Capital and Coast District Health Board

Māori Health Profile 2015

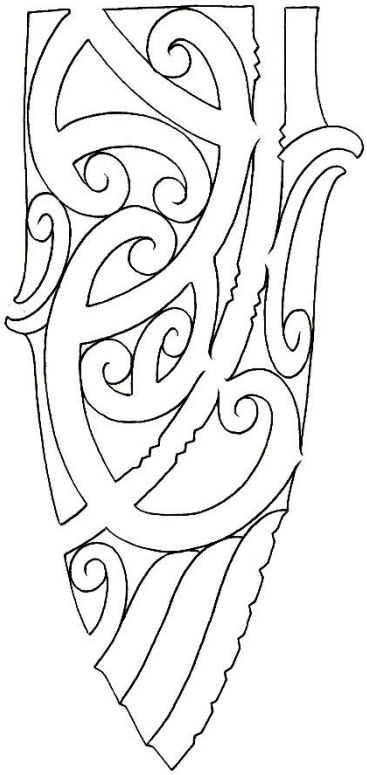
By Te Rōpū Rangahau Hauora a Eru Pōmare, University of Otago, Wellington
For the Ministry of Health

Te Rei Puta

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

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

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



Design by Graham Tipene
Ngāti Whatua, Ngāti Hine, Ngāti Kahu, Ngāti Manu, Ngāti Hāua

tewhekemoko@gmail.com
www.facebook.com/pages/Te-Wheke-Moko/371495646243927

Suggested citation: Robson B, Purdie G, Simmonds S, Waa A, Faulkner R, Rameka R. 2015, Andrewes J. *Capital and Coast District Health Board Māori Health Profile 2015.* Wellington: Te Rōpū Rangahau Hauora a Eru Pōmare.

ISBN 978-0-9941252-3-1 (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.

TE RŌPŪ RANGAHAU HAUORA A ERU PŌMARE

UNIVERSITY of OTAGO
Te Whare Wānanga o Otāgo
NEW ZEALAND

MANATŪ HAUORA
MINISTRY OF HEALTH

He Mihi

Tūi Tuia i Te Herenga Tangata

Te tangi a Te Rōpū Rangahau Hauora a Eru Pōmare.

Tui Tui Tui Tuia

E ngā maunga whakahii, ngā pū kōrero huri noa

Tēnā koutou, tēnā koutou, tēnā tātou katoa.

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

Haere atu rā, okioki ai.

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

Anei te mihi ki ngā kaimahi hauora

Whakapiki te kaha

Whakapiki te ora

Whakapiki te māramatanga

Kia eke tātou katoa ki Te Pae Ora.

Acknowledgements

Many people have contributed their time and expertise to the Māori Health Profiles. We would like to thank members of Te Tumu Whakarae, 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
– Capital and Coast at a glance

Capital and Coast population

- In 2013, an estimated 32,800 Māori lived in the Capital and Coast District Health Board region, 11% of the District's total population.
- The Capital and Coast Māori population is youthful, but showing signs of ageing. In 2013, the median age was 24.3 years, compared to 35.7 years for the total DHB. Almost a third of the District's children and young people are Māori. The Māori population aged 65 years and over will increase by 44% between 2013 and 2020.

Whānau ora – Healthy families

- In 2013, most Capital and Coast Māori adults (88%) reported that their whānau was doing well, but 4% felt their whānau was doing badly. A small proportion (7%) found it hard to access whānau support in times of need, but most found it easy (79%).
- Being involved in Māori culture was important (very, quite, or somewhat) to 69% of Māori adults. Spirituality was important to 66%.
- Practically all Capital and Coast Māori (98%) had been to a marae at some time. Most (60%) had been to their ancestral marae, with 30% having been in the last 12 months and 66% stating they would like to go more often.
- One in eight had taken part in traditional healing or massage in the last 12 months.
- One in five Capital and Coast Māori could have a conversation about a lot of everyday things in te reo Māori in 2013.

Wai ora – Healthy environments

Education

- Among Māori children who started school in 2013, 96% had participated in early childhood education.
- In 2013, 64% of Māori adults aged 18 years and over had at least a Level 2 Certificate, a higher proportion than in 2006 (56%). However the proportion was only four-fifths that of non-Māori (77%).

Work

- In 2013, 10% of Māori adults aged 15 years and over were unemployed, 70% higher than the non-Māori rate (6%).
- Most Māori adults (90%) do voluntary work.
- In 2013, Māori were nearly four-fifths more likely than non-Māori to look after someone who was disabled or ill within the home, and 57% more likely to look after someone outside of the household without pay.

Income and standard of living

- In 2013, 29% of children and 25% 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 17% of children and 19% of adults in other households.

- Ten percent of Capital and Coast Māori adults reported putting up with feeling the cold a lot to keep costs down during the previous 12 months, 9% had often gone without fresh fruit and vegetables, and 13% had postponed or put off a visit to the doctor.
- Residents of Māori households were 52% more likely than non-Māori to live in a home without a motor vehicle (12% compared to 8%).
- People in Māori households were less likely to have access to telecommunications than those living in other households: 18% had no internet, 24% no telephone, 10% no mobile phone, and 2% had no access to any telecommunications.

Housing

- The most common housing problems reported to be a big problem by Māori adults in 2013 were finding it hard to keep warm (18%), needing repairs (12%), and damp (11%).
- Just over half of children in Capital and Coast Māori households were living in rented accommodation, 80% higher than the proportion of children in other households.
- Capital and Coast residents living in Māori households were nearly twice as likely as others to be in crowded homes (i.e. requiring at least one additional bedroom) (17% compared to 9%).

Area deprivation

- Using the NZDep2013 index of small area deprivation, 26% of Capital and Coast Māori lived in the most deprived neighbourhoods (NZDep quintile 5) compared to 11% of non-Māori.

Mauri ora – Healthy individuals

Pepi, tamariki – Infants and children

- On average almost 800 Māori infants were born per year during 2009 to 2013, 21% of all live births in the DHB. Six percent of Māori and non-Māori babies had low birth weight.
- In 2013, 70% of Māori babies in Capital and Coast were fully breastfed at 6 weeks.
- An estimated 80% of Māori infants were enrolled with a Primary Health Organisation by three months of age.
- In 2014, 92% of Māori children were fully immunised at 8 months of age, 93% at 24 months.
- In 2013, 56% of Capital and Coast Māori children aged 5 years had caries, compared to 32% of non-Māori children. At Year 8 of school, 42% of Māori children and 33% of non-Māori children had caries. Māori children under 15 years were 55% more likely than non-Māori children to be hospitalised for tooth and gum disease during 2011–2013.
- During 2011–2013, on average there were 81 hospital admissions per year for grommet insertions among Māori children (at a rate 81% higher than non-Māori), and 451 admissions per year for serious skin infections, with a rate 64% higher than non-Māori.
- On average, one Māori and three non-Māori children under 15 years of age were admitted to hospital each year with acute rheumatic fever. Among those aged 15–24 years there was one Māori and one non-Māori admitted per year (with the Māori rate 5.6 times the non-Māori rate).
- On average, 544 hospitalisations per year of Māori children were potentially avoidable through population-based health promotion and intersectoral actions, at a rate 26% higher than that of non-Māori.
- The rate of hospitalisations that were potentially avoidable through preventive or treatment intervention in primary care (ambulatory care sensitive hospitalisations, or ASH) was 25% higher for Māori than for non-Māori children, with an average of 370 hospital admissions per year among Māori children.

Rangatahi – Young adults

- There has been a significant increase in the proportion of Capital and Coast 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. However, Māori youth remain twice as likely as non-Māori to smoke regularly.
- By September 2014, 54% of Māori girls aged 17 years and 70% of those aged 14 years had completed all three doses of the human papilloma virus (HPV) immunisation.

- Rates of hospitalisation for injury from self-harm were similar for Māori and non-Māori among both 15–24 year olds and 25–44 year olds during 2011–2013.

Pakeke – Adults

- An estimated 64% of Māori adults in Capital and Coast reported having excellent or very good health in 2013, and 26% reported good health. One in nine (11%) reported having fair or poor health.
- Smoking rates of adults are decreasing, but remain over twice as high for Māori (26%) as for non-Māori (11%).

Circulatory system diseases

- Māori adults aged 25 years were 50% more likely than non-Māori to be hospitalised for circulatory system diseases (including heart disease and stroke) during 2011–2013.
- Capital and Coast Māori were just as likely as non-Māori to be admitted to hospital with acute coronary syndrome, 31% more likely to have angiography, with no differences in rates of angioplasty or coronary artery bypass and graft.
- Heart failure admission rates were 3.3 times as high for Māori as for non-Māori.
- Stroke admission rates were 39% higher for Māori than for non-Māori.
- Chronic rheumatic heart disease admissions were 8.3 times as common for Māori women as for non-Māori women and admissions for heart valve replacements 3.7 times as common.
- Māori under 75 years were 2.8 times as likely as non-Māori to die from circulatory system diseases during 2007–2011.

Diabetes

- In 2013, 4% of Māori and 5% of non-Māori were estimated to have diabetes. Just over 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 69% were being screened regularly for renal disease.
- On average, three Capital and Coast Māori with diabetes per year underwent lower limb amputation during the 2011–2013 period.

Cancer

- Compared to non-Māori, cancer incidence was 54% higher for Māori females and similar for Maori males.
- Breast, lung, uterine, and colorectal cancers were the most commonly registered among Capital and Coast Māori women. The rate of lung cancer was 3.8 times the rate for non-Māori women, uterine 2.7 times as high, and breast cancer 1.5 times as high.
- Breast screening coverage of Māori women aged 45–69 years was 61% compared to 69% of non-Māori women.
- Cervical screening coverage of Māori women aged 25–69 years was 64% over 3 years and 79% over five years (compared to 83% and close to 100% of non-Māori respectively).
- Cancers of the lung, prostate, colon and rectum, and leukaemias were the most common cancers among Capital and Coast Māori men. Lung cancer registration rates were 3 times as high for Māori as for non-Māori men, leukaemias 4.2 times as high, while the prostate cancer rate was 29% lower.
- Cancer mortality was twice as high for Māori women, and 37% higher for Māori men compared to non-Māori.
- Lung, breast, colorectal and stomach cancers were the most frequent causes of death from cancer among Māori women. Lung cancer mortality was nearly 4 times as high for Māori as for non-Māori women, breast cancer mortality 85% higher, and stomach cancer mortality notably 11 times the non-Māori rate.
- Cancers of the lung, digestive organs, and prostate were the leading causes of cancer death among Māori men, with lung cancer mortality twice as high for Māori as for non-Māori.

Respiratory disease

- Māori aged 45 years and over were 2.7 times as likely as non-Māori to be admitted to hospital for chronic obstructive pulmonary disease (COPD).
- Asthma hospitalisation rates were higher for Māori than non-Māori in each age group.
- Māori under 75 years had 3.6 times the non-Māori rate of death from respiratory disease during 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 was the most common category of disorders, followed by substance use disorders.

Gout

- In 2011 the prevalence of gout among Capital and Coast Māori was estimated to be 5%, which was 1.9 times the rate for non-Māori.
- Forty percent of Māori with gout regularly received allopurinol, a preventive therapy to lower urate levels. Of those who received allopurinol, only a third had a lab test for serum urate levels in the following six months. These rates were similar to non-Māori. However, in 2011–2013 the rate of hospitalisations for gout was 3 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 20% higher for Māori than for non-Māori during 2011–2013.
- More than 1,500 Māori hospital admissions per year were potentially avoidable, with the rate 35% higher for Māori than for non-Māori. The ASH rate was 55% higher.

Mortality

- In 2012–2014, life expectancy at birth for Māori in the greater Wellington Region was 78.6 years for females (5.3 years lower than for non-Māori females) and 74.7 years for males (5.6 years lower than for non-Māori).
- The all-cause mortality rate for Capital and Coast Māori was 1.8 times the non-Māori rate in 2008–2012.
- Leading causes of death for Māori females were ischaemic heart disease (IHD), lung cancer, COPD, breast cancer and stroke. Leading causes of death for Māori males were IHD, accidents, diabetes, lung cancer, and COPD.
- Rates of potentially avoidable mortality and mortality amenable to health care were 2.4 times as high for Māori as for non-Māori in Capital and Coast during 2007–2011.

Injuries

- The rate of hospitalisation for injury was 19% higher for Māori than for non-Māori during 2011–2013. Males had a higher rate than females.
- The leading causes of injury resulting in a hospital admission were falls, exposure to mechanical forces complications of medical and surgical care, assault, and intentional self-harm.
- The rate of hospitalisation due to assault was 2.8 times as high for Māori males as for non-Māori males and 6.2 times as high for Māori females compared to non-Māori females.
- Injury mortality was 62% higher for Māori than for non-Māori in Capital and Coast.

Contents

List of Tables and Figures

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 **Ūpoko ki te Uru Hauora, Capital and Coast District Health Board (CCDHB).**

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 Capital and Coast DHB. Accompanying Excel tables also include data for the total Capital and Coast 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[1].

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

[1] The use of the 2001 Māori population standard makes the age-standardised data in this report comparable to the Ministry of Health's Māori health chartbooks, but not to other Ministry of Health documents which use the World Health Organisation's world population.

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

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

Further technical notes and methods are provided in Appendix 2.

Further sources of data

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

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

Te Tatauranga o te Iwi – Key demographics

In 2013, approximately 5% (32,800) of the country's total Māori population lived in the Capital and Coast District Health Board. The total population of the DHB (293,500) made up 7% of the national population. In 2015, the CCDHB Māori population is estimated to be 33,700, and the total population 300,000. [2]

Table 1: Population by age group, Capital and Coast DHB, 2013

	Māori			Non-Māori		Total DHB
Age group (years)	Number	Age distribution	% of DHB	Number	Age distribution	Number
0–14	10,090	31%	18	44,850	17%	54,940
15–24	6,820	21%	15	39,700	15%	46,520
25–44	8,740	27%	10	76,630	29%	85,370
45–64	5,750	18%	8	65,700	25%	71,450
65+	1,400	4%	4	33,780	13%	35,180
Total	32,800	100%	11	260,700	100%	293,500

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

Māori residents comprised 11% of the DHB population in 2013. The CCDHB Māori population is relatively young, with a median age in 2013 of 24.3 years, compared with 35.7 years for the total DHB population. Māori comprised 18% of the DHB's children aged 0–14 years and 15% of those aged 15–24 years.

Table 2: Population projections, Capital and Coast DHB, 2013 to 2033

	Māori							Total DHB				
Year	Residents	% of DHB	% of NZ Māori	% 0–14 years	% 15–64 years	% 65+ years	Median age	Residents	Median age	% of NZ pop	NZ Māori	Total NZ
2013	32,800	11	5	31	65	4	24.3	293,500	35.7	7	692,300	4,442,100
2018	34,600	11	5	30	65	5	25.8	306,800	35.9	7	734,500	4,726,200
2023	36,400	12	5	29	65	6	27.2	317,500	36.2	6	773,500	4,935,200
2028	38,300	12	5	28	64	8	28.2	328,200	36.9	6	811,700	5,139,700
2033	40,100	12	5	27	63	10	28.8	338,300	37.8	6	850,700	5,327,700

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

The proportion of Māori who were aged 65 years and over in 2013 was 4%, but is projected to increase to 10% in 2033. Between 2013 and 2020 the number of Māori aged 65 and over will increase by 44% from 1,400 to 2,010 (see Appendix 1). In 2013, there were 390 Māori aged 75 years and over in Capital and Coast, 117 of whom were living alone.

[2] Population projections are provided in Appendix 1.

Whānau ora
– Healthy families

The refreshed Māori health strategy, He Korowai Oranga (Ministry of Health, 2014) defines whānau ora as Māori families supported to achieve their maximum health and wellbeing. It aims to support families to be self-managing, leading healthy lifestyles, confidently participating in te ao Māori and society. This section reports selected findings from Te Kupenga 2013 on whānau well-being and support and engagement with Māori culture and reo.

Whānau well-being

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

	Capital and Coast DHB			New Zealand	
How the whānau is doing	Estimated number	%	(95% CI)	%	(95% CI)
Well / Extremely well	23,000*	88.3**	(84.9, 91.8)	83.4	(82.5, 84.4)
Neither well nor badly	3,500*	7.4**	(4.3, 10.4)	10.3	(9.4, 11.2)
Badly / Extremely badly	2,000*	4.3**	(1.8, 6.8)	6.3	(5.6, 7.0)

Source: Te Kupenga 2013, Statistics New Zealand customised report.
Note: An asterisk (*) shows the sampling error is 30% or more but less than 50%.
Two asterisks (**) shows the sampling error is 50% percent or more, but less than 100%.

Almost 90% of Capital and Coast Māori adults reported that their whānau was doing well or extremely well in 2013. However 4% felt their whānau was doing badly or extremely badly.

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

	Capital and Coast DHB			New Zealand	
Whānau description	Estimated number	%	(95% CI)	%	(95% CI)
Size of whānau					
10 or less	14,500	50.1	(43.0, 57.2)	53.7	(52.1,5.3)
11 to 20	7,000	23.7	(17.6, 29.8)	22.6	(21.3,4.0)
More than 20	6,500	26.2	(20.6, 31.9)	23.6	(22.4,4.8)
Groups included in whānau					
Parents, partner, children, brothers & sisters	28,000	95.8	(93.4, 98.3)	94.6	(94.0,5.2)
Aunts & uncles, cousins, nephews & nieces, other in-laws	13,000	40.9	(34.9, 46.8)	41.3	(39.8,2.8)
Grandparents, grandchildren	12,500	46.4	(40.0, 52.8)	41.9	(40.5,3.4)
Friends, others	3,500*	17.5	(12.8, 22.3)	12.4	(11.5,3.3)

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 over a quarter reporting whānau sizes of more than 20 people. Eighteen percent include friends in their description of whānau.

Whānau support

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

	Capital and Coast DHB			New Zealand	
How easy is it to get help	Estimated number	%	(95% CI)	%	(95% CI)
Support in times of need					
Easy, very easy	21,500	79.2	(73.5,84.9)	81.2	(80.1,82.4)
Sometimes easy, sometimes hard	5,000	14.2*	(9.8,18.6)	12.7	(11.7,13.6)
Hard / very hard	2,000*	6.6**	(3.0,10.2)	6.1	(5.4,6.8)
Help with Māori cultural practices such as going to a tangi, speaking at a hui, or blessing a taonga					
Easy, very easy	15,500	66.0	(59.3,72.7)	64.1	(62.7,65.6)
Sometimes easy, sometimes hard	7,000	14.4*	(9.3,19.5)	16.9	(15.9,18.0)
Hard / very hard	4,500	17.0*	(11.2,22.7)	14.7	(13.5,15.9)
Don't need help	1,000**	2.6**	(0.3,4.9)	4.2	(3.7,4.7)

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

In 2013, the majority of Māori adults in Capital and Coast (79%) reported having easy access to support in times of need. However, an estimated 2000 (7%) had difficulty getting help.

A smaller proportion found it easy to get help with Māori cultural practices (66%), with 17% finding it hard or very hard. A further 3% reported not needing help.

Importance of participation in Māori culture

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

	Capital and Coast DHB			New Zealand	
	Estimated number	%	(95% CI)	%	(95% CI)
Importance of being involved in Māori culture					
Very / quite	10,500	46.3	(39.0, 53.5)	46.3	(44.9, 47.6)
Somewhat	5,000	22.4	(16.7, 28.0)	24.2	(22.9, 25.6)
A little / not at all	7,000	31.4	(24.5, 38.2)	29.5	(28.3, 30.7)
Importance of spirituality					
Very / quite	10,500	46.2	(39.9, 52.6)	48.7	(47.4, 49.9)
Somewhat	4,500	20.1	(15.0, 25.2)	17.0	(16.0, 18.0)
A little / not at all	7,500	33.6	(26.7, 40.6)	34.3	(33.1, 35.5)

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

Being involved in Māori culture was very or quite important to around half (46%) of Capital and Coast Māori adults, and somewhat important to a further 22%. Spirituality was important (very, quite, or somewhat) to a similar proportion of Māori adults (66%).

Te Reo Māori

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

Māori			Non-Māori			Māori/non-Māori ratio (95% CI)	Difference in proportion
Number	%	(95% CI)	Number	%	(95% CI)		
5,529	19.2	(18.7, 19.7)	2,403	1.0	(0.9, 1.0)	**19.78 (18.75, 20.85)**	18.2

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

According to the 2013 Census, 19% of all Māori in Capital and Coast and 1% of non-Māori could have a conversation about a lot of everyday things in te reo Māori.

Table 8: Use of te reo Māori in the home, Māori aged 15 years and over, Capital and Coast DHB, 2013

	Capital and Coast DHB				New Zealand	
Language spoken at home	Estimated number	%	(95% CI)		%	(95% CI)
Māori is main language	1,000**	5.3**	(2.6,	8.0)	2.6	(2.2, 3.0)
Māori is used regularly	4,500*	22.3	(16.0,	28.6)	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%. ** Sampling error is 50% or more but less than 100%.

An estimated 22% of Capital and Coast Māori adults reported that Māori language was used regularly in the home in 2013, and for 5% te reo Māori was the main language.

Access to marae

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

	Capital and Coast DHB			New Zealand	
Been to marae	Estimated number	%	(95% CI)	%	(95% CI)
At some time	22,500	97.6	(94.8, 100.4)	96.0	(95.5, 96.6)
In previous 12 months[(1)]	11,500	50.6	(43.9, 57.3)	58.2	(56.6, 59.7)
Ancestral marae at some time[(2)]	13,500	59.8	(53.5, 66.1)	62.3	(60.9, 63.7)
Ancestral marae in previous 12 months[(3)]	6,500	29.8	(24.1, 35.5)	33.6	(32.3, 34.9)
Like to go to ancestral marae more often[(2)]	10,000	65.6	(56.9, 74.3)	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, almost all Māori in Capital and Coast (98%) had been to a marae, with half (51%) having been in the previous 12 months. Around 60% had been to at least one of their ancestral marae, with 30% having been in the last year. However two-thirds of Capital and Coast Māori reported that they would like to go more often.

Traditional healing or massage

Table 10: Māori aged 15 years and over who took part in traditional healing or massage in last 12 months, Capital and Coast DHB, 2013

Capital and Coast DHB			New Zealand	
Estimated number	%	(95% CI)	%	(95% CI)
3,000*	12.1*	(7.9, 16.3)	10.9	(10.0, 11.7)

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

An estimated 3,000 Māori adults (12%) in Capital and Coast DHB took part in traditional healing or massage in 2013.

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 Capital and Coast DHB, 2006 and 2013

	Māori			Non-Māori			Māori/non-Māori ratio (95% CI)		Difference in percentage
Year	Number	%	(95% CI)	Number	%	(95% CI)			
2006	9,225	55.9	(55.2, 56.6)	122,607	72.9	(72.7, 73.1)	**0.77**	**(0.76, 0.78)**	-17.0
2013	11,454	63.7	(63.1, 64.4)	137,646	77.3	(77.1, 77.5)	**0.82**	**(0.82, 0.83)**	-13.6

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 56% to 64% between 2006 and 2013. The absolute gap between Māori and non-Māori closed by three percentage points, but Māori were till only 82% as likely as non-Māori to have this level of qualification in 2013.

Work

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

	Māori			Non-Māori			Māori/non-Māori ratio (95% CI)		Difference in percentage
Labour force status	Number	%	(95% CI)	Number	%	(95% CI)			
2006									
Employed full-time	9,538	53.6	(52.9, 54.3)	101,388	56.2	(56.0, 56.4)	**0.95**	**(0.94, 0.97)**	-2.6
Employed part-time	2,492	13.6	(13.1, 14.1)	27,963	16.2	(16.0, 16.4)	**0.84**	**(0.81, 0.87)**	-2.6
Unemployed	1,254	6.9	(6.5, 7.3)	6,408	4.4	(4.3, 4.5)	**1.58**	**(1.49, 1.67)**	2.5
Not in the labour force	4,623	26.0	(25.4, 26.6)	52,617	23.2	(23.0, 23.4)	**1.12**	**(1.09, 1.15)**	2.8
2013									
Employed full-time	9,756	50.4	(49.7, 51.0)	104,670	54.8	(54.6, 55.0)	**0.92**	**(0.91, 0.93)**	-4.4
Employed part-time	2,736	13.4	(12.9, 13.8)	28,473	15.2	(15.0, 15.3)	**0.88**	**(0.85, 0.91)**	-1.8
Unemployed	1,932	9.8	(9.4, 10.2)	9,129	5.8	(5.6, 5.9)	**1.70**	**(1.62, 1.79)**	4.1
Not in the labour force	5,391	26.6	(26.0, 27.1)	57,282	24.3	(24.1, 24.5)	**1.09**	**(1.07, 1.12)**	2.2

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

Between 2006 and 2013 there was a decrease in the proportion of Māori adults employed full-time, and a corresponding increase in the unemployment rate (from 7% to 10%). Just over a quarter were not in the labour force.

In 2013, Māori were 1.7 times as likely as non-Māori to be unemployed. The absolute gap in unemployment rates was four percentage points.

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

	Capital and Coast DHB						New Zealand	
	Māori			Non-Māori				
ANZSIC Industry	Number	%	Rank	Number	%	Rank	%	Rank
Females								
Public Administration and Safety	897	14.7	1	8,514	13.4	2	5.0	7
Health Care and Social Assistance	894	14.7	2	9,528	15.0	1	17.1	1
Education and Training	786	12.9	3	8,343	13.1	4	12.9	2
Retail Trade	657	10.8	4	5,676	8.9	5	11.6	3
Professional, Scientific and Technical Services	549	9.0	5	8,424	13.2	3	8.5	4
Males								
Construction	933	16.8	1	5,922	9.0	3	13.2	2
Public Administration and Safety	666	12.0	2	8,169	12.4	2	5.2	8
Professional, Scientific and Technical Services	507	9.1	3	11,436	17.4	1	9.0	3
Retail Trade	441	7.9	4	5,157	7.8	4	8.3	5
Transport, Postal and Warehousing	390	7.0	5	3,054	4.6	9	5.9	7

Source: 2013 Census, Statistics New Zealand
Note: Australian and New Zealand Standard Industrial Classification (ANZSIC)

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

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

	Capital and Coast DHB						New Zealand	
	Māori			Non-Māori				
ANZSCO Occupation	Number	%	Rank	Number	%	Rank	%	Rank
Females								
Professionals	1,662	27.5	1	23,037	36.9	1	26.7	1
Clerical and Administrative Workers	1,257	20.8	2	12,201	19.5	2	19.5	2
Community and Personal Service Workers	858	14.2	3	6,933	11.1	4	12.9	4
Managers	810	13.4	4	9,144	14.7	3	14.4	3
Sales Workers	741	12.3	5	5,988	9.6	5	11.7	5
Labourers	411	6.8	6	2,244	3.6	7	8.3	6
Technicians and Trades Workers	240	4.0	7	2,454	3.9	6	5.0	7
Machinery Operators and Drivers	57	0.9	8	414	0.7	8	1.5	8
Males								
Professionals	1,203	21.6	1	21,756	34.0	1	18.6	2
Managers	930	16.7	2	13,470	21.1	2	22.7	1
Technicians and Trades Workers	924	16.6	3	8,700	13.6	3	18.5	3
Labourers	714	12.8	4	4,284	6.7	6	13.6	4
Community and Personal Service Workers	498	8.9	5	3,885	6.1	7	5.4	7
Machinery Operators and Drivers	495	8.9	6	2,661	4.2	8	9.1	5
Sales Workers	402	7.2	7	4,755	7.4	4	7.1	6
Clerical and Administrative Workers	399	7.2	8	4,464	7.0	5	5.1	8

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

Among employed Māori women, the leading occupational groupings were professionals (28%); clerical and administrative workers (21%); and community and personal service workers (14%). The next most common occupations were managers, sales workers and labourers.

Māori men in CCDHB were most likely to be employed as professionals (22%); managers (17%); and technicians and trades workers (17%). Labourers, community and personal service workers, and machinery operators and drivers were the next most common occupations.

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

	Māori			Non-Māori			Māori/non-Māori ratio (95% CI)			Difference in percentage
Unpaid work	Number	%	(95% CI)	Number	%	(95% CI)				
Any unpaid work	16,971	90.2	(89.7,90.6)	173,640	90.4	(90.3, 90.6)	1.00	(0.99,	1.00)	-0.3
Looking after disabled/ill household member	1,955	10.4	(9.9,10.8)	11,952	5.8	(5.7, 5.9)	**1.78**	**(1.70,**	**1.86)**	4.5
Looking after disabled/ill non-household member	2,089	10.8	(10.3,11.2)	15,807	6.8	(6.7, 7.0)	**1.57**	**(1.51,**	**1.64)**	3.9

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

Ninety percent of Māori adults did voluntary work in 2013. Māori were 78% more likely than non-Māori to look after a household member who was disabled or ill without pay, and 57% more likely to look after a non-household member.

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, Capital and Coast DHB, 2013

	Capital and Coast DHB			New Zealand	
Actions taken a lot to keep costs down	Estimated number	%	(95% CI)	%	(95% CI)
Put up with feeling the cold	3,000*	9.9*	(5.3,14.4)	11.0	(10.2,11.8)
Go without fresh fruit and vegetables	2,500*	9.2*	(4.8,13.7)	5.4	(4.8,6.0)
Postpone or put off visits to the doctor	4,000*	12.9*	(7.9,17.9)	8.8	(7.9,9.6)

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

An estimated 3,000 Māori adults (10%) reported putting up with feeling cold to keep costs down, 2,500 (9%) went without fresh fruit and vegetables, and 4,000 (13%) postponed or put off visits to the doctor in 2013.

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

	Māori families			Non-Māori families			Māori/non-Māori ratio (95% CI)			Difference in percentage
Year	Number	%	(95% CI)	Number	%	(95% CI)				
2006	2,028	17.9	(17.2,18.6)	2,634	5.7	(5.5,5.9)	**3.15**	**(2.98,**	**3.32)**	12.2
2013	2,160	18.3	(17.7,19.0)	2,352	4.9	(4.7,5.1)	**3.71**	**(3.51,**	**3.92)**	13.4

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.

In 2013, children in Māori families were 3.7 times as likely as those in non-Māori families to be in a family where the only income was means-tested benefits (18% compared to 5%).

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

Age group	Māori households			Non-Māori households			Māori/non-Māori ratio (95% CI)		Difference in percentage
	Number	%	(95% CI)	Number	%	(95% CI)			
Children 0–17 years	2,949	28.7	(27.9, 29.6)	7,338	16.7	(16.4, 17.1)	**1.72**	**(1.66, 1.78)**	12.0
Adults 18 years & over	6,702	25.2	(24.7, 25.8)	25,203	18.6	(18.4, 18.9)	**1.35**	**(1.32, 1.39)**	6.6

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.

Children in Māori households were nearly 3 times as likely as other children to be in a low-income household 29% compared to 18%). Adults in Māori households were 35% more likely than other adults to be in a low-income household in 2013.

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

Measure	Māori households			Non-Māori households			Māori/non-Māori ratio (95% CI)		Difference in percentage
	Number	%	(95% CI)	Number	%	(95% CI)			
Households									
2006	1,809	15.0	(14.3, 15.6)	10,182	12.3	(12.1, 12.5)	**1.22**	**(1.16, 1.27)**	2.7
2013	2,163	16.1	(15.5, 16.7)	10,851	12.6	(12.3, 12.8)	**1.28**	**(1.23, 1.34)**	3.5
People (% age-standardised)									
2006	4,485	11.5	(11.1, 11.8)	17,118	6.9	(6.8, 7.1)	**1.65**	**(1.60, 1.71)**	4.5
2013	5,475	12.0	(11.7, 12.4)	19,140	7.9	(7.8, 8.0)	**1.52**	**(1.48, 1.57)**	4.1

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, 12% of people in Māori households had no access to a motor vehicle, 52% higher than the proportion of resident of other households (8%).

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

Mode of tele-communication	Māori households			Non-Māori households			Māori/non-Māori ratio (95% CI)		Difference in percentage
	Number	%	(95% CI)	Number	%	(95% CI)			
No cell/mobile phone	4,809	10.4	(10.2, 10.7)	24,738	9.3	(9.2, 9.5)	**1.12**	**(1.08, 1.16)**	1.1
No telephone	10,404	23.6	(23.2, 24.0)	28,128	14.2	(14.0, 14.3)	**1.67**	**(1.63, 1.70)**	9.4
No internet	7,674	18.0	(17.7, 18.4)	22,749	8.0	(7.8, 8.1)	**2.26**	**(2.20, 2.33)**	10.1
No tele-communications	816	1.9	(1.8, 2.1)	1,473	0.7	(0.6, 0.7)	**2.88**	**(2.62, 3.15)**	1.3

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, 18% of people in Māori households had no access to the internet, 24% did not have a telephone, 10% had no mobile phone and 2% had no access to any telecommunications in the home. The largest absolute gap between Capital and Coast Māori and non-Māori households was in access to the internet (10%).

Housing

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

Housing problem (a big problem)	Capital and Coast DHB			New Zealand	
	Estimated number	%	(95% CI)	%	(95% CI)
Too small	1,000**	3.9**	(1.4, 6.5)	5.3	(4.7, 5.9)
Damp	2,500*	10.9*	(6.8, 15.0)	11.3	(10.5, 12.2)
Hard to keep warm	4,000*	18.4	(13.1, 23.7)	16.5	(15.4, 17.7)
Needs repairs	3,000*	12.2*	(7.7, 16.6)	13.8	(12.7, 14.9)
Pests in the house	1,500*	6.6*	(3.5, 9.7)	5.8	(5.1, 6.5)

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

Housing problems reported to be a big problem by Capital and Coast Māori adults in 2013 included difficulty keeping the house warm (18%), needing repairs (12%), and damp (11%). Seven percent reported that pests were a big problem, and 4% felt their house was too small.

Housing security

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

Measure	Māori households			Non-Māori households			Māori/non-Māori ratio (95% CI)		Difference in percentage
	Number	%	(95% CI)	Number	%	(95% CI)			
Households	7,374	55.2	(54.4, 56.0)	27,357	31.9	(31.6, 32.2)	**1.73**	**(1.70, 1.76)**	23.3
Children under 18 years (% age-standardised)	6,228	51.6	(50.7, 52.5)	13,737	28.4	(28.0, 28.8)	**1.82**	**(1.78, 1.86)**	23.2
Adults 18 years and over (% age-standardised)	16,839	55.0	(54.5, 55.6)	55,854	40.9	(40.6, 41.1)	**1.35**	**(1.33, 1.36)**	14.1

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

In 2013, 7,374 Māori households were rented, 55% of all Māori households, compared to 32% of non-Māori households.

Among children living in a Māori household, 52% (over 6,200) were living in rented homes, compared to 28% of children in non-Māori households. Just over half of adults living in Māori households (55%) were living in rented accommodation (around 17,000), compared to 41% of adults living in non-Māori households.

Household crowding

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

Measure	Māori households			Non-Māori households			Māori/non-Māori ratio (95% CI)		Difference in percentage
	Number	%	(95% CI)	Number	%	(95% CI)			
Households	1,320	9.8	(9.3, 10.3)	3,144	3.6	(3.5, 3.8)	**2.70**	**(2.54, 2.87)**	6.2
People (% age standardised)	6,756	16.5	(16.1, 16.9)	15,678	8.8	(8.7, 9.0)	**1.87**	**(1.82, 1.93)**	7.7

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

In 2013, Māori households were 2.7 times as likely as non-Māori households to be classified as crowded using the Canadian National Occupancy Standard, with over 1,300 homes needing at least one additional bedroom, affecting over 6,700 people. People living in Māori households were almost 90% more likely than people living in non-Māori households to be living in crowded conditions.

Fuel poverty

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

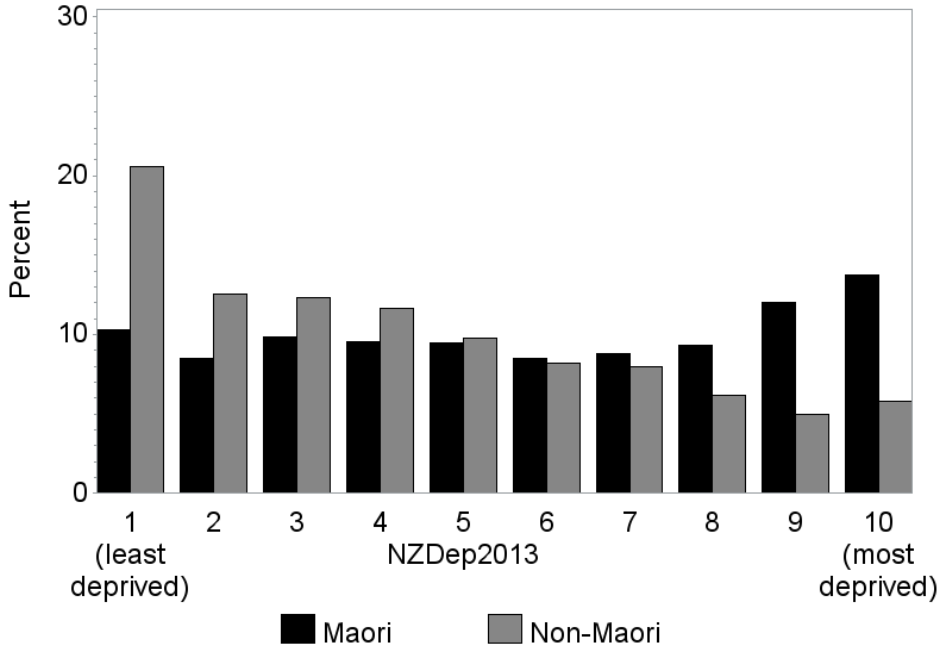
Measure	Māori households			Non-Māori households			Māori/non-Māori ratio (95% CI)	Difference in percentage
	Number	%	(95% CI)	Number	%	(95% CI)		
Households	621	4.6	(4.3, 5.0)	2,076	2.4	(2.3,2.5)	**1.93 (1.76, 2.10)**	2.2
People (% age standardised)	1,836	3.8	(3.6, 4.0)	5,190	2.6	(2.6,2.7)	**1.44 (1.37, 1.53)**	1.2

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, 5% of Māori households (621 homes) had no heating, twice the proportion of non-Māori households (2%, 2,076 homes).

Area deprivation

Figure 1: Distribution by NZDep 2013 decile, Capital and Coast DHB, 2013



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

Capital and Coast has a less deprived small area profile than total New Zealand. In 2013, 26% of Capital and Coast Māori lived in the most deprived quintile areas (NZDep 9 and 10), compared to 11% of non-Māori. Conversely, 19% of Māori lived in the least deprived quintile neighbourhoods (NZDep 1 and 2), compared to 33% of non-Māori.

Mauri ora: Pepi, tamariki – Infants and children

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

Infant mortality, including perinatal mortality and sudden unexpected death in infants (SUDI), are also important indicators of Māori health need. Although the numbers are too small to present at a DHB level, the national data shows that Māori infant mortality and SUDI rates are improving, but significant inequities still remain. The reports of the Perinatal and Maternal Mortality Review Committee (PMMRC) and the Child and Youth Mortality Review Committee (CYMRC) provide useful information and recommendations on preventing infant and child deaths.

Other useful sources of information include the DHB reports by the Child and Youth Epidemiology Service (CYES) on health status (2011), the determinants of health (2012), chronic conditions and disability (2013). The *Te Ohonga Ake* reports by the CYES also include in-depth information on Māori child and youth health at a national level.

Births

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

	Māori		Non-Māori			
Indicator	Ave. no. per year	% of live births (95% CI)	Ave. no. per year	% of live births (95% CI)	Māori/non-Māori ratio (95% CI)	Rate difference
Low birth-weight	49	6.2 (5.5, 7.0)	186	6.1 (5.7, 6.5)	1.02 (0.89, 1.17)	0.1
High birth-weight	23	2.9 (2.4, 3.4)	71	2.3 (2.1, 2.6)	1.23 (1.00, 1.51)	0.5
Preterm	65	8.1 (7.3, 9.0)	241	7.9 (7.4, 8.3)	1.03 (0.92, 1.16)	0.2

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

During 2009 to 2013 there were 798 Māori infants born per year on average, 21% of all live births in the DHB (3,867 per year). On average, 49 Māori babies per year were born with low birth-weight, at a rate of 6%, similar to the rate for non-Māori (6%). Twenty-three Māori infants per year (3%) were born with high birth-weight, and 65 per year (8%) were born preterm.

Well child/Tamariki ora indicators

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

		Māori	
Indicator	Period	Count	%
1. Babies enrolled with a Primary Health Organisation (PHO) by three months old	20 Aug to 19 Nov 2013	113	80
11. Babies exclusively or fully breastfed at 2 weeks		196	78
12. Babies exclusively or fully breastfed at 6 weeks	January to June 2013	197	70
19. Mothers smoke-free two weeks postnatal		173	75
5. Children under 5 years enrolled with oral health services (PHO enrolled children)	2012	1,084	27
7. Children starting school who have participated in ECE	2013	640	96
15. Children with a healthy weight at 4 years, DHB of service	July to Dec 2013	141	67

Source: Well Child/Tamariki Ora Indicators, Ministry of Health, March 2014
Notes: Since the production of this table, the Ministry of Health (2015) has published more recent Well Child/Tamariki Ora Indicators for March 2015 which can be viewed here.

Indicator 1: Source: PHO Enrolment Collection (numerator), National Immunisation Register enrolment (denominator)
Indicator 11: Source: National Maternity Collection. Number of babies with breastfeeding recorded (denominator)
Indicator 12: Source: National Maternity Collection. Number of babies with breastfeeding recorded (denominator)
Indicator 19: Source: National Maternity Collection. Number of mother with tobacco use recorded at 2 weeks postnatal (denominator)
Indicator 5: Source Community Oral Health Services (numerator); PHO enrolments (denominator)
Indicator 7: Source: ENROL Ministry of Education
Indicator 15: Source: B4 School Check Information System. Children who have a BMI recorded at their B4 School Check (denominator)

During late 2013, 80% of Māori babies were enrolled with a PHO by three months of age. In the first half of 2013, 78% of Māori babies were breastfed at two weeks of age and 70% at six weeks. Three-quarters of Māori mothers were smoke-free two weeks after giving birth.

Among pre-school children enrolled with a PHO, 27% of Māori were enrolled with oral health services in 2012. In 2013, 96% of Māori children who started school had participated in early childhood education. Two-thirds of Māori children who had their BMI recorded at their B4 School Check had a healthy weight.

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

	Māori		Non-Māori			
Milestone age	No. fully immunised for age	% fully immunised	No. fully immunised for age	% fully immunised	Māori/non-Māori ratio	Difference in percentage
6 months	511	74%	2,510	87%	0.84	-14%
8 months	640	92%	2,746	94%	0.98	-2%
12 months	653	95%	2,809	96%	1.00	0%
18 months	649	86%	2,760	90%	0.96	-3%
24 months	703	93%	2,934	94%	0.99	-1%
5 years	595	88%	2,862	89%	0.99	-1%

Source: National Immunisation Register

In the 12 months up to 31 December 2014, 74% of Māori infants aged six months were fully immunised, compared to 87% of non-Māori infants. However, 92% of Māori children aged eight months and 93% of those aged 24 months had completed their appropriate immunisations. At five years of age 88% of Māori children were fully immunised.

Oral health

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

	Māori				Non-Māori					
Age group	Total	% with caries (95% CI)		Mean DMFT	Total	% with caries (95% CI)		Mean DMFT	Māori/non-Māori ratio % with caries (95% CI)	Difference in percentage
Age 5	370	56	(51, 61)	2.4	2448	32	(30, 34)	1.2	**1.77 (1.59, 1.97)**	2,
Year 8	287	42	(36, 48)	1.0	2035	33	(31, 35)	0.7	**1.27 (1.09, 1.47)**	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.

Over half (56%) of Māori children aged five years in 2013 had caries, compared to a third of non-Māori children. The mean number of decayed, missing or filled teeth was 2.4 for Māori and 1.2 for non-Māori. Of Year 8 students, 42% of Māori children had caries, 27% higher than non-Māori with a mean DMFT of 1.0 compared to 0.7 for non-Māori.

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

	Māori		Non-Māori			
Gender	Ave. no. per year	Rate per 100,000 (95% CI)	Ave. no. per year	Rate per 100,000 (95% CI)	Māori/non-Māori ratio (95% CI)	Rate difference
Female	65	1,292.0 (1,122.6, 1,487.1)	187	849.5 (781.9, 922.8)	**1.52 (1.29, 1.79)**	442.6
Male	69	1,308.6 (1,141.9, 1,499.6)	188	831.6 (765.8, 903.1)	**1.57 (1.34, 1.85)**	477.0
Total	134	1,300.3 (1,179.1, 1,434.0)	375	840.5 (792.8, 891.1)	**1.55 (1.38, 1.73)**	459.8

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 134 hospital admissions per year on average for tooth and gum disease among Māori children, at a rate 55% higher than the non-Māori rate, or 460 more admissions per 100,000 children per year.

Middle ear disease

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

	Māori			Non-Māori					
Gender	Ave. no. per year	Rate per 100,000 (95% CI)		Ave. no. per year	Rate per 100,000 (95% CI)		Māori/non-Māori ratio (95% CI)		Rate difference
Female	34	668.9	(550.2, 813.3)	83	374.8	(331.0, 424.4)	**1.78**	**(1.42, 2.25)**	294.1
Male	48	908.8	(771.1, 1071.2)	113	494.7	(444.6, 550.3)	**1.84**	**(1.51, 2.23)**	414.2
Total	81	788.9	(695.6, 894.6)	196	434.7	(400.9, 471.4)	**1.81**	**(1.56, 2.11)**	354.1

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

On average, there were 81 admissions per year for grommet insertions among Māori children, at a rate 81% higher than the non-Māori rate, or 354 more procedures per 100,000 Māori children.

Healthy skin

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

	Māori			Non-Māori					
Gender	Ave. no. per year	Rate per 100,000 (95% CI)		Ave. no. per year	Rate per 100,000 (95% CI)		Māori/non-Māori ratio (95% CI)		Rate difference
Female	24	465.8	(369.6, 587.0)	52	235.3	(201.2, 275.1)	**1.98**	**(1.50, 2.62)**	230.5
Male	23	436.5	(344.5, 553.0)	72	314.3	(275.0, 359.1)	**1.39**	**(1.06, 1.82)**	122.2
Total	47	451.1	(382.3, 532.3)	124	274.8	(248.2, 304.1)	**1.64**	**(1.35, 1.99)**	176.4

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

On average there were 47 admissions per year for serious skin infections among Māori children. The rate was 64% higher than for non-Māori children, or 176 more admissions per 100,000 children per year.

Acute rheumatic fever

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

	Māori			Non-Māori					
Age group and Gender	Ave. no. per year	Rate per 100,000 (95% CI)		Ave. no. per year	Rate per 100,000 (95% CI)		Māori/non-Māori ratio (95% CI)		Rate difference
0–14 years									
Female	<1	6.9	(1.0, 49.0)	2	10.6	(5.1, 22.3)	0.65	(0.08, 5.29)	-3.7
Male	1	20.9	(6.8, 64.9)	1	4.4	(1.4, 13.5)	4.79	(0.97, 23.76)	16.6
Total	1	13.9	(5.2, 37.1)	3	7.5	(4.0, 13.9)	1.86	(0.58, 5.93)	6.4
15–24 years									
Female	<1	8.4	(1.2, 59.8)	1	4.0	(1.0, 16.1)	2.09	(0.19, 23.09)	4.4
Male	1	30.6	(9.9, 95.2)	1	2.9	(0.7, 11.7)	**10.51**	**(1.75, 62.98)**	27.7
Total	1	19.5	(7.3, 52.3)	1	3.5	(1.3, 9.4)	**5.63**	**(1.39, 22.77)**	16.1

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

Among Capital and Coast Māori children aged 14 years and under, on average one child per year was hospitalised at least once for acute rheumatic fever. Among Māori aged 15 to 24 years, an average of one young adult per year was admitted, at a rate 5.6 times that of non-Māori, or 16 more youths per 100,000 per year.

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, Capital and Coast DHB, 2011–2013

	Māori		Non-Māori			
Gender	Ave. no. per year	Rate per 100,000 (95% CI)	Ave. no. per year	Rate per 100,000 (95% CI)	Māori/non-Māori ratio (95% CI)	Rate difference
Female	252	4,907.6 (4,569.2, 5,271.0)	845	3,826.4 (3,680.3, 3,978.2)	**1.28 (1.18, 1.39)**	1,081.2
Male	292	5,382.0 (5,036.4, 5,751.4)	996	4,369.9 (4,215.9, 4,529.5)	**1.23 (1.14, 1.33)**	1,012.1
Total	544	5,144.8 (4,900.5, 5,401.3)	1841	4,098.1 (3,991.4, 4,207.7)	**1.26 (1.19, 1.33)**	1,046.7

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

There were 544 potentially avoidable hospitalisations per year on average among Māori children aged 14 years and under, at a rate 26% higher than the non-Māori rate, or 1,047 more admissions per 100,000.

Table 34: Ambulatory care sensitive hospitalisations for children aged 1 month to 14 years, Capital and Coast DHB, 2011–2013

	Māori		Non-Māori			
Gender	Ave. no. per year	Rate per 100,000 (95% CI)	Ave. no. per year	Rate per 100,000 (95% CI)	Māori/non-Māori ratio (95% CI)	Rate difference
Female	176	3,478.7 (3,194.1, 3,788.7)	608	2,759.2 (2,635.4, 2,888.8)	**1.26 (1.14, 1.39)**	719.5
Male	193	3,611.0 (3,328.0, 3,917.9)	662	2,912.5 (2,787.1, 3,043.4)	**1.24 (1.13, 1.36)**	698.5
Total	370	3,544.9 (3,341.7, 3,760.3)	1270	2,835.8 (2,747.2, 2,927.4)	**1.25 (1.17, 1.34)**	709.0

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

On average there were 370 admissions per year for ambulatory care sensitive conditions among Māori children, at a rate 25% higher than the rate for non-Māori children, or 709 more admissions per 100,000 children.

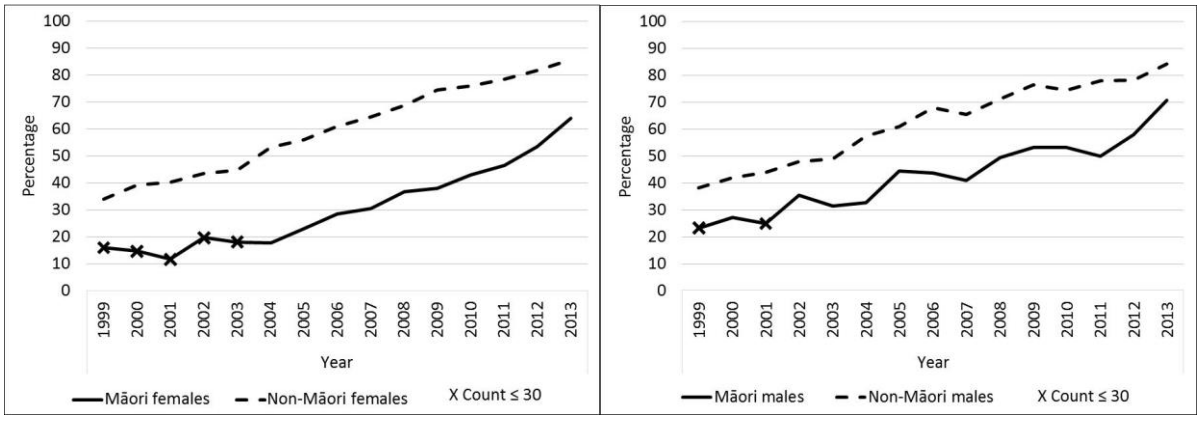
Mauri ora: Rangatahi – Young adults

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

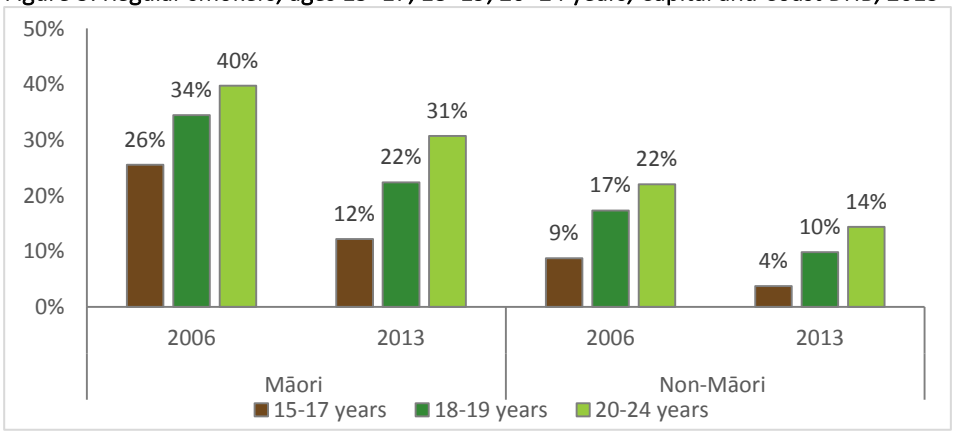
Figure 2: Trends in the proportion of students aged 14–15 years who have never smoked, by gender, Capital and Coast DHB, 1999–2013



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 cigarettes (Figure 2). In 2013, 63% of Māori and 86% of non-Māori in this age group had never smoked.

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



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

Smoking rates have decreased significantly among both young Māori and non-Māori adults in the Capital and Coast District since 2006. However, smoking uptake remains relatively high among those aged 18–24 years, with a sizeable group starting smoking in this age group. The data for 2013 shows that at ages 20–24 years, 31% of Māori were smoking regularly. Non-Māori in each age group were at least half as likely as Māori to smoke regularly.

Immunisations

Table 35: Human papilloma virus immunisations (HPV) by birth cohorts, Capital and Coast DHB, 1 September 2008 to 30 September 2014

			Māori		Non-Māori			
Birth cohort	Age in 2014	Offered HPV vaccine in (year)	Fully immunised	% fully immunised	Fully immunised	% fully immunised	Māori/non-Māori ratio	Māori % minus non-Māori %
2000	14	2013	210	70.0%	897	59.8%	1.17	10.2%
1999	15	2012	202	67.3%	917	63.7%	1.06	3.7%
1998	16	2011	178	65.9%	812	60.1%	1.10	5.8%
1997	17	2010	163	54.3%	783	57.2%	0.95	-2.8%

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

Human papilloma virus immunisation rates in Capital and Coast have increased. Seventy percent of Māori girls who were aged 14 years in 2014 had received all three doses, higher than the proportion of non-Māori 14 year olds (60%). Among young women aged 17 years in 2014, 54% of Māori and 57% of non-Māori had completed their HPV immunisations.

Mental health

Table 36: Hospitalisations for injury from intentional self-harm, 15–24 and 25–44 years, Capital and Coast DHB, 2011–2013

	Māori			Non-Māori					
Age group and gender	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Māori/non-Māori ratio (95% CI)		Rate difference
15–24 years									
Female	23	670.6	(528.7, 850.6)	155	769.2	(701.0, 843.9)	0.87	(0.68, 1.13)	-98.6
Male	10	312.8	(218.5, 447.7)	44	233.7	(196.6, 277.7)	1.34	(0.90, 1.99)	79.1
Total	33	491.7	(403.3, 599.5)	199	501.4	(462.1, 544.1)	0.98	(0.79, 1.22)	-9.7
25–44 years									
Female	14	286.8	(210.9, 389.9)	111	278.3	(249.8, 310.0)	1.03	(0.74, 1.43)	8.5
Male	6	153.9	(98.1, 241.5)	48	127.9	(108.5, 150.8)	1.20	(0.74, 1.94)	26.0
Total	20	220.3	(170.8, 284.2)	159	203.1	(185.5, 222.3)	1.08	(0.83, 1.42)	17.3

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 there were 33 admissions for injury from intentional self-harm per year on average. Females had a higher rate of admission than males for both Māori and non-Māori.

Among Māori aged 25–44 years there were 20 admissions per year on average at a rate of 220 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 Capital and Coast can be found in the accompanying Excel© tables labelled 'Death registrations' and 'Hospitalisations by principal diagnosis'. For example, the hospitalisations table shows Māori and higher rates of admission than non-Māori for atrial fibrillation, bronchiectasis, gallstones, pancreatitis, renal failure, epilepsy, lens disorders, head injuries, and burns.

The New Zealand Health Survey provides other information on long term conditions and risk factors that have been shown to be more common for Māori adults than other adults at a national level, including medicated blood pressure, obesity, chronic pain, arthritis, oral disease, and mental distress (Ministry of Health 2014).

Self-assessed health

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

	Capital and Coast DHB			New Zealand	
Health status	Estimated number	%	(95% CI)	%	(95% CI)
Excellent	5,000	21.7	(16.2, 27.1)	18.1	(16.8, 19.3)
Very good	9,500	41.8	(36.0, 47.5)	37.0	(35.5, 38.5)
Good	6,000	25.6	(20.4, 30.9)	28.5	(27.3, 29.7)
Fair / poor	2,500*	10.9*	(6.8, 15.0)	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%.

In 2013, nearly two-thirds of Capital and Coast Māori adults (64%) reported having excellent or very good health and 26% described their health as good. Eleven percent reported having fair or poor health status.

Smoking status

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

	Māori			Non-Māori			Māori/non-Māori ratio (95% CI)		Difference in proportion
Smoking status	Number	%	(95% CI)	Number	%	(95% CI)			
2006									
Regular smoker	6,033	35.0	(34.3, 35.7)	28,131	16.7	(16.5, 16.9)	**2.09**	**(2.04, 2.14)**	18.3
Ex-smoker	3,516	21.0	(20.4, 21.6)	40,197	19.1	(18.9, 19.3)	**1.10**	**(1.07, 1.03)**	1.9
Never smoked	7,404	43.9	(43.2, 44.6)	111,780	64.2	(64.0, 64.4)	**0.68**	**(0.67, 0.70)**	-20.3
2013									
Regular smoker	4,983	26.3	(25.7, 26.9)	20,271	11.3	(11.1, 11.4)	**2.33**	**(2.27, 2.4)**	15.0
Ex-smoker	4,428	22.7	(22.2, 23.3)	42,741	18.5	(18.3, 18.7)	**1.23**	**(1.19, 1.26)**	4.2
Never smoked	9,555	50.9	(50.2, 51.6)	129,294	70.2	(70.0, 70.4)	**0.73**	**(0.72, 0.74)**	19.3

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 35% to 26%. There was an increase in those who have never smoked and also in ex-smokers. However, Māori remain more than twice as likely as non-Māori to smoke regularly, or an absolute difference of 15 percentage points.

Heart disease and stroke

Table 39: Hospitalisations for circulatory system diseases, 25 years and over, Capital and Coast DHB, 2011–2013

	Māori			Non-Māori				
Gender	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Māori/non-Māori ratio (95% CI)	Rate difference
Female	134	1,366.3	(1,237.9, 1,508.0)	1,583	757.1	(729.9, 785.2)	**1.80 (1.62, 2.01)**	609.3
Male	134	1,725.6	(1,561.5, 1,907.1)	1,986	1,304.3	(1,266.7, 1,343.0)	**1.32 (1.19, 1.47)**	421.4
Total	269	1,546.0	(1,440.3, 1,659.4)	3,569	1,030.7	(1,007.4, 1,054.5)	**1.50 (1.39, 1.62)**	515.3

Source: NMDS

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

During 2001 to 2013, on average 269 Capital and Coast Māori were admitted to hospital per year for diseases of the circulatory system (including heart disease and stroke), at a rate 50% higher than non-Māori, or 515 more admissions per 100,000.

Table 40: Ischaemic heart disease indicators, 25 years and over, Capital and Coast DHB, 2011–2013

	Māori			Non-Māori				
Gender	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Māori/non-Māori ratio (95% CI)	Rate difference
Ischaemic heart disease admissions								
Female	19	188.2	(144.7, 244.9)	312	134.8	(124.6, 145.7)	**1.40 (1.06, 1.84)**	53.4
Male	24	291.3	(231.2, 366.9)	538	349.8	(331.4, 369.2)	0.83 (0.66, 1.06)	-58.5
Total	43	239.7	(201.4, 285.4)	850	242.3	(231.7, 253.4)	0.99 (0.83, 1.18)	-2.5
Angiography procedures								
Female	19	194.5	(149.9, 252.4)	192	126.3	(115.6, 138.0)	**1.54 (1.17, 2.03)**	68.2
Male	31	374.1	(304.9, 459.1)	409	309.0	(291.0, 328.2)	1.21 (0.98, 1.50)	65.1
Total	50	284.3	(241.9, 334.1)	601	217.7	(207.1, 228.8)	**1.31 (1.10, 1.55)**	66.6
Angioplasty procedures								
Female	5	56.5	(34.5, 92.4)	74	46.4	(40.2, 53.5)	1.22 (0.73, 2.03)	10.1
Male	12	144.0	(103.6, 200.1)	193	147.6	(135.2, 161.1)	0.98 (0.69, 1.37)	-3.6
Total	17	100.3	(76.2, 131.8)	267	97.0	(90.0, 104.5)	1.03 (0.78, 1.37)	3.3
Coronary Artery Bypass Graft (CABG)								
Female	<1	3.5	(0.5, 24.8)	14	6.9	(5.0, 9.7)	0.50 (0.07, 3.68)	-3.4
Male	2	24.5	(11.0, 54.7)	63	44.0	(37.8, 51.1)	0.56 (0.25, 1.26)	-19.5
Total	2	14.0	(6.6, 29.4)	77	25.4	(22.2, 29.2)	0.55 (0.26, 1.17)	-11.4
Acute coronary syndrome admissions								
Female	11	109.5	(77.3, 155.2)	203	86.8	(78.8, 95.6)	1.26 (0.88, 1.81)	22.7
Male	15	180.3	(134.3, 242.0)	340	217.5	(202.9, 233.0)	0.83 (0.61, 1.12)	-37.2
Total	26	144.9	(115.6, 181.6)	543	152.1	(143.7, 161.0)	0.95 (0.75, 1.20)	-7.2

Source: NMDS.

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

On average, 43 Māori aged 25 years and over were admitted to hospital per year for ischaemic heart disease, Māori females were admitted at a rate 40% higher than non-Māori females. On average 26 Māori per year were admitted with acute coronary syndrome during 2011-2013.

There were 50 angiography procedures conducted for Māori patients per year, at a rate 31% higher than non-Māori, and 54% higher when only comparing females. On average, 17 Māori people per year had angioplasty procedures, at a rate similar to non-Māori. Two Māori men per year had a coronary artery bypass graft on average.

Table 41: Hospitalisations for heart failure, stroke, and hypertensive disease, 25 years and over, Capital and Coast DHB, 2011–2013

	Māori			Non-Māori					
Gender	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Māori/non-Māori ratio (95% CI)		Rate difference
Heart failure									
Female	25	240.2	(190.9, 302.3)	201	59.1	(53.2, 65.7)	**4.06**	**(3.15, 5.23)**	181.0
Male	23	299.0	(235.8, 379.0)	214	102.4	(93.5, 112.2)	**2.92**	**(2.26, 3.76)**	196.5
Total	48	269.6	(228.2, 318.5)	416	80.8	(75.4, 86.6)	**3.34**	**(2.79, 4.00)**	188.8
Stroke									
Female	24	230.4	(182.4, 291.0)	283	102.4	(93.9, 111.6)	**2.25**	**(1.75, 2.89)**	128.0
Male	8	106.7	(70.8, 160.6)	262	140.5	(129.6, 152.4)	0.76	(0.50, 1.15)	-33.8
Total	32	168.5	(137.2, 207.0)	544	121.4	(114.4, 128.9)	**1.39**	**(1.12, 1.72)**	47.1
Hypertensive disease									
Female	2	22.1	(10.5, 46.5)	41	19.2	(15.2, 24.2)	1.15	(0.53, 2.51)	2.9
Male	1	17.1	(6.4, 46.1)	22	15.7	(11.8, 20.9)	1.09	(0.39, 3.06)	1.4
Total	4	19.6	(10.7, 35.8)	62	17.4	(14.6, 20.9)	1.12	(0.60, 2.11)	2.2

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

There were around 48 admissions per year on average for Māori with heart failure, at 3.3 times the rate for non-Māori, or 188 more admissions per 100,000.

On average, 32 Māori per year were admitted for stroke, at a rate 39% higher than the non-Māori rate, or 47 more admissions per 100,000. Māori females were admitted at a rate 2.3 times that of non-Māori females.

There were four Māori admissions per year on average for hypertensive disease, at a similar rate to that of non-Māori.

Table 42: Hospitalisations for chronic rheumatic heart disease and heart valve replacements, 25 years and over, Capital and Coast DHB, 2011–2013

	Māori			Non-Māori					
Gender	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Māori/non-Māori ratio (95% CI)		Rate difference
Chronic rheumatic heart disease									
Female	6	62.5	(39.2, 99.4)	12	7.5	(5.2, 11.0)	**8.30**	**(4.56, 15.11)**	54.9
Male	1	7.3	(1.8, 29.1)	10	8.1	(5.4, 12.2)	0.90	(0.21, 3.82)	-0.8
Total	7	34.9	(22.4, 54.2)	21	7.8	(5.9, 10.3)	**4.47**	**(2.65, 7.53)**	27.1
Heart valve replacements									
Female	2	25.0	(11.8, 52.9)	13	6.8	(4.7, 9.7)	**3.70**	**(1.61, 8.50)**	18.2
Male	1	15.3	(5.8, 40.9)	26	18.7	(14.7, 23.9)	0.82	(0.30, 2.25)	-3.4
Total	4	20.2	(11.1, 36.6)	39	12.7	(10.4, 15.6)	1.58	(0.84, 2.97)	7.4

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

On average, there were seven hospital admissions per year for Māori with chronic rheumatic heart disease, at a rate 4.5 times that of non-Māori. Māori females were admitted at a rate over 8 times that of non-Māori.

Heart valve replacements were conducted on four Māori per year on average. The rate for Māori women was 3.7 times the non-Māori rate.

Table 43: Early deaths from circulatory system disease, Capital and Coast DHB, 2007–2011

	Māori			Non-Māori					
Gender	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Māori/non-Māori ratio (95% CI)		Rate difference
Female	7	38.2	(27.4, 53.2)	37	12.3	(10.6, 14.4)	**3.10**	**(2.15, 4.47)**	25.9
Male	14	83.3	(65.6, 105.7)	82	30.8	(27.8, 34.1)	**2.71**	**(2.09, 3.50)**	52.5
Total	21	60.7	(50.0, 73.7)	119	21.6	(19.8, 23.5)	**2.82**	**(2.28, 3.48)**	39.2

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 21 Māori per year died early from circulatory system disease, at a rate close to 3 times as high as for non-Māori, or 39 more deaths per 100,000. Males had higher rates of early death than females.

Diabetes

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

	Māori		Non-Māori		Māori/non-Māori	Difference in
Indicator	Count	% (crude)	Count	% (crude)	ratio	percentage
Prevalence of diabetes (all ages)	1,255	3.8	12,215	4.6	0.83	-0.8
People with diabetes regularly receiving metformin or insulin, 25+	657	52.4	6,392	52.3	1.00	0.0
People with diabetes having regular Hb1Ac monitoring, 25+	1,074	85.6	10,741	86.2	0.99	-0.6
People with diabetes having regular screening for renal disease, 25+	870	69.3	8,603	70.4	0.98	-1.1

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

In 2013, 1,255 Capital and Coast Māori were estimated to have diabetes, giving a crude prevalence of 4%, compared to 5% for non-Māori. The prevalence has not been adjusted for age. Just over half of Māori aged 25 years and over with diabetes were regularly receiving metformin or insulin in 2013. Eighty-six percent were having regular monitoring of blood glucose levels and 69% were being screened for renal disease.

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

	Māori			Non-Māori					
Gender	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Māori/non-Māori ratio (95% CI)		Rate difference
Female	1	7.1	(2.3, 22.0)	7	2.7	(1.5, 4.6)	2.66	(0.76, 9.35)	4.4
Male	2	14.5	(6.0, 35.0)	20	9.3	(6.9, 12.3)	1.57	(0.62, 3.96)	5.3
Total	3	10.8	(5.4, 21.7)	26	6.0	(4.6, 7.7)	1.81	(0.86, 3.81)	4.9

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

On average three Māori individuals per year with diabetes had lower limbs amputated.

Cancer

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

Gender and site	Māori			Non-Māori			Māori/non-Māori ratio (95% CI)		Rate difference
	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Ave. no. per year	Age-standardised rate per 100,000 (95% CI)				
Female									
All cancers	52	265.7	(235.0, 300.4)	525	172.7	(164.8, 180.9)	**1.54**	**(1.35, 1.75)**	93.0
Breast	19	93.7	(76.4, 115.0)	170	61.4	(57.0, 66.1)	**1.53**	**(1.23, 1.90)**	32.3
Lung	8	39.1	(28.4, 53.7)	40	10.2	(8.6, 12.0)	**3.83**	**(2.67, 5.48)**	28.9
Uterus	4	21.4	(13.9, 32.9)	24	7.8	(6.4, 9.5)	**2.74**	**(1.71, 4.39)**	13.6
Colorectal	4	19.2	(12.2, 30.2)	68	16.4	(14.4, 18.6)	1.17	(0.73, 1.87)	2.8
Male									
All cancers	33	202.6	(173.2, 237.0)	568	186.2	(178.6, 194.1)	1.09	(0.93, 1.28)	16.4
Lung	5	32.5	(21.7, 48.7)	42	10.8	(9.4, 12.5)	**3.00**	**(1.95, 4.61)**	21.7
Prostate	7	42.8	(30.9, 59.1)	193	60.3	(56.4, 64.4)	**0.71**	**(0.51, 0.99)**	-17.5
Colorectal	2	13.6	(7.5, 24.6)	74	21.9	(19.5, 24.5)	0.62	(0.34, 1.14)	-8.3
Leukaemias	2	13.8	(7.4, 26.0)	13	5.2	(3.8 , 7.2)	**2.67**	**(1.32, 5.41)**	8.7

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 52 cancer registrations per year on average among Capital and Coast Māori females, at a rate 54% higher than non-Māori. The most common cancers registered for Māori females were breast, lung, uterine, and colorectal cancers. Registration rates were higher for Māori than for non-Māori women for cancers of the lung (3.8 times as high as non-Māori), uterus (2.7 times as high) and breast (53% higher).

Among Capital and Coast Māori males there were 33 cancer registrations per year on average, at a rate similar to that of non-Māori. Lung, prostate, colorectal cancers, and leukaemias were the most frequently registered cancers for Māori males. Māori registrations rates were three times as high as those of non-Māori for lung cancer and 2.2 times as high for leukaemias, but around 30% lower for prostate cancer.

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

Gender and site	Māori			Non-Māori			Māori/non-Māori ratio (95% CI)			Rate difference
	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Ave. no. per year	Age-standardised rate per 100,000 (95% CI)					
Female										
All cancers	20	103.6	(84.9, 126.4)	209	50.4	(46.7, 54.4)	**2.06**	**(1.66,**	**2.54)**	53.2
Lung	6	30.9	(21.4, 44.5)	32	8.0	(6.7, 9.6)	**3.85**	**(2.56,**	**5.80)**	22.9
Breast	3	17.6	(10.9, 28.4)	33	9.5	(7.9, 11.3)	**1.85**	**(1.11,**	**3.08)**	8.1
Colorectal	2	8.8	(4.6, 17.0)	30	5.4	(4.4, 6.6)	1.64	(0.82,	3.26)	3.4
Stomach	2	8.4	(4.2, 16.9)	3	0.8	(0.4, 1.4)	**10.97**	**(4.29,**	**28.01)**	7.6
Male										
All cancers	12	78.4	(60.7, 101.4)	224	57.1	(53.4, 61.1)	**1.37**	**(1.05,**	**1.79)**	21.3
Lung	3	18.9	(11.3, 31.4)	37	9.3	(7.9, 10.9)	**2.03**	**(1.19,**	**3.45)**	9.6
Digestive organs	3	20.7	(12.6, 34.0)	75	20.3	(18.1, 22.7)	1.02	(0.61,	1.70)	0.4
Prostate	1	9.4	(4.2, 21.3)	32	5.9	(5.0, 7.0)	1.60	(0.69,	3.68)	3.5

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 41% of all deaths, with a rate twice that of non-Māori. Lung cancer was the most common cause of cancer death, followed by cancers of the breast, colon and rectum, and stomach. Mortality rates for Māori women for lung, breast and stomach cancers were higher than those for non-Māori women, with stomach cancer rates notably 11 times the non-Māori rate.

For Māori males, cancer deaths accounted for 24% of all deaths, with a rate 37% higher than non-Māori males. Lung cancer was the most common cause of cancer death at a rate twice that the non-Māori rate. The next most common causes were cancers of the digestive organs and the prostate.

Breast and cervical cancer screening

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

Māori			Non-Māori		
Number screened	Eligible population	% screened	Number screened	Eligible population	% screened
2,096	3,455	60.7%	27,848	40,140	69.4%

Source: National Screening Unit, Ministry of Health

BreastScreen Aotearoa provides free mammography screening for breast cancer to women aged 45 to 69 years, with a target of at least 70% of eligible women screened every two years. During the two years up to the end of 2014, 61% of Māori women and 69% of non-Māori women in Capital and Coast had been screened.

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

Māori					Non-Māori				
Eligible population	Women screened in last 5 years	5-year coverage %	Women screened in last 3 years	3-year coverage %	Eligible population	Women screened in last 5 years	5-year coverage %	Women screened in last 3 years	3-year coverage %
7,550	6,000	79.5%	4,838	64.1%	71,629	71,288	99.5%	59,665	83.3%

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

Among women aged 25 to 69 years, 79% of Māori women and almost all non-Māori women had had a cervical smear test during the five years prior to December 2014. The three-year cervical screening coverage was 64% for Māori women and 83% 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, Capital and Coast DHB, 2011–2013

Gender and age group	Māori			Non-Māori			Māori/non-Māori ratio (95% CI)	Rate difference
	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Ave. no. per year	Age-standardised rate per 100,000 (95% CI)			
0–14 years								
Female	21	415.2	(323.6, 532.7)	59	264.8	(228.4, 307.0)	**1.57 (1.17, 2.09)**	150.4
Male	33	619.5	(509.0, 753.9)	87	381.1	(337.6, 430.3)	**1.63 (1.29, 2.05)**	238.3
Total	54	517.3	(443.3, 603.7)	146	323.0	(294.1, 354.7)	**1.60 (1.34, 1.92)**	194.3
15–34 years								
Female	17	273.2	(206.3, 361.9)	79	196.5	(172.7, 223.6)	**1.39 (1.02, 1.89)**	76.7
Male	4	78.2	(45.2, 135.5)	21	55.2	(43.0, 70.8)	1.42 (0.78, 2.59)	23.1
Total	21	175.7	(136.8, 225.7)	100	125.8	(112.2, 141.1)	**1.40 (1.06, 1.84)**	49.9
35–64 years								
Female	19	338.8	(261.3, 439.3)	67	116.3	(100.7, 134.4)	**2.91 (2.16, 3.92)**	222.5
Male	9	217.3	(149.5, 315.8)	31	59.0	(47.7, 73.0)	**3.68 (2.40, 5.66)**	158.3
Total	29	278.0	(224.2, 344.9)	98	87.7	(77.8, 98.8)	**3.17 (2.48, 4.06)**	190.4
65 years and over								
Female	4	580.2	(336.6, 1,000.1)	29	152.7	(120.6, 193.4)	**3.80 (2.10, 6.88)**	427.5
Male	1	202.1	(75.8, 538.4)	13	79.2	(56.6, 110.7)	2.55 (0.91, 7.19)	122.9
Total	6	391.1	(242.8, 630.0)	42	115.9	(95.6, 140.6)	**3.37 (2.02, 5.64)**	275.2

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

There were 54 admissions for asthma per year among Māori children aged 0–14 years, at a rate 60% higher than that of non-Māori. Young Māori adults were admitted at a rate 40% higher than non-Māori, with an average of 21 admissions per year. Among Māori adults aged 35–64 years, there were 29 admissions per year on average, at over 3 times the rate of non-Māori. Māori aged 65 years and over were admitted at a rate nearly 3.4 times the non-Māori rate, with six admissions per year on average.

Table 51: Hospitalisations for chronic obstructive pulmonary disease (COPD), 45 years and over, Capital and Coast DHB, 2011–2013

Gender	Māori			Non-Māori			Māori/non-Māori ratio (95% CI)	Rate difference
	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Ave. no. per year	Age-standardised rate per 100,000 (95% CI)			
Female	38	1,016.1	(844.5, 1222.5)	245	331.9	(306.1, 359.9)	**3.06 (2.50, 3.75)**	684.2
Male	26	850.6	(680.7, 1063.0)	258	351.6	(325.0, 380.3)	**2.42 (1.91, 3.06)**	499.0
Total	64	933.3	(809.0, 1076.8)	503	341.7	(323.0, 361.5)	**2.73 (2.34, 3.19)**	591.6

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

There were 64 hospitalisations per year on average for Māori with COPD, at a rate 2.7 times that of non-Māori, or 592 more admissions per 100,000.

Table 52: Early deaths from respiratory disease, Capital and Coast 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	3	19.2	(11.9, 30.9)	11	4.2	(3.0, 5.8)	**4.56 (2.56, 8.11)**	15.0
Male	2	15.2	(8.6, 26.8)	12	5.3	(3.9, 7.3)	**2.86 (1.50, 5.45)**	9.9
Total	6	17.2	(11.9, 24.8)	23	4.8	(3.8, 6.0)	**3.61 (2.35, 5.54)**	12.4

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, six Capital and Coast Māori per year died early from respiratory disease, at a rate 3.6 times the non-Māori rate, or 12 more deaths per 100,000.

Mental disorders

Table 53: Hospitalisations for mental disorders, all ages, Capital and Coast DHB, 2011–2013

	Māori			Non-Māori				
Disorder	Ave. no. per year	Age-standardised rate (95% CI)		Ave. no. per year	Age-standardised rate (95% CI)		Māori/non-Māori ratio (95% CI)	Rate difference
Female								
All disorders	170	897.6	(822.0, 980.1)	888	459.7	(439.1, 481.2)	**1.95 (1.77, 2.16)**	437.9
Schizophrenia	40	215.5	(179.6, 258.5)	115	66.0	(58.9, 73.9)	**3.27 (2.64, 4.05)**	149.5
Mood (affective)	36	197.5	(163.1, 239.1)	293	153.7	(142.4, 165.8)	**1.29 (1.05, 1.58)**	43.8
—Bipolar	15	78.6	(58.3, 105.9)	83	37.6	(32.6, 43.4)	**2.09 (1.50, 2.91)**	41.0
—Depressive episode	15	82.0	(60.7, 110.7)	124	72.3	(64.3, 81.2)	1.13 (0.82, 1.57)	9.7
Substance use	28	151.9	(122.1, 188.9)	127	84.8	(76.1, 94.6)	**1.79 (1.40, 2.28)**	67.1
—Alcohol	23	125.5	(98.8, 159.4)	118	78.4	(70.0, 87.8)	**1.60 (1.23, 2.08)**	47.1
Anxiety, stress-related	11	59.8	(42.2, 84.9)	96	56.2	(49.2, 64.1)	1.07 (0.73, 1.55)	3.7
Male								
All disorders	154	936.4	(853.7, 1027.0)	747	439.0	(418.9, 460.1)	**2.13 (1.92, 2.37)**	497.4
Schizophrenia	71	434.8	(379.5, 498.2)	220	140.3	(129.6, 152.0)	**3.10 (2.65, 3.63)**	294.5
Mood (affective)	23	143.0	(112.9, 181.2)	172	101.8	(92.5, 112.0)	**1.41 (1.09, 1.81)**	41.3
—Bipolar	14	85.8	(63.2, 116.5)	53	34.3	(29.2, 40.4)	**2.50 (1.77, 3.53)**	51.5
—Depressive episode	7	42.6	(27.7, 65.7)	72	40.8	(35.0, 47.7)	1.04 (0.66, 1.65)	1.8
Substance use	38	227.9	(189.3, 274.4)	167	106.9	(97.2, 117.6)	**2.13 (1.73, 2.63)**	121.0
—Alcohol	35	207.5	(170.8, 252.1)	152	95.4	(86.3, 105.4)	**2.18 (1.75, 2.71)**	112.1
Anxiety, stress-related	5	29.9	(17.6, 50.7)	56	35.1	(29.7, 41.6)	0.85 (0.49, 1.48)	-5.2
Total								
All disorders	323	917.0	(860.2, 977.4)	1,636	449.3	(434.8, 464.3)	**2.04 (1.90, 2.19)**	467.6
Schizophrenia	110	325.1	(291.5, 362.6)	335	103.2	(96.7, 110.1)	**3.15 (2.78, 3.58)**	222.0
Mood (affective)	59	170.2	(146.7, 197.6)	465	127.7	(120.3, 135.5)	**1.33 (1.14, 1.56)**	42.5
—Bipolar	29	82.2	(66.4, 101.8)	136	36.0	(32.3, 40.1)	**2.29 (1.80, 2.90)**	46.2
—Depressive episode	22	62.3	(48.7, 79.7)	196	56.6	(51.5, 62.1)	1.10 (0.85, 1.43)	5.8
Substance use	66	189.9	(164.8, 218.8)	294	95.9	(89.3, 103.0)	**1.98 (1.69, 2.32)**	94.0
—Alcohol	58	166.5	(143.1, 193.6)	270	86.9	(80.6, 93.6)	**1.92 (1.62, 2.27)**	79.6
Anxiety, stress-related	15	44.9	(33.5, 60.1)	153	45.6	(41.1, 50.7)	0.98 (0.72, 1.34)	-0.8

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

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

Among Māori females, the most common cause of admission was schizophrenia related disorders, with 40 admissions per year on average, at a rate 3.3 times that of non-Māori females.

Among Māori males, the overall admission rate was over twice the non-Māori rate. Admissions for schizophrenia type disorders were the most common, at a rate 3 times the non-Māori rate.

Admissions for mood disorders and for substance use disorders were also higher for Māori than for non-Māori.

Gout

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

Indicator	Māori		Non-Māori		Māori/non-Māori ratio	Difference in percentage
	Count	%	Count	%		
Gout prevalence	997	5.2	5,120	2.8	1.90	2.5
People with gout who received allopurinol regularly	395	39.6	2,054	40.1	0.99	-0.5
Colchicine use by people with gout not dispensed allopurinol	84	8.4	424	8.3	1.02	0.1
NSAID use by people with gout	421	42.2	2,141	41.8	1.01	0.4
Serum urate test within six months following allopurinol dispensing	194	33.0	1,010	34.7	0.95	-1.7

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

In 2011, 997 Māori were estimated to have gout, a prevalence of 5%, 90% higher than the prevalence in non-Māori. Forty percent of Māori with gout regularly received allopurinol, a preventive therapy to lower urate levels. Of those who received allopurinol, 33% had a lab test for serum urate levels within the following six months. Forty-two percent were using non-steroidal anti-inflammatory medication.

Table 55: Hospitalisations for gout, 25 years and over, Capital and Coast DHB, 2011–2013

Gender	Māori			Non-Māori			Māori/non-Māori ratio (95% CI)		Rate difference
	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Ave. no. per year	Age-standardised rate per 100,000 (95% CI)				
Female	3	32.0	(17.2, 59.8)	17	7.4	(5.2, 10.7)	**4.32**	**(2.10, 8.89)**	24.6
Male	11	141.8	(100.9, 199.3)	55	49.8	(41.9, 59.1)	**2.85**	**(1.95, 4.17)**	92.0
Total	15	86.9	(64.3, 117.4)	72	28.6	(24.4, 33.5)	**3.04**	**(2.16, 4.27)**	58.3

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

On average there were 15 hospital admissions per year for gout among Capital and Coast Māori, more frequent among males than females. The rate of admission for Māori was 3 times the rate for non-Maori, or 58 more admissions per 100,000.

Hip fractures

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

Gender	Māori			Non-Māori			Māori/non-Māori ratio (95% CI)		Rate difference
	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Ave. no. per year	Age-standardised rate per 100,000 (95% CI)				
Female	4	406.4	(223.4, 739.1)	147	397.2	(355.1, 444.4)	1.02	(0.56, 1.88)	9.1
Male	1	169.7	(54.0, 533.3)	61	269.9	(229.9, 316.9)	0.63	(0.20, 2.00)	-100.2
Total	5	288.0	(167.8, 494.4)	208	333.6	(303.9, 366.1)	0.86	(0.50, 1.49)	-45.5

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 aged 65 and over were admitted to hospital for hip fractures, at a rate of 288 per 100,000.

Elective surgery

Table 57: Hospitalisations for hip replacements, 50 years and over, Capital and Coast DHB, 2011–2013

	Māori			Non-Māori				
Gender	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Māori/non-Māori ratio (95% CI)	Rate difference
Female	10	370.4	(257.2, 533.3)	110	200.5	(177.9, 225.9)	**1.85 (1.26, 2.71)**	169.9
Male	3	148.1	(79.5, 276.1)	63	150.7	(129.7, 175.2)	0.98 (0.52, 1.86)	-2.6
Total	13	259.3	(189.1, 355.4)	173	175.6	(159.9, 192.9)	**1.48 (1.06, 2.05)**	83.7

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

On average, 13 Māori aged 50 years and over were admitted to hospital per year for a hip replacement, at a rate 48% higher than the rate for non-Māori, or 84 more per 100,000.

Table 58: Publicly funded hospitalisations for cataract surgery, 45 years and over, Capital and Coast DHB, 2011–2013

	Māori			Non-Māori				
Gender	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Māori/non-Māori ratio (95% CI)	Rate difference
Female	29	800.5	(649.2, 987.0)	436	473.7	(444.8, 504.4)	**1.69 (1.36, 2.10)**	326.9
Male	30	1,014.0	(817.1, 1,258.3)	314	437.4	(407.6, 469.4)	**2.32 (1.85, 2.91)**	576.5
Total	59	907.2	(779.3, 1,056.2)	751	455.5	(434.6, 477.5)	**1.99 (1.70, 2.34)**	451.7

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

Around 59 Capital and Coast Māori per year aged 45 years and over were admitted to hospital for cataract surgery, at twice the rate of non-Māori, or 452 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 greater Wellington region, as this data was not available by DHB.

Hospitalisations

Table 59: All-cause hospitalisations, all ages, Capital and Coast DHB, 2011–2013

	Māori		Non-Māori			
Gender	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)	Māori/non-Māori ratio (95% CI)	Rate difference
Female	4,222	23,832.5 (23,412.8, 24,259.8)	29,457	19,560.4 (19,401.1, 19,721.0)	**1.22 (1.19, 1.24)**	4,272.1
Male	2,785	17,424.4 (17,049.7, 17,807.3)	21,182	14,816.5 (14,671.0, 14,963.5)	**1.18 (1.15, 1.20)**	2,607.9
Total	7,007	20,628.5 (20,346.3, 20,914.5)	50,639	17,188.5 (17,080.4, 17,297.2)	**1.20 (1.18, 1.22)**	3,440.0

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

On average, there were 7,007 Māori hospital admissions per year and 50,639 non-Māori admissions. All-cause admission rates were 20% higher for Māori than non-Māori. This includes admissions for pregnancy and childbirth.

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

Potentially avoidable hospitalisations

Table 60: Potentially avoidable hospitalisations, 0–74 years, Capital and Coast DHB, 2011–2013

	Māori		Non-Māori			
Gender	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)	Māori/non-Māori ratio (95% CI)	Rate difference
Female	846	4,853.3 (4,664.1, 5,050.3)	4,611	3,443.1 (3,375.2, 3,512.4)	**1.41 (1.35, 1.47)**	1,410.2
Male	681	4,287.4 (4,103.5, 4,479.6)	4,349	3,352.2 (3,284.1, 3,421.6)	**1.28 (1.22, 1.34)**	935.3
Total	1,527	4,570.4 (4,437.7, 4,707.1)	8,960	3,397.6 (3,349.4, 3,446.5)	**1.35 (1.30, 1.39)**	1,172.8

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 1,500 Māori hospital admissions per year were potentially avoidable through population based prevention strategies, with a rate 35% higher than for non-Māori, or around 1,170 more admissions per 100,000.

Table 61: Ambulatory care sensitive hospitalisations, 0–74 years, Capital and Coast DHB, 2011–2013

	Māori		Non-Māori			
Gender	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)	Māori/non-Māori ratio (95% CI)	Rate difference
Female	459	2,699.5 (2,557.5, 2,849.5)	2,171	1,668.5 (1,619.7, 1,718.8)	**1.62 (1.52, 1.72)**	1,031.0
Male	402	2,541.5 (2,400.5, 2,690.9)	2,261	1,703.4 (1,654.5, 1,753.7)	**1.49 (1.40, 1.59)**	838.1
Total	861	2,614.9 (2,514.2, 2,719.6)	4,432	1,682.3 (1,647.7, 1,717.7)	**1.55 (1.49, 1.62)**	932.6

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

On average, there were 861 ambulatory care sensitive hospitalisations per year among Māori, at a rate that was 55% higher than the non-Māori rate, or 933 more admissions per 100,000.

Mortality

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

Gender	Māori			Non-Māori			Difference in years
	Years (95% credible interval)			Years (95% credible interval)			
Female	78.6	(77.7,	79.6)	83.9	(83.7,	84.1)	-5.3
Male	74.7	(73.8,	75.6)	80.3	(80.0,	80.5)	-5.6

Source: Statistics New Zealand Subnational Period Life Tables: 2012–14.
Notes: This data is for the Wellington Region (including Kāpiti, Wellington, Hutt, and Wairarapa). A map of Regional Council boundaries can be found here. The credible interval is the 2.5th percentile and the 97.5th percentile, the expected years of life at birth is the 50th percentile. Further information on the regional life tables and methods can be found here.

Life expectancy at birth is a summary measure of age-specific mortality rates during a specific period, and takes no account of changes in death rates after that period. During 2012–2014, among residents of the Wellington Region, life expectancy at birth was 78.6 years for Māori females, 5.3 years lower than that of non-Māori females (83.9 years). For Māori males, life expectancy was 74.7 years, 5.6 years lower than for non-Māori males (80.3 years).

Table 63: All-cause deaths, all ages, Capital and Coast 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	45	260.1	(237.0,	285.5)	771	139.9	(135.0,	144.9)	**1.86**	**(1.68, 2.05)**	120.2
Male	49	358.0	(326.2,	392.8)	713	194.8	(189.0,	200.8)	**1.84**	**(1.67, 2.03)**	163.1
Total	94	309.0	(289.1,	330.3)	1484	167.3	(163.5,	171.2)	**1.85**	**(1.72, 1.98)**	141.7

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

There were 94 Māori deaths per year on average in Capital and Coast from 2008 to 2012. The Māori mortality rate was almost twice the non-Māori rate, or 142 more deaths per 100,000.

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

Gender and cause	Māori				Non-Māori				Māori/non-Māori ratio (95% CI)		Rate difference
	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)			Ave. no. per year	Age-standardised rate per 100,000 (95% CI)					
Female											
IHD	7	35.7	(25.7,	49.6)	139	14.4	(13.1,15.9)		**2.48**	**(1.76, 3.49)**	21.3
Lung cancer	6	30.9	(21.4,	44.5)	32	8.0	(6.7,9.6)		**3.85**	**(2.56, 5.80)**	22.9
COPD	4	19.5	(12.3,	31.0)	33	4.3	(3.6,5.2)		**4.51**	**(2.74, 7.44)**	15.2
Breast cancer	3	17.6	(10.9,	28.4)	33	9.5	(7.9,11.3)		**1.85**	**(1.11, 3.08)**	8.1
Stroke	3	13.5	(7.8,	23.3)	87	9.1	(8.0,10.4)		1.47	(0.84, 2.58)	4.3
Male											
IHD	10	73.0	(54.6,	97.5)	158	33.5	(30.9,36.3)		**2.18**	**(1.61, 2.94)**	39.5
Accidents	4	24.5	(15.8,	38.1)	29	12.2	(9.9,15.0)		**2.01**	**(1.23, 3.27)**	12.3
Diabetes	3	22.5	(13.8,	36.4)	21	5.3	(4.2,6.6)		**4.26**	**(2.51, 7.25)**	17.2
Lung cancer	3	18.9	(11.3,	31.4)	37	9.3	(7.9,10.9)		**2.03**	**(1.19, 3.45)**	9.6
COPD	3	19.6	(11.5,	33.4)	35	6.3	(5.4,7.5)		**3.09**	**(1.77, 5.39)**	13.3
Total											
IHD	17	54.4	(43.5,	67.9)	296	24.0	(22.5,25.5)		**2.27**	**(1.80, 2.86)**	30.4
Lung cancer	9	24.9	(18.5,	33.5)	68	8.7	(7.7,9.8)		**2.87**	**(2.08, 3.96)**	16.2
COPD	6	19.5	(13.7,	27.8)	69	5.3	(4.7,6.0)		**3.67**	**(2.52, 5.33)**	14.2
Accidents	5	15.5	(10.5,	22.9)	56	9.5	(8.0,11.2)		**1.64**	**(1.08, 2.50)**	6.1
Diabetes	5	14.9	(9.9,	22.4)	39	4.2	(3.5,5.0)		**3.55**	**(2.28, 5.53)**	10.7

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

The leading causes of death for Capital and Coast Māori women were ischaemic heart disease, lung cancer, chronic obstructive pulmonary disease, breast cancer and stroke. Apart from stroke, mortality rates for these conditions were 1.9 to 4.5 times as high for Māori women compared to non-Māori women.

For Capital and Coast Māori men, the leading causes of death were ischaemic heart disease, lung cancer, COPD, accidents, and diabetes mellitus. Mortality rates were 1.6 to 3.6 times as high for Māori as for non-Māori men for these conditions.

Data on leading causes of death by ICD chapter, and death registrations by cause 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, Capital and Coast DHB, 2007–2011

	Māori			Non-Māori				
Gender	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Māori/non-Māori ratio (95% CI)	Rate difference
Female	30	165.8	(141.1, 194.9)	142	61.7	(56.4, 67.4)	**2.69 (2.24, 3.23)**	104.2
Male	32	196.9	(168.4, 230.2)	199	90.9	(84.6, 97.7)	**2.17 (1.82, 2.57)**	105.9
Total	61	181.3	(162.1, 202.9)	342	76.3	(72.1, 80.7)	**2.38 (2.10, 2.70)**	105.1

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 61 potentially avoidable Māori deaths per year in Capital and Coast on average, at a rate 2.4 times the non-Māori rate, or 105 more deaths per 100,000.

Table 66: Amenable mortality, 0–74 years, Capital and Coast DHB, 2007–2011

	Māori			Non-Māori				
Gender	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Māori/non-Māori ratio (95% CI)	Rate difference
Female	18	98.9	(80.2, 121.8)	89	37.7	(33.8, 42.0)	**2.63 (2.07, 3.32)**	61.2
Male	23	141.7	(117.8, 170.3)	139	61.6	(56.6, 67.1)	**2.30 (1.88, 2.82)**	80.0
Total	41	120.3	(104.7, 138.1)	228	49.6	(46.4, 53.1)	**2.42 (2.08, 2.83)**	70.6

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

Deaths from conditions amenable to health care were 2.4 times more frequent among Māori than non-Māori, or 71 more deaths per 100,000. There were 41 Māori deaths per year on average.

Injuries

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

Table 67: Hospitalisations for injury, all ages, Capital and Coast DHB, 2011–2013

	Māori			Non-Māori				
Gender	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Māori/non-Māori ratio (95% CI)	Rate difference
Female	338	1,935.8 (1,817.7,	2,061.6)	2,767	1,604.5	(1,559.8, 1,650.5)	**1.21 (1.13, 1.29)**	331.3
Male	412	2,557.7 (2,417.1,	2,706.5)	2,973	2,182.0	(2,129.0, 2,236.3)	**1.17 (1.10, 1.25)**	375.7
Total	750	2,246.8 (2,154.2,	2,343.4)	5,740	1,893.3	(1,858.5, 1,928.7)	**1.19 (1.13, 1.24)**	353.5

Source: NMDS

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

On average, 2,247 Māori per year were admitted to hospital for injuries, at a rate 19% higher than non-Māori or 354 more admissions per 100,000.

Table 68: Hospitalisations for assault, all ages, Capital and Coast DHB, 2011–2013

	Māori			Non-Māori				
Gender	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Māori/non-Māori ratio (95% CI)	Rate difference
Female	31	170.1	(138.5, 209.1)	38	27.4	(22.4, 33.5)	**6.21 (4.66, 8.27)**	142.7
Male	58	344.5	(296.3, 400.6)	159	124.3	(113.1, 136.6)	**2.77 (2.32, 3.31)**	220.2
Total	89	257.3	(227.8, 290.6)	196	75.8	(69.6, 82.6)	**3.39 (2.92, 3.94)**	181.5

Source: NMDS

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

On average 89 Capital and Coast Māori per year were admitted to hospital for injury caused by assault, at a rate 3.4 times the non-Māori rate, or 182 more admissions per 100,000. Males had higher admission rates than females. Māori females were admitted to hospital for assault at 6.2 times the rate of non-Māori women.

Table 69: Deaths from injury, all ages, Capital and Coast DHB, 2007–2011

	Māori			Non-Māori				
Gender	Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Ave. no. per year	Age-standardised rate per 100,000 (95% CI)		Māori/non-Māori ratio (95% CI)	Rate difference
Female	3	18.2	(11.1, 29.8)	37	12.5	(10.2, 15.4)	1.45 (0.85, 2.48)	5.7
Male	6	38.4	(27.0, 54.7)	45	22.4	(19.2, 26.1)	**1.72 (1.17, 2.53)**	16.0
Total	9	28.3	(21.2, 37.7)	82	17.4	(15.4, 19.7)	**1.62 (1.19, 2.22)**	10.9

Source: Mortality dataset, Ministry of Health.

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

On average nine Capital and Coast Māori died from injuries per year, at a rate 62% higher than non-Māori, or 11 more deaths per 100,000.

References

Anderson P, Craig E, Jackson G, Jackson C. 2012. Developing a tool to monitor potentially avoidable and ambulatory care sensitive hospitalisations in New Zealand children. *New Zealand Medical Journal* 125(1366): 25–37.

Clayton D, Hills M. 1993. *Statistical Methods in Epidemiology*. Oxford: Oxford University Press.

Crengle S, Clark T C., Robinson E, Bullen P, Dyson B, Denny S, Fleming T, Fortune S, Peiris-John R, Utter J, Rossen F, Sheridan J, Teevale T, & The Adolescent Health Research Group (2013). *The health and wellbeing of Māori New Zealand secondary school students in 2012. Te Ara Whakapiki Taitamariki: Youth'12.* Auckland: The University of Auckland.

Ministry of Health. 2010. *Saving Lives: Amenable mortality in New Zealand, 1996–2006*. Wellington: Ministry of Health.

Ministry of Health. 2013. *New Zealand Health Survey: Annual update of key findings 2012/13*. Wellington: Ministry of Health.

Ministry of Health. 2014. *The Health of Māori Adults and Children, 2011–2013*. Wellington: Ministry of Health.

Robson B, Harris R. 2007. *Hauora: Māori Standards of Health IV. A study of the years 2000–2005.* Wellington: Te Rōpū Rangahau Hauora a Eru Pōmare.

Robson B, Purdie G, Cram F, Simmonds S. 2007. Age standardisation: an indigenous standard? *Emerging Themes in Epidemiology* 4:3.

Appendix 1: Population projections

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

Projected Māori Ethnic Group Population by Age and Sex at 30 June 2014–33 (2013-Base)

*** Medium Projection : Assuming Medium Fertility, Medium Mortality, Medium Inter-Ethnic Mobility, and Medium Migration ***

Age	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
		2013(Base)			2014			2015			2016	
0	390	360	740	380	360	740	380	360	740	380	360	740
1-4	1,530	1,410	2,940	1,520	1,370	2,890	1,510	1,360	2,870	1,500	1,400	2,900
5-9	1,710	1,650	3,360	1,750	1,730	3,480	1,820	1,790	3,620	1,830	1,750	3,570
10–14	1,520	1,540	3,050	1,550	1,520	3,060	1,510	1,480	3,000	1,520	1,480	3,010
15-19	1,650	1,700	3,350	1,560	1,570	3,120	1,510	1,490	3,010	1,520	1,520	3,040
20-24	1,600	1,870	3,470	1,710	1,970	3,690	1,790	2,040	3,830	1,800	1,970	3,780
25-29	1,090	1,240	2,330	1,210	1,370	2,590	1,320	1,450	2,780	1,440	1,610	3,040
30-34	990	1,090	2,070	950	1,050	2,000	920	1,070	1,990	930	1,040	1,970
35-39	970	1,160	2,130	930	1,130	2,060	940	1,090	2,030	920	1,070	1,990
40-44	1,010	1,200	2,210	1,020	1,190	2,200	980	1,170	2,150	940	1,150	2,090
45-49	960	990	1,950	970	1,050	2,020	960	1,080	2,040	960	1,120	2,080
50-54	730	940	1,670	780	910	1,700	830	930	1,760	850	920	1,770
55-59	570	650	1,220	570	710	1,280	580	730	1,310	610	790	1,400
60-64	430	480	910	450	490	940	450	520	970	470	530	1,010
65-69	260	340	590	280	350	630	310	370	680	350	390	740
70–74	200	210	420	210	220	440	200	230	440	190	240	430
75-79	110	130	230	100	140	240	120	140	260	130	150	280
80-84	40	60	100	40	70	110	50	70	120	60	70	130
85-89	10	30	40	10	30	40	10	30	40	10	40	50
90+	0	20	20	0	20	20	0	20	30	0	20	20
All Ages	15,800	17,000	32,800	16,000	17,200	33,200	16,200	17,400	33,700	16,400	17,600	34,000
		2017			2018			2019			2020	
0	380	360	740	380	360	750	390	370	750	390	370	760
1-4	1,490	1,410	2,900	1,490	1,410	2,890	1,490	1,410	2,900	1,500	1,420	2,910
5-9	1,840	1,710	3,550	1,830	1,680	3,510	1,810	1,640	3,450	1,800	1,630	3,430
10–14	1,570	1,530	3,110	1,620	1,570	3,190	1,650	1,650	3,300	1,720	1,710	3,430
15-19	1,460	1,500	2,960	1,440	1,480	2,920	1,470	1,460	2,920	1,430	1,420	2,850
20-24	1,780	1,890	3,670	1,750	1,760	3,520	1,650	1,630	3,280	1,600	1,550	3,160
25-29	1,550	1,760	3,300	1,640	1,910	3,550	1,740	2,010	3,750	1,810	2,070	3,890
30-34	960	1,050	2,010	1,030	1,110	2,130	1,150	1,240	2,390	1,250	1,320	2,580
35-39	920	1,030	1,950	870	990	1,860	840	950	1,790	810	970	1,780
40-44	930	1,090	2,020	900	1,090	1,980	860	1,050	1,910	870	1,020	1,880
45-49	940	1,150	2,090	940	1,130	2,060	940	1,110	2,050	910	1,090	2,000
50-54	880	930	1,810	890	920	1,810	900	980	1,880	890	1,010	1,890
55-59	650	820	1,470	670	880	1,540	710	850	1,560	760	860	1,620
60-64	500	550	1,040	510	580	1,090	510	640	1,140	510	660	1,170
65-69	350	410	760	360	420	780	380	420	810	390	450	840
70–74	190	260	450	200	280	480	220	290	510	250	310	560
75-79	140	170	310	150	170	320	170	170	340	150	180	340
80-84	60	70	130	70	90	150	60	100	160	70	100	170
85-89	10	40	50	20	40	50	20	40	60	30	40	70
90+	0	20	20	0	20	30	0	20	30	0	30	30
All Ages	16,600	17,700	34,300	16,800	17,900	34,600	16,900	18,000	35,000	17,100	18,200	35,300

These projections were derived in October 2014.

Source: Statistics New Zealand

Table 71: Total population projections, single year, by age group, Capital and Coast DHB, 2013 to 2020

*** Medium Projection : Assuming Medium Fertility, Medium Mortality, Medium Inter-Ethnic Mobility, and Medium Migration ***

Age	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
		2013(Base)			2014			2015			2016	
0	1,960	1,850	3,800	1,910	1,810	3,710	1,920	1,820	3,740	1,930	1,820	3,750
1-4	7,870	7,530	15,400	7,730	7,430	15,160	7,590	7,340	14,930	7,510	7,270	14,780
5-9	9,150	9,000	18,140	9,260	9,070	18,340	9,430	9,220	18,650	9,470	9,180	18,650
10–14	8,950	8,650	17,600	8,980	8,630	17,610	8,880	8,430	17,320	8,750	8,440	17,200
15-19	10,280	10,530	20,810	10,200	10,560	20,750	10,180	10,690	20,870	10,200	10,700	20,900
20-24	12,340	13,370	25,710	12,910	13,650	26,560	13,290	13,910	27,200	13,510	14,040	27,550
25-29	10,360	11,150	21,520	10,850	11,500	22,350	11,400	11,810	23,210	12,040	12,260	24,300
30-34	10,170	10,810	20,970	10,100	10,840	20,940	10,040	10,900	20,940	9,970	10,860	20,830
35-39	9,920	10,780	20,700	9,670	10,550	20,210	9,720	10,390	20,100	9,690	10,290	19,990
40-44	10,490	11,690	22,180	10,550	11,600	22,150	10,300	11,470	21,770	9,990	10,980	20,970
45-49	10,200	11,050	21,260	10,080	11,010	21,080	10,070	11,050	21,120	9,990	11,190	21,180
50-54	9,600	10,330	19,930	9,760	10,650	20,410	9,850	10,670	20,520	9,960	10,750	20,710
55-59	7,780	8,470	16,240	8,030	8,590	16,610	8,340	8,950	17,290	8,600	9,270	17,870
60-64	6,820	7,200	14,020	6,870	7,330	14,190	6,980	7,530	14,510	7,080	7,750	14,830
65-69	5,630	6,090	11,710	5,880	6,450	12,330	6,110	6,620	12,730	6,270	6,770	13,040
70–74	4,010	4,530	8,540	4,210	4,650	8,850	4,280	4,840	9,120	4,420	4,950	9,380
75-79	2,740	3,250	5,980	2,800	3,420	6,220	3,000	3,620	6,630	3,180	3,880	7,060
80-84	1,980	2,660	4,640	2,020	2,660	4,680	2,090	2,640	4,720	2,120	2,630	4,750
85-89	1,090	1,720	2,820	1,130	1,750	2,870	1,130	1,750	2,880	1,180	1,830	3,010
90+	440	1,040	1,490	480	1,090	1,570	530	1,190	1,720	550	1,200	1,760
All Ages	**141,800**	**151,700**	**293,500**	**143,400**	**153,200**	**296,600**	**145,100**	**154,900**	**300,000**	**146,400**	**156,100**	**302,500**
		2017			2018			2019			2020	
0	1,940	1,830	3,770	1,950	1,850	3,790	1,960	1,860	3,820	1,970	1,870	3,840
1-4	7,560	7,180	14,740	7,530	7,160	14,680	7,560	7,190	14,750	7,600	7,230	14,830
5-9	9,330	9,130	18,460	9,270	8,960	18,230	9,050	8,800	17,850	8,890	8,680	17,560
10–14	8,810	8,530	17,350	8,800	8,680	17,480	8,890	8,740	17,630	9,030	8,860	17,890
15-19	10,060	10,610	20,670	10,030	10,570	20,600	10,030	10,530	20,550	9,900	10,300	20,200
20-24	13,650	14,020	27,670	13,690	13,990	27,690	13,550	13,970	27,520	13,480	14,040	27,520
25-29	12,600	12,670	25,270	13,030	12,930	25,960	13,510	13,120	26,630	13,790	13,280	27,060
30-34	10,070	10,960	21,040	10,270	11,080	21,350	10,680	11,340	22,020	11,140	11,570	22,720
35-39	9,630	10,250	19,880	9,720	10,290	20,010	9,620	10,290	19,900	9,510	10,300	19,810
40-44	9,670	10,520	20,190	9,330	10,170	19,500	9,040	9,900	18,930	9,040	9,700	18,740
45-49	9,970	11,200	21,170	9,910	11,200	21,120	9,950	11,100	21,050	9,670	10,930	20,610
50-54	9,860	10,870	20,730	9,750	10,670	20,410	9,600	10,590	20,190	9,550	10,600	20,150
55-59	8,910	9,570	18,480	9,140	9,920	19,060	9,290	10,220	19,510	9,360	10,220	19,580
60-64	7,210	7,840	15,040	7,290	8,020	15,310	7,520	8,120	15,640	7,810	8,460	16,260
65-69	6,240	6,820	13,060	6,340	6,850	13,190	6,370	6,970	13,340	6,480	7,160	13,640
70–74	4,770	5,270	10,040	5,110	5,720	10,830	5,360	6,070	11,430	5,570	6,230	11,800
75-79	3,370	4,050	7,420	3,470	4,120	7,590	3,640	4,230	7,860	3,680	4,400	8,090
80-84	2,090	2,740	4,830	2,120	2,750	4,880	2,160	2,910	5,070	2,350	3,090	5,440
85-89	1,230	1,850	3,080	1,280	1,920	3,200	1,330	1,940	3,260	1,390	1,930	3,320
90+	610	1,240	1,840	640	1,300	1,940	670	1,320	1,990	660	1,370	2,030
All Ages	**147,600**	**157,100**	**304,700**	**148,700**	**158,200**	**306,800**	**149,800**	**159,200**	**308,900**	**150,900**	**160,200**	**311,100**

Source: Statistics New Zealand

These projections were derived in October 2014.

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

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

Suppression of causes of death or hospitalisation

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

Ninety-five percent confidence intervals

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

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

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

Age standardisation

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

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

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

Table 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.

TE RŌPŪ RANGAHAU HAUORA A ERU PŌMARE

UNIVERSITY of OTĀGO
Te Whare Wānanga o Otāgo
NEW ZEALAND

MANATŪ HAUORA
MINISTRY OF HEALTH