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Profile 2015

West Coast

District Health Board

 Te Rei Puta

The cover design represents the journey of data from its production to its use by the health sector. The overall shape of the design is the prized rei puta. This signifies the importance of information and the acknowledgement that knowledge is a taonga.

At the centre of the design interwoven kowhaiwhai represent the complexity of data that underpins the reports. The ngutu kākā represents the verbal mechanisms for passing on knowledge and the mangopare design symbolises strength and the application of knowledge.

The reports focus on the health status of Māori, and in particular where there are inequalities compared to non-Māori. Niho taniwha represents the strength required to meet adversity and persist through to a successful end, the koru symbolises the growth that results from access to information. The retention of knowledge is embodied in the pātaka kai.

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# He Mihi

Tūi Tuia i Te Herenga Tangata

Te tangi a Te Rōpū Rangahau Hauora a Eru Pōmare.

Tui Tui Tui Tuia

E ngā maunga whakahii, ngā pū kōrero huri noa

Tēnā koutou, tēnā koutou, tēnā tātou katoa.

Ngā mate huhua e hinga mai nei i runga i o tātou marae maha

Haere atu rā, okioki ai.

Ngā whakaaro, ngā kōrero aroha, ngā tautoko i awhi nei i te kaupapa

Anei te mihi ki ngā kaimahi hauora

Whakapiki te kaha

Whakapiki te ora

Whakapiki te māramatanga

Kia eke tātou katoa ki Te Pae Ora.

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Ngā mihi nui ki a koutou katoa.

Nā,

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University of Otago Wellington



Tiro whānui

− West Coast at a glance

West Coast population

* In 2013, 3,600 Māori lived in the West Coast District Health Board region, 11% of the District’s total population (33,000).
* The West Coast Māori population is youthful, but showing signs of ageing. The median age in 2013 was 24.8 years. In 2013, 19% of the District’s children aged 0–14 years were Māori, as were 17% of West Coast’s youth aged 15–24 years. The Māori population aged 65 years and over will increase by 80% between 2013 and 2020.

Whānau ora – Healthy families

* Te Kupenga data is presented for four DHBs combined: West Coast, Nelson Marlborough, Canterbury, and South Canterbury. In 2013, most Māori adults (84%) from these four DHBs reported that their whānau was doing well, but 5% felt their whānau was doing badly. A small proportion (8%) found it hard to access whānau support in times of need, but most found it easy (77%).
* The majority (59%) of Māori from the four DHBs thought Māori culture and spirituality was very/quite or somewhat important. Spirituality was important to a similar proportion of Māori (59%).
* Most Māori from these DHBs (89%) had been to a marae at some time. Forty-four percent had been to their ancestral marae, with over half (56%) stating they would like to go more often.
* One in twenty Māori from these four DHBs had taken part in traditional healing or massage in the last 12 months.
* Ten percent of West Coast Māori could have a conversation about a lot of everyday things in te reo Māori in 2013.

Wai ora – Healthy environments

Education

* In 2013, 89% of children starting school had participated in early childhood education.
* In 2013, 44% of West Coast Māori adults aged 18 years and over had at least a Level 2 Certificate, a higher proportion than in 2006 (40%). Fifty-five percent of non-Māori had this level of qualification.

Work

* In 2013, 7% of West Coast Māori adults aged 15 years and over were unemployed, 1.5 times the non-Māori rate (4%).
* Most West Coast Māori adults (90%) do voluntary work.
* In 2013, Māori were more likely than non-Māori to look after someone without pay who was disabled or ill, within or outside of the home.

Income and standard of living

* In 2013, 29% of West Coast children and 27% of adults in Māori households (defined as households with at least one Māori resident) were in households with low equivalised household incomes (under $15,172), compared to 19% of children and 18% of adults in other households.
* In 2013, 9% of Māori adults in West Coast, Nelson Marlborough, Canterbury, and South Canterbury DHBs combined reported putting up with feeling the cold a lot to keep costs down in the previous 12 months, 5% had gone without fresh fruit and vegetables, and 9% had postponed or put off visits to the doctor.
* In 2013, 6% of Māori household residents had no motor vehicle, compared to 3% of residents in other households.
* Residents in Māori households were generally less likely to have access to telecommunications than those living in other households on the West Coast: 24% had no internet, 21% no telephone, 15% no mobile phone, and 3% had no access to any telecommunications in the home.

Housing

* In West Coast, Nelson Marlborough, Canterbury and South Canterbury DHBs combined, the most common housing problems reported to be a big problem by Māori adults in 2013 were finding it hard to keep warm (15%), needing repairs (14%), and damp (9%).
* In 2013, 42% of children in Māori households on the West Coast were living in rented accommodation, two-thirds higher than the proportion of children in other households (25%).
* West Coast residents living in Māori households were more than twice as likely as others to be in crowded homes (i.e. requiring at least one additional bedroom) (10% compared to 4%).

Area deprivation

* Using the NZDep2013 index of small area deprivation, the majority of West Coast Māori (75%) lived in NZDep deciles 5 to 9. Only around 2% lived in the most deprived decile (decile 10) and around 2% in the least deprived decile (Dep 1) areas.

Mauri ora – Healthy individuals

Pepi, tamariki – Infants and children

* On average 92 Māori infants were born per year during 2009 to 2013, 22% of all live births in the DHB. Eight percent of Māori and 5% of non-Māori babies had low birth weight.
* In 2013, 50% of Māori babies on the West Coast were fully breastfed at 6 weeks.
* In 2014, 90% of Māori children were fully immunised at 8 months of age, and 94% at 24 months.
* In 2013, 70% of West Coast Māori children aged 5 years and 46% of non-Māori children had caries. These proportions were similar for Year 8 students (69% of Māori and 50% of non-Māori children). Māori children under 15 years were 43% more likely than non-Māori children to be hospitalised for diseases of the teeth and gums.
* During 2011–2013, on average there were six hospital admissions per year for grommet insertions among Māori children under 15 years, and one admission per year for skin infections.
* On average 48 hospitalisations per year of Māori children were potentially avoidable through population-based health promotion and intersectoral actions, at a rate 24% higher than that of non-Māori children.
* Thirty-eight hospitalisations per year of Māori children were potentially avoidable through preventive or treatment intervention in primary care (ambulatory care sensitive hospitalisations, or ASH), with a rate 36% higher than for non-Māori children.

Rangatahi – Young adults

* There has been a significant decrease in the proportion of West Coast Māori aged 15–24 years who smoke regularly, but Māori smoking rates remain higher than those of non-Māori.
* By September 2014, between 40% and 57% of Māori girls aged 14 to 17 years had received all three doses of the human papilloma virus (HPV vaccine). The coverage was lowest among 14 years olds.
* During 2011 to 2013, there was an average of three hospital admissions per year for injury from self-harm among Māori youth aged 15–24 years, and two per year among Māori aged 25–44 years.

Pakeke – Adults

* Over half of Māori adults (56%) in West Coast, Nelson Marlborough, Canterbury, and South Canterbury DHBs combined reported having excellent or very good health in 2013, and over a quarter (28%) reported good health. One in six (17%) reported having fair or poor health.
* Smoking rates among West Coast adults are decreasing, but remain higher for Māori (35% in 2013) than for non-Māori (22%).

Circulatory system diseases

* On average, 31 West Coast Māori adults aged 25 years and over were admitted to hospital per year for circulatory system diseases (including heart disease and stroke) during 2011–2013, at a similar rate to non-Māori.
* Nine Māori adults per year on average were admitted for ischaemic heart disease (IHD), of whom seven had acute coronary syndrome (heart attack or unstable angina). Five per year had angiography procedures, two had an angioplasty, and one per year had a coronary artery bypass and graft. There were no significant differences in rates between Māori and non-Māori.
* There were three hospital admissions per year for heart failure, two per year for stroke, and less than one for hypertensive disease among West Coast Māori.
* Māori under 75 years were three-quarters more likely than non-Māori to die from circulatory system diseases during 2002 to 2011.

Diabetes

* In 2013, 4% of West Coast Māori were estimated to have diabetes. Among those aged 25 years and over, 60% were regularly receiving metformin or insulin.

Cancer

* Compared to non-Māori, cancer incidence was 47% higher for Māori females during the ten-year period 2003 to 2011.
* Cancers of the breast, lung, and digestive organs were the most commonly registered among West Coast Māori women. The rate of lung cancer was 2.6 times the rate for non-Māori women.
* Cancers of the digestive organs were the most common cause of cancer death for Māori women.
* Breast screening coverage of women aged 45–69 years during the 24 months to the end of 2014 was 79% for both Māori and non-Māori women.
* Cervical screening coverage of Māori women aged 25–69 years was 62% over 3 years to the end of 2014 and 73% over five years (compared to 76% and 88% of non-Māori women respectively).
* Among West Coast males, overall cancer incidence was similar for Māori and non-Māori. Cancer mortality, on the other hand was twice as high for Māori as for non-Māori males.
* Cancers of the prostate, digestive organs, and lung were the most commonly registered cancers for Māori males.
* Cancers of the digestive organs and of the lung were the most common causes of death from cancer among Māori males.

Respiratory disease

* Māori aged 45 years and over were 75% more likely than non-Māori to be admitted to hospital for chronic obstructive pulmonary disease (COPD) during 2011 to 2013, with an average of 10 Māori admissions per year.
* Asthma hospitalisation rates were higher for Māori than non-Māori among children aged under 15 years and adults aged 35 to 64 years.
* Māori under 75 years had 3.6 times the non-Māori rate of death from respiratory disease during 2002–2011.

Mental disorders

* Māori were 43% more likely than non-Māori to be admitted to hospital for a mental disorder during 2011–2013. Mood disorders were the most common disorders.

Gout

* In 2011 the prevalence of gout among West Coast Māori was estimated to be 5% (and 4% among non-Māori).
* Only 29% of Māori with gout regularly received allopurinol, a preventive therapy to lower urate levels. Of those who received allopurinol, only a quarter had a lab test for serum urate levels in the following six months.
* In 2011–2013 the rate of hospitalisations for gout was 4.3 times as high for Māori as for non-Māori, indicating a higher rate of flare-ups (although the number of admissions was low, with one Maori admitted per year).

All ages

Hospitalisations

* The all-cause rate of hospital admissions was similar for Māori and non-Māori females, but 10% lower for Māori males than for non-Māori males during 2011–2013.
* The avoidable hospitalisation rate was 18% higher for Māori than for non-Māori. There was an average of 144 potentially avoidable Māori admissions per year.
* The ASH rate was 45% higher for Māori than non-Māori, with 90 Māori admissions per year on average.

Mortality

* During 2012–2014 life expectancy at birth was 80.3 years for Māori females in the West Coast Region (2.5 years lower than for non-Māori females) and 76.2 years for Māori males (2.9 years lower than for non-Māori males). The differences between Māori and non-Māori life expectancy were not statistically significant.
* The all-cause mortality rate for West Coast Māori during 2003–2012 was 63% higher than the non-Māori rate.
* Leading causes of death for Māori females were stroke, COPD, lung cancer, IHD, and accidents. Leading causes of death for Māori males were IHD, accidents, COPD, suicide, and lung cancer.
* Potentially avoidable mortality and mortality from conditions amenable to health care were around 70% higher for Māori than for non-Māori in the West Coast.

Injuries

* There were 61 hospital admissions for injury per year on average among West Coast Māori during 2011 to 2013, at a similar rate to non-Māori.
* The most common causes of injury resulting in hospitalisation were exposure to mechanical forces, falls, complications of medical and surgical care, intentional self-harm, and transport accidents.
* On average, two Māori per year died from injuries during the decade 2002 to 2011.

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[**Figure 1:** Distribution by NZDep 2013 decile, West Coast DHB, 2013 12](#_Toc424411558)

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# Introduction

T

he Ministry of Health commissioned Te Rōpū Rangahau Hauora a Eru Pōmare to produce a Māori Health Profile for each District Health Board (DHB) in Aotearoa New Zealand. Each profile report is accompanied by an Excel© data file. The profiles are intended to be used by the health sector for planning purposes. They build on and update the previous Health Needs Assessments produced by Massey University in 2012 which can be viewed [here](http://www.health.govt.nz/our-work/populations/maori-health/dhb-maori-health-plans-and-health-needs-assessments#hna).

The overall aim of the Māori Health Strategy, He Korowai Oranga, is Pae Ora or Healthy Futures. Pae Ora is a holistic concept that includes three interconnected elements; whānau ora, wai ora and mauri ora. Further detail on He Korowai Oranga can be found [here](http://www.health.govt.nz/our-work/populations/maori-health/he-korowai-oranga/pae-ora-healthy-futures). Health indicators contained in the Māori Health Profiles are arranged according to these three elements. Whānau ora, healthy families, includes indicators of whānau wellbeing and support, participation in Māori culture and reo. Wai ora, or healthy environments, encompasses indicators on education, work, income, housing and deprivation. Mauri ora, healthy individuals, includes individual level indicators of health status. Mauri ora indicators are ordered according to life stage from pepi/tamariki to rangatahi then pakeke, and also a section on indicators that affect individuals of all ages.

This document presents data for residents of **Te Poari Hauora a Rohe o Tai Poutini, the West Coast District Health Board.**

## Data sources and key methods

The main data sources for this report are: the 2013 Census of Population and Dwellings, Te Kupenga 2013 (the Māori Social Survey), mortality registrations, public hospital discharges, cancer registrations, the national immunisation register, the community oral health service, the Health Quality and Safety Commission’s Atlas of Healthcare Variation, Action on Smoking and Health (ASH) Year 10 Snapshot Survey of tobacco smoking among 14 and 15 year olds, and data from the Well Child/Tamariki Ora Quality Improvement Framework indicators.

Most data are presented for Māori and non-Māori residents of West Coast DHB. Accompanying Excel tables also include data for the total West Coast DHB population and the total New Zealand population for reo speakers, socioeconomic indicators, mortality, cancer registrations, and hospital discharges. Due to the relatively small numbers of Māori in West Coast DHB, most mortality rates are presented for the ten-year period 2002 to 2011.

The unequal distribution of the social determinants of health is an important driver of health inequities between Māori and non-Māori. Information from the 2013 Census on living conditions that influence health has been analysed by individual, household, and neighbourhood. A household was classified as Māori if there was at least one Māori resident. The 2013 NZ Deprivation Index was used for classifying neighbourhoods. The index combines eight dimensions of deprivation, including access to telecommunications and internet, income, employment, qualifications, home ownership, support, living space, and access to transport.

Māori models of health encompass cultural vitality and whānau wellbeing. Indicators of these dimensions of health have been included in these Profiles, sourced from Te Kupenga 2013, the Māori Social Survey conducted in 2013 by Statistics New Zealand (SNZ). Further information on Te Kupenga can be found [here](http://www.stats.govt.nz/tekupenga). Data from Te Kupenga is presented for Māori only.

Hospitalisation, cancer registration, and mortality rates and Census data were age–sex-standardised to the 2001 Māori population[[1]](#footnote-1).

Ninety-five percent confidence intervals (95% CI) were calculated for crude and age-standardised hospitalisation and mortality rates and ratios using the log-transformation method (Clayton and Hills 1993). Confidence intervals for data from Te Kupenga were calculated by Statistics New Zealand. Confidence intervals have not been calculated for data from other sources.

For ambulatory care sensitive admissions and admission rates for specific causes, transfers are only included as an admission if the principal diagnosis is not in the same diagnostic group as the initial admission.

Average numbers of events per year have been rounded to the nearest whole number.

Further technical notes and methods are provided in Appendix 2.

## Further sources of data

Risk factors common to several chronic conditions such as diabetes, cardiovascular disease, cancer, respiratory disease, or vascular dementia, include smoking, alcohol and drug use, nutrition, body size, and physical activity. Improvements in these indicators require public health and intersectoral action to support healthy environments and living conditions for Māori communities, as well as primary care interventions designed for individuals and whānau. The 2012/13 New Zealand Health Survey provides evidence of inequities between Māori and non-Māori in the prevalence of these risks factors at the national level ([Ministry of Health 2013](http://www.health.govt.nz/publication/new-zealand-health-survey-annual-update-key-findings-2012-13)).

Other useful data sources include the Ministry of Health’s [publications](http://www.health.govt.nz/our-work/populations/maori-health/maori-health-publications) on Māori health, the Health Quality and Safety Commission’s [Atlas of Healthcare Variation](http://www.hqsc.govt.nz/our-programmes/health-quality-evaluation/projects/atlas-of-healthcare-variation/), the [DHB](http://dnmeds.otago.ac.nz/departments/womens/paediatrics/research/nzcyes/dhb-2011-2013.html) reports and [Te Ohonga Ake](http://dnmeds.otago.ac.nz/departments/womens/paediatrics/research/nzcyes/maori.html) reports of the New Zealand Child and Youth Epidemiology Service, the [Trendly](http://www.trendly.co.nz/) health performance monitoring website, and the Māori Health Plan Indicator reports provided to DHBs.

# Te Tatauranga o te Iwi

− Key demographics

I

n 2013, approximately 1% (3,600) of the country’s total Māori population lived in the West Coast District Health Board. The total population of the DHB (33,000) made up 1% of the national population. In 2015, the Māori population is estimated to be 3,730 and the total population 33,600.[[2]](#footnote-2)

Table 1: Population by age group, West Coast DHB, 2013

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Age group (years)** | **Māori** | | | **Non-Māori** | | Total DHB  Number |
| Number | Age distribution | % of DHB | Number | Age distribution |
| 0–14 | 1,170 | 33% | 19 | 5,150 | 18% | 6,320 |
| 15–24 | 640 | 18% | 17 | 3,040 | 10% | 3,680 |
| 25–44 | 830 | 23% | 11 | 6,770 | 23% | 7,600 |
| 45–64 | 760 | 21% | 8 | 9,310 | 32% | 10,070 |
| 65+ | 200 | 6% | 4 | 5,090 | 17% | 5,290 |
| Total | 3,600 | 100% | 11 | 29,400 | 100% | 33,000 |

Source: Statistics NZ Population projections for the Ministry of Health (2013 Census base) 2014 update

Māori residents constituted 11% of the DHB population in 2013. The Māori population is relatively young, with a median age in 2013 of 24.8 years, compared with 42.6 years for the total DHB population. Māori comprised 19% of the DHB’s children aged 0–14 years and 17% of those aged 15–24 years.

Table 2: Population projections, West Coast DHB, 2013 to 2033

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Year** | **Māori** | | | | | | | **Total DHB** | | | NZ Māori | Total NZ |
| Residents | %  of DHB | %  of NZ Māori | %  0–14 years | %  15–64 years | %  65+ years | Median age | Residents | Median age | % of NZ pop |
| 2013 | 3,600 | 11 | 1 | 33 | 62 | 6 | 24.8 | 33,000 | 42.6 | 1 | 692,300 | 4,442,100 |
| 2018 | 3,890 | 11 | 1 | 32 | 61 | 8 | 26.0 | 34,100 | 43.6 | 1 | 734,500 | 4,726,200 |
| 2023 | 4,160 | 12 | 1 | 32 | 58 | 10 | 27.2 | 34,400 | 44.4 | 1 | 773,500 | 4,935,200 |
| 2028 | 4,420 | 13 | 1 | 31 | 56 | 14 | 28.2 | 34,500 | 44.9 | 1 | 811,700 | 5,139,700 |
| 2033 | 4,690 | 14 | 1 | 30 | 55 | 16 | 28.8 | 34,400 | 45.8 | 1 | 850,700 | 5,327,700 |

Source: Statistics NZ Population projections for the Ministry of Health (2013 Census base) 2014 update  
Note: Detailed population projections are provided in Appendix 1.

The proportion of Māori aged 65 years and over in 2013 was 6% but is projected to increase to 16% in 2033. Between 2013 and 2020 the number of Māori aged 65 and over will increase by 80% from 200 to 360 (see Appendix 1). In 2013, there were 60 Māori aged 75 years and over on the West Coast, with 12 living alone (see accompanying Excel tables).

# Whānau ora

− Healthy families

T

he refreshed Māori health strategy, He Korowai Oranga (Ministry of Health, 2014) defines whānau ora as Māori families supported to achieve their maximum health and wellbeing. It aims to support families to be self-managing, leading healthy lifestyles, confidently participating in te ao Māori and society. This section reports selected findings from Te Kupenga 2013 on whānau well-being and support and engagement with Māori culture and reo. Te Kupenga was a sample survey of Māori adults aged 15 years and above with insufficient numbers to report results for West Coast alone. Therefore we present data for four DHBs combined: West Coast, Nelson Marlborough, Canterbury, and South Canterbury.

## Whānau well-being

Table 3: Whānau well-being reported by Māori aged 15 years and over, West Coast, Nelson Marlborough, Canterbury, South Canterbury DHBs combined, 2013

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **How the whānau is doing** | **West Coast and other South Island DHBs** | | | | **New Zealand** | | |
| Estimated number | % | (95% CI) | | % | (95% CI) | |
| Well / Extremely well | 45,000 | 84.3 | (80.6, | 88.0) | 83.4 | (82.5, | 84.4) |
| Neither well nor badly | 5,500\* | 10.7\* | (7.1, | 14.3) | 10.3 | (9.4, | 11.2) |
| Badly / Extremely badly | 2,500\* | 5.0\* | (3.2, | 6.7) | 6.3 | (5.6, | 7.0) |

Source: Te Kupenga 2013, Statistics New Zealand customised report.  
Note: An asterisk (\*) shows the sampling error is 30% or more but less than 50%.

Over 80% of Māori adults from West Coast Nelson Marlborough, Canterbury, and South Canterbury DHBs combined reported that their whānau was doing well or extremely well in 2013. However 5% felt their whānau was doing badly or extremely badly. These were similar to the national findings of Te Kupenga.

Table 4: Whānau composition reported by Māori aged 15 years and over, West Coast, Nelson Marlborough, Canterbury, South Canterbury DHBs combined, 2013

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Whānau description** | **West Coast and  other South Island DHBs** | | | | **New Zealand** | | |
| Estimated number | % | (95% CI) | | % | (95% CI) | |
| **Size of whānau** | | | | | | | |
| 10 or less | 29,000 | 54.0 | (48.9, | 59.1) | 53.7 | (52.1, | 55.3) |
| 11 to 20 | 13,500 | 25.2 | (20.7, | 29.7) | 22.6 | (21.3, | 24.0) |
| More than 20 | 11,000 | 20.8 | (16.7, | 24.9) | 23.6 | (22.4, | 24.8) |
| **Groups included in whānau** | | | | | | | |
| Parents, partner, children, brothers & sisters | 52,000 | 95.9 | (94.0, | 97.7) | 94.6 | (94.0, | 95.2) |
| Aunts & uncles, cousins, nephews & nieces, other in-laws | 19,000 | 35.5 | (30.7, | 40.3) | 41.3 | (39.8, | 42.8) |
| Grandparents, grandchildren | 23,500 | 43.4 | (38.4, | 48.3) | 41.9 | (40.5, | 43.4) |
| Friends, others | 9,500 | 17.8 | (14.3, | 21.3 | 12.4 | (11.5, | 13.3) |

Source: Te Kupenga 2013, Statistics New Zealand customised report.

Table 4 shows the size and composition of whānau, with a fifth reporting whānau sizes of more than 20 people. Eighteen percent included friends in their description of whānau.

## Whānau support

Table 5: Access to whānau support, Māori aged 15 years and over, West Coast, Nelson Marlborough, Canterbury, South Canterbury DHBs combined, 2013

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **How easy is it to get help** | **West Coast and other South Island DHBs** | | | | **New Zealand** | | |
| Estimated number | % | (95% CI) | | % | (95% CI) | |
| **Support in times of need** | | | | | |  |  |
| Easy, very easy | 42,000 | 77.3 | (73.4, | 81.2) | 81.2 | (80.1, | 82.4) |
| Sometimes easy, sometimes hard | 8,000 | 14.4 | (11.1, | 17.7) | 12.7 | (11.7, | 13.6) |
| Hard / very hard | 4,500\* | 8.3\* | (5.6, | 11.0) | 6.1 | (5.4, | 6.8) |
| **Help with Māori cultural practices such as going to a tangi, speaking at a hui, or blessing a taonga** | | | | | | | |
| Easy, very easy | 32,500 | 60.5 | (55.9, | 65.1) | 64.1 | (62.7, | 65.6) |
| Sometimes easy, sometimes hard | 8,500 | 15.7 | (12.1, | 19.3) | 16.9 | (15.9, | 18.0) |
| Hard / very hard | 12,000 | 22.6 | (18.6, | 26.6) | 14.7 | (13.5, | 15.9) |
| Don't need help | 500\*\* | 1.2\*\* | (0.2, | 2.1) | 4.2 | (3.7, | 4.7) |

Source: Te Kupenga 2013, Statistics New Zealand customised report.   
Note: \* Sampling error is 30% or more but less than 50%. \*\* Sampling error is 50% or more, but less than 100%.

In 2013, the majority of Māori adults in these four South Island DHBs (77%) reported having easy access to whānau support in times of need. However, an estimated 4,500 (8%) had difficulty getting help.

A smaller proportion found it easy to get help with Māori cultural practices (61%), with almost a quarter (23%) finding it hard or very hard. A few (1%) reported not needing help.

## Importance of participation in Māori culture

Table 6: Importance of Māori culture and spirituality, Māori aged 15 years and over, West Coast, Nelson Marlborough, Canterbury, South Canterbury DHBs combined, 2013

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **West Coast and other South Island DHBs** | | | | **New Zealand** | | |
| Estimated number | % | (95% CI) | | % | (95% CI) | |
| **Importance of being involved in Māori culture** | | | | | |  |  |
| Very / quite | 18,000 | 33.6 | (29.1, | 38.1) | 46.3 | (44.9, | 47.6) |
| Somewhat | 13,500 | 25.2 | (20.5, | 29.9) | 24.2 | (22.9, | 25.6) |
| A little / not at all | 22,000 | 41.2 | (36.1, | 46.4) | 29.5 | (28.3, | 30.7) |
| **Importance of spirituality** | | | | | | | |
| Very / quite | 22,500 | 42.4 | (37.0, | 47.9) | 48.7 | (47.4, | 49.9) |
| Somewhat | 8,500 | 16.2 | (12.5, | 20.0) | 17.0 | (16.0, | 18.0) |
| A little / not at all | 22,000 | 41.3 | (35.9, | 46.8) | 34.3 | (33.1, | 35.5) |

Source: Te Kupenga 2013, Statistics New Zealand customised report.

Being involved in Māori culture was important to a third of Māori adults, and somewhat important to a further quarter (25%). Spirituality was important (very, quite or somewhat) to over half of Māori (59%).

### Te Reo Māori

Table 7: People who can have a conversation about a lot of everyday things in te reo Māori, West Coast DHB, 2013

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | Difference in percentage |
| Number | % | (95% CI) | | Number | % | (95% CI) | |
| 330 | 9.9 | (8.9, | 11.1) | 180 | 0.7 | (0.6, | 0.8) | **14.44** | **(11.70,** | **17.84)** | 9.2 |

Source: 2013 Censuses, Statistics New Zealand  
Notes: Percentages are age-standardised. Ratios in **bold** show a statistically significant difference between Māori and non-Māori.

According to the 2013 Census, 10% of Māori on the West Coast and nearly 1% of non-Māori could have a conversation about a lot of everyday things in te reo Māori.

Table 8: Use of te reo Māori in the home, Māori aged 15 years and over, West Coast, Nelson Marlborough, Canterbury, South Canterbury DHBs, 2013

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Language spoken at home** | **West Coast and other South Island DHBs** | | | | **New Zealand** | | |
| Estimated number | % | (95% CI) | | % | (95% CI) | |
| Māori is main language | S | S |  |  | 2.6 | (2.2, | 3.0) |
| Māori is used regularly | 6,000\* | 13.2 | (9.3, | 17.2) | 20.5 | (19.2, | 21.8) |

Source: Te Kupenga 2013, Statistics New Zealand customised report.   
Note: \* Sampling error is 30% or more but less than 50%. S shows the data was suppressed.

Just over one in eight Māori adults across the four DHBs (13%) reported that Māori language was used regularly in the home in 2013.

## Access to marae

Table 9: Access to marae, Māori aged 15 years and over, West Coast, Nelson Marlborough, Canterbury, South Canterbury DHBs combined, 2013

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Been to marae** | **West Coast and other South Island DHB** | | | | **New Zealand** | | |
| Estimated number | % | (95% CI) | | % | (95% CI) | |
| At some time | 48,500 | 89.4 | (86.2, | 92.6) | 96.0 | (95.5, | 96.6) |
| In previous 12 months(1) | 17,500 | 35.8 | (30.9, | 40.7) | 58.2 | (56.6, | 59.7) |
| Ancestral marae at some time(2) | 23,000 | 43.9 | (38.2, | 49.6) | 62.3 | (60.9, | 63.7) |
| Ancestral marae in previous 12 months(3) | 6,500 | 12.1 | (8.7, | 15.5) | 33.6 | (32.3, | 34.9) |
| Like to go to ancestral marae more often(2) | 16,500 | 55.7 | (48.9, | 62.5) | 58.7 | (56.7, | 60.7) |

Source: Te Kupenga 2013, Statistics New Zealand customised report.  
Notes: (1) Those who had been to a marae at some time.  
(2) Both those who knew and did not know their ancestral marae.  
(3) Those who had been to any of their ancestral marae in the last 12 months.

In 2013, most Māori in West Coast and the three other South Island DHBs (89%) had been to a marae, with just over a third (36%) having been in the last 12 months. Forty-four percent had been to at least one of their ancestral marae, 12% within the previous 12 months, but over half (56%) reported that they would like to go more often.

## Traditional healing or massage

Table 10: Māori aged 15 years and over who took part in traditional healing or massage in last 12 months, West Coast, Nelson Marlborough, Canterbury, South Canterbury DHBs combined, 2013

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **West Coast and other South Island DHBs** | | | | **New Zealand** | | |
| Estimated number | % | (95% CI) | | % | (95% CI) | |
| 3,000\* | 5.4\* | (3.1, | 7.7) | 10.9 | (10.0, | 11.7) |

Source: Te Kupenga 2013, Statistics New Zealand customised report.  
\* Sampling error is 30% or more but less than 50%.

An estimated 3,000 Māori adults (5%) in West Coast and three other South Island DHBs took part in traditional healing or massage in 2013.

# Wai ora

− Healthy environments

T

his section focuses on those aspects of social and physical environments that influence our health and well-being. Data is presented on individuals, households, and individuals living in households. A household that includes at least one Māori usual resident on Census night is categorised as a Māori household, and other households are categorised as non-Māori.

## Education

Table 11: Adults aged 18 years and over with a Level 2 Certificate or higher, West Coast DHB, 2006 and 2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Year** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | Difference in percentage |
| Number | % | (95% CI) | | Number | % | (95% CI) | |
| 2006 | 621 | 39.9 | (37.6, | 42.4) | 9,006 | 49.2 | (48.4, | 50.0) | **0.81** | **(0.76,** | **0.86)** | -9.3 |
| 2013 | 810 | 44.0 | (41.7, | 46.3) | 9,960 | 55.3 | (54.5, | 56.1) | **0.80** | **(0.75,** | **0.84)** | -11.3 |

Source: 2006 and 2013 Censuses, Statistics New Zealand  
Notes: Percentages are age-standardised. Ratios in **bold** show a statistically significant difference between Māori and non-Māori.

The proportion of Māori adults aged 18 years and over with at least a Level 2 Certificate increased from 40% in 2006 to 44% in 2013, but remained 80% of the non-Māori proportion.

## Work

Table 12: Labour force status, 15 years and over, West Coast DHB, 2006 and 2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Labour force status** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | Difference in percentage |
| Number | % | (95% CI) | | Number | % | (95% CI) | |
| **2006** | | | | | | | | | | | | |
| Employed full-time | 905 | 51.6 | (49.5, | 53.8) | 11,277 | 57.5 | (56.8, | 58.2) | **0.90** | **(0.86,** | **0.94)** | -5.9% |
| Employed part-time | 322 | 16.7 | (15.1, | 18.4) | 3,612 | 17.6 | (17.0, | 18.2) | 0.95 | (0.85, | 1.05) | -0.9% |
| Unemployed | 90 | 4.8 | (3.9, | 5.9) | 447 | 2.8 | (2.5, | 3.1) | **1.72** | **(1.37,** | **2.16)** | 2.0% |
| Not in the labour force | 504 | 26.9 | (25.1, | 28.9) | 6,768 | 22.1 | (21.5, | 22.7) | **1.22** | **(1.13,** | **1.31)** | 4.8% |
| **2013** | | | | | | | | | | | | |
| Employed full-time | 1,036 | 51.4 | (49.5, | 53.5) | 11,151 | 56.2 | (55.5, | 56.9) | **0.92** | **(0.88,** | **0.95)** | -4.8% |
| Employed part-time | 359 | 15.7 | (14.3, | 17.3) | 3,450 | 16.7 | (16.1, | 17.3) | 0.94 | (0.85, | 1.05) | -0.9% |
| Unemployed | 129 | 6.5 | (5.4, | 7.7) | 666 | 4.3 | (4.0, | 4.7) | **1.49** | **(1.23,** | **1.81)** | 2.1% |
| Not in the labour force | 588 | 25.8 | (24.0, | 27.7) | 6,918 | 22.9 | (22.2, | 23.5) | **1.13** | **(1.04,** | **1.22)** | 2.9% |

Source: 2006 and 2013 Censuses, Statistics New Zealand  
Notes Percentages are age-standardised. Ratios in **bold** show a statistically significant difference between Māori and non-Māori.  
Employed part-time includes people working 1 hour per week or more. Employed full-time includes people who usually work 30 or more hours per week. Unemployed people are without a paid job, available for work and actively seeking work. People not in the labour force includes people in the working age population who are neither employed nor unemployed.

Between 2006 and 2013 there was no change in the proportion of West Coast Māori adults employed full-time. Proportions of Māori employed part-time, unemployed, or who were not in the labour force were similar for 2006 and 2013. Māori were 49% more likely than non-Māori to be unemployed in 2013 and 13% more likely not to be in the labour force.

Table 13: Leading industries in which Māori were employed, West Coast DHB, 2013

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ANZSIC Industry** | **West Coast DHB** | | | | | | **New Zealand** | |
| **Māori** | | | **Non-Māori** | | |
| Number | % | Rank | Number | % | Rank | % | Rank |
| **Females** | | | | | | | | |
| Accommodation and Food Services | 114 | 27.0 | 1 | 819 | 13.0 | 3 | 7.3 | 5 |
| Health Care and Social Assistance | 93 | 22.0 | 2 | 1,086 | 17.3 | 1 | 17.1 | 1 |
| Retail Trade | 78 | 18.4 | 3 | 834 | 13.3 | 2 | 11.6 | 3 |
| Education and Training | 51 | 12.1 | 4 | 741 | 11.8 | 4 | 12.9 | 2 |
| Manufacturing | 39 | 9.2 | 5 | 318 | 5.1 | 6 | 6.0 | 6 |
| **Males** | | | | | | | | |
| Manufacturing | 123 | 29.3 | 1 | 960 | 12.9 | 3 | 13.4 | 1 |
| Construction | 96 | 22.9 | 2 | 1,197 | 16.1 | 1 | 13.2 | 2 |
| Mining | 87 | 20.7 | 3 | 861 | 11.6 | 4 | 0.5 | 19 |
| Agriculture, Forestry and Fishing | 57 | 13.6 | 4 | 1,071 | 14.4 | 2 | 8.7 | 4 |
| Retail Trade | 21 | 5.0 | 5 | 507 | 6.8 | 5 | 8.3 | 5 |

Source: 2013 Census, Statistics New Zealand  
Note: ANZSIC is the Australian and New Zealand Standard Industrial Classification.

The leading industries employing Māori females on the West Coast in 2013 were accommodation and food services (27%); health care and social assistance (22%); and retail trade (18%). Other leading industries included education and training; and manufacturing.

For Māori men, 29% were employed in manufacturing, 23% in construction, and 21% in mining. Other leading industries included agriculture, forestry and fishing, and retail trade.

Table 14: Leading occupations of employed Māori, West Coast DHB, 2013

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ANZSCO Occupation** | **West Coast DHB** | | | | | | **New Zealand** | |
| **Māori** | | | **Non-Māori** | | |
| Number | % | Rank | Number | % | Rank | % | Rank |
| **Females** | | | | | | | | |
| Labourers | 129 | 22.3 | 1 | 819 | 12.9 | 5 | 8.3 | 6 |
| Professionals | 117 | 20.2 | 2 | 1,236 | 19.5 | 1 | 26.7 | 1 |
| Community and Personal Service Workers | 102 | 17.6 | 3 | 918 | 14.5 | 4 | 12.9 | 4 |
| Managers | 75 | 13.0 | 4 | 1,035 | 16.3 | 3 | 14.4 | 3 |
| Sales Workers | 72 | 12.4 | 5 | 711 | 11.2 | 6 | 11.7 | 5 |
| Clerical and Administrative Workers | 66 | 11.4 | 6 | 1,146 | 18.1 | 2 | 19.5 | 2 |
| **Males** | | | | | | | | |
| Labourers | 201 | 39.0 | 1 | 1,305 | 17.5 | 4 | 13.6 | 4 |
| Technicians and Trades Workers | 114 | 22.1 | 2 | 1,389 | 18.6 | 2 | 18.5 | 3 |
| Machinery Operators and Drivers | 108 | 20.9 | 3 | 1,347 | 18.0 | 3 | 9.1 | 5 |
| Managers | 72 | 14.0 | 4 | 1,728 | 23.2 | 1 | 22.7 | 1 |
| Community and Personal Service Workers | 12 | 2.3 | 5 | 333 | 4.5 | 6 | 5.4 | 7 |
| Sales Workers | 9 | 1.7 | 6 | 327 | 4.4 | 7 | 7.1 | 6 |

Source: 2013 Census, Statistics New Zealand  
Note: Australian and New Zealand Standard Classification of Occupations (ANZSCO), major grouping.

Among employed West Coast Māori women, the leading occupational groupings were labourers (22%); professionals (20%); and community and personal service workers (18%). The next most common occupations were managers; sales workers; and clerical and administrative workers.

Māori men were most likely to be employed as labourers (39%); technicians and trade workers (22%); and machinery operators and drivers (21%). Managers; community and personal services workers; and sales workers were the next most common occupations.

Table 15: Unpaid work, 15 years and over, West Coast DHB, 2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Unpaid work** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | Difference in percentage |
| Number | % | (95% CI) | | Number | % | (95% CI) | |
| Any unpaid work | 1,755 | 89.9 | (88.5, | 91.2) | 18,603 | 89.7 | (89.2, | 90.2) | 1.00 | (0.99, | 1.02) | 0.1 |
| Looking after disabled/ill household member | 193 | 9.7 | (8.4, | 11.1) | 1,506 | 7.2 | (6.8, | 7.6) | **1.35** | **(1.16,** | **1.57)** | 2.5 |
| Looking after disabled/ill non-household member | 253 | 12.1 | (10.8, | 13.7) | 2,089 | 8.6 | (8.1, | 9.0) | **1.42** | **(1.24,** | **1.61)** | 3.6 |

Source: 2013 Census, Statistics New Zealand  
Notes: Percentages are age-standardised. Ratios in **bold** show a statistically significant difference between Māori and non-Māori.

Ninety percent of West Coast Māori adults worked without pay in 2013. Māori were 35% more likely than non-Māori to look after someone who was disabled or ill without pay within the home, and 42% more likely to look after a non-household member who was disabled or ill without pay.

## Income and standard of living

Table 16: Unmet need reported by Māori aged 15 years and over to keep costs down in the last 12 months, West Coast, Nelson Marlborough, Canterbury, South Canterbury DHBs combined, 2013

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Actions taken a lot to keep costs down** | **West Coast and other South Island DHBs** | | | | **New Zealand** | | |
| Estimated number | % | (95% CI) | | % | (95% CI) | |
| Put up with feeling the cold | 5,000\* | 9.0\* | (6.2, | 11.7) | 11.0 | (10.2, | 11.8) |
| Go without fresh fruit and vegetables | 3,000\* | 5.1\* | (3.3, | 6.9) | 5.4 | (4.8, | 6.0) |
| Postpone or put off visits to the doctor | 5,000\* | 9.0\* | (6.3, | 11.7) | 8.8 | (7.9, | 9.6) |

Source: Te Kupenga 2013, Statistics New Zealand customised report.  
Note: \* Sampling error is 30% or more but less than 50%.

In 2013, an estimated 5,000 Māori adults (9%) across the four DHBs reported putting up with feeling cold a lot to keep costs down during the previous 12 months, 3,000 (5%) had gone without fresh fruit and vegetables, and 5,000 (9%) had postponed or put off visits to the doctor in 2013.

Table 17: Children aged 0–17 years living in families where the only income is means-tested benefits, West Coast DHB, 2006 and 2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Year** | **Māori families** | | | | **Non-Māori families** | | | | Māori/non-Māori  ratio (95% CI) | | | Difference in percentage |
| Number | % | (95% CI) | | Number | % | (95% CI) | |
| 2006 | 228 | 16.3 | (14.4, | 18.4) | 345 | 6.7 | (6.0, | 7.4) | **2.44** | **(2.09,** | **2.86)** | 9.6 |
| 2013 | 180 | 12.9 | (11.2, | 14.7) | 300 | 6.0 | (5.4, | 6.7) | **2.13** | **(1.79,** | **2.53)** | 6.8 |

Source: 2006 and 2013 Censuses, Statistics New Zealand.  
Notes: Māori families include at least one Māori member. Non-Māori families have no Māori members.   
Ratios in **bold** show a statistically significant difference between Māori and non-Māori.

The proportion of children living in Māori families where the only income was means-tested benefits changed only slightly between 2006 and 2013 (16% and 13% respectively). Children in Māori families were twice as likely as non-Māori children to live homes where the only income was means-tested benefits in 2013.

Table 18: Children and adults living in households with low incomes, West Coast DHB, 2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Age group** | **Māori households** | | | | **Non-Māori households** | | | | Māori/non-Māori  ratio (95% CI) | | | Difference in percentage |
| Number | % | (95% CI) | | Number | % | (95% CI) | |
| Children 0–17 years | 345 | 28.6 | (26.2, | 31.2) | 879 | 19.2 | (18.1, | 20.4) | **1.49** | **(1.34,** | **1.65)** | 9.4 |
| Adults 18 years & over | 723 | 26.6 | (24.9, | 28.3) | 2,739 | 17.7 | (16.9, | 18.5) | **1.50** | **(1.39,** | **1.62)** | 8.9 |

Source: 2013 Census, Statistics New Zealand  
Notes: % is age-standardised. Ratios in **bold** show a statistically significant difference between Māori and non-Māori.  
A Māori household is a household with at least one Māori resident. Non-Māori households have no Māori residents.  
Household income is equivalised using the revised Jensen scale. Low income is defined as an equivalised household income under $15,172.

Just over a quarter of the children (29%) and adults (27%) in Māori households were in households with low equivalised household incomes in 2013, around 50% higher than the proportion of children and adults in other households.

Table 19: Households with no access to a motor vehicle, West Coast DHB, 2006 and 2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Measure | **Māori households** | | | | **Non-Māori households** | | | | Māori/non-Māori  ratio (95% CI) | | | Difference in percentage |
| Number | % | (95% CI) | | Number | % | (95% CI) | |
| **Households** | | | | | | | | | | | | |
| 2006 | 141 | 10.0 | (8.5, | 11.7) | 843 | 8.0 | (7.5, | 8.6) | **1.24** | **(1.05,** | **1.47)** | 1.9 |
| 2013 | 147 | 8.9 | (7.6, | 10.4) | 732 | 6.8 | (6.4, | 7.3) | **1.30** | **(1.10,** | **1.54)** | 2.1 |
| **People (% age-standardised)** | | | | | | | | | | | | |
| 2006 | 315 | 7.8 | (7.0, | 8.8) | 1,152 | 3.4 | (3.2, | 3.7) | **2.30** | **(2.01,** | **2.63)** | 4.4 |
| 2013 | 279 | 5.8 | (5.1, | 6.5) | 939 | 2.9 | (2.6, | 3.2) | **2.00** | **(1.72,** | **2.33)** | 2.9 |

Source: 2006 and 2013 Census, Statistics New Zealand,  
Note: A Māori household is a household with at least one Māori resident. Non-Māori households have no Māori residents.   
Ratios in **bold** show a statistically significant difference between Māori and non-Māori.

In 2013, 9% of Māori households had no motor vehicle, 30% more than the proportion of non-Māori households. The proportion of residents of Māori households without a vehicle was twice that of people living in non-Māori households.

Table 20: People in households with no access to telephone, mobile/cell phone, internet, or any telecommunications, West Coast DHB, 2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Mode of tele-communication** | **Māori households** | | | | **Non-Māori households** | | | | | | Māori/non-Māori  ratio (95% CI) | | | Difference in percentage |
| Number | % | (95% CI) | | Number | % | | (95% CI) | | |
| No mobile/cell phone | 822 | 15.3 | (14.3, | 16.4) | 5,271 | | 17.0 | | (16.5, | 17.6) | **0.90** | **(0.83,** | **0.97)** | -1.7 |
| No telephone | 909 | 20.6 | (19.4, | 21.9) | 2,457 | | 12.0 | | (11.5, | 12.5) | **1.72** | **(1.60,** | **1.85)** | 8.6 |
| No internet | 1,152 | 24.1 | (22.9, | 25.4) | 5,115 | | 15.0 | | (14.5, | 15.6) | **1.61** | **(1.51,** | **1.71)** | 9.1 |
| No tele-communications | 159 | 3.2 | (2.8, | 3.8) | 462 | | 1.8 | | (1.6, | 2.0) | **1.83** | **(1.51,** | **2.24)** | 1.5 |

Source: 2013 Censuses, Statistics New Zealand  
Note: A Māori household is a household with at least one Māori resident. Non-Māori households have no Māori residents.   
% is age–sex-standardised to the 2001 Māori population.  
Ratios in **bold** show a statistically significant difference between Māori and non-Māori.

In 2013, 24% of residents of West Coast Māori households had no access to the internet, 21% had no telephone (landline), 15% did not have a cell phone, and 3% had no access to any telecommunications in the home. The largest absolute gaps between West Coast Māori and non-Māori households were in access to the internet and telephone (9% each).

## Housing

Table 21: Housing problems reported by Māori aged 15 years and over, West Coast, Nelson Marlborough, Canterbury, South Canterbury DHBs combined, 2013

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Housing problem (a big problem)** | **West Coast and other South Island DHBs** | | | | **New Zealand** | | |
| Estimated number | % | (95% CI) | | % | (95% CI) | |
| Too small | 2,500\* | 4.7\* | (3.2, | 6.3) | 5.3 | (4.7, | 5.9) |
| Damp | 5,000 | 9.1 | (6.5, | 11.7) | 11.3 | (10.5, | 12.2) |
| Hard to keep warm | 8,000 | 14.6 | (11.2, | 18.0) | 16.5 | (15.4, | 17.7) |
| Needs repairs | 7,500 | 13.8 | (10.2, | 17.5) | 13.8 | (12.7, | 14.9) |
| Pests in the house | 2,500\* | 4.3\* | (2.4, | 6.3) | 5.8 | (5.1, | 6.5) |

Source: Te Kupenga 2013, Statistics New Zealand customised report.   
Note: \* Sampling error is 30% or more but less than 50%.

Housing problems reported to be a big problem by Māori adults in West Coast and other South Island DHBs in 2013 included difficulty keeping the house warm (15%), needing repairs (14%), and damp (9%). Five percent felt their house was too small, and 4% stated that pests were a big problem in their house.

### Housing security

Table 22: Children and adults living in households where rent payment are made, West Coast DHB, 2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Measure | **Māori households** | | | | **Non-Māori households** | | | | Māori/non-Māori  ratio (95% CI) | | | Difference in percentage |
| Number | % | (95% CI) | | Number | % | (95% CI) | |
| Households | 609 | 37.5 | (35.1, | 39.9) | 2,430 | 23.2 | (22.4, | 24.0) | **1.61** | **(1.50,** | **1.73)** | 14.3 |
| Children under 18 years (% age-standardised) | 603 | 42.3 | (39.8, | 44.9) | 1,284 | 25.4 | (24.2, | 26.6) | **1.66** | **(1.54,** | **1.80)** | 16.9 |
| Adults 18 years and over (% age-standardised) | 1,107 | 38.1 | (36.4, | 39.9) | 3,852 | 29.2 | (28.3, | 30.0) | **1.31** | **(1.24,** | **1.38)** | 8.9 |

Source: 2013 Census, Statistics New Zealand  
Note: A Māori household is a household with at least one Māori resident. Non-Māori households have no Māori residents.   
Ratios in **bold** show a statistically significant difference between Māori and non-Māori.

In 2013, 609 Māori households on the West Coast were rented, 38% of all Māori households, compared to 23% of non-Māori households.

Among children living in a Māori household, 42% (603) were living in rented homes, two-thirds higher than the proportion of children in non-Māori households (25%).

Thirty-eight percent of adult residents of Māori households were living in rented accommodation, nearly a third higher than the proportion of adults in non-Māori households (29%).

### Household crowding

Table 23: People living in crowded households (requiring at least one more bedroom), West Coast DHB, 2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Measure | **Māori households** | | | | **Non-Māori households** | | | | Māori/non-Māori  ratio (95% CI) | | | Difference in percentage |
| Number | % | (95% CI) | | Number | % | (95% CI) | |
| Households | 78 | 4.7 | (3.7, | 5.8) | 141 | 1.3 | (1.1, | 1.6) | **3.56** | **(2.72,** | **4.68)** | 3.4 |
| People (% age standardised) | 405 | 10.0 | (9.0, | 10.9) | 639 | 4.1 | (3.8, | 4.5) | **2.40** | **(2.12,** | **2.72)** | 5.8 |

Source: 2013 Census, Statistics New Zealand  
Notes: Crowding was defined as needing at least one additional bedroom according to the Canadian National Occupancy Standard (based on the age, sex and number of people living in the dwelling).  
A Māori household is a household with at least one Māori resident. Non-Māori households have no Māori residents.   
Ratios in **bold** show a statistically significant difference between Māori and non-Māori.

In 2013, Māori households were 3.6 times as likely as non-Māori households to be classified as crowded using the Canadian National Occupancy Standard, with 78 homes needing at least one additional bedroom, affecting just over 400 people. People living in Māori households were 2.4 times as likely as residents of non-Māori households to be living in crowded conditions.

### Fuel poverty

Table 24: People living in households where no heating fuels are used, West Coast DHB, 2013

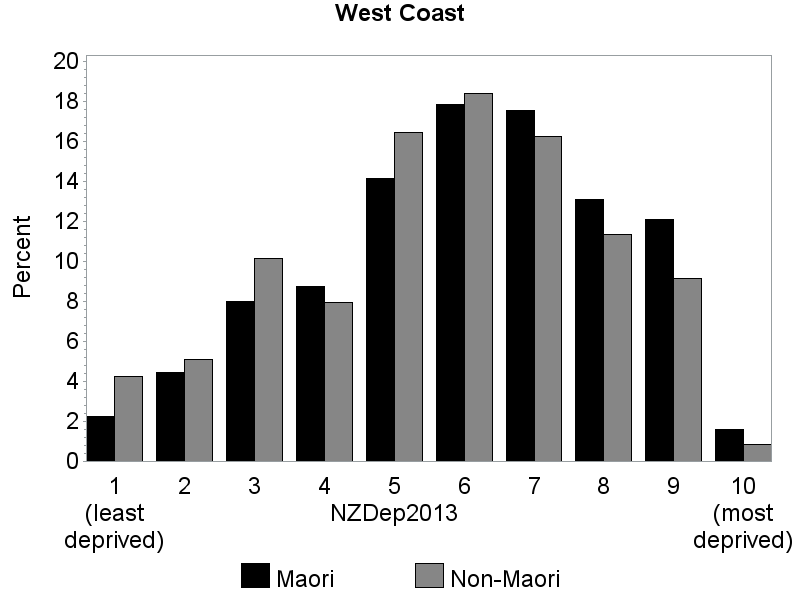
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Measure | **Māori households** | | | | **Non-Māori households** | | | | Māori/non-Māori  ratio (95% CI) | | | Difference in percentage |
| Number | % | (95% CI) | | Number | % | (95% CI) | |
| Households | 27 | 1.6 | (1.1, | 2.4) | 84 | 0.8 | (0.6, | 1.0) | **2.07** | **(1.35,** | **3.18)** | 0.8 |
| People (% age standardised) | 69 | 1.4 | (1.1, | 1.8) | 129 | 0.6 | (0.5, | 0.7) | **2.35** | **(1.71,** | **3.24)** | 0.8 |

Source: 2013 Census, Statistics New Zealand  
Notes: No form of heating used in the dwelling (including electricity, coal, mains or bottled gas, wood, solar heating equipment, other heating).  
A Māori household is a household with at least one Māori resident. Non-Māori households have no Māori residents.   
Ratios in **bold** show a statistically significant difference between Māori and non-Māori.

In 2013, almost 2% of West Coast Māori households (27 homes) had no heating, compared to almost 1% of non-Māori households (84 homes).

## Area deprivation

Figure 1: Distribution by NZDep 2013 decile, West Coast DHB, 2013



Source: 2013 Census, Statistics New Zealand. Atkinson J, Salmond C, Crampton P. 2014. NZDep2013 Index of Deprivation. University of Otago Wellington.

In 2013, the majority of West Coast Māori (75%) lived in NZDep deciles 5 to 9 .Only around 2% lived in the most deprived decile (Dep 10) and around 2% in the least deprived decile (Dep 1) areas (see accompanying Excel table).

# Mauri ora: Pepi, tamariki

− Infants and children

T

his section presents information on infants and children. Indicators include birth-weight and gestation, immunisations, breastfeeding and other well-child/tamariki ora indicators, oral health, skin infections, middle ear disease, acute rheumatic fever, and potentially preventable hospitalisations.

Infant mortality, including perinatal mortality and sudden unexpected death in infants (SUDI), are also important indicators of Māori health need. Although the numbers are too small to present at a DHB level, the national data shows that Māori infant mortality and SUDI rates are improving, but significant inequities still remain. The reports of the Perinatal and Maternal Mortality Review Committee ([PMMRC](http://www.hqsc.govt.nz/our-programmes/mrc/pmmrc/)) and the Child and Youth Mortality Review Committee ([CYMRC](http://www.hqsc.govt.nz/our-programmes/mrc/cymrc/publications-and-resources/publication/1311/)) provide useful information and recommendations on preventing infant and child deaths.

Other useful sources of information include the DHB reports by the Child and Youth Epidemiology Service (CYES) on health status (2011), the determinants of health (2012), chronic conditions and disability (2013). The [*Te Ohonga Ake*](http://dnmeds.otago.ac.nz/departments/womens/paediatrics/research/nzcyes/maori.html) reports by the CYES also include in-depth information on Māori child and youth health at a national level.

## Births

Table 25: Birth-weight and gestation, West Coast DHB, 2009–2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Indicator | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori ratio (95% CI) | | | Rate difference |
| Ave. no. per year | % of live births  (95% CI) | | | Ave. no. per year | % of live births  (95% CI) | | |
| Low birth-weight | 7 | 8.0 | (5.7, | 10.9) | 16 | 4.8 | (3.8, | 5.9) | **1.68** | **(1.15,** | **2.45)** | 3.3 |
| High birth-weight | 2 | 2.2 | (1.0, | 4.0) | 9 | 2.7 | (1.9, | 3.6) | 0.82 | (0.41, | 1.61) | -0.5 |
| Preterm | 9 | 10.0 | (7.4, | 13.1) | 24 | 7.4 | (6.2, | 8.8) | 1.35 | (0.98, | 1.87) | 2.6 |

Source: Birth registrations, Ministry of Health  
Notes: Low birth-weight less than 2500g, High birth-weight greater than or equal to 4500g, Preterm less than 37 weeks gestation

During 2009 to 2013 there were 92 Māori infants born per year on average, 22% of all live births in the DHB (422 per year). Seven Māori babies per year on average were born with low birth-weight, 8% of all Māori live births, two-thirds higher than the rate for non-Māori babies (or three more babies per year). Two per year (2%) were born with high birth-weight, and nine per year (10%) were born preterm.

## Well child/Tamariki ora indicators

Table 26: Selected Well Child/Tamariki Ora indicators for Māori children, West Coast DHB

|  |  |  |  |
| --- | --- | --- | --- |
| Indicator | Period | **Māori** | |
| Count | % |
| 1. Babies enrolled with a Primary Health Organisation (PHO) by three months old | 20 Aug to 19 Nov 2013 | <10 | . |
| 11. Babies exclusively or fully breastfed at 2 weeks | January to June 2013 | <10 | . |
| 12. Babies exclusively or fully breastfed at 6 weeks | 4 | 50 |
| 19. Mothers smoke-free two weeks postnatal | 32 | 89 |
| 5. Children under 5 years enrolled with oral health services (PHO enrolled children) | 2012 | 299 | 70 |
| 7. Children starting school who have participated in ECE | 2013 | 55 | 89 |
| 15. Children with a healthy weight at 4 years, DHB of service | July to Dec 2013 | 25 | 81 |

Source: Well Child/Tamariki Ora Indicators, Ministry of Health, March 2014  
Notes: Since the production of this table, the Ministry of Health (2015) has published more recent Well Child/Tamariki Ora Indicators for March 2015 which can be viewed [here](http://www.health.govt.nz/publication/indicators-well-child-tamariki-ora-quality-improvement-framework-march-2015).  
Indicator 1: Source: PHO Enrolment Collection (numerator), National Immunisation Register enrolment (denominator)  
Indicator 11: Source: National Maternity Collection. Number of babies with breastfeeding recorded (denominator)  
Indicator 12: Source: National Maternity Collection. Number of babies with breastfeeding recorded (denominator)  
Indicator 19: Source: National Maternity Collection. Number of mother with tobacco use recorded at 2 weeks postnatal (denominator)  
Indicator 5: Source Community Oral Health Services (numerator); PHO enrolments (denominator)  
Indicator 7: Source: ENROL Ministry of Education  
Indicator 15: Source: B4 School Check Information System. Children who have a BMI recorded at their B4 School Check (denominator)

In the first half of 2013, 50% of Māori babies were breastfed at six weeks of age; 89% of Māori mothers were smoke-free two weeks after giving birth. Among pre-school children enrolled with a PHO, 70% were enrolled with oral health services in 2012. Most Māori children (89%) who started school in 2013 had participated in early childhood education. Eighty-one percent of Māori children who had their BMI recorded at their B4 School Check had a healthy weight.

Table 27: Children fully immunised by the milestone age, West Coast DHB, 1 Jan 2014 to 31 Dec 2014

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Milestone age** | **Māori** | | **Non-Māori** | | Māori/non-Māori ratio | Difference in percentage |
| No. fully immunised for age | % fully immunised | No. fully immunised for age | % fully immunised |
| 6 months | 56 | 73% | 224 | 72% | 1.02 | 1% |
| 8 months | 69 | 90% | 247 | 80% | 1.11 | 9% |
| 12 months | 83 | 94% | 253 | 82% | 1.16 | 13% |
| 18 months | 84 | 91% | 265 | 84% | 1.09 | 7% |
| 24 months | 67 | 94% | 294 | 84% | 1.12 | 10% |
| 5 years | 74 | 85% | 310 | 78% | 1.09 | 7% |

Source: National Immunisation Register

During 2014, 73% of Māori infants aged six months were fully immunised. At eight months 90% of Māori infants were fully immunised, 94% at 24 months, and 85% at five years.

## Oral health

Table 28: Oral health status of children aged 5 or in Year 8 at school, West Coast DHB, 2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Age group** | **Māori** | | | | | **Non-Māori** | | | | | Māori/non-Māori ratio % with caries (95% CI) | | | Difference in percentage |
| Total no. | % with caries (95% CI) | | | Mean DMFT | Total no. | % with caries (95% CI) | | | Mean DMFT |
| Age 5 | 57 | 70 | (57, | 82) | 3.6 | 291 | 46 | (40, | 52) | 1.7 | **1.54** | **(1.24,** | **1.90)** | 24 |
| Year 8 | 67 | 69 | (56, | 79) | 2.1 | 342 | 50 | (45, | 56) | 1.3 | **1.37** | **(1.13,** | **1.66)** | 18 |

Source: Community Oral Health Service, Ministry of Health  
Notes: DMFT is Decayed, missing or filled teeth  
Ratios in **bold** show that Māori rates were significantly different from non-Māori rates in the DHB.

Seventy percent of Māori and 46% of non-Māori children aged five years in 2013 had caries, with mean DMFTs of 3.6 and 1.7 respectively. Of those in Year 8, 69% of Māori and 50% of non-Māori children had caries, with mean DMFTs of 2.1 for Māori and 1.3 for non-Māori.

Table 29: Hospitalisations for tooth and gum disease, children aged 0–14 years, West Coast DHB, 2011–2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | Rate difference |
| Ave. no. per year | Rate per 100,000 (95% CI) | | | Ave. no. per year | Rate per 100,000 (95% CI) | | |
| Female | 8 | 1,430.1 | (956.6, | 2,138.1) | 25 | 1,010.1 | (805.2, | 1,267.0) | 1.42 | (0.89, | 2.25) | 420.1 |
| Male | 7 | 1,257.1 | (827.5, | 1,909.9) | 23 | 874.5 | (691.8, | 1,105.3) | 1.44 | (0.89, | 2.32) | 382.7 |
| Total | 15 | 1,343.6 | (1,005.4, | 1,795.6) | 48 | 942.3 | (800.5, | 1,109.1) | **1.43** | **(1.02,** | **1.99)** | 401.4 |

Source: National Minimum Data Set (NMDS).  
Note: Ratios in **bold** show that Māori rates were significantly different from non-Māori rates in the DHB.

There were 15 admissions to hospital per year on average for tooth and gum disease among West Coast Māori children during 2011 to 2013, at a rate that was 43% higher than for non-Māori children, or 401 more admissions per 100,000 children per year.

## Middle ear disease

Table 30: Hospitalisations for grommet insertions, children aged 0–14 years, West Coast DHB, 2011–2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | | Rate difference |
| Ave. no. per year | Rate per 100,000 (95% CI) | | | Ave. no. per year | Rate per 100,000 (95% CI) | | |
| Female | 4 | 724.3 | (410.2, | 1279.0) | 11 | 457.3 | (326.6, | 640.2) | 1.58 | (0.82, | 3.07) | 267.0 | |
| Male | 2 | 402.1 | (191.6, | 844.0) | 13 | 488.4 | (356.8, | 668.5) | 0.82 | (0.37, | 1.84) | -86.3 | |
| Total | 6 | 563.2 | (358.6, | 884.5) | 24 | 472.8 | (375.8, | 594.9) | 1.19 | (0.72, | 1.98) | 90.4 | |

Source: NMDS

On average, six Māori children per year had grommets for otitis media, at similar rate to non-Māori.

## Healthy skin

Table 31: Hospitalisations for serious skin infections, children aged 0–14 years, West Coast DHB, 2011–2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | Rate difference |
| Ave. no. per year | Rate per 100,000 (95% CI) | | | Ave. no. per year | Rate per 100,000 (95% CI) | | |
| Female | 1 | 109.2 | (27.3, | 436.5) | 1 | 41.3 | (13.3, | 128.2) | 2.64 | (0.44, | 15.84) | 67.9 |
| Male | <1 | 55.5 | (7.8, | 393.7) | 2 | 87.4 | (41.7, | 183.3) | 0.63 | (0.08, | 5.16) | -31.9 |
| Total | 1 | 82.3 | (26.5, | 255.2) | 3 | 64.3 | (34.6, | 119.7) | 1.28 | (0.35, | 4.65) | 18.0 |

Source: NMDS

There was only one admission per year on average for serious skin infections among Māori children.

## Acute Rheumatic Fever

There were no hospital admissions for acute rheumatic fever among West Coast Māori children during the period 2011 to 2013.

## Potentially preventable hospitalisations

Potentially preventable hospitalisations can be categorised into those which are considered potentially avoidable and those more likely to be unavoidable. Potentially avoidable hospitalisations are those resulting from diseases preventable through population-based health promotion strategies and those related to the social determinants of health. Addressing these can require actions beyond the health care system, including intersectoral actions.

A subgroup of potentially avoidable hospitalisations, ambulatory care sensitive hospitalisations (ASH) reflect hospitalisations for conditions considered sensitive to preventive or treatment interventions in primary care. It is also recognised that while access to effective primary care is important in reducing ASH, addressing the factors which drive the underlying burden of disease such as housing, or second hand smoke exposures, is also important.

Table 32: Potentially avoidable hospitalisations for children aged 1 month to 14 years, West Coast DHB, 2011–2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | Rate difference |
| Ave. no. per year | Rate per 100,000 (95% CI) | | | Ave. no. per year | Rate per 100,000 (95% CI) | | |
| Female | 22 | 3,854.5 | (3,031.1, | 4,901.7) | 73 | 2,897.1 | (2,537.4, | 3,307.8) | **1.33** | **(1.01,** | **1.75)** | 957.4 |
| Male | 25 | 4,322.0 | (3,451.1, | 5,412.8) | 98 | 3,693.0 | (3,293.5, | 4,141.1) | 1.17 | (0.91, | 1.51) | 629.0 |
| Total | 48 | 4,088.3 | (3,469.0, | 4,818.2) | 171 | 3,295.1 | (3,021.5, | 3,593.4) | **1.24** | **(1.03,** | **1.49)** | 793.2 |

Source: NMDS  
Note: Ratios in **bold** show that Māori rates were significantly different from non-Māori rates in the DHB.

There were 48 potentially avoidable hospitalisations per year on average among Māori children, at a rate 24% higher than for non-Māori children, or 793 more admissions per 100,000.

Table 33: Ambulatory care sensitive hospitalisations for children aged 1 month to 14 years, West Coast DHB, 2011–2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | Rate difference |
| Ave. no. per year | Rate per 100,000 (95% CI) | | | Ave. no. per year | Rate per 100,000 (95% CI) | | |
| Female | 17 | 3,031.1 | (2,307.1, | 3,982.4) | 54 | 2,147.0 | (1,839.4, | 2,506.1) | **1.41** | **(1.03,** | **1.93)** | 884.0 |
| Male | 21 | 3,531.8 | (2,752.8, | 4,531.2) | 71 | 2,669.9 | (2,333.6, | 3,054.6) | 1.32 | (1.00, | 1.76) | 861.9 |
| Total | 38 | 3,281.5 | (2,729.8, | 3,944.5) | 124 | 2,408.5 | (2,175.8, | 2,666.0) | **1.36** | **(1.10,** | **1.68)** | 873.0 |

Source: NMDS  
Note: Ratios in **bold** show that Māori rates were significantly different from non-Māori rates in the DHB.

On average there were 38 admissions per year for ambulatory care sensitive conditions among Māori children, at a rate 36% higher than among non-Māori children, or 873 more admissions per 100,000.

# Mauri ora: Rangatahi

− Young adults

T

his section presents data on smoking, immunisations, and self-harm as an indicator of mental health. Nationally, leading causes of hospitalisation among Māori aged 15 to 24 years include pregnancy and childbirth, injury, digestive system diseases, symptoms and signs (unknown causes), and mental disorders. Major causes of death for Māori in this age group include accidents, suicide, cancer, and homicide ([Robson and Harris 2007](https://webmail.staff.otago.ac.nz/owa/redir.aspx?SURL=ogMldlHngmTdYeQxCTREMm7H1LN5LgAOdELZ0JAOV-HEH2Ofo1nSCGgAdAB0AHAAOgAvAC8AdwB3AHcALgBvAHQAYQBnAG8ALgBhAGMALgBuAHoALwB3AGUAbABsAGkAbgBnAHQAbwBuAC8AZABlAHAAYQByAHQAbQBlAG4AdABzAC8AcAB1AGIAbABpAGMAaABlAGEAbAB0AGgALwByAGUAcwBlAGEAcgBjAGgALwBlAHIAdQBwAG8AbQBhAHIAZQAvAHIAZQBzAGUAYQByAGMAaAAvAG8AdABhAGcAbwAwADEAOQA0ADkANAAuAGgAdABtAGwAIwBwAHUAYgBsAGkAYwBhAHQAaQBvAG4A&URL=http%3a%2f%2fwww.otago.ac.nz%2fwellington%2fdepartments%2fpublichealth%2fresearch%2ferupomare%2fresearch%2fotago019494.html%23publication)).

Challenges faced by rangatahi Māori that can affect their health and wellbeing include socioeconomic factors, perceived positive school climate, access to healthcare, exposure to violence, and risky health behaviours including suicide attempts [(Crengle et al, 2013)](https://webmail.staff.otago.ac.nz/owa/redir.aspx?SURL=vKqdLaY3KS4X5hdTOFEU2OkK4NbdVrSW-dy0DceojODEH2Ofo1nSCGgAdAB0AHAAcwA6AC8ALwBjAGQAbgAuAGEAdQBjAGsAbABhAG4AZAAuAGEAYwAuAG4AegAvAGEAcwBzAGUAdABzAC8AZgBtAGgAcwAvAGYAYQBjAHUAbAB0AHkALwBhAGgAcgBnAC8AZABvAGMAcwAvAHkAbwB1AHQAaAAxADIALQBtAGEAbwByAGkALQByAGUAcABvAHIAdAAuAHAAZABmAA..&URL=https%3a%2f%2fcdn.auckland.ac.nz%2fassets%2ffmhs%2ffaculty%2fahrg%2fdocs%2fyouth12-maori-report.pdf). Other data related to youth can be found in the CYES reports on child and youth health. The [Child and Youth Health Compass](https://webmail.staff.otago.ac.nz/owa/redir.aspx?SURL=OeAgh67iivQZU6drTAlUqf0Q1ubxnUfj7d8UiBeoB2oegmWfo1nSCGgAdAB0AHAAOgAvAC8AYwBvAG0AcABhAHMAcwAuAGgAaQBpAHIAYwAuAG8AcgBnAC4AbgB6AC8AcwBlAGMAdABpAG8AbgAvADMAMQAwADEANQAvADkALQB5AG8AdQB0AGgALQBoAGUAYQBsAHQAaAAtAHMAZQByAHYAaQBjAGUAcwAvAA..&URL=http%3a%2f%2fcompass.hiirc.org.nz%2fsection%2f31015%2f9-youth-health-services%2f) provides exemplars of youth specific services.

## Smoking

Figure 2: Regular smokers, ages 15–17, 18–19, 20–24 years, West Coast DHB, 2013

Source: 2013 Census, Statistics New Zealand  
Note: Regular smoker defined as smoking at least one cigarette daily.

Smoking rates have decreased significantly among young Māori and non-Māori adults on the West Coast since 2006. However, smoking remains higher among 18–24 year olds than younger age groups, suggesting that a sizeable group may start smoking in early adulthood. At ages 20–24 years, 43% of Māori were smoking regularly in 2013. Non-Māori youth were less likely than Māori to smoke regularly.

## Immunisations

Table 34: Human papilloma virus immunisations (HPV) by birth cohorts, West Coast DHB, 1 September 2008 to 30 September 2014

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Birth cohort | **Age in 2014** | Offered HPV vaccine in (year) | **Māori** | | **Non-Māori** | | Māori/non-Māori ratio | Māori % minus non-Māori % |
| Fully immunised | % fully immunised | Fully immunised | % fully immunised |
| 2000 | 14 | 2013 | 16 | 40.0 | 86 | 61.4 | 0.65 | -21.4 |
| 1999 | 15 | 2012 | 15 | 50.0 | 57 | 40.7 | 1.23 | 9.3 |
| 1998 | 16 | 2011 | 13 | 43.3 | 56 | 32.9 | 1.32 | 10.4 |
| 1997 | 17 | 2010 | 17 | 56.7 | 72 | 37.9 | 1.50 | 18.8 |

Source: National Immunisation Register.   
Three doses are required to be fully immunised. Young women are eligible for free vaccination up to the age of 20.

Human papilloma virus immunisation rates were lower for Māori girls than for non-Māori girls aged 14 (40% compared to 61%), but higher for those aged 15 to 17 years. The highest coverage for Māori was in those aged 17 during 2014, with 57% having received all three doses of the vaccine, (compared to 38% of non-Māori).

## Mental health

Table 35: Hospitalisations for injury from intentional self-harm, 15–24 and 25–44 years, West Coast DHB, 2011–2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Age group and gender** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | Rate difference |
| Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | | Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | |
| **15–24 years** | | | | | | | | | | | | |
| Female | 2 | 753.8 | (358.5,, | 1,585.1) | 7 | 480.9 | (316.5, | 730.6) | 1.57 | (0.67, | 3.68) | 272.9 |
| Male | 1 | 306.2 | (98.7,, | 949.4) | 3 | 182.5 | (94.9, | 350.9) | 1.68 | (0.45, | 6.20) | 123.7 |
| Total | 3 | 530.0 | (284.7,, | 986.7) | 10 | 331.7 | (233.2, | 471.9) | 1.60 | (0.78, | 3.26) | 198.3 |
| **25–44** **years** | | | | | | | | | | | | |
| Female | 2 | 391.7 | (161.4,, | 950.8) | 9 | 255.9 | (174.1, | 376.0) | 1.53 | (0.58, | 4.03) | 135.8 |
| Male | <1 | 100.2 | (14.1,, | 711.7) | 4 | 134.0 | (76.7, | 234.2) | 0.75 | (0.10, | 5.74) | -33.8 |
| Total | 2 | 246.0 | (109.3,, | 553.6) | 13 | 194.9 | (141.9, | 267.7) | 1.26 | (0.53, | 3.02) | 51.0 |

Source: NMDS.  
Note: Ratios in **bold** show that Māori rates were significantly different from non-Māori rates in the DHB.

On average three Māori aged 15 to 24 years and two Māori aged 25 to 44 years were admitted to hospital per year for injury from intentional self-harm.

# Mauri ora: Pakeke

− Adults

T

his section focuses mainly on long term conditions among adults, including heart disease and stroke, cancer, diabetes, respiratory disease (asthma, chronic obstructive pulmonary disease), mental disorders, and gout. Information is also presented on hip fractures, hip replacements and cataract surgery. Self-assessed health status and smoking status are also included.

Information on other causes of hospitalisation or deaths on the West Coast can be found in the accompanying Excel© tables labelled ‘Death registrations’ and ‘Hospitalisations by principal diagnosis’.

The New Zealand Health Survey provides other information on long term conditions and risk factors that have been shown to be more common for Māori adults than other adults at a national level, including medicated blood pressure, obesity, chronic pain, arthritis, oral disease, and mental distress ([Ministry of Health 2014](http://www.health.govt.nz/publication/health-maori-adults-and-children-2011-2013)).

## Self-assessed health

Table 36: Health status reported by Māori aged 15 years and over, West Coast, Nelson Marlborough, Canterbury and South Canterbury DHBs, 2013

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Health status** | **West Coast and other South Island DHBs** | | | | **New Zealand** | | |
| Estimated number | % | (95% CI) | | % | (95% CI) | |
| Excellent | 9,000 | 16.4 | (12.2, | 20.5) | 18.1 | (16.8, | 19.3) |
| Very good | 21,000 | 39.4 | (34.4, | 44.4) | 37.0 | (35.5, | 38.5) |
| Good | 15,000 | 27.6 | (23.4, | 31.9) | 28.5 | (27.3, | 29.7) |
| Fair / poor | 9,000 | 16.6 | (13.0, | 20.3) | 16.4 | (15.3, | 17.5) |

Source: Te Kupenga 2013, Statistics New Zealand customised report.

In 2013, over half of Māori adults (56%) in West Coast, Nelson Marlborough, Canterbury, and South Canterbury DHBs combined reported having excellent or very good health and another quarter (28%) described their health as good. One in six (17%) reported having fair or poor health status.

## Smoking status

Table 37: Cigarette smoking status, 15 years and over, West Coast DHB, 2006 and 2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Smoking status** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | Difference in percentage |
| Number | % | (95% CI) | | Number | % | (95% CI) | |
| **2006** | | | | | | | | | | | | |
| Regular smoker | 699 | 42.8 | (40.5,, | 45.2) | 5,082 | 27.7 | (27.0,, | 28.5) | **1.54** | **(1.45,** | **1.64)** | 15.1 |
| Ex-smoker | 367 | 20.8 | (19.0,, | 22.8) | 5,097 | 19.2 | (18.6,, | 19.7) | 1.09 | (0.99, | 1.19) | 1.6 |
| Never smoked | 628 | 36.3 | (34.1,, | 38.7) | 10,635 | 53.2 | (52.4,, | 54.0) | **0.68** | **(0.64,** | **0.73)** | -16.9 |
| **2013** | | | | | | | | | | | | |
| Regular smoker | 673 | 34.7 | (32.6,, | 36.9) | 4,074 | 21.5 | (20.8,, | 22.2) | **1.61** | **(1.50,** | **1.73)** | 13.2 |
| Ex-smoker | 470 | 21.2 | (19.5,, | 23.1) | 5,643 | 20.1 | (19.5,, | 20.7) | 1.06 | (0.97, | 1.16) | 1.2 |
| Never smoked | 834 | 42.7 | (40.5,, | 44.9) | 11,469 | 58.4 | (57.6,, | 59.2) | **0.73** | **(0.69,** | **0.77)** | -15.7 |

Source: 2006 and 2013 Census, Statistics New Zealand  
Notes: % is age-standardised to the 2001 Māori population  
Regular smokers smoke one or more cigarettes per day.

Between 2006 and 2013 the proportion of West Coast Māori adults who smoked cigarettes regularly decreased from 43% to 35%. The corresponding increase in those who have never smoked was greater than the increase in ex-smokers. However, Māori remained 61% more likely than non-Māori to smoke regularly in 2013.

## Heart disease and stroke

Table 38: Hospitalisations for circulatory system diseases, 25 years and over, West Coast DHB, 2011–2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | Rate difference |
| Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | | Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | |
| Female | 12 | 913.4 | (652.9, | 1,277.7) | 260 | 1,031.5 | (934.1, | 1,139.1) | 0.89 | (0.62, | 1.26) | -118.2 |
| Male | 19 | 1,642.7 | (1,250.5, | 2,157.9) | 351 | 1,561.5 | (1,441.4, | 1,691.5) | 1.05 | (0.79, | 1.40) | 81.2 |
| Total | 31 | 1,278.0 | (1,033.4, | 1,580.5) | 611 | 1,296.5 | (1,218.2, | 1,379.8) | 0.99 | (0.79, | 1.23) | -18.5 |

Source: NMDS  
Note: Ratios in **bold** show that Māori rates were significantly different from non-Māori rates in the DHB.

On average, 31 Māori per year were admitted to hospital for diseases of the circulatory system (heart disease and stroke), at a similar rate to non-Māori.

Table 39: Ischaemic heart disease indicators, 25 years and over, West Coast DHB, 2011–2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | Rate difference |
| Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | | Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | |
| **Ischaemic heart disease admissions** | | | | | | | | | | | | |
| Female | 3 | 194.6 | (96.6, | 391.8) | 68 | 249.9 | (211.7, | 294.9) | 0.78 | (0.38, | 1.60) | -55.3 |
| Male | 6 | 493.9 | (312.6, | 780.6) | 119 | 479.9 | (427.8, | 538.4) | 1.03 | (0.64, | 1.65) | 14.0 |
| Total | 9 | 344.3 | (234.7, | 505.0) | 187 | 364.9 | (332.0, | 401.1) | 0.94 | (0.64, | 1.40) | -20.6 |
| **Angiography procedures** | | | | | | | | | | | | |
| Female | 2 | 150.1 | (67.3, | 335.0) | 40 | 183.3 | (148.6, | 226.1) | 0.82 | (0.36, | 1.88) | -33.1 |
| Male | 3 | 253.8 | (135.2, | 476.6) | 79 | 358.6 | (311.1, | 413.4) | 0.71 | (0.37, | 1.35) | -104.8 |
| Total | 5 | 202.0 | (123.0, | 331.6) | 119 | 271.0 | (240.8, | 304.8) | 0.75 | (0.45, | 1.24) | -69.0 |
| **Angioplasty procedures** | | | | | | | | | | | | |
| Female | 1 | 74.7 | (24.0, | 233.2) | 13 | 55.9 | (39.7, | 78.6) | 1.34 | (0.41, | 4.38) | 18.8 |
| Male | 1 | 74.1 | (23.5, | 233.5) | 36 | 160.9 | (131.0, | 197.6) | 0.46 | (0.14, | 1.48) | -86.8 |
| Total | 2 | 74.4 | (33.2, | 167.0) | 48 | 108.4 | (90.9, | 129.3) | 0.69 | (0.30, | 1.57) | -34.0 |
| **Coronary Artery Bypass Graft (CABG)** | | | | | | | | | | | | |
| Female | 0 | 0.0 | . | . | 3 | 9.7 | (4.4, | 21.1) | 0.00 | . | . | -9.7 |
| Male | 1 | 52.2 | (12.4, | 219.8) | 16 | 66.6 | (49.3, | 90.0) | 0.78 | (0.18, | 3.40) | -14.5 |
| Total | 1 | 26.1 | (6.2, | 109.9) | 19 | 38.1 | (28.8, | 50.5) | 0.68 | (0.16, | 2.96) | -12.1 |
| **Acute coronary syndrome admissions** | | | | | | | | | | | | |
| Female | 2 | 145.5 | (64.7, | 327.3) | 41 | 145.8 | (116.7, | 182.2) | 1.00 | (0.43, | 2.31) | -0.3 |
| Male | 5 | 439.3 | (267.8, | 720.6) | 73 | 301.1 | (259.6, | 349.4) | 1.46 | (0.87, | 2.45) | 138.2 |
| Total | 7 | 292.4 | (191.6, | 446.4) | 114 | 223.5 | (197.5, | 252.9) | 1.31 | (0.84, | 2.03) | 68.9 |

Source: NMDS.   
Note: Ratios in **bold** show that Māori rates were significantly different from non-Māori rates in the DHB.

Nine Māori per year on average were admitted to hospital for ischaemic heart disease at a rate of 344 per 100,000. Of these, seven were admitted with acute coronary syndrome (around 290 per 100,000). On average, there were five angiography procedures conducted for Māori patients per year, two angioplasties, and one coronary artery bypass graft. There were no significant differences between Māori and non-Māori.

Table 40: Hospitalisations for heart failure, stroke, and hypertensive disease, 25 years and over, West Coast DHB, 2011–2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | Rate difference |
| Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | | Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | |
| **Heart failure** | | | | | | | | | | | | |
| Female | 1 | 46.4 | (11.6, | 185.6) | 39 | 75.4 | (60.7, | 93.5) | 0.62 | (0.15, | 2.50) | -29.0 |
| Male | 2 | 170.9 | (79.9, | 365.7) | 34 | 92.4 | (73.8, | 115.7) | 1.85 | (0.84, | 4.09) | 78.5 |
| Total | 3 | 108.7 | (55.7, | 211.8) | 73 | 83.9 | (71.7, | 98.2) | 1.30 | (0.65, | 2.57) | 24.8 |
| **Stroke** | | | | | | | | | | | | |
| Female | 1 | 73.2 | (23.4, | 228.8) | 41 | 111.5 | (87.7, | 141.6) | 0.66 | (0.20, | 2.10) | -38.3 |
| Male | 1 | 163.4 | (58.4, | 457.0) | 41 | 134.8 | (107.4, | 169.3) | 1.21 | (0.42, | 3.48) | 28.6 |
| Total | 2 | 118.3 | (53.5, | 261.4) | 83 | 123.1 | (104.4, | 145.2) | 0.96 | (0.43, | 2.16) | -4.8 |
| **Hypertensive disease** | | | | | | | | | | | | |
| Female | 0 | 0.0 | . | . | 7 | 26.1 | (14.2, | 48.1) | 0.00 | . | . | -26.1 |
| Male | <1 | 47.6 | (6.7, | 337.7) | 4 | 18.5 | (9.8, | 34.8) | 2.57 | (0.33, | 20.17) | 29.1 |
| Total | <1 | 23.8 | (3.4, | 168.9) | 11 | 22.3 | (14.3, | 34.8) | 1.07 | (0.14, | 7.96) | 1.5 |

Source: NMDS.   
Note: Ratios in **bold** show that Māori rates were significantly different from non-Māori rates in the DHB.

There were three admissions per year on average for Māori with heart failure, at a rate of 109 per 100,000.

Two Māori per year were admitted for stroke (118 per 100,000) on average and less than one per year admitted for hypertensive disease.

Table 41: Hospitalisations for chronic rheumatic heart disease and heart valve replacements, 25 years and over, West Coast DHB, 2011–2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | Rate difference |
| Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | | Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | |
| **Chronic rheumatic heart disease** | | | | | | | | | | | | |
| Female | <1 | 28.5 | (4.0, | 202.5) | 1 | 4.3 | (1.1, | 17.4) | 6.56 | (0.59, | 72.34) | 24.2 |
| Male | 0 | 0.0 | . | . | 1 | 2.9 | (0.9, | 9.5) | 0.00 | . | . | -2.9 |
| Total | <1 | 14.3 | (2.0, | 101.3) | 2 | 3.6 | (1.4, | 9.4) | 3.96 | (0.45, | 35.16) | 10.7 |
| **Heart valve replacements** | | | | | | | | | | | | |
| Female | 1 | 54.9 | (13.7, | 219.6) | 5 | 15.8 | (8.7, | 28.6) | 3.48 | (0.77, | 15.72) | 39.1 |
| Male | <1 | 33.3 | (4.7, | 236.7) | 8 | 28.1 | (18.0, | 43.9) | 1.19 | (0.16, | 8.86) | 5.2 |
| Total | 1 | 44.1 | (14.1, | 137.5) | 12 | 21.9 | (15.4, | 31.3) | 2.01 | (0.61, | 6.62) | 22.2 |

Source: NMDS.   
Note: Ratios in **bold** show that Māori rates were significantly different from non-Māori rates in the DHB.

On average, less than one Māori per year was admitted with chronic rheumatic heart disease, and one per year on average had a heart valve replacement.

Table 42: Early deaths from circulatory system disease, West Coast DHB, 2002–2011

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | Rate difference |
| Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | | Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | |
| Female | 1 | 41.3 | (21.5, | 79.4) | 8 | 19.5 | (15.4, | 24.8) | **2.12** | **(1.06,** | **4.24)** | 21.8 |
| Male | 1 | 69.8 | (40.5, | 120.4) | 18 | 43.6 | (37.0, | 51.4) | 1.60 | (0.91, | 2.83) | 26.3 |
| Total | 2 | 55.6 | (36.5, | 84.6) | 26 | 31.6 | (27.5, | 36.1) | **1.76** | **(1.13,** | **2.74)** | 24.0 |

Source: Mortality data, Ministry of Health  
Notes: “Early deaths” are defined as those occurring under 75 years of age.  
Ratios in **bold** show that Māori rates were significantly different from non-Māori rates in the DHB.

During the period 2002 to 2011, on average two Māori per year died early from cardiovascular disease, at a rate 76% higher than West Coast non-Māori, or 24 more deaths per 100,000.

## Diabetes

Table 43: Diabetes prevalence, medication use, monitoring of blood glucose levels, screening for renal disease, West Coast DHB, 2013

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Indicator | **Māori** | | **Non-Māori** | | Māori/non-Māori ratio | Difference in percentage |
| Count | % (crude) | Count | % (crude) |
| Prevalence of diabetes (all ages) | 121 | 4.0 | 1,243 | 4.2 | 0.84 | -0.7 |
| People with diabetes regularly receiving metformin or insulin, 25+ | 73 | 60.3 | 681 | 54.8 | 1.10 | 5.5 |

Source: NZ Atlas of Healthcare Variation  
Note: The ‘crude’ percentage is not adjusted for differences in the age structure of the Māori and non-Māori populations.

In 2013, 121 West Coast Māori were estimated to have diabetes, giving a crude prevalence of 4%. Of Māori with diabetes, 60% were regularly receiving metformin or insulin. Note these percentages are not adjusted for age.

Table 44: Hospitalisations for lower limb amputations for people with concurrent diabetes, 15 years and over, West Coast DHB, 2011–2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | Rate difference |
| Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | | Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | |
| Female | 0 | 0.0 | . | . | 3 | 10.6 | (5.2, | 21.7) | 0.00 | . | . | -10.6 |
| Male | <1 | 23.3 | (3.3, | 165.8) | 2 | 5.8 | (2.5, | 13.2) | 4.03 | (0.48, | 33.80) | 17.6 |
| Total | <1 | 11.7 | (1.6, | 82.9) | 5 | 8.2 | (4.7, | 14.2) | 1.43 | (0.19, | 10.92) | 3.5 |

Source: NMDS  
Note Ratios in **bold** show that Māori rates were significantly different from non-Māori rates in the DHB.

On average every three years one Māori with diabetes had a lower limb amputated during the period 2011 to 2013.

## Cancer

Table 45: Most common cancer registrations for Māori by site, all ages, West Coast DHB, 2003–2012

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender and site** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | Rate difference |
| Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | | Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | |
| **Female** | | | | | | | | | | | | |
| All cancers | 6 | 263.3 | (201.3, | 344.6) | 73 | 179.2 | (163.3, | 196.6) | **1.47** | **(1.11,** | **1.95)** | 84.1 |
| Breast | 1 | 57.6 | (33.4, | 99.3) | 18 | 48.3 | (40.8, | 57.2) | 1.19 | (0.67, | 2.11) | 9.2 |
| Lung | 1 | 38.5 | (20.0, | 74.0) | 8 | 14.8 | (11.4, | 19.3) | **2.59** | **(1.28,** | **5.24)** | 23.6 |
| Digestive organs | 1 | 39.5 | (20.5, | 76.0) | 18 | 33.0 | (27.7, | 39.3) | 1.20 | (0.61, | 2.36) | 6.5 |
| **Male** | | | | | | | | | | | | |
| All cancers | 4 | 225.2 | (161.5, | 314.1) | 93 | 195.9 | (181.3, | 211.7) | 1.15 | (0.82, | 1.62) | 29.3 |
| Prostate | 1 | 51.3 | (28.3, | 93.1) | 28 | 51.8 | (45.7, | 58.6) | 0.99 | (0.54, | 1.82) | -0.4 |
| Digestive organs | 1 | 47.0 | (25.2, | 87.7) | 20 | 37.6 | (32.3, | 43.8) | 1.25 | (0.66, | 2.38) | 9.4 |
| Lung | 1 | 39.2 | (16.0, | 95.9) | 10 | 16.4 | (13.2, | 20.2) | 2.40 | (0.95, | 6.02) | 22.8 |

Source: Cancer Registry, Ministry of Health  
Note: Ratios in **bold** show that Māori rates were significantly different from non-Māori rates in the DHB.

During the ten-year period 2003 to 2012, on average, there were six cancer registrations per year among Māori females, at a rate 47% higher than the rate for non-Māori females. The most common cancers registered for Māori females were cancers of the breast, lung, digestive organs. Māori women’s registration rates for lung cancer were 2.6 times the rate for non-Māori women.

Among Māori males there were four cancer registrations per year on average. Cancers of the prostate, digestive organs and lung were the most common cancers for Māori males.

Table 46: Most common cancer deaths for Māori by site, all ages, West Coast DHB, 2002–2011

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender and site** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | Rate difference |
| Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | | Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | |
| **Female** | | | | | | | | | | | | |
| All cancers | 2 | 87.0 | (54.4, | 138.9) | 32 | 59.3 | (51.4, | 68.5) | 1.47 | (0.90, | 2.39) | 27.6 |
| Digestive organs | 1 | 28.2 | (12.6, | 62.7) | 9 | 15.1 | (11.7, | 19.5) | 1.86 | (0.80, | 4.31) | 13.0 |
| **Male** | | | | | | | | | | | | |
| All cancers | 2 | 127.6 | (81.3, | 200.1) | 37 | 63.5 | (56.6, | 71.2) | **2.01** | **(1.26,** | **3.20)** | 64.1 |
| Digestive organs | 1 | 36.1 | (17.2, | 75.7) | 10 | 18.7 | (15.2, | 23.1) | 1.92 | (0.89, | 4.16) | 17.3 |
| Lung | 1 | 34.9 | (15.3, | 79.3) | 9 | 15.7 | (12.6, | 19.5) | 2.23 | (0.95, | 5.20) | 19.2 |

Source: Death registrations, Ministry of Health  
Note: Ratios in **bold** show that Māori rates were significantly different from non-Māori rates in the DHB.

During the ten-year period 2002 to 2011, deaths from cancer accounted for a third of all deaths among West Coast Māori females. Cancers of the digestive organs were the most common cause of cancer death.

For Māori males, cancer comprised 26% of all deaths. Cancers of the digestive organs and lung were the most frequent causes of death from cancer.

### Breast and cervical cancer screening

Table 47: BreastScreen Aotearoa breast screening coverage, women aged 45–69 years, West Coast DHB, 24 months to 31 December 2014

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Māori** | | | **Non-Māori** | | |
| Number screened | Eligible population | % screened | Number screened | Eligible population | % screened |
| 375 | 475 | 78.9% | 4,184 | 5,320 | 78.6% |

Source: National Screening Unit, Ministry of Health

BreastScreen Aotearoa provides free mammography screening for breast cancer to women aged 45 to 69 years, with a target of at least 70% of eligible women screened every two years. During the two years prior to 31 December 2014, 79% of both Māori and non-Māori women in the West Coast had been screened.

Table 48: Cervical screening coverage, women aged 25–69 years, West Coast DHB, 3 years and 5 years to 31 December 2014

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Māori** | | | | | | **Non-Māori** | | | | |
| Eligible population | Women screened in last 5 years | 5-year coverage % | Women screened in last 3 years | | 3-year coverage % | Eligible population | Women screened in last 5 years | 5-year coverage % | Women screened in last 3 years | 3-year coverage % |
| 842 | 614 | 73.0% | 521 | 61.9% | | 7,756 | 6,790 | 87.5% | 5,928 | 76.4% |

Source: National Screening Unit, Ministry of Health  
Note: Population is adjusted for hysterectomy.

Among women aged 25 to 69 years, 73% of Māori women and 88% of non-Māori women had had a cervical smear test during the five years prior to December 2014. The three year cervical screening coverage was 62% for Māori women and 76% for non-Māori women. The National Cervical Screening Programme has a three year screening coverage target of 80% of eligible women aged 25 to 69 years.

## Respiratory disease

Table 49: Hospitalisations for asthma, by age group, West Coast DHB, 2011–2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender and age group** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | Rate difference |
| Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | | Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | |
| **0–14 years** | | | | | | | | | | | | |
| Female | 3 | 455.1 | (227.1, | 911.9) | 4 | 173.9 | (100.9, | 299.7) | **2.62** | **(1.08,** | **6.33)** | 281.2 |
| Male | 4 | 633.9 | (350.8, | 1,145.5) | 11 | 400.5 | (283.3, | 566.4) | 1.58 | (0.80, | 3.14) | 233.4 |
| Total | 6 | 544.5 | (347.0, | 854.4) | 15 | 287.2 | (214.4, | 384.8) | **1.90** | **(1.11,** | **3.24)** | 257.3 |
| **15–34 years** | | | | | | | | | | | | |
| Female | 1 | 126.2 | (31.6, | 504.7) | 2 | 64.9 | (29.0, | 145.2) | 1.94 | (0.39, | 9.65) | 61.3 |
| Male | 0 | 0.0 | . | . | 2 | 53.5 | (22.3, | 128.5) | 0.00 | . | . | -53.5 |
| Total | 1 | 63.1 | (15.8, | 252.3) | 4 | 59.2 | (32.7, | 107.1) | 1.07 | (0.24, | 4.81) | 3.9 |
| **35–64 years** | | | | | | | | | | | | |
| Female | 2 | 252.6 | (112.9, | 565.4) | 4 | 80.8 | (44.6, | 146.4) | **3.13** | **(1.15,** | **8.51)** | 171.8 |
| Male | 0 | 46.0 | (6.5, | 326.5) | 2 | 17.6 | (7.2, | 43.3) | 2.61 | (0.30, | 22.52) | 28.4 |
| Total | 2 | 149.3 | (70.8, | 314.7) | 6 | 49.2 | (29.5, | 82.3) | **3.03** | **(1.23,** | **7.50)** | 100.1 |
| **65 years and over** | | | | | | | | | | | | |
| Female | 0 | 0.0 | . | . | 2 | 55.4 | (20.0, | 153.2) | 0.00 | . | . | -55.4 |
| Male | 0 | 0.0 | . | . | 1 | 29.3 | (7.2, | 120.1) | 0.00 | . | . | -29.3 |
| Total | 0 | 0.0 | . | . | 2 | 42.4 | (18.6, | 96.7) | 0.00 | . | . | -42.4 |

Source: NMDS.   
Note: Ratios in **bold** show that Māori rates were significantly different from non-Māori rates in the DHB.

There were six admissions for asthma per year on average among West Coast Māori children aged 0–14 years during 2011 to 2013, at a rate nearly twice that of non-Māori. Among Māori adults aged 35–64 years, there were two admissions per year on average, at a rate 3 times the rate of non-Māori. No Māori aged 65 years and over was admitted for asthma during this period.

Table 50: Hospitalisations for chronic obstructive pulmonary disease (COPD), 45 years and over, West Coast DHB, 2011–2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | Rate difference |
| Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | | Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | |
| Female | 6 | 1,053.3 | (650.4, | 1,705.7) | 58 | 509.0 | (431.0, | 601.1) | **2.07** | **(1.24,** | **3.45)** | 544.3 |
| Male | 4 | 908.5 | (513.1, | 1,608.5) | 67 | 614.1 | (529.7, | 712.0) | 1.48 | (0.82, | 2.67) | 294.4 |
| Total | 10 | 980.9 | (677.5, | 1420.2) | 125 | 561.5 | (502.7, | 627.2) | **1.75** | **(1.19,** | **2.57)** | 419.4 |

Source: NMDS.  
Note: Ratios in **bold** show that Māori rates were significantly different from non-Māori rates in the DHB.

There were 10 hospitalisations per year on average for Māori with COPD, at a rate 75% higher than that of non-Māori, or 419 more admissions per 100,000.

Table 51: Early deaths from respiratory disease, West Coast DHB, 2002–2011

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | Rate difference |
| Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | | Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | |
| Female | 1 | 22.9 | (9.5, | 55.0) | 3 | 6.8 | (4.6, | 9.9) | **3.38** | **(1.30,** | **8.80)** | 16.1 |
| Male | 1 | 31.8 | (14.3, | 71.0) | 4 | 8.4 | (6.1, | 11.4) | **3.80** | **(1.61,** | **8.99)** | 23.4 |
| Total | 1 | 27.4 | (15.1, | 49.5) | 7 | 7.6 | (5.9, | 9.6) | **3.61** | **(1.90,** | **6.86)** | 19.8 |

Source: Mortality data, Ministry of Health  
Notes: “Early deaths” defined as those occurring under 75 years of age.  
Ratios in **bold** show that Māori rates were significantly different from non-Māori rates in the DHB.

On average, one West Coast Māori per year died early from respiratory disease during the ten-year period 2002 to 2011, with a rate 3.6 times the non-Māori rate, or 20 more deaths per 100,000.

## Mental disorders

Table : Hospitalisations for mental disorders, all ages, West Coast DHB, 2011–2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Disorder** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori ratio (95% CI) | | | Rate difference |
| Ave. no. per year | Age-standardised  rate (95% CI) | | | Ave. no. per year | Age-standardised  rate (95% CI) | | |
| **Female** | | | | | | | | | | | | |
| All disorders | 13 | 700.6 | (506.5, | 969.2) | 88 | 363.9 | (308.7, | 428.9) | **1.93** | **(1.34,** | **2.77)** | 336.7 |
| Schizophrenia | <1 | 11.9 | (1.7, | 84.6) | 10 | 46.2 | (29.4, | 72.5) | 0.26 | (0.03, | 1.93) | -34.3 |
| Mood (affective) | 7 | 425.5 | (273.4, | 662.2) | 33 | 130.4 | (100.9, | 168.4) | **3.26** | **(1.96,** | **5.44)** | 295.1 |
| —Bipolar | 2 | 123.9 | (54.9, | 279.6) | 5 | 22.2 | (11.9, | 41.6) | **5.57** | **(1.99,** | **15.56)** | 101.6 |
| —Depressive   episode | 3 | 172.0 | (85.6, | 345.6) | 19 | 79.1 | (56.7, | 110.5) | **2.17** | **(1.00,** | **4.71)** | 92.9 |
| Substance use | 1 | 47.8 | (15.3, | 149.6) | 12 | 81.9 | (56.6, | 118.6) | 0.58 | (0.18, | 1.94) | -34.2 |
| —Alcohol | 1 | 47.8 | (15.3, | 149.6) | 8 | 52.8 | (33.0, | 84.4) | 0.91 | (0.26, | 3.11) | -5.0 |
| Anxiety,  stress-related | 2 | 75.6 | (33.2, | 172.1) | 10 | 50.5 | (31.7, | 80.4) | 1.50 | (0.58, | 3.85) | 25.1 |
| **Male** | | | | | | | | | | | | |
| All disorders | 10 | 591.6 | (412.0, | 849.6) | 111 | 540.8 | (470.9, | 621.1) | 1.09 | (0.74, | 1.61) | 50.8 |
| Schizophrenia | 4 | 223.8 | (122.4, | 409.3) | 39 | 192.7 | (153.5, | 241.9) | 1.16 | (0.61, | 2.21) | 31.2 |
| Mood (affective) | 2 | 105.8 | (43.5, | 257.3) | 30 | 155.6 | (120.2, | 201.5) | 0.68 | (0.27, | 1.71) | -49.8 |
| —Bipolar | 0 | 0.0 | . | . | 10 | 55.4 | (35.5, | 86.4) | 0.00 | . | . | -55.4 |
| —Depressive   episode | 2 | 105.8 | (43.5, | 257.3) | 16 | 79.9 | (56.2, | 113.6) | 1.32 | (0.51, | 3.44) | 25.9 |
| Substance use | 3 | 153.0 | (78.0, | 300.2) | 14 | 94.2 | (66.0, | 134.4) | 1.62 | (0.76, | 3.48) | 58.8 |
| —Alcohol | 2 | 94.4 | (38.2, | 233.2) | 11 | 72.0 | (48.0, | 107.9) | 1.31 | (0.49, | 3.53) | 22.4 |
| Anxiety,  stress-related | 1 | 75.1 | (27.1, | 208.2) | 11 | 64.3 | (42.4, | 97.4) | 1.17 | (0.39, | 3.51) | 10.8 |
| **Total** | | | | | | | | | | | | |
| All disorders | 23 | 646.1 | (507.4, | 822.7) | 199 | 452.3 | (406.9, | 502.9) | **1.43** | **(1.10,** | **1.86)** | 193.8 |
| Schizophrenia | 4 | 117.9 | (65.9, | 210.9) | 49 | 119.4 | (97.5, | 146.3) | 0.99 | (0.53, | 1.83) | -1.6 |
| Mood (affective) | 8 | 265.7 | (178.8, | 394.7) | 63 | 143.0 | (119.1, | 171.7) | **1.86** | **(1.20,** | **2.87)** | 122.6 |
| —Bipolar | 2 | 61.9 | (27.4, | 139.8) | 14 | 38.8 | (27.0, | 55.9) | 1.60 | (0.65, | 3.89) | 23.1 |
| —Depressive  episode | 4 | 138.9 | (80.2, | 240.5) | 35 | 79.5 | (62.4, | 101.3) | 1.75 | (0.96, | 3.18) | 59.4 |
| Substance use | 4 | 100.4 | (56.1, | 179.5) | 26 | 88.1 | (68.2, | 113.8) | 1.14 | (0.60, | 2.15) | 12.3 |
| —Alcohol | 3 | 71.1 | (34.8, | 144.9) | 19 | 62.4 | (45.9, | 84.7) | 1.14 | (0.52, | 2.48) | 8.7 |
| Anxiety,  stress-related | 3 | 75.3 | (39.2, | 145.0) | 20 | 57.4 | (42.1, | 78.2) | 1.31 | (0.64, | 2.71) | 18.0 |

Source: NMDS  
Note: Ratios in **bold** show that Māori rates were significantly different from non-Māori rates in the DHB.

There were 23 hospital admissions for mental disorders per year on average among Māori residents of the West Coast DHB. Rates of hospitalisation for mental disorders were 43% higher for Māori than for non-Māori.

Mood disorders were the most common cause of admission for Māori women, with a rate of admission 3.3 times the rate for non-Māori women.

Schizophrenia related disorders were the most common causes of admission for Māori men.

## Gout

Table 53: Gout prevalence and treatment, 20–79 years, West Coast DHB, 2011

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Indicator | **Māori** | | **Non-Māori** | | Māori/non-Māori ratio | Difference in percentage |
| Count | % | Count | % |
| Gout prevalence | 92 | 4.6 | 909 | 4.2 | 1.09 | 0.4 |
| People with gout who received allopurinol regularly | 27 | 29.3 | 375 | 41.3 | 0.71 | -11.9 |
| NSAID use by people with gout | 34 | 37.0 | 366 | 40.3 | 0.92 | -3.3 |
| Serum urate test within six months following allopurinol dispensing | 12 | 25.0 | 121 | 24.0 | 1.04 | 1.0 |

Source: NZ Atlas of Healthcare Variation, Ministry of Health.   
Notes: Denominator is people in contact with health services (using Health Tracker). Prevalence may be underestimated by up to 20%. Prevalence rates are not age adjusted. NSAID is non-steroidal anti-inflammatory medication.

In 2011, 92 Māori were estimated to have gout, a prevalence of almost 5%, similar to the prevalence in non-Māori. Under a third of Māori with gout regularly received allopurinol, a preventive therapy to lower urate levels. Of those who received allopurinol, only 25% had a laboratory test for serum urate levels within the following six months.

Table 54: Hospitalisations for gout, 25 years and over, West Coast DHB, 2011–2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | Rate difference |
| Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | | Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | |
| Female | 1 | 68.8 | (22.2, | 213.4) | 1 | 1.4 | (0.3, | 5.7) | **50.60** | **(8.10,** | **315.92)** | 67.4 |
| Male | <1 | 30.1 | (4.2, | 213.7) | 4 | 21.5 | (10.5, | 44.0) | 1.40 | (0.17, | 11.26) | 8.6 |
| Total | 1 | 49.4 | (18.4, | 132.8) | 5 | 11.4 | (5.8, | 22.5) | **4.32** | **(1.30,** | **14.31)** | 38.0 |

Source: NMDS  
Ratios in bold show that Māori rates were significantly different from non-Māori rates in the DHB.

On average, one Māori per year was admitted to hospital for gout. The admission rate was four times as high for Māori as for non-Māori.

## Hip fractures

There were no West Coast Māori admissions for hip fractures during 2011 to 2013.

## Elective surgery

Table 55: Hospitalisations for hip replacements, 50 years and over, West Coast DHB, 2011–2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | Rate difference |
| Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | | Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | |
| Female | 2 | 530.4 | (238.0, | 1181.9) | 33 | 517.0 | (419.0, | 637.9) | 1.03 | (0.45, | 2.35) | 13.4 |
| Male | 1 | 201.3 | (64.8, | 625.0) | 28 | 406.4 | (324.6, | 508.7) | 0.50 | (0.16, | 1.57) | -205.1 |
| Total | 3 | 365.9 | (189.3, | 707.3) | 61 | 461.7 | (395.9, | 538.4) | 0.79 | (0.40, | 1.56) | -95.8 |

Source: NMDS  
Note: Ratios in **bold** show that Māori rates were significantly different from non-Māori rates in the DHB.

On average, three West Coast Māori aged 50 years and over were admitted to hospital per year for a hip replacement.

Table 56: Publicly funded hospitalisations for cataract surgery, 45 years and over, West Coast DHB, 2011–2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | Rate difference |
| Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | | Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | |
| Female | 3 | 522.8 | (261.0, | 1,047.4) | 92 | 690.6 | (603.7, | 789.9) | 0.76 | (0.37, | 1.54) | -167.8 |
| Male | 4 | 852.2 | (486.6, | 1,492.2) | 83 | 631.2 | (550.4, | 723.8) | 1.35 | (0.76, | 2.40) | 221.0 |
| Total | 7 | 687.5 | (444.4, | 1,063.5) | 175 | 660.9 | (600.4, | 727.4) | 1.04 | (0.67, | 1.63) | 26.6 |

Source: NMDS  
Note: Ratios in **bold** show that Māori rates were significantly different from non-Māori rates in the DHB.

On average seven Māori per year were admitted for cataract surgery at a rate of 688 per 100,000.

# Mauri ora: All ages

T

his section presents information on overall hospitalisations, potentially avoidable and ambulatory sensitive hospitalisations, life expectancy at birth, overall mortality rates, leading causes of death, potentially avoidable mortality and mortality amenable to health care, and injuries. ICD codes for these classifications are provided in Appendix 2. Life expectancy at birth is presented for the West Coast Region.

## Hospitalisations

Table 57: All-cause hospitalisations, all ages, West Coast DHB, 2011–2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | Rate difference |
| Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | | Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | |
| Female | 409 | 21,700.7 | (20,472.8, | 23,002.2) | 3,874 | 21,185.1 | (20,682.9, | 21,699.5) | 1.02 | (0.96, | 1.09) | 515.6 |
| Male | 269 | 14,283.9 | (13,296.6, | 15,344.4) | 3,493 | 15,929.4 | (15,499.9, | 16,370.8) | **0.90** | **(0.83,** | **0.97)** | -1,645.5 |
| Total | 678 | 17,992.3 | (17,197.3, | 18,824.0) | 7,368 | 18,557.3 | (18,225.6, | 18,894.9) | 0.97 | (0.92, | 1.02) | -565.0 |

Source: NMDS  
Note: Ratios in **bold** show that Māori rates were significantly different from non-Māori rates in the DHB.

On average, there were 678 Māori hospital admissions per year and over 7,300 non-Māori admissions. All-cause admission rates were 10% lower for Māori males compared to non-Māori males. Among females the Māori admission rate was similar to that of non-Māori females.

### Potentially avoidable hospitalisations

Table 58: Potentially avoidable hospitalisations, 0–74 years, West Coast DHB, 2011–2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | Rate difference |
| Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | | Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | |
| Female | 75 | 4,062.7 | (3,653.1, | 4,518.2) | 492 | 3,081.2 | (2,928.9, | 3,241.4) | **1.35** | **(1.16,** | **1.57)** | 981.5 |
| Male | 69 | 3,910.8 | (3,510.8, | 4,356.2) | 628 | 3,718.7 | (3,552.6,, | 3,892.6) | 1.05 | (0.90, | 1.22) | 192.0 |
| Total | 144 | 3,986.7 | (3,696.0, | 4,300.3) | 1,120 | 3,400.0 | (3,286.5,, | 3,517.4) | **1.18** | **(1.06,** | **1.32)** | 586.7 |

Source: NMDS  
Note: Ratios in **bold** show that Māori rates were significantly different from non-Māori rates in the DHB. Table revised April 2016.

During 2011–2013, on average 144 hospital admissions per year among Māori were potentially avoidable. The overall rate was 18% higher for Māori compared to non-Māori, or nearly 590 more admissions per 100,000.

Table 59: Ambulatory care sensitive hospitalisations, 0–74 years, West Coast DHB, 2011–2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | Rate difference |
| Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | | Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | |
| Female | 43 | 2,409.5 | (2,014.8, | 2,881.5) | 247 | 1,570.5 | (1,429.6, | 1,725.3) | **1.53** | **(1.25,** | **1.88)** | 839.0 |
| Male | 47 | 2,581.4 | (2,177.4, | 3,060.5) | 317 | 1,875.7 | (1,724.9, | 2,039.6) | **1.38** | **(1.14,** | **1.66)** | 705.8 |
| Total | 90 | 2,490.1 | (2,201.1, | 2,816.9) | 564 | 1,719.4 | (1,615.1, | 1,830.4) | **1.45** | **(1.26,** | **1.66)** | 770.7 |

Source: NMDS  
Note: Ratios in **bold** show that Māori rates were significantly different from non-Māori rates in the DHB.

On average, there were 90 ambulatory care sensitive hospitalisations per year among Māori, at a rate that was 45% higher than the non-Māori rate, or 771 more admissions per 100,000.

## Mortality

Table : Life expectancy at birth, West Coast Region, 2012–2014

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender** | **Māori** | | | **Non-Māori** | | | Difference in years |
| Years (95% credible interval) | | | Years (95% credible interval) | | |
| Female | 80.3 | (77.8, | 83.3) | 82.8 | (82.2, | 83.3) | -2.5 |
| Male | 76.2 | (73.5, | 79.4) | 79.1 | (78.5, | 79.7) | -2.9 |

Source: Statistics New Zealand Subnational Period Life Tables: 2012–14.  
Notes: This data is for the West Coast Region. A map of Regional Council boundaries can be found [here](http://www.lgnz.co.nz/home/nzs-local-government/new-zealands-councils/). The credible interval is the 2.5th percentile and the 97.5th percentile, the years of expected life at birth is the 50th percentile. Further information on the regional life tables and methods can be found [here](http://www.stats.govt.nz/browse_for_stats/health/life_expectancy/SubnationalPeriodLifeTables_HOTP12-14/Commentary.aspx).

Life expectancy at birth is a summary measure of age-specific mortality rates during a specific period. During 2012–2014, among residents of the West Coast Region, life expectancy at birth was 80.3 years for Māori females, 2.5 years lower than for non-Māori females (82.8 years). For Māori males, life expectancy was 76.2 years, 2.9 years lower than that of non-Māori males (79.1 years). However, the differences between Māori and non-Māori life expectancy at birth were not statistically significant.

Table 61: All-cause deaths, all ages, West Coast DHB, 2003–2012

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | Rate difference |
| Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | | Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | |
| Female | 5 | 285.9 | (209.0, | 391.1) | 119 | 181.7 | (164.6, | 200.6) | **1.57** | **(1.13,** | **2.19)** | 104.2 |
| Male | 8 | 471.9 | (373.3, | 596.6) | 131 | 282.8 | (260.4, | 307.2) | **1.67** | **(1.30,** | **2.14)** | 189.1 |
| Total | 13 | 378.9 | (314.0, | 457.2) | 250 | 232.3 | (218.0, | 247.5) | **1.63** | **(1.34,** | **1.99)** | 146.6 |

Source: Mortality dataset, Ministry of Health.   
Note: Ratios in **bold** show that Māori rates were significantly different from non-Māori rates in the DHB.

During the ten-year period 2003 to 2012, there were 13 Māori deaths per year on average on the West Coast. The Māori mortality rate was 63% higher than the non-Māori rate, or 147 more deaths per 100,000.

Table 62: Leading causes of death for Māori, all ages, West Coast DHB, 2002–2011

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender and cause** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori ratio (95% CI) | | | Rate difference |
| Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | | Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | |
| **Female** | | | | | | | | | | | | |
| Stroke | 1 | 46.4 | (24.9, | 86.3) | 11 | 12.6 | (9.8, | 16.2) | **3.69** | **(1.89,** | **7.21)** | 33.8 |
| COPD | 1 | 36.5 | (14.6, | 91.6) | 8 | 9.6 | (7.4, | 12.5) | **3.80** | **(1.46,** | **9.90)** | 26.9 |
| Lung cancer | 1 | 23.0 | (9.6, | 55.4) | 7 | 12.6 | (9.5, | 16.6) | 1.83 | (0.73, | 4.60) | 10.5 |
| IHD | 1 | 41.1 | (15.1, | 111.9) | 19 | 18.2 | (15.1, | 21.8) | 2.26 | (0.82, | 6.27) | 22.9 |
| Accidents | 1 | 27.3 | (11.2, | 66.1) | 4 | 17.2 | (10.8, | 27.4) | 1.58 | (0.58, | 4.30) | 10.0 |
| **Male** | | | | | | | | | | | | |
| IHD | 1 | 72.6 | (42.7, | 123.6) | 28 | 45.0 | (39.5, | 51.3) | 1.61 | (0.93, | 2.79) | 27.6 |
| Accidents | 1 | 87.8 | (49.3, | 156.3) | 11 | 71.8 | (57.8, | 89.2) | 1.22 | (0.66, | 2.26) | 16.0 |
| COPD | 1 | 46.9 | (23.2, | 95.0) | 10 | 12.7 | (10.3, | 15.7) | **3.69** | **(1.77,** | **7.71)** | 34.2 |
| Suicide | 1 | 42.7 | (18.7, | 97.2) | 3 | 17.7 | (12.0, | 26.3) | 2.40 | (0.97, | 5.99) | 24.9 |
| Lung cancer | 1 | 26.1 | (10.9, | 62.8) | 9 | 14.8 | (11.9, | 18.5) | 1.76 | (0.71, | 4.35) | 11.3 |
| **Total** | | | | | | | | | | | | |
| IHD | 2 | 56.9 | (34.6, | 93.4) | 47 | 31.6 | (28.4, | 35.2) | **1.80** | **(1.08,** | **2.99)** | 25.3 |
| Accidents | 2 | 57.5 | (35.3, | 93.7) | 15 | 44.5 | (36.6, | 54.2) | 1.29 | (0.76, | 2.19) | 13.0 |
| COPD | 1 | 41.7 | (23.7, | 73.4) | 17 | 11.2 | (9.5, | 13.2) | **3.74** | **(2.08,** | **6.74)** | 30.6 |
| Stroke | 1 | 25.7 | (14.2, | 46.5) | 18 | 11.8 | (9.5, | 14.7) | **2.18** | **(1.16,** | **4.10)** | 14.0 |
| Lung | 1 | 24.6 | (13.2, | 45.8) | 15 | 13.7 | (11.5, | 16.4) | 1.79 | (0.94, | 3.42) | 10.9 |

Source: Mortality dataset, Ministry of Health.

Notes: IHD is ischaemic heart disease, COPD is chronic obstructive pulmonary disease.  
Ratios in **bold** show that Māori rates were significantly different from non-Māori rates in the DHB.

The leading causes of death for West Coast Māori women during the decade 2002 to 2011 were stroke, chronic obstructive pulmonary disease (COPD), lung cancer, ischaemic heart disease (IHD), and accidents. The mortality rates for stroke and COPD were more than three-and-a-half times the rates for non-Māori women.

For Māori men, the leading causes of death were IHD, accidents, COPD, suicide, and lung cancer. The rate of death from COPD was over three-and-a-half times the rate for non-Māori men.

Data on leading causes of death by ICD chapter are available in the accompanying Excel tables.

### Potentially avoidable mortality

Avoidable mortality includes deaths occurring among those less than 75 years old that could potentially have been avoided through population-based interventions (including actions to address the social determinants of health) or through preventive and curative interventions at an individual level.

Amenable mortality is a subset of avoidable mortality and is restricted to deaths from conditions that are amenable to health care.

Table 63: Potentially avoidable mortality, 0–74 years, West Coast DHB, 2002–2011

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | Rate difference |
| Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | | Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | |
| Female | 3 | 161.7 | (114.4, | 228.6) | 28 | 96.5 | (82.7, | 112.7) | **1.67** | **(1.15,** | **2.45)** | 65.1 |
| Male | 5 | 276.8 | (205.9, | 372.0) | 47 | 160.8 | (142.5, | 181.4) | **1.72** | **(1.25,** | **2.37)** | 116.0 |
| Total | 8 | 219.2 | (174.8, | 274.9) | 75 | 128.7 | (117.0, | 141.5) | **1.70** | **(1.33,** | **2.18)** | 90.6 |

Source: Mortality, Ministry of Health  
Note: Ratios in **bold** show that Māori rates were significantly different from non-Māori rates in the DHB.

During 2007 to 2011, there was an average of eight potentially avoidable deaths per year among West Coast Māori, at a rate 70% higher than the rate for non-Māori, or 91 more deaths per 100,000.

Table 64: Amenable mortality, 0–74 years, West Coast DHB, 2002–2011

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | Rate difference |
| Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | | Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | |
| Female | 2 | 118.8 | (79.0, | 178.5) | 19 | 68.7 | (56.8, | 83.1) | **1.73** | **(1.10,** | **2.71)** | 50.1 |
| Male | 4 | 208.7 | (148.9, | 292.7) | 35 | 122.1 | (106.2, | 140.4) | **1.71** | **(1.19,** | **2.46)** | 86.6 |
| Total | 6 | 163.8 | (126.1, | 212.6) | 54 | 95.4 | (85.3, | 106.8) | **1.72** | **(1.29,** | **2.28)** | 68.3 |

Source: Mortality, Ministry of Health  
Note: Ratios in **bold** show that Māori rates were significantly different from non-Māori rates in the DHB.

The amenable mortality rate was 72% higher for Māori than for non-Māori, or 68 more deaths per 100,000. On average there were six deaths per year from conditions amenable to health care among West Coast Māori.

## Injuries

A table on the causes of hospital admissions for injuries can be found in the accompanying Excel tables. The most common causes of injury resultingin a hospital admission among West Coast Māori were exposure to mechanical forces, falls, complications of medical and surgical care, intentional self-harm, and transport accidents.

Table : Hospitalisations for injury, all ages, West Coast DHB, 2011–2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | Rate difference |
| Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | | Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | |
| Female | 28 | 1,530.3 | (1,224.6, | 1,912.2) | 281 | 1,488.9 | (1,358.6, | 1,631.7) | 1.03 | (0.81, | 1.31) | 41.3 |
| Male | 34 | 1,974.5 | (1,613.7, | 2,415.8) | 382 | 2,368.7 | (2,203.5, | 2,546.3) | 0.83 | (0.67, | 1.03) | -394.2 |
| Total | 61 | 1,752.4 | (1,508.8, | 2,035.2) | 663 | 1,928.8 | (1,822.4, | 2,041.4) | 0.91 | (0.77, | 1.07) | -176.5 |

Source: NMDS  
Note: Ratios in **bold** show that Māori rates were significantly different from non-Māori rates in the DHB.

On average, 61 Māori per year were hospitalised for injury at a similar rate to non-Māori.

Table 66: Hospitalisations for assault, all ages, West Coast DHB, 2011–2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | Rate difference |
| Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | | Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | |
| Female | <1 | 22.1 | (3.1, | 156.7) | 2 | 19.3 | (8.0, | 46.9) | 1.14 | (0.13, | 9.81) | 2.7 |
| Male | 2 | 93.1 | (37.6, | 230.0) | 15 | 120.2 | (87.2, | 165.6) | 0.77 | (0.30, | 2.02) | -27.1 |
| Total | 2 | 57.6 | (25.3, | 131.0) | 16 | 69.8 | (51.6, | 94.4) | 0.83 | (0.34, | 1.98) | -12.2 |

Source: NMDS  
Note: Ratios in **bold** show that Māori rates were significantly different from non-Māori rates in the DHB.

On average two Māori per year were admitted to hospital for injury caused by assault.

Table 67: Deaths from injury, all ages, West Coast DHB, 2002–2011

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender** | **Māori** | | | | **Non-Māori** | | | | Māori/non-Māori  ratio (95% CI) | | | Rate difference |
| Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | | Ave. no. per year | Age-standardised  rate per 100,000 (95% CI) | | |
| Female | 1 | 27.3 | (11.2, | 66.1) | 5 | 22.4 | (15.1, | 33.3) | 1.22 | (0.46, | 3.20) | 4.8 |
| Male | 2 | 139.6 | (88.1, | 221.2) | 15 | 93.7 | (77.7, | 112.9) | 1.49 | (0.91, | 2.45) | 45.9 |
| Total | 2 | 83.4 | (55.3, | 125.9) | 20 | 58.1 | (49.0, | 68.7) | 1.44 | (0.92, | 2.24) | 25.4 |

Source: Mortality dataset, Ministry of Health.   
Note: Ratios in **bold** show that Māori rates were significantly different from non-Māori rates in the DHB.

During the ten-year period 2002 to 2011, an average of two West Coast Māori died from injuries per year. Mortality rates were higher for males than females.

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# Appendix 1: Population projections

Table : Māori population projections, single year by age group, West Coast DHB, 2013 to 2020

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Projected Māori Ethnic Group Population by Age and Sex at 30 June 2014-20 (2013-Base)** | | | | | | | | | | | | | | | |
| **\*\*\* Medium Projection : Assuming Medium Fertility, Medium Mortality, Medium Inter-Ethnic Mobility, and Medium Migration \*\*\*** | | | | | | | | | | | | | | | |
| **Age** | **Male** | **Female** | **Total** |  | **Male** | **Female** | **Total** |  | **Male** | **Female** | **Total** |  | **Male** | **Female** | **Total** |
|  | **2013(Base)** | | |  |  | **2014** |  |  |  | **2015** |  |  |  | **2016** |  |
| 0 | 50 | 50 | 100 |  | 50 | 40 | 90 |  | 50 | 40 | 90 |  | 50 | 40 | 90 |
| 1-4 | 150 | 170 | 320 |  | 160 | 180 | 340 |  | 170 | 180 | 350 |  | 180 | 180 | 360 |
| 5-9 | 190 | 180 | 370 |  | 200 | 180 | 380 |  | 200 | 200 | 400 |  | 190 | 200 | 390 |
| 10–14 | 210 | 170 | 380 |  | 190 | 180 | 370 |  | 180 | 170 | 350 |  | 190 | 170 | 360 |
| 15-19 | 180 | 170 | 350 |  | 190 | 160 | 350 |  | 190 | 160 | 350 |  | 190 | 170 | 360 |
| 20-24 | 150 | 140 | 290 |  | 150 | 150 | 300 |  | 160 | 160 | 320 |  | 150 | 160 | 310 |
| 25-29 | 100 | 110 | 210 |  | 110 | 120 | 230 |  | 110 | 120 | 230 |  | 120 | 110 | 240 |
| 30-34 | 80 | 110 | 180 |  | 80 | 100 | 180 |  | 90 | 100 | 190 |  | 80 | 100 | 180 |
| 35-39 | 90 | 110 | 210 |  | 90 | 100 | 190 |  | 80 | 100 | 180 |  | 90 | 110 | 200 |
| 40-44 | 100 | 130 | 230 |  | 100 | 120 | 220 |  | 100 | 130 | 230 |  | 90 | 120 | 210 |
| 45-49 | 110 | 130 | 240 |  | 100 | 140 | 240 |  | 90 | 140 | 230 |  | 90 | 130 | 230 |
| 50-54 | 110 | 140 | 250 |  | 120 | 140 | 250 |  | 120 | 140 | 260 |  | 120 | 140 | 270 |
| 55-59 | 80 | 80 | 160 |  | 80 | 90 | 170 |  | 90 | 100 | 190 |  | 90 | 100 | 200 |
| 60-64 | 50 | 60 | 110 |  | 60 | 70 | 130 |  | 50 | 70 | 120 |  | 60 | 70 | 130 |
| 65-69 | 30 | 50 | 80 |  | 30 | 50 | 90 |  | 40 | 60 | 100 |  | 50 | 60 | 110 |
| 70-74 | 30 | 30 | 60 |  | 20 | 30 | 60 |  | 30 | 30 | 60 |  | 30 | 40 | 70 |
| 75-79 | 20 | 20 | 40 |  | 20 | 20 | 40 |  | 20 | 20 | 40 |  | 20 | 30 | 40 |
| 80-84 | 10 | 10 | 20 |  | 20 | 10 | 30 |  | 20 | 10 | 30 |  | 10 | 10 | 30 |
| 85-89 | 0 | 0 | 0 |  | 0 | 0 | 10 |  | 0 | 0 | 10 |  | 10 | 10 | 10 |
| 90+ | 0 | 0 | 0 |  | 0 | 0 | 0 |  | 0 | 0 | 0 |  | 0 | 0 | 0 |
| **All Ages** | **1,740** | **1,860** | **3,600** |  | **1,770** | **1,900** | **3,670** |  | **1,810** | **1,930** | **3,730** |  | **1,840** | **1,960** | **3,790** |
|  |  | **2017** |  |  |  | **2018** |  |  |  | **2019** |  |  |  | **2020** |  |
| 0 | 50 | 40 | 90 |  | 50 | 40 | 90 |  | 50 | 40 | 90 |  | 50 | 40 | 90 |
| 1-4 | 190 | 180 | 370 |  | 190 | 180 | 360 |  | 180 | 170 | 360 |  | 180 | 170 | 360 |
| 5-9 | 200 | 210 | 410 |  | 200 | 220 | 420 |  | 210 | 220 | 430 |  | 210 | 220 | 440 |
| 10–14 | 180 | 160 | 340 |  | 190 | 170 | 360 |  | 190 | 180 | 370 |  | 200 | 200 | 390 |
| 15-19 | 200 | 160 | 360 |  | 190 | 160 | 350 |  | 180 | 160 | 340 |  | 160 | 150 | 320 |
| 20-24 | 150 | 160 | 310 |  | 160 | 150 | 310 |  | 170 | 140 | 310 |  | 170 | 130 | 300 |
| 25-29 | 130 | 120 | 250 |  | 140 | 130 | 270 |  | 140 | 140 | 280 |  | 150 | 150 | 300 |
| 30-34 | 90 | 110 | 190 |  | 100 | 110 | 200 |  | 100 | 120 | 220 |  | 100 | 120 | 220 |
| 35-39 | 90 | 110 | 200 |  | 70 | 100 | 180 |  | 80 | 100 | 180 |  | 90 | 100 | 190 |
| 40-44 | 90 | 110 | 200 |  | 90 | 110 | 200 |  | 90 | 100 | 190 |  | 80 | 100 | 180 |
| 45-49 | 100 | 130 | 230 |  | 100 | 130 | 220 |  | 100 | 120 | 220 |  | 100 | 120 | 220 |
| 50-54 | 120 | 130 | 250 |  | 100 | 130 | 230 |  | 90 | 140 | 230 |  | 90 | 130 | 220 |
| 55-59 | 100 | 120 | 220 |  | 110 | 130 | 240 |  | 110 | 130 | 240 |  | 120 | 130 | 250 |
| 60-64 | 60 | 80 | 140 |  | 70 | 80 | 150 |  | 80 | 90 | 160 |  | 90 | 90 | 180 |
| 65-69 | 50 | 50 | 100 |  | 50 | 60 | 110 |  | 60 | 70 | 120 |  | 50 | 70 | 120 |
| 70-74 | 30 | 50 | 80 |  | 30 | 50 | 80 |  | 30 | 50 | 80 |  | 40 | 60 | 100 |
| 75-79 | 20 | 30 | 60 |  | 20 | 30 | 60 |  | 20 | 30 | 50 |  | 30 | 30 | 60 |
| 80-84 | 10 | 20 | 30 |  | 20 | 20 | 30 |  | 20 | 20 | 40 |  | 20 | 20 | 40 |
| 85-89 | 10 | 10 | 10 |  | 10 | 10 | 20 |  | 20 | 10 | 30 |  | 20 | 10 | 30 |
| 90+ | 0 | 0 | 0 |  | 0 | 0 | 0 |  | 0 | 0 | 10 |  | 0 | 0 | 10 |
| **All Ages** | **1,860** | **1,980** | **3,840** |  | **1,880** | **2,010** | **3,890** |  | **1,910** | **2,030** | **3,940** |  | **1,940** | **2,060** | **4,000** |
| These projections were derived in October 2014. | | | | | | | | | | | | | | | |
| **Source: Statistics New Zealand**  **Population Projections** | | | | | | | | | | | | | | | |

Table : Total population projections, single year, by age group, West Coast DHB, 2013 to 2020

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Projected Total Population by Age and Sex at 30 June 2014-20 (2013-Base)** | | | | | | | | | | | | | | | |
| **\*\*\* Medium Projection : Assuming Medium Fertility, Medium Mortality, and Medium Migration \*\*\*** | | | | | | | | | | | | | | | |
| **Age** | **Male** | **Female** | **Total** |  | **Male** | **Female** | **Total** |  | **Male** | **Female** | **Total** |  | **Male** | **Female** | **Total** |
|  | **2013(Base)** | | |  |  | **2014** |  |  |  | **2015** |  |  |  | **2016** |  |
| 0 | 190 | 220 | 420 |  | 210 | 200 | 400 |  | 210 | 200 | 410 |  | 210 | 200 | 410 |
| 1-4 | 890 | 900 | 1,790 |  | 860 | 880 | 1,740 |  | 830 | 870 | 1,690 |  | 830 | 870 | 1,690 |
| 5-9 | 1,100 | 970 | 2,070 |  | 1,110 | 1,040 | 2,150 |  | 1,170 | 1,090 | 2,260 |  | 1,140 | 1,110 | 2,250 |
| 10–14 | 1,050 | 990 | 2,040 |  | 1,030 | 970 | 2,010 |  | 1,040 | 950 | 1,990 |  | 1,060 | 910 | 1,980 |
| 15-19 | 1,000 | 930 | 1,930 |  | 1,000 | 880 | 1,880 |  | 950 | 850 | 1,810 |  | 950 | 850 | 1,800 |
| 20-24 | 910 | 840 | 1,750 |  | 930 | 880 | 1,810 |  | 950 | 900 | 1,850 |  | 950 | 890 | 1,840 |
| 25-29 | 820 | 850 | 1,670 |  | 910 | 910 | 1,820 |  | 960 | 980 | 1,940 |  | 1,030 | 1,030 | 2,060 |
| 30-34 | 780 | 910 | 1,690 |  | 780 | 910 | 1,690 |  | 850 | 910 | 1,760 |  | 870 | 900 | 1,770 |
| 35-39 | 900 | 980 | 1,880 |  | 860 | 960 | 1,820 |  | 840 | 960 | 1,800 |  | 840 | 990 | 1,830 |
| 40-44 | 1,140 | 1,220 | 2,360 |  | 1,140 | 1,190 | 2,330 |  | 1,120 | 1,140 | 2,260 |  | 1,060 | 1,110 | 2,170 |
| 45-49 | 1,270 | 1,310 | 2,580 |  | 1,200 | 1,260 | 2,460 |  | 1,150 | 1,270 | 2,420 |  | 1,140 | 1,260 | 2,400 |
| 50-54 | 1,440 | 1,400 | 2,840 |  | 1,430 | 1,450 | 2,880 |  | 1,410 | 1,420 | 2,820 |  | 1,370 | 1,350 | 2,720 |
| 55-59 | 1,320 | 1,170 | 2,500 |  | 1,350 | 1,210 | 2,570 |  | 1,400 | 1,250 | 2,650 |  | 1,430 | 1,330 | 2,760 |
| 60-64 | 1,160 | 990 | 2,150 |  | 1,190 | 1,020 | 2,200 |  | 1,210 | 1,060 | 2,270 |  | 1,250 | 1,090 | 2,340 |
| 65-69 | 960 | 880 | 1,830 |  | 1,000 | 910 | 1,910 |  | 1,060 | 940 | 2,000 |  | 1,110 | 950 | 2,060 |
| 70-74 | 700 | 640 | 1,340 |  | 750 | 650 | 1,400 |  | 750 | 700 | 1,450 |  | 750 | 720 | 1,470 |
| 75-79 | 450 | 470 | 910 |  | 460 | 480 | 930 |  | 500 | 510 | 1,010 |  | 540 | 530 | 1,070 |
| 80-84 | 310 | 360 | 680 |  | 320 | 360 | 680 |  | 320 | 330 | 640 |  | 320 | 330 | 650 |
| 85-89 | 170 | 190 | 360 |  | 160 | 200 | 360 |  | 160 | 220 | 370 |  | 170 | 220 | 390 |
| 90+ | 50 | 110 | 170 |  | 60 | 120 | 180 |  | 70 | 120 | 190 |  | 70 | 130 | 200 |
| **All Ages** | **16,600** | **16,300** | **33,000** |  | **16,800** | **16,500** | **33,200** |  | **17,000** | **16,600** | **33,600** |  | **17,100** | **16,800** | **33,800** |
|  |  | **2017** |  |  |  | **2018** |  |  |  | **2019** |  |  |  | **2020** |  |
| 0 | 210 | 200 | 410 |  | 210 | 200 | 410 |  | 210 | 200 | 410 |  | 210 | 200 | 420 |
| 1-4 | 840 | 850 | 1,690 |  | 860 | 820 | 1,680 |  | 860 | 820 | 1,680 |  | 860 | 820 | 1,680 |
| 5-9 | 1,130 | 1,140 | 2,260 |  | 1,100 | 1,140 | 2,250 |  | 1,070 | 1,090 | 2,170 |  | 1,040 | 1,070 | 2,110 |
| 10–14 | 1,070 | 900 | 1,970 |  | 1,070 | 930 | 2,000 |  | 1,070 | 1,000 | 2,070 |  | 1,130 | 1,040 | 2,170 |
| 15-19 | 930 | 830 | 1,760 |  | 910 | 800 | 1,710 |  | 890 | 780 | 1,670 |  | 890 | 740 | 1,630 |
| 20-24 | 930 | 860 | 1,790 |  | 910 | 830 | 1,740 |  | 900 | 760 | 1,660 |  | 830 | 730 | 1,550 |
| 25-29 | 1,050 | 1,060 | 2,110 |  | 1,080 | 1,060 | 2,150 |  | 1,080 | 1,080 | 2,160 |  | 1,080 | 1,080 | 2,160 |
| 30-34 | 910 | 950 | 1,860 |  | 930 | 1,010 | 1,940 |  | 1,010 | 1,050 | 2,060 |  | 1,040 | 1,100 | 2,140 |
| 35-39 | 840 | 970 | 1,810 |  | 830 | 940 | 1,770 |  | 830 | 930 | 1,760 |  | 890 | 920 | 1,810 |
| 40-44 | 970 | 1,050 | 2,020 |  | 930 | 990 | 1,920 |  | 890 | 960 | 1,850 |  | 850 | 960 | 1,810 |
| 45-49 | 1,180 | 1,250 | 2,430 |  | 1,160 | 1,230 | 2,390 |  | 1,160 | 1,190 | 2,350 |  | 1,120 | 1,140 | 2,260 |
| 50-54 | 1,320 | 1,330 | 2,650 |  | 1,270 | 1,320 | 2,600 |  | 1,200 | 1,260 | 2,470 |  | 1,150 | 1,260 | 2,410 |
| 55-59 | 1,440 | 1,370 | 2,810 |  | 1,440 | 1,410 | 2,840 |  | 1,420 | 1,450 | 2,870 |  | 1,400 | 1,410 | 2,810 |
| 60-64 | 1,300 | 1,130 | 2,430 |  | 1,310 | 1,140 | 2,460 |  | 1,340 | 1,180 | 2,530 |  | 1,380 | 1,210 | 2,590 |
| 65-69 | 1,090 | 930 | 2,020 |  | 1,120 | 940 | 2,070 |  | 1,140 | 970 | 2,110 |  | 1,160 | 1,000 | 2,160 |
| 70-74 | 810 | 760 | 1,570 |  | 870 | 810 | 1,670 |  | 910 | 840 | 1,750 |  | 970 | 860 | 1,830 |
| 75-79 | 570 | 570 | 1,140 |  | 580 | 570 | 1,150 |  | 630 | 580 | 1,210 |  | 630 | 620 | 1,250 |
| 80-84 | 320 | 350 | 670 |  | 330 | 380 | 700 |  | 330 | 380 | 710 |  | 370 | 410 | 780 |
| 85-89 | 180 | 230 | 410 |  | 180 | 230 | 410 |  | 190 | 230 | 420 |  | 190 | 200 | 390 |
| 90+ | 70 | 120 | 190 |  | 70 | 110 | 180 |  | 70 | 120 | 190 |  | 70 | 130 | 200 |
| **All Ages** | **17,200** | **16,800** | **34,000** |  | **17,200** | **16,900** | **34,100** |  | **17,200** | **16,900** | **34,100** |  | **17,300** | **16,900** | **34,200** |
| These projections were derived in October 2014. | | | | | | | | | | | | | | | |
| **Source: Statistics New Zealand** | | | | | | | | | | | | | | | |
| **Population Projections** | | | | | | | | | | | | | | | |

# Appendix 2: Technical notes

This appendix provides a list of data sources and technical information on the analyses of deaths, cancer registrations, and hospitalisations, Census data and data from Te Kupenga 2013.

## Data sources

Table 70: Data sources

|  |  |  |
| --- | --- | --- |
| **Source (agency or collection)** | **Data** | **Period** |
| Action on Smoking and Health (ASH) | ASH Year 10 Snapshot Survey | 2013 |
| Health Quality and Safety Commission | New Zealand Atlas of Healthcare Variation | 2011, 2013 |
| Ministry of Education | ENROL (Education Counts) | 2013 |
| Ministry of Health | Birth registrations | 2009–2013 |
|  | B4 School Check Information System | 2013 |
|  | Cancer Registry | 2008–2012 |
|  | Community Oral Health Service | 2013 |
|  | Death registrations | 2007–2012\* |
|  | National Immunisation Register | 2008–2014 |
|  | National Maternity Collection | 2013 |
|  | National Screening Unit | 2010–2014 |
|  | PHO Enrolment Collection | 2012–2013 |
|  | Well Child/Tamariki Ora Indicators | 2014 |
|  | National Minimum Data Set (NMDS) – hospital discharges | 2011–2013 |
| Plunket | Breastfeeding rates | 2013 |
| Statistics New Zealand | Census of Population and Dwellings | 2006 |
|  | Census of Population and Dwellings | 2013 |
|  | NZ Population projections for the Ministry of Health (2013 Census base) | 2014 |
|  | Te Kupenga 2013, the Māori Social Survey | 2013 |
|  | Subnational Period Life Tables | 2012–2014 |

Note: \*no causes for 2012

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## Data from the Census of Population and Dwellings

Indicators using data from the Census of Population and Dwellings include the Census usually resident population.

Prioritised ethnicity was used to identify Māori individuals (any person who identified Māori as any of their ethnic groups) and non-Māori included people who had at least one valid ethnic response, none of which was Māori.

Households were classified as Māori if any usual resident was Māori. Households were counted if they were in private occupied dwellings.

People living in households included the population resident in permanent private households.

Standard Census definitions and forms can be found [here.](http://www.stats.govt.nz/Census/2013-census/info-about-2013-census-data/2013-census-definitions-forms/definitions.aspx)

Data on proportions of people were age-standardised to the 2001 Māori population.

## Data from Te Kupenga 2013

Te Kupenga 2013 was a post-census survey of individuals who identified with Māori ethnicity or Māori descent in the 2013 Census. The target population was the usually resident Māori population of New Zealand, living in occupied private dwellings on the 2013 Census night and aged 15 years or older. The data was collected during June to August 2013.

All estimates of numbers, percentages, and confidence intervals for data presented from Te Kupenga were calculated by Statistics New Zealand. The estimates of numbers of people in the DHB were rounded to the nearest five hundred in order to provide a more appropriate level of precision to the sample survey. All percentages were calculated from unrounded data.

Further details on the survey measures are available in the Te Kupenga 2013 [Data Dictionary](http://www.stats.govt.nz/survey-participants/a-z-of-our-surveys/te-kupenga-data-dictionary.aspx).

## Deaths, hospitalisations and cancer registrations

### Ethnicity

Most indicators are presented for Māori and non-Māori. In each data set a person was classified as Māori if any one of their recorded ethnicity was Māori. No adjusters for undercount of hospitalisations, cancer registrations, or deaths were applied.

### Residence

The DHB of residence was determined from the domicile code attached to the public hospital discharge record, the death registration, or the cancer registration.

### Hospital transfers

For ambulatory sensitive hospitalisations and analyses of hospitalisations by cause (such as asthma, ischaemic heart disease) transfers to other services or others hospitals were not counted as an admission if the admission had an ambulatory sensitive diagnosis or had the same principal diagnosis group respectively, was on the same day or the following day as the initial admission and either had its admission source code as ‘transfer from another hospital facility’ or initial admission had its event end type code indicating a discharge to an acute facility, another healthcare facility, or other service within same facility. For avoidable hospitalisations, all admissions, the tables of hospitalisations for mental disorders, causes of hospital admissions for injuries and causes of admissions, admissions were not counted if the admission had its admission source code as ‘transfer from another hospital facility’.

### Suppression of causes of death or hospitalisation

In tables presenting data on causes of death, hospitalisation, or cancer registrations by site, data is not presented where there were fewer than five Māori events during the period represented by the data.

### Ninety-five percent confidence intervals

The rates and ratios presented are estimates of the ‘true’ rate or ratio, calculated using data available. The 95% confidence interval (CI) indicates the interval that has a 95% probability of enclosing the ‘true’ value.

The CI is influenced by the population size of the group. When the population is small, the CI becomes wider and there is less certainty about the rate.

When the CIs of two groups do not overlap, the difference in rates between the groups is statistically significant. Sometimes, even when there are overlapping CIs, the difference between the groups may be statistically significant. In this report, if CIs overlap but a difference has been reported, a test of statistical significance (the log-transformation method) was performed (Clayton and Hills 1993).

### Age standardisation

Age-standardised rates adjust for differences in age distribution of the populations being compared. They are artificial rates created to allow comparisons to be made with differing groups. Age-standardised rates are calculated by applying age-specific rates to a standard population; they should only be compared with other adjusted rates that were calculated using the same ‘standard’ population. The standard population used in this report was the 2001 Census Māori population (shown below).

Rates for the total Māori and non-Māori populations were age–sex-standardised. This means the rates were standardised to a population with equal numbers of males and females and the age distribution of the total Māori population from the 2001 Census (Robson, Purdie et al 2007).

Standardising to the Māori population provides age-standardised rates that closely approximate the crude Māori rates (the actual rates among the Māori population) while also allowing comparisons with the non-Māori population. Care should be taken when using data from another source that are standardised using a different standard population, as they are not comparable.

Table 71: 2001 Census total Māori population

|  |  |  |
| --- | --- | --- |
| **Age group (years)** | **2001 Census total Māori population** | **Weighting** |
| 0–4 | 67,404 | 12.81 |
| 5–9 | 66,186 | 12.58 |
| 10–14 | 62,838 | 11.94 |
| 15–19 | 49,587 | 9.42 |
| 20–24 | 42,153 | 8.01 |
| 25–29 | 40,218 | 7.64 |
| 30–34 | 39,231 | 7.46 |
| 35–39 | 38,412 | 7.30 |
| 40–44 | 32,832 | 6.24 |
| 45–49 | 25,101 | 4.77 |
| 50–54 | 19,335 | 3.67 |
| 55–59 | 13,740 | 2.61 |
| 60–64 | 11,424 | 2.17 |
| 65–69 | 8,043 | 1.53 |
| 70–74 | 5,046 | 0.96 |
| 75–79 | 2,736 | 0.52 |
| 80–84 | 1,251 | 0.24 |
| 85 and over | 699 | 0.13 |

### ICD-10 codes

The International Classification of Diseases (ICD-10) codes used for the calculation of avoidable and ambulatory sensitive hospitalisations and avoidable and amenable mortality are presented in Tables 45 to 49 below. For the Excel tables of deaths by cause, hospitalisations by cause, mental disorders, hospitalisations for injuries by external cause, and cancer registrations, the codes are listed in Appendix 2 of [Hauora: Māori Standards of Health IV.](http://www.otago.ac.nz/wellington/otago067739.pdf) For other tables, the ICD codes are listed in the accompanying Excel tables.

Table 72: Potentially avoidable hospitalisation ICD-10 codes for children aged 1 month to 14 years

|  |  |
| --- | --- |
| **Condition** | **ICD-10-AM code** |
| Acute bronchiolitis | J21 |
| Acute rheumatic fever | I00–I02 |
| Acute upper respiratory tract infection excluding croup | J00–J03, J06 |
| Asthma | J45, J46 |
| Bacterial meningitis\* | G00, G01 |
| Bacterial/Unspecified pneumonia | J13–J16, J18 |
| Bronchiectasis | J47 |
| Constipation | K59.0 |
| Chronic rheumatic heart disease | I05–I09 |
| Croup, acute laryngitis, tracheitis | J04, J05.0 |
| Dental (dental caries, pulp, periodontal) | K02, K04, K05 |
| Dermatitis/eczema | L20–L30 |
| Febrile convulsions | R560 |
| Gastroenteritis | A00–A09, K529, R11, |
| Gastro oesophageal reflux | K21 |
| Meningococcal disease | A39 |
| Nutritional deficiency | D50–D53, E40–E64, |
| Otitis media | H65–H67 |
| Osteomyelitis | M86 |
| Skin infection | H00.0, H01.0, J34.0, L00–L05, L08, L98.0 |
| Tuberculosis | A15–A19 |
| Urinary tract infection ≥ 5 years | N10, N12, N13.6, N30.0, N30.9, N39.0, |
| Vaccine preventable diseases: tetanus neonatorum congenital rubella | P350, A33, A34 |
| tetanus, diphtheria, pertussis, polio, hepatitis B | A35, A36, A37, A80, B16, B18.0, B18.1 |
| measles, rubella, mumps | B05, B06, B26, M01.4 |
| Viral pneumonia | J12, J10.0, J11.0 |
| Viral /other / unspecified meningitis | A87, G02, G03 |
| Viral infection of unspecified site | B34 |

Source: Anderson et al (2012)  
Notes:  
Includes all acute admissions and arranged admissions that were admitted within 7 days.   
Waiting list admissions were excluded, apart from dental admissions which were all included.   
Admissions were included for patients aged 29 days through to 14 years, at admission.

Table 73: Ambulatory care sensitive hospitalisation ICD-10 codes for children aged 1 month to 14 years

|  |  |
| --- | --- |
| **Condition** | **ICD-10-AM code** |
| Acute rheumatic fever | I00–I02 |
| Acute upper respiratory tract infections excluding croup | J00–J03, J06 |
| Asthma | J45, J46 |
| Bacterial/Unspecified pneumonia | J13–J16, J18 |
| Bronchiectasis | J47 |
| Constipation | K59.0 |
| Chronic rheumatic heart disease | I05–I09 |
| Dental (dental caries, pulp, periodontal) | K02, K04, K05 |
| Dermatitis/eczema | L20–L30 |
| Gastroenteritis | A02–A09, K529, R11 |
| Gastro oesophageal reflux | K21 |
| Nutritional deficiency | D50–D53, E40–E64 |
| Otitis media | H65–H67 |
| Skin infection | L00–L04, L08, L98.0, J34.0, H01.0, H00.0 |
| Urinary tract infection ≥ 5 years | N10, N12, N136, N30.0, N30.9, N39.0 |
| Vaccine preventable diseases: tetanus neonatorum congenital rubella | P350, A33, A34 |
| > 6 months: tetanus, diphtheria, pertussis, polio, hepatitis B | A35, A36, A37, A80, B16, B18.0, B18.1 |
| > 16 months: measles, rubella, mumps | B05, B06, B26, M01.4 |

Source: Anderson et al (2012)  
Notes:  
Includes all acute admissions and arranged admissions that were admitted within 7 days.   
Waiting list admissions were excluded, apart from dental admissions which were all included.   
Admissions were included for patients aged 29 days through to 14 years, at admission.

Table 74: Ambulatory care sensitive hospitalisation ICD-10 codes for people aged 1 month to 74 years

|  |  |
| --- | --- |
| **Condition** | **ICD-10 code** |
| Gastroenteritis/dehydration | A02–A09, K52.9, R11 |
| Vaccine preventable disease MMR | B05\*, B06\*, B26\*, M01.4\*, P35.0 |
| Vaccine preventable disease Other ‡ | A33–A37, A40.3, A80, B16, B18 |
| Sexually transmitted infections § | A50–A59, A60, A63, A64, I98.0, M02.3, M03.1, M73.0, M73.1, N29.0, N34.1 |
| Cervical cancer § | C53 |
| Nutrition deficiency and anaemia | D50–D53, E40–E46, E50–E64, M83.3§ |
| Diabetes § | E10–E14, E162 |
| Epilepsy § | G40, G41, O15, R56.0, R56.8 |
| Upper respiratory and ENT | H65, H66, H67, J00–J04, J06 |
| Rheumatic fever/heart disease | I00, I01, I02, I05–I09 |
| Hypertensive disease § | I10–I15, I67.4 |
| Angina and chest pain † § | I20, R07.2–R07.4 |
| Myocardial infarction † § | I21–I23, I24.1 |
| Other ischaemic heart disease † § | I24.0, I24.8, I24.9, I25 |
| Congestive heart failure § | I50, J81 |
| Stroke † § | I61, I63–I66 |
| Pneumonia | J13–J16, J18 |
| Asthma | J45, J46 |
| Bronchiectasis || | J47 |
| Dental conditions | K02, K04, K05 |
| Gastro-oesophageal reflux disease | K21 |
| Peptic ulcer § | K25–K28 |
| Constipation | K590 |
| Cellulitis | H00.0, H01.0, J34.0, L01–L04, L08, L98.0 |
| Dermatitis and eczema | L20–L30 |
| Kidney/urinary infection ¶ | N10, N12, N13.6, N30.9, N39.0 |

Source: Ministry of Health   
Notes:  
Acute and arranged (occurring in less than 7 days of decision) admissions, except dental where elective admission are also included.  
Excluding discharges from an emergency department with one day of stay or shorter.  
\* Aged 15 months to 14 years.  
† Each admission counts as a half.  
‡ Aged six months to 14 years.  
§ Aged 15 years and over.  
|| Aged more than 15 years.  
¶ Aged 5 years and over.

Table 75: Avoidable mortality ICD-10 codes

|  |  |
| --- | --- |
| **Condition** | **ICD-10-AM** |
| Tuberculosis | A15–A19, B90 |
| Selected invasive bacterial and protozoal infection | A38–A41, A46, A48.1, B50–B54, G00, G03, J02.0, J13–J15, J18, L03 |
| Hepatitis | B15–B19 |
| HIV/AIDS | B20–B24 |
| Viral pneumonia and influenza | J10, J12, J17.1, J21 |
| Lip, oral cavity and pharynx cancers | C00–C14 |
| Oesophageal cancer | C15 |
| Stomach cancer | C16 |
| Colorectal cancer | C18–C21 |
| Liver cancer | C22 |
| Lung cancer | C33–C34 |
| Bone and cartilage cancer | C40–C41\* |
| Melanoma of skin | C43 |
| Non-melanotic skin cancer | C44 |
| Breast cancer (female only) | C50 |
| Uterine cancer | C54–C55 |
| Cervical cancer | C53 |
| Prostate | C61\* |
| Testis | C62\* |
| Bladder cancer | C67 |
| Thyroid cancer | C73 |
| Hodgkin’s disease | C81 |
| Lymphoid leukaemia, acute/chronic | C91.0, C91.1 |
| Benign tumours | D10–D36 |
| Thyroid disorders | E00–E07 |
| Diabetes | E10–E14\*\* |
| Alcohol-related diseases | F10, I42.6, K29.2, K70 |
| Illicit drug use disorders | F11–F16, F18–F19 |
| Epilepsy | G40–G41 |
| Rheumatic and other valvular heart diseases | I01–I09, I33–I37\* |
| Hypertensive heart disease | I10\*, I11 |
| Ischaemic heart disease | I20–I25 |
| Heart failure | I50\* |
| Cerebrovascular diseases | I60–I69 |
| Aortic aneurysm | I71 |
| Nephritis and nephrosis | I12–I13, N00–N09, N17–N19 |
| Obstructive uropathy and prostatic hyperplasia | N13, N20–N21, N35, N40, N99.1 |
| DVT with pulmonary embolism | I26, I80.2 |
| COPD | J40–J44\*\*\* |
| Asthma | J45–J46\*\*\* |
| Peptic ulcer disease | K25–K28 |
| Acute abdomen, appendicitis, intestinal obstruction, cholecystitis/lithiasis, pancreatitis, hernia | K35–K38, K40–K46, K80–K83, K85–K86, K91.5 |
| Chronic liver disease (excluding alcohol related disease) | K73, K74 |
| Complications of pregnancy | O00–O96\*, O98–O99\* |
| Birth defects | H31.1, P00, P04, Q00–Q99 |
| Complications of perinatal period | P01–P02\*, P03, P05–P95 |
| Road traffic injuries | V01–V04, V06, V09–V80, V82−V86\*, V87, V88.0−V88.5\*, V88.7−V88.9\*, V89, V98\*, V99 |
| Accidental poisonings | X40–X49 |
| Falls | W00–W19 |
| Fires | X00–X09 |
| Drownings | W65–W74 |
| Suicide and self-inflicted injuries | X60–X84, Y87.0 |
| Violence | X85–Y09, Y87.1 |
| Event of undetermined intent | Y10–Y34, Y87.2\*\*\*\* |
| Treatment injury | Y60–Y82\* |

Notes: \*Added from amenable mortality  
\*\*E09 should be added if using ICD-10 AM version 3 or higher.  
\*\*\*All ages added from amenable mortality  
\*\*\*\*Y87.2 added by authors for completeness

Table 76: Amenable mortality ICD-10 codes

| **Group** | **Condition** | **ICD-10** |
| --- | --- | --- |
| Infections | Pulmonary tuberculosis | A15−A16 |
| Meningococcal disease | A39 |
| Pneumococcal disease | A40.3, G00.1, J13 |
| HIV/AIDS | B20–B24 |
| Cancers | Stomach | C16 |
| Rectum | C19–C21 |
| Bone and cartilage | C40–C41 |
| Melanoma | C43 |
| Female breast | C50 |
| Cervix | C53 |
| Testis | C62 |
| Prostate | C61 |
| Thyroid | C73 |
| Hodgkin’s | C81 |
| Acute lymphoblastic leukaemia (age 0–44 years) | C91.0 |
| Maternal and infant | Complications of pregnancy | O00–O96, O98–O99 |
| Complications of the perinatal period | P01–P03, P05–P94 |
| Cardiac septal defect | Q21 |
| Chronic disorders | Diabetes | E10–E14\* |
| Valvular heart disease | I01, I05–I09, I33–I37 |
| Hypertensive diseases | I10–I13 |
| Coronary disease | I20–I25 |
| Heart failure | I50 |
| Cerebrovascular diseases | I60–I69 |
| Renal failure | N17–N19 |
| Pulmonary embolism | I26 |
| COPD | J40-J44 |
| Asthma | J45–J46 |
| Peptic ulcer disease | K25–K27 |
| Cholelithiasis | K80 |
| Injuries | Suicide | X60–X84 |
| Land transport accidents (excluding trains) | V01–V04,V06−V14, V16−V24, V26−V34, V36−V44, V46−V54, V56−V64, V66−V74, V76−V79, V80.0−V80.5, V80.7−V80.9, V82−V86, V87.0−V87.5, V87.7−V87.9, V88.0−V88.5, V88.7−V88.9, V89, V98−V99 |
| Falls (accidental fall on same level) | W00−W08, W18 |
| Fire, smoke or flames | X00–X09 |
| Treatment injury | Y60–Y82 |

Source: Ministry of Health 2010  
Note: \* E09 should be added if using ICD-10 AM version 3 or higher.





1. The use of the 2001 Māori population standard makes the age-standardised data in this report comparable to the Ministry of Health’s Māori health chartbooks, but not to other Ministry of Health documents which use the World Health Organisation’s world population. [↑](#footnote-ref-1)
2. Population projections are provided in Appendix 1. [↑](#footnote-ref-2)