Executive Summary: Toi Te Ora's Childhood Obesity Prevention Strategy (2013 – 2023)

This briefing paper has been developed by Toi Te Ora – Public Health Service (Toi Te Ora) to provide an evidence-based strategic direction and resource that will inform the public health programme and intervention development required to achieve the goal of reducing childhood obesity by one third by 2023. It provides direction, guidance and resources that will guide the development of Toi Te Ora's intervention programmes – to be undertaken during 2015 and implemented over the following eight years.

In New Zealand approximately 1 in 10 children are obese and a further 2 in 10 are overweight, meaning that about 3 in 10 children are either overweight or obese. Approximately two thirds of adults are overweight or obese. The prevalence data for overweight and obesity in the Bay of Plenty and Lakes areas are similar to this national picture. New Zealand ranks as having one of the highest levels of childhood obesity amongst OECD (Organisation for Economic Co-operation and Development) countries, but it is not alone in this challenge. Globally the prevalence of obesity has nearly doubled since 1980 and has become an increasing international public health concern. As this is a problem affecting many countries and populations at the same time, it should rightly be considered a pandemic – a pandemic that has substantial implications for the future health of those affected and costly implications for future healthcare service provision.

This is very much the public health challenge of our time and as a pandemic that has emerged over two or three decades, it will require concerted, persistent and innovative action over many years to reverse. Margaret Chan, Director-General of the World Health Organisation in recognising the extent of the challenge notes that, "*not one single country has managed to turn around its obesity epidemic in all age groups"* (World Health Organisation, 2013).

In 2013, Toi Te Ora identified childhood obesity prevention as one of its long term strategic goals and has undertaken considerable work to review the evidence of what may work to achieve its stated goal of reducing childhood obesity by one third in ten years. While public health and the wider health sector has much experience developing and delivering nutrition and physical activity programmes, a recent review of the literature has highlighted some important themes and insights that have provided new perspectives on childhood obesity prevention.

The first concerns the role of food versus the role of exercise in influencing obesity prevalence. It has long been thought that excess weight is simply the result of energy intake (as food and drink) in excess of energy expenditure (as physical activity), with interventions focussing more or less equally on both sides of this equation. However, recent evidence and expert commentary strongly suggest that the obesity pandemic is largely being driven by increased energy intake rather than any decreased physical activity. In turn, this has largely been brought about by changes in the food industry and the types and changing composition of foods that we consume. In particular, the increased availability of energy dense foods (high in sugars and fats) that are relatively inexpensive and aggressively marketed, appear to be playing a key role in driving the obesity pandemic, especially for those that are more socio-economically disadvantaged. For example, per capita, consumption of sugar has increased substantially with the increase of added sugar in food products and increased consumption of sugar sweetened beverages (SSBs). To reduce the prevalence of

childhood obesity, the priority objective must be improving nutrition. Within this approach, a key focus must be on reducing sugar consumption – and a priority focus to reduce sugar consumption must be the reduction in consumption of sugary drinks (also known as sugar-sweetened beverages or SSBs).

While increased sugar consumption may not be the only contributor to the obesity pandemic, it seems likely that sugar has a very substantial role in driving this trend. Given that sugar consumption has increased, and that added sugar is so pervasive in manufactured food and beverage products, it can be said that there is a 'sugar pandemic' that is an underlying contributor to a range of chronic conditions including overweight and obesity, diabetes, metabolic syndrome, cardiovascular disease, and tooth decay. Therefore addressing the sugar pandemic and reducing population exposure to sugar, and in particular liquid sugar (such as SSBs), must be made an urgent public health priority. Alongside reducing sugar consumption, some evidence suggests that reducing the consumption of processed foods and saturated fat, and increasing the consumption of fresh and whole foods in the diets of children, can help towards reducing the prevalence of childhood obesity.

Another significant theme in current literature and public health commentary is the importance of the first 1,000 days of life (from conception to a child's second birthday) in determining and influencing longer term health outcomes in childhood and adulthood. In particular, the nutritional conditions for the developing foetus in the intra-uterine environment are being increasingly recognised as important in determining health outcomes in childhood and the risk of chronic conditions in adulthood. This means that maternal health (before and during pregnancy), and infant health are priority concerns for health promotion in order to achieve long term health gains for the population. Specifically, improving maternal nutrition, reducing the prevalence of smoking in pregnancy, and increasing the duration of breastfeeding of infants are important objectives that are likely to contribute to reducing the prevalence of childhood obesity – as well as providing many other short and long term health benefits.

There is evidence that ensuring children get adequate sleep helps prevent obesity and that increasing physical activity through active play, active transport and by reducing screen time may help to reduce obesity. Although the evidence for these in terms of making a difference to the prevalence of childhood obesity is less robust these are considered complementary objectives that are likely to have some benefit in reducing the risk of overweight and obesity and are known to have other important benefits in terms of health and development in children.

There are a number of underlying principles outlined in this briefing paper. These include adopting a preventative approach and more precisely, a population strategy of prevention that focuses on improving the health of the whole population through changing the environments and exposures of population groups. Some of the key population groups relevant to achieving this goal are: mothers and infants, pre-school aged children, school-age children, and parents (as influencers of their child's nutrition and environment). As the prevalence of obesity and overweight is disproportionately higher for Māori and for those that live in high deprivation areas, interventions need to focus on these population groups in order to reduce the inequalities that exist. Therefore, using a public health approach, the focus of the childhood obesity prevention initiatives will be targeted at changing the environments, policies and risk factors that determine and influence the health of these population groups.

In summary, **Table A** provides an overview of the strategic direction for the goal to reduce the prevalence of childhood obesity. This includes an outline of the strategic vision, strategic objectives, and guiding principles and themes. **Table B** outlines how Toi Te Ora intends to give effect to this strategic direction by developing and implementing interventions and initiatives. This is partly by working through Toi Te Ora's settings-based programmes (such as in schools, workplaces and marae) while also more widely through collaborating with other sectors, agencies, professionals and communities to influence the systems that affect health outcomes. It is fully-recognised that Toi Te Ora has a small but nevertheless important part to play in achieving this goal and that the reduction in the prevalence of childhood obesity will require collaboration and partnerships that support the improvement of the health of the population through the concerted and co-ordinated efforts of all of society.

This is a complex challenge and there is a vast amount of literature and emerging evidence on the topic. This strategy is based on Toi Te Ora's review and interpretation of the current evidence. It will continue to be reviewed in the light of new and emerging research and understanding. The evidence base, especially in terms of proving causal associations for obesity risk, is still developing. However, the need to act to address the obesity pandemic and to reduce the prevalence of childhood obesity is increasingly urgent. Therefore the strategic objectives identified in this strategy are those for which the evidence is considered sufficient and provides a reasonable basis to act both in terms of reducing the prevalence of childhood obesity and being reasonably confident in avoiding adverse unintended consequences to population health.

Table A. Reducing Childhood Obesity: Strategic Direction

<table>
<tr><td>Goal</td><td colspan="5">Reduce Childhood Obesity by one third in 10 years (2023)</td></tr>
<tr><td>Vision</td><td colspan="5">Every child in the Bay of Plenty and Lakes area grows up in an environment which enables them to be a healthy weight throughout their lives</td></tr>
<tr><td>Guiding principles and themes</td><td colspan="5">▪ Population approach rather than focus on individuals at risk
▪ Prevention approach keeping children at a healthy weight
▪ Emphasis on food and nutrition
▪ Emphasis on changing environments (physical, policy, food and so on)
▪ Life-course approach with intervention focus in pregnancy and early childhood
▪ Focus on reduction of ethnicity-related and socio-economic inequalities
▪ Informed by evidence and flexible as evidence base develops
▪ Enabling a co-ordinated and collaborative approach across sectors
▪ Implementation through settings-based and systems approaches</td></tr>
<tr><td>Primary Strategic Objectives</td><td colspan="3">Improve children’s nutrition:
▪ Reduce consumption of added / free sugars especially sugar sweetened beverages (SSBs)
▪ Reduce consumption of saturated fats
▪ Reduce consumption of processed foods
▪ Increase consumption of fresh and whole foods</td><td colspan="2">Improve maternal and infant health:
▪ Improve maternal nutrition
▪ Reduce prevalence of smoking in pregnancy
▪ Increase breastfeeding</td></tr>
<tr><td>Complementary Strategic Objectives</td><td colspan="3">Sleep:
Ensure children have an age-appropriate amount of sleep</td><td colspan="2">Increase children’s physical activity:
▪ Decrease screen time
▪ Increase active play
▪ Increase active transport</td></tr>
<tr><td rowspan="2">Priority Groups</td><td>Mothers and Infants</td><td colspan="2">Preschool Aged Children</td><td>School Age Children</td><td>Parents as Influencers</td></tr>
<tr><td colspan="5">Focus on Maori. Focus on high deprivation areas.</td></tr>
<tr><td rowspan="2">Priority Environments and Systems</td><td colspan="5">Settings-based and systems approach to health promotion based on Ottawa Charter.</td></tr>
<tr><td>Health sector</td><td>Preschools</td><td>Schools</td><td>Workplaces</td><td>Social environments (built environment, homes, marae)</td></tr>
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Table B. Reducing Childhood Obesity: Intervention Overview

Intervention settings	**Health Sector**	**Preschools**	**Schools**	**Workplaces**	**Social environments (built environment, homes, marae)**
Settings Subgroups	Primary Care Maternal and Infant Health Services	ECEs/Kohanga Kindergartens Playcentres Playgroups	Primary Intermediate Secondary	Various	Local Authorities Marae
Current Activities	Provision of Ministry of Health Resources DHB policies *Ad hoc* support for Lead Maternity Carers (LMCs) and Wellchild providers	Building Blocks for Under 5s Programme Pilot Breastfeeding Friendly Spaces	Heath Promoting Schools ~1/4 of HPS schools have action plans	WorkWell Programme Healthy Eating and Physical Activity Toolkits	Food Security Guidelines Kai @the Right Price Breastfeeding Friendly Spaces Hapu Hauora Healthy Homes Calendar/Tool
To Be Developed ***(Examples)***	Healthy Pregnancies programme Issues: Nutrition, Smoking, Alcohol, Breastfeeding	Nutrition, Physical Activity, (and Oral Health) Building Blocks Develop Obesity Prevention Plan for Early Childhood Education and Kohanga Reo groups	Action Plans for all HPS schools	Action Plans for all workplaces	Advocacy Plans Continue progress on current activities
Enabling factors	Leadership, Partnerships, Advocacy				
	Communications, Social Marketing, Health Literacy				
	Workforce Development				
	Evidence, Intelligence, Analysis, Monitoring and Evaluation				