

OBESITY, LEARNING OUTCOMES AND THE SCHOOL FOOD ENVIRONMENT



A Fact Sheet

Obesity can affect a child's health, educational attainment and quality of life.¹ Rising obesity rates, poverty-related food issues, links between nutrition and learning, and a growing recognition that nutrition is critical to the healthy development of young students are all contributing to a greater awareness of the need to improve the school food environment.²

Health statistics (2015/2016) for New Zealand children³

- One in nine children (aged 2–14 years) was obese (11%)
- 15% of Māori children and 30% of Pacific children were obese
- Children living in the most deprived areas were 5 times as likely to be obese as children in the least deprived areas
- 12% of children aged 5–9 and 22% of children aged 10–14 did not eat breakfast at home
- Children in the most socioeconomically deprived areas were less likely to eat breakfast at home

The New Zealand Childhood Obesity Plan⁴

The Childhood Obesity Plan launched in New Zealand in 2015 brings together initiatives designed to prevent or manage childhood obesity and focuses on food, the environment and being active. Fifteen broad population approaches are included in the plan, and the one in which this fact sheet plays an essential part is 'health promoting schools'.

The importance of schools in addressing childhood obesity

- Most children spend at least 6 hours per day at school, and it has been estimated that students consume one-third of their daily nutrient intake during this time.⁵
- The 2016 World Health Organization's package of recommendations to governments to address childhood obesity highlights the importance of schools in recommending that such settings implement comprehensive programmes that promote the intake of healthy foods, and reduce the intake of unhealthy foods and sugar-sweetened beverages by children and adolescents.¹
- A recent survey of NZ parents/caregivers found overwhelming support for their child's school to limit access to high-fat foods, sugary drinks and sugary foods.⁶

Obesity and learning outcomes

- A European report on the impact of health on educational outcomes in high-income countries found strong evidence of a relationship between childhood health status and educational outcomes.⁷
- The healthier children are, the more likely they are to succeed academically.⁸
- A recent literature review commissioned by the Heart Foundation and authored by P. Cushman (2016) also provided strong evidence to show

that obesity and obesity-related issues negatively affect students' learning outcomes.⁹

- The learning area most often associated with obesity and poor dietary intake is maths, although links have also been made to spelling and aspects of reading.^{10,11}
- Social and emotional factors are also closely linked to obese students' learning outcomes. Obese students are more likely to experience loneliness and depression as a result of bullying, stigmatisation, low self-esteem, body-image stress, and exclusion from opportunities for social interaction at school.^{12,13}
- These factors have been viewed as underlying relationships between obesity and learning outcomes¹⁴ and imply that if obese students are to achieve to their potential, schools need to not only provide a healthy food environment, but also ensure that interpersonal relationships and resilience are part of the curriculum, and provide a safe physical and emotional environment for all students.
- One recent NZ study also found that eating a healthy diet is significantly associated with better emotional health.¹⁵

The school food environment and learning outcomes

- Although there are several studies measuring the positive educational effects of a healthy school environment,^{16,17,18} there is an abundance of research linking healthy food consumption to educational outcomes.⁷ It is therein reasonable to presume that a healthy school food environment should be linked to better educational outcomes for students who buy their food at school.
- Studies suggesting habitual breakfast eaters have better educational outcomes and classroom behaviour present a sound reason for schools to ensure every student has the opportunity to be well nourished before engaging in learning.^{19,20} Furthermore a number of studies have shown strong links between breakfast consumption and BMI, suggesting obese students are more likely to skip breakfast.^{21,22}
- Changing the school food environment has resulted in both increased consumption of healthy foods, and lowered BMI.^{23,24}
- There is evidence to show that if the school is to positively influence learning outcomes, the whole school food environment needs to change rather than just the school canteen. This includes classroom nutrition programmes, classroom rewards, celebrations, use of logos, fundraising, teacher role modelling and school camps.¹⁸

Modifying the school food environment

- The involvement of all school stakeholders including principals, teachers, students, canteen managers, administrators, parents and relevant community and health agencies is essential in food policy development, so that everyone is consulted, listened to, and has a vested interest in policy implementation and maintenance.²⁵
- The classroom nutrition and cooking programme, and food provision in the wider school environment need to be mutually supportive.²⁶
- Parental and family engagement in school food programmes increases the likelihood that healthy initiatives will be transferred to the home and demonstrated in healthier food choices and parental role-modelling.²⁷
- A NZ study found some suggestion that youth-led interventions might result in positive improvements to eating and activity behaviours.²⁸

- A national study of NZ high schools found a statistically significant association between the school nutrition climate and the consumption of fruit and vegetables.²⁴
- Fifty-five percent of NZ schools have school gardens. Their presence has been associated with lower BMI and lower fast-food consumption.²⁹
- The closeness of food outlets to the majority of NZ urban schools suggests that school health teams and health promoters should work with retailers.³⁰

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