth are dropping in Tokoroa – and while the ambitious young still leave the town for wider opportunities, some are starting to return as teachers and other role models.

Five Punanga – early childhood centres – run in Tokoroa, and the well-child programme reaches many mothers and children through these.

A Pacific young mothers’ group that grew from this has met regularly over the past two years. As well as meeting for mutual benefit, they have gone out to visit tertiary institutions and this has ‘opened their eyes to the wider world’ and nine of its members have gone on to tertiary education.

Four days a week, exercise classes are offered. An exercise class Akatikatika uaua, the ‘sit and be fit’ session at the service facility uses traditional Samoan music and, dance and accessories such as poles and sticks, Drumbo – for the Cook Island for older people – offers not only age-friendly elderly exercises but traditional seated dances accompanied by drums. The Samoan sasa (dance) Faamalosi Tino group meets on Wednesdays.

But it’s the exercise and weight loss programme for adults that’s become a Tokoroa institution.

Two of the T10 ‘Water Woggles’ classes meeting at the local Aquatic Centre each week are sponsored by the committee.

Early birds and workers gather at six in the morning, the hangovers and remedies group at 8 am on Sundays so they can feel fit before going to church, and others trim and tone and splash in the mornings and evening. ‘Mamas and Mermaids’ meet twice weekly for an hour of water-based activity, buoyed by long flotation tubes, Pacific music, well-designed exercises targeting every part of the body, and much laughter. People with disabilities also go to Mamas and Mermaids.

Isabelle says new services are always needed, such as a Quit Smoking programme. But they don’t want to over-extend themselves.

‘We feel that the best way is to start slowly, but surely,’ says Isabelle.
**Diet**

**Indicator definition**

We consider three different dimensions of diet:

- **Food and nutrient intakes** – fruit and vegetable intake, and fat intake. Two sub-indicators of the latter are included, covering total fat and saturated fat, respectively.

- **Household food security** – two sub-indicators are used: the proportion of households that can afford to eat properly, and the proportion of households using food banks or special food grants.

- **Breastfeeding** – the proportion of liveborn infants fully breastfed at age three months.

**Notes**

It is recommended that New Zealanders eat at least three servings of vegetables and at least two servings of fruit per day (Ministry of Health 2003a). Consumption of fruit and vegetables is protective against cardiovascular disease (Law and Morris 1998, Ness and Powles 1997) and some cancers (Cannon 1997).

A high intake of saturated and trans fatty acids has been linked to cardiovascular disease (especially ischaemic heart disease) and may increase the risk of certain cancers (World Health Organization 2003). High total fat intake (irrespective of fatty acid composition) may contribute to overweight and obesity through passive overconsumption. Recent WHO guidelines recommend that 15–30% of total energy be consumed as fat, with not more than 12% of total energy being derived from saturated fat.

Having reliable and sustainable access to affordable foods of high nutritional value is a key determinant to whether or not they will be consumed (food security). It is to be expected that different ethnic groups will respond differently to questions about food security, however.

Breastfeeding contributes to bonding and has a wide range of benefits for both the infant and the mother. Benefits to the infant include the transfer of immune factors through the breast milk and consequent improved immunity to infections. Benefits to maternal health include a reduced risk of breast and ovarian cancers (Ministry of Health 1997).
Current situation

Dietary fat intake

Children

Figure 88: Mean percent energy from total fat and saturated fat for children (5–14 years), 2002

- The mean percentage of energy obtained from total fat was higher for Pacific boys than the national average, but not significantly so for Pacific girls.
- There was no difference in the percentage of energy obtained from saturated fat for Pacific boys and girls, and for Pacific children, compared with the all New Zealand average for children.
Adults

Figure 89: Mean percent energy from total fat and saturated fat for adults (15+ years), 1997*

* These data were not adjusted for intra-individual variation, as the number of Pacific people in the survey was too low.
Source: 1997 National Nutrition Survey, Ministry of Health

- Pacific males and females obtained very similar percentages of their energy from total fat and saturated fat as males and females in the total population.
Fruit and vegetable consumption

Children

Figure 90: Percentage of children (5–14 years) who eat at least three servings of vegetables or at least two servings of fruit per day, by sex, 2002*

* Standard errors were not published, so confidence intervals cannot be calculated.
Source: 2002 Children’s Nutrition Survey, Ministry of Health

- More Pacific boys (59%) and girls (65%) consumed the recommended three or more servings of vegetables per day than the national average for boys (55%) and girls (58%).
- The proportion of Pacific boys (51%) and girls (50%) who consumed the recommended two or more servings of fruit per day was also higher than the respective national averages (boys 41% and girls 44%).
**Adults**

**Figure 91: Percentage of adults (15+ years) who eat at least three servings of vegetables or at least two servings of fruit per day, by sex, 2002/03**

*Age-standardised to the WHO World population.*

Source: 2002/03 New Zealand Health Survey, Ministry of Health

- Fewer Pacific males (43%) and females (39%) consumed the recommend three or more servings of vegetables per day than the corresponding national averages for males (63%) and females (71%).

- The proportion of Pacific males (54%) and females (58%) who consumed the recommended two or more servings of fruit per day was higher than the respective national average for males (43%) but was lower for females (64%), although the latter is not statistically significant.
Household food security

Figure 92: Percentage of households with child(ren) (5–14 years) that can afford to eat properly or that regularly use food grants/banks, 2002\(^{1,2,3}\)

Notes:
1. Options ‘Never’ and ‘Don’t know’ not reported.
2. Whenever adult members of the households of the children that participated were available, they were asked to respond on the children’s behalf. Children were not asked these questions.
3. Standard errors were not published, so confidence intervals cannot be calculated.

Source: 2002 Children’s Nutrition Survey, Ministry of Health

- Pacific households with children are less likely to always afford to eat properly and more likely to sometimes use food banks or grants than the average New Zealand household with children.
- Forty-eight percent of households with dependent Pacific children can afford to eat properly only sometimes (compared to a national average of 20%).
- Eighteen percent of households with dependent Pacific children sometimes use foodbanks (compared to a national average of less than 9%).
Breastfeeding

Figure 93: Rate of full breastfeeding at three months, 2002/03\(^1\)\(^2\)

<table>
<thead>
<tr>
<th>Rate per 100 infants</th>
<th>Pacific peoples</th>
<th>Total NZ population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50.1</td>
<td>55.2</td>
</tr>
</tbody>
</table>

Notes:
1. Data cover period from July 2002 to June 2003 inclusive.
2. Confidence intervals not available.
Source: Plunket

- Half of Pacific babies were fully breastfed at three months, which is slightly lower than the national average.
- This estimate is similar to that reported by Butler et al (2002), using data from the Pacific Island Families Study, a major cohort study currently ongoing in South Auckland.

Pacific children had higher intakes of vegetables and fruit than their total population counterparts. This trend was reversed for Pacific adults, who had lower intakes of vegetables (both genders) but similar (females) or higher (males) intakes of fruit.

Almost one-fifth of Pacific families with young children sometimes use food banks.

Half of Pacific infants are fully breastfed at three months, slightly below the national average.
Related indicators

- cardiovascular disease
- diabetes
- cancer
- overweight and obesity
- income

Further information

- *NZ Food: NZ People: Key Results of the 1997 National Nutrition Survey*
- *NZ Food: NZ Children: Key Results of the National Children’s Nutrition Survey*
- 2002/03 New Zealand Health Survey reports
- *Nutrition and the Burden of Disease: New Zealand 1997-2011* 
  http://www.moh.govt.nz (for all of above)
Overweight and Obesity

Indicator definition

Overweight for adults is defined as a body mass index (BMI) > 25 (26 for Māori and Pacific ethnic groups).

Obesity for adults is defined as BMI > 30 (32 for Māori and Pacific ethnic groups).

Cut-offs for children (< 18 years) are based on thresholds recommended internationally (Cole et al 2000). These may exaggerate prevalence for Māori and Pacific children, however.

Notes

Excess body fat is an important modifiable risk factor for a number of chronic diseases, including type 2 diabetes, cardiovascular disease and some cancers. A recent study has found that the health impact of excess body fat ranks highly as a cause of death in New Zealand alongside tobacco, total blood cholesterol, and blood pressure (Ministry of Health and University of Auckland 2003). Obesity is also associated with significant disability and social stigmatisation.

Different BMI cut-off points are used to define overweight and obesity for Pacific (and Māori) adults compared to European or Asian adults. This reflects body composition, but may not correlate with risk.

Current situation

Children

Figure 94: Prevalence of overweight or obesity, by sex, 5–14 years, 2002¹,²

<table>
<thead>
<tr>
<th>Rate per 100</th>
<th>Overweight</th>
<th>Obese</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males Pacific peoples</td>
<td>33.9</td>
<td>26.1</td>
</tr>
<tr>
<td>Females Pacific peoples</td>
<td>32.9</td>
<td>31.0</td>
</tr>
<tr>
<td>Males Total NZ population</td>
<td>20.0</td>
<td>9.0</td>
</tr>
<tr>
<td>Females Total NZ population</td>
<td>22.8</td>
<td>10.7</td>
</tr>
</tbody>
</table>

Notes:

1. BMI > cut-off values defined by Cole et al (2002).
2. Standard errors were not published so confidence intervals could not be calculated.
Source: 2002 Children’s Nutrition Survey, Ministry of Health

BMI = weight in kg divided by height in metres squared.
• Pacific boys (60%) and girls (64%) have higher rates of overweight and obesity (combined) than the national averages (29% and 34% respectively) – approximately 50% higher for overweight and 200% higher for obesity.

• However, appropriateness of the Cole cut-offs for Pacific children is not established, so the difference may be exaggerated.

Adults

Figure 95: Prevalence of overweight or obesity for Pacific peoples, by sex, 15+ years, 2002/03¹,²

Notes:
1. Age-standardised to WHO standard population.
2. Overweight: BMI ≥ 26.0 kg/m² & < 32.0 kg/m²; Obese: BMI ≥ 32.0 kg/m²
Source: 2002/03 New Zealand Health Survey, Ministry of Health
Figur 96: Prevalence of overweight or obesity for total NZ population by sex, 15+ years, 2002/03

Notes:
1. Age-standardised to WHO standard population.
2. Overweight: BMI $> 25.0 \text{ kg/m}^2 \& < 30.0 \text{ kg/m}^2$; Obese: BMI $> 30.0 \text{ kg/m}^2$.
Source: 2002/03 New Zealand Health Survey, Ministry of Health

- Thirty-nine percent of Pacific adults are ‘overweight’ (compared with 34% of the total New Zealand population) and 43% are ‘obese’ (compared with 20% of the total NZ population).
- Pacific male (82%) and female (79%) adults have higher prevalence rates of overweight and obesity combined to their total population counterparts (60% and 47% respectively).
- Pacific adults are not significantly more likely to be overweight than the national average, but are approximately twice as likely to be obese. This is despite using a higher cut-off for overweight and obesity for the Pacific ethnic group.

The prevalence of overweight and (especially) obesity is a key health issue for Pacific peoples, even when measured using indicators adjusted to account for the ‘heavier frame’ of Pacific peoples.
Related indicators

- cardiovascular disease
- diabetes
- cancer
- physical activity
- diet

Further information

- *NZ Food, NZ Children: Key results of the National Children’s Nutrition Survey*

- 2002/03 New Zealand Health Survey reports

Pacific Trust Canterbury

Being ‘by Pacific, for Pacific’ in Christchurch offers special challenges, as Manu Sione of Pacific Trust Canterbury knows well.

With a dispersed Pacific population of 7762 (census figures) and probably more like 10,000 scattered all over a large city area, providing health services to Pacific people is an exercise in networking and communication.

As well as now having their own health clinic in central Christchurch, Pacific Trust Canterbury (PTC) offers health education at community halls and its child health, mental health, social services, injury prevention and asthma support people do home-based visits.

They prefer the holistic approach, involving the whole family in lifestyle changes to deal with obesity, diabetes and cardio-vascular conditions. Otherwise, says Manu, treatment won’t always work.

‘We have to stress the importance of healthy lifestyles as well as symptom relief, pointing out the health costs of being unwell and the importance of family, of being here for the grandchildren.’

Becoming part of Partnership Health, the biggest established so far in New Zealand, is just part of PTC’s development.

‘We needed a strategic alliance and we knew doctors in Pegasus IPA already had numbers of Pacific clients.’

Dr Api Talemaitoga works two days a week at the Pacific Trust clinic. He says Pacific people tend to feel safer with someone who will understand their relationships and to whom they can express concerns.

‘Pacific patients are very reactive to symptoms although the preventative message is getting through. Consultations don’t fit into the neat general practice slots, they take a long time,’ he says.

‘We’re seeing people a bit earlier than we used to. There is still multiple registration, they tend to try you out for a while before they transfer their notes. The Pacific Health clinic has 500 registered patients and 300 casuals who may take a year to settle down with one provider.’

Dr Talemaitoga says that by the time PHO structures came along, there were already existing relationships between the groups ‘and then it was just a matter of meeting more regularly and sorting out issues as they arose’.
Pegasus Community Health project manager Vivien Daley says the first cultural training session included a formal ava ceremony between the Pacific community leaders and the Pegasus board members, followed by a general workshop.

‘Our next sessions targeted practices with comparatively high Pacific populations and included a panel of speakers providing perspectives from the different Island communities. These cultural training sessions were followed up by lunchtime visits by the Pacific providers to each practice with sharing of contact names and detailed information about referrals.’

‘It’s beneficial at all levels,’ says Vivien. ‘Pegasus has a good relationship with the Pacific provider groups and there is Pacific oversight of initiatives, ensuring that funds are directed to improve services effectively and appropriately.

‘Pegasus also has a fund for general practice Pacific initiatives. It’s been used recently to provide a range of clinical and nutrition services to a large extended family network. A diabetes project, including podiatry and foot massage is in the planning stages.’

Professional development of medical staff has included joint sessions, and IT support has also been provided – a critical factor for the PHO.

Communication has been critical in all this. Internal communication has had to be tailored to cultural styles, and external communication to reach high-needs groups has used Pacific media such as radio and newsletters, as well as church and community networks.
Tobacco Consumption

Indicator definition

Prevalence of current (at least weekly) cigarette smoking (including ‘roll your own cigarettes’).

Youth and adults are considered separately.

Notes

Tobacco smoking is the leading modifiable risk factor in New Zealand, and is responsible for approximately 18% of all deaths (Ministry of Health 2003c). Second-hand cigarette smoke is now recognised to also be a substantial health hazard (Hill et al 2004).

Since the early 1980s, the quantity of tobacco products released for sale in New Zealand has been declining. However, New Zealand smokers consume, on average, a similar number of cigarettes per year as Australians, although fewer than people in many other OECD countries (including the United States and the United Kingdom).

Current situation

Youth smoking

Figure 97: Prevalence of at least weekly smoking, ages 14–15 years, by sex, 2002

Notes:
1. Confidence intervals were not provided.
2. Total percentages were not provided.
Source: Action on Smoking and Health 2003

- Pacific males and females aged 14–15 years have similar rates of at least weekly smoking to their counterparts in the total New Zealand population.
- The rate for females is 1.5 times the rate for males in both the Pacific and the total populations.
Adult smoking

Figure 98: Cigarette smoking prevalence, 15+ years, percent, 2002\(^1,2\)

Notes:
1. Age-standardised to the WHO world population.
2. Confidence intervals were not provided.
Source: AC Nielsen (NZ) Ltd

- Controlling for age, Pacific males aged 15 years and over have a higher prevalence of cigarette smoking than the total population (about one-third higher). Female rates are similar for the Pacific and total populations.
- Among adults, male smokers outnumber female smokers (all ethnicities) – unlike the situation for youth. However, there are strong cohort effects operating and this may change as the present cohort of young people ages.
- As well as looking at initiation and prevalence rates of smoking (as presented above), it is also important to consider smoking intensity and quit rates. Future reports may include these additional indicators.

Tobacco smoking is a leading cause of preventable deaths for Pacific people. The prevalence of smoking for Pacific males is higher than the national average while that for Pacific females – which was low in the past – is now similar to the national average. Tobacco consumption by Pacific children and youth raises cause for concern.

Related indicators
- asthma
- chronic lung disease

Further information
- Tobacco Facts 2003
  http://www.moh.govt.nz
- Action on Smoking and Health data and publications
  http://www.ash.org.nz
Pacific Islands Heartbeat Programme

One in three Pacific peoples are tobacco smokers. Smoking, therefore can be described as a major drain on the health and economic resources of Pacific peoples in New Zealand.

Some of these smokers use mainstream national smoking cessation programmes such as Quitline, but others prefer to use services that are specifically designed for Pacific people.

This is where the work of the National Heart Foundation of New Zealand’s Pacific Islands Heartbeat (PIHB) programme comes in.

Haikiu Baiabe is one of two PIHB Smoking Cessation Co-ordinators, who run cessation training for Pacific and non-Pacific health professionals providing health services for Pacific people. These training courses look at using brief intervention techniques.

‘Brief intervention of less than three minutes by a health care professional can increase quit rates by up to 30 percent. This is an important point I emphasise to busy health workers, who do not ordinarily provide cessation services,’ says Haikiu.

‘While effective, this brief intervention approach has huge cultural challenges, because in Pacific Island cultures it usually takes longer to get to the main point of a visit.’

The intervention techniques used are appropriate for the smoker who is motivated enough to make contact or is suffering from a smoking-related condition.

‘We’ve adapted existing training materials to suit Pacific peoples, slotting in culturally relevant elements, and we encourage providers to recognise the differences. Customising the techniques is important because the level of understanding varies so much,’ says Haikiu.

Three smoking cessation courses are on offer through PIHB. The three-day course covers three main competencies – the guidelines for smoking cessation, pharmacotherapy and motivational interviewing/communication skills.

After three months, those who complete this course are offered a two-day session on relapse prevention. There is also a one-day overview course for health promoters.

Haikiu delivers at least four three-day, four two-day and two one-day scheduled courses each year, along with additional courses on request. For example, in March he had eight doctors and two staff from the AUCKPAC PHO for training. In April he had five South Auckland nurses for a day, and he is currently putting together a course for the West Auckland Fono members of the TaPasefika PHO.
Promotion and marketing are also an essential part of Haikiu’s work. He provides material for some Pacific Island radio programmes, giving prevention and cessation equal emphasis in his promotional activities.

‘With the current level of tobacco consumption and addiction in the Pacific community and the complicated contributing factors, this is not a short-term exercise,’ he says.

‘We need more trained and supported Pacific health and community workers to provide education and quit messages.’

The church setting is next on his list for exploration. PIHB’s community liaison officer has already been working in this environment, encouraging lifestyle and nutrition changes for heart health, which Haikiu hopes to build on.

‘Pacific Island social structures make it a real challenge, but what we need is consistent and regular messages in all environments emphasising the benefits of smoking cessation.’
Alcohol Consumption

Indicator definition

Prevalence of potentially hazardous drinking, as measured by an Alcohol Use Disorders Identification Test (AUDIT) score > 8.

‘Potentially hazardous drinking’ is defined as an established pattern of drinking that carries a high risk of future damage to physical or mental health.

Notes

Adverse health consequences associated with alcohol include motor vehicle and other injuries, suicide, domestic and street violence, foetal alcohol syndrome, certain cancers (eg, upper digestive tract, colon, and female breast), cirrhosis of the liver, certain neuropsychiatric disorders, haemorrhagic stroke and high blood pressure (Single 2002, White et al 2002).

The AUDIT questionnaire is used in this report as an indicator of the prevalence of hazardous drinking among New Zealanders aged 15+ years.

The AUDIT is a 10-item questionnaire covering alcohol consumption, alcohol-related problems and risky drinking patterns. The cut-off used to identify ‘potentially hazardous drinking’ is a score of 8 or above.

Current situation

Figure 99: Prevalence of hazardous drinking patterns for Pacific peoples, by sex and age group, 15+ years, 2002/03¹,²,³

Rate per 100

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Rate per 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>15–24 years</td>
<td>Males: 18.1, Females: 18.1, Persons: 18.1</td>
</tr>
<tr>
<td>25–44 years</td>
<td>Males: 40, Females: 7.8, Persons: 18.8</td>
</tr>
<tr>
<td>45–64 years</td>
<td>Males: 36.2, Females: 7.6, Persons: 23.1</td>
</tr>
<tr>
<td>15+ years</td>
<td>Males: 30.8, Females: 17.8, Persons: 18.6</td>
</tr>
</tbody>
</table>

Notes:
1. Age-standardised to WHO standard population.
2. Inadequate data were available for those 65 years and older so they have been excluded from the table as a separate age group.
3. When ethnic and age groups were not represented in adequate numbers for reliable estimates results were suppressed and bars not shown in the graph.

Source: 2002/03 New Zealand Health Survey
Figure 100: Prevalence of hazardous drinking patterns for the total NZ population, by sex and age group, 15+ years, 2002/03\textsuperscript{1,2,3,4}

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Males</th>
<th>15–24 years</th>
<th>25–44 years</th>
<th>45–64 years</th>
<th>15+ years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pacific peoples</td>
<td>41.5</td>
<td>29.4</td>
<td>19.3</td>
<td>27.1</td>
<td>26.7</td>
</tr>
<tr>
<td>Total population</td>
<td>26.7</td>
<td>10.4</td>
<td>4.5</td>
<td>11.4</td>
<td>13.8</td>
</tr>
</tbody>
</table>

Notes:
1. Age-standardised to WHO standard population.
2. Rates have not been calculated if counts are less than 10.
3. Inadequate data were available for those 65 years and older so they have been excluded from the table as a separate age group.
4. When ethnic and age groups were not represented in adequate numbers for reliable estimates, results were suppressed and bars not shown in the graph.

Source: 2002/03 New Zealand Health Survey

- Males are more likely to have hazardous drinking patterns than females. The prevalence rate ratio for males compared with females (15+ years) is 4.0 for Pacific peoples and 2.4 for the total population.
- Pacific youth (male and female) appear to have lower rates of potentially hazardous drinking than the national average, but the differences are not statistically significant for females.
- By contrast, Pacific adult males appear to have higher than average rates of hazardous drinking, although again the differences do not reach conventional levels of statistical significance (perhaps because of small sample sizes), so chance cannot be excluded as an explanation for the findings.

Hazardous drinking patterns for Pacific peoples are very similar to the population as a whole, although Pacific adult males may have above average rates of potentially hazardous drinking.
Related indicators

- mental health
- motor vehicle injuries
- youth suicide
- cardiovascular disease
- mental health services

Further information

- 2002/03 New Zealand Health Survey reports http://www.moh.govt.nz
- The Centre for Social and Health Outcomes Research and Evaluation publications http://www.shore.ac.nz
- Alcohol Advisory Council (ALAC) publications http://www.alcohol.org.nz
Summary

Pacific children, youth and adults have higher rates of overweight and (especially) obesity than the national average. Using the accepted thresholds, more than one-quarter of Pacific school-age children and one-third of adults (15+ years) were classified as obese in 2002/03. This high rate of obesity reflects passive overconsumption of calories and low levels of physical activity.

Pacific dietary and physical activity patterns appear to undergo substantial change with acculturation. Of particular concern, only half of Pacific school-age children are physically active, compared with a national benchmark of two-thirds (1997–2001). Pacific adults are also less active on average than their non-Pacific counterparts.

Overall, Pacific peoples have an intake of saturated fats similar to the national average, but a lower intake of vegetables (adults only). Relatively low levels of household food security (eg, one-fifth of Pacific households sometimes use food banks) reflect the fact that for many Pacific families a healthy diet is often not affordable, resulting in the excessive consumption of cheap, calorie-dense but nutrient poor foods.

Added to this are relatively high rates of smoking among Pacific males (approximately one-third) and increasing rates for females (almost one-quarter of Pacific 14-year-old girls smoked at least weekly in 2002). Pacific men aged 25–64 years (but not youth or females of any age) also exhibit a relatively high prevalence of potentially hazardous drinking patterns (over one-third compared with a national benchmark of approximately one-quarter).

Again, it should be emphasised that there is much heterogeneity in life styles within the Pacific population, based on ethnicity, age, gender, migrant status, acculturation, level of education, income and occupational class (ie, socioeconomic position).
Political, social, cultural and economic institutions are the fundamental determinants of the health status of any population, acting through material, behavioural and psychosocial pathways. Understanding the social context is therefore critical to the development of policies that will be effective in improving health risk exposures and outcomes for Pacific peoples in New Zealand.

In this section indicators relating to deprivation, education, employment, occupation, income, housing and acculturation are examined. Two indicators relating to family structure are also included: living in extended families and solo parenting. Although these are essentially demographic variables, they can also be considered modifiable (responsive to acculturation, as well as to economic, labour market and other policies).

Purely demographic drivers of health outcomes, such as population growth and age structure, are not included in this section despite their fundamental influence on health. Such factors are considered to be non-modifiable (at least in the short to mid-term). However, a brief summary of the demography of the Pacific population of New Zealand is included in Appendix 1.

Neighbourhood Deprivation

Indicator definition
The proportion of the Pacific population living in deprived neighbourhoods, as defined using the NZDep2001 index.

Notes
NZDep2001 is a census-based small area deprivation index derived from nine socioeconomic variables included in the 2001 Census. NZDep scores are usually categorised into tenths (deciles), numbered from 1 (least deprived) to 10 (most deprived).

Note that the index relates to the small area in which a person lives, not his or her personal level of deprivation. This indicator is intended to provide an overall or summary measure of the socioeconomic position of the Pacific population as a whole.
Current situation

Figure 101: NZDep2001 distribution, Pacific population, 2001*

- The Pacific population is highly skewed, with 42% living in decile 10 areas, instead of the expected 10%.
- This proportion is similar across all seven DHBs with substantial Pacific populations.
- By contrast, less than 2% of Pacific people live in decile 1 areas, instead of the expected 10%.
- Pacific people make up 22% of the population living in NZDep2001 decile 10 small areas, but only 6.5% of the total population. That is, Pacific peoples are over-represented in decile 10 areas by almost four-fold.

Over 40% of Pacific peoples live in the most deprived 10% of small areas.

Related indicators
- education
- employment
- income
- housing

Further information
- Statistics New Zealand data and publications http://www.stats.govt.nz (for both above)
**Education**

**Indicator definition**

Two sub-indicators relating to human capital development are included:

- participation in early childhood education and in tertiary education (ie, non-mandatory education)
- educational qualifications attained.

**Notes**

There is good evidence that participation in early childhood education (provided this is of high quality) contributes to socialisation, language and cognitive development, and school readiness, and hence impacts positively on child health (which in turn impacts on adult health).

Tertiary education is closely correlated with upward social mobility, more effective use of health information, and better adult health outcomes.

Educational qualification or credentialling is a key dimension of social stratification and so has a major impact on achieved socioeconomic position in adult life.

**Current situation**

**Participation in early childhood education**

**Figure 102: Rate of participation in early childhood education, ages 0–4, 2001**

![Rate of participation in early childhood education, ages 0–4, 2001](source: Pacific Progress, Statistics New Zealand 2002)
• Participation of Pacific preschoolers in early childhood education (all types combined) has been increasing over the past decade, from 26% of children aged 0–4 years in 1991 to 33% in 2001.

• A small but increasing proportion of these children are enrolled in Pacific language nests (immersion centres): approximately 23% of enrolled preschoolers, or 1230 Pacific children in 2001.

• However, participation of Pacific children in early childhood education is still only half that of the national average (33% compared with 63% in 2001).

Figure 103: Rate of participation in tertiary education, 2001

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Pacific peoples          Total NZ population
1.5                      32

Source: Pacific Progress, Statistics New Zealand 2002

• The proportion of Pacific youth (18–24 years) enrolled in tertiary study was only half the national average in 2001 (15% versus 32%).

• Pacific tertiary students were more likely than others to be enrolled in certificate and diploma-level courses, and less likely to be studying for university degrees or to be engaged in postgraduate study.
Educational qualifications

Figure 104: Proportion of adult population (18+ years) with no formal educational qualification, 2001

- In 1986 over half the Pacific population (54%) over 18 years of age and not still at school had no formal educational qualifications, but by 2001 this had fallen to 36%. However, this is still higher than the national figure of 28%.

- The proportion of the Pacific population with a university degree has risen sharply, from 1.9% in 1986 to 3.9% in 2001. In the latter year, 11.8% of all New Zealand adults held a university degree.

- The disparity reflects mainly the lower educational attainment of the migrant (overseas born) generation.

Pacific preschoolers are less likely to be enrolled in early childhood education than their non-Pacific counterparts. Pacific youth and young adults are less likely than average to be enrolled in tertiary courses, but this disparity appears to be reducing. The Pacific population as a whole has a higher than average proportion of adults lacking any educational qualification, but this reflects mainly the overseas rather than New Zealand-born generation.
Related indicators

- deprivation
- employment
- occupation and industry
- income

Further information

- Statistics New Zealand data and publications
  http://www.stats.govt.nz (for both above)
Employment

Indicator definition

Labour-force participation and unemployment rates as defined in the Household Labour Force Survey.

Notes

Participation in paid employment is not only the major source of income (through salary or wages) for most people, but also confers psychosocial benefits with major impacts on health.

Current situation

Figure 105: Rate of labour force participation, March 2004

Source: Statistics New Zealand
As of March 2004 the Pacific unemployment rate stood at 7.9%, well down from its peak of 28.8% in 1992 and an improvement over the 2001 rate of 11.2%.

Despite this improvement, the unemployment rate among Pacific peoples remains almost twice that of the total population, for both sexes and at all ages.

This relatively high unemployment rate of Pacific peoples partly reflects a persistent effect of the economic restructuring and associated job losses of the late 1980s and early 1990s. Because of their occupational segregation into manufacturing and low skilled-service industries, Pacific peoples were more affected by the restructuring than were other ethnic groups.

While the employment situation for the national workforce improved markedly in the late 1990s and early 2000s, for Pacific peoples the recovery has been only partial, and they remain less likely to be in the labour force or to be gainfully employed, and are more likely to be unemployed than they were in the early 1980s.

These continuing labour market disparities reflect in part demographic differences, with the Pacific population containing more young people and low skilled migrants.

As more New Zealand-born Pacific peoples with higher levels of education enter the labour force, the disparities may reduce. However, the relatively high level of Pacific youth unemployment suggests that significant change may not be imminent.

Pacific peoples are more likely than others to hold down several jobs at the same time; for example, working full time in a factory during the day and moonlighting as a cleaner in an office building at night. While contributing to income, this can have a negative impact on work–life balance, with less quality time available for interacting with children and detrimental health outcomes for both children and adults.
Related indicators

- deprivation
- education
- occupation and industry
- income
- housing

Further information

- Household Labour Force Survey reports
- Statistics New Zealand data and publications
  - http://www.stats.govt.nz (for all above)
Occupation and Industry

Indicator definition

The proportion of the labour force employed in low-skilled and low-status occupations.

Notes

Occupation is not only a major determinant of income via wages and salaries, but forms the basis for the conventional stratification of society into social classes. While the meaning of occupational class may differ across cultures, it remains an important indicator of socioeconomic position or rank. Hence it constitutes a powerful determinant of adult and intergenerational health status.

Current situation

Figure 107: Distribution of Pacific labour force, by occupation and industry, males and females, 2001*

* Elementary occupations are those occupations whose main tasks involve the use of hand-held tools and physical effort and the knowledge and experience to perform elementary and routine tasks.

Source: Pacific Progress, Statistics New Zealand 2002

- The largest occupational categories for Pacific males are plant and machine operators and assemblers (25%) and elementary occupations (15%), while the common categories for Pacific females are clerical (24%) and service and sales workers (23%). These proportions are approximately double those of the total population in each case.

- Pacific people are more likely to be employers or self-employed than in the past. However, the proportions are still relatively small, with 1.9% of Pacific workers employing others and 4.4% being self-employed without employees. Comparative proportions for the total New Zealand population are 7.9% and 12.8% respectively.
The Pacific workforce is predominantly located in lower skilled and lower status occupations, although less so than in the 1980s and 90s. Again, this is in part a reflection of the limited educational opportunities available to the overseas-born generations.

Related indicators

- deprivation
- education
- employment
- income

Further information

- Statistics New Zealand data and publications http://www.stats.govt.nz (for both above)
Pacific Mobile Nursing

The Pacific Health Service Wellington is using a holistic, family-centred approach to improve the health status of the Pacific community.

The mainstay of the service is a mobile nursing contract, and, according to manager Tavita Filemoni, the scattered nature of Wellington’s Pacific population has resulted in creative ways of networking to reach the city’s Pacific peoples.

Referrals come from a wide range of places – the hospital (Pacific Support Service), GPs, agencies, schools, pre-schools, public health nurses and self-referrals.

But first contact with most of the Pacific clients are through community meetings and community gatherings.

Team leader and registered nurse Elaine Ete-Rasch says everyone referred to the nursing services is provided with a care plan for their referred condition. Alongside the plan goes a note about their health history and a check for other conditions that may need watching, as well as co-ordinating the care with any other health/social services that are already involved.

As with other Pacific providers, staff find that many patients do not understand their health conditions or the fact that maintaining a healthy lifestyle is important.

‘They say, “but I don’t feel sick”,’ says Elaine.

‘This is a concern because some people who have been saying this have ended up on dialysis treatment for the rest of their lives, some have had major surgeries as complications of diabetes and hypertension. This sends us a loud message that health workers should be more proactive in delivering health education and health promotion.

‘The issues that we come across are very complex because of all the extra factors – social, personal, housing, income, school concerns. The demand never lets up.’

Staffing the mobile nursing service is difficult, because there is a shortage of qualified Pacific staff and each has to be able to speak at least one island language as well as English. It is very important that staff employed in the service know and understand the culture and the dynamics of Pacific families.
Along with the Capital & Coast DHB Pacific Health Unit, PHSW is involved in the formation of a Pacific Primary Care Nursing Forum, which is exploring education and training issues.

‘As well as good nursing and language skills, our nurses need to be able to work independently and have an in-depth nursing knowledge to deal with some of the more complex health and social issues that are facing our people,’ says Elaine.

‘Each has individual independent supervision.’

As well as individual nursing, there’s a lot of group work. Exercise classes in the community are very popular. These are run in churches and groups initiated by a group of elderly in the community. They are led by Malia Seumalu who is completing a course on Diploma of Exercise Science at Massey University.

Nurses go along an hour before it begins to do tests and checks on anyone who might turn up early – or stay on afterwards. There is a lot of follow up work after these checks. They find some people have not seen their doctors for a very long time – years, in some cases – while others have stopped taking their medication. Advocating and facilitating the care for these people with their GPs is ongoing work.

The exercise class the service runs for Stagecoach bus drivers is another well-patronised initiative and weekly health talks at community venues are a good way of keeping community awareness high.

Elaine says she would like to see a more collaborative approach from all health workers, including doctors and nurses in private practices.

Tavita says she’d like to know the service is making a difference in how Pacific peoples understand their health and how the system can work for them.

‘Then they can make informed choices, knowing the consequences of what they decide to do.

‘It’s up to us to be innovative, so that can happen.’
Income

Indicator definition

Real median annual income, for persons aged 15+ years.

Notes

Income not only correlates roughly with access to a range of resources and material standard of living – a direct influence on health risks and outcomes – but is a key indicator of social rank, through its association with education, occupation and employment.

Current situation

Figure 108: Real median annual income*, ages 15+ years, 2001

The most common income source for Pacific peoples (47%) and the total New Zealand population (55%) in 2001 was wages and salaries.

Pacific peoples’ median hourly wage and salary earnings equated to an average of 78% of the national median earnings from wages and salaries between 1997 and 2001.

Pacific peoples are proportionately more likely than the total New Zealand population to be in the lower income bands, with 61% receiving less than $20,000 per annum compared with 53% of the national population in 2001.

Conversely, Pacific peoples are less likely than the national average to be in the higher income bands, with only 7% receiving over $40,000 compared with 18% of the national population.

Major reasons for the lower income distribution of the Pacific population include its relatively youthful age structure, lower average level of qualifications, and concentration into low-skilled and low-paid occupations and industries.
• Pacific peoples often have added calls on their income not experienced (to the same extent) by other ethnic groups: large and extended families, church tithes, and remittances abroad ('migradollars').

Median hourly wages are 15% lower for Pacific peoples than the national average. This reflects Pacific people’s lower average level of qualifications and concentration into low-skilled occupations.

Related indicators
• deprivation
• education
• employment
• occupation and industry
• housing
• family structure

Further information
• Statistics New Zealand data and publications http://www.stats.govt.nz (for both above)
Housing

Indicator definition

Two sub-indicators are included:

- housing tenure: proportion of population who own (with or without mortgage) the dwelling in which they usually live
- household crowding: proportion of population living in dwellings with more than two occupants per bedroom.

Notes

Home ownership is beneficial for health through both material (wealth accumulation) and psychosocial pathways. On the other hand, renting may allow greater occupational mobility.

Crowding is harmful to health through several pathways, including lack of privacy, increased risks of psychological distress and domestic violence, and exposure to infection. Yet the cultural meaning and definition of ‘crowding’ may be contested, so caution should be exercised when interpreting ‘crowding’ for Pacific households.

Current situation

Housing tenure

Figure 109: Proportion of Pacific and total NZ populations owning (with or without mortgage) or renting the dwelling in which they usually live, 2001

Source: Pacific Progress, Statistics New Zealand 2002
• Pacific peoples are considerably less likely than the overall New Zealand population to own or partly own the dwelling in which they usually live. In 2001, 26% of Pacific people aged 15+ years stated they owned or partly owned their home. This compares to the national rate of 55%.

• This is partially influenced by the younger age structure of the Pacific population, as individuals in the 15–34 years age group are less likely to have the means or income to purchase their own home.

• Rental home occupancy rose from 48% in 1986 to 59% in 2001 for the Pacific population, compared to 22% to 29% for the total NZ population.

**Household crowding**

**Figure 110: Proportion of the Pacific peoples and total NZ population living in dwellings with more than two occupants per bedroom, 2001**

![Graph showing proportion of Pacific peoples and total NZ population living in crowded dwellings, 2001](image)

- In 2001, 21% of Pacific people were living with more than two occupants per bedroom, compared with 3% of the national population. The rate has been declining steadily since 1986, when it was approximately 28% for Pacific peoples and just under 5% nationally.

- Living in dwellings with more than three occupants per bedroom is much less common for all ethnic groups in New Zealand. Pacific peoples continue to show an excess, however, with 4% living in dwellings with more than three occupants per bedroom compared with less than 1% for the total population.

- ‘Crowding’ varies with Pacific ethnicity and nationality. Among Pacific ethnic groups, ‘crowding’ is most severe among the Tongan community. Among migrants, length of residency within New Zealand is correlated with crowding, with recent migrants more likely than those who have lived in New Zealand for five years or longer to be living in ‘crowded’ dwellings.
Pacific peoples are less likely than other New Zealanders to own their own home, and more likely to be living in crowded accommodation.

Related indicators

• infectious diseases
• deprivation
• income
• family structure

Further information


• Statistics New Zealand data and publications http://www.stats.govt.nz (for both above)
Translating the Pacific lifestyle to New Zealand conditions leads to many tensions, particularly when it comes to housing. This is the focus of the work by Gina Pene, Tokelau-born, New Zealand-educated and now Wellington-based, a member of a research team at the School of Medicine and Health Sciences.

Gina is working with a multidisciplinary team in He Kainga Oranga/Housing and Health Research Programme and architects at the Wellington School of Architecture and Design at Victoria University. She is also a member of the Wellington Tokelau Association, which is working in partnership with the universities and Housing New Zealand on this project.

‘New Zealand houses are designed for the nuclear, not the multi-generational family,’ she says. ‘The living areas are too small to accommodate our Tokelau lifestyle, they are cold and cost a lot to heat.

‘We need bigger rooms, bigger spaces for our larger families.’

The size and style of the house is not the only health issue for the large multi-generational Tokelau family, she says.

‘There are all the other factors – low incomes, unemployment, access to resources, low achievement, educational, social problems and adjustment to a New Zealand way of life.

‘They all come together. Teachers say that Pacific children are often tired and sleepy in school. If the whole family of 10, 11, 12 is living in one or a few rooms because the house is too small or it costs a lot to heat, of course the children are not going to get a good night’s sleep. That leads to low achievement, lack of educational qualifications, poor job prospects, low pay.’

Gina’s experience as a public health nurse and involvement with her people’s community has led to her being part of an innovative project funded by the Health Research Council. This Tokelau Extended Family Study involves a partnership between the Wellington School of Medicine, and the Wellington Tokelau Association. More recently Housing New Zealand has become involved to assist the design and build of a two-storey building, which will accommodate the multi-generational family and aspects of the Tokelau lifestyle adapted to New Zealand conditions.

This research has had a long gestation. The initial research included focus groups and a random survey of Tokelau people to understand their ideas of housing and health and identify their concerns. The focus groups had to be very carefully constructed, Gina says.
‘Older generations prefer our traditional lifestyle, that’s what they are used to. This desire is not shared so much by younger people who are exposed to New Zealand culture. So the difference in attitudes affects the social life of the Tokelau community here.

‘So we had to create a range of groups. Traditionally, younger people will not speak in the presence of their elders in formal meetings, and in mixed-gender groups the men will dominate the discussion. So we had separate men’s and women’s groups for the older people. We had another group for solo mothers, a mixed group for key community people and for youth, and two groups of men, one for those who owned their homes and another for those who rented.’

Testing the key issues emerging from the focus groups and checking them, along with surveying household sizes in the Wellington Tokelau community was the next step. The results have now been translated into design terms and the team is waiting for go-ahead from Housing New Zealand. A sunny section in East Porirua has been approved and a prospective extended family of tenants has been identified. It’s all being done with community consultation built in.

‘First we took the results of the survey back to the community. Then we set up a committee involving the executive of the Wellington Tokelau Association and others from the community. We’ve had seven or eight meetings talking about the design, about what’s needed – insulation, suitable materials, a sustainable and affordable house that can be maintained well.’

Evaluation of the whole exercise is also a critical part of the project – of the process and also of the community impact.

‘Tokelau people are accustomed to sharing their lives, sharing food, sharing tasks. In Tokelau we don’t have fences,’ says Gina. ‘We have big gatherings, celebrations, funerals. When someone dies, we bring the body home – that affects the ways our houses work and also how we relate to our neighbours.’

‘All these are different when we live in New Zealand. We have to monitor how our project affects what we can do here and how it changes the way we live.’
Family Structure

Indicator definition

Two sub-indicators are included:

- living in extended families
- solo-parenting.

Notes

Extended family living can be a source of social support and material assistance, and so contribute to better health. However, it can also contribute to crowding, loss of privacy, psychological distress, domestic violence and a lower material standard of living (through obligation to share the same income across a greater number of people) and so increase risks to the health of at least some family members.

Solo parenting is often associated with poorer health outcomes, almost entirely as a result of lower incomes.

In interpreting these indicators, it should be recognised that living arrangements are, at least in part, culturally determined. The reasons for including them in this section are that they also reflect socioeconomic circumstances. To some extent, they constitute socioeconomic determinants of health and can be expected to be responsive to policy interventions.

Current situation

Extended families

Figure 111: Proportion of Pacific and total NZ populations living in extended families, 2001

Source: Pacific Progress, Statistics New Zealand 2002
• Pacific peoples are more likely than the total New Zealand population to live in an extended family household.

• Pacific children are also more likely to live in larger families: in 2001, a third of Pacific children were living in families that included four or more dependent children compared with 16% of children in the national population.

• The average number of usual occupants for all households in which Pacific peoples were living in 2001 was 5.4, compared with 3.5 for New Zealand as a whole.

Solo-parenting

Figure 112: Proportion of parents with dependent children who were sole (unpartnered) parents, by sex, Pacific peoples and total NZ population, 2001

- Pacific parents with one or more dependent children are more likely than average to be unpartnered – although the difference is relatively small (22% versus 18% in 2001).

- However, this proportion has been increasing more rapidly for Pacific families than for the total New Zealand population since 1986, so the disparity may increase further in the next decade.
Pacific children are more likely than average to be brought up in a large (and often extended) family. They are also more likely to be brought up by a single parent, and this trend may be increasing. In interpreting this information, it should be recognised that living arrangements are in part culturally determined and impacts on health are complex and not necessarily negative.

**Related indicators**

- income
- housing

**Further information**

- Statistics New Zealand data and publications http://www.stats.govt.nz (for both above)
Acculturation

Indicator definition

Two sub-indicators are included:

- language competence
- participation in faith-based communities.

Notes

Four styles of acculturation are recognised (Berry 1990): integration, assimilation, separation and marginalisation. Integration enables increases in cultural capital by reducing social distance between the non-dominant and dominant ethnic groups while still retaining the protective shield and strong ethnic identity afforded by the traditional culture. Assimilation involves greater acculturation stress but still yields access to the socioeconomic benefits of belonging to the wider society. Separation and marginalisation are maladaptive responses with consequential poor social, economic and health outcomes.

Reliable information on discrimination is not available at present, but will be included in future editions of this report.

Current situation

Language competence

Figure 113: Proportion of Pacific peoples over two years of age able to speak English or one or more Pacific language(s), overseas-born and New Zealand-born, respectively, 2001*

* Those too young to speak are excluded from this data.
Source: Pacific Progress, Statistics New Zealand 2002
Eighty-one percent of recent (under five years) migrants from Pacific Island countries indicated proficiency in English.

Over two-thirds of New Zealand-born Pacific people lack proficiency in any Pacific language(s).

**Participation in faith-based communities**

**Figure 114: Proportion of Pacific people acknowledging belonging to a religion, 2001***

![Bar chart showing proportion of Pacific people acknowledging belonging to a religion, 2001.]


Source: Statistics New Zealand

- A higher proportion of Pacific peoples than the total New Zealand population report affiliation to an organised religion. However, affiliation is lower for the New Zealand-born than for the overseas-born Pacific peoples and may be declining over time.

- Nevertheless, the church plays a central role in Pacific community life – both in maintaining the culture, language and traditions and in providing information and services and generally mediating between the community and the wider society.

- The church holds communal assets in the form of buildings, land, finance and skills and is a major provider of material, cultural and social support and assistance to Pacific families in need.

- On the other hand, financial obligations to the church and to community ceremonies and events both in New Zealand and in the Pacific Island countries of origin weigh heavily on many Pacific families.
Long-term migrants and especially New Zealand-born generations of Pacific peoples have undergone significant acculturation, which is a continuing process. This has both positive and more especially negative impacts on their health. Negative impacts result from loss of identity and social support, as well as changes in dietary and physical activity patterns and substance (especially tobacco) use.

**Related indicators**

- mental health
- employment

**Further information**


- Statistics New Zealand data and publications http://www.stats.govt.nz (for both above)

- 2002/03 New Zealand Health Survey reports http://www.moh.govt.nz
Section 5: Conclusions

Summary of Findings

Health risks and outcomes

In 2000–02 average health expectancy was 62.5 years for Pacific peoples (compared with 66.1 years for the total New Zealand population), reflecting a life expectancy at birth of 74 years (compared with 78.2 years) and a dependent disability prevalence of 12% (compared with 10.5%).

Pacific infants have a good birthweight distribution and half are fully breastfed at three months (slightly below the national average). Infant mortality is still higher than average at 7 per 1000 live births in 1997–2001 (compared with 5 per 1000) – reflecting higher neonatal and post neonatal mortality about equally.

Pacific children experience above average risks of infection, including serious diseases such as lower respiratory tract infection, meningococcal meningitis and septicaemia, rheumatic fever, tuberculosis and hepatitis B (the result, at least in part, of large families and crowded housing). Pacific children are also more likely than others to be admitted to hospital for control of asthma, and to experience hearing loss from glue ear (with potentially serious consequences for school readiness and academic performance). Pacific children – like older age groups – have a below average risk of motor vehicle or other unintentional injury, although they are at higher risk for certain types of injury, including pedestrian injuries and burns.

Youth health is particularly salient, given the youthful age structure of the Pacific population. Pacific youth (and older age groups) appear to experience good mental health, at least so far as can be assessed using standard scales of positive mental health, social functioning and psychological distress, which may have limited cross-cultural validity. However, this is partly confirmed by relatively low rates of youth suicide in the Pacific population (despite relatively high rates of youth unemployment). Fertility timing does differ between ethnic groups, with Pacific teen pregnancy and fertility rates approximately twice the national average, but this should not simply be assumed to have negative health consequences. Drug use by Pacific youth (and adults) shows some concerning patterns, with higher than average rates of smoking among males (and more recently, among younger females) and possibly higher rates of hazardous drinking patterns among adult males.

Pacific adults have higher than average rates of a number of major chronic diseases. In particular, middle-aged Pacific men and women have ischaemic heart disease rates approximately twice the national average, and even greater excess risks of stroke. But most outstanding is the high prevalence of self-reported (type 2) diabetes – over 10% among adults (15+ years) compared with under 4% for the general adult population in 2003. Indeed, almost one-third of older Pacific people self-report diabetes, and the true prevalence (including undiagnosed disease) may be twice this.

The excess risk of diabetes and cardiovascular disease experienced by Pacific peoples in part reflects dietary and physical activity patterns beginning in childhood and continuing over the life course. Thus over one-quarter of Pacific children and one-third of adults were already obese in 2002–03, although debate still surrounds the appropriate cut-off points for defining obesity in this ethnic group.
Cancer rates are also relatively high among Pacific peoples. This applies to both tobacco-related (e.g., lung) and non-tobacco-related cancers. Prominent among the latter are breast and cervical cancer in women (in part reflecting low participation in cancer screening), as well as sharply increasing rates (from a relatively low level) of colorectal cancer in both genders, probably reflecting changing dietary and physical activity patterns.

**Health service utilisation**

Most Pacific people have a regular primary health care provider, with over 96% of the Pacific population enrolled in primary health organisations (although there may be some double counting), and approximately 10% being regular users of ‘by Pacific, for Pacific’ health care providers. With the notable exception of diabetes and blood pressure checks, Pacific people are less likely than average to take up preventive and screening services. On the other hand, they are more likely to acknowledge unmet need for primary care services, with the major barriers to access being cost and possibly cultural safety. Pacific peoples are less likely than average to visit the dentist, and are relatively low users of community mental health services, as well as hospital outpatient care. By contrast, Pacific rates of public hospital inpatient services are higher than the national average once adjusted for age and NZDep, at least for medical (but not surgical) care, although these rates may still not be fully proportional to need.

That Pacific people may have limited access to care, and also may receive care of lesser quality (although there is little empirical evidence for this, perhaps because such evidence has seldom been sought), is supported by their high rates of avoidable mortality and ambulatory sensitive hospitalisation. In both cases, Pacific rates are approximately 50% higher than expected.

**Socioeconomic determinants of health**

Pacific people in New Zealand experience deprivation. At the 2001 Census, 42% of Pacific people lived in the 10% most deprived small areas of the country. Consistent with this, Pacific workers earned median wages and salaries only 78% of the national median. Only 25% of Pacific families owned their own homes (versus 55% nationally) and 21% experienced crowding, defined as more than two occupants per bedroom (versus 3% nationally).

At the time of writing, unemployment among the Pacific labour force hovers around 8%, or twice the national average. Furthermore, the labour force participation rate, which dropped dramatically during the economic restructuring of the late 1980s and early 1990s, has never fully recovered.

Although Pacific workers are no longer as occupationally segregated into a narrow range of manufacturing and service industries as was the case prior to the restructuring (when many of these jobs disappeared), today 25% of Pacific males remain factory workers (and 15% are still engaged in elementary occupations). Half the Pacific female workforce are clerical or low-skilled sales and service workers. By contrast, Pacific peoples are markedly under-represented among employers, managers and professionals.

**Policy Implications**

The information contained in this report will be used by the health sector to assist in identifying the health needs of Pacific peoples. The Ministry of Health will use the information to formulate the advice it gives the Minister of Health on how these needs should be addressed in the future. The report also provides data to inform communities who are engaged in debating health needs, resource allocation and prioritisation for Pacific peoples.
Monitoring Implications

This report is a starting point. It provides a benchmark for the health status of Pacific peoples in New Zealand, and will require regular updating. Public Health Intelligence has undertaken to update the report every three years. The report will continue to evolve, with new indicators being added and some existing ones being dropped, as a result of feedback from users and as new data sources become available.

This report covers a wide range of indicators, drawing together available data on the health of Pacific peoples into one accessible publication. Although each indicator is described only in brief outline, depth is achieved through linking the reader to further sources of information for each indicator. A bibliography of research into Pacific health in New Zealand is also provided as an additional resource (This can be accessed on Ministry of Health and Ministry of Pacific Island Affairs websites).

It is unfortunate that no trend data could be included in this report, due to the lack of reliable historical time series for most indicators. Future editions will include trend information for the indicators, as this becomes available. Hence a key focus of future reports will be the analysis of time trends to assess progress in Pacific health, and to identify issues where corrective action or further policy development is needed.

The value of this report (and its updates) as a monitoring tool would be enhanced if the quality of ethnicity reporting in health information systems could be improved. The Ministry’s Ethnicity Reporting Improvement Project together with the new standard for ethnicity measurement being developed by Statistics New Zealand (Statistics New Zealand 2004) should enable a robust time series of Pacific vital and health statistics to evolve.
Colonisation and settlement

Pacific peoples in New Zealand constitute a rapidly emergent population. One of the defining issues within New Zealand society has been the extraordinary growth of the Pacific population, which is made up of many different ethnic groups. Understanding these characteristics provides important contextual information for the analysis of Pacific peoples’ health status.

New Zealand’s relationship with Pacific peoples has been longstanding, and over time has evolved. Pacific peoples have been in New Zealand for over 100 years, while New Zealand has had constitutional relationships with the Cook Islands, Niue, (Western) Samoa, and Tokelau since the early half of the twentieth century.

Figure A1-1: Growth of Pacific population in New Zealand, 1945–2001

<table>
<thead>
<tr>
<th>Census year</th>
<th>Population (000s)</th>
<th>Percent of NZ population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1945</td>
<td>1</td>
<td>0.1%</td>
</tr>
<tr>
<td>1951</td>
<td>1</td>
<td>0.1%</td>
</tr>
<tr>
<td>1956</td>
<td>1</td>
<td>0.1%</td>
</tr>
<tr>
<td>1961</td>
<td>1</td>
<td>0.1%</td>
</tr>
<tr>
<td>1966</td>
<td>1</td>
<td>0.1%</td>
</tr>
<tr>
<td>1971</td>
<td>1</td>
<td>0.1%</td>
</tr>
<tr>
<td>1976</td>
<td>1</td>
<td>0.1%</td>
</tr>
<tr>
<td>1981</td>
<td>1</td>
<td>0.1%</td>
</tr>
<tr>
<td>1986</td>
<td>1</td>
<td>0.1%</td>
</tr>
<tr>
<td>1991</td>
<td>1</td>
<td>0.1%</td>
</tr>
<tr>
<td>1996</td>
<td>1</td>
<td>0.1%</td>
</tr>
<tr>
<td>2001</td>
<td>7</td>
<td>6.5%</td>
</tr>
</tbody>
</table>

Source: Pacific Progress, Statistics New Zealand 2002

Growth of the Pacific population of New Zealand has occurred largely in two stages: migration-driven growth from the 1940s right through until the 1970s, and domestically driven growth since the mid-1980s.

In 1945, Pacific peoples comprised 0.1% of the national population, or just 2159 people. Within six years this had risen to 3600 people, and by the 1966 Census about 27,000 Pacific peoples were living in New Zealand. Ten years later this had almost trebled to approximately 65,000 people. However, in the mid-1970s, a more restrictive immigration policy came into effect, resulting in a decrease in the rate of migration of Pacific peoples to New Zealand. At the same time, relatively high rates of return migration to the Pacific Island countries of origin continued. Yet high fertility combined with (relatively) low mortality and the momentum provided by a youthful age structure, resulted in continued high Pacific population growth. By the 2001 Census, Pacific peoples in New Zealand numbered almost 232,000 individuals, making up 6.5% of the total population and a majority of this population (58%) was New Zealand born.

Issues relating to migration, acculturation and discrimination are discussed on page 176.
Pacific ethnic groups

It is important to emphasise that there is no single ‘Pacific’ ethnicity, but that Pacific peoples actually comprise a number of distinct ethnic groups, each with its own culture, language and traditions. Figure A1-2 highlights the different Pacific ethnic groups, as well as their growth in population from 1986 to 2001.

**Figure A1-2: Growth of Pacific ethnic groups, 1986–2001**

Since 1986, all the Pacific ethnic groups have increased in population size, with the Tokelauan population doubling, and the Tongan population almost tripling. The so-called ‘Other Pacific ethnic group’ (which includes Tuvaluans, Society Islanders or Tahitians, and I-Kiribati) has almost quadrupled, from approximately 2000 to 7000 people.

In terms of population size, the Samoan ethnic group is the largest in New Zealand, numbering over 115,000 people in 2001. The Samoan population grew by 48,800, or 74%, between 1986 and 2001. This compares with a growth of 14.5% for the total New Zealand population. Cook Islands Māori make up the next largest group, with over 52,500 living in New Zealand in 2001, an increase of 19,400 since 1986. The fastest rate of growth was in the Tongan community, which grew almost threefold between 1986 and 2001, from 13,600 to over 40,700 people. While most of the major Pacific groups continued to show steady growth throughout the period, the Fijian population declined slightly from almost 7700 to just over 7000 between 1996 and 2001, a period when there was increased emigration by earlier immigrants.

For all Pacific ethnic groups, the proportion of New Zealand-borns versus overseas-borns has increased since 1986. Yet the increase has been greatest among the Cook Island, Niuean and Tokelauan ethnic groups – countries with the closest constitutional linkages to New Zealand (Figure A1-3).
Figure A1-3: Proportion of Pacific peoples born in New Zealand, by ethnic group 1986–2001

The majority of Pacific peoples are located within just seven DHBs (Table A1-1). Counties–Manukau DHB has the most Pacific peoples of any DHB in both absolute and relative terms, with over 82,000 in 2001. However, Auckland and Waitemata together account for over 84,000 Pacific people. The Auckland regional DHBs (consisting of Waitemata, Auckland and Counties–Manukau) collectively account for 67% of all Pacific people. The next biggest Pacific populations are found in the Capital and Coast (22,896), Hutt Valley (10,866), Waikato (10,161) and Canterbury DHBs (8697). Almost 90% of all Pacific peoples reside in these seven DHBs.

Table A1-1: Pacific populations within DHBs, 2001

<table>
<thead>
<tr>
<th>District Health Board (DHB)</th>
<th>Pacific population</th>
<th>Pacific proportion of DHB total</th>
<th>District Health Board (DHB)</th>
<th>Pacific population</th>
<th>Pacific proportion of DHB total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northland</td>
<td>3156</td>
<td>1.3%</td>
<td>Midcentral</td>
<td>4155</td>
<td>1.7%</td>
</tr>
<tr>
<td>Waitemata</td>
<td>32,937</td>
<td>13.3%</td>
<td>Hutt Valley</td>
<td>10,866</td>
<td>4.4%</td>
</tr>
<tr>
<td>Auckland</td>
<td>51,231</td>
<td>20.7%</td>
<td>Capital and Coast</td>
<td>22,896</td>
<td>9.2%</td>
</tr>
<tr>
<td>Counties–Manukau</td>
<td>82,416</td>
<td>33.3%</td>
<td>Wairarapa</td>
<td>855</td>
<td>0.3%</td>
</tr>
<tr>
<td>Waikato</td>
<td>10,161</td>
<td>4.1%</td>
<td>Nelson Marlborough</td>
<td>1320</td>
<td>0.5%</td>
</tr>
<tr>
<td>Lakes</td>
<td>3615</td>
<td>1.5%</td>
<td>West Coast</td>
<td>210</td>
<td>0.1%</td>
</tr>
<tr>
<td>Bay of Plenty</td>
<td>3276</td>
<td>1.3%</td>
<td>Canterbury</td>
<td>8697</td>
<td>3.5%</td>
</tr>
<tr>
<td>Tairawhiti</td>
<td>1227</td>
<td>0.5%</td>
<td>South Canterbury</td>
<td>381</td>
<td>0.2%</td>
</tr>
<tr>
<td>Taranaki</td>
<td>1137</td>
<td>0.5%</td>
<td>Otago</td>
<td>2793</td>
<td>1.1%</td>
</tr>
<tr>
<td>Hawke’s Bay</td>
<td>4929</td>
<td>2.0%</td>
<td>Southland</td>
<td>1482</td>
<td>0.6%</td>
</tr>
<tr>
<td>Whanganui</td>
<td>1275</td>
<td>0.5%</td>
<td>Area outside DHBs</td>
<td>6</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

Source: 2001 Census, Statistics New Zealand
Most Pacific ethnic groups have a majority of their population based in the Auckland regional DHBs. In particularly 80% of the Tongan and Niuean populations are based within this region. The Tokelauan population is an exception, with 53% of its population resident within the Wellington and Hutt Valley DHB area.

**Age structure: a youthful population**

In comparison with the total New Zealand population, Pacific peoples constitute a very youthful population (Figure A1-4). In 2001, 39% of Pacific peoples were aged under 15 years, compared with only 23% of the total population. By contrast, only 3% of Pacific People were aged over 65 years, compared with 12% of the total population. The median age for Pacific peoples in 2001 was 21 years, compared with 35 years for the total population.

Importantly, New Zealand-born Pacific peoples have a much younger age profile than overseas-born Pacific people. The median age for New Zealand-born Pacific peoples is only 12 years, compared with 37 years for overseas-born Pacific peoples.

**Figure A1-4: Age and sex distribution of the Pacific and total NZ population, 2001**

![Age and sex distribution charts](source)

*Source: Pacific Progress, Statistics New Zealand 2002*

**Population growth**

The Pacific population continues to have a relatively high rate of growth. There are five major drivers of this.

- Pacific women have higher than average fertility rates (total fertility rate of 3.2 compared with 2.0 for the total New Zealand population in 2001).
- Pacific peoples, like other ethnic groups in New Zealand, have high rates of inter-ethnic union. About one-quarter of Pacific births are contributed by non-Pacific women.
- The Pacific population has a youthful age structure with a relatively large proportion of the population being of reproductive age (15–44 years). This produces built-in momentum for future growth.
- Pacific peoples in New Zealand have relatively low rates of mortality (although not as low as European or Asian ethnic groups), as discussed in this report.
- Migration from the Pacific-island countries continues, albeit at a slower rate than previously.
Statistics New Zealand projections, using the most likely combination of fertility, mortality, migration and inter-ethnic mobility assumptions, suggest that Pacific peoples will continue to have high but declining growth rates, reaching 2.2% by 2021, compared with a projected 0.6% for the total population in that year (Figure A1-5).

**Figure A1-5: Projected annual population growth rate**

Source: *Alternative projection series; Statistics New Zealand 2002*
Appendix 2: Avoidable Mortality

The following table lists the conditions used to calculate avoidable mortality.

Table A2-1: Avoidable mortality codes

<table>
<thead>
<tr>
<th>Condition</th>
<th>ICD–9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuberculosis</td>
<td>010–018,137</td>
</tr>
<tr>
<td>Selected invasive bacterial and protozoal infection</td>
<td>034–036, 038, 084, 320, 481–482, 485, 681–682</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>042</td>
</tr>
<tr>
<td>Hepatitis</td>
<td>070</td>
</tr>
<tr>
<td>Viral pneumonia and Influenza</td>
<td>480, 487</td>
</tr>
<tr>
<td>Lip, oral cavity and pharynx cancers</td>
<td>140–149</td>
</tr>
<tr>
<td>Oesophageal cancer</td>
<td>150</td>
</tr>
<tr>
<td>Stomach cancer</td>
<td>151</td>
</tr>
<tr>
<td>Colorectal cancer</td>
<td>153, 154</td>
</tr>
<tr>
<td>Liver cancer</td>
<td>155</td>
</tr>
<tr>
<td>Lung cancer</td>
<td>162</td>
</tr>
<tr>
<td>Melanoma of skin</td>
<td>172</td>
</tr>
<tr>
<td>Non-melanotic skin cancer</td>
<td>173</td>
</tr>
<tr>
<td>Breast cancer</td>
<td>174</td>
</tr>
<tr>
<td>Uterine cancer</td>
<td>179, 182</td>
</tr>
<tr>
<td>Cervical cancer</td>
<td>180</td>
</tr>
<tr>
<td>Bladder cancer</td>
<td>188</td>
</tr>
<tr>
<td>Thyroid cancer</td>
<td>193</td>
</tr>
<tr>
<td>Hodgkins disease</td>
<td>201</td>
</tr>
<tr>
<td>Leukaemia</td>
<td>204–208</td>
</tr>
<tr>
<td>Benign tumours</td>
<td>210–229</td>
</tr>
<tr>
<td>Thyroid disorders</td>
<td>240–246</td>
</tr>
<tr>
<td>Diabetes</td>
<td>250</td>
</tr>
<tr>
<td>Alcohol-related disease</td>
<td>291, 303, 305.0, 425.5, 535.3, 571.0–571.3, 760.8</td>
</tr>
<tr>
<td>Illicit drug-use disorders</td>
<td>292, 304, 305.2–305.9</td>
</tr>
<tr>
<td>Epilepsy</td>
<td>345</td>
</tr>
<tr>
<td>Rheumatic and other valvular heart disease</td>
<td>390–398</td>
</tr>
<tr>
<td>Hypertensive heart disease</td>
<td>402</td>
</tr>
<tr>
<td>Condition</td>
<td>ICD–9</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>Ischaemic heart disease</td>
<td>410–414</td>
</tr>
<tr>
<td>Cerebrovascular diseases</td>
<td>430–438</td>
</tr>
<tr>
<td>Aortic aneurysm</td>
<td>441</td>
</tr>
<tr>
<td>Nephritis and nephrosis</td>
<td>403, 580–589, 591</td>
</tr>
<tr>
<td>Obstructive uropathy and prostatic Hyperplasia</td>
<td>592, 593.7, 594, 598, 599.6, 600</td>
</tr>
<tr>
<td>Deep vein thrombosis with pulmonary embolism</td>
<td>415.1, 451.1</td>
</tr>
<tr>
<td>Chronic obstructive pulmonary disease</td>
<td>490–492, 496</td>
</tr>
<tr>
<td>Asthma</td>
<td>493</td>
</tr>
<tr>
<td>Peptic ulcer disease</td>
<td>531–534</td>
</tr>
<tr>
<td>Acute abdomen, appendicitis, intestinal obstruction, cholecystitis/ lithiasis, pancreatitis, hernia</td>
<td>540–543, 550-553, 574–577</td>
</tr>
<tr>
<td>Chronic liver disease</td>
<td>571.4–571.9</td>
</tr>
<tr>
<td>Birth defect</td>
<td>740–759</td>
</tr>
<tr>
<td>Complications of perinatal period</td>
<td>764–779</td>
</tr>
<tr>
<td>Road traffic injuries, other transport injuries</td>
<td>E810–E819</td>
</tr>
<tr>
<td>Accidental poisonings</td>
<td>E850–E869</td>
</tr>
<tr>
<td>Falls</td>
<td>E880–E886, E888</td>
</tr>
<tr>
<td>Fires, burns</td>
<td>E890–E899</td>
</tr>
<tr>
<td>Drownings</td>
<td>E910</td>
</tr>
<tr>
<td>Suicide and self-inflicted injuries</td>
<td>E950–E959, E980–E989</td>
</tr>
<tr>
<td>Violence</td>
<td>E960–E969</td>
</tr>
</tbody>
</table>
## Appendix 3: ICD-9 Codes Used

### Table A3-1: ICD–9 codes used in this report

<table>
<thead>
<tr>
<th>Disease/injury</th>
<th>ICD-9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor vehicle accidents</td>
<td>E810–825</td>
</tr>
<tr>
<td>Falls</td>
<td>E880–886, E888</td>
</tr>
<tr>
<td>Unintentional injuries</td>
<td>E800–E849</td>
</tr>
<tr>
<td>Suicide</td>
<td>E950–959</td>
</tr>
<tr>
<td>Cardiovascular disease</td>
<td>390–459</td>
</tr>
<tr>
<td>Ischaemic heart disease</td>
<td>410–414</td>
</tr>
<tr>
<td>Total stroke</td>
<td>430–438</td>
</tr>
<tr>
<td>COPD</td>
<td>491, 492, 494, 496</td>
</tr>
<tr>
<td>Asthma</td>
<td>493</td>
</tr>
<tr>
<td>Breast cancer</td>
<td>174</td>
</tr>
<tr>
<td>Cervical cancer</td>
<td>180</td>
</tr>
<tr>
<td>Colorectal cancer</td>
<td>153–154</td>
</tr>
<tr>
<td>Liver cancer</td>
<td>155</td>
</tr>
<tr>
<td>Lung cancer</td>
<td>162</td>
</tr>
<tr>
<td>Ovarian cancer</td>
<td>183</td>
</tr>
<tr>
<td>Prostate cancer</td>
<td>185</td>
</tr>
<tr>
<td>Cervical cancer</td>
<td>180</td>
</tr>
<tr>
<td>Breast cancer</td>
<td>174</td>
</tr>
<tr>
<td>Prostate cancer</td>
<td>185</td>
</tr>
</tbody>
</table>
Table A4-1: WHO world population

<table>
<thead>
<tr>
<th>Age group</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>00–04</td>
<td>8.80</td>
</tr>
<tr>
<td>05–09</td>
<td>8.70</td>
</tr>
<tr>
<td>10–14</td>
<td>8.60</td>
</tr>
<tr>
<td>15–19</td>
<td>8.50</td>
</tr>
<tr>
<td>20–24</td>
<td>8.20</td>
</tr>
<tr>
<td>25–29</td>
<td>7.90</td>
</tr>
<tr>
<td>30–34</td>
<td>7.60</td>
</tr>
<tr>
<td>35–39</td>
<td>7.20</td>
</tr>
<tr>
<td>40–44</td>
<td>6.60</td>
</tr>
<tr>
<td>45–49</td>
<td>6.00</td>
</tr>
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<td>50–54</td>
<td>5.40</td>
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<tr>
<td>55–59</td>
<td>4.60</td>
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<tr>
<td>60–64</td>
<td>3.70</td>
</tr>
<tr>
<td>65–69</td>
<td>3.00</td>
</tr>
<tr>
<td>70–74</td>
<td>2.20</td>
</tr>
<tr>
<td>75–79</td>
<td>1.50</td>
</tr>
<tr>
<td>80–84</td>
<td>0.90</td>
</tr>
<tr>
<td>85+</td>
<td>0.60</td>
</tr>
<tr>
<td>All</td>
<td>100.00</td>
</tr>
</tbody>
</table>
Appendix 5: Ambulatory Sensitive Hospitalisations

The following table lists the conditions used to calculate ambulatory sensitive hospitalisations (ASH) rates.

**Table A5-1: Ambulatory sensitive hospitalisation codes**

<table>
<thead>
<tr>
<th>Condition*</th>
<th>ICD-9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuberculosis*</td>
<td>010-018,137</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>042</td>
</tr>
<tr>
<td>Skin cancers*</td>
<td>140, 172, 173</td>
</tr>
<tr>
<td>Oral cancers</td>
<td>141, 143-6, 148-9, 161</td>
</tr>
<tr>
<td>Colorectal cancer*</td>
<td>153, 154</td>
</tr>
<tr>
<td>Lung cancer</td>
<td>162</td>
</tr>
<tr>
<td>Breast cancer*</td>
<td>174</td>
</tr>
<tr>
<td>Nutrition</td>
<td>260-9, 280, 281</td>
</tr>
<tr>
<td>Alcohol related conditions</td>
<td>291, 303, 3050, 4255, 5353, 5710-3</td>
</tr>
<tr>
<td>Myocardial infarction</td>
<td>410, 411, 412</td>
</tr>
<tr>
<td>Gastroenteritis*</td>
<td>001-009, 5589, 7793, 7870, 7879</td>
</tr>
<tr>
<td>Other infections*</td>
<td>023, 027, 034-035, 084, 7700, 7711-2, 7714-9</td>
</tr>
<tr>
<td>Immunisation preventable</td>
<td>032-33, 037, 045, 055-56, 072, 3200, 7710, 7713</td>
</tr>
<tr>
<td>Hepatitis and liver cancer</td>
<td>070, 155</td>
</tr>
<tr>
<td>Sexually transmitted diseases</td>
<td>090-099, 6140-6145, 6147-6169, 633</td>
</tr>
<tr>
<td>Cervical cancer</td>
<td>180</td>
</tr>
<tr>
<td>Thyroid disease</td>
<td>240-244</td>
</tr>
<tr>
<td>Diabetes*</td>
<td>250, 2510, 2512</td>
</tr>
<tr>
<td>Dehydration</td>
<td>2760, 2765</td>
</tr>
<tr>
<td>Epilepsy</td>
<td>345, 7803</td>
</tr>
<tr>
<td>ENT infections</td>
<td>381-383, 461-3, 4721</td>
</tr>
<tr>
<td>Rheumatic and other valvular heart disease</td>
<td>390-398</td>
</tr>
<tr>
<td>Hypertensive disease*</td>
<td>401-405, 4372, 2768</td>
</tr>
<tr>
<td>Angina</td>
<td>4111, 4118, 413, 7865</td>
</tr>
<tr>
<td>Congestive heart failure</td>
<td>428, 5184</td>
</tr>
<tr>
<td>Stroke*</td>
<td>431, 433, 434, 436</td>
</tr>
<tr>
<td>Condition*</td>
<td>ICD-9</td>
</tr>
<tr>
<td>------------</td>
<td>-------</td>
</tr>
<tr>
<td>Respiratory infections</td>
<td>460, 465, 4660, 480-483, 485-487</td>
</tr>
<tr>
<td>Chronic obstructive pulmonary disease*</td>
<td>490-492, 494, 496</td>
</tr>
<tr>
<td>Asthma</td>
<td>493</td>
</tr>
<tr>
<td>Dental conditions*</td>
<td>512-3, 525, 528</td>
</tr>
<tr>
<td>Peptic ulcer</td>
<td>531-534</td>
</tr>
<tr>
<td>Ruptured appendix</td>
<td>540</td>
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<td>Obstructed hernia</td>
<td>5500-5501, 551-552</td>
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<tr>
<td>Kidney/urinary infection</td>
<td>590, 5990</td>
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<td>Cellulitis</td>
<td>680-686</td>
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<tr>
<td>Failure to thrive</td>
<td>7833-4</td>
</tr>
<tr>
<td>Gangrene</td>
<td>7854</td>
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</table>

* Not all conditions are 100% ambulatory sensitive (ASH), some have a proportion which are preventable through public health action and that proportion is not included in the estimation of ASH (shown by asterisk).
References


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