

Evolving approach to combating child obesity

Good health is important for children and families now, but also for children's continued good health and active contribution to society into adulthood. About 31% of children between 2 and 14 years old are classed as obese (about 10%) or overweight (about 21%). The prevalence of child obesity has increased from 8% in 2006/07 to 10% in 2011/12. A 2006 estimate of total costs in health care and lost productivity of all people who are overweight or obese has been estimated to be about \$720 million to \$850 million a year.

As part of the theme of my Office's work in 2012/13 – Our future needs – is the public sector ready? – we wanted to carry out a performance audit to understand the public sector's approach to combating child obesity. Child obesity is a multifaceted problem, with multiple agencies able to influence obesity-related issues. The performance audit intended to concentrate on the Ministries of Health and Education and Sport New Zealand (formally SPARC), because historically these three agencies had a leadership role that focused on physical activity and nutrition.

My staff found that the Ministry of Education and Sport New Zealand no longer focus on obesity to the extent they had in the past. At the time of my staff's work, the Ministry of Health was continuing with a range of existing interventions while testing and evaluating new ideas and approaches to identify the most effective focus for New Zealand's efforts to combat obesity. These changing circumstances limited what my staff could usefully audit. I am publishing this report on my website to provide an overview of the work we carried out.

The Ministry is considering how it can refine and strengthen its current range of health promotion-based programmes with interventions that target critical periods of human development for greatest effect. For example, greater emphasis on supporting women to achieve a healthy weight during and after pregnancy, and on child nutrition in the first few years of life to potentially prevent obesity in later life. Over time, the Ministry expects to add new programmes to its existing range.

In early 2013, we commissioned focus groups with Māori and Pasifika families in Auckland to get their perspective on the provision of obesity-related services. The families said that they were well aware of obesity and its potential causes. A range of publicly and community-funded services and programmes were available to support these families to manage weight-related health issues. Awareness of the services and programmes varied, and families faced some other barriers to accessing and using the services, such as cost, motivation, and establishing a supportive cultural connection with providers.

In this report we provide:

- in Part 1, a little more detail about the Ministry of Health's approach;
- in Part 2, a summary of the research into community perspectives; and
- in Part 3, some facts on child obesity.

I thank staff of the Ministry of Health, Ministry of Education, and Sport New Zealand for their assistance. In particular, I thank the Māori and Pasifika families in Auckland who generously gave their time to inform our work.

A handwritten signature in black ink, appearing to read 'Lyn Provost', written in a cursive style.

Lyn Provost
Controller and Auditor-General

7 June 2013

Part 1

The Ministry of Health's approach

- 1.1 The Ministry of Health (the Ministry) delivers a range of nutritional and physical activity programmes to help combat child obesity.¹
- 1.2 In the light of new evidence and changing international practice, the Ministry told us that it is testing and evaluating new ideas and approaches to identify the most effective focus for New Zealand's efforts to combat obesity. The Ministry is considering how its current range of health promotion-based programmes can be complemented by introducing an emphasis on interventions that target critical periods of human development to achieve the greatest effect.
- 1.3 For example, the Ministry said that it might implement an obesity prevention programme with, for example, a strong emphasis on maternal and infant services. This would mean supporting women to achieve a healthy weight during and after pregnancy, and a focus on child nutrition in the first few years to potentially prevent obesity developing in childhood and later in life.
- 1.4 The Ministry told us that the effect of maternal and infant health on obesity is still a largely untested hypothesis. Staff we interviewed said that there was good science to back up the hypothesis and that the Ministry was continuing to evaluate it. This evaluation includes the work of the Prime Minister's Chief Science Advisor, Professor Sir Peter Gluckman. The Ministry also told us that improving maternal and infant nutrition is only one component of addressing obesity in New Zealand. The Ministry will continue to develop and implement programmes based on its assessment of the information and scientific evidence available.
- 1.5 In the meantime, the Ministry is continuing with its range of existing interventions and Health Target initiatives,² such as screening people for type II diabetes.
- 1.6 It might take time before noticeable changes from a different range of interventions could be measured. However, the Ministry expects that some measurable effects should be seen within a few years of implementation – for example, through routine monitoring of birth-weight and of the weight of four-year-old children, as part of the B4 School Checks.
- 1.7 The Ministry is also collaborating with international colleagues to prepare health standards and guidelines for obesity research and treatment. Work with the World Health Organisation (WHO) has enabled the Ministry to develop guidelines for breastmilk substitutes. The Ministry has incorporated WHO standards and recommendations into services it is currently running; into hospital databases; and when preparing food-based dietary guidelines. The Ministry believes that this continued collaboration with WHO enables it to stay up to date with international best practice on weight-related health issues, including obesity.

1 See paragraph 2.4 for examples of the nutritional and physical activity programmes.

2 Information about Health Target Initiatives can be found at www.health.govt.nz.

Part 2

Summary of research into community perspectives

- 2.1 We engaged the services of an external research company to conduct focus group meetings in Orakei, Waitemata, and South Auckland. These areas were chosen because about 24% (based on 2006 Census data) of New Zealand's Māori population and 67% (based on 2006 Census data) of the Pasifika population live there, and there is a high prevalence of obesity in these communities. There were four focus group meetings, and a total of 31 Māori and Pasifika parents took part. The participants' children were between 5 and 14 years of age.
- 2.2 The purpose of the research was to assess whether:
- people are aware of the support and services that are available to improve health issues related to child obesity;
 - there are barriers that prevent or deter people from accessing services and support to improve health issues; and
 - people are satisfied with the standard of service and the facilities provided, and whether they can provide feedback to service providers so that potential service gaps can be addressed.
- 2.3 After the focus group meetings, we sought further information from various public entities about the range of obesity-related services and programmes available.

Summary of services and programmes available

- 2.4 A number of obesity-related services and programmes are available in South Auckland. These range from nutrition and healthy-eating services to exercise and weight-loss programmes. Some services are publicly funded through the Ministry of Health or through District Health Boards (DHBs). These services and programmes include:
- public health programmes promoting nutrition and physical activity, such as:
 - Active Families – an exercise and nutrition programme designed for families;
 - breastfeeding support and promotion;
 - promoting nutrition and healthy behaviours and practices in schools and workplaces;
 - supporting increased physical activity in Māori and Pasifika communities through church groups;
 - fruit in schools – supplying fruit to decile one and two schools;
 - food and nutrition guidelines;
 - Well Child/Tamariki Ora – pre- and post-natal support; and

- B4 School Checks – a national programme for all four-year-old children that tests a range of indicators, including height and weight, to ensure that the child is in a good position to begin school.

2.5 Other services and programmes are funded within communities through local businesses and church groups. These include:

- exercise classes, such as Zumba and youth exercise programmes;
- breakfast clubs – schools providing breakfast to students, with help from local businesses;
- healthy food initiatives, such as local businesses advertising healthy food options and encouraging customers to purchase these over unhealthy choices; and
- fitness "boot camps" and other initiatives run through church communities.

2.6 The following example is one of these services:

Fit-life Otara Boot Camp

The Fit-life Boot Camp is a free exercise and nutrition programme. This outdoor programme runs for 6-8 weeks, with a 6:00 am start, three days a week. Anyone can sign up for the programme. Although most participants are adults, children and teenagers are also able to attend. Participants include people who are obese or overweight and physically fit sports people looking to supplement their existing fitness regime. Most of those who attend are Pasifika or Māori.

The programme is delivered by professionals in the fitness industry who are from South Auckland.

Originally funded by Counties-Manukau DHB, then run by a local church group, the Fit-life Boot Camp is now funded by East Tamaki Healthcare, a private primary health provider.

The programme is promoted through Facebook and by word of mouth.

2.7 Although we did not attempt to identify every publicly and community-funded service and programme in South Auckland, there appears to be a broad range available.

Community perspective on services and programmes

2.8 Generally speaking, the people we spoke to recognised child obesity as an issue affecting the health and well-being of many children in New Zealand. The research also highlighted different perspectives on the issue in Māori and Pasifika communities.

2.9 Child obesity was of particular concern to the Pasifika parents in the focus groups. The Pasifika parents interviewed were much more likely to say that obesity (in general) was an issue within their immediate family than the Māori parents who participated.

- 2.10 The Māori parents in the focus groups believe that child obesity is mainly related to poverty, with many unable to afford to buy healthy, nutritious food for their families. Poverty was seen to be having a major effect on diet and the quality of food that children and families are eating. The Māori parents knew that children should be eating fresh fruit and vegetables, but the cost of these led to families picking quantity over quality. This was especially true for larger families.
- 2.11 Contributing factors that Māori parents identified were the cost and convenience of low-quality foods and the over-abundance of take-away outlets in urban areas, as well as a general lack of physical activity.
- 2.12 Although Pasifika parents also mentioned the same factors, the main issue for them was a cultural one, in which food and eating to excess plays an integral part:
- With us, we tend to go above and beyond ... and because of our poverty or our lack of income, we tend to go hard at the wedding or go hard at the 21st or the 80th because we're not sure how good the next meal is going to be. We overindulge.*
- ... If you go to someone's house and they don't put on a good feed, you sort of think, "whoa, that wasn't good" ... the food portrays the "family mana".*
- 2.13 Pasifika people have also historically viewed big babies and children as a sign of good health, strength, and the children being well cared for. However, having attended funerals of people who died from obesity-related illnesses, the Māori and Pasifika parents in the focus groups were very aware of the health implications of child obesity.
- 2.14 Māori and Pasifika parents said they would become concerned about a child's weight if it was affecting the child's physical or mental state.

Varying awareness of well-being services and programmes

- 2.15 Pasifika parents in the focus groups (all of whom were from South Auckland) were aware of many programmes that could support children and their families to manage weight-related health issues. Most of the programmes and services these parents identified were community funded. This indicates an encouraging degree of community ownership and responsibility for combating obesity and other weight-related health issues.
- 2.16 In contrast, Māori parents interviewed from the Orakei and Waitemata areas were not aware of any services or programmes to improve health issues related to child obesity in their communities.

Barriers to accessing services and programmes

2.17 Māori and Pasifika families told our researchers that there were barriers to their participation in services and programmes. These include:

Barrier	Explanation
Cost	Cost is a significant barrier for Māori and Pasifika families. They said that, to enable greater access, services need to be either free or low cost.
Awareness of services	Word of mouth is the primary means of sharing information about health and well-being services among Māori and Pasifika. However, families told our researchers that other channels, such as promoting services through church or local iwi groups and advertising on TV and radio and social media, would be effective.
Not feeling comfortable with service providers	Families told our researchers that obesity can be an embarrassing health problem, and they need to feel comfortable and connect with the service provider. Otherwise, they are unlikely to participate in the service at all. They said that the service provider needs to be friendly, welcoming, and ideally of the same ethnicity or at least from the local area and understanding of cultural needs.
Lack of motivation	Families told our researchers that continued support is important to keep them engaged in exercise-based services. Goals with incentives would also help encourage uptake and lasting participation.

General satisfaction with the standard of services and programmes

2.18 The types of programmes considered most successful were those that:

- involved the whole family (that is, parent(s) and children together);
- involved a combination of physical activity and practical advice/information about nutrition and how to prepare healthy (and appealing) meals;
- involved more than one session a week;
- involved on-going support and encouragement between sessions (through phone calls or text messages);
- were run by professionals with ties to the local community; and
- were provided free of charge.

2.19 The full research report can be accessed [here](#).

Part 3

Child obesity – some facts

- 3.1 According to WHO, being overweight and obesity are defined as abnormal or excessive fat accumulation that may impair health.³
- 3.2 Results from the 2011/12 New Zealand Health Survey show that about 31% of New Zealand children between 2 years and 14 years old are either overweight (21%) or obese (10%).⁴ The child obesity rate has increased from 8% in 2006/07 to 10% in 2011/12.
- 3.3 Child obesity is a multifaceted problem to which there is no single or universally accepted solution. The many factors that contribute to obesity and obesity-related health issues are complex and include broader social issues, such as poverty, housing conditions, food security, and the cost of healthy food.
- 3.4 Evidence suggests that obese and overweight children generally come from the most deprived neighbourhoods in New Zealand.⁵ The New Zealand Index of Deprivation 2006 highlights that 65% of Māori and 78% of Pasifika people live in the most deprived neighbourhoods. The 2008 New Zealand Living Standards Survey states that Māori and Pasifika people have hardship rates two to three times higher than those of European or other ethnic groups.
- 3.5 The prevalence of being overweight and obese in Māori and Pasifika children and young people is higher than in the total population of children and young people. In 2011/12, the rate of obesity in Māori children was 17% and in Pasifika children 23%.⁶
- 3.6 Obesity in childhood and adolescence has a range of serious adverse health consequences, both in the short term (for the obese child) and long term (for the adult who was obese as a child).⁷
- 3.7 Children who are obese are more likely to become obese adults, and this likelihood increases the more obese a child is.⁸ Obesity in adults is known to lead to both chronic and severe medical problems, such as heart disease, cancer, type II diabetes, and high blood pressure. These diseases can affect a person's life expectancy.

3 See WHO factsheet number 311, *Obesity and overweight*, updated in March 2013 (www.who.int/mediacentre/factsheets/fs311/en/).

4 See the Ministry of Health's report, *The Health of New Zealand Children 2011/12*, published in December 2012 (www.health.govt.nz/publication/health-new-zealand-children-2011-12).

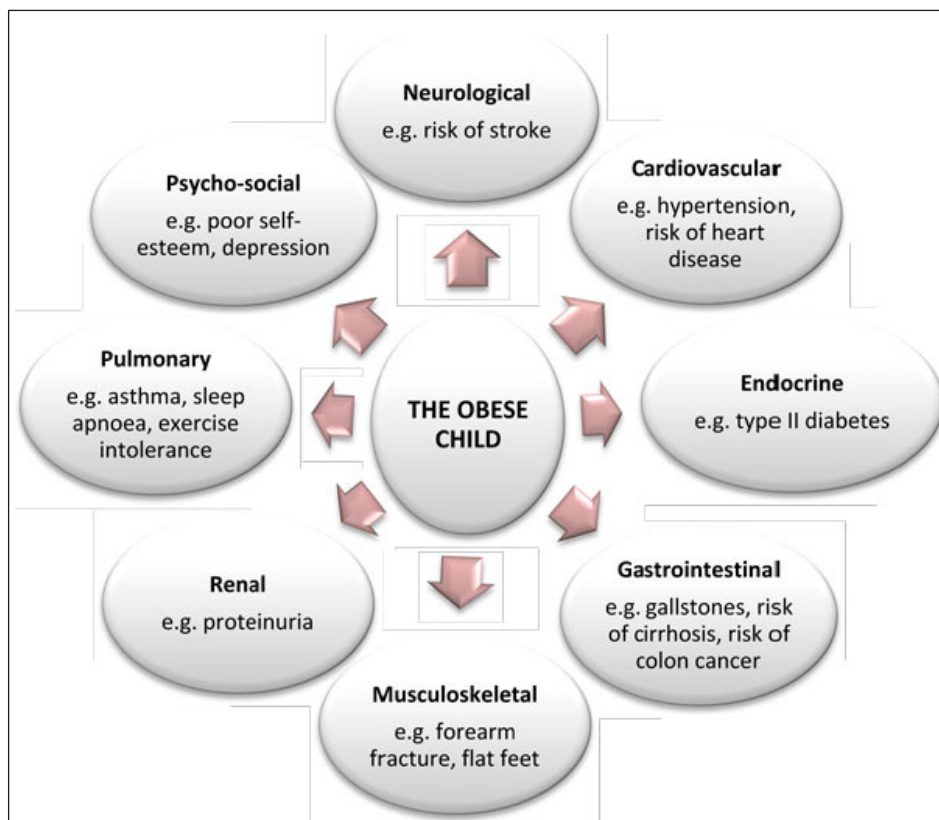
5 See the Ministry of Health's report, *The Health of New Zealand Children 2011/12*, published in December 2012 (www.health.govt.nz/publication/health-new-zealand-children-2011-12).

6 See the Ministry of Health's report, *The Health of New Zealand Children 2011/12*, published in December 2012 (www.health.govt.nz/publication/health-new-zealand-children-2011-12).

7 Reilly, JJ (2009), "Obesity in children and young people" in *Highlight* No 250, London: National Children's Bureau.

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3.8 The figure below shows some of the health complications associated with child obesity.



Source: <http://www.obesityinyouth.org/>.

Note: Sleep apnoea is a potentially serious sleep disorder in which breathing repeatedly stops and starts. Proteinuria means protein in the urine. Protein in the urine may be an early sign that the kidney's filters have been damaged by disease. Cirrhosis is scarring of the liver.

3.9 Recent studies, using 2006 data, show that being overweight or obese carries annual costs of between \$720 million and \$850 million in health care and lost productivity. Of this, health care costs totalled \$624 million, or 4.4% of New Zealand's total health care expenditure. Costs of lost productivity, through absenteeism, premature death, or recruitment and training of replacement staff, were estimated to be between \$98 million and \$225 million.⁹

⁹ See www.auckland.ac.nz/uoa/home/template/news_item.jsp?cid=535144, and Lal, A; Moodie M; Ashton T; et al, *Health care and lost productivity costs of overweight and obesity in New Zealand*, Canberra, ACT, 2012 ISBN/ISSN 1326-0200.