



Auckland  
District Health Board

# Māori Health Profile 2015



## Te Rei Puta

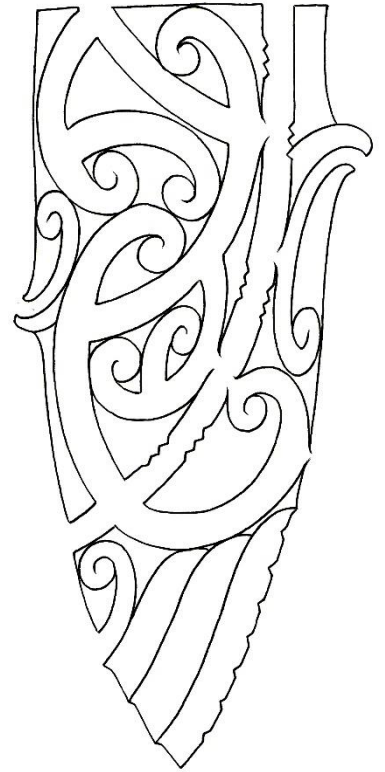
The cover design represents the journey that has led to the production and dissemination of the Māori Health Profiles. The overall shape of the design is the prized rei puta (symbolising the importance of knowledge as a taonga). This signifies the importance of information and the acknowledgement that 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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Suggested citation: Robson B, Purdie G, Simmonds S, Waa A, Rameka R. 2015. *Auckland District Health Board Māori Health Profile 2015*. Wellington: Te Rōpū Rangahau Hauora a Eru Pōmare.

ISBN 978-0-9941252-0-0 (electronic)

Published in October 2015 by Te Rōpū Rangahau Hauora a Eru Pōmare, University of Otago Wellington, PO Box 7343, Wellington South.

Further information on Te Rōpū Rangahau Hauora a Eru Pōmare can be found [here](#).



# He Mihi

Tūi Tuia i Te Herenga Tangata

te tangi a Te Rōpū Rangahau Hauora a Eru Pōmare.

Tui Tui Tui Tuia

E ngā maunga whakahii, ngā pū kōrero huri noa

Tēnā koutou, tēnā koutou, tēnā tātou katoa.

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

Haere atu rā, okioki ai.

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

Anei te mihi ki ngā kaimahi hauora

Whakapiki te kaha

Whakapiki te ora

Whakapiki te māramatanga

Kia eke tātou katoa ki Te Pae Ora.

# Acknowledgements

Many people have contributed their time and expertise to the Māori Health Profiles. We would like to thank members of Te Tumu Whakarae, District Health Board (DHB) Planning and Funding groups, Public Health Services, Māori providers, and Māori governance groups who contributed to our consultation discussions. We would also like to acknowledge those who participated in the workshop at the Tū Kaha conference in Hastings, October 2014.

Paula Searle, Peter Himona, Te Taiawatea Moko-Mead, Li-Chia Yeh, Roimata Timutimu, Natalie Talamaivao from Te Kete Hauora, Ministry of Health provided valuable advice.

The following people assisted us to obtain data: Roslyn Parker, Dale Robison, Catherine Gerard and Mishra Suriyaprakash from the Ministry of Health; Ester Goodwin and Andrew Maclaren, Statistics New Zealand; June Atkinson, University of Otago Wellington; Nikki Turner, Immunisation Advisory Centre; Ali Ajmal, Action on Smoking and Health New Zealand.

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

Doone Winnard and Sarah Sharpe from Counties Manukau DHB provided very useful peer review of early drafts.

We appreciated the discussions and input of the participants of the Māori Health Profiles Summer School in February 2015, and a special thanks to the guest presenters Paula Searle, Kirikowhai Mikaere, Ana Morrison, Sonia Hawkins, Gay Keating and Jean Gilmour.

We would like to particularly acknowledge Olga Rameka who provided cultural support and guidance throughout the project, ngā mihi aroha ki a koe.

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

## – Auckland at a glance

### Auckland population

- In 2013, 38,600 Māori lived in the Auckland District Health Board's region, 8% of the District's total population.
- The Auckland Māori population is youthful, but showing signs of ageing. In 2013, 13% of the District's children aged 14 years and under were Māori, as were 10% of those aged 15–24 years. The Māori population aged 65 years and over will increase by 57% between 2013 and 2020.

### Whānau ora – Healthy families

- In 2013, most Auckland Māori adults (84%) reported that their whānau was doing well, but 6% felt their whānau was doing badly. A small proportion (6%) found it hard to access whānau support in times of need, but most found it easy (77%).
- Being involved in Māori culture was important (very, quite, or somewhat) to the majority of Māori adults (71%). Spirituality was important to 62%.
- Most (92%) Auckland Māori had been to a marae at some time. Three out of five (58%) had been to their ancestral marae, with a similar proportion (57%) stating they would like to go more often.
- One in ten had taken part in traditional healing or massage in the last 12 months.
- One in six (17%) Auckland Māori could have a conversation about a lot of everyday things in te reo Māori.

### Wai ora – Healthy environments

#### Education

- In 2013, 89% of Auckland Māori children starting school had participated in early childhood education.
- In 2013, 62% of Māori adults aged 18 years and over had at least a Level 2 Certificate, more than in 2006 (52%). Although the gap between Māori and non-Māori reduced, the proportion was 85% that of non-Māori.

#### Work

- In 2013, 10% of Māori adults aged 15 years and over were unemployed, two-thirds higher than the non-Māori unemployment rate (6%).
- Most Māori adults (88%) do voluntary work.
- In 2013, Māori were more likely than non-Māori to look after someone who was disabled or ill, within or outside of the home.

#### Income and standard of living

- In 2013, over a third of children and over a quarter of adults in Māori households (defined as households with at least one Māori resident) were in households with low equivalised household incomes (under \$15,172), compared to a quarter of children and adults in other households.
- Six percent of Auckland Māori adults reported putting up with feeling the cold a lot to keep costs down, 4% had gone without fresh fruit and vegetables, and 2% had postponed or put off a visit to the doctor during the previous 12 months.
- Eleven percent of residents of Māori households had no access to a motor vehicle, compared to 6% of residents of other households.

- People in Māori households were less likely to have access to telecommunications than those living in other households: 21% had no internet, 25% no telephone, 12% no mobile phone, and 2% had no access to any telecommunications.

## Housing

- The most common housing problems reported to be a big problem by Māori adults in 2013 were finding it hard to keep warm (14%), needing repairs (11%), and damp (9%).
- Three-fifths of children in Auckland Māori households were living in rented accommodation, compared to two-fifths of children in other households.
- Auckland residents living in Māori households were a third more likely than residents of other households to be in crowded homes (i.e. requiring at least one additional bedroom) (23% compared to 18%).

## Area deprivation

- Using the NZDep2013 index of small area deprivation, 20% of Auckland Māori lived in the most deprived decile areas (Decile 10) compared to 10% of non-Māori.

# Mauri ora – Healthy individuals

## Pepi, tamariki – Infants and children

- On average 916 Māori infants were born per year during 2009–2013, 14% of all live births in the DHB. Six percent of Māori and non-Māori babies had low birth weight.
- In 2013, 81% of Māori babies in Auckland were fully breastfed at 6 weeks.
- Just under half of Māori infants were enrolled with a Primary Health Organisation by three months of age.
- In 2014, 88% of Māori children were fully immunised at 8 months of age, 94% at 24 months.
- In 2013, half of Auckland Māori children aged 5 years and a third of non-Māori children had caries. At Year 8 of school, half of Māori children and two-fifths of non-Māori children had caries. Māori children under 15 years were 19% more likely than non-Māori to be hospitalised for tooth and gum disease during 2011–2013.
- During 2011–2013, on average there were 122 hospital admissions per year for grommet insertions among Māori children under 15 years of age (at a rate 85% higher than among non-Māori), and 78 admissions for serious skin infections (at a rate 48% higher than among non-Māori children).
- Among children under 15 years, two Māori children and seven non-Māori children per year were admitted to hospital with acute rheumatic fever. The rate for Māori boys was 3 times as high as for non-Māori boys.
- Over 650 hospitalisations per year of Māori children were potentially avoidable through population-based health promotion and intersectoral actions, with the rate 19% higher than that of non-Māori.
- On average, 432 hospitalisations per year of Māori children were potentially avoidable through preventive or treatment intervention in primary care (ambulatory care sensitive hospitalisations, or ASH), with the rate also 19% higher than for non-Māori children.

## Rangatahi – Young adults

- There has been a significant increase in the proportion of Auckland Māori aged 14 and 15 years who have never smoked, and a decrease in the proportion of Māori aged 15–24 years who smoke regularly.
- By September 2014, 61% of Māori girls aged 17 years and 69% of those aged 14 years had received all three doses of the human papilloma virus (HPV) vaccine.
- Among Auckland youth aged 15–24 years, one Māori and four non-Māori per year were admitted to hospital with acute rheumatic fever during 2011–2013. The rate for Māori females was 7 times the non-Māori rate.
- Rates of hospitalisation for injury from self-harm were higher for Māori than for non-Māori among young adults aged 15–44 years during 2011–2013.

## Pakeke – Adults

- Two-thirds of Māori adults in Auckland reported having excellent or very good health in 2013, and a fifth reported good health. One in six (15%) reported having fair or poor health.

- Smoking rates are decreasing, but remain over twice as high for Māori as for non-Māori (26% compared to 10% in 2013).

### Circulatory system diseases

- Māori adults aged 25 years were 69% more likely than non-Māori to be hospitalised for circulatory system diseases (including heart disease and stroke) during 2011–2013.
- Auckland Māori females were more likely than non-Māori females to be admitted with acute coronary syndrome, and to have revascularisation procedures. Māori male rates were similar to those of non-Māori males. However, Māori men generally had higher rates of admission than Māori women.
- Heart failure admission rates were 4 times as high for Māori as for non-Māori.
- Stroke admission rates were 45% higher for Māori than for non-Māori and hypertensive disease admissions twice as high.
- Chronic rheumatic heart disease admissions were 2.7 times as common for Māori as for non-Māori.
- Māori under 75 years of age were 2.5 times as likely as non-Māori to die from circulatory system diseases during 2007–2011.

### Diabetes

- In 2013, 5% of Māori were estimated to have diabetes. Nearly half of Māori aged 25 years and over who had diabetes were regularly receiving metformin or insulin, 86% were having their blood sugar monitored regularly, and two-thirds were being screened regularly for renal disease.
- In 2011–2013 Māori with diabetes were twice as likely as non-Māori with diabetes to have a lower limb amputated.

### Cancer

- Compared to non-Māori, cancer incidence was 24% higher for Māori females and 25% higher for Māori males, while cancer mortality was 87% higher and 78% higher respectively.
- Breast, lung, uterine and colorectal cancers were the most commonly registered among Auckland Māori women during 2008–2012. The rate of lung cancer registrations was 3.8 times the non-Māori rate.
- Breast screening coverage of Māori women aged 45–69 years was 65% compared to 69% of non-Māori women at December 2014. Cervical screening coverage of Māori women aged 25–69 years was 56% over 3 years and 71% over five years (compared to 81% and 96% of non-Māori respectively).
- Lung, prostate, colorectal and liver cancers were the most frequently registered cancers among Auckland Māori men. Lung and liver cancer registration rates were around 3 times as high as for non-Māori men.
- Lung cancer and cancers of the digestive organs were the most common causes of death from cancer among Māori women and men during 2007–2011.

### 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) during 2011–2013.
- Asthma hospitalisation rates were higher for Māori than non-Māori among those aged under 65 years.
- Māori under 75 years had 4 times the non-Māori rate of death from respiratory disease in 2007–2011.

### Mental disorders

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

### Gout

- In 2011 the prevalence of gout among Auckland Māori was estimated to be 6%.
- Thirty-four percent of Māori with gout regularly received allopurinol, a preventive therapy to lower urate levels. Of those who received allopurinol, only 41% had a lab test for serum urate levels in the following six months.
- During 2011–2013 the rate of hospitalisations for gout was 3.7 times as high for Māori as for non-Māori, indicating a higher rate of flare-ups.

## All ages

### Hospitalisations

- The all-cause rate of hospital admissions was 24% higher for Māori than for non-Māori during 2011–2013.
- Approximately 2,310 Māori hospital admissions per year were potentially avoidable, with the rate 54% higher for Māori than for non-Māori. The ASH rate was 70% higher.

### Mortality

- During 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 males).
- The all-cause mortality rate for Māori in Auckland DHB during 2008–2012 was twice as high as the non-Māori rate.
- Leading causes of death for Māori females during 2007–2011 were ischaemic heart disease (IHD), lung cancer, COPD, breast cancer, and accidents. Leading causes of death for Māori males were IHD, lung cancer, accidents, diabetes, and COPD.
- Potentially avoidable mortality and mortality amenable to health care were 2.5 times as high for Māori as for non-Māori in Auckland.

### Injuries

- The rate of hospitalisation due to injury was 43% higher for Māori than for non-Māori during 2011–2013.
- Leading causes of injury resulting in a hospital admission were falls, exposure to mechanical forces, complications of surgical and medical care, assault, transport accidents, and intentional self-harm.
- Rates of hospital admission for injury caused by assault were 6.7 times as high for Māori females as for non-Māori females and 3 times as high for Māori males as for non-Māori males. Males had higher rates of admission than females.
- Injury mortality was 2.5 times as high for Māori as for non-Māori in Auckland 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 **Te Toka Tūmai o Tamaki Makau Rau (Auckland 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 Auckland DHB. Accompanying Excel tables also include data for the total Auckland 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, 6% (38,600) of the country's total Māori population lived in the Auckland District Health Board. The total population of the DHB (460,500) made up 10% of the national population. In 2015, the Māori population is estimated to be 39,400 and the total population 478,300.

**Table 1: Population by age group, Auckland DHB, 2013**

Age group (years)	Māori			Non-Māori		Total DHB Number
	Number	Age distribution	% of DHB	Number	Age distribution	
0–14	10,670	28%	13	72,410	17.2%	83,080
15–24	7,760	20%	10	66,830	15.8%	74,590
25–44	10,830	28%	7	135,050	32.0%	145,880
45–64	7,440	19%	7	101,030	23.9%	108,470
65+	1,870	5%	4	46,600	11.0%	48,470
Total	38,600	100%	8	421,900	100.0%	460,500

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

In 2013, Māori residents comprised 8% of the DHB population. The Māori population is relatively young, with a median age in 2013 of 26.4 years, compared with 34 years for the total DHB population. Māori comprised 13% of the DHB's children aged 0–14 years and 10% of those aged 15–24 years.

**Table 2: Population projections, Auckland DHB, 2013 to 2033**

Year	Māori							Total DHB			NZ Māori	Total NZ
	Residents	% of DHB	% of NZ Māori	% 0–14 years	% 15–64 years	% 65+ years	Median age	Residents	Median age	% of NZ pop		
2013	38,600	8	6	28	68	5	26.4	460,500	34.0	10	692,300	4,442,100
2018	40,500	8	6	27	67	6	27.9	499,400	33.7	11	734,500	4,726,200
2023	42,100	8	5	26	66	8	29.6	533,400	34.1	11	773,500	4,935,200
2028	43,500	8	5	25	64	11	31.2	569,000	35.2	11	811,700	5,139,700
2033	44,600	7	5	24	64	13	32.4	604,300	36.4	11	850,700	5,327,700

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

Note: Detailed population projections are provided in Appendix 1.

The proportion of Māori who are aged 65 years and over is currently 5% but is projected to increase to 13% in 2033 (Table 2). Between 2013 and 2020 the number of Māori aged 65 and over will increase by 57% from 1,870 to 2,940 (see Appendix 1). In 2013, there were 560 Māori aged 75 years and over in Auckland, with 165 living alone.



# 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, Auckland DHB, 2013**

How the whānau is doing	Auckland DHB			New Zealand		
	Estimated number	%	(95% CI)	%	(95% CI)	
Well / Extremely well	25,500	83.5	(78.1, 89.0)	83.4	(82.5, 84.4)	
Neither well nor badly	3,500*	10.7*	(5.9, 15.6)	10.3	(9.4, 11.2)	
Badly / Extremely badly	2,000**	5.7**	(1.7, 9.7)	6.3	(5.6, 7.0)	

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

Notes: An asterisk (\*) shows the sampling error is 30% or more but less than 50%.

\*\* shows a sampling error of 50% or more but less than 100%.

In 2013, 84% of Auckland Māori adults reported that their whānau was doing well or extremely well. However 6% felt their whānau was doing badly or extremely badly.

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

Whānau description	Auckland DHB			New Zealand		
	Estimated number	%	(95% CI)	%	(95% CI)	
<b>Size of whānau</b>						
10 or less	16,500	53.4	(45.3, 61.6)	53.7	(52.1, 55.3)	
11 to 20	8,500	28.4	(20.5, 36.3)	22.6	(21.3, 24.0)	
More than 20	5,500*	18.2*	(12.3, 24.1)	23.6	(22.4, 24.8)	
<b>Groups included in whānau</b>						
Parents, partner, children, brothers & sisters	28,000	89	(84.7, 93.3)	94.6	(94.0, 95.2)	
Aunts & uncles, cousins, nephews & nieces, other in-laws	11,000	34.5	(28.1, 40.9)	41.3	(39.8, 42.8)	
Grandparents, grandchildren	11,500	37.3	(29.6, 44.9)	41.9	(40.5, 43.4)	
Friends, others	3,000	10.2	(6.2, 14.3)	12.4	(11.5, 13.3)	

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

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

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

## Whānau support

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

How easy is it to get help	Auckland DHB			New Zealand	
	Estimated number	%	(95% CI)	%	(95% CI)
<b>Support in times of need</b>					
Easy, very easy	24,500	77.4	(70.7, 84.1)	81.2	(80.1, 82.4)
Sometimes easy, sometimes hard	5,500*	17.1*	(11.0, 23.2)	12.7	(11.7, 13.6)
Hard / very hard	1,500**	5.5**	(1.7, 9.3)	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	16,500	52.7	(45.2, 60.2)	64.1	(62.7, 65.6)
Sometimes easy, sometimes hard	6,500*	21.0*	(14.7, 27.3)	16.9	(15.9, 18.0)
Hard / very hard	6,000*	19.2*	(13.0, 25.4)	14.7	(13.5, 15.9)
Don't need help	2,000**	7.1**	(3.2, 11.0)	4.2	(3.7, 4.7)

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

Notes: \* sampling error is 30% or more but less than 50%.

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

In 2013, over three quarters (77%) reported having easy access to whānau support in times of need. However, an estimated 1,500 (6%) had difficulty getting help.

A smaller proportion of just over a half (53%) found it easy to get help with Māori cultural practices, with a fifth (19%) finding it hard or very hard. A further 7% reported not needing help.

## Importance of participation in Māori culture

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

	Auckland DHB			New Zealand	
	Estimated number	%	(95% CI)	%	(95% CI)
<b>Importance of being involved in Māori culture</b>					
Very / quite	12,500	40.3	(34.3, 46.4)	46.3	(44.9, 47.6)
Somewhat	9,500	30.7	(24.2, 37.1)	24.2	(22.9, 25.6)
A little / not at all	9,000	29.0	(23.0, 35.0)	29.5	(28.3, 30.7)
<b>Importance of spirituality</b>					
Very / quite	14,500	47.4	(39.6, 55.2)	48.7	(47.4, 49.9)
Somewhat	4,500*	15.0*	(9.6, 20.5)	17.0	(16.0, 18.0)
A little / not at all	11,500	37.6	(30.1, 45.0)	34.3	(33.1, 35.5)

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

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

Being involved in Māori culture was important to two-fifths (40%) of Auckland Māori adults, and somewhat important to a further 31%. Spirituality was important (very, quite, or somewhat) to 62%.

## Te Reo Māori

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

Māori			Non-Māori			Māori/non-Māori ratio (95% CI)	Difference in percentage	
Number	%	(95% CI)	Number	%	(95% CI)			
5,562	17.3	(16.9, 17.7)	1,740	0.4	(0.4, 0.5)	<b>39.14</b>	<b>(36.82, 41.61)</b>	16.9

Source: 2013 Censuses, Statistics New Zealand

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

According to the 2013 Census, a sixth (17%) of all Māori in Auckland and less than 1% of non-Māori (1,740 individuals) 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, Auckland DHB, 2013**

Language spoken at home	Auckland DHB			New Zealand	
	Estimated number	%	(95% CI)	%	(95% CI)
Māori is main language	S	S		2.6	(2.2, 3.0)
Māori is used regularly	4,000*	14.5*	(9.3, 19.7)	20.5	(19.2, 21.8)

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

Notes: \* sampling error is 30% or more but less than 50%.

S shows data has been suppressed.

One in seven Māori adults (15%) use Māori language regularly in the home.

## Access to marae

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

Been to marae	Auckland DHB			New Zealand	
	Estimated number	%	(95% CI)	%	(95% CI)
At some time	29,000	91.6	(87.7, 95.5)	96.0	(95.5, 96.6)
In previous 12 months <sup>(1)</sup>	14,500	51.3	(43.8, 58.7)	58.2	(56.6, 59.7)
Ancestral marae at some time <sup>(2)</sup>	17,500	57.6	(50.9, 64.3)	62.3	(60.9, 63.7)
Ancestral marae in previous 12 months <sup>(3)</sup>	7,500	25.1	(19.3, 30.9)	33.6	(32.3, 34.9)
Like to go to ancestral marae more often <sup>(2)</sup>	11,500	56.6	(46.9, 66.3)	58.7	(56.7, 60.7)

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

Notes: (1) Those who had been to a marae at some time.

(2) Both those who knew and did not know their ancestral marae.

(3) Those who had been to any of their ancestral marae in the last 12 months.

In 2013, most Māori in Auckland (92%) had been to a marae, with half (51%) having been in the last 12 months. Around three-fifths (58%) had been to at least one of their ancestral marae, and a quarter (25%) had been in the last 12 months. Over half of Auckland Māori (57%) reported 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, Auckland DHB, 2013**

Auckland DHB			New Zealand	
Estimated number	%	(95% CI)	%	(95% CI)
3,000*	9.5*	(5.2, 13.7)	10.9	(10.0, 11.7)

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

Notes: \* sampling error is 30% or more but less than 50%.

An estimated 3,000 Māori adults (10%) in Auckland took part in traditional healing or massage in 2013, about the same as the national average (11%).

# 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 Auckland DHB, 2006 and 2013**

Year	Māori			Non-Māori			Māori/non-Māori ratio (95% CI)	Difference in percentage
	Number	%	(95% CI)	Number	%	(95% CI)		
2006	9,972	51.5	(50.9, 52.2)	177,174	68.2	(68.1, 68.4)	<b>0.76</b> (0.74, 0.77)	-16.7
2013	12,609	61.5	(60.9, 62.2)	202,290	71.9	(71.7, 72.1)	<b>0.86</b> (0.85, 0.87)	-10.4

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 52% to 62% between 2006 and 2013. While differences in proportions of Māori and non-Māori with Level 2 Certificate decreased over this period Māori remained 24% less likely to have attained this level of qualification.

### Work

**Table 12: Labour force status, 15 years and over, Auckland 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	10,932	51.9	(51.3, 52.5)	148,434	52.4	(52.2, 52.5)	0.99 (0.98, 1.00)	-0.5
Employed part-time	2,577	12.1	(11.6, 12.5)	39,222	14.6	(14.5, 14.8)	<b>0.83</b> (0.80, 0.86)	-2.6
Unemployed	1,380	6.6	(6.3, 7.0)	10,779	4.5	(4.4, 4.6)	<b>1.47</b> (1.39, 1.55)	2.1
Not in the labour force	6,225	29.4	(28.8, 30.0)	90,105	28.5	(28.3, 28.7)	<b>1.03</b> (1.01, 1.05)	0.9
<b>2013</b>								
Employed full-time	10,551	47.2	(46.6, 47.8)	156,276	50.9	(50.7, 51.1)	<b>0.93</b> (0.92, 0.94)	-3.7
Employed part-time	2,832	12.2	(11.8, 12.7)	40,749	13.5	(13.4, 13.7)	<b>0.90</b> (0.87, 0.94)	-1.3
Unemployed	2,199	9.9	(9.5, 10.3)	15,780	6.0	(5.9, 6.1)	<b>1.65</b> (1.58, 1.72)	3.9
Not in the labour force	7,122	30.6	(30.0, 31.2)	99,591	29.6	(29.4, 29.7)	<b>1.03</b> (1.02, 1.06)	1.0

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. Unemployed people who 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, and a corresponding increase in the proportion unemployed (from 7% to 10%). There was also a small increase in the proportion of people not in the labour force.

The absolute gaps between Māori and non-Māori unemployment rates increased during this time period. In 2013, Māori were 65% more likely than non-Māori to be unemployed, with an absolute gap of 4% in unemployment rates. The absolute gap in labour force participation was 1% in both periods.

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

ANZSIC Industry	Auckland DHB						New Zealand	
	Māori			Non-Māori				
	Number	%	Rank	Number	%	Rank	%	Rank
<b>Females</b>								
Education and Training	852	13.5%	1	11,271	12.4%	3	12.9%	2
Health Care and Social Assistance	852	13.5%	2	13,275	14.5%	1	17.1%	1
Professional, Scientific and Technical Services	678	10.7%	3	12,936	14.2%	2	8.5%	4
Retail Trade	624	9.9%	4	8,913	9.8%	4	11.6%	3
Accommodation and Food Services	432	6.8%	5	6,510	7.1%	5	7.3%	5
<b>Males</b>								
Construction	828	13.5%	1	7,692	7.9%	4	13.2%	2
Professional, Scientific and Technical Services	690	11.3%	2	16,524	16.9%	1	9.0%	3
Manufacturing	594	9.7%	3	9,150	9.3%	2	13.4%	1
Transport, Postal and Warehousing	441	7.2%	4	4,785	4.9%	9	5.9%	7
Retail Trade	435	7.1%	5	8,244	8.4%	3	8.3%	5

Source: 2013 Census, Statistics New Zealand

With the exception of professional, scientific and technical services (ranked third) service industries were the main employers of Māori women in Auckland, including education and training; health care and social assistance; retail; and accommodation and food services. For Māori men, leading industries were construction; professional, scientific and technical services; manufacturing; transport, postal and warehousing; and retail.

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

ANZSCO Occupation	Auckland DHB						New Zealand	
	Māori			Non-Māori				
	Number	%	Rank	Number	%	Rank	%	Rank
<b>Females</b>								
Professionals	1,782	28.1	1	31,914	35.1	1	26.7	1
Clerical and Administrative Workers	1,260	19.8	2	16,041	17.7	2	19.5	2
Managers	981	15.5	3	15,132	16.7	3	14.4	3
Community and Personal Service Workers	825	13.0	4	9,405	10.4	5	12.9	4
Sales Workers	774	12.2	5	9,996	11.0	4	11.7	5
Labourers	345	5.4	6	3,486	3.8	7	8.3	6
Technicians and Trades Workers	243	3.8	7	3,843	4.2	6	5.0	7
Machinery Operators and Drivers	138	2.2	8	990	1.1	8	1.5	8
<b>Males</b>								
Professionals	1,335	21.6	1	29,193	30.1	1	18.6	2
Managers	1,119	18.1	2	23,037	23.8	2	22.7	1
Technicians and Trades Workers	939	15.2	3	12,888	13.3	3	18.5	3
Labourers	717	11.6	4	6,375	6.6	6	13.6	4
Machinery Operators and Drivers	681	11.0	5	4,788	4.9	8	9.1	5
Community and Personal Service Workers	513	8.3	6	5,460	5.6	7	5.4	7
Sales Workers	468	7.6	7	8,598	8.9	4	7.1	6
Clerical and Administrative Workers	414	6.7	8	6,498	6.7	5	5.1	8

Source: 2013 Census, Statistics New Zealand

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

Among employed Māori women, the leading occupational groupings were professionals (28%); clerical and administrative workers (20%); and managers (16%). The next most common occupations were community and personal service workers; and sales workers. Māori men were most likely to be employed as professionals (22%); managers (18%); and technicians and trade workers (15%). These were followed by labourers; and machinery operators and drivers.

**Table 15: Unpaid work, 15 years and over, Auckland 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	18,708	87.8	(87.4, 88.3)	254,289	85.6	(85.5, 85.8)	<b>1.03</b>	<b>(1.02, 1.03)</b>	2.2
Looking after disabled/ill household member	2,209	10.1	(9.7, 10.5)	16,989	5.4	(5.3, 5.5)	<b>1.87</b>	<b>(1.79, 1.95)</b>	4.7
Looking after disabled/ill non-household member	2,380	10.6	(10.2, 11.0)	20,247	6.0	(5.9, 6.1)	<b>1.77</b>	<b>(1.70, 1.84)</b>	4.6

Source: 2013 Census, Statistics New Zealand

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

Most Māori adults (88%) worked without pay in 2013. Māori were more likely than non-Māori to look after someone who was disabled or ill without pay, both within the home and outside of the home.

## Income and standard of living

**Table 16: Unmet need reported by Māori aged 15 years and over to keep costs down in the last 12 months, Auckland DHB, 2013**

Actions taken a lot to keep costs down	Auckland DHB			New Zealand	
	Estimated number	%	(95% CI)	%	(95% CI)
Put up with feeling the cold	2,000**	6.3**	(3.1, 9.5)	11.0	(10.2, 11.8)
Go without fresh fruit and vegetables	1,000**	3.6**	(1.1, 6.1)	5.4	(4.8, 6.0)
Postpone or put off visits to the doctor	500**	2.2**	(0.5, 3.8)	8.8	(7.9, 9.6)

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

Note: \*\* sampling error is 50% or more but less than 100%

In 2013, an estimated 2,000 Māori adults (6%) reported putting up with feeling cold a lot to keep costs down during the previous 12 months, 1,000 (4%) had gone without fresh fruit and vegetables, and 500 (2%) had often 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, Auckland 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	2,640	22.4	(21.7, 23.2)	6,291	8.8	(8.6, 9.0)	<b>2.56</b>	<b>(2.46, 2.67)</b>	13.7
2013	2,721	22.9	(22.2, 23.7)	6,246	8.3	(8.1, 8.5)	<b>2.76</b>	<b>(2.65, 2.87)</b>	14.6

Source: Statistics New Zealand, 2006 and 2013 Census

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

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

Nearly one in four children living in Māori families were in families where the only income was means-tested benefits. Children in Māori families were 2.8 times as likely as children in non-Māori families to be in this situation in 2013.

**Table 18: Children and adults living in households with low incomes, Auckland 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	3,597	35.8	(34.9, 36.8)	17,034	25.4	(25.1, 25.8)	<b>1.41</b> ( <b>1.37</b> , <b>1.45</b> )	10.4
Adults 18 years & over	8,037	27.8	(27.3, 28.3)	54,897	24.9	(24.7, 25.0)	<b>1.12</b> ( <b>1.10</b> , <b>1.14</b> )	2.9

Source: 2013 Census, Statistics New Zealand

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

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

Household income is equivalised using the revised Jensen scale. Low income is defined as an equivalised household income under \$15,172.

Over a third of children in Māori households (around 3,600) were in households with low equivalised household incomes, 41% higher than the proportion of other children. Over a quarter of the adults in Māori households (around 8,000) lived in low income households, 12% higher than the percentage of other adults.

**Table 19: Households with no access to a motor vehicle, Auckland 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	1,689	12.4	(11.9, 13.0)	12,138	10.1	(9.9, 10.3)	<b>1.23</b> ( <b>1.17</b> , <b>1.29</b> )	2.3
2013	2,097	14.2	(13.6, 14.8)	14,424	11.2	(11.1, 11.4)	<b>1.26</b> ( <b>1.21</b> , <b>1.32</b> )	3.0
<b>People (% age-standardised)</b>								
2006	3,987	9.4	(9.2, 9.7)	20,169	5.0	(5.0, 5.1)	<b>1.87</b> ( <b>1.81</b> , <b>1.94</b> )	4.4
2013	4,941	10.6	(10.3, 10.9)	25,917	6.3	(6.2, 6.4)	<b>1.67</b> ( <b>1.62</b> , <b>1.73</b> )	4.3

Source: 2006 and 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, 14% of Māori households and 11% of non-Māori households had no motor vehicle. The proportion of Māori households without a vehicle increased between 2006 and 2013. Residents of Māori households were two-thirds more likely than residents of other 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, Auckland 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	5,973	11.7	(11.4, 12.1)	46,548	11.5	(11.4, 11.6)	1.02 (0.99, 1.05)	0.3
No telephone	11,757	25.0	(24.6, 25.4)	48,609	14.2	(14.0, 14.3)	<b>1.77</b> ( <b>1.73</b> , <b>1.80</b> )	10.9
No internet	9,777	21.1	(20.8, 21.6)	43,062	10.7	(10.6, 10.8)	<b>1.97</b> ( <b>1.93</b> , <b>2.02</b> )	10.4
No tele-communications	1,029	2.2	(2.0, 2.3)	3,702	1.0	(1.0, 1.1)	<b>2.08</b> ( <b>1.93</b> , <b>2.24</b> )	1.1

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.

% is age–sex-standardised to the 2001 Māori population.

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

In 2013, 21% of people in Māori households had no access to the internet, 25% did not have a telephone, 12% had no cell phone, and 2% had no access to any telecommunications in the home. The largest absolute gaps between Auckland Māori and non-Māori households were in access to a telephone and the internet.



## Housing

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

Housing problem (a big problem)	Auckland DHB			New Zealand	
	Estimated number	%	(95% CI)	%	(95% CI)
Too small	1,500**	4.5**	(0.9, 8.2)	5.3	(4.7, 5.9)
Damp	3,000*	9.0*	(5.0, 13.1)	11.3	(10.5, 12.2)
Hard to keep warm	4,500*	13.6*	(9.1, 18.1)	16.5	(15.4, 17.7)
Needs repairs	3,500**	10.6**	(4.9, 16.2)	13.8	(12.7, 14.9)
Pests in the house	500**	1.9**	(0.4, 3.4)	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%.

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

Housing problems reported by Auckland Māori adults to be a big problem in 2013 included difficulty keeping the house warm (14%), needing repairs (11%), and damp (9%). Around 5% felt their house was too small and 2% had a big problem with pests.

## Housing security

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

Measure	Māori households			Non-Māori households			Māori/non-Māori ratio (95% CI)	Difference in percentage	
	Number	%	(95% CI)	Number	%	(95% CI)			
Households	8,937	60.8	(60.0, 61.6)	52,263	41.1	(40.8, 41.3)	<b>1.48</b>	<b>(1.46, 1.50)</b>	19.7
Children under 18 years (% age- standardised)	7,419	60.3	(59.5, 61.2)	30,573	40.1	(39.8, 40.5)	<b>1.50</b>	<b>(1.48, 1.53)</b>	20.2
Adults 18 years and over (% age- standardised)	20,556	60.5	(60.0, 61.0)	111,624	45.6	(45.4, 45.8)	<b>1.33</b>	<b>(1.31, 1.34)</b>	14.9

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, 8,937 Māori households were rented, 61% of all Māori households, compared to 41% of non-Māori households.

Among children living in Māori households, 60% (over 7,400) were living in rented homes, compared to 40% (30,573 children) in non-Māori households.

Three-fifths (61%) of adults living in Māori households were living in rented accommodation (20,556), a third more than the proportion of adults living in non-Māori households (46%).

## Household crowding

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

Measure	Māori households			Non-Māori households			Māori/non-Māori ratio (95% CI)	Difference in percentage	
	Number	%	(95% CI)	Number	%	(95% CI)			
Households	1,914	12.9	(12.4, 13.5)	10,665	8.3	(8.1, 8.4)	<b>1.56</b>	<b>(1.49, 1.63)</b>	4.6
People (% age standardised)	9,939	23.2	(22.8, 23.6)	51,858	17.5	(17.4, 17.7)	<b>1.32</b>	<b>(1.30, 1.35)</b>	5.7

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, 13% of Māori households were classified as crowded using the Canadian National Occupancy Standard, with around 1900 homes needing at least one additional bedroom, affecting over 9,900 people. Residents of Māori households were a third more likely than other residents to be living in crowded conditions.

## Fuel poverty

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

Measure	Māori households			Non-Māori households			Māori/non-Māori ratio (95% CI)	Difference in percentage
	Number	%	(95% CI)	Number	%	(95% CI)		
Households	1,254	8.6	(8.1, 9.0)	9,012	7.1	(6.9, 7.2)	<b>1.21 (1.15, 1.28)</b>	1.5
People (% age standardised)	3,660	7.7	(7.5, 8.0)	24,009	7.0	(6.9, 7.1)	<b>1.10 (1.06, 1.14)</b>	0.7

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).

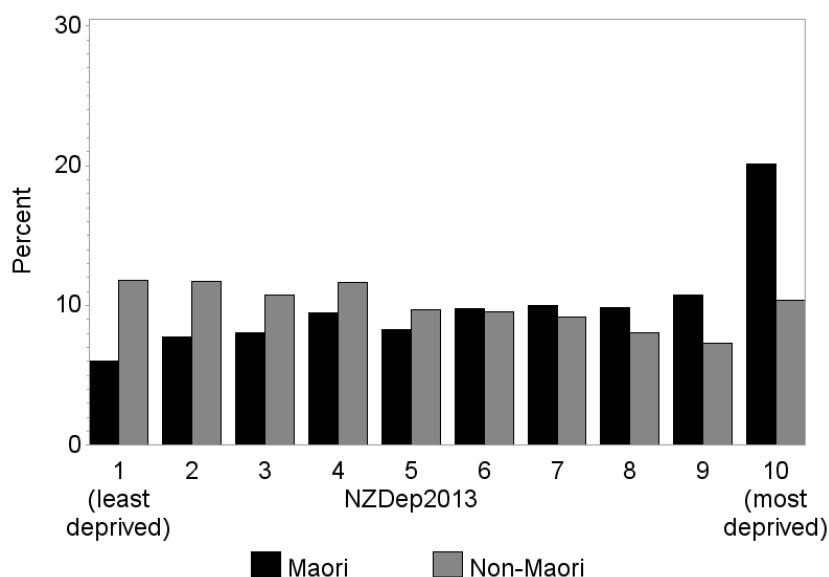
A Māori household is a household with at least one Māori resident. Non-Māori households have no Māori residents.

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

In 2013, 9% of Māori households (1,254 homes) had no heating, 21% more than the proportion of non-Māori households (9,012 homes).

## Area deprivation

**Figure 1: Distribution by NZDep 2013 decile, Auckland DHB, 2013**



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

Auckland Māori have a less deprived small area profile than the national population, although Māori are still over-represented in the most deprived neighbourhoods. In 2013, 20% of Māori lived in the most deprived decile areas (decile 10) compared to 10% of non-Māori. Non-Māori were more likely than Māori to live in the four least deprived decile areas (46% compared to 31%).



# 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, Auckland 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	56	6.1 (5.5, 6.9)	331	5.9 (5.6, 6.2)	1.04 (0.92, 1.18)	0.3
High birth-weight	20	2.2 (1.8, 2.7)	119	2.1 (1.9, 2.3)	1.05 (0.85, 1.29)	0.1
Preterm	76	8.3 (7.5, 9.1)	380	6.7 (6.5, 7.0)	<b>1.23 (1.11, 1.37)</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 916 Māori infants born per year on average, 14% of all live births in the DHB (6,545 per year). Fifty-six Māori babies per year were born with low birth-weight, 6% of Māori live births, and 20 per year (2%) with high birth-weight. Seventy-six Māori babies per year were born preterm, 8% of Māori live births, 23% higher than the non-Māori rate.

## Well child/Tamariki ora indicators

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

Indicator	Period	Māori	
		Count	%
1. Babies enrolled with a Primary Health Organisation (PHO) by three months old	20 Aug to 19 Nov 2013	80	47
11. Babies exclusively or fully breastfed at 2 weeks	January to June 2013	224	82
12. Babies exclusively or fully breastfed at 6 weeks		224	81
19. Mothers smoke-free two weeks postnatal	2012	213	82
5. Children under 5 years enrolled with oral health services (PHO enrolled children)		2670	59
7. Children starting school who have participated in ECE		2013	560

Source: Well Child/Tamariki Ora Quality 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 Quality 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, nearly half of Māori babies were enrolled with a PHO by three months of age. In the first half of 2013, just over 80% of Māori babies were breastfed at two weeks and six weeks of age. Eighty-two percent of Māori mothers were smoke-free two weeks after giving birth.

Among pre-school children enrolled with a PHO 59% of Māori children were enrolled with oral health services in 2012. Most (89%) Māori children who started school in 2013 had participated in early childhood education.

**Table 27: Children fully immunised by the milestone age, Auckland 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	519	69	4,471	85	0.81	-16
8 months	653	88	4,948	94	0.93	-7
12 months	701	94	5,080	96	0.98	-2
18 months	626	83	4,842	90	0.93	-6
24 months	727	94	5,337	95	0.99	-1
5 years	665	76	4,497	82	0.93	-5

Source: National Immunisation Register

In the 12 months up to 30 December 2014, 69% of Māori infants aged six months were fully immunised compared to 85% of non-Māori infants. At eight months, 88% of Māori children and 94% of non-Māori had completed their appropriate immunisations. At 24 months, 94% of Māori and 95% of non-Māori were fully immunised. At five years of age 76% of Māori children were fully immunised compared with 82% of non-Māori.

## Oral health

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

Age group	Māori			Non-Māori			Māori/non-Māori ratio % with caries (95% CI)	Difference in percentage
	Total	% with caries (95% CI)	Mean DMFT	Total	% with caries (95% CI)	Mean DMFT		
Age 5	449	49 (45, 54)	1.9	3,642	37 (35, 38)	1.6	<b>1.35 (1.21, 1.49)</b>	13
Year 8	557	52 (48, 56)	1.3	3,665	43 (41, 44)	1.0	<b>1.21 (1.11, 1.33)</b>	9

Source: Community Oral Health Service, Ministry of Health

Notes: DMFT is Decayed, missing or filled teeth

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

Half of Māori children aged five years in 2012 had caries, 35% higher than the proportion of non-Māori children. The mean number of decayed, missing or filled teeth was 1.9 for Māori compared to 1.6 for non-Māori.

Of those in Year 8 at school (aged around 12 years) half of Māori had caries, a fifth higher than the non-Māori proportion. The mean number of decayed, missing or filled teeth was 1.3 for Māori and 1.0 for non-Māori.

**Table 29: Hospitalisations for tooth and gum disease, children aged 0–14 years, Auckland 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	27	518.6	(417.3, 644.4)	176	495.3	(454.7, 539.5)	1.05 (0.83, 1.32)	23.3
Male	39	702.1	(584.8, 842.8)	198	528.4	(487.5, 572.8)	<b>1.33 (1.09, 1.62)</b>	173.6
Total	66	610.3	(530.6, 701.9)	374	511.9	(482.7, 542.8)	<b>1.19 (1.02, 1.39)</b>	98.4

Source: National Minimum Data Set (NMDS).

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

There were 66 hospital admissions per year on average for tooth and gum disease among Māori children, at a rate 19% higher than non-Māori, or 98 more admissions per 100,000.

## Middle ear disease

**Table 30: Hospitalisations for grommet insertions, children aged 0–14 years, Auckland 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	53	993.8	(850.6, 1,161.2)	182	507.2	(466.4, 551.7)	<b>1.96</b>	<b>(1.64, 2.34)</b>	486.6
Male	69	1,210.5	(1,055.4, 1,388.4)	260	682.6	(636.2, 732.3)	<b>1.77</b>	<b>(1.52, 2.07)</b>	527.9
Total	122	1,102.2	(994.4, 1,221.6)	442	594.9	(563.7, 627.9)	<b>1.85</b>	<b>(1.65, 2.08)</b>	507.3

Source: NMDS

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

On average, 122 Māori children per year were admitted for insertion of grommets for otitis media, at a rate 85% higher than non-Māori, or 507 more admissions per 100,000.

## Healthy skin

**Table 31: Hospitalisations for serious skin infections, children aged 0–14 years, Auckland 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	40	726.2	(606.2, 870.0)	161	445.7	(407.6, 487.4)	<b>1.63</b>	<b>(1.33, 1.99)</b>	280.5
Male	38	683.4	(568.4, 821.7)	191	505.2	(465.4, 548.4)	<b>1.35</b>	<b>(1.11, 1.66)</b>	178.2
Total	78	704.8	(619.5, 801.9)	351	475.5	(447.6, 505.1)	<b>1.48</b>	<b>(1.29, 1.71)</b>	229.4

Source: NMDS

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

There were 78 admissions per year on average for serious skin infections among Māori children in Auckland DHB, at a rate 48% higher than for non-Māori, or nearly 230 more admissions per 100,000.

## Acute rheumatic fever

**Table 32: Individuals admitted to hospital for acute rheumatic fever, ages 0–14 and 15–24 years, Auckland 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	<1	6.7	(0.9, 47.7)	3	9.7	(5.2, 18.0)	0.69	(0.09, 5.42)	-3.0
Male	2	32.4	(13.5, 77.8)	4	11.0	(6.2, 19.3)	<b>2.95</b>	<b>(1.04, 8.37)</b>	21.4
Total	2	19.6	(8.8, 43.5)	7	10.3	(6.8, 15.7)	1.89	(0.77, 4.67)	9.2
<b>15–24 years</b>									
Female	1	27.7	(8.8, 86.8)	1	3.7	(1.4, 10.1)	<b>7.47</b>	<b>(1.63, 34.23)</b>	24.0
Male	<1	8.1	(1.1, 57.5)	3	10.1	(5.2, 19.7)	0.80	(0.10, 6.35)	-2.0
Total	1	17.9	(6.7, 48.1)	4	6.9	(4.0, 12.1)	2.59	(0.83, 8.06)	11.0

Source: NMDS

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

On average, two Māori children under 15 years were admitted to hospital at least once with acute rheumatic fever, at a rate of 20 per 100,000. The rate for Māori boys was 3 times the rate for non-Māori boys.

Among young people aged 15–24 years, one Māori per year was admitted for acute rheumatic fever. The rate for young Māori women was 7.5 times the non-Māori rate, or 24 more admissions 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, Auckland 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	295	5,365.9	(5,022.5, 5,732.8)	1,658	4,554.3	(4,429.3, 4,682.8)	<b>1.18</b>	<b>(1.10, 1.27)</b>	811.6
Male	358	6,194.0	(5,833.0, 6,577.5)	1,995	5,189.7	(5,059.7, 5,323.0)	<b>1.19</b>	<b>(1.12, 1.27)</b>	1,004.4
Total	653	5,780.0	(5,528.5, 6,042.9)	3,653	4,872.0	(4,781.5, 4,964.2)	<b>1.19</b>	<b>(1.13, 1.25)</b>	908.0

Source: NMDS

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

On average, there were 653 potentially avoidable hospitalisations per year among Māori children aged 14 years and under, at a rate 19% higher than the non-Māori rate, or 908 more admissions per 100,000.

**Table 34: Ambulatory care sensitive hospitalisations for children aged 1 month to 14 years, Auckland 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	201	3,707.0	(3,421.1, 4,016.9)	1,140	3,158.0	(3,053.8, 3,265.8)	<b>1.17</b>	<b>(1.08, 1.28)</b>	549.0
Male	231	4,085.3	(3,791.2, 4,402.2)	1,293	3,392.0	(3,286.7, 3,500.6)	<b>1.20</b>	<b>(1.11, 1.31)</b>	693.3
Total	432	3,896.1	(3,688.7, 4,115.2)	2,433	3,275.0	(3,200.6, 3,351.2)	<b>1.19</b>	<b>(1.12, 1.26)</b>	621.1

Source: NMDS

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

On average there were 432 admissions per year for ambulatory care sensitive conditions among Māori children, at a rate 19% higher than that of non-Māori children, or 621 more admissions per 100,000 children.

# Mauri ora: Rangatahi

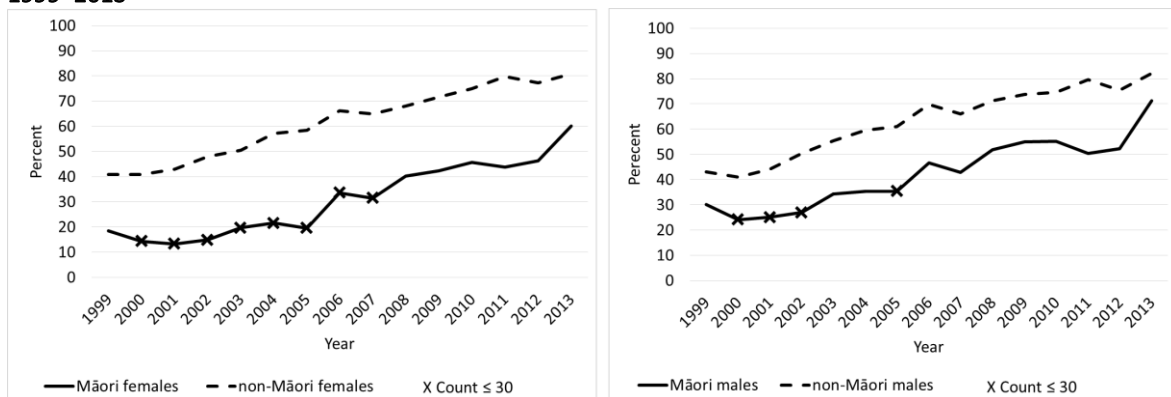
## – Young adults

This section presents data on smoking, immunisations, and self-harm as an indicator of mental health. Nationally, leading causes of hospitalisation among Māori aged 15 to 24 years include pregnancy and childbirth, injury, digestive system diseases, symptoms and signs (unknown causes), and mental disorders. Major causes of death for Māori in this age group include accidents, suicide, cancer, and homicide ([Robson and Harris 2007](#)).

Challenges faced by rangatahi Māori that can affect their health and wellbeing include socioeconomic factors, perceived positive school climate, access to healthcare, exposure to violence, and risky health behaviours including suicide attempts ([Crengle et al, 2013](#)). Other data related to youth can be found in the CYES reports on child and youth health. The [Child and Youth Health Compass](#) provides exemplars of youth specific services.

### Smoking

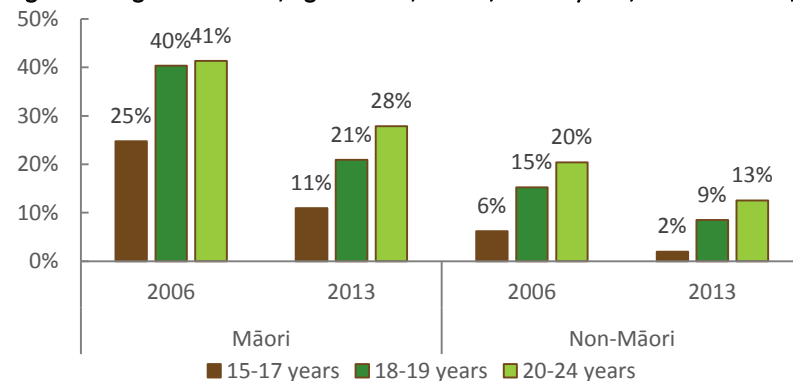
Figure 2: Trends in the proportion of students aged 14–15 years who have never smoked, by gender, Auckland DHB, 1999–2013



Source: ASH Year 10 Snapshot Survey, 2013

Over the last 15 years there has been a significant increase in the number of Māori aged 14 or 15 who have never smoked (Figure 2). In 2013, 61% had never smoked.

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



Source: 2013 Census, Statistics New Zealand

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

Smoking rates have decreased significantly among young Māori and non-Māori rangatahi in Auckland since 2006, and absolute gaps have reduced. However, smoking rates remain higher than those of non-Māori for all age groups. At ages 20–24 years, 28% of Māori were smoking regularly in 2013.

## Immunisations

**Table 35: Human papilloma virus immunisations (HPV) by birth cohorts, Auckland 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	187	69.3%	1,493	67.6%	1.03	1.7%
1999	15	2012	175	70.0%	1,405	65.0%	1.08	5.0%
1998	16	2011	177	63.2%	1,375	64.6%	0.98	-1.3%
1997	17	2010	177	61.0%	1,321	59.8%	1.02	1.3%

Source: National Immunisation Register.

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

Nearly 70% of Māori girls aged 14 in 2014 had completed all three doses of HPV vaccine by September 2014, similar to non-Māori in the DHB but a higher coverage than all New Zealand girls of the same age (57%). Sixty-one percent of Māori and non-Māori women aged 17 in 2014 were fully immunised similar to the rate of non-Māori (60%).

## Mental health

**Table 36: Hospitalisations for injury from intentional self-harm, 15–24 and 25–44 years, Auckland 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	29	781.1 (630.8, 967.2)		146	471.7 (428.6, 519.3)		<b>1.66 (1.31, 2.09)</b>	309.4
Male	13	352.2 (258.0, 480.9)		49	149.6 (126.8, 176.5)		<b>2.35 (1.66, 3.35)</b>	202.7
Total	42	566.7 (475.1, 675.9)		196	310.7 (285.9, 337.6)		<b>1.82 (1.50, 2.22)</b>	256.0
<b>25–44 years</b>								
Female	20	341.7 (264.6, 441.3)		118	169.7 (152.9, 188.4)		<b>2.01 (1.53, 2.65)</b>	172.0
Male	18	332.4 (253.8, 435.4)		72	110.7 (96.8, 126.5)		<b>3.00 (2.22, 4.06)</b>	221.7
Total	37	337.1 (279.9, 405.9)		190	140.2 (129.1, 152.2)		<b>2.40 (1.96, 2.95)</b>	196.9


Source: NMDS.

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

Among Māori aged 15–24 years, on average there were 42 admissions per year for injury from intentional self-harm, at a rate 82% higher than the rate of non-Māori, or 256 more admissions per 100,000. Females were admitted at a higher rate than males.

Among Māori aged 25–44 years there were 37 admissions per year on average, at a rate 2.4 times the non-Māori rate, or nearly 200 more admissions per 100,000.





# 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 Auckland can be found in the accompanying Excel® tables labelled 'Death registrations' and 'Hospitalisations by principal diagnosis'. For example, the hospitalisations table shows higher rates of admission for Māori than for non-Māori for thyroid disorders, epilepsy, atrial fibrillation, bronchiectasis, gastric ulcers, gallstones, pancreatitis, glomerular disease, renal failure, and head injuries.

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, Auckland DHB, 2013**

Health status	Auckland DHB			New Zealand	
	Estimated number	%	(95% CI)	%	(95% CI)
Excellent	6,500*	21.1*	(14.4, 27.8)	18.1	(16.8, 19.3)
Very good	13,500	43.4	(35.7, 51.1)	37.0	(35.5, 38.5)
Good	6,500*	20.8*	(14.2, 27.5)	28.5	(27.3, 29.7)
Fair / poor	4,500*	14.7*	(9.4, 20.0)	16.4	(15.3, 17.5)

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

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

Two-thirds of Auckland Māori adults (65%) reported having excellent or very good health and a fifth (21%) described their health as good. One in six (15%) reported having fair or poor health status.

### Smoking status

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

Smoking status	Māori			Non-Māori			Māori/non-Māori ratio (95% CI)	Difference in proportion
	Number	%	(95% CI)	Number	%	(95% CI)		
<b>2006</b>								
Regular smoker	7,368	36.6	(36.0, 37.3)	40,950	15.5	(15.4, 15.7)	<b>2.36</b> (2.31, 2.41)	21.1
Ex-smoker	3,894	19.2	(18.7, 19.8)	50,043	16.0	(15.8, 16.1)	<b>1.21</b> (1.17, 1.24)	3.3
Never smoked	8,670	44.0	(43.3, 44.7)	182,532	68.5	(68.3, 68.7)	<b>0.64</b> (0.63, 0.65)	-24.5
<b>2013</b>								
Regular smoker	5,706	26.2	(25.6, 26.8)	30,261	10.4	(10.3, 10.5)	<b>2.52</b> (2.46, 2.59)	15.8
Ex-smoker	4,851	21.6	(21.1, 22.1)	52,335	14.9	(14.8, 15.0)	<b>1.45</b> (1.41, 1.49)	6.7
Never smoked	11,097	52.3	(51.6, 52.9)	215,754	74.7	(74.5, 74.8)	<b>0.70</b> (0.69, 0.71)	-22.4

Source: 2006 and 2013 Census, Statistics New Zealand

Notes: % is age-standardised to the 2001 Māori population. Regular smokers smoke one or more cigarettes per day.

Between 2006 and 2013 the proportion of Māori adults who smoked cigarettes regularly decreased from 37% to 26%. There was a corresponding increase in those who had never smoked and an increase in ex-smokers. The absolute difference between Māori and non-Māori smoking rates decreased by nearly six percentage points. However, Māori in Auckland DHB remained around 2.5 times as likely as non-Māori to smoke regularly in 2013.

## Heart disease and stroke

**Table 39: Hospitalisations for circulatory system diseases, 25 years and over, Auckland 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	191	1,531.9	(1,409.1, 1,665.4)	2,287	784.9	(762.1, 808.4)	<b>1.95</b> ( <b>1.79</b> , <b>2.13</b> )	747.0
Male	222	2,063.6	(1,911.1, 2,228.2)	2,911	1,342.4	(1,311.3, 1,374.2)	<b>1.54</b> ( <b>1.42</b> , <b>1.67</b> )	721.2
Total	413	1,797.7	(1,698.7, 1,902.5)	5,198	1,063.7	(1,044.3, 1,083.4)	<b>1.69</b> ( <b>1.59</b> , <b>1.79</b> )	734.1

Source: NMDS

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

During 2011–2013, there were 413 hospital admissions per year among Māori for diseases of the circulatory system (including heart disease and stroke), at a rate 69% higher than non-Māori, or 734 more admissions per 100,000.

**Table 40: Ischaemic heart disease indicators, 25 years and over, Auckland 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	30	224.5	(182.2, 276.7)	427	126.4	(118.3, 135.1)	<b>1.78</b> ( <b>1.43</b> , <b>2.21</b> )	98.1
Male	44	397.9	(335.0, 472.5)	782	357.8	(342.5, 373.8)	1.11 (0.93, 1.33)	40.1
Total	74	311.2	(272.4, 355.6)	1210	242.1	(233.4, 251.1)	<b>1.29</b> ( <b>1.12</b> , <b>1.48</b> )	69.1
<b>Angiography procedures</b>								
Female	34	260.9	(214.2, 317.8)	370	149.9	(140.6, 160.0)	<b>1.74</b> ( <b>1.41</b> , <b>2.14</b> )	111.0
Male	46	415.6	(350.9, 492.1)	772	384.8	(368.5, 401.8)	1.08 (0.91, 1.29)	30.8
Total	79	338.2	(297.4, 384.7)	1142	267.4	(257.9, 277.2)	<b>1.27</b> ( <b>1.11</b> , <b>1.45</b> )	70.9
<b>Angioplasty procedures</b>								
Female	10	79.0	(55.4, 112.7)	101	37.0	(32.6, 42.0)	<b>2.14</b> ( <b>1.47</b> , <b>3.11</b> )	42.0
Male	16	151.7	(114.3, 201.4)	323	163.5	(152.9, 174.8)	0.93 (0.69, 1.24)	-11.8
Total	27	115.4	(92.4, 144.1)	424	100.3	(94.5, 106.4)	1.15 (0.91, 1.45)	15.1
<b>Coronary Artery Bypass Graft (CABG)</b>								
Female	3	20.8	(10.4, 41.7)	23	9.4	(7.3, 12.2)	<b>2.21</b> ( <b>1.05</b> , <b>4.63</b> )	11.4
Male	7	59.7	(38.5, 92.8)	106	51.3	(45.7, 57.5)	1.17 (0.74, 1.84)	8.5
Total	9	40.3	(27.7, 58.5)	129	30.4	(27.3, 33.7)	1.33 (0.90, 1.95)	9.9
<b>Acute coronary syndrome admissions</b>								
Female	20	148.4	(114.7, 192.1)	266	72.2	(66.2, 78.7)	<b>2.06</b> ( <b>1.57</b> , <b>2.70</b> )	76.2
Male	28	251.7	(202.6, 312.6)	466	212.7	(200.9, 225.3)	1.18 (0.95, 1.48)	38.9
Total	47	200.0	(169.3, 236.3)	732	142.5	(135.8, 149.5)	<b>1.40</b> ( <b>1.18</b> , <b>1.67</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, 74 Māori per year were admitted to hospital for ischaemic heart disease (IHD), at a rate 29% higher than non-Māori. Of those admitted for IHD, 47 Māori admissions per year were for acute coronary syndrome (ACS). Māori women had twice the risk of admission for ACS of non-Māori women (76 more admissions per 100,000). However, for both IHD and ACS admission rates were higher for men than for women.

There were 79 angiography procedures conducted for Māori patients per year on average, at a rate 27% higher than the non-Māori rate. On average, 27 Māori per year had angioplasty procedures, with the rate for Māori women

more than twice the non-Māori rate. Nine Māori per year had a CABG, with the rate for males more than double that of females. Māori women had twice the rate of CABG of non-Māori women.

**Table 41: Hospitalisations for heart failure, stroke, and hypertensive disease, 25 years and over, Auckland 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	26	192.9	(153.8, 241.9)	279	54.5	(49.8, 59.7)	<b>3.54</b>	<b>(2.77, 4.51)</b>	138.4	
Male	47	434.1	(367.4, 512.9)	327	103.8	(96.6, 111.6)	<b>4.18</b>	<b>(3.49, 5.01)</b>	330.3	
Total	72	313.5	(273.9, 358.8)	605	79.2	(74.8, 83.8)	<b>3.96</b>	<b>(3.42, 4.58)</b>	234.3	
<b>Stroke</b>										
Female	24	188.3	(149.1, 238.0)	358	101.4	(93.9, 109.5)	<b>1.86</b>	<b>(1.45, 2.38)</b>	86.9	
Male	15	141.4	(105.6, 189.2)	330	126.6	(117.9, 135.8)	1.12	(0.83, 1.51)	14.8	
Total	40	164.9	(137.3, 198.0)	687	114.0	(108.2, 120.1)	<b>1.45</b>	<b>(1.20, 1.75)</b>	50.9	
<b>Hypertensive disease</b>										
Female	7	58.1	(37.1, 91.1)	72	26.0	(22.1, 30.6)	<b>2.24</b>	<b>(1.39, 3.61)</b>	32.1	
Male	5	46.3	(27.2, 78.7)	44	23.1	(19.0, 28.0)	<b>2.01</b>	<b>(1.14, 3.53)</b>	23.2	
Total	11	52.2	(37.0, 73.6)	115	24.5	(21.7, 27.8)	<b>2.13</b>	<b>(1.48, 3.07)</b>	27.7	

Source: NMDS.

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

There were 72 admissions per year on average among Māori with heart failure, at 4 times the rate of non-Māori, or 234 more admissions per 100,000. Men were more likely to be admitted than women.

On average, 40 Māori per year were admitted for stroke. Māori women had nearly twice the risk of non-Māori women, or 87 more admissions per 100,000.

There were 11 Māori admissions per year on average for hypertensive disease, at a rate twice that of non-Māori, or 28 more admissions per 100,000.

**Table 42: Hospitalisations for chronic rheumatic heart disease and heart valve replacements, 25 years and over, Auckland 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	2	18.7	(8.3, 42.1)	19	9.0	(6.8, 12.0)	2.07	(0.87, 4.90)	9.6	
Male	2	20.4	(9.7, 42.8)	11	5.4	(3.7, 7.8)	<b>3.78</b>	<b>(1.65, 8.66)</b>	15.0	
Total	4	19.5	(11.3, 33.8)	30	7.2	(5.7, 9.0)	<b>2.71</b>	<b>(1.49, 4.91)</b>	12.3	
<b>Heart valve replacements</b>										
Female	1	11.9	(4.4, 32.2)	21	8.6	(6.5, 11.4)	1.39	(0.50, 3.90)	3.3	
Male	2	15.3	(6.3, 37.1)	41	18.3	(15.1, 22.2)	0.84	(0.34, 2.07)	-3.0	
Total	3	13.6	(7.0, 26.4)	62	13.5	(11.5, 15.8)	1.01	(0.51, 2.00)	0.2	

Source: NMDS.

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

Māori had 2.7 times the non-Māori rate of admission for chronic rheumatic heart disease (CRHD) but similar rates of heart valve replacement. On average, four Māori per year were admitted for CRHD and three had heart valves replaced.

**Table 43: Early deaths from circulatory system disease, Auckland 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	10	42.5	(32.3, 55.9)	48	12.2	(10.6, 14.0)	<b>3.49</b>	<b>(2.56, 4.74)</b>	30.3
Male	15	71.1	(56.6, 89.4)	123	33.1	(30.5, 35.9)	<b>2.15</b>	<b>(1.69, 2.74)</b>	38.1
Total	25	56.8	(47.6, 67.8)	171	22.6	(21.1, 24.3)	<b>2.51</b>	<b>(2.08, 3.04)</b>	34.2

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 25 Auckland Māori per year died early from circulatory system disease (including heart disease and stroke), at 2.5 times the rate of non-Māori, or 34 more deaths per 100,000. Males had higher mortality rates than females.

## Diabetes

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

Indicator	Māori		Non-Māori		Māori/non-Māori ratio		Difference in percentage
	Count	% (crude)	Count	% (crude)	Māori ratio	percentage	
Prevalence of diabetes (all ages)	1,783	4.9	23,914	5.6	0.88	-0.6	
People with diabetes regularly receiving metformin or insulin, 25+	856	48.0	12,432	52.0	0.92	-4.0	
People with diabetes having regular Hb1Ac monitoring, 25+	1,525	85.5	21,089	87.0	0.98	-1.4	
People with diabetes having regular screening for renal disease, 25+	1,206	67.6	16,399	68.6	0.99	-0.9	

Source: NZ Atlas of Healthcare Variation

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

Around 1,780 Māori were estimated to have diabetes in 2013, giving a crude prevalence of 5% (not adjusted for age). Half of Māori aged 25 years and over with diabetes (48%) were regularly receiving metformin or insulin. Most (86%) were having regular monitoring of blood glucose levels and two-thirds (68%) were being screened for renal disease.

**Table 45: Hospitalisations for lower limb amputations for people with concurrent diabetes, 15 years and over, Auckland DHB, 2011–2013**

Gender	Māori			Non-Māori			Māori/non-Māori ratio (95% CI)		Rate difference
	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Ave. no. per year	Age-standardised rate per 100,000 (95% CI)				
Female	2	9.1	(3.8, 21.9)	14	4.5	(3.2, 6.2)	2.04	(0.80, 5.23)	4.6
Male	3	20.6	(10.7, 39.7)	26	8.9	(7.0, 11.3)	<b>2.31</b>	<b>(1.15, 4.65)</b>	11.7
Total	5	14.8	(8.7, 25.2)	40	6.7	(5.5, 8.1)	<b>2.22</b>	<b>(1.26, 3.90)</b>	8.2

Source: NMDS

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

On average five Māori per year with diabetes had lower limbs amputated, at a rate 2.2 times that of non-Māori.

# Cancer

**Table 46: Most common cancer registrations for Māori by site, all ages, Auckland 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	58	235.4	(209.5, 264.5)	830	189.6	(183.1, 196.4)	<b>1.24</b>	<b>(1.10, 1.40)</b>		45.8
Breast	19	78.5	(64.1, 96.1)	258	64.9	(61.2, 68.8)	1.21	(0.98, 1.49)		13.6
Lung	10	39.1	(29.7, 51.6)	61	10.2	(9.0, 11.6)	<b>3.82</b>	<b>(2.82, 5.18)</b>		28.9
Uterus	4	17.8	(11.5, 27.4)	47	11.4	(10.0, 13.1)	1.55	(0.99, 2.45)		6.3
Colorectal	3	11.3	(6.6, 19.1)	100	16.5	(14.9, 18.3)	0.68	(0.40, 1.17)		-5.3
<b>Male</b>										
All cancers	50	232.4	(205.0, 263.4)	822	185.7	(179.4, 192.3)	<b>1.25</b>	<b>(1.10, 1.42)</b>		46.6
Lung	9	41.1	(30.8, 55.0)	78	14.3	(12.8, 15.9)	<b>2.89</b>	<b>(2.12, 3.93)</b>		26.9
Prostate	9	39.9	(29.6, 53.8)	217	45.6	(42.9, 48.6)	0.87	(0.64, 1.19)		-5.7
Colorectal	5	25.1	(17.0, 36.9)	104	20.6	(18.7, 22.6)	1.22	(0.82, 1.81)		4.5
Liver	4	16.8	(10.7, 26.4)	24	5.7	(4.6, 7.0)	<b>2.97</b>	<b>(1.81, 4.87)</b>		11.2

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 58 cancer registrations per year on average among Māori females, at a rate 24% higher than non-Māori. The most common cancers registered for Māori females were breast (33% of all cancers), lung, uterine, and colorectal cancer. Registration rates were higher for Māori than non-Māori women for cancer of the lung (3.8 times as high).

Among Māori males there were 50 cancer registrations per year on average, at a rate 25% higher than non-Māori. Lung (18% of all cancers), prostate (also 18% of all cancers), colorectal, and liver cancer were the most common cancers registered for Māori males. Compared to non-Māori males, rates were higher for Māori for lung cancer (close to 3 times as high), liver cancer (3 times as high).

**Table 47: Most common cancer deaths for Māori by site, all ages, Auckland 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 cancers	24	95.4	(79.6, 114.4)	310	51.0	(47.9, 54.3)	<b>1.87</b>	<b>(1.55, 2.27)</b>		44.5
Lung	8	33.2	(24.4, 45.1)	49	7.7	(6.6, 8.9)	<b>4.33</b>	<b>(3.08, 6.07)</b>		25.5
Digestive organs	5	21.5	(14.7, 31.6)	85	11.4	(10.1, 12.8)	<b>1.89</b>	<b>(1.27, 2.82)</b>		10.1
Breast	4	14.3	(9.0, 22.8)	48	9.8	(8.5, 11.4)	1.45	(0.89, 2.36)		4.5
Genital organs	2	6.5	(3.2, 13.2)	38	7.3	(6.2, 8.6)	0.90	(0.44, 1.84)		-0.8
<b>Male</b>										
All cancers	22	105.3	(87.2, 127.1)	319	59.0	(55.7, 62.4)	<b>1.78</b>	<b>(1.47, 2.17)</b>		46.3
Lung	8	36.0	(26.2, 49.5)	61	11.0	(9.7, 12.4)	<b>3.27</b>	<b>(2.32, 4.60)</b>		25.0
Digestive organs	7	31.9	(22.6, 45.0)	106	20.4	(18.6, 22.4)	<b>1.56</b>	<b>(1.10, 2.23)</b>		11.5
Prostate	1	7.0	(3.3, 14.7)	34	4.6	(3.9, 5.5)	1.51	(0.71, 3.24)		2.4

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 34% of all deaths, with a rate 87% higher than that of non-Māori during 2007–2011. Lung cancer was the most common cause of cancer death, with a rate 4.3 times as high as for non-Māori. Cancers of the digestive organs (mainly colorectal, stomach, pancreas) were the next leading causes

of cancer death. Mortality rates for stomach and pancreatic cancers were higher for Māori than for non-Māori women (see accompanying Excel tables). Breast cancer and cancers of the genital organs were the next most common causes of cancer death for Māori women.

For Māori males, cancer deaths accounted for 30% of all deaths, with a rate 78% higher than that of non-Māori males. Lung cancer was the most common cause of cancer death at a rate 3.3 times the non-Māori rate. The next most common were cancers of the digestive organs (mainly liver and colorectal), and prostate cancer. Mortality rates for liver cancer were 3.4 times as high for Māori as for non-Māori men.

## Breast and cervical cancer screening

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

Māori			Non-Māori		
Number screened	Eligible population	% screened	Number screened	Eligible population	% screened
2,846	4,400	64.7%	41,715	60,540	68.9%

Source: National Screening Unit, Ministry of Health

BreastScreen Aotearoa provides free mammography screening for breast cancer to women aged 45 to 69 years, with a target of at least 70% of eligible women screened every two years. During the two years to the end of 2014, 65% of Māori women and 69% of non-Māori women in Auckland DHB had been screened.

**Table 49: Cervical screening coverage, women aged 25–69 years, Auckland DHB, 3 years and 5 years to 31 December 2014**

Māori					Non-Māori				
Eligible population	Women screened in		Women screened in		Eligible population	Women screened in		Women screened in	
	last 5 years	5-year coverage %	last 3 years	3-year coverage %		last 5 years	5-year coverage %	last 3 years	3-year coverage %
9,357	6,682	71.4%	5,246	56.1%	120,240	115,292	95.9%	97,003	80.7%

Source: National Screening Unit, Ministry of Health

Note: Population is adjusted for hysterectomy.

Among women aged 25 to 69 years, 71% of Māori women and 96% of non-Māori women had had a cervical smear test during the five years prior to 31 December 2014. The three-year cervical screening coverage was 56% for Māori women and 81% 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, Auckland 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	39	726.9	(605.8, 872.1)	165	457.7	(419.0, 499.9)	<b>1.59</b>	<b>(1.30, 1.94)</b>	269.2	
Male	44	789.2	(665.4, 936.1)	233	614.2	(570.3, 661.5)	<b>1.28</b>	<b>(1.07, 1.55)</b>	175.0	
Total	83	758.0	(669.3, 858.6)	398	535.9	(506.3, 567.3)	<b>1.41</b>	<b>(1.23, 1.62)</b>	222.1	
<b>15–34 years</b>										
Female	30	434.8	(352.6, 536.0)	81	114.1	(100.3, 129.8)	<b>3.81</b>	<b>(2.98, 4.87)</b>	320.7	
Male	10	157.2	(109.7, 225.4)	55	79.9	(68.4, 93.4)	<b>1.97</b>	<b>(1.33, 2.91)</b>	77.3	
Total	40	296.0	(247.0, 354.8)	136	97.0	(87.8, 107.1)	<b>3.05</b>	<b>(2.48, 3.75)</b>	199.0	
<b>35–64 years</b>										
Female	36	557.7	(460.0, 676.1)	112	133.6	(119.6, 149.1)	<b>4.18</b>	<b>(3.34, 5.21)</b>	424.1	
Male	15	269.7	(201.4, 361.1)	54	69.8	(59.4, 81.9)	<b>3.87</b>	<b>(2.77, 5.39)</b>	199.9	
Total	51	413.7	(352.2, 485.9)	166	101.7	(92.8, 111.4)	<b>4.07</b>	<b>(3.38, 4.90)</b>	312.0	
<b>65 years and over</b>										
Female	2	218.1	(97.8, 486.7)	37	153.8	(125.7, 188.3)	1.42	(0.62, 3.24)	64.3	
Male	1	90.5	(22.3, 366.6)	14	72.5	(53.0, 99.2)	1.25	(0.30, 5.23)	18.0	
Total	3	154.3	(76.6, 310.8)	51	113.2	(95.5, 134.2)	1.36	(0.66, 2.80)	41.1	

Source: NMDS.

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

During 2011–2013, there were 83 admissions for asthma per year among Māori children aged 0–14 years, at a rate 41% higher than that of non-Māori children, or 222 more admissions per 100,000. Among Māori adults aged 15–34 and 35–64 years, the rates of admission were respectively 3 and 4 times the rates of non-Māori. Among older Māori aged 65 years and over there was an average of three admissions per year.

Table 51: Hospitalisations for chronic obstructive pulmonary disease (COPD), 45 years and over, Auckland 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	61	1,292.8	(1,117.4, 1,495.8)	331	280.2	(260.9, 300.9)	<b>4.61</b>	<b>(3.92, 5.43)</b>	1,012.6
Male	59	1,435.2	(1,238.5, 1,663.1)	388	393.0	(369.4, 418.2)	<b>3.65</b>	<b>(3.11, 4.28)</b>	1,042.2
Total	120	1,364.0	(1,229.4, 1,513.3)	719	336.6	(321.2, 352.7)	<b>4.05</b>	<b>(3.62, 4.54)</b>	1,027.4

Source: NMDS.

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

There were 120 hospitalisations per year on average for Māori with COPD, at a rate 4 times that of non-Māori, or over 1,000 more admissions per 100,000.

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

Gender	Māori			Non-Māori			Māori/non-Māori ratio (95% CI)	Rate difference	
	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Ave. no. per year	Age-standardised rate per 100,000 (95% CI)				
Female	7	28.9	(20.7, 40.3)	16	4.3	(3.4, 5.5)	<b>6.74</b>	<b>(4.47, 10.17)</b>	24.6
Male	3	13.1	(7.7, 22.2)	22	5.8	(4.8, 7.2)	<b>2.24</b>	<b>(1.28, 3.94)</b>	7.3
Total	10	21.0	(15.8, 27.8)	39	5.1	(4.3, 5.9)	<b>4.15</b>	<b>(3.01, 5.72)</b>	15.9

Source: Mortality data, Ministry of Health

Notes: “Early deaths” defined as those occurring under 75 years of age.

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

On average, 10 Auckland Māori per year died early from respiratory disease (seven of these were female), at a rate 4 times that of non-Māori, or 16 more deaths per 100,000.

## Mental disorders

**Table 53: Hospitalisations for mental disorders, all ages, Auckland 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	107	488.8 (437.3, 546.5)		706	257.9 (245.1, 271.4)		<b>1.90 (1.68, 2.14)</b>	230.9
Schizophrenia	41	183.8 (153.7, 219.7)		143	49.1 (44.4, 54.4)		<b>3.74 (3.04, 4.59)</b>	134.6
Mood (affective)	20	90.2 (69.9, 116.4)		118	41.1 (36.5, 46.3)		<b>2.20 (1.66, 2.91)</b>	49.1
—Bipolar	16	69.2 (51.9, 92.2)		52	18.1 (15.3, 21.4)		<b>3.82 (2.73, 5.32)</b>	51.0
—Depressive episode	2	9.3 (4.2, 20.8)		49	18.0 (14.9, 21.8)		0.52 (0.23, 1.18)	-8.7
Substance use	27	122.7 (98.2, 153.3)		147	64.7 (58.4, 71.7)		<b>1.90 (1.48, 2.42)</b>	58.0
—Alcohol	22	100.8 (78.8, 128.9)		130	57.3 (51.3, 63.9)		<b>1.76 (1.35, 2.30)</b>	43.6
Anxiety, stress-related	10	46.6 (32.0, 67.9)		127	45.7 (40.4, 51.6)		1.02 (0.69, 1.52)	0.9
<b>Male</b>								
All disorders	145	724.6 (658.7, 797.1)		814	305.4 (292.2, 319.1)		<b>2.37 (2.14, 2.64)</b>	419.2
Schizophrenia	71	356.5 (311.4, 408.2)		227	90.2 (83.4, 97.5)		<b>3.95 (3.38, 4.62)</b>	266.3
Mood (affective)	15	74.2 (55.4, 99.5)		104	35.5 (31.5, 40.0)		<b>2.09 (1.52, 2.87)</b>	38.7
—Bipolar	11	54.4 (38.7, 76.5)		52	18.6 (15.7, 21.9)		<b>2.93 (2.00, 4.29)</b>	35.8
—Depressive episode	2	11.9 (5.6, 25.1)		41	13.6 (11.3, 16.5)		0.87 (0.40, 1.88)	-1.7
Substance use	39	191.4 (159.2, 230.2)		289	112.7 (105.0, 121.1)		<b>1.70 (1.39, 2.07)</b>	78.7
—Alcohol	28	138.4 (111.4, 171.8)		251	95.8 (88.6, 103.4)		<b>1.44 (1.15, 1.82)</b>	42.6
Anxiety, stress-related	9	40.4 (27.4, 59.5)		77	28.6 (24.8, 33.1)		1.41 (0.93, 2.13)	11.7
<b>Total</b>								
All disorders	252	606.7 (564.3, 652.3)		1520	281.7 (272.4, 291.2)		<b>2.15 (1.99, 2.33)</b>	325.1
Schizophrenia	113	270.2 (242.5, 301.0)		370	69.7 (65.5, 74.1)		<b>3.88 (3.42, 4.39)</b>	200.5
Mood (affective)	36	82.2 (67.8, 99.7)		222	38.3 (35.2, 41.7)		<b>2.15 (1.74, 2.65)</b>	43.9
—Bipolar	27	61.8 (49.6, 77.0)		103	18.3 (16.3, 20.7)		<b>3.37 (2.62, 4.33)</b>	43.4
—Depressive episode	4	10.6 (6.1, 18.3)		90	15.8 (13.8, 18.1)		0.67 (0.38, 1.18)	-5.2
Substance use	65	157.0 (136.2, 181.0)		436	88.7 (83.6, 94.1)		<b>1.77 (1.52, 2.06)</b>	68.3
—Alcohol	50	119.6 (101.6, 140.7)		380	76.5 (71.8, 81.5)		<b>1.56 (1.31, 1.86)</b>	43.1
Anxiety, stress-related	18	43.5 (33.2, 57.0)		204	37.1 (33.8, 40.8)		1.17 (0.88, 1.56)	6.3

Source: NMDS

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

Māori had just over twice the rate of admission for mental disorders of non-Māori.

Among Māori females, the most common cause of admission was schizophrenia related disorders, with 41 admissions per year on average, at a rate 3.7 times the non-Māori rate. Substance use disorders were the second most common cause of admission with a rate 90% higher than for non-Māori. Māori women also had twice the rate of admission for mood disorders.



Among Māori males, the overall admission rate was 2.4 times the non-Māori rate. Admissions for schizophrenia type disorders were the most common, at a rate nearly 4 times the non-Māori rate. The second most common cause of admission was for substance use disorders (mostly alcohol), with a rate 70% higher than that of non-Māori. Mood disorders were the third leading cause of admission with the rate of admission for bipolar disorders 3 times the non-Māori rate.

## Gout

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

Indicator	Māori		Non-Māori		Māori/non-Māori ratio	Difference in percentage
	Count	%	Count	%		
Gout prevalence	1,397	6.2	9,699	3.2	1.91	2.9
People with gout who received allopurinol regularly	475	34.0	3,203	33.0	1.03	1.0
Colchicine use by people with gout not dispensed allopurinol	148	10.6	921	9.5	1.12	1.1
NSAID use by people with gout	662	47.4	4,217	43.5	1.09	3.9
Serum urate test within six months following allopurinol dispensing	322	41.4	2,194	42.4	0.98	-1.0

Source: NZ Atlas of Healthcare Variation, Ministry of Health.

Notes: Denominator is people in contact with health services (using Health Tracker). Prevalence may be underestimated by up to 20%. Prevalence rates are not age adjusted.

Around 1,400 Māori aged 20–79 years were estimated to have gout in 2011, giving a crude prevalence of 6%, compared to a crude prevalence of 3% in non-Māori. A third of Māori with gout regularly received allopurinol, a preventive therapy to lower urate levels. Of those who received allopurinol (for gout or other reasons) 41% had a lab test for serum urate levels within the following six months. Forty-seven percent of Māori with gout used non-steroid anti-inflammatory medication.

**Table 55: Hospitalisations for gout, 25 years and over, Auckland DHB, 2011–2013**

Gender	Māori			Non-Māori			Māori/non-Māori ratio (95% CI)	Rate difference
	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Ave. no. per year	Age-standardised rate per 100,000 (95% CI)			
Female	6	46.7 (29.7, 73.4)		26	10.1 (7.8, 13.0)		<b>4.64 (2.76, 7.80)</b>	36.6
Male	26	266.6 (213.2, 333.4)		132	75.0 (67.4, 83.6)		<b>3.55 (2.77, 4.55)</b>	191.6
Total	33	156.7 (128.0, 191.7)		157	42.6 (38.5, 47.0)		<b>3.68 (2.94, 4.61)</b>	114.1

Source: NMDS

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

There were 33 hospital admissions for gout per year on average among Māori during 2011–2013, much more frequent among males than females. The rate of admission for Māori was 3.7 times that of non-Māori, or 114 more admissions per 100,000.

## Hip fractures

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

Gender	Māori			Non-Māori			Māori/non-Māori ratio (95% CI)	Rate difference
	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Ave. no. per year	Age-standardised rate per 100,000 (95% CI)			
Female	2	181.4 (80.4, 408.9)		203	403.1 (365.1, 445.1)		0.45 (0.20, 1.02)	-221.7
Male	2	222.2 (92.1, 536.0)		74	232.0 (200.5, 268.5)		0.96 (0.39, 2.34)	-9.8
Total	4	201.8 (110.0, 370.3)		277	317.6 (292.4, 344.9)		0.64 (0.34, 1.17)	-115.8

Source: NMDS

On average, four Māori aged 65 years and over were admitted to hospital per year for hip fractures, at a rate of 202 per 100,000.

## Elective surgery

**Table 57: Hospitalisations for hip replacements, 50 years and over, Auckland 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	9	253.3	(172.3, 372.6)	106	136.6	(121.0, 154.2)	<b>1.85</b>	<b>(1.24, 2.78)</b>	116.7
Male	9	313.5	(216.2, 454.5)	94	152.0	(134.5, 171.6)	<b>2.06</b>	<b>(1.40, 3.05)</b>	161.5
Total	18	283.4	(216.7, 370.6)	200	144.3	(132.4, 157.2)	<b>1.96</b>	<b>(1.48, 2.60)</b>	139.1

Source: NMDS

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

On average, 18 Māori per year were admitted to hospital for a hip replacement, at twice the rate of non-Māori, or almost 140 more admissions.

**Table 58: Publicly funded hospitalisations for cataract surgery, 45 years and over, Auckland 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	47	937.8	(793.5, 1108.4)	690	593.8	(565.7, 623.4)	<b>1.58</b>	<b>(1.33, 1.88)</b>	344.0
Male	29	704.7	(570.1, 871.2)	505	521.5	(494.0, 550.6)	<b>1.35</b>	<b>(1.09, 1.68)</b>	183.2
Total	75	821.3	(719.8, 937.0)	1195	557.7	(537.9, 578.2)	<b>1.47</b>	<b>(1.28, 1.69)</b>	263.6

Source: NMDS

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

Each year on average 75 Māori aged 45 years and over were admitted to hospital for cataract surgery. The rate for Māori was around 50% higher than the rate for non-Māori, or 264 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 (including Auckland, Waitemata, and Counties Manukau DHBs).

## Hospitalisations

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

Gender	Māori		Non-Māori		Māori/non-Māori ratio (95% CI)	Rate difference
	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		
Female	4,962	24,040.6 (23,644.2, 24,443.6)	44,675	18,897.7 (18,774.0, 19,022.3)	<b>1.27 (1.25, 1.30)</b>	5,142.8
Male	3,704	19,361.6 (18,997.0, 19,733.3)	35,322	16,059.7 (15,942.1, 16,178.3)	<b>1.21 (1.18, 1.23)</b>	3,301.9
Total	8,665	21,701.1 (21,431.1, 21,974.5)	79,997	17,478.7 (17,393.3, 17,564.6)	<b>1.24 (1.22, 1.26)</b>	4,222.4

Source: NMDS

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

On average, there were 8,665 Māori hospitalisations per year and nearly 80,000 non-Māori admissions. All-cause admission rates were 24% higher for Māori than non-Māori, or approximately 4,200 more admissions per 100,000.

Data on hospitalisations by principal diagnosis can be found in the accompanying Excel tables.

## Potentially avoidable hospitalisations

**Table 60: Potentially avoidable hospitalisations, 0–74 years, Auckland 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	1,252	6,260.4 (6,055.9, 6,471.8)	7,464	3,780.7 (3,722.7, 3,839.7)	<b>1.66 (1.60, 1.72)</b>	2,479.7
Male	1,061	5,604.8 (5,409.0, 5,807.7)	7,870	3,941.0 (3,882.5, 4,000.3)	<b>1.42 (1.37, 1.48)</b>	1,663.8
Total	2,313	5,932.6 (5,790.3, 6,078.4)	15,334	3,860.9 (3,819.6, 3,902.6)	<b>1.54 (1.50, 1.58)</b>	2,071.8

Source: NMDS

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

More than 2,300 Māori hospital admissions per year were potentially avoidable through population based prevention strategies, with a rate 54% higher than for non-Māori, or 2,072 more admissions per 100,000. Māori females had a higher rate of admission than Māori males.

**Table 61: Ambulatory care sensitive hospitalisations, 0–74 years, Auckland 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	599	2,875.3 (2,740.6, 3,016.6)	3,539	1,570.6 (1,534.9, 1,607.0)	<b>1.83 (1.74, 1.93)</b>	1,304.7
Male	516	2,622.8 (2,492.2, 2,760.2)	3,791	1,659.3 (1,623.4, 1,696.1)	<b>1.58 (1.50, 1.67)</b>	963.5
Total	1,116	2,743.1 (2,648.8, 2,840.8)	7,330	1,611.4 (1,586.1, 1,637.2)	<b>1.70 (1.64, 1.77)</b>	1,131.7

Source: NMDS

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

On average, there were 1,116 ambulatory care sensitive hospitalisations per year among Māori, at a rate 70% higher than the non-Māori rate, or 1,132 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 residents of Auckland, Counties Manukau, 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 years of expected 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 for 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, Auckland 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	70	293.3	(271.8, 316.5)	1,203	139.9	(135.9, 144.0)	<b>2.10 (1.93, 2.27)</b>	153.4
Male	72	378.8	(351.9, 407.7)	1,061	204.4	(199.5, 209.4)	<b>1.85 (1.72, 2.00)</b>	174.4
Total	142	336.0	(318.6, 354.4)	2,264	172.1	(169.0, 175.4)	<b>1.95 (1.85, 2.07)</b>	163.9

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 142 Māori deaths per year on average during 2008–2012. The Māori mortality rate was twice the non-Māori rate, or 164 more deaths per 100,000.

**Table 64: Leading causes of death for Māori, all ages, Auckland 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	9	31.6	(23.5, 42.5)	214	13.4	(12.3, 14.6)	<b>2.36 (1.73, 3.21)</b>	18.2
Lung cancer	8	33.2	(24.4, 45.1)	49	7.7	(6.6, 8.9)	<b>4.33 (3.08, 6.07)</b>	25.5
COPD	5	21.6	(14.8, 31.6)	50	4.9	(4.1, 5.7)	<b>4.45 (2.95, 6.73)</b>	16.8
Breast cancer	4	14.3	(9.0, 22.8)	48	9.8	(8.5, 11.4)	1.45 (0.89, 2.36)	4.5
Accidents	3	15.4	(9.3, 25.4)	36	6.0	(4.8, 7.5)	<b>2.57 (1.49, 4.46)</b>	9.4
<b>Male</b>								
IHD	11	54.6	(41.9, 71.1)	204	31.9	(29.7, 34.2)	<b>1.71 (1.30, 2.25)</b>	22.7
Lung cancer	8	36.0	(26.2, 49.5)	61	11.0	(9.7, 12.4)	<b>3.27 (2.32, 4.60)</b>	25.0
Accidents	6	32.2	(22.7, 45.6)	45	13.3	(11.3, 15.6)	<b>2.43 (1.65, 3.57)</b>	18.9
Diabetes	4	18.7	(12.1, 29.1)	35	6.1	(5.2, 7.2)	<b>3.06 (1.92, 4.89)</b>	12.6
COPD	4	18.6	(11.8, 29.3)	57	7.4	(6.5, 8.5)	<b>2.51 (1.56, 4.02)</b>	11.2
<b>Total</b>								
IHD	20	43.1	(35.3, 52.6)	418	22.6	(21.4, 23.9)	<b>1.90 (1.55, 2.34)</b>	20.5
Lung cancer	16	34.6	(27.7, 43.2)	110	9.3	(8.5, 10.3)	<b>3.70 (2.91, 4.71)</b>	25.2
Accidents	10	23.8	(17.9, 31.7)	81	9.6	(8.4, 11.0)	<b>2.47 (1.80, 3.39)</b>	14.2
COPD	9	20.1	(15.0, 27.0)	107	6.1	(5.5, 6.8)	<b>3.28 (2.40, 4.47)</b>	14.0
Diabetes	7	14.9	(10.7, 20.9)	66	4.9	(4.4, 5.6)	<b>3.03 (2.12, 4.34)</b>	10.0

Source: Mortality dataset, Ministry of Health.

Note: IHD is ischaemic heart disease, COPD is chronic obstructive pulmonary disease.

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

The leading causes of death for Māori women were IHD, lung cancer, COPD, breast cancer, and accidents. Apart from breast cancer, Māori mortality rates ranged between 2.4 to 4.5 times as high as non-Māori rates for these conditions.

For Māori men, the leading causes of death were IHD, lung cancer, accidents, diabetes, and COPD. Māori men's mortality rates were 1.7 to 3.3 times as high as non-Māori rates for these causes.

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

## Potentially avoidable mortality

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

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

**Table 65: Potentially avoidable mortality, 0–74 years, Auckland 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	41	180.6	(157.2, 207.5)	218	66.0	(61.6, 70.6)	<b>2.74</b> ( <b>2.35, 3.20</b> )	114.6
Male	47	230.5	(202.6, 262.2)	330	100.7	(95.5, 106.2)	<b>2.29</b> ( <b>1.99, 2.63</b> )	129.8
Total	88	205.5	(187.0, 225.9)	549	83.3	(79.9, 86.9)	<b>2.47</b> ( <b>2.22, 2.74</b> )	122.2

Source: Mortality, Ministry of Health

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

There were 88 potentially avoidable Māori deaths per year, at a rate 2.5 times the non-Māori rate, or 122 more deaths per 100,000.

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

Gender	Māori			Non-Māori			Māori/non-Māori ratio (95% CI)	Rate difference
	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Ave. no. per year	Age-standardised rate per 100,000 (95% CI)			
Female	28	122.5	(103.5, 144.9)	140	42.3	(38.8, 46.1)	<b>2.90</b> ( <b>2.40, 3.50</b> )	80.2
Male	30	149.6	(127.4, 175.7)	224	67.6	(63.4, 72.1)	<b>2.21</b> ( <b>1.86, 2.63</b> )	82.0
Total	58	136.0	(121.1, 152.8)	364	55.0	(52.2, 57.9)	<b>2.48</b> ( <b>2.18, 2.81</b> )	81.1

Source: Mortality, Ministry of Health

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

The amenable mortality rate was 2.5 times the non-Māori rate, or 81 more deaths per 100,000. There were 58 Māori deaths per year on average from conditions amenable to health care.

## Injuries

A table on the causes of hospital admissions for injuries can be found in the accompanying Excel tables. Leading causes of injury among Auckland Māori were falls, exposure to mechanical forces, complications of surgical and medical care, assault, transport accidents, and intentional self-harm.

**Table 67: Hospitalisations for injuries, all ages, Tairāwhiti 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	529	2,637.1	(2,505.5, 2,775.6)	4,651	1,782.9	(1,744.7, 1,821.9)	<b>1.48</b>	<b>(1.40, 1.56)</b>	854.2
Male	693	3,641.9	(3,485.5, 3,805.4)	5,660	2,602.5	(2,556.7, 2,649.2)	<b>1.40</b>	<b>(1.33, 1.47)</b>	1,039.4
Total	1,222	3,139.5	(3,036.6, 3,245.9)	10,310	2,192.7	(2,162.8, 2,223.0)	<b>1.43</b>	<b>(1.38, 1.48)</b>	946.8

Source: NMDS

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

On average there were 1,222 hospitalisations for injury among Māori with 947 more admissions than non-Māori per 100,000. Rates were almost 43% higher for Māori than for non-Māori. Males had higher rates of admission for injury than females.

**Table 68: Hospitalisations for assault, all ages, Auckland 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	60	284.9	(245.3, 330.9)	99	42.7	(37.7, 48.3)	<b>6.68</b>	<b>(5.50, 8.10)</b>	242.2
Male	108	548.1	(490.9, 611.9)	402	177.6	(167.4, 188.5)	<b>3.09</b>	<b>(2.72, 3.50)</b>	370.5
Total	168	416.5	(381.1, 455.2)	501	110.2	(104.4, 116.2)	<b>3.78</b>	<b>(3.41, 4.19)</b>	306.3

Source: NMDS

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

On average 168 Māori per year were admitted to hospital for injury caused by assault, at a rate 3.8 times that of non-Māori, or 306 more admissions per 100,000. The rate for Māori women was around 6.7 times the rate for non-Māori women. Males had higher admission rates than females.

**Table 69: Deaths from injury, all ages, Auckland 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	6	30.0	(20.8, 43.2)	48	10.3	(8.6, 12.3)	<b>2.91</b>	<b>(1.94, 4.37)</b>	19.7
Male	12	59.4	(45.9, 77.0)	76	25.8	(22.9, 28.9)	<b>2.31</b>	<b>(1.74, 3.07)</b>	33.7
Total	18	44.7	(36.2, 55.2)	124	18.0	(16.4, 19.9)	<b>2.48</b>	<b>(1.96, 3.13)</b>	26.7

Source: Mortality dataset, Ministry of Health.

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

On average 18 Auckland Māori per year died from injuries, at a rate 2.5 times the non-Māori rate, or 27 more deaths per 100,000. Males had a higher injury mortality rate than females.



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# Appendix 1: Population Projections

Table 70: Māori population projections, single year by age group, Auckland 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
	<b>2013(Base)</b>			<b>2014</b>			<b>2015</b>			<b>2016</b>		
0	430	420	850	430	410	840	430	410	840	420	400	830
1-4	1,630	1,560	3,190	1,640	1,560	3,200	1,640	1,550	3,190	1,650	1,550	3,200
5-9	1,790	1,710	3,490	1,840	1,770	3,610	1,870	1,820	3,690	1,890	1,830	3,720
10-14	1,640	1,500	3,140	1,560	1,500	3,060	1,580	1,510	3,090	1,560	1,540	3,110
15-19	1,870	1,800	3,670	1,850	1,670	3,520	1,800	1,580	3,380	1,740	1,570	3,320
20-24	1,950	2,140	4,090	2,010	2,150	4,160	2,050	2,150	4,200	2,080	2,020	4,100
25-29	1,500	1,650	3,150	1,550	1,740	3,290	1,590	1,790	3,380	1,660	1,880	3,540
30-34	1,260	1,360	2,620	1,260	1,380	2,640	1,270	1,410	2,680	1,290	1,470	2,760
35-39	1,180	1,300	2,490	1,190	1,300	2,490	1,160	1,320	2,480	1,150	1,310	2,460
40-44	1,230	1,340	2,570	1,250	1,340	2,600	1,280	1,330	2,610	1,240	1,290	2,530
45-49	1,130	1,170	2,300	1,090	1,190	2,280	1,100	1,220	2,320	1,150	1,270	2,410
50-54	1,060	1,200	2,260	1,080	1,210	2,290	1,080	1,200	2,280	1,050	1,180	2,230
55-59	760	890	1,650	810	910	1,710	840	970	1,810	900	1,020	1,930
60-64	580	650	1,230	610	700	1,320	620	720	1,350	650	760	1,420
65-69	370	410	780	390	470	860	440	510	950	470	520	1,000
70-74	240	290	530	250	290	540	260	290	550	270	330	590
75-79	140	170	310	160	170	330	170	210	380	170	210	380
80-84	60	110	170	70	120	190	80	120	200	90	130	210
85-89	20	40	60	20	40	60	20	40	60	20	50	70
90+	0	20	20	0	20	20	0	20	30	10	20	30
<b>All Ages</b>	<b>18,800</b>	<b>19,700</b>	<b>38,600</b>	<b>19,100</b>	<b>19,900</b>	<b>39,000</b>	<b>19,300</b>	<b>20,200</b>	<b>39,400</b>	<b>19,500</b>	<b>20,400</b>	<b>39,800</b>
	<b>2017</b>			<b>2018</b>			<b>2019</b>			<b>2020</b>		
0	420	400	820	420	400	820	420	400	810	410	390	810
1-4	1,640	1,580	3,220	1,630	1,560	3,190	1,610	1,550	3,160	1,600	1,540	3,140
5-9	1,900	1,810	3,700	1,880	1,830	3,710	1,900	1,820	3,720	1,880	1,810	3,690
10-14	1,580	1,580	3,160	1,640	1,590	3,230	1,690	1,660	3,340	1,720	1,700	3,420
15-19	1,710	1,570	3,280	1,670	1,540	3,210	1,590	1,540	3,130	1,600	1,550	3,150
20-24	2,080	1,970	4,050	2,040	1,910	3,950	2,020	1,790	3,800	1,960	1,690	3,650
25-29	1,650	1,920	3,570	1,750	1,930	3,680	1,810	1,940	3,740	1,850	1,930	3,780
30-34	1,350	1,460	2,810	1,340	1,510	2,860	1,390	1,600	2,990	1,420	1,650	3,080
35-39	1,170	1,300	2,480	1,190	1,310	2,500	1,190	1,320	2,510	1,210	1,350	2,560
40-44	1,190	1,260	2,460	1,130	1,260	2,380	1,130	1,250	2,380	1,100	1,270	2,370
45-49	1,160	1,290	2,450	1,170	1,280	2,460	1,200	1,290	2,480	1,220	1,270	2,490
50-54	1,070	1,150	2,210	1,070	1,120	2,190	1,020	1,140	2,160	1,030	1,160	2,190
55-59	940	1,090	2,030	1,000	1,150	2,150	1,020	1,150	2,180	1,020	1,140	2,160
60-64	680	810	1,490	700	840	1,540	740	850	1,600	770	910	1,690
65-69	500	540	1,040	520	600	1,120	550	650	1,200	560	670	1,230
70-74	290	360	650	310	360	670	330	410	740	370	450	820
75-79	180	220	400	190	240	430	200	240	430	200	240	440
80-84	90	130	220	100	130	220	110	130	240	120	160	280
85-89	20	60	80	30	70	100	40	80	120	50	80	130
90+	10	30	40	10	30	40	10	30	30	10	30	40
<b>All Ages</b>	<b>19,600</b>	<b>20,500</b>	<b>40,200</b>	<b>19,800</b>	<b>20,700</b>	<b>40,500</b>	<b>19,900</b>	<b>20,800</b>	<b>40,800</b>	<b>20,100</b>	<b>21,000</b>	<b>41,100</b>

These projections were derived in October 2014.

Source: Statistics New Zealand



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

Projected Total DHB 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	3,210	3,020	6,230	2,960	2,800	5,750	3,050	2,890	5,940	3,130	2,960	6,090
1-4	12,290	11,610	23,910	12,140	11,550	23,690	11,820	11,230	23,040	11,630	10,970	22,600
5-9	13,810	13,290	27,100	14,270	13,580	27,840	14,480	13,850	28,330	14,600	13,870	28,470
10-14	13,270	12,580	25,840	13,120	12,630	25,760	13,070	12,600	25,670	13,030	12,780	25,810
15-19	15,900	15,430	31,330	16,010	15,340	31,350	16,100	15,400	31,500	16,030	15,440	31,470
20-24	21,600	21,650	43,260	22,820	22,470	45,290	23,650	22,900	46,540	24,180	22,790	46,970
25-29	20,690	21,400	42,100	22,050	22,700	44,760	23,630	24,010	47,630	25,300	25,550	50,850
30-34	18,410	19,380	37,790	18,990	19,880	38,870	19,500	20,420	39,910	19,810	21,030	40,830
35-39	15,620	16,940	32,560	15,740	16,970	32,710	15,980	17,210	33,190	16,380	17,320	33,700
40-44	15,910	17,510	33,430	15,820	17,430	33,250	15,640	17,250	32,890	15,300	16,820	32,110
45-49	15,450	16,520	31,970	15,160	16,520	31,670	15,050	16,490	31,550	15,050	16,640	31,690
50-54	14,430	15,390	29,820	14,880	15,710	30,590	15,000	15,980	30,990	14,930	16,000	30,920
55-59	12,260	13,110	25,370	12,490	13,410	25,890	12,850	13,640	26,490	13,220	13,950	27,160
60-64	10,490	10,820	21,310	10,670	11,220	21,890	10,820	11,580	22,400	11,000	11,990	22,990
65-69	7,830	8,320	16,150	8,370	8,870	17,240	8,900	9,410	18,320	9,320	9,860	19,180
70-74	5,610	6,150	11,760	5,760	6,290	12,050	5,890	6,410	12,300	6,040	6,600	12,640
75-79	3,780	4,300	8,080	3,910	4,520	8,420	4,110	4,840	8,950	4,380	5,070	9,450
80-84	2,570	3,440	6,020	2,670	3,370	6,040	2,750	3,330	6,080	2,730	3,340	6,070
85-89	1,440	2,520	3,970	1,460	2,480	3,940	1,470	2,440	3,900	1,570	2,450	4,020
90+	710	1,780	2,490	740	1,840	2,580	780	1,890	2,670	780	1,900	2,680
<b>All Ages</b>	<b>225,300</b>	<b>235,200</b>	<b>460,500</b>	<b>230,000</b>	<b>239,600</b>	<b>469,600</b>	<b>234,500</b>	<b>243,800</b>	<b>478,300</b>	<b>238,400</b>	<b>247,300</b>	<b>485,700</b>
	<b>2017</b>			<b>2018</b>			<b>2019</b>			<b>2020</b>		
0	3,200	3,030	6,230	3,260	3,090	6,350	3,330	3,150	6,480	3,410	3,230	6,640
1-4	11,520	10,890	22,400	11,490	10,870	22,360	11,770	11,140	22,910	12,040	11,400	23,440
5-9	14,570	13,790	28,360	14,360	13,630	27,980	13,860	13,250	27,110	13,550	12,940	26,500
10-14	13,290	12,960	26,250	13,600	13,230	26,820	13,980	13,440	27,420	14,130	13,650	27,780
15-19	15,790	15,370	31,160	15,490	15,300	30,780	15,260	15,260	30,520	15,130	15,160	30,290
20-24	24,630	22,790	47,420	24,870	22,650	47,520	24,790	22,390	47,190	24,730	22,300	47,030
25-29	26,600	26,820	53,420	27,880	27,790	55,660	28,840	28,370	57,210	29,450	28,590	58,040
30-34	20,320	21,370	41,690	21,060	21,960	43,020	22,220	23,080	45,290	23,610	24,220	47,830
35-39	16,790	17,760	34,560	17,330	18,350	35,680	17,760	18,700	36,460	18,160	19,120	37,280
40-44	14,910	16,380	31,300	14,630	16,090	30,720	14,640	16,010	30,650	14,780	16,150	30,930
45-49	15,130	16,820	31,950	15,000	16,740	31,740	14,830	16,580	31,410	14,600	16,330	30,930
50-54	14,800	15,840	30,640	14,650	15,680	30,330	14,280	15,600	29,880	14,110	15,510	29,630
55-59	13,390	14,350	27,740	13,650	14,730	28,380	14,060	15,000	29,050	14,140	15,230	29,370
60-64	11,330	12,300	23,630	11,580	12,620	24,200	11,760	12,870	24,620	12,070	13,060	25,130
65-69	9,540	10,030	19,570	9,690	10,240	19,940	9,840	10,610	20,450	9,970	10,940	20,910
70-74	6,410	7,040	13,450	6,950	7,650	14,610	7,450	8,170	15,620	7,950	8,680	16,630
75-79	4,580	5,310	9,890	4,720	5,420	10,140	4,840	5,530	10,370	4,950	5,630	10,580
80-84	2,800	3,430	6,240	2,900	3,540	6,440	2,990	3,730	6,720	3,160	4,020	7,180
85-89	1,590	2,410	4,010	1,600	2,370	3,970	1,680	2,310	3,990	1,750	2,290	4,040
90+	820	1,910	2,730	840	1,910	2,750	860	1,930	2,790	870	1,930	2,800
<b>All Ages</b>	<b>242,000</b>	<b>250,600</b>	<b>492,600</b>	<b>245,500</b>	<b>253,900</b>	<b>499,400</b>	<b>249,100</b>	<b>257,100</b>	<b>506,200</b>	<b>252,600</b>	<b>260,400</b>	<b>512,900</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
	Subnational Period Life Tables	2012–2014

Note: \*no causes for 2012

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## Data from the Census of Population and Dwellings

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

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

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

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

Standard Census definitions and forms can be found [here](#).

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

## Data from Te Kupenga 2013

Te Kupenga 2013 was a post-census survey of individuals who identified with Māori ethnicity or Māori descent in the 2013 Census. The target population was the usually resident Māori population of New Zealand, living in

occupied private dwellings on the 2013 Census night and aged 15 years or older. The data was collected during June to August 2013.

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

Further details on the survey measures are available in the Te Kupenga 2013 [Data Dictionary](#).

## Deaths, hospitalisations and cancer registrations

### Ethnicity

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

### Residence

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

### Hospital transfers

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

### Suppression of causes of death or hospitalisation

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

### Ninety-five percent confidence intervals

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

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

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

## Age standardisation

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

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

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

**Table 73: 2001 Census total Māori population**

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

## ICD-10 codes

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

**Table 74: Potentially avoidable hospitalisation ICD-10 codes for children aged 1 month to 14 years**

Condition	ICD-10-AM code
Acute bronchiolitis	J21
Acute rheumatic fever	I00–I02
Acute upper respiratory tract infection excluding croup	J00–J03, J06
Asthma	J45, J46
Bacterial meningitis*	G00, G01

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

Source: Anderson et al (2012)

Notes:

Includes all acute admissions and arranged admissions that were admitted within 7 days.

Waiting list admissions were excluded, apart from dental admissions which were all included.

Admissions were included for patients aged 29 days through to 14 years, at admission.

**Table 75: Ambulatory care sensitive hospitalisation ICD-10 codes for children aged 1 month to 14 years**

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

Source: Anderson et al (2012)

Notes:

Includes all acute admissions and arranged admissions that were admitted within 7 days.

Waiting list admissions were excluded, apart from dental admissions which were all included.

Admissions were included for patients aged 29 days through to 14 years, at admission.

**Table 76: Ambulatory care sensitive hospitalisation ICD-10 codes for people aged 1 month to 74 years**

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

Source: Ministry of Health

Notes:

Acute and arranged (occurring in less than 7 days of decision) admissions, except dental where elective admission are also included.

Excluding discharges from an emergency department with one day of stay or shorter.

\* Aged 15 months to 14 years.

† Each admission counts as a half.

‡ Aged six months to 14 years.

§ Aged 15 years and over.

|| Aged more than 15 years.

¶ Aged 5 years and over.

**Table 77: Avoidable mortality ICD-10 codes**

Condition	ICD-10-AM
Tuberculosis	A15–A19, B90
Selected invasive bacterial and protozoal infection	A38–A41, A46, A48.1, B50–B54, G00, G03, J02.0, J13–J15, J18, L03
Hepatitis	B15–B19
HIV/AIDS	B20–B24
Viral pneumonia and influenza	J10, J12, J17.1, J21
Lip, oral cavity and pharynx cancers	C00–C14
Oesophageal cancer	C15
Stomach cancer	C16
Colorectal cancer	C18–C21
Liver cancer	C22
Lung cancer	C33–C34
Bone and cartilage cancer	C40–C41*
Melanoma of skin	C43
Non-melanotic skin cancer	C44
Breast cancer (female only)	C50
Uterine cancer	C54–C55
Cervical cancer	C53

Prostate	C61*
Testis	C62*
Bladder cancer	C67
Thyroid cancer	C73
Hodgkin's disease	C81
Lymphoid leukaemia, acute/chronic	C91.0, C91.1
Benign tumours	D10–D36
Thyroid disorders	E00–E07
Diabetes	E10–E14**
Alcohol-related diseases	F10, I42.6, K29.2, K70
Illicit drug use disorders	F11–F16, F18–F19
Epilepsy	G40–G41
Rheumatic and other valvular heart diseases	I01–I09, I33–I37*
Hypertensive heart disease	I10*, I11
Ischaemic heart disease	I20–I25
Heart failure	I50*
Cerebrovascular diseases	I60–I69
Aortic aneurysm	I71
Nephritis and nephrosis	I12–I13, N00–N09, N17–N19
Obstructive uropathy and prostatic hyperplasia	N13, N20–N21, N35, N40, N99.1
DVT with pulmonary embolism	I26, I80.2
COPD	J40–J44***
Asthma	J45–J46***
Peptic ulcer disease	K25–K28
Acute abdomen, appendicitis, intestinal obstruction, cholecystitis/lithiasis, pancreatitis, hernia	K35–K38, K40–K46, K80–K83, K85–K86, K91.5
Chronic liver disease (excluding alcohol related disease)	K73, K74
Complications of pregnancy	O00–O96*, O98–O99*
Birth defects	H31.1, P00, P04, Q00–Q99
Complications of perinatal period	P01–P02*, P03, P05–P95
Road traffic injuries	V01–V04, V06, V09–V80, V82–V86*, V87, V88.0–V88.5*, V88.7–V88.9*, V89, V98*, V99
Accidental poisonings	X40–X49
Falls	W00–W19
Fires	X00–X09
Drownings	W65–W74
Suicide and self-inflicted injuries	X60–X84, Y87.0
Violence	X85–Y09, Y87.1
Event of undetermined intent	Y10–Y34, Y87.2****
Treatment injury	Y60–Y82*

Notes: \*Added from amenable mortality

\*\*E09 should be added if using ICD-10 AM version 3 or higher.

\*\*\*All ages added from amenable mortality

\*\*\*\*Y87.2 added by authors for completeness

**Table 78: Amenable mortality ICD-10 codes**

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

Source: Ministry of Health 2010

Note: \* E09 should be added if using ICD-10 AM version 3 or higher.





