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"Should we look for technical solutions and educate people and patients about healthy behaviour? Or should we... seek to create the conditions for people to lead fulfilling lives, free from poverty and drudgery? In my view we should do both."

Marmot 2015

Health Inequities are differences in health outcomes that are avoidable or preventable — and therefore unfair. But they are not inevitable. We can make a difference with a determined and focused effort that addresses underlying causes and provides better, closer to home health services. This means working across the whole community to make sure living conditions that support health are distributed fairly. It requires "tackling" and "going on the offensive".

This "Tackling Health Inequities" report is a mixture of good news and bad news. Thirteen of the 18 indicators reviewed show improvements. Inequity has decreased and we are seeing progress in areas where effective and targeted health services are making a difference.

However the powerful impact of social and economic factors on health means for many other areas either progress is slow or worsening.

We still don't fully understand the relationship between health promoting behaviours and disadvantage, but this report profiles one local initiative, Iron Māori, which demonstrates that behaviour change is possible if it's supported appropriately.

This sets out an on-going challenge for us all if we are serious about eliminating health inequity. It reemphasises the need to work closely with people, whānau, communities and other agencies, as a team, to build healthier and fairer communities. We need a game plan to tackle the multiple determinants of health:

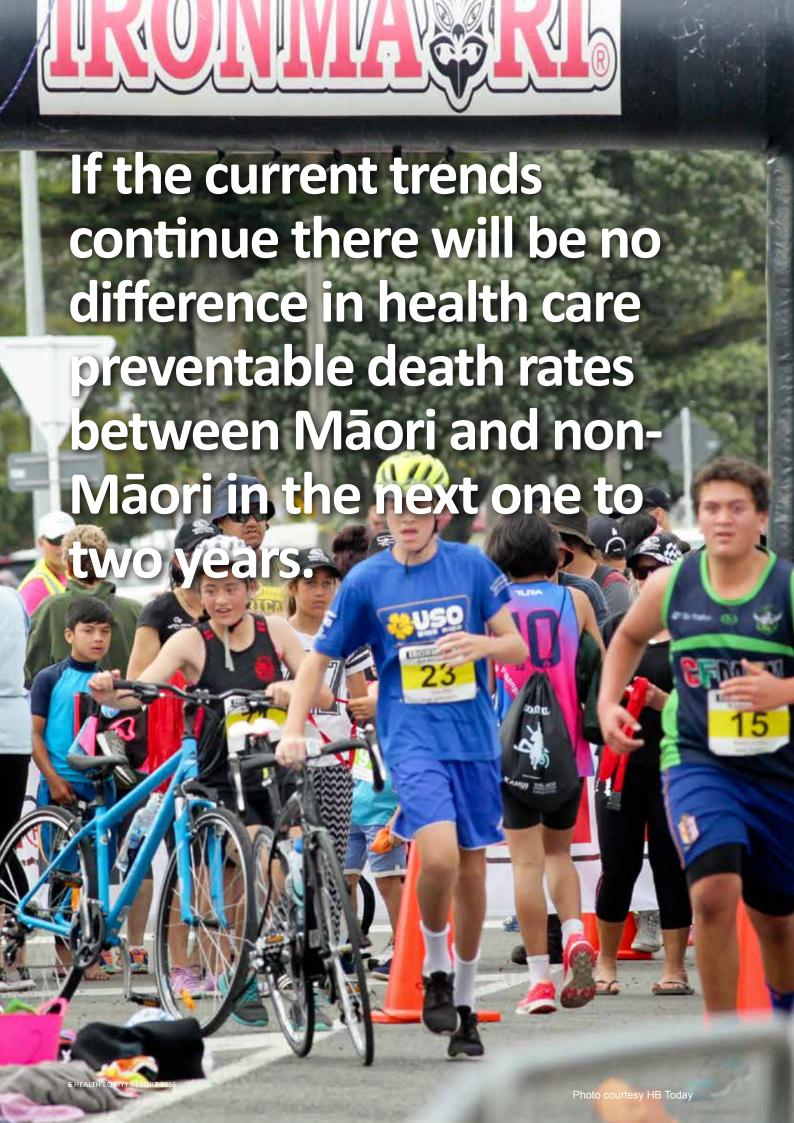
Tackling behaviours — support people, whānau and communities to live healthier lives — this includes supporting programmes which engage and motivate people and whānau, as well as working with communities to help make healthy choices easier and more accessible.

Tackling social and economic factors – work together to focus on better economic development and social inclusion across Hawke's Bay; support increases in minimum wage towards a living wage; tackle housing issues.

Tackling health care – assess the impact on health equity when designing health programmes or service changes, provide care that's easy to reach and in the community, ask about social conditions and make sure people are supported with referrals to agencies that can help with income, social support and housing improvements.

Dr Caroline McElnay, Health Equity Champion Director of Population Health

June 2016



KEY FINDINGS

INEQUITY GAP IN DEATHS THAT COULD HAVE BEEN PREVENTED (AVOIDABLE DEATHS) NEARLY GONE

We have seen significant and continued reduction in deaths, which could have been prevented by either prevention or early treatment programmes or better access to medical care. Known as avoidable mortality and amenable mortality indicators if the current trends continue there will be no difference in health care preventable death rates between Māori and non-Māori in the next one to two years.

HOSPITAL ADMISSIONS FOR 0-4 YEAR OLDS, THAT COULD HAVE BEEN AVOIDED, ARE REDUCING

Ambulatory sensitive admissions for 0-4 year olds are the number of hospital admissions which could have been avoided by prevention programmes in primary care or better access to treatment in primary care in this age group. We are seeing less of these admissions and good progress in reduction of inequity. This is mostly due to specific health programmes such as the introduction of the rotavirus (a virus which causes diarrhoea and dehydration in infants and young children) vaccine into the childhood immunisation schedule and a local management programme for skin infections.

TEENAGE PREGNANCY RATES DECREASING

Teenage pregnancy rates have also decreased. This is largely due to improved access to primary care contraceptive and sexual health services. This is due to more general practices able to offer free services for young people and a social media awareness raising and education campaign.

AT LEAST 50 YEARS BEFORE EQUITY IN LIFE EXPECTANCY BETWEEN MĀORI AND NON-MĀORI IS ACHIEVED IF CURRENT TRENDS CONTINUE

We predict it will take at least 50 years before equity in life expectancy between Māori and non-Māori is achieved if current trends continue. The variation in life expectancy for Māori across New Zealand highlights the effect of geography on this measure — Māori in Hawke's Bay can expect to live on average six years less than Māori in Otago. This variation is likely to be due to underlying social and economic living conditions and inequalities rather than any significant variation in health services. It matters more where you live if you are Māori than if you are non-Māori

OF GREAT CONCERN ARE THE AREAS WHERE HEALTH INEQUITY APPEARS TO BE WORSENING OR STATIC

All five areas highlighted in this report have strong social and economic links.

- ACUTE RESPIRATORY (BRONCHIOLITIS)
 Admissions amongst children are increasing and are associated with poor housing conditions;
- SMOKING AMONGST MĀORI WOMEN
 REMAINS HIGH. Of all Māori women giving birth
 in the past year 43 percent were smokers at the
 current slow rate of decrease it will be another
 15 years before rates are the same as non-Māori.
 Helping women to stop smoking remains a priority
- OBESITY IN FOUR YEAR OLDS has increased since 2009 with significant variation across communities. Nearly 12 percent of children living in places like Camberley and Tamatea are obese compared to less than 1 percent of four year olds living in places like Havelock North Central and Poraiti.
- There has been no improvement in the ORAL
 HEALTH OF FIVE YEAR OLDS with Māori or
 Pasifika children, or children living in less affluent
 communities, having significantly more dental
 decay.
- The widening gap and increase in VIOLENT
 CRIME in Hawke's Bay compared to the rest of
 New Zealand is a marker of underlying community
 and social issues. Research tells us that the more
 unequal societies are the more likely they are to
 experience higher rates of violent crime.

Hawke's Bay is a great place to live. But not everyone in Hawke's Bay has the same opportunity to be healthy.

INTRODUCTION

Hawke's Bay is a great place to live. But not everyone in Hawke's Bay has the same opportunity to be healthy. Stark health inequities exist in some parts of our community with some groups having better health outcomes than others. For Hawke's Bay to have the brightest future possible we need to collectively eliminate these health inequities.

So started my last report released in October 2014. This update gives us a chance to see how we are progressing on some of the key areas of health inequity.

The response to the 2014 report was mostly positive with many community groups, health professionals, local government and central government agencies and media showing interest.

However not everyone was receptive or positive about the report. The feedback I received varied:

"This isn't health equity – most of these diseases are due to poor lifestyle choices made by some."

Health inequities are differences in health outcomes which are avoidable or remediable – in other words they are not inevitable. Not all differences in health outcome are avoidable, but when avoidable differences are seen consistently between different groups of people, no matter how those groups are defined then those differences are inequitable.

Many lifestyle choices such as smoking, drinking alcohol, lack of exercise or poor eating are strongly linked with socioeconomic status and income. While ultimately people are responsible for the choices they make, many of those choices are influenced by factors outside that person's control. We need to dig deeper into what those influences are and help to make a difference. We cannot assume that if only people knew what to do to improve their health they would do it — and if they didn't then they must be lazy, disinterested and deserve all that befalls them consequently. I explore this in more detail in the next chapter.

"Why are you focusing so much on deaths and length of life – surely it's the quality of life that's important?" Quality of life is important but when there are still significant differences in the length of life by ethnicity that tells us that we need to do something about this major health inequity. A quarter of all deaths among Māori in Hawke's Bay occur before the age of 50, mostly from preventable or treatable causes.

"You haven't told me anything I don't already know – I live and work in communities where health inequities are stark."

Many community groups told me that my report wasn't news to them – and my response was that my report wasn't directed at them – but at the many others in our community who don't know about health inequities, and who don't realise the contribution that they too can make to improving health and wellbeing in Hawke's Bay. They may be business owners generating employment, teachers working with young Māori and Pasifika who may be struggling to achieve qualifications, philanthropists keen to give back to their community. We all have a role in reducing health inequity and the solutions lie amongst us all collectively.

"Your report missed many aspects of health such as mental well-being and domestic violence – they have a powerful impact on health in our community and there must be inequities there."

One of the biggest problems in trying to describe health equity and its drivers is the lack of good population health data in areas such as mental health, domestic violence, and whānau focused data. We need to develop better measures of well-being in our community including how to better describe the health of whānau and communities in a more holistic way. Also some data sources are not updated annually for example the Census and the New Zealand Health Survey. There is also often a delay in some data releases – mortality data can be three years old by the time the DHB receives it, thereby limiting our ability to be up-to-date. Any health equity report can only ever be a snapshot of what is happening in the community.

"Your report missed many aspects of health such as mental well-being and domestic violence – they have a powerful impact on health in our community and there must be inequities there."

Future reports will look in more detail at these other areas. In addition the importance of whānau and on whānau ora has long been identified as an important component and a key driver of Māori development. Health equity for Māori therefore needs to consider whānau health equity.

"What is the DHB going to do about this? This shows your services aren't up to scratch with the rest of the country."

This DHB should of course aim and strive to provide the best quality health services that it can and ensure equitable access to that health care — so that health needs are met in a timely, and high quality way. I highlighted in my 2014 report the particular issues around access to primary care, especially amongst 45-64 year olds and the barriers that the cost of going to a general practice can create. However addressing many of the causes of ill-health lie outside the direct control of the DHB. This is why Hawke's Bay DHB is working closely with other agencies across Hawke's Bay, including businesses and the economic sector, to develop ways of tackling these issues together.

TACKLING HEALTH INEQUITIES: CHANGING BEHAVIOUR

There are many factors which influence health and therefore many ways of addressing health inequities. These factors can be categorised into four main areas:

Health behaviours – such as use of tobacco, nutrition, physical activity, alcohol

Health care – both access to care and receipt of high quality health care

Social and economic factors – where education and income are two of the biggest determinants of health

Physical environment – the quality of our air, water and other environmental factors that can directly influence our health and well-being.

Tackling health inequities requires a combination of approaches and broad community effort and leadership. Solely focusing on one area will not get us the health equity we want.

In this update I want to explore tackling health behaviours in more detail.

When we look at the difference in healthy behaviours within a community we often see less healthy behaviours amongst communities which are less well off. There have been many attempts to explain why this is so. It's clearer when risk factors are linked to the unaffordability of essentials such as housing and heating. It's more complicated when we look at risk factors such as smoking, obesity or alcohol. How much of this is due to informed personal choice and how much due to other factors (linked in some way to social disadvantage) which actually stops people from making more healthy choices?

Most people know smoking harms health and about the importance of good food and regular exercise. The reasons people continue to smoke and that obesity continues to increase do not stem from ignorance. Advice is useful but it is not how much people know that determines whether they behave as the advice suggests. What we fail to understand are the barriers that are stopping people from taking up those healthy behaviours.

Empowerment is about knowing you have control over many aspects of your health, about valuing the changes you can make and about then making those changes. Research has shown that empowerment is often absent in less well-off communities often then resulting in a belief that change isn't possible or they can't make changes to their health. This may help explain some of the variation we see in patterns in healthy behaviour.

Tackling health inequities and helping to change behaviours therefore requires both a supportive environment and empowerment framework.

- First by making healthy choices the easy choices (for example: knowledge, availability and cost, supportive environment)
- Secondly by empowering people to make decisions that will positively influence their health and wellbeing.

IRON MĀORI

A local example of an empowerment model is Iron Māori. I spoke to Heather Skipworth the founder of Iron Māori and fellow trustee Lee Grace about Iron Māori and its Kaupapa.

Iron Māori was first established in 2009. It offers triathlon-style swim, run, and cycle events in a variety of distance ranges for both individuals and for teams. It's very popular both within Hawke's Bay and across New Zealand.

For many of its participants it has proved to be life changing with many going on to achieve other personal goals in education, employment and improved health and mental wellbeing.

Heather's original concept for Iron Māori came out of her own sense of achievement she experienced on completing her first Iron Man event. At the time she was working with some clients with weight problems and she wanted to help them get that same sense of achievement and accomplishment in reaching their goals.

"When you complete something that's hard, arduous, takes a lot of tenacity and it's something that people don't expect you to be able to do, you grow from that. That transcends an event and ends up in other aspects of your life – how you think about yourself and how you expect more of yourself. There is a shift in peoples thinking from 'I can't do this', 'this is the mould I'm in' '...this is how life has been' towards realising that all of those are changeable."

Iron Māori does this by creating an accepting and supportive environment for those who register for one of their events. This starts right from the very first meeting where people share their stories and 'you are surrounded by a lot of people who can accept you for your whole person'.

This non-judgemental aspect is emphasised:

"You can go to doctors and even if he's not judgemental he's going to say you are overweight — you need to lose some weight. We never tell people they are obese. We never concentrate on their health issues. We just include them and the health issues slowly slip away without even having talked about them."

Empathy and trust are not just words on a mission statement; Lee says that Iron Māori is real.

"People stand up at the info evenings and talk about their life story - this resonates with people who are in that position. They may be living with drugs and violence and alcohol at the moment but they see someone who was doing that two years ago talking about how their lives changed. This openness and vulnerability is really powerful."

Whanaungatanga and the inclusiveness of Iron Māori is an essential part of the physical training

"Even with the practical training side of things there are barriers that individuals have to overcome to feel included. For some people simply wearing togs for the first time in front of a bunch of people is hard. But with a lot of laughter and humour it doesn't take long for people to come in and they are comfortable."

Trust, being inclusive and having a lot of empathy are key to Iron Māori's strength. But so too is the belief in people.

"We say we can take you and we will have you swimming... we believe you - you can do it and we keep believing in them even when they don't. Someone else believes in them enough that they keep doing it and when they do it they feel great!"

The health benefits are side benefits that come about as people realise smoking or too much alcohol doesn't fit into an active lifestyle. But the change comes from them – no-one is telling them to stop – they want to change and Iron Māori gives them a belief in themselves to change the things they thought they couldn't.

"I can kick that habit because I don't want it."

Heather and Lee have also seen people going back into study and getting into training or employment.

"This is not about rules — or saying you can't smoke or drink - it's a positive drive as opposed to reducing the negative. They have a reason to want to change and they are supported by others who are doing the same."

"By accomplishing a goal in a supportive way and feeling really good ...opens up a whole world of 'I can do that' – it's about confidence to go and do things." Role models are important – and what Iron Māori provides is for people who are achieving their personal goals, not drinking and spending more time with their families to be positive role models for others.

"We don't get bogged down in the why or the theory or the latest study on motivation to change. We just do it and we try to understand people. We know what's really powerful is when you hear someone speak and they are telling your story, and the time is right - then that's your motivation.

"We never tell anyone they are on a programme – because programmes begin and end. This is

a Kaupapa – this is your life, this is part of your lifestyle and a way of living. We never say it's a programme – even if you leave Iron Māori your journey still continues – it has no end. "

There are other programmes in our community which support empowerment and motivation to change. They vary in detail but the central theme is about giving back control to people to make changes in their lives and the lives of their whānau. These types of programmes and a resolve to provide an environment to support healthy choices will have a positive impact on behaviours and the choices that people make.



CHAPTER 1.0 HEALTH OUTCOMES

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LIFE EXPECTANCY - HOW LONG WE LIVE

There is no updated life expectancy data, by District Health Board, since the last Health Equity 2014 report - that was for the period 2008-10. However recent analysis by Statistics New Zealand calculates life expectancy by territorial authority regions for 2012-14 and also compares the results with 2005-07. The Hawke's Bay territorial region is very similar to the Hawke's Bay DHB boundaries and this analysis provides us for the first time a comparison of how we do in relation to other parts of New Zealand and how life expectancy has changed over this seven year period.

Life expectancy at birth has increased in all regions in New Zealand since 2005–07, with Hawke's Bay increasing the most - by 1.5 years for males and 1.2 years for females. Hawke's Bay however remains in the bottom quartile of the 16 territorial authority regions.

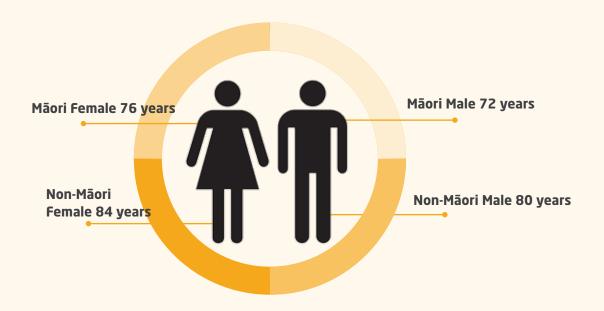
The gap in life expectancy in Hawke's Bay between

Māori and non-Māori is 8.2 years for males and 7.7 years for females. This is one of the largest gaps in life expectancy across New Zealand, which varies from one year in Otago to nine years in Northland. This variation in gap is due to the variation in life expectancy for Māori across the country, rather than any variation in life expectancy for non-Māori. Māori in Hawke's Bay can expect to live on average six years less than Māori in Otago. This variation in life expectancy for Māori across New Zealand will be heavily influenced by social and economic factors rather than health behaviours and local health service provision.

Analysis of trends in life expectancy between 2005-07 and 2012-14 by ethnicity and gender shows that the biggest gains in life expectancy across New Zealand were for Māori males in Hawke's Bay and for Māori females in Hawke's Bay, along with gains in the Taranaki, Tasman and West Coast regions.

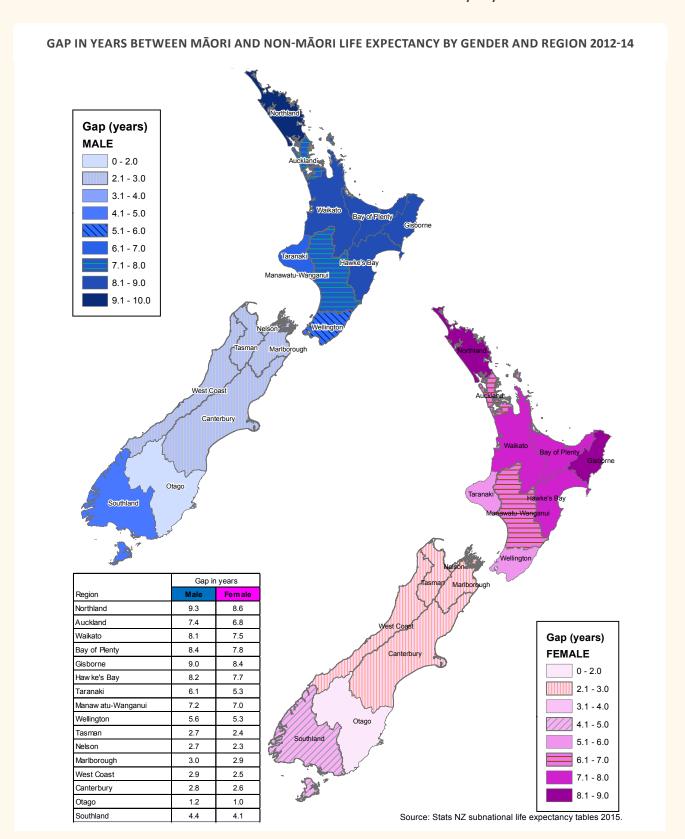
LIFE EXPECTANCY IN HAWKE'S BAY REGION, BY ETHNICITY AND GENDER, 2012-14, YEARS

	HAWKE'S BAY	LIFE EXPECTANCY GAP	NEW ZEALAND	LIFE EXPECTANCY GAP	
Males	78.6 years		79.5 years		
Females	82.4 years	3.8 years	83.2 years	3.7 years	
Māori Male	71.7 years		73.0 years		
Non - Māori Male	79.9 years	8.2 years	80.3 years	7.3 years	
Māori Female	75.9 years		77.1 years		
Non - Māori Female	83.6 years	7.7 years	83.9 years	6.8 years	



The 1.4 years reduction in life expectancy gap between Māori and non-Māori males in Hawke's Bay is also the largest reduction observed across the regions in New Zealand.

Good progress appears to have been made in Hawke's Bay over the past seven years, especially compared to other regions. However at the current rate of change in life expectancy equity for Māori won't be reached for another nearly 50 years.



COMPARISON OF PREMATURE DEATHS IN HAWKE'S BAY BETWEEN 2006-10 AND 2008-12

	DEATHS UNDER 75 YEARS		DEATHS UNDER 50 YEARS	
	2006-2010	2008-2012	2006-2010	2008-2012
Māori	77.0%	73.2%	26.3%	24.8%
Pasifika	52.4%	63.4%	23.8%	29.0%
Other	31.9%	31.3%	5.1%	5.2%
Quintile 5	56.5%	54.5%	16.1%	14.8%
Quintile 1	20.6%	20.8%	4.4%	3.9%
HB Total	38.7%	38.0%	9.2%	8.5%

PREMATURE DEATHS

Premature deaths are deaths before the age of 75 years. In Heath Equity 2014 I highlighted the inequity in the proportion of premature deaths before 75 years but also, more shockingly, in deaths before the age of 50 years for both Māori and Pasifika in Hawke's Bay. The latest figures for 2008-12 show improvements with a small decrease in the percentage of Māori dying before the age of 50 years but an increase for Pasifika people (numbers are very small).

A quarter of the deaths in our Māori communities occur before the age of 50 compared to only 5 percent in our non-Māori non-Pasifika communities. Most of these deaths are avoidable.

AVOIDABLE DEATHS

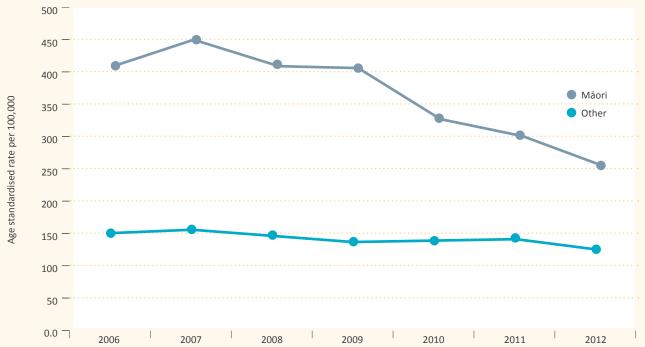
Nearly three-quarters of all deaths before the age of 75 years are avoidable either because of disease prevention

or because of effective treatment and health care. Deaths due to these diseases or conditions can be counted and expressed as a rate. Any difference in these rates by ethnicity or by area of residence can therefore be considered to be a health inequity.

The equity gap in avoidable deaths is reducing and should close by 2017 if current trends continue. Avoidable death rates are still two times higher amongst Māori and amongst people living in Quintile 5 areas in Hawke's Bay.

The top cause of avoidable death across all ethnic groups remains ischaemic heart disease (heart attacks), accounting for about 20 percent of all avoidable deaths. The top cause of avoidable death for Māori women is lung cancer, followed by ischaemic heart disease. The top cause of death for non-Māori women remains breast cancer. Road traffic injuries and diabetes continue to be significant causes of death amongst Māori. Suicide is a significant cause of death for all ethnicities.

HAWKE'S BAY AVOIDABLE MORTALITY AGE STANDARDISED RATE PER 100,000 BY ETHNICITY



Source: Ministry of Health National Mortality Collection

The equity gap in avoidable deaths is reducing and should close by 2017 if current trends continue.



TOP CAUSES OF AVOIDABLE DEATHS	MĀORI MALES	OTHER MALES	MĀORI FEMALES	OTHER FEMALES
Ischaemic heart disease	26.6% (1)	22.3% (1)	15.6% (2)	12.3% (3)
Road traffic injuries	12.5% (2)	4.5% (6)	3.9% (8)	-
Lung cancer	10.3% (3)	17.7% (2)	22.4% (1)	13.6% (2)
Diabetes	8.2% (4)	3.5% (9)	8.3% (4)	2.8% (9)
Suicide & self-inflicted injuries	6.0% (5)	8.3% (3)	5.4% (6)	3.2% (8)
Complications infant perinatal period	4.1% (6)	-	-	-
Cerebrovascular disease	3.8% (7)	5.7% (5)	5.4% (6)	7.8% (5)
COPD (respiratory disease)	3.4% (8)	4.1% (8)	5.9% (5)	6.9% (6)
Breast cancer	-	-	8.3% (3)	14.1% (1)
Colorectal cancer	3.1% (9)	7.9% (4)	-	11.9% (4)
Melanoma skin	-	4.2% (7)	-	4.5% (7)
Stomach cancer	2.5% (10)		-	-

POTENTIAL YEARS OF LIFE LOST (PYLL)

Another way of looking at premature deaths is to calculate the average years a person would have lived if they had not died prematurely. This method emphasises the importance of causes of death which occur at earlier ages because there are more potential years of life lost (PYLL).

The most recent time period studied (2008-12) shows that there have been **reductions** in **PYLL** and a reduction in inequity for Māori and people living in Quintile 5 areas. However Māori rates are still 2.0 times, Pasifika rates 2.9 times and people living in Quintile 5 1.8 times higher than the rest of Hawke's

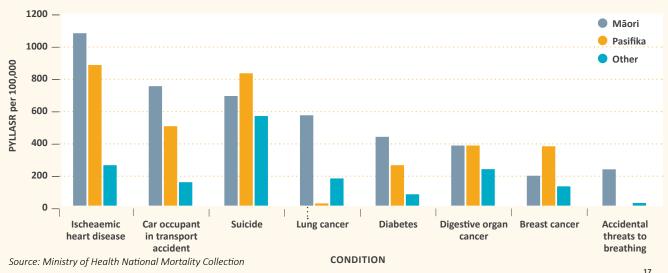
The top conditions to target to reduce health inequity continue to be:

• ischaemic heart disease (heart attacks) (Māori 4 times and Pasifika 3 times higher),

- being in a car involved in a transport accident (Māori 4.6 times and Pasifika 3 times higher)
- lung cancer (Māori 3 times higher)
- diabetes (Māori 5 times and Pasifika 3.5 times higher)

In the time period 2008-12 a set of conditions coded as "Other accidental threats to breathing" emerged as a top cause of PYLL for Māori (Māori 17 times higher). This latter grouping includes Sudden Unexplained Death in infancy (SUDI). A small number of deaths at an early age (these deaths all occurred in the first year of life) will result in large numbers of potential years of life lost. SUDI rates in Hawke's Bay have been falling but a spike was seen in 2010-11. This spike was noticed and led to local maternity and early child care services implementing a Safe Sleep programme focused on the prevention of SUDI.

TOP CAUSES OF POTENTIAL YEAR OF LIFE LOST (2008-12) BY ETHNICITY



CHAPTER 2.0 SOCIAL AND ECONOMIC FACTORS

This section looks at some social and economic factors which can influence health and where possible looks at the distribution of those across the community.

CHILDREN LIVING IN HOUSEHOLDS RECEIVING BENEFITS

There has been a decrease in the percentage of children in Hawke's Bay living in households receiving a working age main benefit although these figures are still higher than for New Zealand as a whole. Twenty eight percent of 0-4 year olds live in households receiving a working age benefit compared with 21 percent for New Zealand and 23 percent of 0-14 year

olds in Hawke's Bay compared to 18 percent in New Zealand (at end June 2015).

There are however still clear disparities by ethnicity, particularly for Māori, with the most recent figures for 2015 showing **42 percent of Māori children aged 0-4 years** living in such households compared to 15.3 percent of non- Māori non-Pasifika children.

PERCENT OF CHILDREN (0-4 YEARS) LIVING IN A HOUSEHOLD DEPENDENT ON A MAIN BENEFIT BY ETHNICITY (AS AT END OF JUNE YEAR)

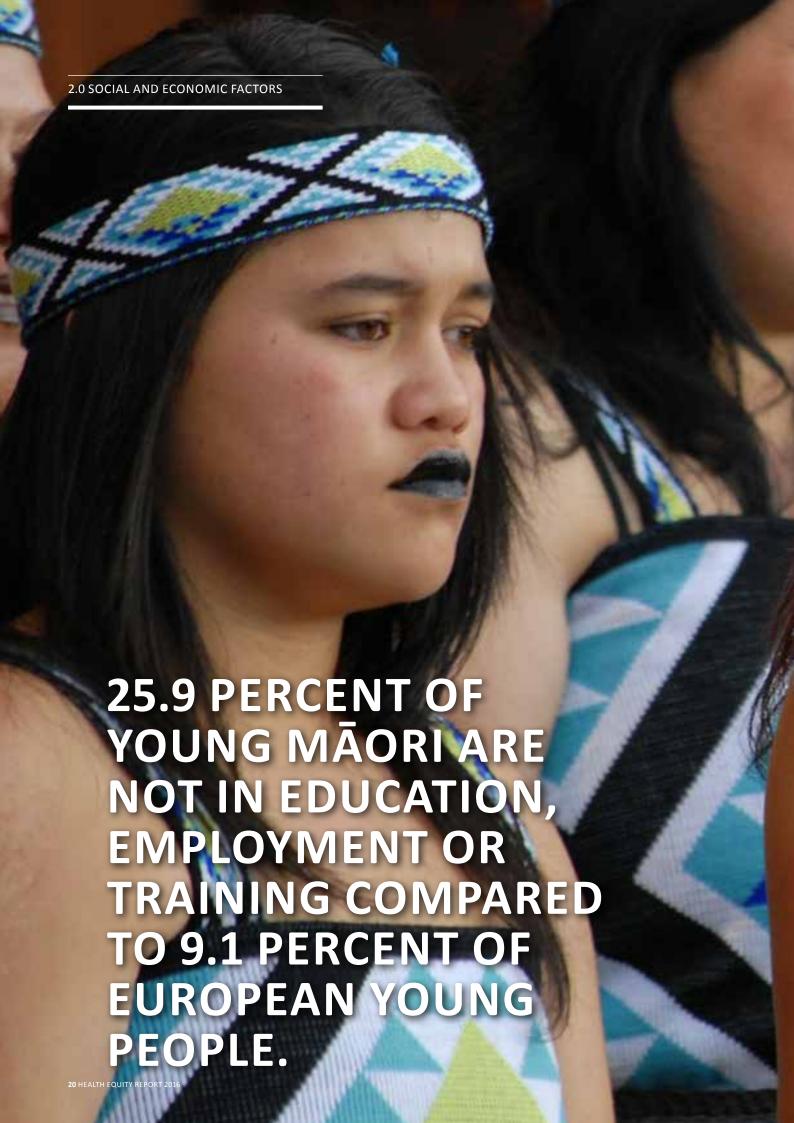


Source: Ministry of Social Development

PERCENT OF CHILDREN LIVING IN HOUSEHOLDS DEPENDENT ON A MAIN BENEFIT BY ETHNICITY 2015.

ETHNICITY	HB 0-4 YEARS	NZ 0-4 YEARS	HB 0-14 YEARS	NZ 0-14 YEARS
Māori	42.4%	36.9%	36.4%	25.4%
Pacifika	15.6%	18.5%	15.2%	14.5%
Other	15.3%	11.9%	13.0%	9.0%
TOTAL	28.3%	20.6%	22.8%	17.8%

Source: Ministry of Social Development



YOUNG PEOPLE NOT IN EDUCATION, EMPLOYMENT OR TRAINING (NEET)

Young people not in employment, education, or training (NEET) are young people aged 15–24 years who are unemployed (not part of the labour force) and not engaged in education or training. These young people are at greater risk of a range of negative outcomes including poorer health, depression, or early parenthood. This is an indicator where there have been consistent differences in the rates of NEET by ethnicity, with Māori rates often between 2-3 times higher than non- Māori rates.

The proportions of young people who are NEET in Hawke's Bay fluctuate, as do the national rates.

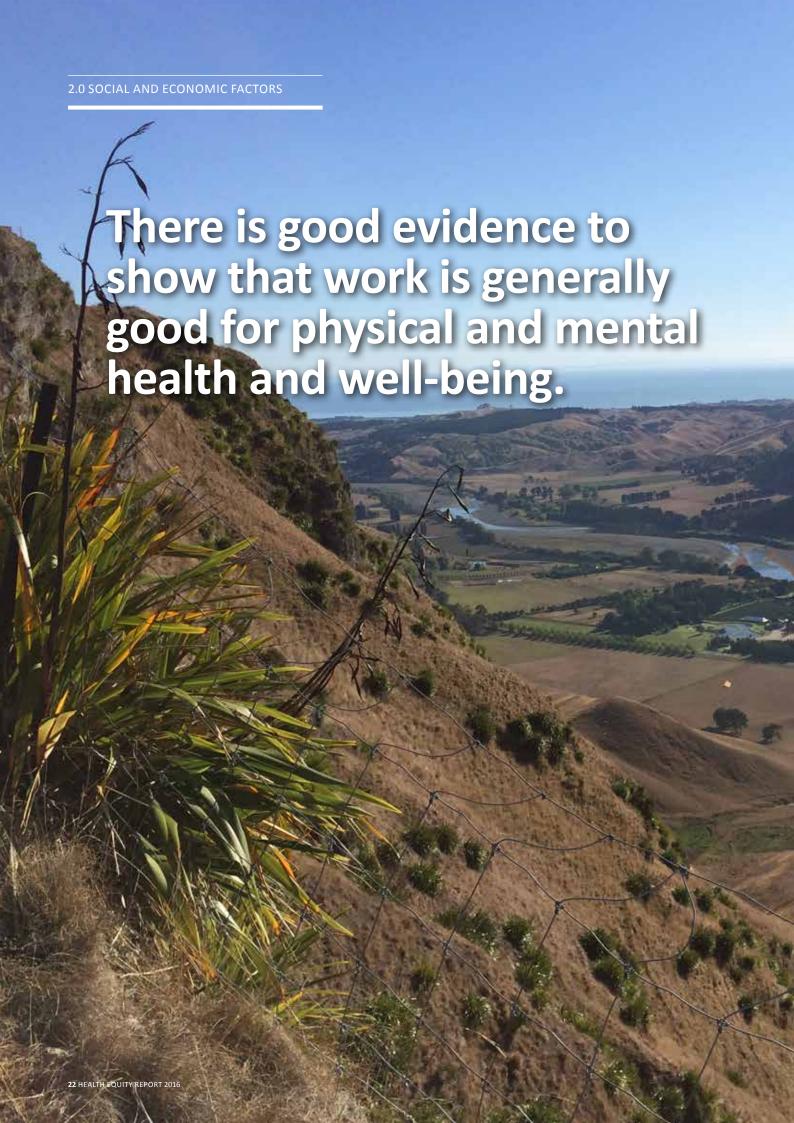
The most recent figures show that 25.9 percent of young Māori are not in education, employment or training compared to 9.1 percent European young people.

Given the fluctuating data it is difficult to determine whether this gap is closing or not.

HAWKE'S BAY REGION NOT IN EMPLOYMENT EDUCATION OR TRAINING (NEET) RATE 15-24YRS (PERCENT) 2009-15



 $Source: Household\ Labour\ Force\ Survey-Statistics\ NZ$



UNEMPLOYMENT

There is good evidence to show that work is generally good for physical and mental health and well-being and being unemployed does tend to be associated with poorer physical and mental health.

Being unemployed is defined as all people in the working-age population who during the reference week were without a paid job, available for work, and had either actively sought work in the prior four week period, or had a new job to start within the next four weeks.

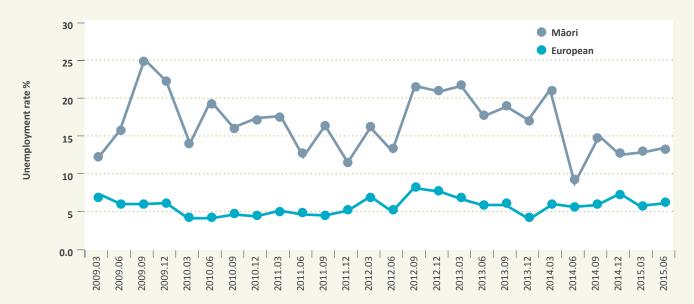
Unemployment rates in Hawke's Bay have fluctuated over the period March 2009 to June 2015 and both

locally and nationally do seem to have decreased since September 2012. At 7.2 percent in June 2015 Hawke's Bay rates are just higher than the New Zealand average of 5.7 percent.

European unemployment rates have been relatively stable at around 6 percent since September 2012.

Māori rates have decreased substantially since March 2014 averaging out at around 12.5 percent for the past period December 2014 to June 2015 with a reduction in the equity gap.

HAWKE'S BAY REGION 2009-2015 - QUARTERLY UNEMPLOYMENT RATE PERCENTY



Source: Household Labour Force Survey – Statistics NZ

CHILDHOOD DISEASE LINKED WITH SOCIOECONOMIC CONDITIONS

There are many childhood diseases that are known to be linked to socioeconomic conditions with much higher rates or worse outcomes seen in those children living in the most socioeconomically deprived areas. Most of these conditions are infectious and respiratory diseases and many can be directly linked to cold damp houses and overcrowding. The Health Equity report 2014 highlighted that admission rates for these conditions had increased in Hawke's Bay since 2006 for all ethnic groups but particularly for Pasifika children with a widening in health equity gap for both Pasifika and Māori.

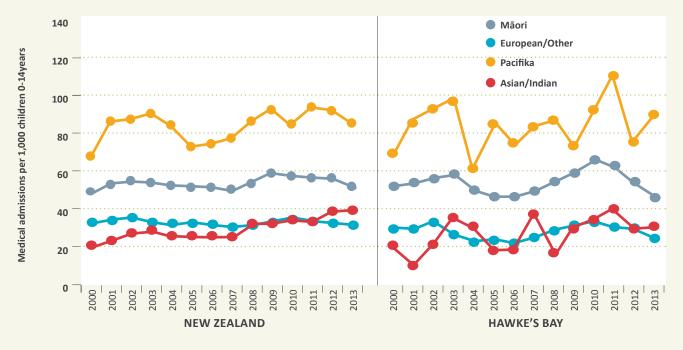
Updated data from the NZ Child and Youth Epidemiology service (NZCYES) show that In Hawke's Bay for the period 2009-13 **the overall rate of admissions for all conditions with a social gradient in** Hawke's Bay was significantly lower than the New Zealand rate.

There has been a reduction locally in the admission rates for Māori and Asian / Indian with fluctuation in Pasifika rates. There remains a marked disparity in admission rate by ethnicity but substantial closing of the gap in admission rates between Māori and European / other children.

Unfortunately NZCYES have not provided data on trends in admissions for the individual diseases in this category.

It is not clear if this decrease in admissions is due to an improvement in living conditions or due to other factors such as vaccination programmes and earlier treatment in primary care.

HOSPITAL ADMISSIONS FOR MEDICAL CONDITIONS WITH A SOCIAL GRADIENT, PER 1000, 0-14 YEARS OLD, BY ETHNICITY, HAWKE'S BAY VS NEW ZEALAND, 2000-13



Source: New Zealand Child & Youth Epidemiology Service

ACUTE BRONCHIOLITIS

Acute bronchiolitis is a one of the diseases in the list of medical conditions with a social gradient for admissions to hospital. It is a viral infection of the airways and occurs mainly amongst infants under one year old. It is the most common cause of hospital admission in this age group and tends to occur most frequently in late winter. In 2014-15 there were 283 children admitted to hospital with this condition in Hawke's Bay, of whom 180 were Māori, 65 Other ethnicity and 38 Pasifika.

There are a number of risk factors which increase the likelihood of infection such as prematurity, congenital heart disease, immune deficiency, household overcrowding, poverty, lack of breastfeeding, maternal smoking during pregnancy and exposure to tobacco smoke in the home.

Over the period 2010-14 Hawke's Bay had higher rates of bronchiolitis admissions than the New Zealand average (111.1 per 1000 compared to 84.6 per 1000, a relative rate of 1.3 times higher). Admission rates have been generally increasing since 2001 but have decreased for Māori and Pasifika children over the past 5-6 years (with an increase for Pasifika children in 2014-15). However there continues to be inequity with higher rates of bronchiolitis amongst Māori (3 times) and Pasifika (4 times) children and amongst children from Quintile 5 areas (4 times) – these are all statistically significantly higher rates.

ACUTE BRONCIOLITIS ADMISSIONS 0-14 YEAR OLDS HBDHB



Source: Ministry of Health National Minimum Dataset

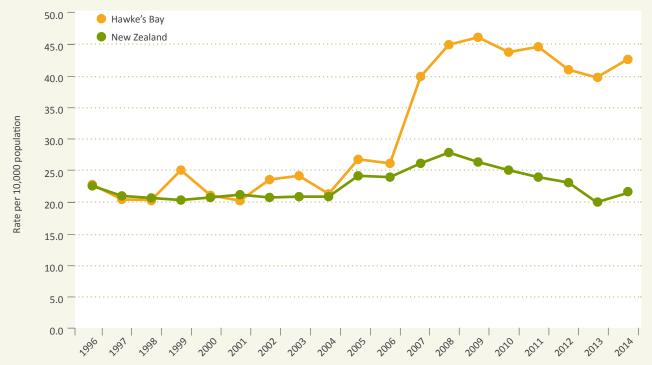
PREVALENCE OF VIOLENT CRIME

The links between crime and health are complex. Violent crime may result in temporary or permanent disability and in some cases death. Some victims of crime may suffer psychological distress and subsequent mental health problems. Crime and fear of crime can also alter people's lifestyles and impact on their physical and psychological health. There is also concern about homicide and suicide by people with mental illness.

NZ Police data has been analysed to try to ascertain the prevalence of violent crime in Hawke's Bay. The data only includes violent offences which are reported to the police and is may vary due to changes in police crime reporting procedures. It is also only available at a Hawke's Bay level, not by ethnicity or socioeconomic decile.

Hawke's Bay rates of violent crime continue to be higher than the New Zealand average and are twice the rate for New Zealand as a whole. Over the last five years there has been a slight increase in the rates of assault resulting in injury in Hawke's Bay with a reduction nationally resulting in a widening of the gap in equity between Hawke's Bay and New Zealand as a whole.

RECORDED SERIOUS ASSAULT RESULTING IN INJURY OFFENCE RATE PER 10,000 POPULATION HAWKE'S BAY AND NZ



Source: New Zealand Statistics

CHAPTER 3.0 HEALTH BEHAVIOURS

The measures in this section look at health behaviours. These are known risk factors which have a direct influence on health and can change through changes in behaviour.

TOBACCO USE AMONGST YOUNG PEOPLE

In the Health Equity Report 2014 tobacco use was highlighted as the single biggest underlying cause of inequity of death rates and ill-health in Hawke's Bay. In particular the high rate of smoking amongst Māori women giving birth was highlighted and declared a public health crisis, given the effects that smoking has both for the mother and on the health of her infant with lasting impacts into adulthood.

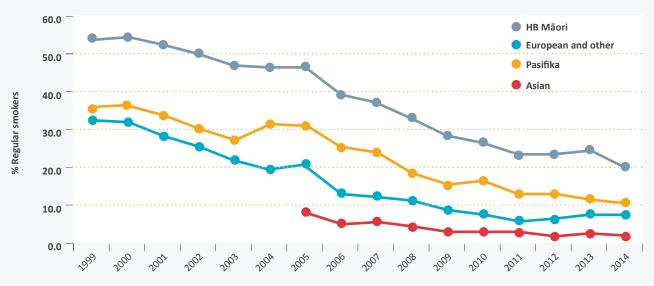
The main source of information on smoking rates comes from the census but this will not be updated until 2018. However the latest Ministry of Health funded ASH (Action on Smoking and Health) Year 10 survey results are available (2014). This survey is an annual questionnaire of around 30,000 students across New Zealand. It is conducted in schools throughout the country and is one of the biggest surveys of its kind. It has been going for 16 years and gives us a valuable and robust insight into rates of youth smoking.

Smoking is an addiction largely taken up in childhood and adolescence, so it is crucial to reduce the number of young people taking up smoking in the first place. Most current and ex-smokers say that they started smoking regularly before they were 18 with many smoking regularly before the age of 16.

The percentage of year 10 students who are regular smokers has been **dropping consistently** since the first survey in 1999 when 28.6 percent of students across New Zealand were regular smokers compared to only 6 percent in 2014. The latest survey indicates that 8.7 percent of year 10 students in Hawke's Bay are regular smokers. This is statistically higher than the 6 percent for New Zealand.

This decrease has been seen across all ethnic groups with a narrowing of the gap in prevalence noticeable since 2006. Māori continue to have higher rates of regular smokers (17 percent) with the lowest rates seen amongst Asian students (2 percent) and 5 percent European.

HAWKE'S BAY DHB YEAR 10 FEMALES PERCENT REGULAR SMOKERS



Source: Action on Smoking and Health (ASH)

3.0 HEALTH BEHAVIOURS

Reducing smoking rates amongst Māori women must remain a key health equity target.

Year 10 girls are more likely to be regular smokers than year 10 boys. Nearly 20 percent of Māori girls aged 15 years are regular smokers this is six times the rates of smoking amongst European girls and twice the rate amongst Māori males (11 percent). Pasifika girls are also more likely to be regular smokers but the rate is 1.7 times that of European girls.

Improvements continue to be seen and the gap in smoking rates for both boys and girls by ethnicity is closing. Tackling smoking rates amongst young Māori women remains a key health priority and is an area where more innovative and whānau-inclusive approaches will be required.

Tobacco use in pregnancy

Smoking in pregnancy has well known detrimental effects for the growth and development of the baby and health of the mother. These include complications during labour and an increased risk of miscarriage, premature birth, stillbirth, low birth-weight and sudden unexpected death in infancy.

Encouraging pregnant women to stop smoking during pregnancy may also help them kick the habit for good, and thus provide health benefits for the mother and reduce exposure to second-hand smoke by the infant.

Twenty three percent of all women who had a baby at a Hawke's Bay DHB facility during 2014-15 were current smokers with big differences seen both by ethnicity and by deprivation.

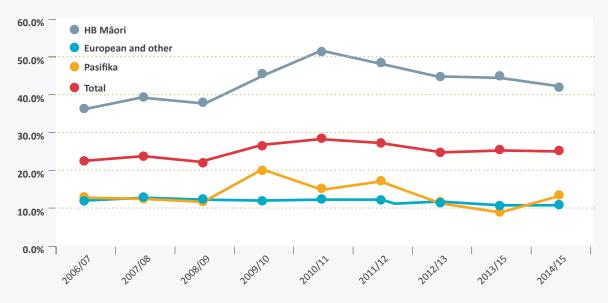
Pregnant women who are Māori or who live in a Quintile 5 area are five times more likely to be smokers than non-Māori or women living in a Quintile 1 area.

Forty three percent of all Māori women giving birth were smokers compared to 8.6 percent of non-Māori non-Pacific women; 32 percent of women living in Quintile 5 compared to 6 percent living in Quintile 1.

Rates of smoking amongst pregnant women peaked in 2010-11 and have been very slowly decreasing since then. If the percentage of Māori women who are regular smokers, or the percentage of women living in Quintile 5 areas, declines at the same rate as it has since 2010-11 (nearly 10 percent reduction over 5 years) equity won't be achieved for at least 15 years.

Reducing smoking rates amongst Māori women must remain a key health equity target.

PERCENT OF SMOKER STATUS OF WOMEN DELIVERING IN HBDHB FACILITIES BY ETHNICITY 2006-07 TO 2014-15



Source: HBDHB Data Warehouse

OBESITY IN FOUR YEAR OLD CHILDREN

There has been an increase in the prevalence of obesity in four year olds since 2009 (5.8 percent) and a widening in inequities.

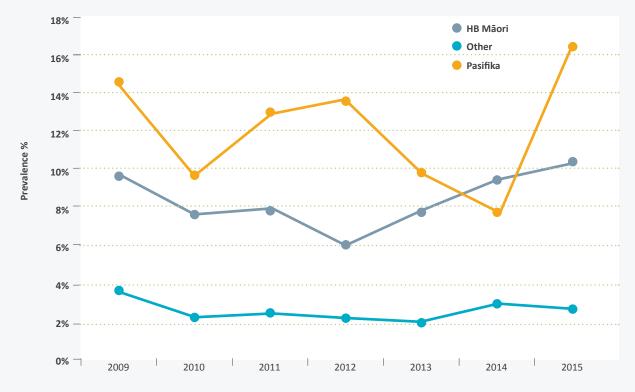
The World Health Organization (WHO) regards childhood obesity as one of the most serious global public health challenges for the 21st century. Obese children and adolescents are at an increased risk of developing various health problems, and are also more likely to become obese adults and have a higher risk of morbidity, disability and premature mortality in adulthood.

The B4 school check is part of the Well Child schedule of childhood milestone checks. It generally occurs just before the child begins school when the child is aged

four years old. Height and weight are collected at the time of the check and this provides an opportunity to assess if the child has a healthy weight.

In 2015 6.5 percent children who had a B4 school check were assessed as being obese (1 in 16). Of the 143 children assessed as obese, 89 were Māori, 35 Other and 19 Pasifika. Obesity prevalence was three times higher amongst Māori children (10.5 percent) and nearly six times higher amongst Pasifika children (16.5 percent) compared to Other children (2.9 percent). There is a clear socio-economic gradient in prevalence with 11.6 percent of four year olds in Quintile 5 obese compared to 0.4 percent in Quintile 1 (four times higher).'

PREVALENCE OF OBESITY: FOUR YEAR OLDS



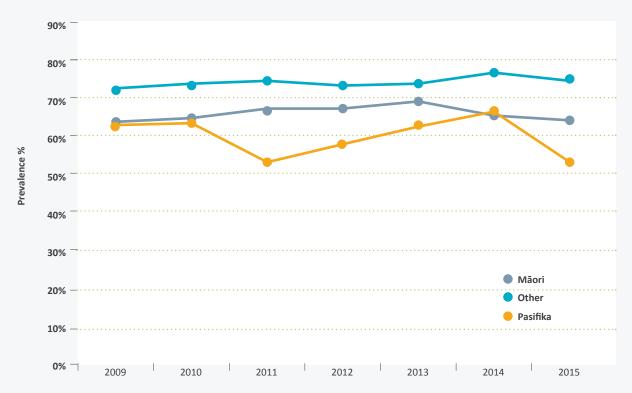
Source: B4school data base. Health Hawke's Bay



Healthy weight prevalence rates

Using healthy weight data is an alternative to focusing on obesity. Children with a healthy weight are children who are not overweight, obese nor underweight. Our aim is to increase this proportion and reduce inequities. In 2015 approximately 70 percent of four year olds had a healthy weight, with **no improvement** since 2009. 63 percent of Māori children and 53 percent of Pasifika children assessed had a healthy weight.

PREVALENCE OF HEALTHY WEIGHT: FOUR YEAR OLDS



Source: B4school data base. Health Hawke's Bay

3.0 HEALTH BEHAVIOURS

Urgent attention is needed to reduce inequity in this area. Healthy nutrition needs to be supported all the way from during pregnancy though to infants and children.

ORAL HEALTH OF FIVE YEAR OLDS

There has been no improvement in the past five years for any ethnicity and a widening of inequity.

The risk of dental decay begins as soon as the teeth begin to appear in the mouth (at around six months of age). Good oral hygiene (regular tooth brushing) and healthy food are both needed to prevent dental decay. The increasing consumption of sugars, and in particular sugary drinks, affects the health of teeth as well as contributing to the increasing number of children who are overweight or obese. Dental decay in five year olds will have probably started three to four years previously and may reflect eating patterns which go on to become established eating habits later in life.

One of the indicators used to assess the oral health of children is the proportion of children at age five who are caries free (no sign of dental decay). There are significant and widening inequities in children's oral health. Twice as many Other children aged five in Hawke's Bay (70 percent) are caries free compared to Māori (36 percent) and Pasifika children (30 percent). There is also a clear socioeconomic gradient with children attending decile 9-10 schools (more advantaged schools) 2.5 times more likely to have no dental caries than children attending decile 1-2 schools.

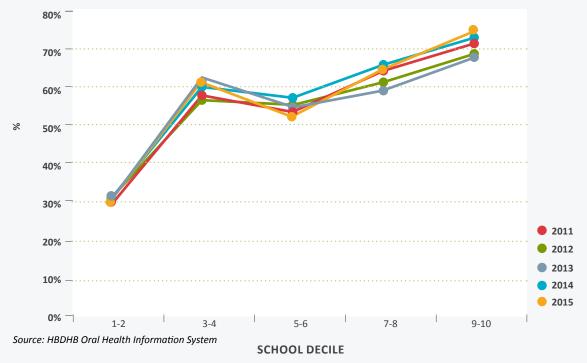
Urgent attention is needed to reduce inequity in this area. Healthy nutrition needs to be supported all the way from during pregnancy though to infants and children.

HAWKE'S BAY DHB: PERCENT FIVE YEAR OLDS CARIES FREE BY ETHNICITY



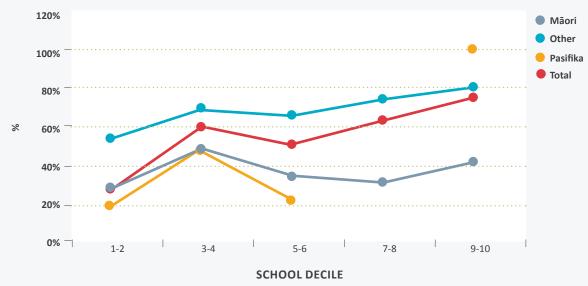
Source: HBDHB Oral Health Information System

PERCENT FIVE YEAR OLDS CARIES FREE - TOTAL BY SCHOOL DECILE



This school decile gradient is less for Māori children and may in part reflect the smaller number of Māori children attending higher decile schools. In 2015 81 percent of Other children in decile 9-10 schools were caries free, compared to 44 percent of Māori children in those schools.

PERCENT FIVE YEAR OLDS CARIES FREE BY ETHNICITY AND SCHOOL DECILE 2015



Source: HBDHB Oral Health Information System

CHAPTER 4.0 HEALTH CARE

The measures in this section look at access to health care and quality of health care received.

This indicator is the best evidence yet of equitable access and treatment for conditions categorised as fully treatable. The biggest driver of this reduction is the better management of ischaemic heart disease, diabetes and cancers.

AMENABLE MORTALITY

Amenable deaths (mortality) are a specific group of deaths which could have been avoided through access to quality health care and is a very useful indicator of equity in health care. In New Zealand, the proportion of all avoidable deaths considered to be amenable is approximately 40 percent.

In a truly equitable health care system there should be no difference in amenable mortality rates by ethnicity or by place of residence.

Māori amenable mortality rates have been reducing consistently since 2006 and are now not statistically different to non- Māori non-Pasifika rates in Hawke's Bay as the actual number of deaths each year are

small and cause the rates to fluctuate.

Never-the-less rates have been reducing and in 2012 rates for Other were 1.5 times higher than non-Māori/non-Pacific people and 1.6 times higher amongst people living in Quintile 5 areas. Pasifika data for Hawke's Bay are too small for robust analysis.

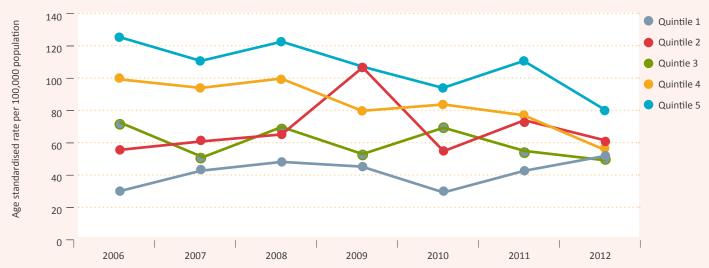
This indicator is the best evidence yet of equitable access and treatment for conditions categorised as fully treatable. The biggest driver of this reduction is the better management of ischaemic heart disease, diabetes and cancers.

HAWKE'S BAY DHB AGE STANDARDISED AMENABLE MORTALITY RATE PER 100,000 POPULATION BY ETHNICITY 2006-12



Source: Ministry of Health National Mortality Collection

HBDHB AGE STANDARDISED AMENDABLE MORTALITY RATE BY QUINTILE PER 100,000 POPULATION 2006-12



Source: Ministry of Health National Mortality Collection

AMBULATORY SENSITIVE HOSPITALISATIONS 0-4 YEAR OLDS

Ambulatory sensitive hospitalisations (ASH) are mostly acute admissions that are considered potentially reducible through preventive interventions or treatments deliverable in a primary care setting. They are often used as proxy markers for primary care access and quality.

The Ministry of Health ASH definition and methodology has been revised from quarter one of the 15/16 year and data are only available for the 5 years to end September 2015.

ASH rates for 0-4 year olds in Hawke's Bay have been decreasing and rates are now consistently lower than

New Zealand. Māori rates have been declining since September 2013 and the gap between Māori and non-Māori rates has been closing. Māori rates of ASH are still higher (1.2 times) than non-Māori rates.

Compared to the rest of New Zealand in the 12 months to September 2015 the Hawke's Bay Māori rate was 82 percent of the national Māori rate and Hawke's Bay DHB was the fifth best performer of all DHBs.

ASH rates for Māori 0-4 year olds have decreased for gastroenteritis, dental conditions, cellulitis, upper respiratory infections and ENT conditions.

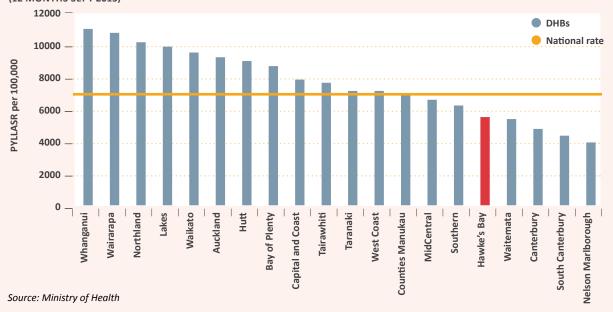
Gastroenteritis/dehydration admission rates for Māori

ASH RATE HBDHB 0 TO FOUR YEAR OLDS FOR THE FIVE YEARS TO END SEPTEMBER 2015



Source: Ministry of Health

AMBULATORY SENSITIVE HOSPITALISATION (ZERO TO FOUR YEARS OLD) MĀORI RATE PER 100,000 BY DHB (12 MONTHS SEPT 2015)



0-4 year olds in Hawke's Bay are half the national Māori rate.

However ASH rates have increased for Māori 0-4 year olds for asthma, and lower respiratory infections. **The largest equity gap is for dental conditions where rates of ASH for Māori 0-4 years olds is three times that of non-Māori 0-4 years olds.**

For some conditions specific programmes are being effective at preventing hospitalisations for example the infant rotavirus vaccination programme prevents hospitalisations with gastroenteritis, skin care programmes in Kohanga Reo, the healthy housing programme and free primary care visits ensure that conditions are managed earlier and better. **Asthma and dental conditions remain significant areas of inequity for Māori 0-4 year olds.**

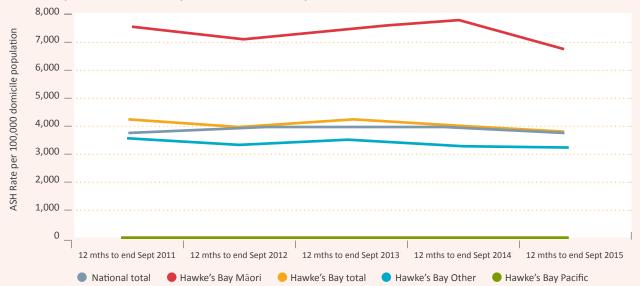
AMBULATORY SENSITIVE HOSPITALISATIONS 45-64 YEARS

By contrast there has been little change in rates for 45-64 year olds and Hawke's Bay rates are similar to NZ. Rates of ASH for Māori remain higher than non-Māori (two times higher) with little change over this period. The disparity between Māori and non-Māori has closed slightly.

ASH rates for 45-64 year olds have increased for cellulitis and congestive heart failure.

Heart disease, skin infections, and respiratory infections all feature highly as causes of the disparity in ASH rates for 45-64 year olds. Much more needs to be done to improve access and treatment for Māori adults with these conditions.

ASH RATE, HAWKE'S BAY DHB, 45 TO 64 YEAR OLDS, FIVE YEARS TO END SEPTEMBER 2015



Source: Ministry of Health

TEENAGE PREGNANCIES (UNDER 18 YEARS)

Most teenage pregnancies under 18 years are unplanned and around 40 percent end in abortion. While for some young women having a child when young can be a positive experience for many more teenagers bringing up a baby can be difficult. The result is poor outcomes for both the teenage parent and the child in terms of the baby's health, the mother's emotional health and well-being and the likelihood of both the parent and child living in long term poverty. Teenage mothers are less likely to finish their education, are more likely to bring up their child alone and in poverty, and have a higher risk of poor mental health than older mothers. Infant mortality

rates for babies born to teenage mothers are around 60 percent higher than for babies born to older mothers.

In 2014-15 there were 33 births to girls aged 13-17 years and 20 terminations giving a total number of conceptions of 53. This gives a "conception rate" of 9.2 per 1000 girls in this age group — a large decrease since 2007-08 when there were 28 conceptions per 1000 13-17 year olds. Hawke's Bay has had generally higher conception rates in this age group than the New Zealand average but the gap has been reducing since 2007-08.

TEENAGE CONCEPTION RATE PER 1000 POPULATION (BIRTHS AND TERMINATIONS)



Source: Ministry of Health National Minimum Data Set

"Conception rate" of 9.2 per 1000 girls in this age group – a large decrease since 2007-08 when there were 28 conceptions per 1000 13-17 year olds. There are still higher rates of conceptions for Māori and Pasifika teenagers, although actual numbers of Pasifika conceptions are very low. Māori conception rates have been declining since 2006-07 but still remain higher than non-Māori teenagers. Three year averages show that rates for Māori are four times that of non-Māori 13-17 year olds.

Due to small numbers, analysis by deprivation has been done for births and terminations under 20 years. This shows a very strong relationship with deprivation with rates of births in Quintile 5 being 12 times the rate in Quintile 1. There is a less strong relationship with terminations of pregnancy.

These trends are very encouraging. Research reviews¹ have shown that a combination of education and improved access to contraception reduces unintended pregnancy amongst adolescents. These local results suggest that recent changes to the delivery and availability of free sexual health services for young people and a social media awareness raising and educational campaign have been effective in improving equitable access and utilisation.

¹The Cochrane Collaboration 2016: Interventions for preventing unintended pregnancies amongst adolescents

TEENAGE CONCEPTION RATE PER 1000 POPULATION (BIRTHS AND TERMINATIONS) BY ETHNICITY



Source: Ministry of Health National Minimum Data Set

SUMMARY OF FINDINGS

	HEALTH EQUITY ACHIEVED OR ON TRACK TO BE ACHIEVED IN 1-2 YEARS: Amenable mortality	CATEGORY Health care
	GOOD PROGRESS TOWARDS HEALTH EQUITY:	
Y	Avoidable mortality	Health outcome
	Ambulatory sensitive admissions 0-4 year olds	Health care
	Teenage (<18 year old) pregnancies	Health care
	HEALTH EQUITY IMPROVING BUT STILL SIGNIFICANT INEQUITY:	
	Life expectancy	Health outcome
	Premature deaths	Health outcome
	Potential years of life lost	Health outcome
	Children living in households receiving benefits	Social and economic
	Youth not in employment, education or training	Social and economic
	Unemployment	Social and economic
	Hospital admissions due to medical conditions with a social gradient	Social and economic
	Tobacco use year 10 students	Healthy behaviours
	Ambulatory sensitive admissions 45-64 year olds	Health care
	HEALTH EQUITY UNCHANGED OR WORSENING:	Casial and assumed
	Acute respiratory (bronchiolitis) admissions	Social and economic
	Obesity amongst 4 year olds	Healthy behaviours
	Oral health of 5 year olds	Healthy behaviours
	Tobacco use during pregnancy	Healthy behaviours
	Violent crime	Social and economic





