MONITORING REPORT 2017
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ABOUT HEALTHY AUCKLAND TOGETHER

Healthy Auckland Together is a coalition committed to improving the environment of Auckland in order to make it a place where all people can live a full and healthy life. By working collaboratively, we want to make it easier for everyone to be active, eat better and stay a healthy weight.

OUR VISION

Our vision is a social and physical environment that supports people living in Auckland to eat well, live physically active lives, and maintain a healthy body weight, within their communities. We will do this by focusing on three goals:

1. improving nutrition
2. increasing physical activity
3. reducing obesity

These goals have a priority focus on equitable outcomes for Māori, Pacific and lower socio-economic communities.

WHO WE ARE

Healthy Auckland Together partners include agencies from health, local government, transport, iwi, university and NGOs. Together we are responsible for some of the key environmental settings that influence our health.

KEY HEALTHY AUCKLAND TOGETHER STRATEGIES

- **What we do:** Collaborative approaches between partners for more effective and equitable outcomes
- **What we say:** Influence policy and environmental decisions and raise the profile of key issues
- **What we measure:** Monitor, collect and present evidence to inform our approach and encourage progress towards the vision

Healthy Auckland Together is committed to a strategic approach that involves collaboration amongst partner organisations, the co-ordination and strengthening of existing programmes, and improved infrastructure. Healthy Auckland Together’s main focus is on regional activities in the direct control of partner agencies, while using its collective voice to influence policy settings at the national level.
HEALTHY AUCKLAND TOGETHER PARTNERS

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ACKNOWLEDGEMENTS

Thanks to Dr Nick Eichler and Siddhartha Mehta from Auckland Regional Public Health Service, who led this project and authored the report. Dr Michael Hale, Dr Julia Peters, Dean Adam and Ruth Sliedrecht provided guidance and oversight to the project team. Thanks to Dr Simon Thornley for assistance with data gathering.

The organisations that contributed data to this report are: the Ministry of Health, the Ministry of Transport, Auckland Council, Auckland Transport, Auckland Regional Dental Service, Statistics NZ and the Heart Foundation.
OVERVIEW

Welcome to the 2017 Healthy Auckland Together Monitoring Report. This looks at how much the city’s environment contributes to the obesity crisis, in other words, the current state of Auckland’s “obesogenicity”. This report tracks the changes from the baseline established in the first monitoring report.

The city environment affects two of the major determinants of obesity - nutrition and physical activity – through a variety of mechanisms.

The profile of obesity in Auckland is changing. There has been a slight improvement in rates of obesity at the B4 School Check over the past four years. However, only 79% of four year olds are a normal weight. In adults, obesity rates continue to rise, from 24% in 2007 to 28% in 2015. There are also large inequities patterned by ethnicity, with Pacific people 2.5-3 times and Maori 1.5-2 times more likely to be obese than NZ Europeans.

Poor nutrition continues to be a major determinant of health and obesity. The average number of teeth decayed, missing or filled due to caries (a direct indicator of sugar intake) in Auckland five year olds has been static since 2007, with significant ethnic inequities still present in dental disease. The proportion of adults who meet nutritional guidelines for fruit and vegetable intake has not improved since last year’s report.

We are missing opportunities to use movement for health. There has been no progress since last year’s report in the proportion of adults meeting guidelines for physical activity. Active transport makes up 4 percent of all trips to work, a relatively low percentage. Of particular concern is a significant drop since last year’s report, in the number of children using active means of getting to school - most children are driven to school and aren’t getting to build physical activity into their daily routines.

Auckland’s transport system is improving. The number of public transport trips per capita continues to rise, as people get out of their cars and into trains, buses and ferries. There has also been huge growth in expenditure on cycle and walking infrastructure, so we can look forward to more opportunities to be active as we get around the city. This year we’ve included two new indicators about access to open space and perceptions of safety while walking in Auckland. Access to quality open spaces has a positive impact on the use of active transport and participation in physical activity. Safety is a key issue that enables walking to be part of daily life.

Community services that encourage physical activity are expanding their reach. Auckland Transport’s Travelwise and Commute programmes avert 23,000 car trips each weekday, and schools and early childhood centres participating in the Heart Foundation’s programmes are increasing.

The aim of this report is to enable the public, policy makers and key stakeholders to have access to clear information in relation to Auckland’s environment and health outcomes. The annual release of this report also helps provide context over time, highlighting good and bad trends in the prevention of obesity.
METHODOLOGY

INDICATORS

Setting indicators and monitoring targets allow us to measure progress towards goals and to learn where the coalition of Healthy Auckland Together partners could improve their performance, individually and collectively. It also provides a framework for accountability by benchmarking progress. As a platform to share progress, we can measure accomplishments, identify areas that are under-performing, and ensure that improvements in policies and actions are made where needed.¹

The indicators in this monitoring report are chosen in relation to our three main objectives. The two main types of indicators used are population indicators, and environmental indicators. Population indicators outline changes in population health and behaviour related to the development of obesity related health outcomes. This includes, for example, improved nutrition and increased physical activity. Outcome indicators measure changes in health-related environmental factors. These include indicators such as accessibility of public transport, or opportunities for physical exercise.

There are five overarching indicator areas which demonstrate progress towards the three overall goals of improving nutrition, increasing physical activity and reducing obesity. These are:

1. obesity
2. nutrition
3. physical activity
4. environmental
5. community services

The indicators were selected based on the following criteria:

• Data is currently being collected.
• Availability of Auckland specific regional data.
• Ability to determine impact on priority populations.

The indicator framework has changed since the 2015 Baseline Report and is now organised into indicator areas. Some indicators have also changed to reflect changes in data sources. For example, the mode share indicator has changed to use the survey reported yearly by the Ministry of Transport, rather than the less frequent census. Also, in this year’s report we have added the objective measures of adult BMI from the New Zealand Healthy Survey, so a new indicator has been created for this.

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6. Perception of walking and cycling as suitable for trips to work or study – from Community Perceptions of Personal Transport Choices Report (Auckland Council), has not been repeated. This has been replaced by perceptions of safety while walking, as the Quality of Life Project’s study will be repeated.

7. Neighbourhood Walkability – as this indicator will be slow to change, this analysis will only be run every five years. This year the same model has been used to present access to open space.

8. Supply of Fast Food Outlets – as this indicator will be slow to change, this analysis will only be run every 3 years.

9. Availability of health food and beverages in food retail outlets – this data is due to be updated by INFORMAS in 2017

10. Healthy Auckland Together member organisations with Workplace Wellbeing programmes in place – due to be updated in 2017

**Data Sources**

The New Zealand Health Survey (NZHS) is a nationally representative survey that questions participants on a wide range of health-related factors, conducted by the Ministry of Health. It is a continuously-administered survey, and reports national level results annually and regional results periodically in three year blocks. Specific extracts for the Auckland region were used for this report, for the 2011-2014 period and the 2012-2015 period. Prior to this time, the survey was conducted as a one-off every four to six years. The NZHS contributes data to the indicators on adult obesity, child active transport and fruit and vegetable intake.

The B4 School Check (B4SC) is a nationwide programme that carries out broad health screening of all four year olds in New Zealand whose families consent to participate. The check involves a questionnaire, physical measurements, hearing, vision and oral health screening as well as other elements. As it covers nearly every child in New Zealand, it is a quality indicator of child health. The B4SC contributes the data for the child obesity indicator.

The Ministry of Transport contracts the NZ Household Travel Survey (NZHTS) to be conducted on a continuous basis, reporting four year rolling averages. Up until 2015, this involved an interviewer meeting participants face to face and taking a detailed account of all travel they had recently undertaken, as well as answering a range of survey questions. From 2015 onwards, the survey will move to GPS-based recording of travel and complete survey questions online or via phone interview. All data in this report has been taken from the face-to-face data releases. The NZHTS contributes data for the adult active and public transport indicator.

The Auckland Regional Dental Service (ARDS) is responsible for delivering dental services to all children in Auckland through school dental services as well as some hospital-based clinics. Dentists record diagnoses and procedures into the Titanium database. This contributes data toward the child dental health (caries) indicator.

Auckland Transport (AT) regularly publishes public transport boarding data on its website. This includes buses, trains and ferries in the Auckland region. This data is used in the public transport patronage indicator. AT also produces an annual report on its Community Transport programmes, and use participation rates to estimate the effect of its Commute and Travelwise initiatives. This report contributes data towards the respective indicators for these programs and the daily car trips averted indicator.

The city councils of Auckland, Hamilton, Hutt City, Porirua City, Wellington, Christchurch and Dunedin, as well as the Waikato and Greater Wellington Regional councils jointly commission Colmar Brunton to produce the Quality of Life Survey 2016. This survey uses the electoral roll to randomly sample participants in these major centres, as well as sampling members of Colmar Brunton’s online panel to increase Pacific and Asian representation. This report contributes the data on safety perceptions.
OBESITY INDICATORS

Obesity is a major determinant of health. It increases the risk of a wide range of disease, including heart disease, stroke, type 2 diabetes, cancer, osteoarthritis, depression and others. In 2006, obesity cost New Zealand between $722 and $849 million or between 0.27% and 0.32% of our GDP in healthcare and lost productivity annually. Obesity in children is a sensitive indicator of the city’s nutritional environment, as well as the nutritional status of their parents. It is a risk factor for obesity in adulthood, and can cause the early onset of disease not usually seen in childhood, such as type 2 diabetes, hypertension and sleep apnoea.

1.1 ADULT OBESITY

The addition of New Zealand Health Survey data on the Body Mass Index (BMI) of its adult participants is in large enough numbers to gauge the prevalence of obesity in Auckland.

![Figure 1 - Adult Obesity Prevalence in Auckland](image)

Figure 1 shows that obesity in Auckland has been gradually rising over the past decade, lower than but in same direction with the New Zealand trend. The prevalence of obesity in Auckland closely matches the New Zealand national prevalence. The overall proportion of adults with obesity in Auckland is now 27.8%. In 1977, the total New Zealand proportion was only 10%. In addition, these statistics don’t illustrate the large inequities currently in obesity prevalence.

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In 2012-2015 in figure 2, the overall prevalence of obesity in Auckland adults was 28% for women and 27% for men; however this varies markedly between ethnic groups. Asian people have the lowest rates (11.3% for women and 15.5% for men), followed by European/Other (24.5% for women and 24.7% for men), Māori (47.7% for women and 40.5% for men) then Pacific (73.8% for women and 62.2% for men). Pacific women are 6.5 times more likely to be obese than Asian women, and 3 times more likely than European/Other women.

1.2 Child Obesity

The B4 School Check is a national programme run by the Ministry of Health, which measures a range of health indicators before children begin school. The data from this program has been used to classify children’s BMI into underweight, normal, overweight, obese and morbidly obese categories, based on cut-offs published by the World Obesity Federation\(^5\).

In 2015, the overall proportion of Auckland 4 year olds who were above a normal weight was 20%, with 15% overweight and 6% obese or morbidly obese. There is a significant difference between ethnic groups, with only 58% of Pacific children and 72% of Māori children at a normal weight, compared with 85% of all other children.

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When comparing the B4 School Check data since 2012 in figure 4, there is a slight downwards trend in the proportion of children that are above a normal weight (overweight and obese), particularly between 2014 and 2015. There are clear disparities by ethnicity, with overall Māori rates of 25% and Pacific rates of 40%. Māori children are twice as likely to be overweight or obese as European/Other, and Pacific 3.17 times. The disparity for Pacific has slightly increased since 2012 when it was 3.0, while for Māori the disparity has remained the same.

In figure 5, the proportion of Māori (7%) and Pacific (15%) children in the heaviest “obese” and “morbidly obese” BMI categories has also decreased since 2012 (8% and 18% respectively), while the rates have stayed the same for all other groups. Here, disparities are even more pronounced, with Māori 2.8 times more likely and Pacific 6 times more likely to be obese than European/Other. These disparities have largely persisted since 2012, except that the disparity for Māori males has decreased from 3 to 2.65 – highlighted in last year’s report.
NUTRITION INDICATORS

2.1 ADULT NUTRITION

Fruit and Vege Intake
The Eating and Activity Guidelines for New Zealand Adults recommend that New Zealand adults have at least two serves of fruit per day, and three serves of vegetables. Serving sizes are generally between 50-150g of cooked or raw food\(^6\). The New Zealand Health Survey asks participants how many servings of fruit and how many servings of vegetables they consume per day.

![Figure 6 – Proportion of Auckland Adults Meeting Fruit and Vegetable Intake Guidelines by Ethnicity](image)

In figure 6, the total proportion of Auckland adults meeting both fruit and vegetable intake guidelines is 36.3%. This has increased from 35% in 2011/2014. Pacific males in particular have increased their fruit and vegetable intake, from 22% to 27% and there are small increases for both genders amongst Māori and European/Other groups. The 13-point gap between the Pacific and European/Other ethnic groups remains however.

2.2 CHILD NUTRITION

Dental Caries
Dental caries in children are a direct reflection of their sugar intake. Reducing sugar intake reduces caries in children.

Data on dental caries are collected through the school dentist system and recorded in the Auckland Regional Dental Service's Titanium database. Only the first visit for each child in the 2015 school year has been counted in this analysis. The “decayed, missing due to decay, or have a filling” (dmf) score gives the total number of primary (childhood) teeth that are affected by or missing due to dental decay.

Figure 7 - Mean 5 year old dmf score in Auckland

Figure 7 shows that there has been little improvement in the rates of tooth decay in the past decade, with persistently high rates especially for Pacific and Māori children. Māori children have dmf scores 1.9 times higher than European/Other, while Pacific children have scores 2.7 times higher. The average dmf score across all children is 1.97. There have been slight increases of dmf scores for all groups other than Māori boys since 2014.

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3.1 ADULT PHYSICAL ACTIVITY

The Eating and Activity Guidelines state that adults should do at least 2½ hours of moderate or 1¼ hours of vigorous physical activity spread throughout the week. The New Zealand Health Survey asks participants a yes or no question as to whether they have met these recommendations.

As per figure 8, there has been no change in proportion of Auckland adults meeting the physical activity guideline between 2014 and 2015 period, apart from an increase from 34% to 38% in Pacific women. Women have generally lower levels of physical activity than men. In 2015 amongst men, Māori are the most physically active (58%) in the region, followed by Pacific (52%) and Other/European (48%), while Asian men are the least likely to meet the guidelines (44%). For women, Māori again are more active (44%), Other/European are second (41%), with Asian again least likely to meet the guidelines (36%).
3.2 CHILD PHYSICAL ACTIVITY

The trips to and from school are usually the longest journey taken by children each day. This presents an opportunity to build physical activity into the normal daily routine. Children who do not use active transport to get to school are either using public transport or being driven to school by adults, contributing to congestion and inactivity. The New Zealand Health Survey asks whether children aged 5-14 years in the household usually use active modes of transport (walking, cycling, scooter, skating etc.) to get to school.

In 2015, 43% of all children used active transport to get to school in the region. This was significantly less than the 46% in 2014. Asian children (38%) are less likely than Pacific (48%) and Māori (47%) children to use active transport to get to school. The rates of active transport to school have significantly declined for Asian girls between 2014 and 2015 period.
ENVIRONMENTAL INDICATORS

4.1 ADULT JOURNEYS TO WORK

Making daily trips active is an effective method to increase physical activity for adults. The Ministry of Transport’s NZ Household Travel Survey asks participants with full-time employment about all of their travel in the last two days for journeys to work between 6.30am and 9am.

Walking and cycling made up 4% of all journeys to work for Auckland adults in 2010-2014. This is the second-lowest rate in the country behind Northland, an unusual finding given Auckland’s density and urban employment pattern. In Gisborne, 17% of all trips to work are by active transport, while Wellington has a 9% share. By way of comparison, the much denser city of London has a 23% share of active transport (21% walking and 2% cycling).

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Around 9% of full-time employed adults use public transport to get to work. In Auckland this includes buses, trains and ferries. Wellington achieves a 20% mode share, while other cities with higher density and more developed public transit infrastructure achieve higher rates, such as 45% in London. During the weekday morning peaks, public transport modal share for entering central London is 91%, with 3% cycling and 6% private transport.

Figure 10 - Adult Mode Share for Journeys to Work 2010-2014

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4.2 PUBLIC TRANSPORT PATRONAGE

When people switch to public transport from driving, they increase their physical activity levels and decrease their BMI by an average of 0.3 points\(^9\). While on an individual basis this change is small, even a small decrease in BMI across a large proportion of Aucklanders has the potential to prevent a significant number of obesity-related health complications. Auckland has had a renewed interest and investment in its public transportation system, embodied by the introduction of electric trains, and the commencement of work on the City Rail Link.

Comparing per capita public transport trips allows us to account for the influence of Auckland’s increasing population. As children under five travel free on Auckland’s public transport and are thus not counted, we have used the total resident population of Auckland (derived from Statistics NZ data tables\(^{10}\)), minus children under five as the denominator. The numerator comes from data published on the Auckland Transport website\(^{11}\), with the total number of trips in each year averaged across 12 months.

There is a gradual increase in the monthly per capita rate of public transport trips over the past decade, with a current rate of 4.7 per person per month. This increased patronage is potentially reflecting the increased investment in services and ongoing disincentives associated with car use – congestion, parking costs and stress.


4.3 Active Transport Infrastructure

Active transport builds physical activity into people’s daily routines and tasks. Footpaths and cycleways make people feel safe when travelling through the city. Safety is a prime concern for people who might consider using methods of active transport rather than driving, especially for potential cyclists. Auckland Council and the New Zealand Transport Agency (NZTA) have made significant investments in cycle infrastructure in the past few years in an effort to increase mode share by separating bikes from cars and improving navigability of the city.

Council and NZTA combined spending on walking and cycling infrastructure has significantly increased in Auckland in the past few years, from $12 million in 2013 to $79 million in 2016.

Auckland Transport’s 2015–2018 Asset Management Plan reports the total kilometres of roads, footpaths and cycleways in Auckland, excluding roads administered by NZTA i.e. the state highway network.

There are 7300km of roads, 6959km of footpaths and 321km of cycleways in Auckland. It is important to note many roads have footpaths on both sides (although some will only require footpaths on one side), which inflates the ratio of roads to footpaths in this measure. At present, only 4.4% of the total road distance in Auckland is matched by dedicated cycle infrastructure. Currently Auckland has 321km of cycle lanes in 482 square kilometres of urbanised land, or 0.66km per square km. As a comparison, Copenhagen has 454km of cycle lanes in 86.4 square kilometres which equates to 5.25km per square km. Copenhagen has a 36% mode share of cycling for commuting, compared to 2% in Auckland.

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4.4 OPEN SPACE ACCESS

Access to high quality public open spaces is positively associated with active transport and participation in physical activity. People with very good access to large public open spaces are 50% more likely to have high levels of walking\textsuperscript{16} and neighbourhood green space is associated with higher overall physical activity levels\textsuperscript{17}. Using a version of the Walkable Access to Destination (WADE) Index developed by Auckland Regional Public Health Service, we created a model for population access to open spaces\textsuperscript{18}. The model treats beaches and the Tamaki Drive boulevard as open space.

![Figure 14 - Access to Open Space by Census Area Unit](image)

This map shows the percentage of the population in each Census Area Unit (groups of about 3000-5000 people) who are within a five minute walk of five hectares or more of park area. There is less access to open space in Central Auckland as compared with the North Shore, Waitakere and South Auckland.


\textsuperscript{18} A Neighbourhood Park is an area of open space of at least 0.3ha that provides a basic informal recreation experience with some flat kick-around space for nearby residents. A Suburb Park is at least 3ha and provides a variety of experiences for residents from across a suburb, with walking circuits, socialising spaces such as picnic/barbeque facilities and large playgrounds or skate parks.
In Auckland, 39% of the population are within five minutes’ walk of a suburb park (3 hectares or greater). People in the most deprived areas are most likely to have access to a large park (at least 3 hectares), however this does not necessarily represent high-quality facilities. A similar study in Perth found that people of low socioeconomic status had good walking access to open space, however low neighbourhood attractiveness and poor active transport infrastructure prevented use of these spaces19.

4.5 SAFETY PERCEPTIONS

Feeling safe is a major determinant of people’s willingness to walk to work and other destinations 20. People are more likely to use a car to bypass areas they perceive to be unsafe. The Quality of Life Project surveyed 2715 Aucklanders on their perception of safety while walking alone in different areas and different times of day.

In general, people in Auckland feel quite safe during the daytime. However, only 60% of people perceive their neighbourhoods to be safe at night, while only 40% perceive the city centre as safe at night. The local board areas with the highest levels of safety perception were Devonport-Takapuna, Hibiscus and Bays, Great Barrier Island and Waiheke. The areas with the lowest perception of safety were Papakura, Manurewa, Ōtara-Papatoetoe and Henderson-Massey.

19 Giles-Corti B, Donovan RJ. Socioeconomic status differences in recreational physical activity levels and real and perceived access to a supportive physical environment. Preventive medicine. 2002 Dec 31;35(6):601-11.
There is no significant difference in safety perceptions between people of different ethnicities.

COMMUNITY SERVICES

5.1 AT COMMUNITY TRAVEL

Trips to school make up around a third of all morning peak car trips in Auckland, with just over half being made by car. Travelwise is a school-based programme that aims to improve road safety and reduce the number of vehicles driving to and from school at peak times. The programme supports alternative travel modes, making roads safer and creating walking school buses. These programmes form Auckland Transport’s active transport programme for schools.

In 2014, 408 of the 535 schools in Auckland and 261,976 students were engaged in Auckland Transport’s active transport programme. Auckland Transport estimates that this has prevented 17,164 daily car trips (where parents would have otherwise driven their children to school). This is an increase from 2013, when 400 schools and 202,087 students were engaged in Travelwise, with 12,376 daily car trips averted.

Auckland Transport’s Commute Programme provides Auckland businesses with information and planning so staff can find alternate ways to get to work, other than using their cars for single passenger trips. These alternative modes include public transport, active transport or carpooling. In 2014/15, this programme resulted in 5,565 car trips not being taken on Auckland’s roads each day. This was an increase on 2013/14 when 3,851 daily trips were prevented.

At the end of the 2014/15 year, there were 107 organisations engaged in the Commute programme, an increase from 90 in the 2013/2014 period.

5.2 HEART HEALTHY SCHOOLS

The Heart Foundation works with schools and early childhood centres (ECEs) to improve their nutrition and physical activity environment. Schools and ECES situated in lower socioeconomic areas are targeted. Currently in the Auckland region, there are 287 of 1414 (20%) ECES signed up or holding a Heart Foundation Healthy Heart award, and 58 of 544 (11%) schools signed up or holding a Heart Start award. This is an improvement from 247 ECES and 47 schools in 2014.

5.3 PACIFIC HEARTBEAT

The Pacific Community Nutrition course is a two-day course focused on healthy eating for Pacific people. Traditional Pacific foods and meals can be higher in fat, sugar and salt. This course provides information around healthier eating (i.e. foods and meals that are lower in fat, sugar and salt), portion size, shopping tips and the benefits of physical activity. In the year to June 2016, eight courses were delivered (with 15 to 25 participants each), up from six courses the previous year.