



Counties Manukau  
District Health Board

# Māori Health Profile 2015



## Te Rei Puta

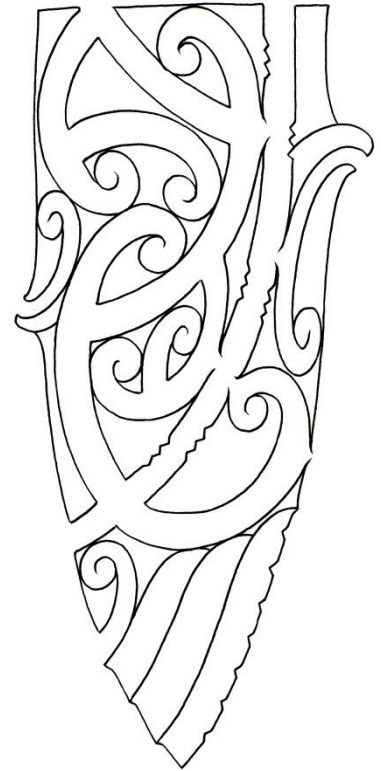
The cover design represents the journey of data from its production to its use by the health sector. The overall shape of the design is the prized rei puta. This signifies the importance of information and the acknowledgement that knowledge is a taonga.

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

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

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# He Mihi

Tūi Tuia i Te Herenga Tangata

Te tangi a Te Rōpū Rangahau Hauora a Eru Pōmare.

Tui Tui Tui Tuia

E ngā maunga whakahii, ngā pū kōrero huri noa

Tēnā koutou, tēnā koutou, tēnā tātou katoa.

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

Haere atu rā, okioki ai.

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

Anei te mihi ki ngā kaimahi hauora

Whakapiki te kaha

Whakapiki te ora

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Kia eke tātou katoa ki Te Pae Ora.

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Graham Tipene designed the rei puta and Somar Design developed the document template.

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Ngā mihi nui ki a koutou katoa.

Nā,

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



# Tiro whānui

## – Counties Manukau at a glance

### Counties Manukau population

- In 2013, 79,500 Māori lived in the Counties Manukau District Health Board region, 16% of the District's total population.
- The Counties Manukau Māori population is youthful, but showing signs of ageing. In 2013, the median age was 22.3 years. One in four of the District's children under 15 years were Māori as were one in five youth aged 15–24 years. The Māori population aged 65 years and over will increase by nearly 43% between 2013 and 2020.

### Whānau ora – Healthy families

- In 2013, most Counties Manukau Māori adults (76%) reported that their whānau was doing well, but 7% felt their whānau was doing badly. A small proportion (5%) found it hard to access whānau support in times of need, but most found it easy (87%).
- Being involved in Māori culture was important (very, quite, or somewhat) to the majority of Māori adults (71%) and spirituality was important to 66%.
- Almost all (96%) Counties Manukau Māori had been to a marae at some time. Two-thirds (65%) had been to their ancestral marae, with over half (56%) stating they would like to go more often.
- One in eight (12%) had taken part in traditional healing or massage in the last 12 months.
- A fifth of Counties Manukau Māori could have a conversation about a lot of everyday things in te reo Māori in 2013.

### Wai ora – Healthy environments

#### Education

- In 2013, 88% of Counties Manukau Māori children starting school had participated in early childhood education.
- In 2013, 43% of Māori adults aged 18 years and over had at least a Level 2 Certificate, a higher proportion than in 2006 (34%). The gap between Māori and non-Māori closed by three percentage points but Māori remained three-quarters as likely as non-Māori to have this level of qualification in 2013.

#### Work

- In 2013, 13% of Māori adults aged 15 years and over were unemployed, 90% higher than the non-Māori rate (7%).
- Most Counties Manukau Māori adults (87%) do voluntary work.
- In 2013, Māori were around 80% 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 two children 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 three children in other households.

- Among adults 18 years and over, 43% in Māori households were in a low-income household, compared to 30% of adults in other households.
- In 2013, 17% of Counties Manukau Māori adults reported putting up with feeling the cold a lot to keep costs down during the previous 12 months, 5% had gone without fresh fruit and vegetables, and 9% had often postponed or put off a visit to the doctor.
- Residents of Māori households were 3.6 times as likely as residents of other households to have no access to a motor vehicle in 2013 (10% compared to 3%).
- People in Māori households were less likely to have access to telecommunications than those living in other households: 34% had no internet, 29% no telephone, 14% no mobile phone, and 4% 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 (22%), needing repairs (19%), and damp (15%).
- Two-thirds of children in the Counties Manukau area Māori households were living in rented accommodation, 54% higher than the proportion of children in other households (43%).
- A third of residents in Māori households were in crowded homes (i.e. requiring at least one additional bedroom) compared to just under a quarter of residents of other homes (33% compared to 23%).

## Area deprivation

- Using the NZDep2013 index of small area deprivation, 58% of Counties Manukau Māori lived in the two most deprived decile areas compared to 32% of non-Māori. Only 7% of Māori lived in the two least deprived deciles compared to 20% of non-Māori.

# Mauri ora – Healthy individuals

## Pepi, tamariki – Infants and children

- On average 2,422 Māori infants were born per year during 2009–2013, 28% of all live births in the DHB. Approximately 7% of Māori and 6% of non-Māori babies had low birth weight.
- In 2013, 76% of Māori babies in the Counties Manukau area were fully breastfed at 6 weeks.
- Fifty-six percent of Māori infants were enrolled with a Primary Health Organisation by three months of age.
- In 2014, 87% of Māori children were fully immunised at 8 months of age, 90% at 24 months.
- In 2013, 61% of Counties Manukau Māori children aged 5 years and 46% of non-Māori children had caries. These proportions were similar for children in Year 8 of school. On average there were 203 hospital admissions per year among Māori children under 15 years during 2011–2013, at a similar rate to non-Māori children.
- During 2011–2013, on average there were 172 hospital admissions per year for grommet insertions among Māori children (at a rate 11% higher than non-Māori) and 199 admissions for serious skin infections (with the rate 22% higher than for non-Māori children).
- Māori children under 15 years were 51% more likely than non-Māori children to be hospitalised for acute rheumatic fever, with 16 children per year admitted at least once. In addition, six Māori per year in the 15–24 year age group were admitted per year (twice the non-Māori rate).
- Approximately 1,670 hospitalisations per year of Māori children under 15 years were potentially avoidable through population-based health promotion and intersectoral actions, at a rate 6% higher than that of non-Māori.
- Just over 1,000 hospitalisations per year of Māori children were potentially avoidable through preventive or treatment intervention in primary care (ambulatory care sensitive hospitalisations, or ASH), at a similar rate to non-Māori children.

## Rangatahi – Young adults

- There has been a significant increase in the proportion of Counties Manukau 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, 72% of Māori girls aged 17 years and 69% of those aged 14 years had completed all three doses of the human papilloma virus (HPV) immunisation.
- Rates of hospitalisation for injury from self-harm were two-thirds higher for Māori than for non-Māori among youth aged 15–24 years during 2011–2013 and twice as high for Māori than non-Māori among young adults aged 25–44 years.

## Pakeke – Adults

- Just over half of Māori adults in the Counties Manukau area (55%) reported having excellent or very good health in 2013, and a quarter reported good health. One in five (19%) reported having fair or poor health.
- Smoking rates are decreasing, but remain more than twice as high for Māori as for non-Māori in the Counties Manukau area.

## Circulatory system diseases

- Māori adults aged 25 years and over were 88% more likely than non-Māori to be hospitalised for circulatory system diseases (including heart disease and stroke) during 2011–2013.
- Counties Manukau Māori women were around twice as likely as non-Māori women to be admitted with acute coronary syndrome, and around twice as likely to have revascularisation procedures. Among men, Māori and non-Māori rates were similar.
- Heart failure admission rates were close to 4 times as high for Māori as for non-Māori.
- Stroke admission rates were three-quarters higher for Māori than for non-Māori and admissions for hypertensive disease were twice as high.
- Chronic rheumatic heart disease hospital admissions were over twice as common for Māori as for non-Māori and heart valve replacements 81% higher.
- Māori under 75 years were 2.9 times as likely as non-Māori to die from circulatory system diseases in 2007–2011.

## Diabetes

- In 2013, 6% of Māori and 8% of non-Māori were estimated to have diabetes (crude prevalence). Half of Māori aged 25 years and over who had diabetes were regularly receiving metformin or insulin, 88% were having their blood sugar monitored regularly, and three-quarters were being screened regularly for renal disease.
- In 2011–2013 Māori with diabetes were 4.5 times as likely as non-Māori to have a lower limb amputated.

## Cancer

- Compared to non-Māori, cancer incidence was 66% higher for Māori females and 31% higher for Māori males, while cancer mortality was twice as high for Māori of both genders.
- Breast, lung, uterine and colorectal cancers were the most commonly registered among Counties Manukau Māori women. The rate of lung cancer was over 4 times as high as the non-Māori rate, breast cancer 62% higher, and uterine cancer 42% higher.
- Breast screening coverage of Māori women aged 45–69 years was 69% compared to 73% of non-Māori women in 2014.
- Cervical screening coverage of Māori women aged 25–69 years was 62% over 3 years and 80% over five years (compared to 73% and 87% of non-Māori respectively).
- Lung, prostate, colorectal and liver cancers were the most commonly registered cancers among Counties Manukau Māori men. Lung and liver cancer registration rates were around 3 times as high as the non-Māori rates respectively, while prostate cancer was 26% lower.
- Lung cancer was the most common cause of death from cancer among Māori women, followed by breast, colorectal and stomach cancers. Mortality rates for lung, breast, and stomach cancers were higher for Māori than for non-Māori women.
- Lung cancer was the most common cause of cancer death for Māori men, followed by liver, colorectal, prostate, and stomach cancers. Lung, liver, and stomach cancer mortality rates were higher for Māori than for non-Māori men.

## Respiratory disease

- Māori aged 45 years and over were 4 times as likely as non-Māori to be admitted to hospital for chronic obstructive pulmonary disease (COPD).
- Asthma hospitalisation rates were higher for Māori than non-Māori in most age groups other than 65 years and over.
- Māori under 75 years had 3.4 times the non-Māori rate of death from respiratory disease during 2007–2011.

## Mental disorders

- Māori were 2.5 times as likely as non-Māori to be admitted to hospital for a mental disorder during 2011–2013. Schizophrenia related disorders were the most common disorders, followed by mood disorders and substance use disorders.

## Gout

- In 2011 the prevalence of gout among Counties Manukau Māori was estimated to be 8%, compared to 5% among non-Māori.
- Thirty-seven percent of Māori with gout regularly received allopurinol, a preventive therapy to lower urate levels. Of those who received allopurinol, 45% had a lab test for serum urate levels in the following six months. Around half were using non-steroidal anti-inflammatory medication.
- In 2011–2013 the rate of hospitalisations for gout was 2.6 times as high for Māori as for non-Māori.

## All ages

### Hospitalisations

- The all-cause rate of hospital admissions was 27% higher for Māori than for non-Māori during 2011–2013.
- Approximately 5,480 Māori hospital admissions per year were potentially avoidable, with the rate 46% higher for Māori than for non-Māori. The ASH rate was 68% 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 Counties Manukau Māori was 2.2 times the non-Māori rate during 2008–2012.
- Leading causes of death for Māori females were ischaemic heart disease (IHD), lung cancer, diabetes, COPD, and breast cancer. Leading causes of death for Māori males were IHD, lung cancer, accidents, diabetes, and suicide.
- Potentially avoidable mortality and mortality amenable to health care rates were 2.6 and 2.5 times as high respectively for Māori as for non-Māori in the Counties Manukau District during 2007–2011.

### Injuries

- The rate of hospitalisation due to injury was 43% higher for Māori males than for non-Māori males and 57% higher for Māori females compared to non-Māori females during 2011–2013.
- The most common causes of injury resulting in hospitalisations among Māori were falls, exposure to mechanical forces, complications of medical and surgical care, assault, transport accidents, and intentional self-harm.
- Rates of hospital admission for injury caused by assault were 4.7 times as high for Māori females as for non-Māori females, and 2.6 times as high for Māori males as for non-Māori males. Rates were higher for males than for females.
- Injury mortality was 2.5 times as high for Māori as for non-Māori in the Counties Manukau District during 2007–2011.



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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 **Counties Manukau 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 Counties Manukau DHB. Accompanying Excel tables also include data for the total Counties Manukau 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 population<sup>1</sup>.

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.

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<sup>1</sup> 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 12% (79,500) of the country's total Māori population lived in the Counties Manukau DHB area. The total population of the DHB (496,300) made up 11% of the national population. In 2015, the Māori population was estimated to be 81,900 and the total population 520,100.<sup>2</sup>

**Table 1: Population by age group, Counties Manukau DHB, 2013**

Age group (years)	Māori			Non-Māori		Total DHB Number
	Number	Age distribution	% of DHB	Number	Age distribution	
0–14	28,630	36%	24	90,600	22%	119,230
15–24	14,850	19%	19	61,580	15%	76,430
25–44	19,110	24%	15	111,900	27%	131,010
45–64	13,500	17%	12	103,780	25%	117,280
65+	3,440	4%	7	48,920	12%	52,360
Total	79,500	100%	16	416,800	100%	496,300

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

Māori residents comprised 16% of the DHB population in 2013. The Māori population is relatively young, with a median age in 2013 of 22.3 years, compared with 33.1 years for the total DHB population. Māori comprised 24% of the DHB's children aged 0–14 years and 19% of those aged 15–24 years.

**Table 2: Population projections, Counties Manukau 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	79,500	16	12	36	60	4	22.3	496,300	33.1	11	692,300	4,442,100
2018	84,700	16	12	36	59	5	22.7	545,200	33.3	12	734,500	4,726,200
2023	89,400	15	12	35	59	6	23.3	586,100	34.2	12	773,500	4,935,200
2028	94,000	15	12	33	59	8	24.0	628,100	35.4	12	811,700	5,139,700
2033	99,000	15	12	32	59	9	24.5	669,700	36.5	13	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 were aged 65 years and over in 2013 was 4% but is projected to increase to 9% in 2033. Between 2013 and 2020 the number of Māori aged 65 and over will increase by 43% from 3,440 to 4,920 (see Appendix 1). In 2013, there were 950 Māori aged 75 years and over in the Counties Manukau District, with 201 living alone (see accompanying Excel tables).

<sup>2</sup> 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, Counties Manukau DHB, 2013**

How the whānau is doing	Counties Manukau DHB			New Zealand	
	Estimated number	%	(95% CI)	%	(95% CI)
Well / Extremely well	45,500	76.4	(72.1, 80.8)	83.4	(82.5, 84.4)
Neither well nor badly	9,500	16.2	(12.5, 20.0)	10.3	(9.4, 11.2)
Badly / Extremely badly	4,500*	7.3*	(5.1, 9.5)	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%.

Three-quarters of Counties Manukau Māori adults (76%) reported that their whānau was doing well or extremely well in 2013. However 7% felt their whānau was doing badly or extremely badly.

**Table 4: Whānau composition reported by Māori aged 15 years and over, Counties Manukau DHB, 2013**

Whānau description	Counties Manukau DHB			New Zealand	
	Estimated number	%	(95% CI)	%	(95% CI)
<b>Size of whānau</b>					
10 or less	36,500	61.8	(57.5, 66.0)	53.7	(52.1, 55.3)
11 to 20	11,500	19.6	(15.5, 23.8)	22.6	(21.3, 24.0)
More than 20	11,000	18.6	(15.0, 22.2)	23.6	(22.4, 24.8)
<b>Groups included in whānau</b>					
Parents, partner, children, brothers & sisters	49,000	81.1	(77.0, 85.3)	94.6	(94.0, 95.2)
Aunts & uncles, cousins, nephews & nieces, other in-laws	20,000	33.3	(28.5, 38.1)	41.3	(39.8, 42.8)
Grandparents, grandchildren	18,500	30.7	(26.2, 35.1)	41.9	(40.5, 43.4)
Friends, others	5,500	8.9	(6.3, 11.6)	12.4	(11.5, 13.3)

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

Table 4 shows the size and composition of whānau, with around one in five reporting whānau sizes of more than 20 people. Nine percent included friends in their description of whānau.

## Whānau support

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

How easy is it to get help	Counties Manukau DHB			New Zealand	
	Estimated number	%	(95% CI)	%	(95% CI)
<b>Support in times of need</b>					
Easy, very easy	52,000	86.6	(83.5, 89.6)	81.2	(80.1, 82.4)
Sometimes easy, sometimes hard	5,000	8.3	(6.0, 10.6)	12.7	(11.7, 13.6)
Hard / very hard	3,000*	5.2*	(3.5, 6.8)	6.1	(5.4, 6.8)
<b>Help with Māori cultural practices such as going to a tangi, speaking at a hui, or blessing a taonga</b>					
Easy, very easy	42,000	69.2	(64.7, 73.6)	64.1	(62.7, 65.6)
Sometimes easy, sometimes hard	9,000	14.7	(10.8, 18.6)	16.9	(15.9, 18.0)
Hard / very hard	6,000*	10.1*	(6.8, 13.4)	14.7	(13.5, 15.9)
Don't need help	3,500	6.0	(4.3, 7.8)	4.2	(3.7, 4.7)

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

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

In 2013, the majority of Māori adults in the Counties Manukau District (87%) reported having easy access to support in times of need. However, an estimated 3,000 (5%) had difficulty getting help from whānau.

A smaller proportion found it easy to get help with Māori cultural practices (69%), with 10% finding it hard or very hard. A further 6% reported not needing help.

## Importance of participation in Māori culture

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

	Counties Manukau DHB			New Zealand	
	Estimated number	%	(95% CI)	%	(95% CI)
<b>Importance of being involved in Māori culture</b>					
Very / quite	28,000	46.7	(41.0, 52.4)	46.3	(44.9, 47.6)
Somewhat	15,000	24.6	(20.1, 29.1)	24.2	(22.9, 25.6)
A little / not at all	17,500	28.7	(23.2, 34.2)	29.5	(28.3, 30.7)
<b>Importance of spirituality</b>					
Very / quite	29,500	48.9	(43.5, 54.3)	48.7	(47.4, 49.9)
Somewhat	10,000	16.7	(12.4, 20.9)	17.0	(16.0, 18.0)
A little / not at all	20,500	34.4	(29.3, 39.5)	34.3	(33.1, 35.5)

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

Being involved in Māori culture was important (very, quite, or somewhat) to the majority (71%) of Counties Manukau Māori adults. Spirituality was important to two-thirds of Māori adults (66%).

## Te Reo Māori

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

Māori			Non-Māori			Māori/non-Māori ratio (95% CI)	Difference in percentage
Number	%	(95% CI)	Number	%	(95% CI)		
13,101	19.4	(19.1, 19.7)	1,881	0.5	(0.5, 0.6)	<b>36.53 (34.63, 38.54)</b>	18.9

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, one in five of all Māori in the Counties Manukau District and less than 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, Counties Manukau DHB, 2013**

Language spoken at home	Counties Manukau DHB			New Zealand	
	Estimated number	%	(95% CI)	%	(95% CI)
Māori is main language	1,500**	2.8**	(1.3, 4.3)	2.6	(2.2, 3.0)
Māori is used regularly	11,000	18.9	(14.7, 23.1)	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%.

One in five Māori adults reported that Māori language was used regularly in the home in 2013, and for 3% te reo Māori was the main language.

## Access to marae

**Table 9: Access to marae, Māori aged 15 years and over, Counties Manukau DHB, 2013**

Been to marae	Counties Manukau DHB			New Zealand	
	Estimated number	%	(95% CI)	%	(95% CI)
At some time	58,000	96.0	(94.2, 97.8)	96.0	(95.5, 96.6)
In previous 12 months <sup>(1)</sup>	37,500	65.1	(59.9, 70.3)	58.2	(56.6, 59.7)
Ancestral marae at some time <sup>(2)</sup>	38,500	65.1	(59.9, 70.3)	62.3	(60.9, 63.7)
Ancestral marae in previous 12 months <sup>(3)</sup>	21,000	35.7	(30.9, 40.5)	33.6	(32.3, 34.9)
Like to go to ancestral marae more often <sup>(2)</sup>	25,000	56.0	(50.2, 61.9)	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 the Counties Manukau District (96%) had been to a marae, with two-thirds (65%) having been in the last 12 months. Of those who had been to a marae, 65% had been to at least one of their ancestral marae, with 36% having been in the last 12 months, and over half (56%) 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, Counties Manukau DHB, 2013**

Counties Manukau DHB			New Zealand	
Estimated number	%	(95% CI)	%	(95% CI)
7,000	11.9	(8.6, 15.3)	10.9	(10.0, 11.7)

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

In 2013, an estimated 7,000 Māori adults (12%) in the Counties Manukau District 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 Counties Manukau DHB, 2006 and 2013**

Year	Māori			Non-Māori			Māori/non-Māori ratio (95% CI)	Difference in percentage
	Number	%	(95% CI)	Number	%	(95% CI)		
2006	12,852	34.2	(33.8, 34.7)	117,669	52.9	(52.7, 53.1)	<b>0.65</b> (0.64, 0.66)	-18.7
2013	16,551	43.1	(42.6, 43.6)	143,226	58.4	(58.2, 58.6)	<b>0.74</b> (0.73, 0.75)	-15.4

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 34% to 43% between 2006 and 2013. The gap between Māori and non-Māori closed by three percentage points, but in 2013 Māori remained less likely than non-Māori to have this level of qualification.

### Work

**Table 12: Labour force status, 15 years and over, Counties Manukau 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)		
<b>2006</b>								
Employed full-time	20,271	49.5	(49.1, 50.0)	132,294	53.4	(53.2, 53.6)	<b>0.93</b> (0.92, 0.94)	-3.9
Employed part-time	4,362	10.0	(9.7, 10.3)	34,086	13.7	(13.6, 13.9)	<b>0.73</b> (0.71, 0.75)	-3.7
Unemployed	3,561	8.3	(8.1, 8.6)	9,777	4.7	(4.6, 4.8)	<b>1.79</b> (1.72, 1.85)	3.7
Not in the labour force	13,680	32.1	(31.7, 32.5)	84,669	28.2	(28.0, 28.4)	<b>1.14</b> (1.12, 1.15)	3.9
<b>2013</b>								
Employed full-time	18,105	43.2	(42.8, 43.7)	138,864	50.4	(50.3, 50.6)	<b>0.86</b> (0.85, 0.87)	-7.2
Employed part-time	4,380	9.7	(9.4, 9.9)	35,031	12.5	(12.4, 12.6)	<b>0.77</b> (0.75, 0.80)	-2.8
Unemployed	5,466	12.9	(12.6, 13.2)	15,822	6.8	(6.7, 6.9)	<b>1.90</b> (1.84, 1.96)	6.1
Not in the labour force	15,582	34.2	(33.8, 34.6)	100,284	30.2	(30.1, 30.4)	<b>1.13</b> (1.12, 1.15)	4.0

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 8% to 13%). There was also an increase in the Māori population who were not in the labour force.

The absolute gaps between Māori and non-Māori full-time employment and unemployment rates increased between 2006 and 2013. In 2013, Māori were 90% more likely than non-Māori to be unemployed, with an absolute gap of 6%.

**Table 13: Leading industries in which Māori were employed, Counties Manukau DHB, 2013**

ANZSIC Industry	Counties Manukau DHB						New Zealand	
	Māori			Non-Māori				
	Number	%	Rank	Number	%	Rank	%	Rank
<b>Females</b>								
Education and Training	1,512	14.5	1	9,663	12.5	2	12.9	2
Health Care and Social Assistance	1,491	14.3	2	11,646	15.1	1	17.1	1
Retail Trade	978	9.4	3	8,856	11.5	3	11.6	3
Manufacturing	969	9.3	4	7,362	9.6	4	6.0	6
Transport, Postal and Warehousing	891	8.6	5	3,516	4.6	9	2.5	14
<b>Males</b>								
Construction	1,818	17.9	1	10,200	11.6	2	13.2	2
Manufacturing	1,770	17.4	2	15,924	18.2	1	13.4	1
Transport, Postal and Warehousing	1,464	14.4	3	7,563	8.6	5	5.9	7
Wholesale Trade	819	8.1	4	8,445	9.6	3	6.2	6
Retail Trade	639	6.3	5	7,845	8.9	4	8.3	5

Source: 2013 Census, Statistics New Zealand

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

Education and training, and health care and social assistance were the leading industries employing Māori women in the Counties Manukau area in 2013. For Māori men, leading industries were construction, manufacturing, and transport, postal and warehousing. The next most common industries were wholesale trade and retail trade.

**Table 14: Leading occupations of employed Māori, Counties Manukau DHB, 2013**

ANZSCO Occupation	Counties Manukau DHB						New Zealand	
	Māori			Non-Māori				
	Number	%	Rank	Number	%	Rank	%	Rank
<b>Females</b>								
Clerical and Administrative Workers	2,247	21.7	1	16,695	21.8	2	19.5	2
Professionals	2,082	20.1	2	18,765	24.5	1	26.7	1
Community and Personal Service Workers	1,506	14.5	3	9,075	11.8	5	12.9	4
Sales Workers	1,269	12.3	4	10,233	13.3	4	11.7	5
Managers	1,263	12.2	5	10,380	13.5	3	14.4	3
Labourers	1,116	10.8	6	6,105	8.0	6	8.3	6
Machinery Operators and Drivers	450	4.3	7	1,857	2.4	8	1.5	8
Technicians and Trades Workers	426	4.1	8	3,600	4.7	7	5.0	7
<b>Males</b>								
Machinery Operators and Drivers	2,517	24.6	1	10,704	12.3	4	9.1	5
Labourers	1,878	18.3	2	9,807	11.3	5	13.6	4
Technicians and Trades Workers	1,746	17.1	3	17,403	20.0	2	18.5	3
Managers	1,263	12.3	4	18,234	21.0	1	22.7	1
Professionals	891	8.7	5	13,437	15.5	3	18.6	2
Community and Personal Service Workers	714	7.0	6	4,257	4.9	8	5.4	7
Clerical and Administrative Workers	651	6.4	7	5,811	6.7	7	5.1	8
Sales Workers	579	5.7	8	7,161	8.2	6	7.1	6

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 clerical and administrative workers (22%), professionals (20%), and community and personal service workers (15%). The next most common occupations were sales workers, managers, and labourers.

Māori men were most likely to be employed as machinery operators and drivers (25%), labourers (18%), technicians and trade workers (17%), and managers (12%).

**Table 15: Unpaid work, 15 years and over, Counties Manukau 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	34,893	87.3	(86.9, 87.6)	233,298	86.0	(85.9, 86.2)	<b>1.01</b>	(1.01, 1.02)	1.3
Looking after disabled/ill household member	5,523	13.6	(13.3, 14.0)	20,910	7.6	(7.5, 7.7)	<b>1.80</b>	(1.74, 1.85)	6.0
Looking after disabled/ill non-household member	4,711	11.3	(10.9, 11.6)	18,357	6.0	(5.9, 6.1)	<b>1.86</b>	(1.80, 1.92)	5.2

Source: 2013 Census, Statistics New Zealand

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

Eighty-seven percent of Māori adults worked without pay in 2013. Māori were around four-fifths more likely than non-Māori to look after someone who was disabled or ill without pay, 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, Counties Manukau DHB, 2013**

Actions taken a lot to keep costs down	Counties Manukau DHB			New Zealand	
	Estimated number	%	(95% CI)	%	(95% CI)
Put up with feeling the cold	10,000	16.8	(13.5, 20.2)	11.0	(10.2, 11.8)
Go without fresh fruit and vegetables	3,000*	5.0*	(2.9, 7.1)	5.4	(4.8, 6.0)
Postpone or put off visits to the doctor	5,000	8.7	(6.2, 11.2)	8.8	(7.9, 9.6)

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

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

In 2013, an estimated 10,000 Māori adults (17%) reported putting up with feeling cold a lot to keep costs down during the previous 12 months, 3,000 (5%) had gone without fresh fruit and vegetables, and 5,000 (9%) had postponed or put off visits to the doctor.

**Table 17: Children aged 0–17 years living in families where the only income is means-tested benefits, Counties Manukau 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	8,868	27.2	(26.7, 27.7)	9,621	11.0	(10.8, 11.2)	<b>2.48</b>	(2.41, 2.54)	16.2
2013	10,341	32.4	(31.9, 32.9)	10,419	11.5	(11.3, 11.7)	<b>2.82</b>	(2.75, 2.89)	20.9

Source: 2006 and 2013 Censuses, Statistics New Zealand

Notes: Māori families include at least one Māori member. Non-Māori families have no Māori members.

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

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 27% to 32%. Children in Māori families were 2.8 times as likely as children in non-Māori families to be in this situation.

**Table 18: Children and adults living in households with low incomes, Counties Manukau 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	12,738	51.4	(50.8, 52.0)	27,492	36.0	(35.7, 36.3)	<b>1.43</b> (1.41, 1.45)	15.4
Adults 18 years & over	18,156	42.7	(42.2, 43.2)	56,946	29.6	(29.3, 29.8)	<b>1.44</b> (1.42, 1.46)	13.1

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.

In 2013, half of the children in Māori households (over 12,700) were in households with low equivalised household incomes, 43% higher than the proportion of other children. Two in five adults in Māori households (over 18,100) lived in low income households, 44% higher than the proportion of other adults.

**Table 19: Households with no access to a motor vehicle, Counties Manukau 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)		
<b>Households</b>								
2006	2,094	9.4	(9.0, 9.8)	5,652	5.7	(5.6, 5.8)	<b>1.65</b> (1.58, 1.73)	3.7
2013	2,712	11.6	(11.2, 12.1)	5,394	5.0	(4.9, 5.2)	<b>2.32</b> (2.22, 2.43)	6.6
<b>People (% age-standardised)</b>								
2006	6,741	7.9	(7.7, 8.1)	11,271	3.0	(3.0, 3.1)	<b>2.60</b> (2.52, 2.68)	4.9
2013	8,961	10.2	(10.0, 10.4)	11,235	2.9	(2.8, 2.9)	<b>3.57</b> (3.47, 3.68)	7.4

Source: 2006 and 2013 Censuses, Statistics New Zealand

Notes: 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, 12% of Māori households had no access to a motor vehicle, over twice the proportion of non-Māori households. The proportion of Māori households without a vehicle increased between 2006 and 2013. Residents of Māori households were 3.6 times as likely as residents of non-Māori households to have no access to a motor vehicle.

**Table 20: People in households with no access to telephone, mobile/cell phone, internet, or any telecommunications, Counties Manukau 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	12,684	13.7	(13.5, 13.9)	46,968	12.3	(12.2, 12.4)	<b>1.11</b> (1.09, 1.14)	1.4
No telephone	24,585	28.7	(28.4, 29.0)	34,665	11.9	(11.7, 12.0)	<b>2.41</b> (2.38, 2.45)	16.8
No internet	29,763	33.5	(33.2, 33.8)	61,023	17.1	(17.0, 17.2)	<b>1.96</b> (1.94, 1.98)	16.4
No tele-communications	3,333	3.8	(3.7, 3.9)	4,269	1.4	(1.3, 1.4)	<b>2.74</b> (2.62, 2.88)	2.4

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, 34% of people in Māori households had no access to the internet, 29% did not have a telephone, 14% had no mobile phone, and 4% had no access to any telecommunications in the home. The largest absolute gaps between Counties Manukau Māori and non-Māori households were in access to the internet (a difference of 17 percentage points) and telephone (17 percentage points).



## Housing

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

Housing problem (a big problem)	Counties Manukau DHB			New Zealand	
	Estimated number	%	(95% CI)	%	(95% CI)
Too small	4,500*	7.8*	(5.5, 10.0)	5.3	(4.7, 5.9)
Damp	9,000	15.2	(12.4, 18.1)	11.3	(10.5, 12.2)
Hard to keep warm	13,000	21.8	(17.8, 25.8)	16.5	(15.4, 17.7)
Needs repairs	11,000	18.6	(15.3, 22.0)	13.8	(12.7, 14.9)
Pests in the house	6,000*	10.1*	(6.9, 13.2)	5.8	(5.1, 6.5)

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

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

Housing problems reported as a big problem by Counties Manukau Māori adults in 2013 included difficulty keeping the house warm (22%), needing repairs (19%), and damp (15%). Eight percent felt their house was too small, and 10% 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, Counties Manukau DHB, 2013

Measure	Māori households			Non-Māori households			Māori/non-Māori ratio (95% CI)	Difference in percentage
	Number	%	(95% CI)	Number	%	(95% CI)		
Households	13,095	56.9	(56.2, 57.5)	31,854	30.0	(29.8, 30.3)	<b>1.89</b> ( <b>1.87, 1.92</b> )	26.8
Children under 18 years (% age-standardised)	21,558	65.9	(65.4, 66.5)	39,342	42.9	(42.6, 43.2)	<b>1.54</b> ( <b>1.52, 1.55</b> )	23.0
Adults 18 years and over (% age-standardised)	29,805	54.9	(54.5, 55.3)	74,076	34.4	(34.2, 34.6)	<b>1.60</b> ( <b>1.58, 1.61</b> )	20.5

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.

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

In 2013, 13,095 Māori households in the Counties Manukau District were rented, making up 57% of all Māori households, compared to 30% of non-Māori households.

Among children living in a Māori household, 66% (21,558 children) were living in rented homes, compared to 43% (39,342 children) in non-Māori households.

Fifty-five percent of adults living in Māori households were living in rented accommodation (29,805 adults), compared to 34% of adults living in non-Māori households (74,076 adults).

## Household crowding

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

Measure	Māori households			Non-Māori households			Māori/non-Māori ratio (95% CI)	Difference in percentage
	Number	%	(95% CI)	Number	%	(95% CI)		
Households	4,719	20.2	(19.7, 20.8)	10,632	9.9	(9.7, 10.1)	<b>2.05</b> ( <b>1.98, 2.11</b> )	10.3
People (% age standardised)	28,788	33.3	(33.0, 33.6)	65,604	22.6	(22.4, 22.7)	<b>1.47</b> ( <b>1.46, 1.49</b> )	10.7

Source: 2013 Census, Statistics New Zealand

Notes: Crowding was defined as needing at least one additional bedroom according to the Canadian National Occupancy Standard (based on the age, sex and number of people living in the dwelling).

A Māori household is a household with at least one Māori resident. Non-Māori households have no Māori residents. Ratios in **bold** show a statistically significant difference between Māori and non-Māori.

In 2013, Māori households were twice as likely as non-Māori households to be classified as crowded using the Canadian National Occupancy Standard, with 4,719 homes needing at least one additional bedroom, affecting 28,788 people. Residents of Māori households were 47% more likely than others to be living in crowded conditions.

## Fuel poverty

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

Measure	Māori households			Non-Māori households			Māori/non-Māori ratio (95% CI)	Difference in percentage
	Number	%	(95% CI)	Number	%	(95% CI)		
Households	2,037	8.9	(8.5, 9.2)	6,318	6.0	(5.8, 6.1)	<b>1.49 (1.42, 1.56)</b>	2.9
People (% age standardised)	8,121	9.4	(9.2, 9.6)	24,942	8.3	(8.2, 8.4)	<b>1.13 (1.11, 1.16)</b>	1.1

Source: 2013 Census, Statistics New Zealand

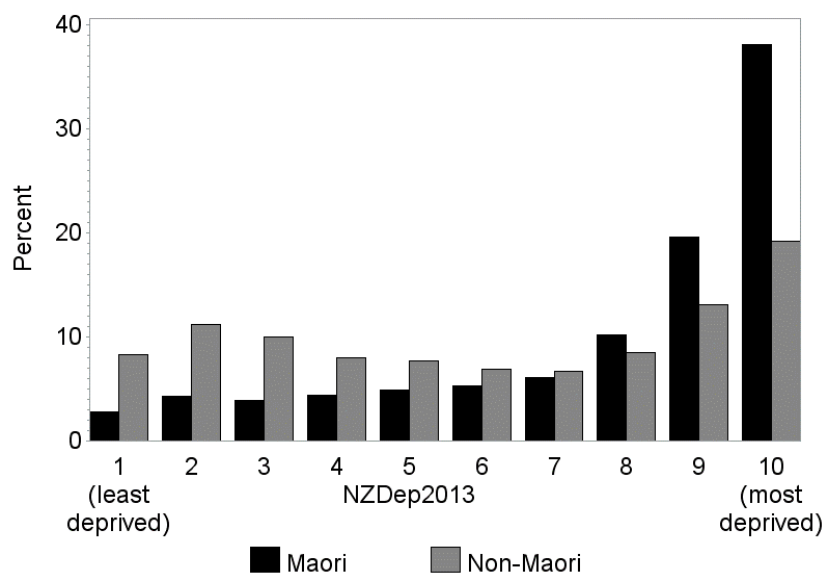
Notes: No form of heating used in the dwelling (including electricity, coal, mains or bottled gas, wood, solar heating equipment, other heating).

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, 9% of Māori households (2,037 homes with 8,121 residents) had no heating, compared to 6% of non-Māori households (6,318 homes with 24,942 residents without heating).

## Area deprivation

**Figure 1: Distribution by NZDep 2013 decile, Counties Manukau DHB, 2013**



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

Counties Manukau DHB has a more deprived small area profile than the national population, but Māori are much more likely than non-Māori to live in the most deprived neighbourhoods. In 2013, 58% of Māori lived in the two most deprived decile areas (Dep 9 and 10), compared to 32% of non-Māori (accompanying Excel table). Conversely, 7% of Māori lived in the two least deprived deciles (Dep 1 and 2) compared to 20% of non-Māori.



# 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, Counties Manukau 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	173	7.2 (6.7, 7.6)	356	5.7 (5.5, 6.0)	<b>1.25 (1.15, 1.35)</b>	1.4
High birth-weight	54	2.2 (2.0, 2.5)	193	3.1 (2.9, 3.3)	<b>0.72 (0.63, 0.83)</b>	-0.9
Preterm	215	8.9 (8.4, 9.4)	450	7.2 (7.0, 7.5)	<b>1.23 (1.14, 1.32)</b>	1.6

Source: Birth registrations, Ministry of Health

Notes: Low birth-weight less than 2500g, High birth-weight greater than or equal to 4500g, Preterm less than 37 weeks gestation

During 2009 to 2013 there were 2,422 Māori infants born per year on average, 28% of all live births in the Counties Manukau DHB (8,631 per year). On average, 173 Māori babies per year were born with low birth-weight, at a rate of 7%, 25% higher than non-Māori babies; 54 per year (2%) were born with high birth-weight, 28% lower than non-Māori; and 215 per year (9%) were born preterm, a rate 23% higher than non-Māori.

### Well child/Tamariki ora indicators

**Table 26: Selected Well Child/Tamariki Ora indicators for Māori children, Counties Manukau DHB**

Indicator	Period	Māori	
		Count	%
1. Babies enrolled with a Primary Health Organisation (PHO) by three months old	20 Aug to 19 Nov 2013	207	56
11. Babies exclusively or fully breastfed at 2 weeks	January to June 2013	452	75
12. Babies exclusively or fully breastfed at 6 weeks		470	76
19. Mothers smoke-free two weeks postnatal	2012	391	65
5. Children under 5 years enrolled with oral health services (PHO enrolled children)		7,461	59
7. Children starting school who have participated in ECE	2013	1,711	88
15. Children with a healthy weight at 4 years, DHB of service	July to Dec 2013	490	71

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, 75% of Māori babies were breastfed at two weeks of age and 76% at six weeks. Sixty-five percent of Māori mothers were smoke-free two weeks after giving birth.

Among pre-school children enrolled with a PHO 59% of Māori were enrolled with oral health services in 2012. Most (88%) Māori children who started school in 2013 had participated in early childhood education. Almost three-quarters with a BMI recorded at their B4 School Check had a healthy weight.

**Table 27: Children fully immunised by the milestone age, Counties Manukau 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	1,335	63%	4,954	82%	0.77	-19%
8 months	1,817	87%	5,659	95%	0.92	-7%
12 months	1,970	92%	5,841	96%	0.96	-4%
18 months	1,701	73%	5,587	89%	0.82	-16%
24 months	2,254	90%	6,115	96%	0.94	-5%
5 years	1,693	68%	4,892	74%	0.91	-6%

Source: National Immunisation Register

In the 12 months up to 31 December 2014, 63% of infants aged six months were fully immunised, compared to 82% of non-Māori infants. However, 87% of Māori children aged eight months and 90% of those aged 24 months had completed their appropriate immunisations. At five years of age 68% of Māori children were fully immunised.

## Oral health

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

Age group	Māori				Non-Māori				Māori/non-Māori ratio		Difference in percentage
	Total	% with caries (95% CI)	Mean DMFT		Total	% with caries (95% CI)	Mean DMFT		Māori/non-Māori ratio (95% CI)		
Age 5	1,521	61 (58, 63)	2.7		5,026	46 (44, 47)	2.1		<b>1.33 (1.27, 1.40)</b>	15	
Year 8	1,287	60 (57, 63)	1.6		4,830	48 (47, 49)	1.2		<b>1.25 (1.19, 1.32)</b>	12	

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.

Sixty-one percent of Māori children aged five years in 2012 had caries, 33% higher than the proportion of non-Māori children. The mean number of decayed, missing or filled teeth was 2.7 for Māori compared to 2.1 for non-Māori. Of those in Year eight at school (aged around 12 years) 60% of Māori and 48% of non-Māori children had caries. The mean number of decayed, missing or filled teeth was 1.6 for Māori and 1.2 for non-Māori.

**Table 29: Hospitalisations for tooth and gum disease, children aged 0–14 years, Counties Manukau DHB, 2011–2013**

Gender	Māori				Non-Māori				Māori/non-Māori ratio		Rate difference
	Ave. no. per year	Rate per 100,000 (95% CI)			Ave. no. per year	Rate per 100,000 (95% CI)			Māori/non-Māori ratio (95% CI)		
Female	97	682.6 (608.5, 765.8)			282	650.9 (608.5, 696.3)			1.05 (0.92, 1.20)	31.7	
Male	106	698.1 (625.3, 779.4)			325	707.9 (664.8, 753.8)			0.99 (0.87, 1.12)	-9.8	
Total	203	690.4 (637.5, 747.5)			607	679.4 (648.9, 711.4)			1.02 (0.93, 1.11)	10.9	

Source: National Minimum Data Set (NMDS).

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

There were 203 hospital admissions per year on average for tooth and gum disease among Māori children, at a rate of 690 per 100,000, similar to the non-Māori rate.

## Middle ear disease

**Table 30: Hospitalisations for grommet insertions, children aged 0–14 years, Counties Manukau 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	73	517.7	(453.5, 591.1)	170	391.2	(358.7, 426.7)	<b>1.32</b>	<b>(1.13, 1.55)</b>	126.5	
Male	99	645.4	(575.8, 723.5)	303	656.7	(615.4, 700.8)	0.98	(0.86, 1.12)	-11.3	
Total	172	581.6	(533.4, 634.2)	473	524.0	(497.4, 552.0)	<b>1.11</b>	<b>(1.00, 1.23)</b>	57.6	

Source: NMDS

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

On average, 172 Māori children per year were admitted for insertion of grommets for otitis media. Māori girls had a rate 32% higher than non-Māori girls, or 127 more admissions per 100,000.

## Healthy skin

**Table 31: Hospitalisations for serious skin infections, children aged 0–14 years, Counties Manukau 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	97	673.7	(600.5, 755.8)	232	528.1	(490.3, 568.9)	<b>1.28</b>	<b>(1.11, 1.46)</b>	145.6	
Male	101	663.6	(592.8, 742.8)	262	564.0	(526.0, 604.9)	<b>1.18</b>	<b>(1.03, 1.34)</b>	99.6	
Total	199	668.6	(616.9, 724.7)	494	546.1	(519.0, 574.6)	<b>1.22</b>	<b>(1.11, 1.35)</b>	122.6	

Source: NMDS

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

On average there were 199 admissions per year for serious skin infections among Māori children. The rate was 22% higher than for non-Māori children, or 123 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, Counties Manukau 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)				
<b>0–14 years</b>										
Female	6	48.0	(30.6, 75.2)	14	32.2	(23.9, 43.4)	1.49	(0.87, 2.56)	15.8	
Male	10	69.1	(48.0, 99.4)	21	45.1	(35.3, 57.6)	1.53	(0.99, 2.38)	24.0	
Total	16	58.5	(44.1, 77.7)	36	38.6	(32.0, 46.7)	<b>1.51</b>	<b>(1.08, 2.13)</b>	19.9	
<b>15–24 years</b>										
Female	4	56.2	(32.6, 96.7)	6	19.0	(11.8, 30.6)	<b>2.96</b>	<b>(1.43, 6.09)</b>	37.2	
Male	2	27.6	(12.4, 61.5)	6	20.5	(13.1, 32.1)	1.35	(0.54, 3.38)	7.1	
Total	6	41.9	(26.7, 65.7)	12	19.7	(14.2, 27.4)	<b>2.12</b>	<b>(1.22, 3.70)</b>	22.1	

Source: NMDS

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

Among Counties Manukau Māori children aged 14 years and under, on average 16 per year were hospitalised at least once for acute rheumatic fever during 2011 to 2013, at a rate 51% higher than non-Māori, or 20 more children per 100,000. Among Māori aged 15 to 24 years, an average of six per year were admitted, at a rate twice that of non-Māori, or 22 more young people per 100,000.

## 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, Counties Manukau 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	738	5,036.1	(4,830.2, 5,250.7)	2,096	4,811.8	(4,694.3, 4,932.3)	1.05	(1.00, 1.10)	224.2	
Male	934	5,957.6	(5,740.6, 6,182.8)	2,573	5,579.4	(5,456.3, 5,705.3)	<b>1.07</b>	<b>(1.02, 1.12)</b>	378.1	
Total	1,672	5,496.8	(5,346.4, 5,651.5)	4,669	5,195.6	(5,110.2, 52,82.4)	<b>1.06</b>	<b>(1.02, 1.09)</b>	301.2	

Source: NMDS

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

On average, 1,672 hospitalisations of Māori children per year were potentially avoidable, at a rate 6% higher than the non-Māori rate, or 301 more admissions per 100,000.

**Table 34: Ambulatory care sensitive hospitalisations for children aged 1 month to 14 years, Counties Manukau 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	459	3,186.3	(3,021.9, 3,359.5)	1,472	3,384.0	(3,285.7, 3,485.4)	0.94	(0.89, 1.00)	-197.8	
Male	560	3,635.2	(3,465.0, 3,813.7)	1,641	3,563.0	(3,464.8, 3,663.9)	1.02	(0.97, 1.08)	72.2	
Total	1,019	3,410.7	(3,291.5, 3,534.2)	3,113	3,473.5	(3,403.7, 3,544.7)	0.98	(0.94, 1.02)	-62.8	

Source: NMDS

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

On average there were 1,019 admissions per year for ambulatory care sensitive conditions among Māori children, at a rate of 3,410 per 100,000, similar to the rate for non-Māori 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

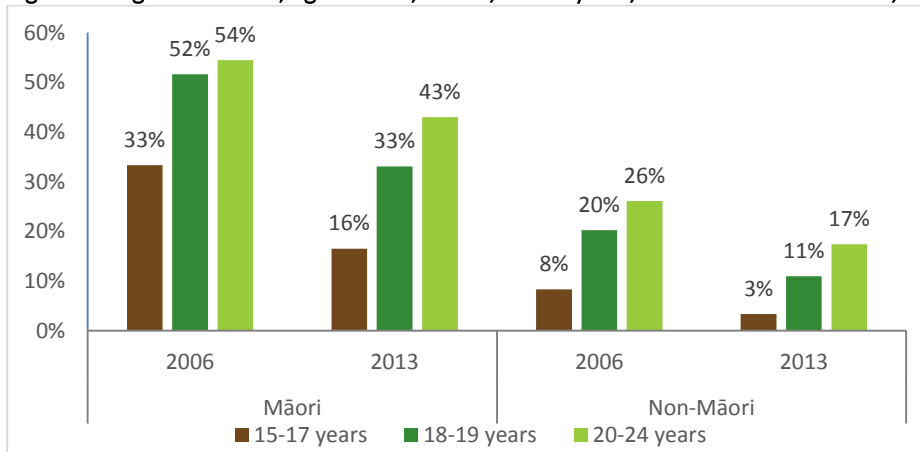
Figure 2: Trends in the proportion of students aged 14–15 years who have never smoked, by gender, Counties Manukau DHB, 1999–2013



Source: Action on Smoking and Health Year 10 Snapshot Survey, 2013

Over the last 15 years there has been a significant increase in the proportion of Māori aged 14 or 15 who have never smoked cigarettes (Figure 2). In 2013, 54% had never smoked.

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



Source: 2013 Census, Statistics New Zealand

Note: Regular smokers smoke one or more cigarettes per day.

Smoking rates have decreased significantly among young Māori and non-Māori adults in the Counties Manukau area since 2006. However, the high smoking rates among those aged 18–24 years suggests that a sizeable group starts smoking in this age group. At ages 20–24 years, 43% 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, Counties Manukau 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	624	68.6%	1,908	60.4%	1.14	8.2%
1999	15	2012	572	65.0%	1,950	63.9%	1.02	1.1%
1998	16	2011	564	68.0%	1,829	60.0%	1.13	8.0%
1997	17	2010	610	71.8%	1,914	63.2%	1.14	8.6%

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.

By September 2014, 69% of Māori girls aged 14 years in 2014 had received all three doses of the human papilloma virus vaccine, compared to 60% of non-Māori, and 57% of all New Zealand girls of the same age. Seventy-two percent of Māori women aged 17 in 2014 were fully immunised, compared to 63% of non-Māori in the DHB and 55% nationally.

## Mental health

**Table 36: Hospitalisations for injury from intentional self-harm, 15–24 and 25–44 years, Counties Manukau 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)			
<b>15–24 years</b>									
Female	62	807.1	(699.3, 931.6)	146	499.1	(454.5, 548.2)	<b>1.62</b>	<b>(1.36, 1.92)</b>	308.0
Male	22	312.7	(245.6, 398.1)	55	175.4	(150.5, 204.5)	<b>1.78</b>	<b>(1.34, 2.37)</b>	137.2
Total	84	559.9	(494.9, 633.4)	201	337.3	(311.3, 365.4)	<b>1.66</b>	<b>(1.43, 1.92)</b>	222.6
<b>25–44 years</b>									
Female	40	373.4	(312.3, 446.4)	98	168.4	(150.1, 188.9)	<b>2.22</b>	<b>(1.79, 2.74)</b>	205.0
Male	22	263.0	(206.4, 335.2)	66	125.6	(109.2, 144.6)	<b>2.09</b>	<b>(1.58, 2.77)</b>	137.4
Total	62	318.2	(275.2, 367.9)	164	147.0	(134.5, 160.7)	<b>2.16</b>	<b>(1.83, 2.57)</b>	171.2

Source: NMDS.

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

Māori aged 15–24 years were 66% more likely than non-Māori to be admitted to hospital for injury from intentional self-harm. On average there were 84 admissions per year among young Māori in the Counties Manukau area. Females had higher rates of admission than males.

Māori aged 25–44 years were twice as likely as non-Māori to be admitted. On average there were 62 admissions per year among Māori in this age group.



# 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 the Counties Manukau area can be found in the accompanying Excel® tables labelled 'Death registrations' and 'Hospitalisations by principal diagnosis'. For example, the hospitalisations table shows disparities between Counties Manukau Māori and non-Māori in rates of admission for epilepsy, perforation of the tympanic membrane, atrial fibrillation and flutter, bronchiectasis, gallstones (cholelithiasis), acute pancreatitis, head injuries, burns, poisoning.

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, Counties Manukau DHB, 2013**

Health status	Counties Manukau DHB			New Zealand	
	Estimated number	%	(95% CI)	%	(95% CI)
Excellent	14,500	24.0	(18.8, 29.3)	18.1	(16.8, 19.3)
Very good	19,000	31.2	(26.4, 36.0)	37.0	(35.5, 38.5)
Good	15,500	25.4	(21.3, 29.4)	28.5	(27.3, 29.7)
Fair / poor	11,500	19.4	(15.9, 22.9)	16.4	(15.3, 17.5)

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

Just over half of Counties Manukau Māori adults (55%) reported having excellent or very good health in 2013 and another quarter (25%) described their health as good. One in five (19%) reported having fair or poor health status.

### Smoking status

**Table 38: Cigarette smoking status, 15 years and over, Counties Manukau DHB, 2006 and 2013**

Smoking status	Māori			Non-Māori			Māori/non-Māori ratio (95% CI)	Difference in percent	
	Number	%	(95% CI)	Number	%	(95% CI)			
<b>2006</b>									
Regular smoker	18,380	46.4	(45.9, 46.9)	44,814	19.8	(19.6, 20.0)	<b>2.34</b>	<b>(2.31, 2.37)</b>	26.6
Ex-smoker	6,514	16.6	(16.2, 16.9)	42,147	14.2	(14.0, 14.3)	<b>1.17</b>	<b>(1.14, 1.20)</b>	2.4
Never smoked	14,391	37.1	(36.6, 37.6)	159,384	66.0	(65.8, 66.2)	<b>0.56</b>	<b>(0.55, 0.57)</b>	-28.9
<b>2013</b>									
Regular smoker	14,748	36.6	(36.2, 37.1)	35,604	14.0	(13.8, 14.1)	<b>2.62</b>	<b>(2.58, 2.66)</b>	22.6
Ex-smoker	8,553	19.8	(19.5, 20.2)	46,863	13.8	(13.7, 13.9)	<b>1.44</b>	<b>(1.41, 1.47)</b>	6.0
Never smoked	17,712	43.6	(43.1, 44.1)	193,470	72.2	(72.1, 72.4)	<b>0.60</b>	<b>(0.60, 0.61)</b>	-28.6

Source: 2006 and 2013 Censuses, 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 46% to 37%. The proportion who were ex-smokers increased by three percentage points and the proportion who had never smoked increased by seven percentage points. Nevertheless, in 2013, Māori were 2.6 times as likely as non-Māori to smoke regularly, or an absolute difference of 23 percentage points.

## Heart disease and stroke

**Table 39: Hospitalisations for circulatory system diseases, 25 years and over, Counties Manukau 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	507	2,210.2	(2,100.4, 2,325.7)	2,609	1,021.6	(994.3, 1,049.7)	<b>2.16</b>	<b>(2.04, 2.29)</b>		1,188.5
Male	487	2,627.5	(2,494.3, 2,767.9)	3,324	1,556.1	(1,521.8, 1,591.3)	<b>1.69</b>	<b>(1.60, 1.79)</b>		1,071.4
Total	994	2,418.9	(2,331.9, 2,509.1)	5,933	1,288.9	(1,266.9, 1,311.3)	<b>1.88</b>	<b>(1.80, 1.95)</b>		1,130.0

Source: NMDS

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

On average 994 Counties Manukau Māori were admitted to hospital per year for diseases of the circulatory system (including heart disease and stroke), at a rate 88% higher than non-Māori, or 1,130 more admissions per 100,000.

**Table 40: Ischaemic heart disease indicators, 25 years and over, Counties Manukau 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)					
<b>Ischaemic heart disease admissions</b>										
Female	86	358.7	(317.2, 405.7)	514	169.8	(160.2, 180.1)	<b>2.11</b>	<b>(1.84, 2.42)</b>		188.9
Male	97	501.4	(446.6, 562.8)	1055	481.7	(463.7, 500.5)	1.04	(0.92, 1.18)		19.6
Total	183	430.0	(395.1, 468.1)	1569	325.8	(315.5, 336.4)	<b>1.32</b>	<b>(1.21, 1.45)</b>		104.3
<b>Angiography procedures</b>										
Female	74	310.7	(272.2, 354.7)	356	156.8	(146.9, 167.4)	<b>1.98</b>	<b>(1.71, 2.30)</b>		153.9
Male	92	476.8	(423.3, 537.0)	850	432.0	(414.2, 450.5)	1.10	(0.97, 1.25)		44.7
Total	166	393.7	(360.2, 430.4)	1205	294.4	(284.2, 305.0)	<b>1.34</b>	<b>(1.22, 1.47)</b>		99.3
<b>Angioplasty procedures</b>										
Female	18	74.5	(56.8, 97.7)	100	40.8	(36.1, 46.2)	<b>1.82</b>	<b>(1.35, 2.46)</b>		33.7
Male	32	167.9	(137.3, 205.3)	361	192.2	(180.2, 205.1)	0.87	(0.71, 1.08)		-24.4
Total	50	121.2	(103.0, 142.6)	461	116.5	(110.0, 123.4)	1.04	(0.88, 1.24)		4.6
<b>Coronary Artery Bypass Graft (CABG)</b>										
Female	7	28.2	(18.3, 43.3)	36	14.7	(12.1, 18.0)	<b>1.91</b>	<b>(1.19, 3.07)</b>		13.4
Male	12	60.8	(43.8, 84.3)	135	63.4	(57.2, 70.2)	0.96	(0.68, 1.35)		-2.6
Total	19	44.5	(34.2, 57.8)	171	39.1	(35.7, 42.8)	1.14	(0.86, 1.50)		5.4
<b>Acute coronary syndrome admissions</b>										
Female	60	249.3	(215.1, 288.8)	351	113.7	(105.8, 122.0)	<b>2.19</b>	<b>(1.86, 2.58)</b>		135.6
Male	69	359.3	(313.3, 412.2)	724	332.4	(317.3, 348.3)	1.08	(0.94, 1.25)		26.9
Total	129	304.3	(275.1, 336.6)	1075	223.0	(214.5, 231.9)	1.36	(1.22, 1.52)		81.3

Source: NMDS.

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

On average, 183 Māori per year were admitted to hospital for ischaemic heart disease, at a rate 32% higher than non-Māori. Of these, 129 were admitted with acute coronary syndrome, at a rate that was similar to non-Māori.

There were 166 angiography procedures conducted for Māori patients per year, at a rate 34% higher than non-Māori. On average, 32 Māori men and 18 Māori women per year had angioplasty procedures, with the rate for Māori women 82% higher than the non-Māori rate. Twelve Māori men and seven Māori women per year had a coronary artery bypass graft on average, with the rate for Māori women 91% higher than for non-Māori women.

**Table 41: Hospitalisations for heart failure, stroke, and hypertensive disease, 25 years and over, Counties Manukau 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)				
<b>Heart failure</b>										
Female	87	361.8	(320.1, 409.0)	325	91.9	(84.9, 99.6)	<b>3.94</b>	<b>(3.40, 4.56)</b>	269.9	
Male	96	511.6	(455.1, 575.2)	365	130.4	(121.8, 139.7)	<b>3.92</b>	<b>(3.42, 4.49)</b>	381.2	
Total	183	436.7	(401.0, 475.6)	690	111.2	(105.6, 117.1)	<b>3.93</b>	<b>(3.55, 4.34)</b>	325.5	
<b>Stroke</b>										
Female	59	252.8	(217.9, 293.3)	367	122.1	(113.6, 131.3)	<b>2.07</b>	<b>(1.76, 2.44)</b>	130.7	
Male	42	226.9	(190.3, 270.6)	372	151.5	(141.9, 161.8)	<b>1.50</b>	<b>(1.24, 1.81)</b>	75.4	
Total	102	239.9	(214.0, 268.9)	739	136.8	(130.3, 143.6)	<b>1.75</b>	<b>(1.55, 1.99)</b>	103.1	
<b>Hypertensive disease</b>										
Female	15	68.1	(50.6, 91.6)	71	31.3	(26.6, 36.8)	<b>2.18</b>	<b>(1.55, 3.06)</b>	36.8	
Male	10	56.1	(38.7, 81.3)	49	29.7	(24.7, 35.6)	<b>1.89</b>	<b>(1.25, 2.86)</b>	26.4	
Total	25	62.1	(49.1, 78.4)	120	30.5	(27.0, 34.4)	<b>2.04</b>	<b>(1.56, 2.65)</b>	31.6	

Source: NMDS.

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

There were 183 admissions per year on average for Māori with heart failure, at nearly 4 times the rate for non-Māori, or 326 more admissions per 100,000. The rate was higher for males than for females.

On average, 102 Māori per year were admitted for stroke, at a rate 75% higher than for non-Māori, or 103 more admissions per 100,000.

Māori were admitted for hypertensive disease at twice the rate of non-Māori, or 32 more admissions per 100,000. On average there were 25 admissions per year among Māori.

**Table 42: Hospitalisations for chronic rheumatic heart disease and heart valve replacements, 25 years and over, Counties Manukau 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)				
<b>Chronic rheumatic heart disease</b>										
Female	11	50.2	(35.7, 70.5)	38	24.7	(20.2, 30.3)	<b>2.03</b>	<b>(1.37, 3.02)</b>	25.5	
Male	5	29.0	(17.3, 48.5)	18	10.4	(7.7, 14.1)	<b>2.78</b>	<b>(1.52, 5.05)</b>	18.5	
Total	16	39.6	(29.7, 52.7)	56	17.6	(14.8, 20.8)	<b>2.25</b>	<b>(1.61, 3.14)</b>	22.0	
<b>Heart valve replacements</b>										
Female	9	40.6	(27.9, 59.1)	35	17.0	(13.6, 21.3)	<b>2.39</b>	<b>(1.54, 3.69)</b>	23.6	
Male	5	26.2	(15.4, 44.5)	44	19.9	(16.3, 24.2)	1.32	(0.75, 2.32)	6.3	
Total	14	33.4	(24.5, 45.5)	79	18.4	(15.9, 21.4)	<b>1.81</b>	<b>(1.29, 2.55)</b>	15.0	

Source: NMDS.

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

On average, there were 16 hospital admissions per year for Māori with chronic rheumatic heart disease, at a rate 2.3 times that of non-Māori.

Heart valve replacements were conducted on 14 Māori per year on average at a rate 81% higher than for non-Māori.

**Table 43: Early deaths from circulatory system disease, Counties Manukau 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	26	58.2	(49.1, 69.1)	72	18.3	(16.4, 20.5)	<b>3.18</b>	<b>(2.59, 3.90)</b>		39.9
Male	40	104.2	(90.7, 119.8)	141	37.3	(34.5, 40.3)	<b>2.79</b>	<b>(2.38, 3.28)</b>		66.9
Total	67	81.2	(72.9, 90.5)	213	27.8	(26.1, 29.7)	<b>2.92</b>	<b>(2.58, 3.31)</b>		53.4

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 67 Counties Manukau Māori per year died early from circulatory system disease, at a rate nearly 3 times the rate for non-Māori, or 53 more deaths per 100,000. Māori men had a higher mortality rate than Māori women.

## Diabetes

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

Indicator	Māori		Non-Māori		Māori/non-Māori ratio	Difference in percentage
	Count	% (crude)	Count	% (crude)		
Prevalence of diabetes (all ages)	4,752	5.7	32,387	7.6	0.75	-1.9
People with diabetes regularly receiving metformin or insulin, 25+	2,439	51.3	18,121	56.0	0.92	-4.6
People with diabetes having regular Hb1Ac monitoring, 25+	4,164	87.6	29,096	88.7	0.99	-1.1
People with diabetes having regular screening for renal disease, 25+	3,580	75.3	24,757	76.4	0.99	-1.1

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.

Approximately 4,750 Counties Manukau Māori were estimated to have diabetes in 2013, giving a crude prevalence of 6%. Half of Māori with diabetes (51%) were regularly receiving metformin or insulin in 2013. Eighty-eight percent were having regular monitoring of blood glucose levels and 76% were being screened for renal disease.

**Table 45: Hospitalisations for lower limb amputations for people with concurrent diabetes, 15 years and over, Counties Manukau 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	25.3	(17.1, 37.5)	15	4.6	(3.3, 6.3)	<b>5.50</b>	<b>(3.31, 9.13)</b>		20.7
Male	14	48.4	(35.6, 65.9)	35	11.7	(9.4, 14.5)	<b>4.15</b>	<b>(2.85, 6.03)</b>		36.8
Total	22	36.9	(28.9, 47.0)	50	8.1	(6.8, 9.7)	<b>4.53</b>	<b>(3.35, 6.12)</b>		28.7

Source: NMDS

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

On average 22 Māori individuals per year with diabetes had lower limbs amputated, at a rate 4.5 times that of non-Māori.

# Cancer

**Table 46: Most common cancer registrations for Māori by site, all ages, Counties Manukau 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)				
<b>Female</b>										
All cancers	141	296.0	(274.9, 318.8)	772	178.1	(171.7, 184.7)	<b>1.66</b>	<b>(1.53, 1.81)</b>	118.0	
Breast	44	90.9	(79.6, 103.9)	219	56.0	(52.5, 59.7)	<b>1.62</b>	<b>(1.40, 1.88)</b>	34.9	
Lung	26	54.3	(45.7, 64.4)	67	12.3	(10.9, 13.9)	<b>4.41</b>	<b>(3.58, 5.43)</b>	42.0	
Uterus	9	19.8	(14.9, 26.4)	56	13.9	(12.3, 15.8)	<b>1.42</b>	<b>(1.04, 1.95)</b>	5.9	
Colorectal	9	19.6	(14.7, 26.1)	103	18.6	(16.8, 20.6)	1.05	(0.78, 1.43)	1.0	
<b>Male</b>										
All cancers	91	234.9	(214.1, 257.7)	824	179.4	(173.3, 185.7)	<b>1.31</b>	<b>(1.19, 1.45)</b>	55.5	
Lung	20	50.9	(41.8, 61.8)	81	15.2	(13.7, 16.9)	<b>3.34</b>	<b>(2.67, 4.16)</b>	35.6	
Prostate	14	34.6	(27.3, 43.9)	235	46.5	(43.8, 49.4)	<b>0.74</b>	<b>(0.58, 0.95)</b>	-11.9	
Colorectal	7	17.3	(12.3, 24.3)	109	20.7	(18.9, 22.7)	0.84	(0.59, 1.19)	-3.4	
Liver	6	14.7	(10.2, 21.0)	23	5.4	(4.4, 6.5)	<b>2.72</b>	<b>(1.81, 4.10)</b>	9.3	

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 141 cancer registrations per year on average among Counties Manukau Māori females, at a rate two-thirds higher than for non-Māori. The most common cancers registered for Māori females were breast, lung, uterus, and colorectal cancers. Registration rates were higher for Māori than for non-Māori women for cancers of the lung (4.4 times as high), breast (62% higher), and uterus (42% higher).

Among Counties Manukau Māori males there were 91 cancer registrations per year on average, at a rate 31% higher than for non-Māori. Lung, prostate, colorectal, and liver cancer were the most common cancers registered for Māori males. Māori registration rates were higher than those of non-Māori for lung cancer (3.3 times as high) and liver cancer (2.7 times as high) but 26% lower for prostate cancer.

**Table 47: Most common cancer deaths for Māori by site, all ages, Counties Manukau 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)				
<b>Female</b>										
All cancer deaths	53	117.8	(104.3, 133.0)	296	53.4	(50.2, 56.7)	<b>2.21</b>	<b>(1.93, 2.53)</b>	64.4	
Lung	19	42.2	(34.5, 51.5)	47	8.1	(7.1, 9.4)	<b>5.18</b>	<b>(4.05, 6.61)</b>	34.0	
Breast	8	17.9	(13.1, 24.4)	52	11.4	(10.0, 13.1)	<b>1.56</b>	<b>(1.11, 2.20)</b>	6.4	
Colorectal	3	8.3	(5.1, 13.4)	38	6.0	(5.1, 7.2)	1.37	(0.82, 2.29)	2.2	
Stomach	2	5.1	(2.8, 9.4)	10	1.8	(1.3, 2.5)	<b>2.82</b>	<b>(1.41, 5.61)</b>	3.3	
<b>Male</b>										
All cancer deaths	48	131.8	(115.7, 150.1)	326	63.1	(59.8, 66.7)	<b>2.09</b>	<b>(1.81, 2.40)</b>	68.7	
Lung	17	47.6	(38.3, 59.1)	66	12.3	(10.9, 13.8)	<b>3.88</b>	<b>(3.04, 4.96)</b>	35.3	
Liver	5	13.4	(9.1, 19.7)	12	2.6	(2.0, 3.4)	<b>5.17</b>	<b>(3.22, 8.29)</b>	10.8	
Colorectal	4	11.5	(7.3, 18.2)	46	8.4	(7.3, 9.8)	1.36	(0.84, 2.20)	3.1	
Prostate	3	8.5	(5.1, 14.1)	36	5.2	(4.4, 6.1)	1.64	(0.96, 2.79)	3.3	
Stomach	3	8.5	(5.0, 14.4)	14	2.9	(2.2, 3.8)	<b>2.94</b>	<b>(1.62, 5.32)</b>	5.6	

Source: Death registrations, Ministry of Health

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

For Māori females, deaths from cancer accounted for 33% of all deaths in 2007–2011, with a rate twice the rate for non-Māori. Lung cancer was the most common cause of cancer death (33% of all cancer deaths), followed by breast,

colorectal, and stomach cancer. The lung cancer mortality rate was 5.2 times that of non-Māori females, stomach cancer 2.8 times the non-Māori rate and breast cancer mortality was 56% higher.

For Māori males, cancer deaths accounted for 27% of all deaths, with a rate twice that of non-Māori males. Lung cancer was the most common cause of cancer death for Māori males, at over a third of all cancer deaths. Liver, colorectal, prostate, and stomach cancers were the next most common. Lung cancer mortality was nearly 4 times as high for Māori as for non-Māori males, liver cancer 5 times as high, and stomach cancer mortality 3 times as high.

## Breast and cervical cancer screening

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

Māori			Non-Māori		
Number screened	Eligible population	% screened	Number screened	Eligible population	% screened
5,744	8,355	68.7%	45,921	62,820	73.1%

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, 69% of Māori women and 73% of non-Māori women in the Counties Manukau area had been screened.

**Table 49: Cervical screening coverage, women aged 25–69 years, Counties Manukau 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 %
17,696	14,217	80.3%	10,972	62.0%	111,640	97,121	87.0%	81,498	73.0%

Source: National Screening Unit, Ministry of Health

Note: Population is adjusted for hysterectomy.

Among women aged 25 to 69 years, 80% of Māori women and 87% of non-Māori women had had a cervical smear test during the five years prior to December 2014. The three year cervical screening coverage was 62% for Māori women and 73% 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, Counties Manukau 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)						
<b>0–14 years</b>												
Female	68	480.6	(418.8, 551.5)	179	409.9	(376.6, 446.1)	1.17	(1.00, 1.38)			70.7	
Male	117	761.0	(685.2, 845.2)	226	489.6	(454.1, 527.9)	<b>1.55</b>	<b>(1.37, 1.77)</b>			271.4	
Total	185	620.8	(571.1, 674.9)	405	449.7	(425.1, 475.8)	<b>1.38</b>	<b>(1.25, 1.53)</b>			171.1	
<b>15–34 years</b>												
Female	72	532.6	(465.8, 608.9)	112	192.5	(173.0, 214.3)	<b>2.77</b>	<b>(2.33, 3.28)</b>			340.0	
Male	30	297.7	(241.4, 367.1)	58	100.6	(86.7, 116.8)	<b>2.96</b>	<b>(2.29, 3.83)</b>			197.1	
Total	102	415.1	(370.3, 465.3)	169	146.6	(134.4, 159.9)	<b>2.83</b>	<b>(2.45, 3.27)</b>			268.5	
<b>35–64 years</b>												
Female	63	496.5	(429.8, 573.6)	145	172.4	(156.2, 190.3)	<b>2.88</b>	<b>(2.42, 3.43)</b>			324.1	
Male	22	213.2	(166.5, 272.9)	65	81.3	(70.0, 94.4)	<b>2.62</b>	<b>(1.96, 3.50)</b>			131.9	
Total	85	354.8	(313.1, 402.2)	210	126.8	(116.8, 137.7)	<b>2.80</b>	<b>(2.41, 3.25)</b>			228.0	
<b>65 years and over</b>												
Female	4	234.7	(135.9, 405.4)	50	180.0	(151.4, 214.0)	1.30	(0.73, 2.31)			54.7	
Male	2	115.9	(48.2, 278.7)	17	75.3	(56.8, 99.9)	1.54	(0.61, 3.87)			40.6	
Total	6	175.3	(109.9, 279.6)	67	127.7	(110.1, 148.0)	1.37	(0.84, 2.24)			47.6	

Source: NMDS.

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

There were 185 admissions for asthma per year among Māori children aged 0–14 years, at a rate 38% higher than that of non-Māori children, or 171 more admissions per 100,000. Among Māori adults aged 15–34 and 35–64 years, there were 102 and 85 admissions per year respectively, both at rates 2.8 times the rates of non-Māori. Older Māori aged 65 years and over were admitted at a rate 175 per 100,000 with 6 admissions per year.

Table 51: Hospitalisations for chronic obstructive pulmonary disease (COPD), 45 years and over, Counties Manukau 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	177	1,954.9	(1,795.2, 2,128.9)	341	308.6	(288.5, 330.2)	<b>6.33</b>	<b>(5.68, 7.06)</b>		1,646.3
Male	102	1,397.6	(1,249.3, 1,563.5)	531	524.0	(497.3, 552.2)	<b>2.67</b>	<b>(2.36, 3.02)</b>		873.6
Total	280	1,676.2	(1,565.7, 1,794.6)	871	416.3	(399.5, 433.9)	<b>4.03</b>	<b>(3.72, 4.36)</b>		1,259.9

Source: NMDS.

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

There were 280 hospitalisations per year on average for Māori with COPD, at a rate 4 times that of non-Māori, or 1,260 more admissions per 100,000. Māori women had a higher rate of admission than Māori men, and a greater disparity with non-Māori women (over 6 times the rate, or 1,646 more admissions per 100,000).

Table 52: Early deaths from respiratory disease, Counties Manukau 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	24.3	(18.6, 31.7)	22	6.0	(4.8, 7.4)	<b>4.06</b>	<b>(2.88, 5.71)</b>		18.3
Male	8	20.5	(15.0, 28.0)	27	7.0	(5.8, 8.5)	<b>2.91</b>	<b>(2.02, 4.20)</b>		13.5
Total	19	22.4	(18.3, 27.4)	49	6.5	(5.6, 7.5)	<b>3.44</b>	<b>(2.68, 4.41)</b>		15.9

Source: Mortality data, Ministry of Health

Note: “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, 19 Māori per year died early from respiratory disease, at a rate 3.4 times the non-Māori rate, or 16 more deaths per 100,000.

## Mental disorders

**Table 53: Hospitalisations for mental disorders, all ages, Counties Manukau 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)				
<b>Female</b>										
All disorders	217	497.0	(459.8, 537.3)	680	243.8	(232.0, 256.2)	<b>2.04</b>	<b>(1.86, 2.24)</b>	253.2	
Schizophrenia	86	199.9	(176.6, 226.4)	155	61.2	(55.5, 67.4)	<b>3.27</b>	<b>(2.79, 3.83)</b>	138.8	
Mood (affective)	48	107.9	(91.4, 127.4)	187	59.0	(53.8, 64.9)	<b>1.83</b>	<b>(1.51, 2.21)</b>	48.9	
—Bipolar	32	69.3	(56.6, 85.0)	86	27.5	(24.0, 31.4)	<b>2.52</b>	<b>(1.98, 3.22)</b>	41.9	
—Depressive episode	12	28.7	(20.7, 39.9)	71	22.8	(19.5, 26.7)	1.26	(0.87, 1.81)	5.9	
Substance use	35	84.1	(69.4, 101.9)	105	48.2	(42.8, 54.2)	<b>1.75</b>	<b>(1.39, 2.19)</b>	36.0	
—Alcohol	27	63.7	(51.2, 79.3)	91	41.5	(36.6, 47.2)	<b>1.53</b>	<b>(1.19, 1.97)</b>	22.2	
Anxiety, stress-related	26	56.5	(45.0, 70.8)	119	44.8	(39.8, 50.4)	1.26	(0.98, 1.63)	11.7	
<b>Male</b>										
All disorders	270	781.6	(728.6, 838.5)	692	278.0	(265.2, 291.6)	<b>2.81</b>	<b>(2.58, 3.06)</b>	503.6	
Schizophrenia	170	508.5	(465.4, 555.4)	222	105.6	(97.6, 114.3)	<b>4.82</b>	<b>(4.28, 5.42)</b>	402.9	
Mood (affective)	34	93.1	(76.3, 113.6)	118	41.0	(36.5, 46.1)	<b>2.27</b>	<b>(1.80, 2.86)</b>	52.1	
—Bipolar	18	48.7	(37.0, 64.1)	49	18.6	(15.6, 22.2)	<b>2.62</b>	<b>(1.89, 3.63)</b>	30.1	
—Depressive episode	13	35.5	(25.6, 49.1)	49	15.8	(13.1, 19.0)	<b>2.25</b>	<b>(1.54, 3.27)</b>	19.7	
Substance use	38	102.7	(85.1, 123.8)	178	77.2	(70.6, 84.6)	<b>1.33</b>	<b>(1.08, 1.64)</b>	25.4	
—Alcohol	31	81.0	(65.8, 99.8)	153	63.9	(57.9, 70.5)	<b>1.27</b>	<b>(1.01, 1.60)</b>	17.2	
Anxiety, stress-related	15	42.2	(31.2, 57.1)	74	27.2	(23.5, 31.5)	<b>1.55</b>	<b>(1.11, 2.17)</b>	15.0	
<b>Total</b>										
All disorders	487	639.3	(606.6, 673.8)	1373	260.9	(252.1, 270.0)	<b>2.45</b>	<b>(2.30, 2.61)</b>	378.4	
Schizophrenia	256	354.2	(329.4, 380.8)	377	83.4	(78.4, 88.7)	<b>4.25</b>	<b>(3.86, 4.67)</b>	270.8	
Mood (affective)	82	100.5	(88.4, 114.3)	305	50.0	(46.5, 53.8)	<b>2.01</b>	<b>(1.73, 2.33)</b>	50.5	
—Bipolar	50	59.0	(50.1, 69.6)	135	23.0	(20.7, 25.6)	<b>2.56</b>	<b>(2.10, 3.12)</b>	36.0	
—Depressive episode	25	32.1	(25.4, 40.5)	120	19.3	(17.1, 21.7)	<b>1.66</b>	<b>(1.28, 2.16)</b>	12.8	
Substance use	73	93.4	(81.7, 106.8)	283	62.7	(58.4, 67.4)	<b>1.49</b>	<b>(1.28, 1.73)</b>	30.7	
—Alcohol	58	72.4	(62.2, 84.2)	243	52.7	(48.8, 57.0)	<b>1.37</b>	<b>(1.16, 1.63)</b>	19.7	
Anxiety, stress-related	40	49.3	(41.1, 59.2)	193	36.0	(32.8, 39.5)	<b>1.37</b>	<b>(1.12, 1.68)</b>	13.3	

Source: NMDS

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

Māori had 2.5 times the rate of admission for mental disorders of non-Māori.

Among Māori females, the overall admission rate for mental disorders was twice that of non-Māori females. The most common cause of admission was schizophrenia related disorders, with 86 admissions per year on average, at a rate more than 3 times as high as the non-Māori rate. Māori women also had higher admission rates for mood disorders and substance use disorders (mostly alcohol).



Among Māori males, the overall admission rate was 2.8 times as high as the non-Māori rate. Admissions for schizophrenia type disorders were the most common, at a rate 4.8 times the non-Māori rate. The second most common cause of admission was for substance use, with a rate 33% higher than the non-Māori rate. The rate of admission for mood disorders and anxiety and stress related disorders were also higher for Māori than for non-Māori males.

## Gout

**Table 54: Gout prevalence and treatment, 20–79 years, Counties Manukau DHB, 2011**

Indicator	Māori		Non-Māori		Māori/non-Māori ratio	Difference in percentage
	Count	%	Count	%		
Gout prevalence	3,689	7.6	14,196	5.0	1.51	2.6
People with gout who received allopurinol regularly	1,373	37.2	4,923	34.7	1.07	2.5
Colchicine use by people with gout not dispensed allopurinol	353	9.6	1,470	10.4	0.92	-0.8
NSAID use by people with gout	1,821	49.4	6,679	47.0	1.05	2.3
Serum urate test within six months following allopurinol dispensing	959	44.6	3,599	46.3	0.96	-1.7

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 3,690 Māori aged 20–79 years were estimated to have gout in 2011, giving a crude prevalence of 8%, 51% higher than the prevalence in non-Māori. Thirty-seven percent of Māori with gout regularly received allopurinol, a preventive therapy to lower urate levels. Of those who received allopurinol 45% had a lab test for serum urate levels within the following six months. Nearly half of Māori with gout were using non-steroidal anti-inflammatory medication.

**Table 55: Hospitalisations for gout, 25 years and over, Counties Manukau 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	19	78.8	(60.6, 102.5)	45	20.5	(16.8, 25.0)	<b>3.85</b>	<b>(2.77, 5.35)</b>	58.3
Male	44	260.4	(218.7, 309.9)	159	108.6	(98.1, 120.3)	<b>2.40</b>	<b>(1.96, 2.93)</b>	151.7
Total	63	169.6	(146.4, 196.5)	204	64.6	(58.9, 70.7)	<b>2.63</b>	<b>(2.21, 3.12)</b>	105.0

Source: NMDS

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

On average, there were 63 hospital admissions for gout per year among Counties Manukau Māori, at a rate 2.6 times the rate for non-Māori, or 105 more admissions per 100,000. Admissions were more frequent among males than females.

## Hip fractures

**Table 56: Hospitalisations for hip fractures, 65 years and over, Counties Manukau DHB, 2011–2013**

Gender	Māori			Non-Māori			Māori/non-Māori ratio (95% CI)		Rate difference
	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Ave. no. per year	Age-standardised rate per 100,000 (95% CI)				
Female	3	167.6	(90.0, 312.0)	157	359.7	(323.9, 399.6)	<b>0.47</b>	<b>(0.25, 0.88)</b>	-192.2
Male	2	170.2	(81.0, 357.4)	64	207.5	(178.7, 241.0)	0.82	(0.38, 1.75)	-37.3
Total	6	168.9	(104.0, 274.2)	221	283.6	(260.2, 309.2)	<b>0.60</b>	<b>(0.36, 0.97)</b>	-114.7

Source: NMDS

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

On average, six Māori per year aged 65 and over were admitted to hospital for hip fractures, at a rate of just over 220 per 100,000, 40% lower than the non-Māori rate, or 115 fewer admissions per 100,000.

## Elective surgery

**Table 57: Hospitalisations for hip replacements, 50 years and over, Counties Manukau 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	26	403.9	(323.7, 504.0)	146	184.7	(167.1, 204.3)	<b>2.19</b>	<b>(1.71, 2.79)</b>	219.2
Male	20	377.3	(292.8, 486.2)	109	164.8	(147.2, 184.4)	<b>2.29</b>	<b>(1.73, 3.02)</b>	212.5
Total	46	390.6	(330.3, 461.9)	255	174.7	(162.1, 188.4)	<b>2.24</b>	<b>(1.86, 2.69)</b>	215.9

Source: NMDS

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

On average, 46 Māori aged 50 years and over were admitted to hospital per year for a hip replacement, at 2.2 times the rate for non-Māori, or 216 more admissions per 100,000.

**Table 58: Publicly funded hospitalisations for cataract surgery, 45 years and over, Counties Manukau 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	92	1010.7	(898.0, 1137.5)	954	813.5	(781.4, 847.0)	<b>1.24</b>	<b>(1.10, 1.41)</b>	197.2
Male	62	850.7	(736.2, 983.0)	733	743.9	(711.6, 777.6)	1.14	(0.98, 1.33)	106.8
Total	154	930.7	(848.8, 1020.5)	1687	778.7	(755.8, 802.3)	<b>1.20</b>	<b>(1.08, 1.32)</b>	152.0

Source: NMDS

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

On average, 154 Counties Manukau Māori aged 45 years and over were admitted to hospital for cataract surgery each year. The rate for Māori was 20% higher than for non-Māori, or 152 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 was not available by DHB.

## Hospitalisations

**Table 59: All-cause hospitalisations, all ages, Counties Manukau DHB, 2011–2013**

Gender	Māori		Non-Māori		Māori/non-Māori ratio (95% CI)	Rate difference
	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		
Female	12,940	29,707.2 (29,409.5, 30,008.0)	54,306	22,549.2 (22,421.0, 22,678.2)	<b>1.32</b> (1.30, 1.33)	7,158.0
Male	8,464	21,458.8 (21,192.2, 21,728.6)	43,623	17,870.1 (17,755.3, 17,985.8)	<b>1.20</b> (1.18, 1.22)	3,588.6
Total	21,405	25,583.0 (25,382.9, 25,784.7)	97,929	20,209.7 (20,123.5, 20,296.2)	<b>1.27</b> (1.25, 1.28)	5,373.3

Source: NMDS

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

On average, there were just over 21,400 Māori hospital admissions per year and close to 98,000 non-Māori admissions. All-cause admission rates were 27% higher for Māori than non-Māori, or 5,373 more admissions per 100,000.

Data on hospital admissions by principal diagnosis are available in the accompanying Excel tables.

## Potentially avoidable hospitalisations

**Table 60: Potentially avoidable hospitalisations, 0–74 years, Counties Manukau DHB, 2011–2013**

Gender	Māori		Non-Māori		Māori/non-Māori ratio (95% CI)	Rate difference
	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		
Female	3,041	6,966.1 (6,822.8, 7,112.5)	9,552	4,464.1 (4,405.5, 4,523.4)	<b>1.56</b> (1.52, 1.60)	2,502.1
Male	2,441	6,255.2 (6,111.4, 6,402.5)	9,918	4,564.7 (4,506.1, 4,624.1)	<b>1.37</b> (1.33, 1.41)	1,690.5
Total	5,483	6,610.7 (6,508.8, 6,714.1)	19,470	4,514.4 (4,472.9, 4,556.3)	<b>1.46</b> (1.44, 1.49)	2,096.3

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, 5,483 Māori hospital admissions per year were potentially avoidable through population based prevention strategies, with a rate 46% higher than non-Māori, or more than 2,000 more admissions per 100,000.

**Table 61: Ambulatory care sensitive hospitalisations, 0–74 years, Counties Manukau 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	1,484	3,359.0 (3,260.4, 3,460.6)	4,333	1,939.7 (1,901.5, 1,978.6)	<b>1.73</b> (1.67, 1.79)	1,419.3
Male	1,282	3,291.9 (3,187.8, 3,399.4)	4,674	2,030.1 (1,991.9, 2,069.1)	<b>1.62</b> (1.56, 1.68)	1,261.8
Total	2,766	3,318.3 (3,246.4, 3,391.7)	9,007	1,980.6 (1,953.6, 2,008.0)	<b>1.68</b> (1.63, 1.72)	1,337.7

Source: NMDS

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

On average, there were 2,766 ambulatory care sensitive hospitalisations per year among Māori, at a rate two-thirds higher than the non-Māori rate, or 1,338 more 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 Counties Manukau, Auckland, and Waitemata DHBs). A map of Regional Council boundaries can be found [here](#). The credible interval is the 2.5<sup>th</sup> percentile and the 97.5<sup>th</sup> percentile, the expected years of life at birth is the 50<sup>th</sup> 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, Counties Manukau 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	149	349.7	(332.4, 368.0)	963	154.6	(150.3, 159.1)	<b>2.26 (2.13, 2.40)</b>	195.1
Male	174	494.4	(471.4, 518.5)	1018	228.0	(222.6, 233.5)	<b>2.17 (2.06, 2.29)</b>	266.4
Total	323	422.0	(407.6, 437.1)	1981	191.3	(187.8, 194.9)	<b>2.21 (2.12, 2.29)</b>	230.7

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 323 Māori deaths per year on average in the Counties Manukau area during 2008 to 2012. The Māori mortality rate was 2.2 times the non-Māori rate, or 231 more deaths per 100,000.

**Table 64: Leading causes of death for Māori, all ages, Counties Manukau 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)			
<b>Female</b>								
IHD	21	44.7	(36.9, 54.3)	176	15.4	(14.2, 16.7)	<b>2.91 (2.35, 3.59)</b>	29.3
Lung cancer	19	41.4	(33.9, 50.5)	47	8.3	(7.2, 9.5)	<b>5.00 (3.91, 6.38)</b>	33.1
Diabetes	11	23.8	(18.3, 31.0)	39	6.1	(5.2, 7.1)	<b>3.93 (2.88, 5.36)</b>	17.8
COPD	10	21.9	(16.6, 28.8)	34	3.9	(3.3, 4.7)	<b>5.57 (4.03, 7.71)</b>	17.9
Breast cancer	8	17.7	(13.0, 24.2)	52	11.6	(10.1, 13.3)	<b>1.53 (1.09, 2.15)</b>	6.1
<b>Male</b>								
IHD	29	79.8	(67.7, 94.1)	219	36.5	(34.1, 39.0)	<b>2.19 (1.83, 2.61)</b>	43.3
Lung cancer	17	45.9	(37.2, 56.8)	66	12.4	(11.1, 13.9)	<b>3.70 (2.91, 4.71)</b>	33.5
Accidents	17	48.3	(38.9, 59.8)	48	17.6	(15.2, 20.3)	<b>2.75 (2.12, 3.56)</b>	30.7
Diabetes	11	29.7	(22.9, 38.5)	41	8.2	(7.0, 9.5)	<b>3.63 (2.69, 4.91)</b>	21.5
Suicide	9	24.5	(18.2, 33.0)	25	11.6	(9.6, 14.0)	<b>2.11 (1.49, 3.00)</b>	12.9
<b>Total</b>								
IHD	50	62.3	(54.9, 70.6)	394	25.9	(24.6, 27.4)	<b>2.40 (2.09, 2.75)</b>	36.3
Lung cancer	37	43.7	(37.7, 50.6)	114	10.3	(9.5, 11.3)	<b>4.22 (3.56, 5.01)</b>	33.3
Accidents	25	33.2	(27.8, 39.7)	77	12.1	(10.7, 13.7)	<b>2.75 (2.21, 3.42)</b>	21.2
Diabetes	22	26.7	(22.2, 32.2)	79	7.1	(6.4, 7.9)	<b>3.76 (3.03, 4.67)</b>	19.6
COPD	16	19.8	(15.9, 24.8)	86	5.6	(5.0, 6.2)	<b>3.55 (2.78, 4.54)</b>	14.3

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 Counties Manukau Māori women were ischaemic heart disease (IHD), lung cancer, diabetes mellitus, chronic obstructive pulmonary disease (COPD), and breast cancer. The mortality rate for lung cancer was 5 times the non-Māori rate, COPD 5.6 times as high, diabetes was nearly 4 times as high, IHD nearly 3 times as high, and breast cancer mortality was 53% higher than for non-Māori. Lung cancer and IHD show the highest absolute differences in mortality rates, with around 30 more deaths per 100,000.

For Counties Manukau Māori men, the leading causes of death were IHD, lung cancer, accidents, diabetes and suicide. Mortality rates for these causes were all higher for Māori than for non-Māori men, ranging from 2.1 times as high (suicide) to 3.7 times as high (for lung cancer). The highest absolute difference in rates was for deaths from IHD with 43 more deaths per 100,000.

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

## Potentially avoidable mortality

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

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

**Table 65: Potentially avoidable mortality, 0–74 years, Counties Manukau 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	97	217.2	(198.6, 237.5)	267	80.7	(75.8, 85.9)	<b>2.69</b>	<b>(2.41, 3.00)</b>		136.5
Male	112	293.9	(270.4, 319.4)	373	118.5	(112.6, 124.8)	<b>2.48</b>	<b>(2.25, 2.73)</b>		175.3
Total	209	255.5	(240.4, 271.6)	640	99.6	(95.7, 103.6)	<b>2.57</b>	<b>(2.39, 2.76)</b>		155.9

Source: Mortality, Ministry of Health

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

Among Counties Manukau Māori there were 209 potentially avoidable deaths per year on average during 2007–2011, at a rate 2.6 times the non-Māori rate, or 156 more deaths per 100,000.

**Table 66: Amenable mortality, 0–74 years, Counties Manukau 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	67	150.3	(135.0, 167.4)	185	56.2	(52.2, 60.6)	<b>2.67</b>	<b>(2.35, 3.05)</b>		94.1
Male	75	196.7	(177.6, 217.8)	268	85.2	(80.2, 90.5)	<b>2.31</b>	<b>(2.05, 2.60)</b>		111.5
Total	142	173.5	(161.1, 186.9)	453	70.7	(67.5, 74.1)	<b>2.45</b>	<b>(2.25, 2.68)</b>		102.8

Source: Mortality, Ministry of Health

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

Deaths amenable to health care were 2.5 times as frequent among Māori as among non-Māori, or 103 more deaths per 100,000. There were 142 Māori deaths per year on average.

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

**Table 67: Hospitalisations for injuries, all ages, Counties Manukau 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	1,134	2,675.6	(2,586.1, 2,768.2)	4,226	1,702.3	(1,666.9, 1,738.4)	<b>1.57 (1.51, 1.64)</b>	973.3
Male	1,389	3,749.7	(3,635.6, 3,867.3)	5,562	2,616.1	(2,572.2, 2,660.7)	<b>1.43 (1.38, 1.48)</b>	1,133.6
Total	2,523	3,212.6	(3,139.8, 3,287.1)	9,788	2,159.2	(2,130.9, 2,187.8)	<b>1.49 (1.45, 1.53)</b>	1,053.5

Source: NMDS

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

On average there were 2,523 hospitalisations for injury among Māori per year, at a rate 49% higher than non-Māori or approximately 1,050 more admissions per 100,000.

**Table 68: Hospitalisations for assault, all ages, Counties Manukau 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	124	301.1	(271.8, 333.6)	127	63.7	(57.4, 70.7)	<b>4.73 (4.09, 5.47)</b>	237.4
Male	196	556.8	(512.8, 604.5)	408	211.0	(199.2, 223.6)	<b>2.64 (2.39, 2.92)</b>	345.7
Total	320	428.9	(402.2, 457.4)	535	137.3	(130.6, 144.5)	<b>3.12 (2.88, 3.39)</b>	291.6

Source: NMDS

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

On average 320 Māori per year were admitted to hospital for injury caused by assault, at a rate 3.1 times the non-Māori rate, or 292 more admissions per 100,000. Males had higher admission rates than females.

**Table 69: Deaths from injury, all ages, Counties Manukau 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	13	32.1	(25.2, 40.9)	44	12.7	(10.7, 15.1)	<b>2.52 (1.87, 3.39)</b>	19.4
Male	28	77.8	(65.7, 92.1)	77	31.2	(27.9, 34.9)	<b>2.49 (2.04, 3.05)</b>	46.6
Total	41	54.9	(47.8, 63.1)	121	22.0	(20.0, 24.1)	<b>2.50 (2.11, 2.95)</b>	33.0

Source: Mortality dataset, Ministry of Health.

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

On average 41 Counties Manukau Māori died from injuries per year, at a rate 2.5 times as high as for non-Māori, or 33 more deaths per 100,000. Mortality rates were higher for males than females for both Māori and non-Māori.



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# Appendix 1: Population projections

Table 70: Māori population projections, single year by age group, Counties Manukau 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	1,110	1,020	2,140	1,150	1,090	2,230	1,130	1,080	2,210	1,120	1,070	2,190
1-4	4,310	4,060	8,370	4,340	4,050	8,390	4,350	4,090	8,440	4,380	4,150	8,540
5-9	4,960	4,550	9,510	5,050	4,750	9,800	5,230	4,880	10,110	5,300	4,890	10,190
10-14	4,390	4,210	8,610	4,450	4,160	8,620	4,440	4,120	8,560	4,460	4,180	8,640
15-19	4,040	4,060	8,100	4,110	4,060	8,170	4,160	4,060	8,220	4,230	4,050	8,290
20-24	3,070	3,690	6,750	3,180	3,700	6,880	3,340	3,730	7,070	3,460	3,790	7,250
25-29	2,230	2,970	5,200	2,320	3,110	5,430	2,430	3,260	5,690	2,530	3,310	5,840
30-34	1,890	2,620	4,510	1,900	2,610	4,500	1,930	2,620	4,540	1,960	2,610	4,570
35-39	1,980	2,490	4,470	1,940	2,450	4,390	1,860	2,480	4,340	1,790	2,520	4,310
40-44	2,170	2,750	4,930	2,100	2,740	4,840	2,050	2,640	4,690	1,970	2,580	4,540
45-49	1,980	2,450	4,430	1,990	2,480	4,480	1,990	2,550	4,530	2,070	2,600	4,670
50-54	1,820	2,140	3,960	1,900	2,200	4,100	1,920	2,220	4,140	1,890	2,250	4,140
55-59	1,270	1,620	2,890	1,300	1,640	2,940	1,420	1,730	3,140	1,520	1,790	3,300
60-64	1,000	1,230	2,220	1,040	1,300	2,340	1,030	1,360	2,390	1,050	1,420	2,470
65-69	760	800	1,550	780	850	1,630	800	900	1,710	830	960	1,800
70-74	420	520	940	440	570	1,010	470	590	1,060	500	590	1,080
75-79	230	330	550	250	330	580	270	360	630	270	410	680
80-84	90	180	280	90	200	290	100	200	300	120	190	310
85-89	30	60	90	40	60	100	40	60	110	40	70	110
90+	10	20	30	10	30	30	10	30	40	10	40	40
<b>All Ages</b>	<b>37,800</b>	<b>41,800</b>	<b>79,500</b>	<b>38,400</b>	<b>42,400</b>	<b>80,700</b>	<b>39,000</b>	<b>43,000</b>	<b>81,900</b>	<b>39,500</b>	<b>43,500</b>	<b>83,000</b>
	2017			2018			2019			2020		
0	1,120	1,060	2,180	1,120	1,060	2,180	1,120	1,060	2,180	1,110	1,060	2,170
1-4	4,430	4,180	8,610	4,420	4,210	8,630	4,390	4,180	8,570	4,380	4,170	8,540
5-9	5,300	4,920	10,220	5,240	4,920	10,160	5,290	4,960	10,260	5,280	4,990	10,280
10-14	4,590	4,270	8,860	4,730	4,370	9,110	4,820	4,560	9,380	4,990	4,690	9,670
15-19	4,150	4,020	8,170	4,200	4,030	8,230	4,250	3,960	8,210	4,230	3,910	8,140
20-24	3,640	3,800	7,440	3,700	3,780	7,480	3,760	3,770	7,530	3,800	3,770	7,570
25-29	2,580	3,370	5,950	2,690	3,330	6,030	2,800	3,340	6,140	2,960	3,370	6,330
30-34	2,030	2,670	4,700	2,070	2,830	4,900	2,150	2,960	5,100	2,250	3,100	5,350
35-39	1,760	2,510	4,270	1,770	2,490	4,260	1,770	2,470	4,240	1,800	2,480	4,280
40-44	1,900	2,500	4,390	1,840	2,350	4,190	1,800	2,310	4,110	1,710	2,340	4,050
45-49	2,090	2,590	4,680	2,030	2,610	4,640	1,950	2,600	4,550	1,910	2,490	4,400
50-54	1,860	2,250	4,120	1,840	2,310	4,140	1,840	2,330	4,180	1,830	2,390	4,220
55-59	1,580	1,890	3,470	1,670	2,000	3,660	1,740	2,050	3,790	1,760	2,070	3,830
60-64	1,080	1,470	2,550	1,120	1,480	2,600	1,130	1,500	2,630	1,240	1,570	2,820
65-69	850	1,020	1,870	840	1,080	1,920	880	1,140	2,030	870	1,200	2,070
70-74	550	630	1,170	600	670	1,270	630	710	1,340	650	760	1,410
75-79	280	400	690	300	400	700	310	450	760	330	460	800
80-84	130	210	340	140	230	370	160	230	380	180	250	430
85-89	50	80	130	50	100	140	40	110	150	50	110	160
90+	10	30	40	10	30	40	20	30	50	20	30	50
<b>All Ages</b>	<b>40,000</b>	<b>43,900</b>	<b>83,900</b>	<b>40,400</b>	<b>44,300</b>	<b>84,700</b>	<b>40,900</b>	<b>44,700</b>	<b>85,600</b>	<b>41,300</b>	<b>45,200</b>	<b>86,500</b>

These projections were derived in October 2014.

Source: Statistics New Zealand



**Table 71: Total population projections, single year, by age group, Counties Manukau DHB, 2013 to 2020**

Projected 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
	<b>2013(Base)</b>			<b>2014</b>			<b>2015</b>			<b>2016</b>		
0	4,220	4,020	8,240	4,040	3,820	7,860	4,150	3,930	8,070	4,230	4,010	8,240
1-4	17,010	16,060	33,070	17,050	16,110	33,160	16,770	15,810	32,580	16,470	15,560	32,030
5-9	20,320	18,940	39,260	20,770	19,520	40,290	21,330	20,100	41,430	21,750	20,420	42,170
10-14	19,870	18,780	38,660	20,150	18,870	39,020	19,920	18,780	38,700	19,850	18,800	38,650
15-19	20,130	19,290	39,420	20,370	19,530	39,900	20,700	19,780	40,480	20,780	19,710	40,500
20-24	18,600	18,410	37,010	19,510	19,240	38,750	20,240	19,700	39,930	20,640	19,980	40,620
25-29	15,560	17,170	32,730	16,890	18,220	35,110	18,270	19,260	37,530	19,570	20,170	39,740
30-34	14,750	16,970	31,720	15,470	17,650	33,120	16,080	18,400	34,480	16,690	19,060	35,750
35-39	14,490	16,520	31,020	14,690	16,580	31,270	14,830	16,830	31,660	15,020	17,180	32,200
40-44	16,710	18,830	35,540	16,570	18,700	35,270	16,420	18,380	34,800	15,940	17,980	33,920
45-49	16,770	17,970	34,740	16,730	18,310	35,050	16,790	18,510	35,300	16,910	18,750	35,650
50-54	15,810	16,880	32,690	16,390	17,390	33,780	16,640	17,770	34,410	16,810	17,870	34,670
55-59	13,010	13,880	26,890	13,450	14,370	27,820	14,040	14,890	28,930	14,490	15,420	29,920
60-64	11,150	11,810	22,960	11,450	12,260	23,710	11,630	12,630	24,270	11,960	13,020	24,980
65-69	9,070	9,490	18,560	9,590	9,980	19,570	10,130	10,540	20,670	10,470	10,890	21,360
70-74	6,480	6,980	13,470	6,820	7,340	14,160	7,000	7,640	14,630	7,290	7,930	15,220
75-79	4,150	4,750	8,890	4,360	5,040	9,400	4,720	5,370	10,090	5,090	5,790	10,870
80-84	2,660	3,530	6,190	2,730	3,590	6,320	2,800	3,670	6,470	2,810	3,680	6,490
85-89	1,400	2,140	3,540	1,430	2,170	3,600	1,520	2,210	3,730	1,590	2,320	3,910
90+	500	1,210	1,710	570	1,280	1,840	600	1,340	1,940	650	1,360	2,000
<b>All Ages</b>	<b>242,700</b>	<b>253,600</b>	<b>496,300</b>	<b>249,000</b>	<b>260,000</b>	<b>509,000</b>	<b>254,600</b>	<b>265,500</b>	<b>520,100</b>	<b>259,000</b>	<b>269,900</b>	<b>528,900</b>
	<b>2017</b>			<b>2018</b>			<b>2019</b>			<b>2020</b>		
0	4,320	4,090	8,410	4,390	4,160	8,550	4,470	4,230	8,710	4,570	4,320	8,890
1-4	16,380	15,530	31,910	16,440	15,560	32,000	16,750	15,860	32,610	17,070	16,160	33,230
5-9	21,780	20,460	42,240	21,480	20,400	41,890	21,160	20,090	41,250	20,870	19,770	40,640
10-14	20,220	19,030	39,250	20,740	19,430	40,160	21,030	19,870	40,890	21,500	20,350	41,850
15-19	20,500	19,540	40,040	20,500	19,420	39,920	20,590	19,330	39,930	20,240	19,130	39,370
20-24	20,970	20,290	41,270	21,050	20,380	41,440	21,020	20,370	41,380	21,130	20,420	41,550
25-29	20,660	20,870	41,530	21,510	21,360	42,870	22,040	21,830	43,870	22,470	21,990	44,460
30-34	17,330	19,620	36,950	18,160	20,350	38,510	19,170	21,080	40,250	20,330	21,910	42,230
35-39	15,450	17,630	33,080	16,010	18,170	34,180	16,520	18,640	35,170	17,000	19,240	36,240
40-44	15,490	17,580	33,070	15,190	17,100	32,290	15,210	16,960	32,170	15,230	17,090	32,320
45-49	17,040	18,870	35,920	16,820	18,910	35,730	16,530	18,640	35,170	16,300	18,220	34,520
50-54	16,740	17,850	34,590	16,610	17,880	34,490	16,440	18,080	34,510	16,410	18,180	34,590
55-59	14,970	16,070	31,040	15,480	16,700	32,190	15,960	17,100	33,060	16,150	17,410	33,560
60-64	12,230	13,310	25,530	12,710	13,660	26,370	13,040	14,050	27,090	13,560	14,510	28,070
65-69	10,560	11,210	21,770	10,620	11,440	22,060	10,850	11,810	22,660	11,000	12,150	23,150
70-74	7,780	8,380	16,160	8,310	9,010	17,320	8,780	9,450	18,230	9,280	9,960	19,240
75-79	5,390	6,130	11,530	5,600	6,290	11,900	5,880	6,600	12,480	6,010	6,860	12,870
80-84	3,030	3,790	6,820	3,190	3,950	7,140	3,330	4,190	7,520	3,640	4,470	8,110
85-89	1,610	2,370	3,980	1,610	2,420	4,040	1,660	2,470	4,130	1,700	2,550	4,240
90+	680	1,390	2,070	740	1,460	2,200	790	1,490	2,280	850	1,530	2,380
<b>All Ages</b>	<b>263,100</b>	<b>274,000</b>	<b>537,100</b>	<b>267,200</b>	<b>278,100</b>	<b>545,200</b>	<b>271,200</b>	<b>282,100</b>	<b>553,400</b>	<b>275,300</b>	<b>286,200</b>	<b>561,500</b>

These projections were derived in October 2014.

Source: Statistics New Zealand



# 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

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 cancer	C61*
Testicular cancer	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.





