



Waitemata
District Health Board

Māori Health Profile 2015



Te Rei Puta

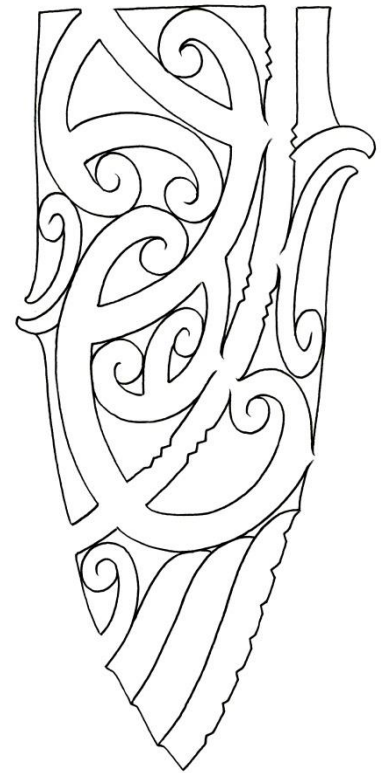
The cover design represents the journey of the data from production to use by the health sector. The overall shape of the design is the prized rei puta. This signifies the importance of information and the acknowledgement that knowledge is a taonga.

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 awahi 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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Nā,

Te Rōpū Rangahau Hauora a Eru Pōmare (Eru Pōmare Māori Health Research Centre)
University of Otago Wellington



Tiro whānui

– Waitemata at a glance

Waitemata population

- In 2013, an estimated 55,200 Māori lived in the Waitemata District Health Board region, 10% of the District's total population.
- The Waitemata Māori population is youthful, but showing signs of ageing. In 2013 17% of the District's children aged 0–14 years were Māori, as were 14% of the District's youth aged 15–24 years. The population aged 65 years and over will increase by 50% between 2013 and 2020.

Whānau ora – Healthy families

- In 2013, most Waitemata Māori adults (87%) reported that their whānau was doing well, but 6% felt their whānau was doing badly. A small proportion (4%) found it hard to access whānau support in times of need, but most found it easy (90%).
- Being involved in Māori culture was important (very, quite or somewhat) to 69% of Māori adults and spirituality was important to 65%.
- Almost all (95%) Waitemata Māori had been to a marae at some time. A majority (58%) had been to their ancestral marae, with 58% stating they would like to go more often.
- Five percent had taken part in traditional healing or massage in the last 12 months.
- In 2013 15% of Waitemata Māori reported they could have a conversation about a lot of everyday things in te reo Māori.

Wai ora – Healthy environments

Education

- In 2013, 94% of Māori children had participated in early childhood education by the time they started school.
- In 2013, 56% of Māori adults aged 18 years and over had at least a Level 2 Certificate, a significant increase since 2006 (47%). Among non-Māori, 69% had at least this level of qualification.

Work

- In 2013, 9% of Māori adults aged 15 years and over were unemployed, two-thirds higher than the proportion of non-Māori (6%).
- Most Māori adults (89%) do voluntary work.
- In 2013, Māori were more likely than non-Māori to look after someone who was disabled or ill, within or outside of the home.

Income and standard of living

- In 2013, one in three children and one in four 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 one in five children and adults in other households.
- In 2013, 4% of Waitemata Māori adults reported having put up with feeling the cold a lot to keep costs down in the previous 12 months, 2% had gone without fresh fruit and vegetables, and 6% had often postponed or put off visits to the doctor.

- Five percent of Māori household residents had no access to a motor vehicle, compared to 2% of non-Māori household residents.
- Residents of Māori households were less likely to have access to telecommunications than those living in other households: 19% had no internet, 20% no telephone, 10% no mobile phone, and 2% had no access to any telecommunications.

Housing

- The most common housing problems reported to be a big problem by Māori adults in 2013 were finding it hard to keep warm (12%), damp (9%), and needing repairs (7%).
- Just over half (54%) of children in Waitemata Māori households were living in rented accommodation, two-thirds higher than the proportion of children in other households (33%).
- Waitemata residents living in Māori households were around 80% more likely than residents of other households to be in crowded homes (i.e. requiring at least one additional bedroom) (18% compared to 10%).

Area deprivation

- Using the NZDep2013 index of small area deprivation, 42% of Waitemata Māori lived in the four most deprived decile areas compared to 23% of non-Māori.

Mauri ora – Healthy individuals

Pepi, tamariki – Infants and children

- On average 1,561 Māori infants were born per year in Waitemata during 2009–2013, 20% of all live births in the DHB. Around 6% of Māori babies had low birth weight.
- In 2013, 80% of Māori babies in Waitemata were fully breastfed at 6 weeks.
- Just over half of Māori infants in Waitemata were enrolled with a Primary Health Organisation by three months of age (56%).
- In 2014, 89% of Māori children were fully immunised at 8 months of age, 92% at 24 months.
- In 2013, one in two Waitemata Māori children and one in three non-Māori children aged 5 years had caries. At Year 8 of school, 50% of Māori children and 41% of non-Māori children had caries. Māori children under 15 years were 36% more likely than non-Māori to be admitted to hospital for tooth and gum disease.
- During 2011–2013, on average there were 171 hospital admissions per year for grommet insertions among Māori children (at a rate 43% higher than non-Māori) and 136 admissions for serious skin infections (at a rate almost double that of non-Māori children).
- Māori children under 15 years of age were two-and-a-half times as likely as non-Māori children to be hospitalised for acute rheumatic fever, with three children per year admitted at least once on average.
- On average, over 1,000 hospitalisations per year of Māori children were potentially avoidable through population-based health promotion and intersectoral actions, at a rate one third higher than that of non-Māori.
- Over 700 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 one-third higher than for non-Māori children.

Rangatahi – Young adults

- There has been a significant increase in the proportion of Waitemata Māori aged 14 and 15 years who have never smoked, and a decrease in the proportion of Māori aged 15–24 years who smoke regularly.
- By September 2014, 61% of Māori girls aged 17 years and 40% of those aged 14 years had completed all three doses of the human papilloma virus (HPV) vaccine. Among 17 year olds, coverage was higher for Māori than for non-Māori. However among 14 year olds, Māori had lower coverage than non-Māori.
- On average, one Māori aged 15–24 years was admitted to hospital with acute rheumatic fever (12 times the rate of non-Māori in this age group).
- Rates of hospitalisation for injury from self-harm were a third higher for Māori than for non-Māori among those aged 15–24 years during 2011–2013 and more than two-and-a half times as high at ages 25–44 years.

Pakeke – Adults

- Almost two-thirds of Māori adults in Waitemata reported having excellent or very good health in 2013, a quarter reported having good health. One in eight (12%) reported having fair or poor health.
- Smoking rates are decreasing, but remain 2.4 times as high for Māori as for non-Māori (27% compared to 12%).

Circulatory system diseases

- Māori adults aged 25 years and over were 55% more likely than non-Māori to be hospitalised for circulatory system diseases (including heart disease and stroke) in 2011–2013.
- Waitemata Māori were 41% more likely than non-Māori to be admitted with acute coronary syndrome, 34% more likely to have angiography, just as likely to have angioplasty, and 78% more likely to have a coronary artery bypass and graft.
- Heart failure admission rates were 4.2 times as high for Māori as for non-Māori.
- Stroke admission rates were 55% higher Māori than for non-Māori, and rates for hypertensive disease were twice as high.
- Chronic rheumatic heart disease admissions were almost two-and-a-half times as common for Māori as for non-Māori.
- Māori under 75 years were 3 times as likely as non-Māori in Waitemata to die from circulatory system diseases during 2007–2011.

Diabetes

- In 2013, 4% of Māori and 5% of non-Māori were estimated to have diabetes. Half of Māori aged 25 years and over who had diabetes were regularly receiving metformin or insulin, 82% were having their blood sugar monitored regularly, and 64% were being screened regularly for renal disease.
- In 2011–2013 Māori with diabetes were almost 4 times as likely as non-Māori to have a lower limb amputated.

Cancer

- Compared to non-Māori, cancer incidence was 30% higher for Māori females and cancer mortality 50% higher. Among males, cancer incidence was similar to non-Māori but cancer mortality was 61% higher.
- Breast, lung, uterine and colorectal cancers were the most commonly registered among Waitemata Māori women. The rate of lung cancer was 3.7 times as high as for non-Māori, uterine cancer 1.9 times as high, breast cancer 1.3 times as high, while colorectal cancer incidence was similar.
- Breast screening coverage of Māori women aged 45–69 years was 60% compared to 69% of non-Māori women at December 2014. Cervical screening coverage of Māori women aged 25–69 years was 55% over 3 years and 68% over five years (compared to 78% and 92% of non-Māori women respectively).
- Lung and breast cancers were the most common causes of death from cancer among Māori women. Lung cancer mortality was 3 times the non-Māori rate.
- Prostate, lung, colorectal, liver, and leukaemias were the most common cancers among Waitemata Māori men. Lung cancer registration rates were 2.4 times the rate for non-Māori men, liver cancer 4 times and leukaemias 1.8 times the non-Māori rates.
- Lung, prostate, and stomach cancers were the most common causes of cancer death for Māori men, at rates 2 to 3 times those of non-Māori.

Respiratory disease

- Māori aged 45 years and over were 3.3 times as likely as non-Māori to be admitted to hospital for chronic obstructive pulmonary disease (COPD) during 2011–2013.
- Asthma hospitalisation rates were higher for Māori than for non-Māori in each age group.
- Māori under 75 years had 3.5 times the non-Māori rate of death from respiratory disease in 2007–2011.

Mental disorders

- Māori were twice as likely as non-Māori to be admitted to hospital for a mental disorder during 2011–2013. Schizophrenia type disorders were the most common disorders, followed by mood disorders.

Gout

- In 2011 the prevalence of gout among Waitemata Māori was estimated to be 6%, compared to 3% for non-Māori.
- A third of Māori with gout regularly received allopurinol, a preventive therapy to lower urate levels. Of those who received allopurinol, only 36% had a lab test for serum urate levels in the following six months.
- During 2011–2013 the rate of hospitalisations for gout was 4.6 times the non-Māori rate, indicating a higher frequency of flare-ups.

All ages

Hospitalisations

- The all-cause rate of hospital admissions was 18% higher for Māori than for non-Māori during 2011–2013.
- Almost 3,300 Māori hospital admissions per year were potentially avoidable, with the rate 45% higher for Māori than for non-Māori. The ASH rate was 58% higher.

Mortality

- In 2012–2014, life expectancy at birth for Māori in the Auckland Region was 77.8 years for females (6.8 years lower than for non-Māori females) and 73.7 years for males (7.4 years lower than for non-Māori).
- The all-cause mortality rate for Waitemata Māori was 87% higher than the non-Māori rate.
- Leading causes of death for Māori females were ischaemic heart disease (IHD), lung cancer, COPD, accidents and stroke. Leading causes of death for Māori males were IHD, accidents, lung cancer, diabetes, and suicide.
- Potentially avoidable mortality and mortality amenable to health care were around 2.2 and 2.4 times as high respectively for Māori than for non-Māori in Waitemata during 2007–2011.

Injuries

- Waitemata Māori were a third more likely than non-Māori to be admitted to hospital for injuries during 2011–2013. Males had higher rates of admission than females.
- The most common causes of injury among Waitemata Māori were falls, exposure to mechanical forces, complications of medical and surgical care, transport accidents, assault, and intentional self-harm.
- Rates of hospital admission for injury caused by assault were 3 times as high for Māori as for non-Māori.
- Injury mortality was 82% higher for Māori than for non-Māori in Waitemata.

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Introduction

The 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](#).

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](#). 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 Waitemata, Waitemata 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 Waitemata DHB. Accompanying Excel tables also include data for the total Waitemata DHB population and the total New Zealand population for reo speakers, socioeconomic indicators, mortality, cancer registrations, and hospital discharges.

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](#). 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 population¹.

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.

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.

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](#)).

Other useful data sources include the Ministry of Health's [publications](#) on Māori health, the Health Quality and Safety Commission's [Atlas of Healthcare Variation](#), the [DHB](#) reports and [Te Ohonga Ake](#) reports of the New Zealand Child and Youth Epidemiology Service, the [Trendly](#) health performance monitoring website, and the Māori Health Plan Indicator reports provided to DHBs.



Te Tatauranga o te Iwi

– Key demographics

In 2013, approximately 8% of the country’s total Māori population lived in the Waitemata District Health Board. The total population of the DHB (552,800) made up 12% of the national population. In 2015, the Māori population is estimated to be 57,100 and the total population 576,800.²

Table 1: Population by age group, Waitemata DHB, 2013

| Age group (years) | Māori | | | Non-Māori | | Total DHB Number |
|-------------------|--------|------------------|----------|-----------|------------------|------------------|
| | Number | Age distribution | % of DHB | Number | Age distribution | |
| 0–14 | 18,680 | 34% | 17 | 94,440 | 19% | 113,120 |
| 15–24 | 10,510 | 19% | 14 | 66,880 | 13% | 77,390 |
| 25–44 | 13,950 | 25% | 9 | 136,370 | 27% | 150,320 |
| 45–64 | 9,790 | 18% | 7 | 131,240 | 26% | 141,030 |
| 65+ | 2,250 | 4% | 3 | 68,680 | 14% | 70,930 |
| Total | 55,200 | 100% | 10 | 497,600 | 100% | 552,800 |

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

In 2013 Māori residents comprised 10% of the DHB population. The Māori population is relatively young, with a median age in 2013 of 23.4 years, compared with 37 years for the total DHB population. Māori comprised 17% of the DHB’s children aged 0–14 years and 14% of those aged 15–24 years.

Table 2: Population projections, Waitemata DHB, 2013 to 2033

| Year | Māori | | | | | | | Total DHB | | | NZ | |
|------|-----------|----------|---------------|--------------|---------------|-------------|------------|-----------|------------|-------------|----------|-----------|
| | Residents | % of DHB | % of NZ Māori | % 0–14 years | % 15–64 years | % 65+ years | Median age | Residents | Median age | % of NZ pop | NZ Māori | Total NZ |
| 2013 | 55,200 | 10 | 8 | 34 | 62 | 4 | 23.4 | 552,800 | 37.0 | 12 | 692,300 | 4,442,100 |
| 2018 | 59,300 | 10 | 8 | 33 | 62 | 5 | 24.4 | 609,300 | 37.1 | 13 | 734,500 | 4,726,200 |
| 2023 | 63,300 | 10 | 8 | 32 | 62 | 6 | 25.5 | 657,800 | 37.7 | 13 | 773,500 | 4,935,200 |
| 2028 | 67,500 | 10 | 8 | 30 | 62 | 8 | 26.3 | 706,600 | 38.4 | 14 | 811,700 | 5,139,700 |
| 2033 | 71,900 | 10 | 9 | 29 | 61 | 10 | 27.1 | 754,400 | 39.4 | 14 | 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 who are aged 65 years and over is currently 4% but is projected to increase to 10% in 2033. Between 2013 and 2020 the number of Māori aged 65 and over will increase by 50% from 2,250 to 3,370 (see Appendix 1). In 2013 there were 660 Māori aged 75 years and over in Waitemata, of whom 150 lived alone.

² Population projections are provided in Appendix 1.



Whānau ora

– Healthy families

The 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.

Whānau well-being

Table 3: Whānau well-being reported by Māori aged 15 years and over, Waitemata DHB, 2013

| How the whānau is doing | Waitemata DHB | | | New Zealand | |
|-------------------------|------------------|------|--------------|-------------|--------------|
| | Estimated number | % | (95% CI) | % | (95% CI) |
| Well / Extremely well | 39,500 | 87.0 | (83.2, 90.7) | 83.4 | (82.5, 84.4) |
| Neither well nor badly | 3,000* | 6.6* | (3.8, 9.4) | 10.3 | (9.4, 11.2) |
| Badly / Extremely badly | 3,000* | 6.4* | (3.9, 9.0) | 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%.

Most (87%) Waitemata Māori adults reported that their whānau was doing well or extremely well in 2013. However 6% 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, Waitemata DHB, 2013

| Whānau description | Waitemata DHB | | | New Zealand | |
|----------------------------------------------------------|------------------|------|--------------|-------------|--------------|
| | Estimated number | % | (95% CI) | % | (95% CI) |
| Size of whānau | | | | | |
| 10 or less | 25,500 | 56.5 | (50.6, 62.5) | 53.7 | (52.1, 55.3) |
| 11 to 20 | 9,000 | 20.2 | (16.0, 24.4) | 22.6 | (21.3, 24.0) |
| More than 20 | 10,500 | 23.3 | (18.3, 28.2) | 23.6 | (22.4, 24.8) |
| Groups included in whānau | | | | | |
| Parents, partner, children, brothers & sisters | 45,000 | 98.8 | (97.8, 99.9) | 94.6 | (94.0, 95.2) |
| Aunts & uncles, cousins, nephews & nieces, other in-laws | 23,500 | 51.8 | (46.5, 57.1) | 41.3 | (39.8, 42.8) |
| Grandparents, grandchildren | 17,500 | 38.9 | (33.4, 44.4) | 41.9 | (40.5, 43.4) |
| Friends, others | 3,500* | 7.6* | (4.7, 10.5) | 12.4 | (11.5, 13.3) |

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

Note: * Sampling error is 30% or more but less than 50%.

Table 4 shows the size and composition of whānau, with almost a quarter reporting whānau sizes of more than 20 people. Over 7% include friends in their description of whānau.

Whānau support

Table 5: Access to whānau support, Māori aged 15 years and over, Waitemata DHB, 2013

| How easy is it to get help | Waitemata DHB | | | New Zealand | |
|-------------------------------------------------------------------------------------------------------------|------------------|-------|--------------|-------------|--------------|
| | Estimated number | % | (95% CI) | % | (95% CI) |
| Support in times of need | | | | | |
| Easy, very easy | 41,000 | 90.2 | (87.3, 93.0) | 81.2 | (80.1, 82.4) |
| Sometimes easy, sometimes hard | 3,000* | 6.1* | (4.1, 8.2) | 12.7 | (11.7, 13.6) |
| Hard / very hard | 1500** | 3.7** | (1.7, 5.7) | 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 | 30,000 | 66.6 | (60.8, 72.4) | 64.1 | (62.7, 65.6) |
| Sometimes easy, sometimes hard | 6,000 | 14.0 | (10.2, 17.8) | 16.9 | (15.9, 18.0) |
| Hard / very hard | 6,500 | 14.2 | (10.2, 18.3) | 14.7 | (13.5, 15.9) |
| Don't need help | 2,500* | 5.2* | (3.0, 7.4) | 4.2 | (3.7, 4.7) |

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

Notes: * Sampling error is 30% or more but less than 50%. ** Sampling error is 50% or more but less than 100%.

In 2013, most Māori adults in Waitemata (90%) reported having easy access to whānau support in times of need. However, an estimated 1,500 (4%) had difficulty getting help.

A smaller proportion found it easy to get help with Māori cultural practices (67%), with 14% finding it hard or very hard. A further 5% reported not needing help.

Importance of participation in Māori culture

Table 6: Importance of Māori culture and spirituality, Māori aged 15 years and over, Waitemata DHB, 2013

| | Waitemata DHB | | | New Zealand | |
|------------------------------------------------------|------------------|------|--------------|-------------|--------------|
| | Estimated number | % | (95% CI) | % | (95% CI) |
| Importance of being involved in Māori culture | | | | | |
| Very / quite | 18,000 | 39.8 | (33.8, 45.8) | 46.3 | (44.9, 47.6) |
| Somewhat | 13,500 | 29.4 | (24.3, 34.4) | 24.2 | (22.9, 25.6) |
| A little / not at all | 14,000 | 30.8 | (25.2, 36.5) | 29.5 | (28.3, 30.7) |
| Importance of spirituality | | | | | |
| Very / quite | 18,000 | 40.2 | (34.0, 46.4) | 48.7 | (47.4, 49.9) |
| Somewhat | 11,000 | 25.0 | (20.3, 29.7) | 17.0 | (16.0, 18.0) |
| A little / not at all | 15,500 | 34.8 | (29.0, 40.6) | 34.3 | (33.1, 35.5) |

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

Being involved in Māori culture was important to 40% of Waitemata Māori adults, and somewhat important to a further 29%. Spirituality was important to 40% of Waitemata Māori and somewhat important to a further 25%.

Te Reo Māori

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

| Māori | | | Non-Māori | | | Māori/non-Māori ratio (95% CI) | Difference in percentage |
|--------|------|--------------|-----------|-----|------------|--------------------------------------|--------------------------|
| Number | % | (95% CI) | Number | % | (95% CI) | | |
| 7,110 | 15.5 | (15.2, 15.8) | 2,016 | 0.5 | (0.4, 0.5) | 34.35 (32.49, 36.31) | 15.0 |

Source: 2013 Census, 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, 15% of all Māori in Waitemata and under 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, Waitemata DHB, 2013

| Language spoken at home | Waitemata DHB | | | New Zealand | |
|-------------------------|------------------|-------|-------------|-------------|--------------|
| | Estimated number | % | (95% CI) | % | (95% CI) |
| Māori is main language | 1,000** | 2.3** | (0.3, 4.3) | 2.6 | (2.2, 3) |
| Māori is used regularly | 5,000 | 13.1 | (9.6, 16.6) | 20.5 | (19.2, 21.8) |

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

Note: ** Sampling error is 50% or more but less than 100%.

In 2013, 13% of Waitemata Māori adults reported that Māori language was used regularly in the home, and for 2% te reo Māori was the main language.

Access to marae

Table 9: Access to marae, Māori aged 15 years and over, Waitemata DHB, 2013

| Been to marae | Waitemata DHB | | | New Zealand | |
|---------------------------------------------------------|------------------|------|--------------|-------------|--------------|
| | Estimated number | % | (95% CI) | % | (95% CI) |
| At some time | 43,000 | 95.0 | (92.2, 97.8) | 96.0 | (95.5, 96.6) |
| In previous 12 months ⁽¹⁾ | 23,000 | 53.0 | (46.8, 59.1) | 58.2 | (56.6, 59.7) |
| Ancestral marae at some time ⁽²⁾ | 26,000 | 58.2 | (53.1, 63.3) | 62.3 | (60.9, 63.7) |
| Ancestral marae in previous 12 months ⁽³⁾ | 13,000 | 29.2 | (24.3, 34.2) | 33.6 | (32.3, 34.9) |
| Like to go to ancestral marae more often ⁽²⁾ | 17,500 | 58.1 | (51.2, 65.0) | 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, almost all Māori in Waitemata (95%) had been to a marae, with just over half (53%) having been in the last 12 months. Around 60% had been to at least one of their ancestral marae, but just 29% had been in the last 12 months, with three out of five (58%) reporting 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, Waitemata DHB, 2013

| Waitemata DHB | | | New Zealand | |
|------------------|-------|------------|-------------|--------------|
| Estimated number | % | (95% CI) | % | (95% CI) |
| 2,000** | 4.6** | (2.0, 7.2) | 10.9 | (10.0, 11.7) |

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

Note: ** Sampling error is 50% or more but less than 100%.

In 2013, an estimated 2,000 Māori adults (5%) in Waitemata had taken part in traditional healing or massage during the previous 12 months.



Wai ora

– Healthy environments

This 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 Waitemata DHB, 2006 and 2013

| Year | Māori | | | Non-Māori | | | Māori/non-Māori ratio (95% CI) | Difference in percentage |
|------|--------|------|--------------|-----------|------|--------------|--------------------------------|--------------------------|
| | Number | % | (95% CI) | Number | % | (95% CI) | | |
| 2006 | 11,646 | 47.1 | (46.5, 47.7) | 180,762 | 63.2 | (63.0, 63.4) | 0.75 (0.74, 0.76) | -16.1 |
| 2013 | 15,084 | 55.7 | (55.1, 56.3) | 212,214 | 68.5 | (68.3, 68.7) | 0.81 (0.80, 0.82) | -12.8 |

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 47% to 56% between 2006 and 2013. However, Māori remained two-thirds as likely as non-Māori to have this level of qualification as the non-Māori proportion increased at a similar rate.

Work

Table 12: Labour force status, 15 years and over, Waitemata 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 | 14,685 | 53.9 | (53.3, 54.4) | 171,861 | 54.6 | (54.5, 54.8) | 0.99 (0.98, 1.00) | -0.8 |
| Employed part-time | 3,591 | 12.7 | (12.3, 13.1) | 49,617 | 16.1 | (15.9, 16.2) | 0.79 (0.77, 0.82) | -3.4 |
| Unemployed | 1,776 | 6.3 | (6.0, 6.6) | 9,945 | 3.9 | (3.8, 4.0) | 1.61 (1.53, 1.69) | 2.4 |
| Not in the labour force | 7,476 | 27.0 | (26.5, 27.5) | 101,955 | 25.4 | (25.2, 25.5) | 1.06 (1.04, 1.08) | 1.6 |
| 2013 | | | | | | | | |
| Employed full-time | 14,565 | 49.0 | (48.5, 49.5) | 178,614 | 52.0 | (51.8, 52.1) | 0.94 (0.93, 0.95) | -3.0 |
| Employed part-time | 3,732 | 12.0 | (11.6, 12.3) | 51,651 | 15.0 | (14.9, 15.1) | 0.80 (0.77, 0.82) | -3.0 |
| Unemployed | 2,790 | 9.4 | (9.1, 9.7) | 15,483 | 5.6 | (5.5, 5.7) | 1.68 (1.61, 1.75) | 3.8 |
| Not in the labour force | 9,270 | 29.7 | (29.2, 30.2) | 117,984 | 27.4 | (27.3, 27.6) | 1.08 (1.06, 1.10) | 2.3 |

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.

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 a decrease in the number and proportion of Māori adults employed full-time, or part-time, and a corresponding increase in the unemployment rate (from 6% to 9%). There was also an increase in the population who were not in the labour force.

In 2013, Māori were two-thirds more likely than non-Māori to be unemployed, with an absolute gap of 4 percentage points in unemployment rates.

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

| ANZSIC Industry | Waitemata DHB | | | | | | New Zealand | |
|-------------------------------------------------|---------------|-------|------|-----------|-------|------|-------------|------|
| | Māori | | | Non-Māori | | | % | Rank |
| | Number | % | Rank | Number | % | Rank | | |
| Females | | | | | | | | |
| Health Care and Social Assistance | 1,266 | 15.3% | 1 | 16,692 | 15.7% | 1 | 17.1% | 1 |
| Education and Training | 1,035 | 12.5% | 2 | 13,374 | 12.5% | 2 | 12.9% | 2 |
| Retail Trade | 897 | 10.8% | 3 | 12,069 | 11.3% | 3 | 11.6% | 3 |
| Professional, Scientific and Technical Services | 624 | 7.5% | 4 | 11,391 | 10.7% | 4 | 8.5% | 4 |
| Public Administration and Safety | 558 | 6.7% | 5 | 4,128 | 3.9% | 11 | 5.0% | 7 |
| Males | | | | | | | | |
| Construction | 1,950 | 21.9% | 1 | 15,432 | 13.3% | 1 | 13.2% | 2 |
| Manufacturing | 1,050 | 11.8% | 2 | 13,947 | 12.0% | 3 | 13.4% | 1 |
| Public Administration and Safety | 723 | 8.1% | 3 | 5,901 | 5.1% | 7 | 5.2% | 8 |
| Retail Trade | 651 | 7.3% | 4 | 10,413 | 9.0% | 4 | 8.3% | 5 |
| Wholesale Trade | 600 | 6.8% | 5 | 9,162 | 7.9% | 5 | 6.2% | 6 |

Source: 2013 Census, Statistics New Zealand

Note: Australian and New Zealand Standard Industrial Classification 2006 (ANZSIC)

Service industries were the main employers of Māori women in Waitemata, including health care and social assistance; education and training; retail; professional, scientific and technical services; and public administration and safety. For Māori men, leading industries were retail; wholesale trade; public administration and safety; manufacturing; and construction.

Table 14: Leading occupations of employed Māori, Waitemata DHB, 2013

| ANZSCO Occupation | Waitemata DHB | | | | | | New Zealand | |
|----------------------------------------|---------------|-------|------|-----------|-------|------|-------------|------|
| | Māori | | | Non-Māori | | | % | Rank |
| | Number | % | Rank | Number | % | Rank | | |
| Females | | | | | | | | |
| Professionals | 1,971 | 23.7% | 1 | 30,318 | 28.5% | 1 | 26.7% | 1 |
| Clerical and Administrative Workers | 1,740 | 21.0% | 2 | 22,596 | 21.3% | 2 | 19.5% | 2 |
| Community and Personal Service Workers | 1,329 | 16.0% | 3 | 12,414 | 11.7% | 5 | 12.9% | 4 |
| Managers | 1,110 | 13.4% | 4 | 16,143 | 15.2% | 3 | 14.4% | 3 |
| Sales Workers | 1,014 | 12.2% | 5 | 13,155 | 12.4% | 4 | 11.7% | 5 |
| Labourers | 558 | 6.7% | 6 | 4,992 | 4.7% | 7 | 8.3% | 6 |
| Technicians and Trades Workers | 399 | 4.8% | 7 | 5,166 | 4.9% | 6 | 5.0% | 7 |
| Machinery Operators and Drivers | 180 | 2.2% | 8 | 1,443 | 1.4% | 8 | 1.5% | 8 |
| Males | | | | | | | | |
| Technicians and Trades Workers | 1,830 | 20.6% | 1 | 22,167 | 19.3% | 3 | 18.5% | 3 |
| Managers | 1,524 | 17.1% | 2 | 27,522 | 24.0% | 1 | 22.7% | 1 |
| Labourers | 1,302 | 14.6% | 3 | 9,699 | 8.5% | 5 | 13.6% | 4 |
| Professionals | 1,278 | 14.4% | 4 | 25,308 | 22.1% | 2 | 18.6% | 2 |
| Machinery Operators and Drivers | 1,104 | 12.4% | 5 | 6,963 | 6.1% | 6 | 9.1% | 5 |
| Community and Personal Service Workers | 834 | 9.4% | 6 | 6,573 | 5.7% | 8 | 5.4% | 7 |
| Sales Workers | 591 | 6.6% | 7 | 9,765 | 8.5% | 4 | 7.1% | 6 |
| Clerical and Administrative Workers | 441 | 5.0% | 8 | 6,738 | 5.9% | 7 | 5.1% | 8 |

Source: 2013 Census, Statistics New Zealand

Note: Australian and New Zealand Standard Classification of Occupations (ANZSCO), major grouping

Among employed Māori women, the leading occupational groupings were professionals (24%), community and personal service workers (16%), clerical and administrative workers (21%). The next most common occupations were labourers, managers, and sales workers.

Māori men were most likely to be employed as labourers (15%), technicians and trade workers (21%), managers (17%), and professionals (14%).

Table 15: Unpaid work, 15 years and over, Waitemata 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 | 25,485 | 89.3 | (88.9, 89.6) | 306,924 | 87.6 | (87.5, 87.8) | 1.02 (1.01, 1.02) | 1.7 |
| Looking after disabled/ill household member | 3,225 | 11.1 | (10.7, 11.5) | 22,467 | 5.9 | (5.9, 6.0) | 1.87 (1.80, 1.93) | 5.1 |
| Looking after disabled/ill non-household member | 3,163 | 10.6 | (10.3, 11.0) | 25,251 | 6.0 | (5.9, 6.1) | 1.77 (1.71, 1.84) | 4.6 |

Source: 2013 Census, Statistics New Zealand

Notes Percentages are age-standardised. Ratios in **bold** show a statistically significant difference between Māori and non-Māori.

Around 90% of Māori adults worked without pay in 2013. Māori were nearly twice as likely as non-Māori to look after someone who was disabled or ill without pay, both within the home and outside of the home.

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, Waitemata DHB, 2013

| Actions taken a lot to keep costs down | Waitemata DHB | | | New Zealand | | |
|------------------------------------------|------------------|-------|------------|-------------|--------------|--|
| | Estimated number | % | (95% CI) | % | (95% CI) | |
| Put up with feeling the cold | 1,500** | 3.5** | (0.9, 6.0) | 11.0 | (10.2, 11.8) | |
| Go without fresh fruit and vegetables | 1,000** | 1.8** | (0.6, 3.0) | 5.4 | (4.8, 6.0) | |
| Postpone or put off visits to the doctor | 2,500* | 6.0* | (3.3, 8.8) | 8.8 | (7.9, 9.6) | |

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

Notes: * Sampling error is 30% or more but less than 50%. ** Sampling error is 50% or more but less than 100%.

An estimated 1,500 Māori adults (3.5%) reported putting up with feeling cold a lot to keep costs down during the previous 12 months, 1,000 (2%) had gone without fresh fruit and vegetables, and 2,500 (6%) 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, Waitemata 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 | 3,939 | 19.3 | (18.8, 19.9) | 6,285 | 6.6 | (6.5, 6.8) | 2.92 (2.81, 3.03) | 12.7 |
| 2013 | 4,470 | 20.5 | (19.9, 21.0) | 6,270 | 6.3 | (6.1, 6.4) | 3.25 (3.14, 3.37) | 14.2 |

Source: Statistics New Zealand, 2006 and 2013 Census

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.

There was an increase in the number of children living in Māori families where the only income was means-tested benefits between 2006 and 2013, with the proportion increasing from 19% to 21%. Children in Māori families were more than 3 times as likely as non-Māori children to be in this situation.

Table 18: Children and adults living in households with low incomes, Waitemata 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 | 5,967 | 32.2 | (31.6, 32.9) | 18,498 | 20.1 | (19.9, 20.4) | 1.60 (1.56, 1.64) | 12.1 |
| Adults 18 years & over | 10,389 | 27.3 | (26.8, 27.7) | 52,905 | 20.6 | (20.4, 20.7) | 1.33 (1.30, 1.35) | 6.7 |

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.

A third of the children in Māori households (almost 6,000) were in households with low equivalised household incomes, 60% more than the proportion of non-Māori children. More than a quarter of adults in Māori households (10,389) lived in low income households, a third higher than the proportion of other adults.

Table 19: Households with no access to a motor vehicle, Waitemata 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 | 1,086 | 6.0 | (5.7, 6.4) | 7,653 | 5.4 | (5.3, 5.5) | 1.11 (1.05, 1.18) | 0.6 |
| 2013 | 1,284 | 6.5 | (6.1, 6.8) | 7,260 | 4.8 | (4.7, 4.9) | 1.35 (1.27, 1.43) | 1.7 |
| People (% age-standardised) | | | | | | | | |
| 2006 | 2,898 | 4.9 | (4.7, 5.0) | 11,520 | 2.0 | (1.9, 2.0) | 2.45 (2.34, 2.56) | 2.9 |
| 2013 | 3,564 | 5.3 | (5.1, 5.5) | 11,160 | 1.8 | (1.7, 1.8) | 2.99 (2.87, 3.12) | 3.5 |

Source: 2006 and 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.

Ratios in **bold** show a statistically significant difference between Māori and non-Māori.

In 2013, 7% of Māori households had no access to a motor vehicle, a third higher than the proportion of non-Māori households. The proportion of Māori households without a vehicle increased between 2006 and 2013.

Table 20: People in households with no access to telephone, mobile/cell phone, internet, or any telecommunications, Waitemata 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 | 7,407 | 10.3 | (10.0, 10.5) | 50,262 | 9.8 | (9.7, 9.9) | 1.04 (1.02, 1.07) | 0.4 |
| No telephone | 12,807 | 19.6 | (19.3, 19.9) | 34,182 | 9.5 | (9.4, 9.6) | 2.08 (2.04, 2.12) | 10.2 |
| No internet | 12,636 | 18.5 | (18.2, 18.8) | 45,012 | 8.2 | (8.1, 8.3) | 2.25 (2.20, 2.29) | 10.3 |
| No tele-communications | 1,239 | 1.9 | (1.8, 2.0) | 2,448 | 0.6 | (0.6, 0.6) | 3.09 (2.88, 3.33) | 1.3 |

Source: 2013 Census, Statistics New Zealand

Notes: 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, 19% of residents of Māori households had no access to the internet, 20% had no landline, 10% did not have a cell phone, and 2% had no access to any telecommunications in the home. Māori were less likely than non-Māori to have access to telecommunications in the home.

Housing

Table 21: Housing problems reported by Māori aged 15 years and over, Waitemata DHB, 2013

| Housing problem (a big problem) | Waitemata DHB | | | New Zealand | | |
|------------------------------------|------------------|-------|-------------|-------------|--------------|--|
| | Estimated number | % | (95% CI) | % | (95% CI) | |
| Too small | 2,000** | 4.2** | (1.6, 6.8) | 5.3 | (4.7, 5.9) | |
| Damp | 4,000* | 8.7* | (5.3, 12.2) | 11.3 | (10.5, 12.2) | |
| Hard to keep warm | 5,500* | 12.3* | (8.1, 16.4) | 16.5 | (15.4, 17.7) | |
| Needs repairs | 3,000** | 6.6** | (2.9, 10.2) | 13.8 | (12.7, 14.9) | |
| Pests in the house | 1,500** | 3.4** | (0.8, 5.9) | 5.8 | (5.1, 6.5) | |

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

Notes: * Sampling error is 30% or more but less than 50%

** Sampling error is 50% or more but less than 100%.

Housing problems reported to be a big problem by Waitemata Māori adults in 2013 included difficulty keeping the house warm (12%), damp (9%) and needing repairs (7%). Four percent felt their house was too small, and 3% 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, Waitemata DHB, 2013

| Measure | Māori households | | | Non-Māori households | | | Māori/non-Māori ratio (95% CI) | Difference in percentage |
|--------------------------------------------------|------------------|------|--------------|----------------------|------|--------------|--------------------------------|--------------------------|
| | Number | % | (95% CI) | Number | % | (95% CI) | | |
| Households | 9,345 | 47.3 | (46.6, 48.0) | 38,949 | 26.0 | (25.8, 26.2) | 1.82 (1.79, 1.85) | 21.3 |
| Children under 18 years (% age-standardised) | 11,889 | 53.5 | (52.8, 54.1) | 32,958 | 32.5 | (32.2, 32.8) | 1.65 (1.62, 1.67) | 21.0 |
| Adults 18 years and over (% age-standardised) | 20,202 | 45.9 | (45.5, 46.4) | 80,067 | 30.0 | (29.8, 30.2) | 1.53 (1.51, 1.55) | 15.9 |

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, over 9,300 Māori households were rented, making up almost half of all Māori households, compared to a quarter of non-Māori households.

Among children living in a Māori household, 54% (close to 12,000) were living in rented homes, compared to 33% (approximately 33,000 children) in non-Māori households.

Just under half (46%) of adults living in Māori households were living in rented accommodation (around 20,000), compared to 30% of adults living in non-Māori households.

Household crowding

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

| Measure | Māori households | | | Non-Māori households | | | Māori/non-Māori ratio (95% CI) | Difference in percentage |
|-----------------------------|------------------|------|--------------|----------------------|------|--------------|--------------------------------|--------------------------|
| | Number | % | (95% CI) | Number | % | (95% CI) | | |
| Households | 2,130 | 10.7 | (10.3, 11.1) | 6,468 | 4.3 | (4.2, 4.4) | 2.50 (2.39, 2.62) | 6.4 |
| People (% age standardised) | 11,970 | 18.4 | (18.1, 18.7) | 35,223 | 10.3 | (10.2, 10.4) | 1.79 (1.76, 1.83) | 8.1 |

Source: 2013 Census, Statistics New Zealand

Notes: A Māori household is a household with at least one Māori resident. Non-Māori households have no Māori residents.

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).
Ratios in **bold** show a statistically significant difference between Māori and non-Māori.

In 2013, Māori households were 2.5 times as likely as non-Māori households to be classified as crowded using the Canadian National Occupancy Standard, with over 2,000 Māori homes needing at least one additional bedroom, affecting nearly 12,000 people. People living in Māori households were 79% more likely than people living in non-Māori households to be living in crowded conditions.

Fuel poverty

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

| Measure | Māori households | | | Non-Māori households | | | Māori/non-Māori ratio (95% CI) | Difference in percentage |
|-----------------------------|------------------|-----|------------|----------------------|-----|------------|-----------------------------------|--------------------------|
| | Number | % | (95% CI) | Number | % | (95% CI) | | |
| Households | 1,098 | 5.6 | (5.2, 5.9) | 5,688 | 3.8 | (3.7, 3.9) | 1.47 (1.38, 1.57) | 1.8 |
| People (% age standardised) | 3,705 | 5.6 | (5.4, 5.7) | 16,383 | 4.3 | (4.2, 4.4) | 1.29 (1.24, 1.34) | 1.3 |

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).

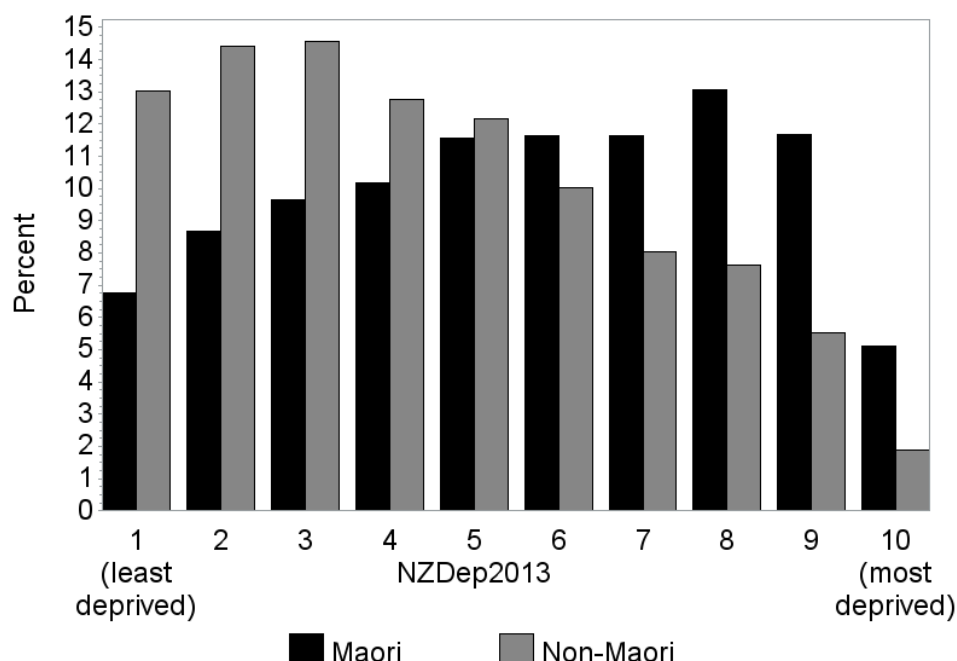
A Māori household is a household with at least one Māori resident. Non-Māori households have no Māori residents.

Ratios in **bold** show a statistically significant difference between Māori and non-Māori.

In 2013, 6% of Māori households (approximately 1,100 homes) had no heating, 1.5 times the proportion of non-Māori households (nearly 5,700 homes).

Area deprivation

Figure 1: Distribution by NZDep 2013 decile, Waitemata DHB, 2013



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

Waitemata Māori have a more deprived small area profile than non-Māori in the DHB. In 2013, 42% of Māori lived in the four most deprived decile areas, compared to 23% of non-Māori (see accompanying Excel table).



Mauri ora: Pepi, tamariki

– Infants and children

This 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](#)) and the Child and Youth Mortality Review Committee ([CYMRC](#)) 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](#) 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, Waitemata 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 | 88 | 5.6 (5.1, 6.2) | 341 | 5.4 (5.2, 5.7) | 1.04 (0.94, 1.16) | 0.2 |
| High birth-weight | 41 | 2.6 (2.3, 3.0) | 144 | 2.3 (2.1, 2.5) | 1.16 (0.99, 1.35) | 0.4 |
| Preterm | 113 | 7.2 (6.7, 7.8) | 452 | 7.2 (6.9, 7.5) | 1.01 (0.92, 1.10) | 0.1 |

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 1,561 Māori infants born per year on average, 20% of all live births in the DHB (7,862 per year). On average, 88 Māori babies per year were born with low birth-weight, at a rate of 6%, 41 per year were born with high birth-weight (3%), and 113 per year were born preterm (7%).

Well child/Tamariki ora indicators

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

| Indicator | Period | Māori | |
|--------------------------------------------------------------------------------------|-----------------------|-------|----|
| | | Count | % |
| 1. Babies enrolled with a Primary Health Organisation (PHO) by three months old | 20 Aug to 19 Nov 2013 | 112 | 56 |
| 11. Babies exclusively or fully breastfed at 2 weeks | January to June 2013 | 403 | 81 |
| 12. Babies exclusively or fully breastfed at 6 weeks | | 416 | 80 |
| 19. Mothers smoke-free two weeks postnatal | | 350 | 75 |
| 5. Children under 5 years enrolled with oral health services (PHO enrolled children) | 2012 | 4,905 | 63 |
| 7. Children starting school who have participated in ECE | 2013 | 1,052 | 94 |
| 15. Children with a healthy weight at 4 years, DHB of service | July to Dec 2013 | 322 | 74 |

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](#).

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)

During late 2013, 56% of Māori babies were enrolled with a PHO by three months of age. In the first half of 2013, 81% of Māori babies were breastfed at two weeks of age and 80% at six weeks. Three-quarters of Māori mothers were smoke-free two weeks after giving birth.

Among pre-school children enrolled with a PHO 63% of Māori were enrolled with oral health services in 2012. Almost all (94%) Māori children who started school in 2013 had participated in early childhood education. Three quarters (74%) 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, Waitemata 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 | 732 | 62% | 5,358 | 82% | 0.76 | -20% |
| 8 months | 1,047 | 89% | 6,042 | 92% | 0.97 | -3% |
| 12 months | 1,140 | 93% | 6,090 | 93% | 1.00 | 0% |
| 18 months | 901 | 73% | 5,772 | 86% | 0.85 | -13% |
| 24 months | 1,162 | 92% | 6,295 | 93% | 1.00 | 0% |
| 5 years | 1,048 | 74% | 5,333 | 79% | 0.94 | -5% |

Source: National Immunisation Register

In the 12 months up to 31 December 2014, almost two thirds (62%) of Māori infants aged six months were fully immunised, compared to 82% of non-Māori infants. However, 89% of Māori children aged eight months and 92% of those aged 24 months were fully immunised. At five years of age 74% of Māori children were fully immunised.

Oral health

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

| Age group | Māori | | | | Non-Māori | | | | Māori/non-Māori ratio % with caries (95% CI) | Difference in percentage |
|-----------|-------|------------------------|-----------|--|-----------|------------------------|-----------|--|-------------------------------------------------|--------------------------|
| | Total | % with caries (95% CI) | Mean DMFT | | Total | % with caries (95% CI) | Mean DMFT | | | |
| Age 5 | 907 | 47 (43, 50) | 2.0 | | 5150 | 31 (29, 32) | 1.2 | | 1.52 (1.41, 1.65) | 16% |
| Year 8 | 668 | 50 (47, 54) | 1.2 | | 4340 | 41 (40, 42) | 0.9 | | 1.23 (1.13, 1.34) | 9% |

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.

One in two Māori children aged five years in 2012 had caries, compared to one in three non-Māori children. The mean number of decayed, missing or filled teeth (DMFT) was 2.0 for Māori compared to 1.2 for non-Māori. Among Year 8 students 50% of Māori and 41% of non-Māori had caries, with mean DMFTs of 1.2 and 0.9 respectively.

Table 29: Hospitalisations for tooth and gum disease, children aged 0–14 years, Waitemata 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 | 60 | 658.4 | (568.6, 762.3) | | 201 | 447.6 | (413.2, 484.8) | | 1.47 (1.24, 1.74) | 210.8 |
| Male | 65 | 665.8 | (578.0, 767.0) | | 252 | 528.3 | (492.0, 567.4) | | 1.26 (1.08, 1.48) | 137.5 |
| Total | 125 | 662.1 | (598.0, 733.1) | | 452 | 488.0 | (462.7, 514.7) | | 1.36 (1.21, 1.52) | 174.1 |

Source: National Minimum Data Set (NMDS).

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

On average there were 125 hospital admissions per year for tooth and gum disease among Māori children, at a rate that was a third higher than non-Māori, or 174 more admissions per 100,000 children per year.

Middle ear disease

Table 30: Hospitalisations for grommet insertions, children aged 0–14 years, Waitemata 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 | 72 | 765.2 | (669.5, 874.5) | 225 | 499.6 | (463.3, 538.7) | 1.53 (1.31, 1.79) | 265.6 |
| Male | 99 | 996.3 | (888.5, 1117.2) | 351 | 734.4 | (691.4, 780.2) | 1.36 (1.19, 1.54) | 261.8 |
| Total | 171 | 880.7 | (807.4, 960.7) | 576 | 617.0 | (588.6, 646.8) | 1.43 (1.29, 1.58) | 263.7 |

Source: NMDS

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

On average, 171 Māori children per year were admitted for insertion of grommets for otitis media, at a rate 43% higher than the non-Māori rate, or 264 more procedures per 100,000 Māori children.

Healthy skin

Table 31: Hospitalisations for serious skin infections, children aged 0–14 years, Waitemata 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 | 60 | 638.8 | (551.9, 739.4) | 143 | 313.5 | (285.2, 344.7) | 2.04 (1.71, 2.43) | 325.2 |
| Male | 75 | 766.5 | (672.4, 873.8) | 198 | 411.5 | (379.7, 445.9) | 1.86 (1.60, 2.17) | 355.0 |
| Total | 136 | 702.6 | (637.3, 774.7) | 341 | 362.5 | (341.0, 385.4) | 1.94 (1.73, 2.18) | 340.1 |

Source: NMDS

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

There were 136 admissions per year on average for serious skin infections among Māori children. The rate was almost double that of non-Māori children, or 340 more admissions per 100,000 children per year.

Acute rheumatic fever

Table 32: Individuals admitted to hospital for acute rheumatic fever, ages 0–14 and 15–24 years, Waitemata DHB, 2011–2013

| Age group and 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) | | | |
| 0–14 years | | | | | | | | |
| Female | <1 | 4.0 | (0.6, 28.1) | 2 | 5.1 | (2.4, 10.7) | 0.78 (0.10, 6.32) | -1.1 |
| Male | 3 | 30.1 | (15.0, 60.1) | 4 | 8.8 | (5.1, 15.2) | 3.41 (1.41, 8.23) | 21.2 |
| Total | 3 | 17.0 | (8.8, 32.7) | 7 | 7.0 | (4.5, 10.8) | 2.45 (1.11, 5.37) | 10.1 |
| 15–24 years | | | | | | | | |
| Female | 0 | 0.0 | . . | 0 | 0.0 | . . | . . | 0.0 |
| Male | 1 | 12.9 | (3.2, 51.7) | 0.3 | 1.0 | (0.1, 7.4) | 12.42 (1.13, 136.98) | 11.9 |
| Total | 1 | 6.5 | (1.6, 25.8) | 0.3 | 0.5 | (0.1, 3.7) | 12.42 (1.13, 136.98) | 5.9 |

Source: NMDS

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

On average three Māori children per year, aged 14 years and under, were admitted to hospital at least once for acute rheumatic fever, at a rate 2.5 times the rate for non-Māori. Among Māori aged 15 to 24 years there was an average of one person per year. The rate for Māori was 12 times the non-Māori rate.

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 33: Potentially avoidable hospitalisations for children aged 1 month to 14 years, Waitemata 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 | 452 | 4,744.9 (4,498.0, 5,005.3) | 1,667 | 3,697.4 (3,596.3, 3,801.4) | 1.28 (1.21, 1.36) | 1,047.4 |
| Male | 599 | 5,879.1 (5,612.3, 6,158.5) | 2,117 | 4,426.3 (4,318.7, 4,536.5) | 1.33 (1.26, 1.40) | 1,452.8 |
| Total | 1,051 | 5,312.0 (5,128.9, 5,501.5) | 3,784 | 4,061.9 (3,987.8, 4,137.3) | 1.31 (1.26, 1.36) | 1,250.1 |

Source: NMDS

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

There were 1,051 potentially avoidable hospitalisations per year on average among Māori children aged 14 years and under. The admission rate was 31% higher for Māori than for non-Māori children, or 1,250 more admissions per 100,000 Māori children.

Table 34: Ambulatory care sensitive hospitalisations for children aged 1 month to 14 years, Waitemata 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 | 318 | 3,394.7 (3,185.3, 3,617.8) | 1,184 | 2,628.4 (2,543.3, 2,716.3) | 1.29 (1.20, 1.39) | 766.3 |
| Male | 395 | 3,939.9 (3,720.6, 4,172.0) | 1,420 | 2,974.1 (2,886.1, 3,064.8) | 1.32 (1.24, 1.41) | 965.7 |
| Total | 713 | 3,667.3 (3,514.4, 3,826.8) | 2,604 | 2,801.3 (2,739.8, 2,864.1) | 1.31 (1.25, 1.37) | 866.0 |

Source: NMDS

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

On average there were 713 admissions per year for ambulatory care sensitive conditions among Māori children, at a rate 31% higher than among non-Māori children, or 866 more admissions per 100,000 children.



Mauri ora: Rangatahi

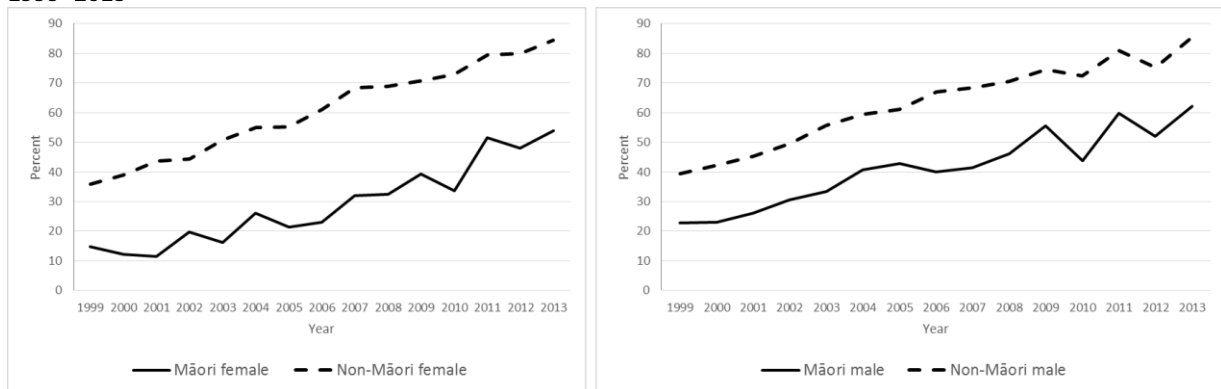
– Young adults

This 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](#)).

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](#)). Other data related to youth can be found in the CYES reports on child and youth health. The [Child and Youth Health Compass](#) provides exemplars of youth specific services.

Smoking

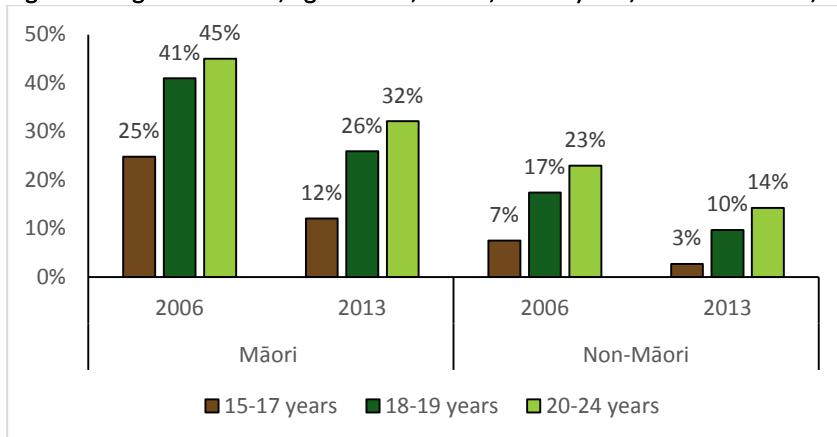
Figure 2: Trends in the proportion of students aged 14–15 years who have never smoked, by gender, Waitemata DHB, 1999–2013



Source: ASH Year 10 Snapshot Survey, 2013

Over the last 15 years there has been an increase in the proportion of Māori aged 14 or 15 who have never smoked (Figure 2).

Figure 3: Regular smokers, ages 15–17, 18–19, 20–24 years, Waitemata DHB, 2013



Source: 2013 Census, Statistics New Zealand

Note: Regular smoker defined as smoking at least one cigarette daily.

Smoking rates have decreased considerably among young Māori and non-Māori adults in Waitemata since 2006. However, smoking uptake remains relatively high among those aged 18–24 years, with a sizeable group starting smoking in this age group. At ages 20–24 years, 32% of Māori were smoking regularly in 2013. Non-Māori in each age group were at least half as likely as Māori to smoke regularly.

Immunisations

Table 35: Human papilloma virus immunisations (HPV) by birth cohorts, Waitemata 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 | 236 | 40.0% | 1716 | 52.6% | 0.76 | 14 |
| 1999 | 15 | 2012 | 284 | 52.6% | 1573 | 50.1% | 1.05 | 15 |
| 1998 | 16 | 2011 | 260 | 47.3% | 1437 | 45.9% | 1.03 | 16 |
| 1997 | 17 | 2010 | 303 | 60.6% | 1542 | 48.6% | 1.25 | 17 |

Source: National Immunisation Register.

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

Only 40% of Māori girls in Waitemata who were aged 14 years in 2014 had received three doses of HPV vaccine by September 2014, compared to 53% of non-Māori. However, of those aged 17 in 2014, 61% of Māori and 49% of non-Māori were fully immunised.

Mental health

Table 36: Hospitalisations for injury from intentional self-harm, 15–24 and 25–44 years, Waitemata 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 | 32 | 628.0 | (514.1, 767.1) | 177 | 557.9 | (512.4, 607.4) | 1.13 | (0.91, 1.40) | 70.1 | | |
| Male | 18 | 340.0 | (259.8, 445.1) | 60 | 177.1 | (153.0, 205.1) | 1.92 | (1.41, 2.61) | 162.9 | | |
| Total | 50 | 484.0 | (412.2, 568.3) | 237 | 367.5 | (341.4, 395.6) | 1.32 | (1.10, 1.57) | 116.5 | | |
| 25–44 years | | | | | | | | | | | |
| Female | 33 | 447.4 | (366.9, 545.7) | 145 | 199.1 | (181.0, 219.0) | 2.25 | (1.80, 2.80) | 248.3 | | |
| Male | 25 | 378.9 | (302.2, 475.1) | 72 | 112.6 | (98.4, 128.8) | 3.37 | (2.59, 4.38) | 266.4 | | |
| Total | 58 | 413.2 | (355.8, 479.8) | 217 | 155.8 | (144.1, 168.5) | 2.65 | (2.24, 3.14) | 257.3 | | |

Source: NMDS.

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

On average 50 Māori aged 15–24 years were admitted to hospital for injury from intentional self-harm and were a third more likely than non-Māori to be admitted. Among Māori aged 25–44 years an average of 58 were admitted per year and were two-and-a-half times as likely as non-Māori to be admitted.



Mauri ora: Pakeke

– Adults

This 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 in Waitemata can be found in the accompanying Excel® tables labelled 'Death registrations' and 'Hospitalisations by principal diagnosis'. For example, the hospitalisations table shows disparities between Waitemata Māori and non-Māori in rates of admission for thyroid disorders, atrial fibrillation, pneumonia, bronchiectasis, gastric ulcers, gallstones, pancreatitis, renal failure, head injuries and burns.

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](#)).

Self-assessed health

Table 37: Health status reported by Māori aged 15 years and over, Waitemata DHB, 2013

| Health status | Waitemata DHB | | | New Zealand | | |
|---------------|------------------|-------|--------------|-------------|--------------|--|
| | Estimated number | % | (95% CI) | % | (95% CI) | |
| Excellent | 10,500 | 23.2 | (19.2, 27.1) | 18.1 | (16.8, 19.3) | |
| Very good | 18,500 | 40.8 | (35.4, 46.2) | 37.0 | (35.5, 38.5) | |
| Good | 11,000 | 24.4 | (19.0, 29.7) | 28.5 | (27.3, 29.7) | |
| Fair / poor | 5,500* | 11.7* | (7.7, 15.7) | 16.4 | (15.3, 17.5) | |

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

Note: * Sample error is 30% or more but less than 50%.

Two-thirds of Waitemata Māori adults (64%) reported having excellent or very good health in 2013 and another quarter (24%) described their health as good. One in nine (12%) reported having fair or poor health status.

Smoking status

Table 38: Cigarette smoking status, 15 years and over, Waitemata DHB, 2006 and 2013

| Smoking status | Māori | | | Non-Māori | | | Māori/non-Māori ratio (95% CI) | Difference in proportion | |
|----------------|--------|------|--------------|-----------|------|--------------|--------------------------------|--------------------------|-------|
| | Number | % | (95% CI) | Number | % | (95% CI) | | | |
| 2006 | | | | | | | | | |
| Regular smoker | 9,741 | 37.2 | (36.6, 37.8) | 50,091 | 17.3 | (17.2, 17.5) | 2.14 | (2.11, 2.18) | 19.8 |
| Ex-smoker | 5,271 | 20.5 | (20.0, 21.0) | 69,675 | 18.1 | (17.9, 18.2) | 1.13 | (1.11, 1.16) | 2.4 |
| Never smoked | 11,040 | 42.4 | (41.8, 43.0) | 198,087 | 64.6 | (64.4, 64.7) | 0.66 | (0.65, 0.67) | -22.2 |
| 2013 | | | | | | | | | |
| Regular smoker | 7,866 | 27.4 | (26.9, 27.9) | 37,362 | 11.6 | (11.5, 11.7) | 2.36 | (2.31, 2.41) | 15.8 |
| Ex-smoker | 6,747 | 22.7 | (22.2, 23.2) | 76,527 | 17.6 | (17.5, 17.7) | 1.29 | (1.26, 1.32) | 5.1 |
| Never smoked | 14,346 | 49.9 | (49.4, 50.5) | 235,944 | 70.8 | (70.6, 71.0) | 0.71 | (0.70, 0.71) | -20.9 |

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 Māori adults who smoked cigarettes regularly decreased from 37% to 27%. The corresponding increase in those who had never smoked was greater than the increase in ex-smokers. However, Māori were still more than twice as likely as non-Māori to smoke regularly.

Heart disease and stroke

Table 39: Hospitalisations for circulatory system diseases, 25 years and over, Waitemata 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 | 229 | 1,431.8 | (1,327.1, 1,544.8) | 3,425 | 854.1 | (833.0, 875.7) | 1.68 (1.55, 1.82) | 577.7 |
| Male | 294 | 2,220.1 | (2,076.6, 2,373.4) | 4,484 | 1,507.6 | (1,477.9, 1,537.9) | 1.47 (1.37, 1.58) | 712.5 |
| Total | 523 | 1,825.9 | (1,736.3, 1,920.2) | 7,909 | 1,180.9 | (1,162.6, 1,199.4) | 1.55 (1.47, 1.63) | 645.1 |

Source: NMDS

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

Around 520 Māori were admitted to hospital per year for diseases of the circulatory system (including heart disease and stroke), at a rate 55% higher than non-Māori, or 645 more admissions per 100,000.

Table 40: Ischaemic heart disease indicators, 25 years and over, Waitemata 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 | 67 | 399.7 | (347.6, 459.6) | 884 | 199.9 | (190.9, 209.4) | 2.00 (1.73, 2.32) | 199.8 |
| Male | 78 | 564.7 | (496.3, 642.5) | 1,637 | 535.5 | (519.0, 552.5) | 1.05 (0.92, 1.20) | 29.2 |
| Total | 145 | 482.2 | (438.4, 530.4) | 2,522 | 367.7 | (358.3, 377.4) | 1.31 (1.19, 1.45) | 114.5 |
| Angiography procedures | | | | | | | | |
| Female | 58 | 356.5 | (306.8, 414.3) | 637 | 184.8 | (175.6, 194.4) | 1.93 (1.65, 2.26) | 171.8 |
| Male | 72 | 528.7 | (462.1, 605.0) | 1,334 | 474.1 | (458.1, 490.6) | 1.12 (0.97, 1.28) | 54.7 |
| Total | 130 | 442.6 | (400.2, 489.5) | 1,970 | 329.4 | (320.2, 338.9) | 1.34 (1.21, 1.49) | 113.2 |
| Angioplasty procedures | | | | | | | | |
| Female | 12 | 74.1 | (53.5, 102.6) | 176 | 45.5 | (41.3, 50.2) | 1.63 (1.16, 2.29) | 28.6 |
| Male | 21 | 155.6 | (121.6, 199.3) | 500 | 185.1 | (175.1, 195.7) | 0.84 (0.65, 1.08) | -29.5 |
| Total | 34 | 114.9 | (94.3, 140.0) | 676 | 115.3 | (109.8, 121.1) | 1.00 (0.81, 1.22) | -0.4 |
| Coronary Artery Bypass Graft (CABG) | | | | | | | | |
| Female | 5 | 29.6 | (17.5, 50.0) | 37 | 9.6 | (7.9, 11.8) | 3.07 (1.75, 5.38) | 19.9 |
| Male | 11 | 78.7 | (55.5, 111.7) | 163 | 51.2 | (46.6, 56.2) | 1.54 (1.07, 2.21) | 27.5 |
| Total | 15 | 54.1 | (40.4, 72.5) | 200 | 30.4 | (27.9, 33.1) | 1.78 (1.31, 2.41) | 23.7 |
| Acute coronary syndrome admissions | | | | | | | | |
| Female | 45 | 266.7 | (224.8, 316.3) | 581 | 122.5 | (115.6, 129.7) | 2.18 (1.82, 2.61) | 144.2 |
| Male | 52 | 380.3 | (324.9, 445.3) | 1,025 | 336.3 | (323.1, 349.9) | 1.13 (0.96, 1.33) | 44.1 |
| Total | 97 | 323.5 | (288.0, 363.4) | 1,606 | 229.4 | (221.9, 237.1) | 1.41 (1.25, 1.59) | 94.1 |

Source: NMDS.

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

On average, 145 Māori per year were admitted to hospital for ischaemic heart disease in Waitemata DHB, at a rate 31% higher than non-Māori. Of these, 97 were admitted with acute coronary syndrome (at a rate 41% higher than non-Māori).

Māori men had higher rates of angiography than Māori women. There were 130 angiography procedures conducted for Māori patients per year, at a rate 34% higher than non-Māori. On average, 21 Māori men and 12 Māori women per year had angioplasty procedures. Five Māori women and 11 Māori men per year on average had a coronary artery bypass graft, at an overall rate nearly twice that of non-Māori.

Table 41: Hospitalisations for heart failure, stroke, and hypertensive disease, 25 years and over, Waitemata 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 | 37 | 205.1 | (169.8, 247.6) | 364 | 50.4 | (46.5, 54.6) | 4.07 | (3.31, 4.99) | 154.6 | |
| Male | 52 | 401.7 | (342.8, 470.6) | 432 | 94.5 | (88.5, 100.9) | 4.25 | (3.58, 5.05) | 307.2 | |
| Total | 89 | 303.4 | (268.3, 343.0) | 795 | 72.4 | (68.8, 76.2) | 4.19 | (3.67, 4.78) | 230.9 | |
| Stroke | | | | | | | | | | |
| Female | 27 | 174.6 | (140.0, 217.7) | 479 | 101.2 | (94.5, 108.3) | 1.73 | (1.37, 2.17) | 73.4 | |
| Male | 26 | 186.8 | (149.3, 233.7) | 460 | 131.8 | (123.8, 140.2) | 1.42 | (1.12, 1.79) | 55.0 | |
| Total | 53 | 180.7 | (154.4, 211.5) | 938 | 116.5 | (111.2, 121.9) | 1.55 | (1.32, 1.83) | 64.2 | |
| Hypertensive disease | | | | | | | | | | |
| Female | 8 | 58.9 | (39.6, 87.7) | 94 | 26.3 | (22.6, 30.7) | 2.24 | (1.46, 3.43) | 32.6 | |
| Male | 5 | 39.2 | (23.8, 64.6) | 43 | 18.7 | (15.2, 22.9) | 2.10 | (1.22, 3.60) | 20.5 | |
| Total | 14 | 49.1 | (36.0, 67.0) | 137 | 22.5 | (19.9, 25.5) | 2.18 | (1.56, 3.05) | 26.5 | |

Source: NMDS.

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

There were 89 admissions per year on average for Māori with heart failure, over 4 times the rate for non-Māori, or 231 more admissions per 100,000.

On average, 53 Māori per year were admitted for stroke, 55% higher than the non-Māori rate, or 64 more admissions per 100,000.

There were 14 Māori admissions per year on average for hypertensive disease, at twice the rate of non-Māori, or 27 more admissions per 100,000.

Table 42: Hospitalisations for chronic rheumatic heart disease and heart valve replacements, 25 years and over, Waitemata 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 | 3 | 19.6 | (10.5, 36.6) | 21 | 8.4 | (6.3, 11.3) | 2.33 | (1.17, 4.65) | 11.2 | |
| Male | 2 | 18.1 | (8.6, 37.9) | 18 | 6.9 | (5.0, 9.5) | 2.62 | (1.17, 5.88) | 11.2 | |
| Total | 6 | 18.9 | (11.7, 30.5) | 39 | 7.7 | (6.2, 9.5) | 2.46 | (1.45, 4.17) | 11.2 | |
| Heart valve replacements | | | | | | | | | | |
| Female | 2 | 15.8 | (7.4, 33.6) | 35 | 10.6 | (8.4, 13.3) | 1.49 | (0.68, 3.29) | 5.2 | |
| Male | 3 | 24.9 | (12.8, 48.2) | 69 | 21.5 | (18.2, 25.3) | 1.16 | (0.59, 2.29) | 3.4 | |
| Total | 5 | 20.3 | (12.3, 33.5) | 105 | 16.0 | (14.0, 18.3) | 1.27 | (0.76, 2.13) | 4.3 | |

Source: NMDS.

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

On average, there were six hospital admissions per year for Māori with chronic rheumatic heart disease between 2011 and 2013. While the average number of admissions was low the rate for Māori was nearly 2.5 times that of non-Māori.

Heart valve replacements were conducted on an average of five Māori per year.

Table 43: Early deaths from circulatory system disease, Waitemata DHB, 2007–2011

| 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 | 11 | 35.7 | (27.2, 46.8) | 58 | 11.0 | (9.7, 12.6) | 3.24 (2.40, 4.37) | 24.7 |
| Male | 19 | 73.4 | (59.9, 90.0) | 126 | 25.0 | (23.1, 27.2) | 2.93 (2.35, 3.65) | 48.4 |
| Total | 29 | 54.5 | (46.3, 64.2) | 184 | 18.0 | (16.8, 19.3) | 3.03 (2.53, 3.61) | 36.5 |

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.

On average 29 Māori per year died early from circulatory system diseases (including heart disease and stroke), at a rate 3 times the non-Māori rate, or 37 more deaths per 100,000.

Diabetes

Table 44: Diabetes prevalence, medication use, monitoring of blood glucose levels, screening for renal disease, Waitemata DHB, 2013

| Indicator | Māori | | Non-Māori | | Māori/non-Māori ratio | Difference in percentage |
|----------------------------------------------------------------------|-------|-----------|-----------|-----------|-----------------------|--------------------------|
| | Count | % (crude) | Count | % (crude) | | |
| Prevalence of diabetes (all ages) | 2,064 | 3.8 | 26,782 | 5.3 | 0.72 | -1.5 |
| People with diabetes regularly receiving metformin or insulin, 25+ | 1,025 | 49.7 | 13,213 | 49.3 | 1.01 | 0.3 |
| People with diabetes having regular Hb1Ac monitoring, 25+ | 1,691 | 81.9 | 23,521 | 86.7 | 0.95 | -4.7 |
| People with diabetes having regular screening for renal disease, 25+ | 1,311 | 63.5 | 17,270 | 64.5 | 0.99 | -1.0 |

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.

Around 2,060 Māori in Waitemata are estimated to have diabetes, giving a crude prevalence of 4%, less than the non-Māori prevalence. The prevalence has not been adjusted and the age-specific prevalence rates may be higher for Māori than non-Māori. Half of Māori with diabetes were regularly receiving metformin or insulin in 2013. Eighty-two percent were having regular monitoring of blood glucose levels and 65% were being screened for renal disease.

Table 45: Hospitalisations for lower limb amputations for people with concurrent diabetes, 15 years and over, Waitemata 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 | 4 | 16.8 | (9.3, 30.5) | 10 | 2.0 | (1.3, 3.1) | 8.23 (3.97, 17.04) | 14.8 |
| Male | 4 | 21.9 | (12.4, 38.7) | 36 | 7.9 | (6.4, 9.8) | 2.77 (1.51, 5.07) | 14.0 |
| Total | 8 | 19.4 | (12.8, 29.3) | 46 | 5.0 | (4.1, 6.0) | 3.89 (2.47, 6.11) | 14.4 |

Source: NMDS

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

On average eight Māori per year with diabetes had lower limbs amputated, at a rate nearly 4 times that of non-Māori in Waitemata DHB.

Cancer

Table 46: Most common cancer registrations for Māori by site, all ages, Waitemata DHB, 2008–2012

| 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 | 74 | 233.4 | (210.6, 258.7) | 1,062 | 179.5 | (173.8, 185.4) | 1.30 | (1.17, 1.45) | 53.9 |
| Breast | 26 | 79.4 | (66.7, 94.5) | 330 | 63.1 | (59.9, 66.6) | 1.26 | (1.05, 1.51) | 16.2 |
| Lung | 12 | 37.4 | (29.0, 48.1) | 80 | 10.0 | (9.0, 11.2) | 3.73 | (2.83, 4.91) | 27.4 |
| Uterus | 5 | 15.2 | (10.2, 22.8) | 46 | 8.0 | (7.0, 9.2) | 1.90 | (1.24, 2.91) | 7.2 |
| Colorectal | 5 | 14.2 | (9.4, 21.4) | 144 | 17.9 | (16.4, 19.5) | 0.79 | (0.52, 1.21) | -3.7 |
| Male | | | | | | | | | |
| All cancers | 52 | 194.4 | (171.9, 219.8) | 1,152 | 190.5 | (184.8, 196.4) | 1.02 | (0.90, 1.16) | 3.9 |
| Prostate | 9 | 34.9 | (26.1, 46.6) | 299 | 45.5 | (43.2, 48.0) | 0.77 | (0.57, 1.03) | -10.7 |
| Lung | 8 | 32.1 | (23.6, 43.5) | 104 | 13.5 | (12.3, 14.8) | 2.37 | (1.73, 3.27) | 18.6 |
| Colorectal | 6 | 20.4 | (14.1, 29.7) | 174 | 26.0 | (24.1, 28.0) | 0.79 | (0.54, 1.15) | -5.6 |
| Liver | 3 | 12.1 | (7.4, 19.9) | 17 | 3.0 | (2.4, 3.8) | 4.04 | (2.34, 7.00) | 9.1 |
| Leukaemias | 3 | 11.9 | (7.2, 19.9) | 30 | 6.7 | (5.4, 8.3) | 1.79 | (1.03, 3.11) | 5.3 |

Source: Cancer Registry, Ministry of Health

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

There were 74 cancer registrations per year on average among Māori females, at a rate 30% higher than non-Māori. The most common cancers registered for Māori females were breast (35% of all cancers), lung (16%), uterine and colorectal cancer (7% each). Registration rates were higher for Māori than non-Māori women for lung (nearly 4 times the non-Māori rate), uterine (twice the non-Māori rate) and breast cancer (a quarter higher).

Among Māori males there were 52 cancer registrations per year on average in Waitemata DHB. Prostate (17% of all cancers) and lung (15%) were the most common cancers registered for Māori males followed by colorectal (12%), and liver and leukaemias (6% each). Prostate and colorectal cancer registration rates were similar for Māori and non-Māori, while lung cancer rates were twice as high, liver 4 times and leukaemias nearly twice the non-Māori rate.

Table 47: Most common cancer deaths for Māori by site, all ages, Waitemata DHB, 2007–2011

| 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 | 23 | 74.8 | (62.1, 89.9) | 393 | 49.7 | (46.9, 52.6) | 1.50 | (1.24, 1.83) | 25.1 |
| Lung | 7 | 23.2 | (16.7, 32.2) | 62 | 7.4 | (6.5, 8.4) | 3.15 | (2.22, 4.48) | 15.8 |
| Breast | 4 | 13.4 | (8.6, 20.8) | 70 | 11.3 | (10.0, 12.7) | 1.19 | (0.75, 1.88) | 2.1 |
| Digestive organs | 3 | 10.5 | (6.5, 17.0) | 111 | 11.3 | (10.2, 12.5) | 0.93 | (0.57, 1.52) | -0.7 |
| Genital organs | 3 | 10.0 | (6.0, 16.7) | 41 | 5.8 | (5.0, 6.8) | 1.72 | (1.01, 2.94) | 4.2 |
| Male | | | | | | | | | |
| All cancers | 23 | 91.1 | (75.6, 109.6) | 421 | 56.6 | (53.8, 59.5) | 1.61 | (1.33, 1.95) | 34.5 |
| Lung | 5 | 21.4 | (14.5, 31.5) | 81 | 10.6 | (9.5, 11.8) | 2.02 | (1.35, 3.02) | 10.8 |
| Prostate | 4 | 14.9 | (9.4, 23.7) | 47 | 4.6 | (4.0, 5.2) | 3.26 | (2.01, 5.30) | 10.3 |
| Stomach | 2 | 7.0 | (3.6, 13.5) | 18 | 2.7 | (2.1, 3.4) | 2.61 | (1.30, 5.27) | 4.3 |
| Colorectal | 2 | 6.2 | (3.1, 12.4) | 56 | 7.3 | (6.4, 8.3) | 0.85 | (0.42, 1.72) | -1.1 |

Source: Death registrations, Ministry of Health

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

There were 23 deaths from cancer per year on average among Māori females, at a rate 50% higher than non-Māori. Lung, breast, cancers of the digestive organs and cancers of the genital organs were the most common causes of cancer death, with lung cancer mortality 3 times that of non-Māori females.

Among Māori males there were also 23 deaths from cancer per year on average, at a rate 60% higher than non-Māori. Lung cancer was the leading cause of cancer death, followed by prostate, stomach and colorectal cancers. Other than colorectal cancer, Māori mortality rates for these cancers were 2 to 3 times those of non-Māori.

Breast and cervical cancer screening

Table 48: BreastScreen Aotearoa breast screening coverage, women aged 45–69 years, Waitemata DHB, 24 months to 31 December 2014

| Māori | | | Non-Māori | | |
|-----------------|---------------------|------------|-----------------|---------------------|------------|
| Number screened | Eligible population | % screened | Number screened | Eligible population | % screened |
| 3,496 | 5,790 | 60.4% | 55,711 | 80,850 | 68.9% |

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 up to the end of 2014, 60% of Māori women and 69% of non-Māori women in Waitemata had been screened.

Table 49: Cervical screening coverage, women aged 25–69 years, Waitemata 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 % |
| 12,194 | 8,338 | 68.4% | 6,696 | 54.9% | 137,618 | 125,999 | 91.6% | 107,364 | 78.0% |

Source: National Screening Unit, Ministry of Health

Note: Population is adjusted for hysterectomy.

Among women aged 25 to 69 years, 68% of Māori women and 92% 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 55% for Māori women and 78% 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 50: Hospitalisations for asthma, by age group, Waitemata 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 | 49 | 528.4 | (449.3, 621.5) | 163 | 360.3 | (329.8, 393.7) | 1.47 | (1.22, 1.76) | 168.1 | |
| Male | 85 | 852.9 | (754.1, 964.6) | 223 | 467.3 | (433.2, 504.1) | 1.83 | (1.58, 2.11) | 385.6 | |
| Total | 134 | 690.6 | (626.1, 761.9) | 387 | 413.8 | (390.7, 438.3) | 1.67 | (1.49, 1.87) | 276.8 | |
| 15–34 years | | | | | | | | | | |
| Female | 38 | 441.0 | (367.1, 529.9) | 112 | 174.8 | (157.0, 194.6) | 2.52 | (2.04, 3.12) | 266.2 | |
| Male | 15 | 173.5 | (129.0, 233.4) | 48 | 74.2 | (63.0, 87.4) | 2.34 | (1.67, 3.28) | 99.3 | |
| Total | 53 | 307.3 | (262.9, 359.2) | 160 | 124.5 | (113.8, 136.2) | 2.47 | (2.06, 2.95) | 182.8 | |
| 35–64 years | | | | | | | | | | |
| Female | 32 | 374.2 | (305.4, 458.5) | 136 | 136.1 | (122.9, 150.7) | 2.75 | (2.19, 3.45) | 238.1 | |
| Male | 17 | 211.6 | (160.3, 279.2) | 58 | 61.1 | (52.3, 71.4) | 3.46 | (2.52, 4.76) | 150.4 | |
| Total | 49 | 292.9 | (248.6, 345.0) | 194 | 98.6 | (90.6, 107.4) | 2.97 | (2.47, 3.57) | 194.3 | |
| 65 years and over | | | | | | | | | | |
| Female | 5 | 403.0 | (238.0, 682.4) | 50 | 148.2 | (125.1, 175.5) | 2.72 | (1.56, 4.73) | 254.9 | |
| Male | 1 | 145.2 | (54.5, 387.1) | 16 | 45.5 | (33.4, 61.9) | 3.20 | (1.14, 8.93) | 99.8 | |
| Total | 6 | 274.1 | (172.0, 436.9) | 65 | 96.8 | (83.4, 112.3) | 2.83 | (1.74, 4.62) | 177.3 | |

Source: NMDS.

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

On average, there were 134 admissions for asthma per year among Māori children aged 0–14 years, at a rate two-thirds higher again than non-Māori. Young Māori adults were admitted at a rate two-and-a-half times that of non-Māori, with 53 admissions per year on average. Among Māori adults aged 35–64 years, there were 49 asthma admissions per year on average, at a rate of 3 times that of non-Māori. Among Māori aged 65 years and over the admission rate was nearly 3 times the non-Māori rate, with six admissions per year on average.

Table 51: Hospitalisations for chronic obstructive pulmonary disease (COPD), 45 years and over, Waitemata 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 | 81 | 1,317.6 | (1,161.2, 1,495.1) | 540 | 316.3 | (299.2, 334.4) | 4.17 | (3.63, 4.78) |
| Male | 50 | 975.9 | (830.3, 1,146.9) | 555 | 370.5 | (351.4, 390.6) | 2.63 | (2.22, 3.12) |
| Total | 131 | 1,146.7 | (1,037.7, 1,267.3) | 1,095 | 343.4 | (330.5, 356.8) | 3.34 | (3.00, 3.72) |

Source: NMDS.

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

There were just over 130 hospitalisations per year on average for Māori with COPD, at a rate over 3 times that of non-Māori, or 803 more admissions per 100,000.

Table 52: Early deaths from respiratory disease, Waitemata DHB, 2007–2011

| 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 | 5 | 16.3 | (10.9, 24.3) | 23 | 4.0 | (3.3, 5.0) | 4.04 | (2.57, 6.35) |
| Male | 4 | 14.7 | (9.2, 23.4) | 24 | 4.8 | (3.9, 5.9) | 3.06 | (1.84, 5.10) |
| Total | 8 | 15.5 | (11.4, 21.0) | 46 | 4.4 | (3.8, 5.1) | 3.51 | (2.50, 4.93) |

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, eight Māori per year died early from respiratory disease, at a rate that was 3.5 times the non-Māori rate, or 11 more deaths per 100,000.

Mental disorders

Table 53: Hospitalisations for mental disorders, all ages, Waitemata 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 | 161 | 571.9 | (522.5, 625.9) | 1,107 | 337.5 | (324.2, 351.3) | 1.69 (1.54, 1.87) | 234.4 |
| Schizophrenia | 57 | 205.1 | (176.4, 238.6) | 169 | 51.9 | (47.1, 57.2) | 3.95 (3.30, 4.73) | 153.2 |
| Mood (affective) | 36 | 125.2 | (103.5, 151.5) | 327 | 88.2 | (82.1, 94.8) | 1.42 (1.16, 1.74) | 37.1 |
| —Bipolar | 17 | 57.7 | (43.7, 76.3) | 92 | 26.4 | (23.2, 30.1) | 2.18 (1.61, 2.97) | 31.3 |
| —Depressive episode | 14 | 47.8 | (35.1, 65.2) | 156 | 42.3 | (38.1, 47.0) | 1.13 (0.81, 1.57) | 5.5 |
| Substance use | 29 | 103.0 | (83.2, 127.5) | 183 | 72.2 | (65.9, 79.1) | 1.43 (1.13, 1.80) | 30.8 |
| —Alcohol | 20 | 72.8 | (56.5, 93.9) | 162 | 63.3 | (57.4, 69.7) | 1.15 (0.88, 1.51) | 9.6 |
| Anxiety, stress-related | 20 | 71.2 | (55.1, 91.9) | 202 | 60.9 | (55.5, 66.9) | 1.17 (0.89, 1.53) | 10.3 |
| Male | | | | | | | | |
| All disorders | 210 | 809.6 | (747.9, 876.4) | 940 | 337.7 | (324.2, 351.8) | 2.40 (2.19, 2.62) | 471.9 |
| Schizophrenia | 115 | 453.1 | (407.2, 504.2) | 291 | 117.7 | (109.8, 126.1) | 3.85 (3.39, 4.37) | 335.5 |
| Mood (affective) | 42 | 153.1 | (128.2, 182.9) | 252 | 96.6 | (89.4, 104.3) | 1.59 (1.31, 1.92) | 56.5 |
| —Bipolar | 29 | 102.9 | (83.2, 127.2) | 209 | 76.0 | (69.7, 82.8) | 1.35 (1.08, 1.70) | 26.9 |
| —Depressive episode | 29 | 113.4 | (91.5, 140.4) | 181 | 57.8 | (52.7, 63.5) | 1.96 (1.55, 2.48) | 55.5 |
| Substance use | 16 | 63.0 | (47.2, 84.1) | 67 | 21.7 | (18.7, 25.3) | 2.90 (2.09, 4.01) | 41.2 |
| —Alcohol | 11 | 43.4 | (30.7, 61.3) | 80 | 26.1 | (22.7, 30.1) | 1.66 (1.14, 2.41) | 17.2 |
| Anxiety, stress-related | 12 | 45.4 | (32.7, 63.0) | 100 | 34.5 | (30.5, 39.1) | 1.31 (0.93, 1.87) | 10.9 |
| Total | | | | | | | | |
| All disorders | 371 | 690.7 | (650.7, 733.2) | 2,047 | 337.6 | (328.1, 347.4) | 2.05 (1.92, 2.19) | 353.1 |
| Schizophrenia | 173 | 329.1 | (301.6, 359.2) | 460 | 84.8 | (80.1, 89.7) | 3.88 (3.50, 4.31) | 244.3 |
| Mood (affective) | 70 | 128.0 | (111.7, 146.8) | 436 | 84.4 | (79.6, 89.5) | 1.52 (1.31, 1.76) | 43.7 |
| —Bipolar | 49 | 87.8 | (74.6, 103.4) | 371 | 69.6 | (65.3, 74.2) | 1.26 (1.06, 1.50) | 18.2 |
| —Depressive episode | 65 | 119.3 | (103.5, 137.6) | 508 | 73.0 | (69.0, 77.3) | 1.63 (1.40, 1.91) | 46.3 |
| Substance use | 33 | 60.4 | (49.4, 73.8) | 159 | 24.1 | (21.8, 26.6) | 2.51 (2.00, 3.13) | 36.3 |
| —Alcohol | 25 | 45.6 | (36.2, 57.5) | 236 | 34.2 | (31.4, 37.3) | 1.33 (1.04, 1.70) | 11.4 |
| Anxiety, stress-related | 33 | 58.3 | (47.7, 71.3) | 302 | 47.7 | (44.3, 51.4) | 1.22 (0.99, 1.51) | 10.6 |

Source: NMDS

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

Rates of hospitalisation for all mental disorders were twice as high for Māori as for non-Māori.

The most common cause of Māori admission was schizophrenia related disorders, with 173 admissions per year on average, at a rate almost 4 times that of non-Māori. Admissions for mood disorders and substance use were the next most common causes of Māori admission with 70 per year for mood disorders and 33 per year for substance use.

Gout

Table 54: Gout prevalence and treatment, 20–79 years, Waitemata DHB, 2011

| Indicator | Māori | | Non-Māori | | Māori/non-Māori ratio | Difference in percentage |
|---------------------------------------------------------------------|-------|------|-----------|------|-----------------------|--------------------------|
| | Count | % | Count | % | | |
| Gout prevalence | 1,595 | 5.5 | 10,971 | 3.2 | 1.73 | 2.3 |
| People with gout who received allopurinol regularly | 544 | 34.1 | 4,018 | 36.6 | 0.93 | -2.5 |
| Colchicine use by people with gout not dispensed | | | | | | |
| allopurinol | 152 | 9.5 | 984 | 9.0 | 1.06 | 0.6 |
| NSAID use by people with gout | 762 | 47.8 | 4,578 | 41.7 | 1.14 | 6.0 |
| Serum urate test within six months following allopurinol dispensing | 311 | 35.9 | 2,437 | 40.5 | 0.89 | -4.6 |

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.

Around 1,600 Māori were estimated to have gout in 2011, a prevalence of 6%, 73% higher than the prevalence in non-Māori. Thirty-four percent of Māori with gout regularly received allopurinol, a preventive therapy to lower urate levels. Of those who received allopurinol (for gout or other reasons), only just over a third had a lab test for serum urate levels within the following six months.

Table 55: Hospitalisations for gout, 25 years and over, Waitemata 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 | 8 | 52.1 (35.0, 77.6) | | 23 | 6.4 (4.8, 8.4) | | 8.17 (5.02, 13.28) | 45.7 |
| Male | 31 | 250.2 (203.8, 307.3) | | 130 | 59.9 (53.4, 67.3) | | 4.17 (3.30, 5.29) | 190.3 |
| Total | 40 | 151.2 (125.8, 181.6) | | 153 | 33.2 (29.8, 37.0) | | 4.56 (3.68, 5.64) | 118.0 |

Source: NMDS

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

There were 40 hospital admissions for gout per year on average among Māori, 31 of these were male. The rate of admission was 4.6 times as high for Māori than non-Māori or 118 more admissions per 100,000.

Hip fractures

Table 56: Hospitalisations for hip fractures, 65 years and over, Waitemata 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 | 4 | 261.1 (143.9, 473.7) | | 244 | 372.2 (341.2, 406.0) | | 0.70 (0.38, 1.28) | -111.1 |
| Male | 3 | 270.1 (134.9, 540.8) | | 94 | 200.5 (176.6, 227.5) | | 1.35 (0.67, 2.73) | 69.6 |
| Total | 6 | 265.6 (167.9, 420.2) | | 338 | 286.3 (266.5, 307.7) | | 0.93 (0.58, 1.48) | -20.8 |

Source: NMDS

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

On average, six Māori aged 65 and over were admitted to hospital per year for hip fractures, at a rate of 266 per 100,000, similar to the non-Māori rate.

Elective surgery

Table 57: Hospitalisations for hip replacements, 50 years and over, Waitemata 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 | 11 | 261.9 | (187.0, 366.8) | 196 | 182.2 | (166.8, 199.0) | 1.44 (1.01, 2.04) | 79.7 |
| Male | 7 | 202.0 | (132.5, 307.7) | 149 | 162.5 | (147.3, 179.3) | 1.24 (0.81, 1.92) | 39.4 |
| Total | 19 | 231.9 | (178.1, 302.1) | 345 | 172.3 | (161.4, 184.1) | 1.35 (1.02, 1.77) | 59.6 |

Source: NMDS

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

On average, 19 Māori per year were admitted to hospital for a hip replacement, at a rate 35% higher than the rate for non-Māori.

Table 58: Publicly funded hospitalisations for cataract surgery, 45 years and over, Waitemata 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 | 25 | 401.5 | (319.8, 504.0) | 835 | 460.9 | (440.7, 481.9) | 0.87 (0.69, 1.10) | -59.4 |
| Male | 31 | 642.3 | (523.6, 787.8) | 618 | 412.3 | (392.1, 433.5) | 1.56 (1.26, 1.92) | 230.0 |
| Total | 56 | 521.9 | (447.8, 608.2) | 1,453 | 436.6 | (422.2, 451.4) | 1.20 (1.02, 1.40) | 85.3 |

Source: NMDS

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

On average 56 Māori per year aged 45 years and over were admitted to hospital for cataract surgery. The rate for Māori was 20% higher than non-Māori, or 85 more admissions per 100,000.

Mauri ora: All ages

This section presents information on overall hospitalisations, potentially avoidable and ambulatory sensitive hospitalisations, overall mortality rates, 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 Auckland Region as data by DHB was not available.

Hospitalisations

Table 59: All-cause hospitalisations, all ages, Waitemata 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 | 7,076 | 24,564.2 (24,231.4, 24,901.6) | 60,764 | 20,233.1 (20,117.0, 20,349.9) | 1.21 (1.20, 1.23) | 4,331.1 |
| Male | 5,412 | 19,598.7 (19,296.3, 19,905.8) | 50,783 | 17,083.1 (16,975.1, 17,191.9) | 1.15 (1.13, 1.17) | 2,515.5 |
| Total | 12,488 | 22,081.4 (21,856.1, 22,309.1) | 111,547 | 18,658.1 (18,578.8, 18,737.8) | 1.18 (1.17, 1.20) | 3,423.3 |

Source: NMDS

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

On average, there were close to 12,500 Māori hospital admissions per year. All-cause admission rates were 18% higher for Māori than non-Māori in Waitemata DHB. This includes admissions for pregnancy and childbirth. A table of hospital discharges by principal diagnosis is available in the accompanying Excel tables.

Potentially avoidable hospitalisations

Table 60: Potentially avoidable hospitalisations, 0–74 years, Waitemata 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 | 1,751 | 6,122.9 (5,957.2, 6,293.2) | 10,164 | 4,013.9 (3,960.7, 4,067.9) | 1.53 (1.48, 1.57) | 2,109.0 |
| Male | 1,540 | 5,638.0 (5,476.1, 5,804.8) | 10,294 | 4,109.3 (4,055.6, 4,163.8) | 1.37 (1.33, 1.42) | 1,528.7 |
| Total | 3,292 | 5,880.5 (5,764.1, 5,999.2) | 20,458 | 4,061.6 (4,023.8, 4,099.9) | 1.45 (1.42, 1.48) | 1,818.8 |

Source: NMDS

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

On average nearly 3,300 Māori hospital admissions per year were potentially avoidable through population based prevention strategies. The rate of admission was 1.5 times the rate for non-Māori, or just under 1,820 more admissions per 100,000.

Table 61: Ambulatory care sensitive hospitalisations, 0–74 years, Waitemata 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 | 1,086 | 3,757.6 (3,628.9, 3,891.0) | 6,197 | 2,273.5 (2,234.5, 2,313.2) | 1.65 (1.59, 1.72) | 1,484.2 |
| Male | 955 | 3,477.4 (3,351.0, 3,608.6) | 6,228 | 2,292.6 (2,253.7, 2,332.2) | 1.52 (1.46, 1.58) | 1,184.8 |
| Total | 2,041 | 3,609.7 (3,519.2, 3,702.6) | 12,425 | 2,278.1 (2,250.5, 2,306.0) | 1.58 (1.54, 1.63) | 1,331.6 |

Source: NMDS

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

On average, there were 2041 ambulatory care sensitive hospitalisations per year among Māori, at a rate that was 58% higher than the non-Māori rate, or just over 1,330 more Māori admissions per 100,000.

Mortality

Table 62: Life expectancy at birth, Auckland Region, 2012–2014

| Gender | Māori | | Non-Māori | | Difference in years |
|--------|-------------------------------|--------------|-------------------------------|--------------|---------------------|
| | Years (95% credible interval) | | Years (95% credible interval) | | |
| Female | 77.8 | (77.1, 78.4) | 84.6 | (84.4, 84.8) | -6.8 |
| Male | 73.7 | (73.1, 74.4) | 81.1 | (81.0, 81.3) | -7.4 |

Source: Statistics New Zealand Subnational Period Life Tables: 2012–14.

Notes: This data is for the Auckland Region (including Waitemata, Auckland, and Counties Manukau DHBs). A map of Regional Council boundaries can be found [here](#). The credible interval is the 25th percentile and the 96.5th percentile, the expected years of life at birth is the 50th percentile. Further information on the regional life tables and methods can be found [here](#).

Life expectancy at birth is a summary measure of age-specific mortality rates during a specific period. During 2012–2014, among residents of the Auckland Region, life expectancy at birth was 77.8 years for Māori females, 6.8 years lower than the life expectancy of non-Māori females (84.6 years). For Māori males, life expectancy was 73.7 years, 7.4 years lower than that of non-Māori males (81.1 years).

Table 63: All-cause deaths, all ages, Waitemata DHB, 2008–2012

| 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 | 65 | 231.4 | (214.2, 250.0) | 1,312 | 126.6 | (123.3, 130.1) | 1.83 (1.68, 1.98) | 104.8 |
| Male | 82 | 344.1 | (321.1, 368.7) | 1,247 | 180.9 | (176.7, 185.1) | 1.90 (1.77, 2.05) | 163.2 |
| Total | 147 | 287.8 | (273.2, 303.0) | 2,558 | 153.7 | (151.1, 156.5) | 1.87 (1.77, 1.98) | 134.0 |

Source: Mortality dataset, Ministry of Health.

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

There were 147 deaths per year on average among Waitemata Māori. The Māori mortality rate was nearly twice as high as the non-Māori rate, or 134 more deaths per 100,000.

Table 64: Leading causes of death for Māori, all ages, Waitemata DHB, 2007–2011

| 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 | | | | | | | | |
| IHD | 7 | 23.1 | (16.7, 32.0) | 212 | 11.1 | (10.3, 12.1) | 2.08 (1.49, 2.90) | 12.0 |
| Lung cancer | 7 | 23.2 | (16.7, 32.2) | 62 | 7.4 | (6.5, 8.4) | 3.15 (2.22, 4.48) | 15.8 |
| COPD | 5 | 17.1 | (11.7, 24.9) | 65 | 4.8 | (4.1, 5.5) | 3.57 (2.37, 5.36) | 12.3 |
| Accidents | 5 | 16.7 | (11.2, 25.0) | 43 | 6.5 | (5.2, 8.2) | 2.55 (1.61, 4.06) | 10.2 |
| Stroke | 4 | 13.5 | (8.8, 20.8) | 153 | 8.8 | (7.9, 9.7) | 1.54 (0.99, 2.40) | 4.7 |
| Male | | | | | | | | |
| IHD | 15 | 61.3 | (48.9, 76.7) | 235 | 26.7 | (25.0, 28.6) | 2.29 (1.81, 2.90) | 34.6 |
| Accidents | 8 | 29.1 | (21.2, 40.1) | 56 | 14.1 | (12.2, 16.4) | 2.06 (1.45, 2.93) | 15.0 |
| Lung cancer | 5 | 21.4 | (14.5, 31.5) | 81 | 10.6 | (9.5, 11.8) | 2.02 (1.35, 3.02) | 10.8 |
| Diabetes | 5 | 19.3 | (12.9, 28.8) | 34 | 4.2 | (3.5, 4.9) | 4.63 (2.99, 7.17) | 15.1 |
| Suicide | 4 | 15.4 | (9.8, 24.3) | 35 | 12.3 | (10.5, 14.5) | 1.25 (0.78, 2.03) | 3.1 |
| Total | | | | | | | | |
| IHD | 23 | 42.2 | (35.0, 50.8) | 447 | 18.9 | (17.9, 20.0) | 2.23 (1.84, 2.71) | 23.3 |
| Lung cancer | 12 | 22.3 | (17.3, 28.7) | 143 | 9.0 | (8.3, 9.7) | 2.48 (1.91, 3.24) | 13.3 |
| Accidents | 12 | 22.9 | (17.8, 29.5) | 99 | 10.3 | (9.1, 11.7) | 2.22 (1.68, 2.93) | 12.6 |
| COPD | 8 | 14.7 | (10.8, 20.0) | 122 | 5.0 | (4.5, 5.5) | 2.94 (2.13, 4.05) | 9.7 |
| Stroke | 8 | 13.7 | (10.0, 18.8) | 248 | 8.8 | (8.2, 9.5) | 1.55 (1.12, 2.14) | 4.8 |

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 Māori women were ischemic heart disease, lung cancer, chronic obstructive respiratory disease, accidents and stroke. Mortality rates for these conditions were around 1.5 to 3.5 times as high for Māori women than non-Māori women.

For Māori men, the leading causes of death were ischemic heart disease, accidents, lung cancer, diabetes, and suicide. Māori and non-Māori suicide rates were similar. However mortality rates for the other four causes were around 2 to 4.5 times as high for Māori than for non-Māori men.

A table of death registrations by cause of death is available in the accompanying Excel tabs.

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 65: Potentially avoidable mortality, 0–74 years, Waitemata DHB, 2007–2011

| 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 | 39 | 131.6 | (114.2, 151.7) | 260 | 57.4 | (53.7, 61.2) | 2.30 (1.96, 2.68) | 74.3 |
| Male | 48 | 191.1 | (168.3, 217.0) | 363 | 87.8 | (83.2, 92.6) | 2.18 (1.90, 2.50) | 103.3 |
| Total | 87 | 161.4 | (146.8, 177.4) | 623 | 72.6 | (69.6, 75.6) | 2.22 (2.01, 2.47) | 88.8 |

Source: Mortality, Ministry of Health

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

There were 87 potentially avoidable Māori deaths per year, at a rate over twice the non-Māori rate, or 89 more deaths per 100,000.

Table 66: Amenable mortality, 0–74 years, Waitemata DHB, 2007–2011

| 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 | 28 | 97.7 | (82.8, 115.3) | 171 | 37.9 | (35.0, 41.0) | 2.58 (2.15, 3.10) | 59.8 |
| Male | 35 | 139.6 | (120.3, 162.0) | 245 | 59.5 | (55.7, 63.4) | 2.35 (2.00, 2.76) | 80.1 |
| Total | 64 | 118.6 | (106.2, 132.5) | 416 | 48.7 | (46.3, 51.2) | 2.44 (2.16, 2.75) | 70.0 |

Source: Mortality, Ministry of Health

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

Amenable mortality was 2.4 times as high for Māori as for non-Māori, or 70 more deaths per 100,000. There were 64 Māori deaths per year on average from conditions amenable to health care.

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 among Waitemata Māori were falls, exposure to mechanical forces, complications of medical and surgical care, transport accidents, assault, and intentional self-harm.

Table 67: Hospitalisations for injuries, all ages, Waitemata 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 | 709 | 2,517.1 | (2,410.9, 2,628.0) | 6,222 | 1,908.6 | (1,873.1, 1,944.8) | 1.32 (1.26 , 1.38) | 608.5 |
| Male | 1,037 | 3,886.6 | (3,750.9, 4,027.3) | 7,238 | 2,788.5 | (2,745.4, 2,832.3) | 1.39 (1.34 , 1.45) | 1,098.1 |
| Total | 1,747 | 3,201.9 | (3,115.2, 3,290.9) | 13,460 | 2,348.6 | (2,320.6, 2,376.9) | 1.36 (1.32 , 1.40) | 853.3 |

Source: NMDS

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

On average there were nearly 1,750 hospitalisations for injury per year among Waitemata Māori, at a rate one third higher than non-Māori or 853 more admissions per 100,000.

Table 68: Hospitalisations for assault, all ages, Waitemata 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 | 64 | 228.6 | (198.2, 263.6) | 102 | 41.8 | (37.0, 47.1) | 5.47 (4.54 , 6.59) | 186.8 |
| Male | 103 | 383.7 | (342.6, 429.6) | 351 | 158.1 | (148.6, 168.4) | 2.43 (2.13 , 2.76) | 225.5 |
| Total | 167 | 306.1 | (280.1, 334.5) | 453 | 100.0 | (94.6, 105.7) | 3.06 (2.76 , 3.40) | 206.2 |

Source: NMDS

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

On average 167 Māori per year were admitted to hospital for injury caused by assault, at a rate 3 times the non-Māori rate, or 206 more admissions per 100,000. Males had a higher number of admission rates than females.

Table 69: Deaths from injury, all ages, Waitemata DHB, 2007–2011

| 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 | 7 | 25.8 | (18.6, 35.7) | 58 | 10.8 | (9.1, 12.9) | 2.38 (1.65 , 3.45) | 15.0 |
| Male | 12 | 45.9 | (35.5, 59.4) | 97 | 28.6 | (25.8, 31.8) | 1.60 (1.21 , 2.12) | 17.3 |
| Total | 19 | 35.8 | (29.3, 43.8) | 155 | 19.7 | (18.0, 21.6) | 1.82 (1.46 , 2.27) | 16.1 |

Source: Mortality dataset, Ministry of Health.

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

On average 19 Māori per year died from injuries, at a rate 82% higher than non-Māori, or 16 more deaths per 100,000.



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Appendix 1: Population projections

Table 70: Māori population projections, single year by age group, Waitemata DHB, 2013 to 2020

Projected Māori Ethnic Group Population by Age and Sex at 30 June 2014–33 (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 | 730 | 670 | 1,410 | 700 | 660 | 1,360 | 690 | 660 | 1,350 | 690 | 660 | 1,350 |
| 1-4 | 2,980 | 2,720 | 5,700 | 2,960 | 2,730 | 5,690 | 2,870 | 2,630 | 5,500 | 2,830 | 2,600 | 5,430 |
| 5-9 | 3,090 | 3,010 | 6,100 | 3,240 | 3,150 | 6,390 | 3,440 | 3,300 | 6,740 | 3,550 | 3,340 | 6,890 |
| 10-14 | 2,830 | 2,640 | 5,470 | 2,860 | 2,630 | 5,490 | 2,840 | 2,640 | 5,480 | 2,840 | 2,720 | 5,560 |
| 15-19 | 2,840 | 2,710 | 5,550 | 2,780 | 2,650 | 5,440 | 2,800 | 2,710 | 5,500 | 2,810 | 2,700 | 5,520 |
| 20-24 | 2,470 | 2,490 | 4,960 | 2,620 | 2,600 | 5,220 | 2,740 | 2,600 | 5,340 | 2,760 | 2,590 | 5,350 |
| 25-29 | 1,690 | 1,980 | 3,670 | 1,780 | 2,020 | 3,800 | 1,850 | 2,130 | 3,980 | 2,010 | 2,200 | 4,210 |
| 30-34 | 1,510 | 1,770 | 3,280 | 1,530 | 1,800 | 3,340 | 1,580 | 1,830 | 3,410 | 1,580 | 1,840 | 3,410 |
| 35-39 | 1,610 | 1,760 | 3,370 | 1,550 | 1,730 | 3,270 | 1,540 | 1,700 | 3,230 | 1,550 | 1,760 | 3,310 |
| 40-44 | 1,740 | 1,890 | 3,630 | 1,750 | 1,890 | 3,640 | 1,720 | 1,910 | 3,630 | 1,640 | 1,850 | 3,490 |
| 45-49 | 1,620 | 1,630 | 3,250 | 1,660 | 1,670 | 3,320 | 1,650 | 1,710 | 3,360 | 1,670 | 1,760 | 3,430 |
| 50-54 | 1,390 | 1,590 | 2,980 | 1,410 | 1,600 | 3,010 | 1,460 | 1,600 | 3,050 | 1,500 | 1,580 | 3,070 |
| 55-59 | 950 | 1,120 | 2,070 | 1,030 | 1,210 | 2,230 | 1,090 | 1,280 | 2,370 | 1,170 | 1,380 | 2,550 |
| 60-64 | 680 | 810 | 1,490 | 720 | 850 | 1,570 | 750 | 870 | 1,630 | 800 | 920 | 1,710 |
| 65-69 | 450 | 540 | 990 | 470 | 560 | 1,030 | 510 | 630 | 1,140 | 510 | 670 | 1,180 |
| 70-74 | 270 | 330 | 600 | 290 | 350 | 640 | 300 | 360 | 660 | 330 | 370 | 700 |
| 75-79 | 150 | 220 | 370 | 160 | 240 | 400 | 170 | 260 | 420 | 180 | 260 | 440 |
| 80-84 | 80 | 120 | 190 | 70 | 110 | 190 | 70 | 120 | 190 | 80 | 130 | 210 |
| 85-89 | 30 | 50 | 70 | 30 | 60 | 90 | 30 | 70 | 100 | 30 | 70 | 100 |
| 90+ | 10 | 20 | 30 | 10 | 20 | 30 | 10 | 20 | 30 | 20 | 20 | 40 |
| All Ages | 27,100 | 28,100 | 55,200 | 27,600 | 28,500 | 56,200 | 28,100 | 29,000 | 57,100 | 28,500 | 29,400 | 58,000 |
| | 2017 | | | 2018 | | | 2019 | | | 2020 | | |
| 0 | 690 | 660 | 1,350 | 700 | 660 | 1,350 | 700 | 660 | 1,360 | 700 | 660 | 1,370 |
| 1-4 | 2,770 | 2,600 | 5,380 | 2,720 | 2,580 | 5,300 | 2,720 | 2,580 | 5,300 | 2,730 | 2,590 | 5,310 |
| 5-9 | 3,620 | 3,320 | 6,950 | 3,610 | 3,310 | 6,930 | 3,560 | 3,300 | 6,860 | 3,460 | 3,190 | 6,640 |
| 10-14 | 2,880 | 2,820 | 5,700 | 3,030 | 2,940 | 5,970 | 3,160 | 3,080 | 6,240 | 3,360 | 3,220 | 6,580 |
| 15-19 | 2,860 | 2,680 | 5,540 | 2,790 | 2,610 | 5,400 | 2,820 | 2,580 | 5,400 | 2,780 | 2,590 | 5,370 |
| 20-24 | 2,750 | 2,580 | 5,330 | 2,790 | 2,590 | 5,370 | 2,720 | 2,530 | 5,240 | 2,720 | 2,570 | 5,290 |
| 25-29 | 2,120 | 2,270 | 4,390 | 2,250 | 2,310 | 4,560 | 2,400 | 2,420 | 4,820 | 2,510 | 2,410 | 4,920 |
| 30-34 | 1,650 | 1,900 | 3,550 | 1,670 | 1,970 | 3,640 | 1,750 | 2,010 | 3,760 | 1,810 | 2,120 | 3,920 |
| 35-39 | 1,510 | 1,760 | 3,270 | 1,500 | 1,770 | 3,270 | 1,520 | 1,800 | 3,320 | 1,560 | 1,830 | 3,390 |
| 40-44 | 1,590 | 1,760 | 3,350 | 1,550 | 1,720 | 3,260 | 1,480 | 1,680 | 3,160 | 1,470 | 1,640 | 3,110 |
| 45-49 | 1,670 | 1,820 | 3,490 | 1,650 | 1,820 | 3,470 | 1,660 | 1,820 | 3,480 | 1,630 | 1,830 | 3,460 |
| 50-54 | 1,520 | 1,560 | 3,080 | 1,530 | 1,550 | 3,080 | 1,560 | 1,580 | 3,140 | 1,540 | 1,620 | 3,160 |
| 55-59 | 1,230 | 1,450 | 2,680 | 1,280 | 1,510 | 2,790 | 1,300 | 1,510 | 2,810 | 1,350 | 1,500 | 2,850 |
| 60-64 | 820 | 960 | 1,780 | 850 | 1,040 | 1,890 | 930 | 1,120 | 2,040 | 980 | 1,180 | 2,170 |
| 65-69 | 540 | 700 | 1,230 | 590 | 720 | 1,310 | 620 | 760 | 1,380 | 650 | 780 | 1,430 |
| 70-74 | 350 | 400 | 760 | 370 | 460 | 830 | 390 | 480 | 860 | 420 | 530 | 960 |
| 75-79 | 200 | 270 | 470 | 200 | 260 | 460 | 220 | 270 | 490 | 230 | 280 | 510 |
| 80-84 | 80 | 140 | 230 | 90 | 160 | 250 | 100 | 180 | 280 | 110 | 190 | 300 |
| 85-89 | 30 | 70 | 100 | 40 | 70 | 100 | 30 | 60 | 100 | 30 | 70 | 100 |
| 90+ | 20 | 30 | 40 | 10 | 30 | 50 | 20 | 40 | 60 | 20 | 50 | 70 |
| All Ages | 28,900 | 29,800 | 58,700 | 29,200 | 30,100 | 59,300 | 29,600 | 30,500 | 60,100 | 30,100 | 30,800 | 60,900 |

These projections were derived in October 2014.

Source: Statistics New Zealand Population Projections

Table 71: Total population projections, single year, by age group, Waitemata 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 | 4,110 | 3,750 | 7,860 | 3,830 | 3,640 | 7,470 | 3,950 | 3,750 | 7,690 | 4,010 | 3,810 | 7,810 |
| 1-4 | 16,400 | 15,410 | 31,810 | 16,450 | 15,400 | 31,860 | 16,240 | 15,170 | 31,410 | 16,120 | 15,180 | 31,300 |
| 5-9 | 18,960 | 18,070 | 37,030 | 19,520 | 18,570 | 38,080 | 20,430 | 19,360 | 39,790 | 21,000 | 19,810 | 40,810 |
| 10-14 | 18,760 | 17,660 | 36,420 | 18,780 | 17,730 | 36,510 | 18,780 | 17,770 | 36,550 | 18,930 | 17,890 | 36,820 |
| 15-19 | 20,020 | 19,090 | 39,110 | 20,270 | 19,130 | 39,390 | 20,710 | 19,490 | 40,200 | 20,740 | 19,700 | 40,440 |
| 20-24 | 19,590 | 18,700 | 38,280 | 20,430 | 19,290 | 39,720 | 21,140 | 19,640 | 40,790 | 21,710 | 19,710 | 41,420 |
| 25-29 | 16,720 | 17,740 | 34,460 | 17,610 | 18,320 | 35,930 | 18,680 | 19,320 | 37,990 | 19,960 | 20,380 | 40,340 |
| 30-34 | 17,250 | 19,110 | 36,360 | 17,790 | 19,720 | 37,510 | 18,650 | 20,400 | 39,050 | 19,160 | 20,850 | 40,010 |
| 35-39 | 17,440 | 19,310 | 36,750 | 17,280 | 19,210 | 36,490 | 17,430 | 19,490 | 36,920 | 18,000 | 19,930 | 37,930 |
| 40-44 | 20,120 | 22,630 | 42,750 | 20,020 | 22,310 | 42,330 | 19,860 | 22,140 | 41,990 | 19,350 | 21,540 | 40,890 |
| 45-49 | 19,830 | 21,610 | 41,440 | 19,910 | 21,740 | 41,640 | 20,200 | 22,070 | 42,270 | 20,410 | 22,590 | 43,000 |
| 50-54 | 18,930 | 20,310 | 39,240 | 19,230 | 20,680 | 39,910 | 19,470 | 21,140 | 40,610 | 19,710 | 21,290 | 41,000 |
| 55-59 | 15,540 | 16,830 | 32,370 | 16,040 | 17,360 | 33,400 | 16,670 | 17,980 | 34,650 | 17,150 | 18,760 | 35,910 |
| 60-64 | 13,510 | 14,480 | 27,980 | 13,660 | 14,830 | 28,480 | 13,920 | 15,230 | 29,150 | 14,330 | 15,650 | 29,980 |
| 65-69 | 11,600 | 12,470 | 24,070 | 12,010 | 12,980 | 25,000 | 12,620 | 13,570 | 26,190 | 12,990 | 13,990 | 26,990 |
| 70-74 | 8,320 | 9,050 | 17,370 | 8,720 | 9,530 | 18,240 | 9,110 | 10,040 | 19,150 | 9,550 | 10,490 | 20,040 |
| 75-79 | 5,610 | 6,590 | 12,200 | 5,930 | 6,890 | 12,820 | 6,370 | 7,310 | 13,680 | 6,800 | 7,810 | 14,620 |
| 80-84 | 3,920 | 4,970 | 8,900 | 4,000 | 4,990 | 8,990 | 4,110 | 5,110 | 9,220 | 4,220 | 5,240 | 9,460 |
| 85-89 | 2,140 | 3,380 | 5,520 | 2,260 | 3,480 | 5,750 | 2,390 | 3,580 | 5,970 | 2,530 | 3,740 | 6,270 |
| 90+ | 860 | 2,020 | 2,870 | 970 | 2,190 | 3,160 | 1,100 | 2,390 | 3,480 | 1,230 | 2,530 | 3,760 |
| All Ages | 269,600 | 283,200 | 552,800 | 274,700 | 288,000 | 562,700 | 281,800 | 294,900 | 576,800 | 287,900 | 300,900 | 588,800 |
| | 2017 | | | 2018 | | | 2019 | | | 2020 | | |
| 0 | 4,060 | 3,860 | 7,920 | 4,110 | 3,910 | 8,020 | 4,170 | 3,960 | 8,130 | 4,240 | 4,030 | 8,270 |
| 1-4 | 16,030 | 15,110 | 31,150 | 15,940 | 15,180 | 31,120 | 16,170 | 15,400 | 31,570 | 16,380 | 15,600 | 31,980 |
| 5-9 | 21,400 | 20,070 | 41,470 | 21,470 | 20,010 | 41,490 | 21,240 | 19,880 | 41,120 | 20,970 | 19,600 | 40,560 |
| 10-14 | 19,360 | 18,440 | 37,800 | 20,020 | 19,050 | 39,070 | 20,590 | 19,550 | 40,130 | 21,370 | 20,210 | 41,580 |
| 15-19 | 20,620 | 19,390 | 40,020 | 20,490 | 19,250 | 39,730 | 20,500 | 19,310 | 39,820 | 20,360 | 19,210 | 39,570 |
| 20-24 | 22,060 | 20,080 | 42,140 | 22,370 | 20,200 | 42,570 | 22,520 | 20,160 | 42,680 | 22,730 | 20,320 | 43,040 |
| 25-29 | 21,080 | 21,030 | 42,110 | 21,960 | 21,520 | 43,480 | 22,640 | 21,940 | 44,570 | 23,050 | 21,990 | 45,040 |
| 30-34 | 19,700 | 21,300 | 41,000 | 20,160 | 21,750 | 41,910 | 20,880 | 22,190 | 43,070 | 21,700 | 22,950 | 44,650 |
| 35-39 | 18,410 | 20,450 | 38,860 | 19,260 | 21,140 | 40,410 | 19,760 | 21,720 | 41,480 | 20,460 | 22,220 | 42,670 |
| 40-44 | 18,900 | 20,950 | 39,850 | 18,450 | 20,530 | 38,980 | 18,270 | 20,400 | 38,670 | 18,260 | 20,520 | 38,780 |
| 45-49 | 20,720 | 22,990 | 43,710 | 20,630 | 23,010 | 43,650 | 20,540 | 22,730 | 43,270 | 20,240 | 22,400 | 42,640 |
| 50-54 | 19,560 | 21,370 | 40,930 | 19,490 | 21,330 | 40,820 | 19,590 | 21,490 | 41,080 | 19,760 | 21,680 | 41,440 |
| 55-59 | 17,840 | 19,300 | 37,130 | 18,450 | 19,980 | 38,430 | 18,790 | 20,390 | 39,180 | 18,930 | 20,740 | 39,670 |
| 60-64 | 14,740 | 16,260 | 31,000 | 15,210 | 16,760 | 31,970 | 15,730 | 17,310 | 33,040 | 16,260 | 17,830 | 34,090 |
| 65-69 | 13,040 | 14,080 | 27,110 | 13,050 | 14,270 | 27,320 | 13,240 | 14,660 | 27,900 | 13,430 | 14,990 | 28,420 |
| 70-74 | 10,210 | 11,190 | 21,400 | 10,960 | 12,090 | 23,050 | 11,410 | 12,640 | 24,050 | 11,960 | 13,160 | 25,120 |
| 75-79 | 7,300 | 8,320 | 15,620 | 7,540 | 8,510 | 16,050 | 7,930 | 8,990 | 16,920 | 8,240 | 9,440 | 17,680 |
| 80-84 | 4,340 | 5,520 | 9,860 | 4,610 | 5,750 | 10,360 | 4,910 | 6,040 | 10,950 | 5,280 | 6,420 | 11,700 |
| 85-89 | 2,640 | 3,760 | 6,400 | 2,730 | 3,810 | 6,540 | 2,820 | 3,840 | 6,650 | 2,890 | 3,920 | 6,810 |
| 90+ | 1,360 | 2,690 | 4,050 | 1,460 | 2,880 | 4,330 | 1,590 | 3,060 | 4,650 | 1,700 | 3,220 | 4,920 |
| All Ages | 293,400 | 306,100 | 599,500 | 298,400 | 310,900 | 609,300 | 303,300 | 315,700 | 618,900 | 308,200 | 320,400 | 628,600 |

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 72: 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](#).

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](#).

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 other 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 73: 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](#). For other tables, the ICD codes are listed in the accompanying Excel tables.

Table 74: 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 75: 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 76: 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 77: 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 78: 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.

