

Food, nutrition and physical activity in
New Zealand schools and early learning
services:
Key findings
2016

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Overview

In June 2015 the Cabinet Strategy Committee invited the Minister of Health, in consultation with other Ministers, to report back to the Cabinet Social Policy Committee with recommendations on a proposed package of initiatives relating to childhood obesity.¹

The resulting Cabinet Paper noted that the Education Review Office would produce a national report assessing ‘the current status of food, nutrition, and physical activity in schools and early childhood services’, and would also report on findings about those Health Promoting Schools (HPS) included in the evaluation sample.

ERO gathered information about 202 early learning services during their regular education reviews during Term 1, 2016. A further 46 primary schools and 29 secondary schools were reviewed with an evaluative focus on food, nutrition and physical activity. Primary schools were visited during Term 1, 2016. Secondary schools were visited during Term 2, 2016.

The schools were selected from eight District Health Board (DHB) areas, including those with high, average and low rates of children aged 2-14 years who have been identified as obese or overweight. HPS were also selected from across these areas. In each school and service, ERO asked:

How well does the service/school promote positive attitudes to physical activity and food and nutrition to benefit children?

ERO found that most schools and services were doing well at promoting positive attitudes to food, nutrition and physical activity. Valuing children’s wellbeing was the clear driver for these services and schools. This underpinned their policies and curriculum plans, and ensured that children and young people were exposed to consistent messages about healthy choices.

Most schools and services equipped children and young people with the knowledge, skills and attitudes to make positive choices for their health and wellbeing. The wider community needs to ensure that children and young people have opportunities to act on this knowledge and attitudes to maintain or improve their health.

This report includes information about the common challenges faced by services and schools, as well as the characteristics that supported them to do well. ERO will publish a second report that provides further detail of how schools and services promoted positive attitudes to food, nutrition and physical activity. This second report will include examples of effective practice, noting the challenges faced by early learning services and schools, and the solutions they found.

¹ Cabinet Paper to Cabinet Social Policy Committee – Office of the Minister of Health [HR 20151468] October 2015.

Next steps

ERO recommends that the Ministries of Education and Health, and Sport New Zealand, note the challenges for services and schools and use this to inform joint decisions about curriculum, sport services and community health services.

These challenges include:

- the need for **all** leaders and teachers to recognise the value of physical and nutritional literacy, and to have the confidence and capability to effectively implement programmes
- the physical constraints limiting opportunities for children and young people to participate in physical activity, including;
 - school or service facilities that, even though they meet licensing requirements, do not meet the size, weather-proofing or quality needs for all children and young people to have access to sport and other physical activity
 - the cost of access to community facilities
 - the cost of co-curricular activities, including sports and Education Outside the Classroom (EOTC), limiting children and young people's ability to participate in these activities as part of the curriculum
 - the difficulty in finding enough coaches and managers to support all students who wish to participate in school sports teams.
- promoting a healthy food environment consistent with policy and expectations, including:
 - managing the type and quantity of food that children brought to school or their early learning service to promote a healthy food environment
 - the availability of unhealthy food options near schools
 - the competing demands of privately-contracted canteen providers, and schools' desire for a healthy food environment
- that involvement in Health Promoting Schools is not consistent, and can be lost, especially when there is a change in staff at a school.

ERO recommends that the Ministry of Education consider these challenges when designing and piloting their professional learning and development model to support a curriculum response.²

² As outlined in Point 42 of the Cabinet Paper to the Cabinet Social Policy Committee - Office of the Minister of Health [HR 20151468] October 2015.

Introduction

Obesity and more specifically, childhood obesity, is a concern of governments and other organisations internationally. One third of New Zealand children are either overweight or obese. The issue of obesity is especially significant for Māori and Pacific children, and those from disadvantaged backgrounds.³

The recent World Health Organisation (WHO) report on Childhood Obesity,⁴ points out the need to use the compulsory school years to drive and embed nutritional education. It also noted the need for inclusive physical education.⁵ The report states that interventions for children in early learning services support healthy behaviours and weight trajectories, and that these interventions are most effective when they include caregivers and the wider community.

Children and young people spend approximately one third of their waking hours at school during term time, and sometimes even more than this in early learning services. The education sector therefore has a key role to play in implementing a curriculum that develops the nutritional and physical literacy of students. The food, nutrition and physical activity attitudes and behaviours that children develop while young persist into adulthood.⁶ Children's physical literacy is developed by their experience of high quality health and physical education, physical activity and sport.⁷

There is strong evidence of an association between optimal nutrition for young people and educational outcomes in both the short and long term.⁸ If children and young people do not have an adequate intake of micronutrients, for example due to a high energy but low-nutrient diet, their brains are not able to function optimally.⁹ There is further evidence showing that children who eat breakfast have improved test scores, and fewer days away from school.¹⁰

Physical activity has also been linked with improved educational outcomes for students.¹¹ Students that are more physically active and have higher fitness levels tend to spend more

³ Ministry of Health. Obesity data and stats. Retrieved (21.06.16) from www.health.govt.nz/nz-health-statistics/health-statistics-and-data-sets/obesity-data-and-stats

⁴ World Health Organization (2016). Report of the commission on ending childhood obesity. Available from http://apps.who.int/iris/bitstream/10665/204176/1/9789241510066_eng.pdf?ua=1

⁵ Inclusive physical education provides opportunities for all students, of all abilities. It is not limited to the best at sports. See WHO (2016).

⁶ Waters E., Swinburn B., Seidell J. & Uauy R. (eds) (2010). *Preventing Childhood Obesity*. London: Blackwell Publishing. p79.

⁷ Definitions of physical activity, physical education, physical literacy and sport can be found in Appendix 1.

⁸ Quigley and Watts (2005) A Rapid Review of the Literature on the Association Between Nutrition and School Pupil Performance. Retrieved (23.11.15) from www.ana.org.nz/sites/default/files/OAC_final_report_May_06.pdf

⁹ Benton, D. (2001) cited in Quigley and Watts (2005) A Rapid Review of the Literature on the Association Between Nutrition and School Pupil Performance. Retrieved from: www.ana.org.nz/sites/default/files/OAC_final_report_May_06.pdf

¹⁰ Centers for Disease Control and Prevention (2014). Health and academic achievement. Available from www.cdc.gov/healthyyouth/health_and_academics/pdf/health-academic-achievement.pdf

¹¹ Centers for Disease Control and Prevention (2014). Health and academic achievement. Available from www.cdc.gov/healthyyouth/health_and_academics/pdf/health-academic-achievement.pdf

time on-task and have higher levels of achievement. In New Zealand, Sport in Education¹² has led to increased attendance, higher student engagement and improved assessment results for secondary school students.¹³

Clear food policies and good education about nutrition can improve at-risk children's nutritional status, help them build healthy eating habits, and learn skills to support their decision making throughout their lives.¹⁴

The National Administration Guidelines (NAGs)¹⁵ sets out expectations for school administration. The NAGs state the boards of trustees must give priority to regular quality physical activity that develops movement skills for all students, especially in Years 1 to 6¹⁶; provide a safe physical and emotional environment for students¹⁷; and promote healthy food and nutrition for all students.¹⁸

Both *Te Whāriki* and *The New Zealand Curriculum* (NZC) set out an expectation that children should learn about health and physical activity.

In *Te Whāriki*, the strands of Wellbeing (*Mana Atua*) and Exploration (*Mana Aotūroa*)¹⁹ have learning outcomes relating to children learning how to control their bodies and keep themselves healthy.

Health and Physical Education is a learning area of the NZC.²⁰ This learning area includes food and nutrition and physical activity as two key areas of learning. Self-management, an important part in managing health, is one of the key competencies of the NZC.

ERO's *School Evaluation Indicators*²¹ give a holistic view of outcomes for children and young people. One of these outcomes is for students to be physically active and lead a healthy lifestyle.

¹² Sport in Education is a Sport NZ project that supports schools to deliver the curriculum through the context of sport. It is currently being developed, trialled and evaluated in eight secondary schools. It will be made available to all schools. More information can be found at www.sportnz.org.nz/managing-sport/search-for-a-resource/programmes-and-projects/sport-in-education-project

¹³ NZCER (2015). Getting runs on the board: Stories of successful practice from two years of the Sport in Education initiative. Retrieved 04.08.16 from www.nzcer.org.nz/system/files/SiE-Getting-Runs-on-the-Board.pdf

¹⁴ Quigley and Watts (2005) A Rapid Review of the Literature on the Association Between Nutrition and School Pupil Performance. Retrieved (23.11.15) from www.ana.org.nz/sites/default/files/OAC_final_report_May_06.pdf

¹⁵ See www.education.govt.nz/ministry-of-education/legislation/nags/

¹⁶ NAG 1 (a)iii

¹⁷ NAG 5a

¹⁸ NAG 5b

¹⁹ Ministry of Education (1996). *Te Whāriki, He Whāriki Mātauranga mō ngā Mojopuna o Aotearoa, Early Childhood Curriculum*. (p.48, 86). Retrieved from www.education.govt.nz/early-childhood/teaching-and-learning/ece-curriculum/te-whariki/

²⁰ Ministry of Education (2007). *The New Zealand Curriculum for English-medium teaching and learning in years 1-13*. Retrieved from nzcurriculum.tki.org.nz/The-New-Zealand-Curriculum

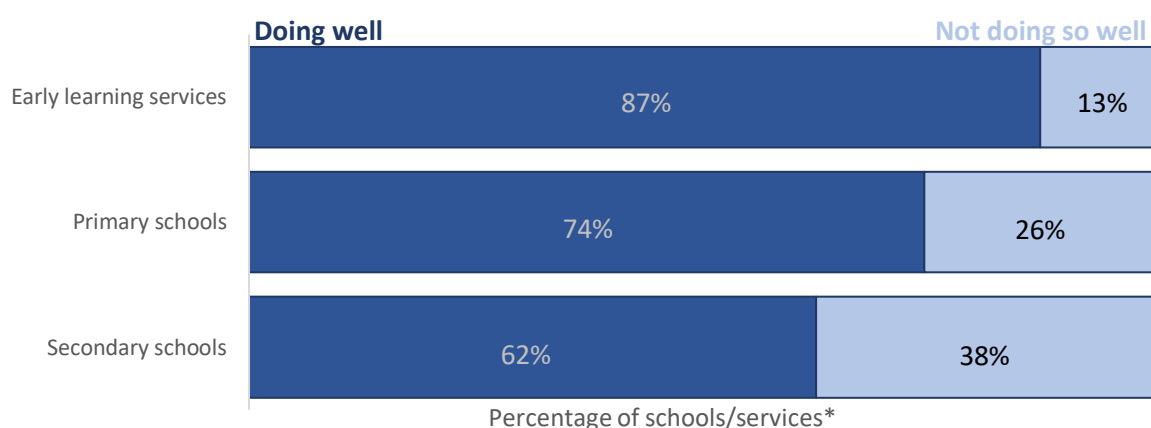
²¹ ERO (2016). School evaluation indicators: Effective practice for improvement and learner success. Available from www.ero.govt.nz/publications/school-evaluation-indicators

Previous ERO evaluations have included information around how schools and early learning services developed children and young people’s knowledge and valuing of health and physical activity. The findings of these reports are summarised in Appendix 2.

Findings

ERO evaluated how well 202 early learning services, 46 primary schools and 29 secondary schools promoted positive attitudes to food, nutrition and physical activity. Most schools and services were promoting positive attitudes to food, nutrition and physical activity well. Nearly all early learning services, three-quarters of primary schools and two-thirds of secondary schools were doing well.

Figure 1: The older the students, the less well physical activity, food and nutrition was promoted



**please note that in all future figures, the bars represent the actual number of schools or services*

A clear vision or philosophy valuing health and wellbeing was important for both schools and services. This set the foundation for teachers’ and leaders’ actions, meaning that positive messages were consistent across the school or service. Passionate leadership and clear policies and curriculum plans guided teachers’ practice, and ensured that all children and young people had opportunities to participate and learn about food, nutrition and physical activity.

Where schools or services were not doing so well, health and wellbeing was not explicitly valued. Policies and plans were not as clear, or were absent. They were not useful for guiding teachers and leaders in their practice. Some children and young people missed out on opportunities to learn about physical activity, and competition was valued over participation.

Early learning services

Most services (nearly nine out of ten) were doing well at promoting children’s positive attitudes to food, nutrition and physical activity.

Figure 2: Only two services were not doing well at all



**please note that in this and all future figures, the bars represent the actual number of schools or services*

Services doing very well

Leaders and teachers in services that were doing very well, recognised and valued the importance of food, nutrition and physical activity for children’s wellbeing and learning. This recognition and valuing underpinned the way the service operated at all levels.

Leaders and teachers were knowledgeable and capable in the area of food, nutrition and physical activity. They were strategic and proactive in their decision making, and the environment and resourcing supported children’s learning.

Teachers modelled healthy choices and ensured that the messages children received were consistent across adults, and across children’s age groups within the service. Teachers worked well with children’s parents and the community to support children’s learning. Children developed leadership skills, and had opportunities to make decisions about physical health in their learning programme.

There were 10 services in District Health Board (DHB) regions²² with very high rates²³ of childhood overweight or obesity. Nine of the ten services were doing very well. Of these, eight were part of an umbrella organisation that gave clear direction, expectations and support for teachers and parents around food, nutrition and physical activity. These services were doing a statistically significantly²⁴ better job than services in regions where childhood obesity was not such a problem.

²² Childhood overweight and obesity data is for 0-14 year olds in New Zealand. The information is based on the New Zealand Health Survey results from 2011-2014. The data is available from www.health.govt.nz/publication/regional-results-2011-2014-new-zealand-health-survey

²³ DHBs were placed on a spectrum from very low rates of childhood overweight and obesity, to very high. DHBs with very low childhood overweight and obesity had less than 7.5 percent obesity, and the total rate of childhood overweight and obesity was below 27.5 percent. DHBs where 45 percent or more of children were overweight or obese were described as having very high rates of childhood overweight and obesity.

²⁴ The distribution of judgements against each attribute was tested using the Kruskal-Wallis H test. The level of statistical significance used for all testing in this report was $p < 0.05$.

Services not doing well

These characteristics became less obvious in services that were not doing as well. Services that were not doing well did not demonstrate that they valued opportunities for children to learn about food, nutrition and physical activity. This resulted in a lack of focus on this area. Children's opportunities to learn and develop positive attitudes relied on the interest and capability of individual teachers.

Healthy Heart

Leaders and teachers in some services told ERO how participating in the Healthy Heart programme²⁵ had supported them to consider their provision for food, nutrition and physical activity. It had led teachers and leaders to review how their service promoted positive attitudes and messages, and to be specific in their curriculum planning. It provided them with a framework and guidelines to support them in their practice.

Challenges

The most common challenge identified across services was managing the type and quantity of food parents provided to their children for when they were at the service. While some services had seen improvements in children's lunchboxes after their consistent and persistent sharing of messages, others struggled. Teachers in some services were also conscious about how they shared these messages. They did not want to be seen as the 'food police'.

Another challenge teachers identified across services was financial constraints on parents. Teachers reported that parents felt that healthy food was expensive. Some services had addressed this issue by giving parents ideas for affordable and healthy lunchbox items.

The physical environment was a challenge for just under 10 percent of services for their provision of physical activity opportunities for children. The most common challenge was that the space available, even though it met licensing requirements, limited children's opportunities for running and other gross motor activities. Staff in services that had this challenge but were still doing very well, were deliberate in making the environment work for the children, and in finding alternative spaces, sometimes off-site, for children to be active.

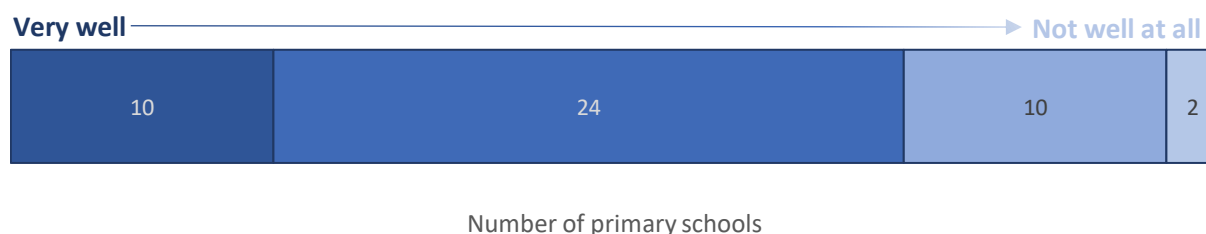
In some services, changes in staffing and leadership meant that there was some difficulty in keeping expectations clear and messages consistent. In a few services that were not doing well, teachers' lack of knowledge and valuing of food, nutrition and physical activity limited their ability to plan and evaluate programmes for children.

²⁵ The Healthy Heart Awards are an initiative from the Ministry of Health and the Heart Foundation. They provide resources, structure, and workshops to support services to ensure their environment promotes healthy eating and physical activity. The different levels of awards help scaffold services in their journey to a health promoting environment. More information can be found at www.learnbyheart.org.nz/index.php/ece/healthy-heart-award

Primary schools

Nearly three-quarters of the primary schools in this evaluation were doing well or very well at promoting positive attitudes to food, nutrition and physical activity.

Figure 3: Most primary schools were doing well or very well



Primary schools doing very well

Primary schools that were doing very well were guided by sound policies and procedures, founded on a clear vision for students' success. There was a focus on holistic wellbeing, and students' enjoyment of activity was valued. This meant that there was a high level of consistency across the school in the messages students were receiving about food, nutrition and physical activity. Teachers modelled healthy choices, and showed their enjoyment in being active.

The curriculum in these schools also recognised the focus on and valuing of students' holistic wellbeing. Teachers were responsive to students' interests and needs, and planned well for students' learning about food, nutrition and physical activity. All students were included in activities, and teachers found ways to respond to children's physical and cultural differences.

Leaders were proactive and strategic. They had high expectations for teachers and students, and acted to support them to meet these expectations. They knew teachers' areas for development, and accessed professional learning and development (PLD) that matched their areas of need. They used research and school data to review and evaluate for improvement. They made strategic resourcing decisions around programmes, equipment and facilities, and were focused on finding solutions.

Leaders and teachers encouraged and supported parents to be engaged in their children's education and school activities, for example by providing training in how to coach or manage a sports team.

Primary schools not doing well

In schools that were not doing so well, values and vision statements were less explicit about students' holistic wellbeing. While some adults in these schools modelled healthy choices, there were inconsistencies in the messages children received. Sometimes this was due to a lack of policies to guide teachers, and in others it was due to policies not being followed.

In some of these schools, leaders and teachers did not see the need to focus on food, nutrition or physical activity in the curriculum. They felt that children were fit and healthy, and so thought they did not need to plan for this.

Leaders in schools that were not doing so well said that teachers lacked the confidence and capability to deliver the food, nutrition and physical activity areas of the curriculum. These teachers relied on external providers to deliver these parts of the curriculum. They were not able to build on what the external providers taught, or weave this through the regular curriculum.

Leaders had not reviewed their provision for food, nutrition and physical activity, nor had they reported on it to parents or their board of trustees. It was not seen as a priority.

Schools' decile, DHB, size, location and type did not have a statistically significant impact on how well they promoted healthy attitudes towards food, nutrition and physical activity.²⁶

Challenges

Leaders reported that a challenge for primary schools was teachers' confidence and capability to deliver a curriculum that promoted healthy attitudes to food, nutrition and physical activity. This led to inconsistencies and programmes and practices not being sustained over time. Some principals identified that newly qualified teachers needed PLD focused on health and physical education as a curriculum area, which was sometimes difficult to access.

The environment around the school was a concern for many school leaders. Local dairies and fast food shops were often visited by students on their way to and from school, or parents provided unhealthy food for their children to eat at school.

Schools on busy roads found that students were not able to safely use active forms of transport to and from school, so would be dropped off by car or bus. This reduced their opportunities for incidental activity.

Nearly one in six primary schools found that the size or nature of their grou

nds limited children's ability to be active. They did not have all-weather facilities, or enough space for all children to be active. Time on fields and playgrounds had to be scheduled.

School leaders said that parent participation had declined over time. They felt that parents did not have enough time to be able to properly support school activities. They commented that many families had both parents working; sometimes more than one job or shift work. This put more pressure on teachers to coach and manage sports teams, and schools had to find other ways of transporting students to off-site activities.

Schools also had to find ways to manage parents' behaviour and expectations so that physical activity could be inclusive of all students. Parents could be competitive and have inappropriate expectations, and some behaved poorly on the side-lines of their children's sports games. This behaviour could be discouraging to some children, and meant that coaches and managers were not able to give the children their full attention.

Children's opportunities to participate in EOTC, sports teams and co-curricular activities were limited by parents' finances. One school had re-classified the school camp as an 'enrichment activity', as they could not afford to cover the cost themselves. This led to a

²⁶ The distribution of judgements against each attribute was tested using the Kruskal-Wallis H test.

decrease in participation. In a few schools, staff personally paid for children's sports uniforms and team fees, so they could participate as their families could not afford it.

Health Promoting Schools

The sample included 16 primary schools registered as Health Promoting Schools²⁷ (HPS). These schools were doing a better job of promoting positive attitudes to food, nutrition and physical activity than primary schools that were not involved in HPS.²⁸

While HPS were doing better as a whole, there were still two schools that were part of the HPS scheme that were only doing somewhat well or not well at all.

The principals at each of these two schools admitted that their involvement in HPS had lapsed. Their schools lacked the policies and leadership to ensure that initiatives were sustained.

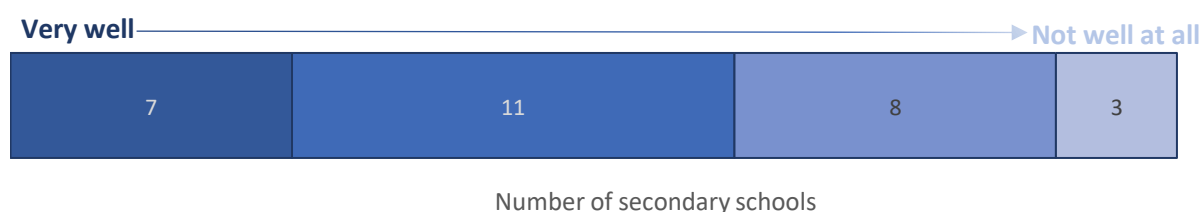
For one of these schools, the involvement in HPS had been driven by one passionate teacher. This teacher left, and there was no strategy in place to ensure the school's continued involvement in HPS. The principal felt that teachers lacked the confidence and capability to drive this. This principal is new to the school and is enthusiastic about physical activity. He had already made a number of changes, including creating opportunities for physical activity and reviewing policies that are likely to improve this part of the curriculum.

At the other school, external providers took responsibility for children's learning in this area. The leader was considering another health programme to implement in place of HPS.

Secondary schools

Just under two-thirds of secondary schools were doing well or very well. This group was the least effective in promoting positive attitudes to food, nutrition and physical activity in this evaluation.

Figure 4: A smaller proportion of secondary schools were doing well or very well



²⁷ Health Promoting Schools is school community-led development. HPS facilitators help schools to work with their communities to improve health, wellbeing and educational outcomes for their students. Information about HPS can be found at hps.tki.org.nz/

²⁸ Differences in the distribution of judgements for HPS and non-HPS primary schools were compared using the Mann-Whitney U test.

Secondary schools that were doing very well

Effective leadership and a clear vision for student wellbeing drove coherent and well-planned programmes across the schools that were doing very well. Decisions around what was done, and how it was done were driven by achievement, participation and survey data. These schools actively sought students' input into decision making, and expected that parents and the school would work together to promote students' wellbeing.

Schools that were doing very well reviewed the options for food in their school canteen. They reduced or removed the unhealthy options, especially those high in sugar. In some schools, the board of trustees subsidised the canteen in order to promote healthier food choices. School leaders recognised that 'managing self' is one of the key competencies of NZC, and so preferred to inform and guide students, rather than enforce rigid rules.

Organised sport was the main way that students were active in secondary schools. In schools that were doing well at promoting positive attitudes, participation was seen as important, not just competition. Teachers knew who was active and who was not, and took steps to encourage everyone to be active. They provided a variety of ways for students to be active.

Secondary schools that were not doing well

In schools that were not doing so well, some students were missing out on opportunities to learn about food, nutrition or physical activity. These schools did not have a clear, shared vision around students' health or wellbeing, and lacked commitment to positive choices. Some did not value health, and had a deficit view of their students and community. They made unhelpful comments around the abilities and motivations of their community, for example that they did not care about health, or they were too lazy to make changes.

Schools that were not doing well focused mainly on competition in sports. This meant that if students were not willing or able to commit to a competitive sport, they had no opportunities to participate. Information around food and nutrition generally came through sports teams, so those students who were not part of a team had no access to this information.

Schools' decile, location, size, type or the level of childhood overweight or obesity in the community did not have a statistically significant effect on how well they promoted positive attitudes to food, nutrition and physical activity.²⁹

Challenges

Leaders reported that the cost of healthy food and regular access to sporting opportunities was the biggest challenge for secondary schools and for students. Costs included renting off-site facilities for sports teams to train and play, team fees, team uniforms, sports equipment, travel to games and training camps, and the cost of healthy foods.

Just over one-quarter of the secondary schools in this evaluation had challenges related to their facilities. For example, schools without sufficient space on-site for the number of students that wished to play sports had to pay to access other sporting facilities and fields nearby. Some schools reported that they were unable to pay or did not have nearby facilities,

²⁹ The distribution of judgements across decile group, location and school size was tested using the Kruskal-Wallis H test. The distribution of judgements across the two school types was tested using the Mann Whitney U test.

and had to limit the number of teams. In some, only the top teams were allowed to practise. A lack of all-weather facilities also limited students' opportunities for activity.

The food environment around schools was also a challenge. Students regularly bought unhealthy foods from local dairies, fast food outlets and petrol stations on their way to and from school, or, for some, they could visit these outlets at lunchtimes.

Students were very price-motivated when making their food choices. They bought more unhealthy foods, as these were cheaper both on- and off-site. Some canteens had operated at a financial loss, which led schools to outsourcing the canteen provision. If school canteens did not provide food at a price students were willing to pay, students would buy off-site. School leaders wanted to keep students, particularly those in Years 9 and 10, on site during school hours.

Senior students recognised a lack of time was a limiting factor in students' ability to participate in physical activity. They were trying to balance the time needed for their academic needs, with physical activity, social and work commitments. This was a challenge in many of the secondary schools.

Many schools found it difficult to find enough people to support sports teams as coaches or managers. Teachers and parents did not have the time to provide as much support as was needed.

Health Promoting Schools

Seven of the 29 secondary schools ERO visited were Health Promoting Schools. Three of these schools were doing very well, three were doing somewhat well, and one was not doing well at all.³⁰

There were new leaders in three of the schools registered for HPS that were doing somewhat well or not at all well. The other school had new staff in the health and physical education department. In two of the schools registered as being involved in HPS, but not doing well, staff did not know that they were part of the programme. It may be that information around HPS was lost during the handover to new teachers and leaders.

Canteens and food provision

Many primary schools had opportunities for students to purchase or be provided with food while at school. In primary schools, students were able to order lunches from outside providers. Some had canteens or tuck shops, however this was less common than in secondary schools. All but one of the secondary schools in this evaluation had a canteen or tuck shop. This school had vending machines accessible to students.

Fruit, milk, sandwiches and Weet-Bix were the main foods provided for primary school students. Breakfasts and lunches were usually made available to students who needed them. Some schools had taken steps to reduce the perceived stigma of receiving food from the school. This included having breakfast available to all students, or buying lunches for

³⁰ HPS is currently targeted at schools with students in Years 1-8, in deciles 1-4, and those with a high proportion of Māori, Pasifika or vulnerable students. This may help explain why secondary schools in HPS were not doing as well as primary schools in HPS.

students in need alongside regular lunch orders. Some secondary schools also had breakfast clubs, although this was less common.

In both primary and secondary schools that were doing very well, schools reviewed what was on offer for students to purchase for their lunches. They used expert advice and nutritional guidelines to support decision making around what food was available. In secondary schools, students also had a say in what was offered.

Most schools had some healthy options available for students to purchase, and many had looked to improve their menus. Secondary schools were limited by their concerns that if students could not get what they wanted, at a price they were willing to pay, they would go off-site to local dairies and fast food outlets. Healthy options tended to be more expensive, and students were very price sensitive.

Some schools ran their own canteens, or had canteens run by volunteers. Unfortunately, many canteens had previously lost money when operating as self-run, so schools had contracted out the canteen to external providers. These providers were profit driven, and so tended to be most interested in what would sell.

Boards of trustees in some schools recognised the effect of price on students' purchasing decisions, and had subsidised healthier options in order to make them more attractive to students. Another school renegotiated the terms of the contract with the provider, in return for the provider no longer selling soft drinks.

In spite of it being a successful fundraiser, most schools (both primary and secondary) did not sell chocolate as a way to raise money. They were aware of the messages they were sending, and so considered alternative ways to raise money, such as fun runs, activity days and quiz nights. Some still used sausage sizzles to fundraise. A few schools that were doing somewhat well overall still used chocolate or cake stalls for fundraising.

Conclusion

Overall, schools and services were doing a good job of promoting healthy attitudes to food, nutrition and physical activity. Values, policy and practice aligned to ensure students had access to good information, as well as opportunities to make choices about their own wellbeing.

While schools and services were doing a good job of equipping students with the knowledge, skills and attitudes to make healthy choices around food, nutrition and physical activity, students were not always able to make these healthy choices. Leaders said that environmental, resourcing and financial constraints limited children's access to nutritious food and opportunities for physical activity. They were restricted in their ability to make healthy nutritional choices by the food that was available to them, either provided by their parents or that was affordable. Some leaders found ways to address these constraints, and others struggled to address them.

Schools and early learning services can teach children and young people to value healthy food, nutrition and physical activity. The wider community needs to support children and young people with opportunities to enact these values.

ERO will publish a second report that provides examples of effective practice, noting the challenges faced by early learning services and schools, and the solutions they implemented.

Appendix 1: Definitions of physical activity, physical education, physical literacy and sport

Physical activity

Physical activity includes all the movements people make in everyday life, including work, recreation, exercise and sporting activities.³¹ Physical activity can provide a context for learning, or contribute to an outcome, such as developing specific motor skills.

Physical education

Physical education is learning about “movement and its contribution to the development of individuals and communities. By learning in, through, and about movement, students gain an understanding that movement is integral to human expression and that it can contribute to people’s pleasure and enhance their lives. They learn to understand, appreciate, and move their bodies, relate positively to others, and demonstrate constructive attitudes and values. This learning takes place as they engage in play, games, sport, exercise, recreation, adventure, and expressive movement in diverse physical and social environments. Physical education encourages students to engage in movement experiences that promote and support the development of physical and social skills. It fosters critical thinking and action and enables students to understand the role and significance of physical activity for individuals and society.”³²

Physical literacy

Physical literacy is “the motivation, confidence, physical competence, knowledge and understanding required by participants that allows them to value and take responsibility for engaging in physical activity and sport for life”.³³

Sport

Sport can be informal or formal, competitive or non-competitive forms of active recreation.³⁴ It includes both new and established forms of active recreation, and can be used as a context for learning within the NZC.

³¹ Sport NZ (2014). *Primary school resources*. Retrieved 04.08.16 from www.sportnz.org.nz/managing-sport/search-for-a-resource/guides/primary-school-resources

³² Ministry of Education (2007). *The New Zealand Curriculum for English-medium teaching and learning in years 1-13*. (p. 23). Retrieved from nzcurriculum.tki.org.nz/The-New-Zealand-Curriculum

³³ Whitehead, M. (2013) cited in Sport New Zealand (2015). *Sport New Zealand’s Physical Literacy Approach: Guidance for quality physical activity and sport experiences*.

³⁴ Sport NZ (2015). *Community Sport Strategy 2015-20*. Retrieved 04.08.16 from www.sportnz.org.nz/assets/Uploads/attachments/About-us/Com-Sport-Strategic-Plan.pdf

Appendix 2: Food, nutrition and physical activity in previous ERO reports

Early learning services

Working with Te Whāriki and Priorities for Children's Learning in Early Childhood Services (both 2013)

- wellbeing and belonging were the strands most commonly referred to in documentation such as planning and assessment records
- some services lacked planned or enacted curriculum relating to other strands, such as exploration
- services that effectively used information about children's learning typically reviewed a variety of topics relating to children's learning, including developing children's learning through outdoor play.

Infants and toddlers: competent and confident communicators and explorers (2015)

- fifty-six percent of services had a curriculum that supported infants and toddlers to become competent and confident communicators and explorers
- highly responsive services offered infants appropriate physical challenges, such as opportunities to pull, push, touch and grasp
- in less responsive services, children had fewer opportunities to explore and develop physical confidence. Priority was given to warm and nurturing relationships.

Primary schools

The quality of teaching in Years 4 and 8: Health and Physical Education (2007)

- thirty-six percent of teachers were effective or highly effective in all six areas of good quality teaching (content of learning programmes, use of resources and technologies, subject and pedagogical knowledge, identifying and meeting needs of diverse groups of students, assessment, and student motivation and engagement)
- where teachers were less effective, school-wide policies and planning did not support the teaching, assessment, and reporting of health and physical education as a cohesive learning area. This led to a narrowness of learning, where teachers taught physical activity rather than physical education, and made health part of 'topic time', instead of teaching it within the context of the health and physical education curriculum
- learning programmes at about half of schools did not emphasise the relationship between physical activity and sport studies and other key areas of learning such as mental health, body care and personal safety, and food and nutrition.

Wellbeing for children's success at primary school (2015)

- high quality implementation of the health and physical education curriculum was found to be linked to higher levels of student wellbeing in primary schools
- in the schools where wellbeing was promoted through the curriculum:
 - teachers had a deep understanding of health teaching and learning
 - students explored many health topics relevant to their wellbeing, such as why some people have too much food and others not enough in the same small community
 - schools consulted with their community, and made careful use of community expertise for particular health topics.

KiwiSport in schools (2010 and 2012)

- KiwiSport funding had a positive impact on the availability and accessibility of sports opportunities, the number of students participating in organised sport, and students' sports skills development
- KiwiSport had an impact on schools' physical education programmes and resourcing, and some schools also increased the time spent on physical education
- KiwiSport funding led to specialist coaches and instructors working with both teachers and students to teach fundamental skills for a range of abilities
- forty-one percent of primary schools said the time spent on physical education had increased, while 58 percent said it had not changed
- main challenges identified were funding available, involving parents, accessing specialists, and fitting physical education into a crowded curriculum.

Secondary schools

Wellbeing for Young People's Success at Secondary School (2015)

- one of nine key ideas that demonstrate the desired outcomes for student wellbeing is that students are physically active and lead healthy lifestyles
- support for wellbeing varied across schools
- wellbeing was promoted through the school values and curriculum
- wellbeing issues were responded to at an individual or group level and there was often specialist support for students with particular needs
- students in schools that were well placed to ensure student wellbeing, experienced respectful relationships with their peers and with adults that were based on shared values
- students were seen as inherently capable and expected to contribute to, and be accountable for, the experiences of others
- in general, students would benefit from more teachers and leaders asking them about their experiences and involving them in decisions about the quality of their school life
- students would also benefit from schools being more deliberate in promoting wellbeing in the curriculum
- schools could be more deliberate in their use of the health and physical education learning area; learning contexts in all learning areas and out-of-class activities that complement what students are learning in school.

Appendix 3: Methodology and constraints

ERO made an overall evaluative judgement for each school and early learning service in response to the question:

How well does the service/school promote positive attitudes to physical activity and food and nutrition to benefit children?

ERO gathered information from 202 early learning services during their regular education reviews during Term 1, 2016.

A sample of 46 primary schools and 29 secondary schools were reviewed by special review teams, and food, nutrition and physical activity was the sole focus of the review. Primary schools were visited during Term 1, 2016. Secondary schools were visited during Term 2, 2016.

The schools were selected from eight District Health Board (DHB) areas, including those with high, average and low rates of children aged 2-14 years who have been identified as obese or overweight.

Within each DHB area, at least one school participating in the Health Promoting Schools (HPS) scheme was identified and selected. Some of the DHBs did not have secondary schools participating in the HPS. Additional secondary schools participating in HPS were selected in other regions to make up for this. Schools were also selected to reflect the national population of schools as closely as possible (decile grouping, school type, location).

ERO asked the following key questions in each school or service to inform their overall judgement:

1. How well are physical activity, food and nutrition programmes planned and implemented?
2. How well are children learning about and participating in programmes and activities relating to physical activity, food and nutrition?
3. How well is the service/school involving whānau and the community in approaches and activities?
4. What stories of success or challenges does the service/school have to share?

Further detail of the questions ERO used to guide discussion can be found in Appendix 4. The effective practice statements ERO used to judge how well a school or service promoted positive attitudes to food, nutrition and physical activity are in Appendix 5. These questions and statements may be useful to services and schools in guiding discussion and review.

Data collection

During each review, ERO collected information from a variety of sources including:

- discussions with leaders and/or teachers at each school or service
- documentation related to the operation of the service or school and children's learning
- observation of the school or service environment
- conversations with school students.

Methodological constraints

Schools were invited to participate in the evaluation, and not all agreed. Principals had many reasons for this. This means that there is the possibility that what is happening in these schools is not representative of what is happening in New Zealand schools. However, schools in this evaluation fell across all four categories.

Schools were reviewed by specialist teams, with food, nutrition and physical activity as their sole focus. Early learning services were visited as part of their regular education evaluation, which means that the review teams were not able to focus as deeply as in schools. There was a significantly larger sample of services however, and the sample had broader coverage of New Zealand than for schools.

ERO requested that school leaders nominate one to two groups of students to be interviewed in each school. These students may not have been representative of the school as a whole.

The sample does not include composite, restricted composite, special schools or kura. It also does not include hospital-based or casual education and care services, nor kōhanga reo.

Appendix 4: Questions guiding narrative

ERO asked the following questions to consider how well schools and services promoted positive attitudes to food, nutrition (FN) and physical activity (PA). School and service leaders may find them useful in guiding their internal evaluation in this area.

1. Planning and Implementing

How well are PA and FN programmes planned and implemented?

- How are positive attitudes to PA and FN promoted in ECE Management/Board/leaders' actions?
- How does the curriculum respond to, and promote, positive attitudes to PA and FN?
- How are teachers supported to have the professional capability to promote positive attitudes to PA and FN?
- How does the service/school environment promote positive attitudes to PA and FN?

2. Children's learning and participation

How well are children learning about and participating in programmes and activities relating to PA and FN?

- What do children know and value about PA and FN that will help them to make healthy choices in the future?
- How do children have opportunities to participate in and learn about PA and FN?
- How do children actively contribute to decisions about PA and FN in their service/school?

3. Whānau and community involvement

How well is the service/school involving whānau and the community in approaches and activities?

- How does the service/school develop relationships with, and involve, whānau to promote positive attitudes to PA and FN?
- How does the service/school develop relationships with, and involve, the wider community to promote positive attitudes to PA and FN?

4. Successes and challenges

What stories of success or challenges does the service/school have to share?

- What stories of success does the service/school have to share regarding PA and FN?
- What challenges have the service/school faced regarding PA and FN?

Appendix 5: Effective practice statements

ERO used the following effective practice statements to make a judgement as to how well a school or service promoted positive attitudes to food, nutrition and physical activity. The statements are organised under the questions in Appendix 4.

Schools and services that were doing very well had a clear focus, with deliberate and coherent strategies in place. They demonstrated almost all of the practices exemplified in the statements below. Schools and services that were not doing well had little to no coherence and a lack of focus on these practices.

Planning and implementation

Values and vision

- Leaders recognise that physical activity, food and nutrition are important to children's holistic development.
- The school/service community has identified that health and wellbeing influence educational and social outcomes and vice versa.
- Leaders and teachers recognise and value children's social and cultural perspectives.
- Leaders and teachers recognise that physical play is a worthwhile activity for children.
- Leaders and teachers emphasise fun, participation (e.g. sportsmanship and fair play) and skill development over competition.
- Policies and planning include health and wellbeing actions.

Leaders' and teachers' actions

- Leaders and teachers include children in developing expectations of behaviour, and model these expectations.
- Leaders and teachers create an environment where all children are included and equally accepted.
- Teachers have expectations that children will treat each other with respect and fairness.
- Leaders and teachers encourage children to be physically active on a regular basis; either on their own, with friends or with whānau.
- Teachers respect children's rights to be informed and/or consulted about decisions that affect them.
- Leaders support ongoing PLD in the area of physical activity and food and nutrition for teachers according to their specific needs.
- Leaders and teachers are familiar with developmental ages and stages, and provide comfortable, safe spaces appropriate to children's developmental needs; in particular, for developing foundational physical skills.
- Leaders and teachers provide opportunities for all children to be involved in sports through modifications that make it safe to play and yet still challenging for participants.
- Teachers support children to develop a wide range of physical activity skills that lead to increased mastery, self-confidence and competence.
- Physical activity, food and nutrition in the curriculum promote children's wellbeing beyond the classroom.

Environment

- Indoor and outdoor environments allow and motivate children to explore and be physically active.
- Play and sports equipment is safe, appropriate and readily accessible.
- Leaders and teachers provide play environments that stimulate creativity, imagination, decision-making and problem-solving skills.
- Leaders and teachers promote a healthy food and nutrition environment consistent with what children learn in the curriculum. For example, food provision, fundraising, etc.

Internal evaluation

- The school/service gathers, analyses and evaluates data to determine the impact of the curriculum and environment on equitable student outcomes.
- Leaders monitor and evaluate physical activity, food and nutrition as part of the curriculum.

Children's learning and participation

Knowing and valuing

- Children develop positive, responsible attitudes to their own wellbeing; respect, care and concern for other people and the environment; and a sense of social justice.
- Children develop resilience and a sense of personal and social responsibility. They are increasingly able to take responsibility for themselves and contribute to the wellbeing of those around them.
- Children can explain why physical activity, food and nutrition choices are important for their health and wellbeing.
- Children develop skills and gain enjoyment from physical activity (team/individual), food and nutrition.
- Children value fair play, sportsmanship and other children's contributions.
- Children have high expectations of themselves in physical activity, food and nutrition, and model good behaviours.

Participating

- Children are involved in personal and collective action that helps to develop and maintain supportive physical and emotional environments.
- Children regularly participate in a range of physical activity that is based on fun and general skill development.

Decision making

- Children are actively involved in contributing ideas, especially about decisions that affect them.
- Children contribute to the development of a curriculum that is responsive to their culture, languages and identities and deep interests.
- Children know how to access and evaluate information to make informed choices.
- Inquiry-based learning models support children to learn how to make choices about their physical activity, food and nutrition.

Whānau and community involvement

- Whānau aspirations for their children influence the philosophy, vision, goals and plans for physical activity and food and nutrition.
- Leaders and teachers encourage whānau to participate in, and contribute to activities about food, nutrition and physical activity.
- Leaders and teachers work in partnership with whānau of children with diverse physical and nutritional needs and abilities to improve and enhance their learning.
- Leaders and teachers consult with whānau and provide them with opportunities to contribute to decision making and internal evaluation.
- Leaders and teachers draw on the strengths of whānau and community members to provide learning opportunities for children.
- Leaders regularly communicate with, share resources and facilities, and develop policy with other services or schools and the wider community. For example, community gardens or sporting facilities.
- Partnerships across health, education and social services are developed and sustained.
- Health/education interventions are relevant and appropriate to the priorities identified by the school community and are evaluated, reviewed and celebrated.

Appendix 6: Schools and services in this evaluation

The sample included more kindergartens and Playcentres, and fewer education and care and home-based education and care services, than is representative of New Zealand early learning services. The sample was representative of New Zealand early learning services in terms of EQI distribution and location.³⁵

There were fewer small and very small schools and more very large schools in this sample than is representative of New Zealand as a whole. The sample was representative of New Zealand primary schools for type, decile and location.

The sample was representative of New Zealand secondary schools for type, decile, location and size.

Early learning services in this evaluation

Table 1: ELS type

Early learning service type	Number of ELS in sample	Percentage of ELS in sample	National percentage of ELS ³⁶
Kindergarten	41	20	16
Playcentre	29	15	11
Education and Care	119	59	62
Home-based Education and Care Networks	13	6	11
Total	202	100	100

Table 2: Equity index

EQI Value ³⁷	Number of ELS in sample	Percentage of ELS in sample	National percentage of ELS
Unknown/Not applicable	7	4	8
EQI 1	11	5	4
EQI 2	17	8	6
EQI 3	9	5	7
EQI 4	26	13	12
EQI 5+	132	65	63
Total	202	100	100

³⁵ The differences between observed and expected values in Tables 1-11 were tested using a Chi square test.

³⁶ The national percentage of early learning services is as at 3 March 2016.

³⁷ The Equity Index is a measure of the proportion of children at an early learning service that come from low socio-economic communities. Services with lower EQI values receive more funding than services with high EQI values. More information is available at www.education.govt.nz/early-childhood/running-an-ecce-service/funding/equity-funding/

Table 3: Location

Urban/rural area ³⁸	Number of ELS in sample	Percentage of ELS in sample	National percentage of ELS
Main urban area	155	77	75
Secondary urban area	5	2	6
Minor urban area	22	11	11
Rural area	20	10	8
Total	202	100	100

³⁸ Main urban areas have a population greater than 30,000; secondary urban areas have a population between 10,000 and 30,000; minor urban areas have a population less than 10,000.

Primary schools in this evaluation

Table 4: School type

School type	Number of schools in sample	Percentage of schools in sample	National percentage of schools ³⁹
Full primary (Years 1-8)	19	41	53
Contributing (Years 1-6)	23	50	41
Intermediate (Years 7-8) ⁴⁰	4	9	6
Total	46	100	100

Table 5: Decile

Decile group ⁴¹	Number of schools in sample	Percentage of schools in sample	National percentage of schools
Low decile	15	33	29
Mid decile	18	39	39
High decile	13	28	32
Total	46	100	100

Table 6: Location

Urban/rural area ⁴²	Number of schools in sample	Percentage of schools in sample	National percentage of schools
Main urban area	31	67	52
Secondary urban area ²⁷	1	2	6
Minor urban area ²⁷	5	11	10
Rural area	9	20	32
Total	46	100	100

Table 7: School size

School roll ⁴³	Number of schools in sample	Percentage of schools in sample	National percentage of schools
Very small ²⁷	0	0	9
Small	1	2	21
Medium	22	48	39
Large	11	24	20
Very large ²⁷	12	26	11
Total	46	100	100

³⁹ The national percentage of schools is as at 3 May 2016.

⁴⁰ The expected cell count is less than 5. This means that this calculation is less reliable.

⁴¹ Deciles 1-3 are low decile schools; deciles 4-7 are mid decile schools; deciles 8-10 are high decile schools.

⁴² Main urban areas have a population greater than 30,000; secondary urban areas have a population between 10,000 and 30,000; minor urban areas have a population less than 10,000.

⁴³ Roll sizes for full primary, contributing and intermediate schools are: very small (1-30); small (31-100); medium (101-300); large (301-500) and very large (more than 500).

Secondary schools in this evaluation

Table 8: School type

School type	Number of schools in sample	Percentage of schools in sample	National percentage of schools ⁴⁴
Secondary (Year 7-15)	8	28	31
Secondary (Year 9-15)	21	72	69
Total	29	100	100

Table 9: Decile

Decile group ⁴⁵	Number of schools in sample	Percentage of schools in sample	National percentage of schools
Low decile	9	31	26
Mid decile	12	41	47
High decile	8	28	27
Total	29	100	100

Table 10: Location

Urban/rural area ⁴⁶	Number of schools in sample	Percentage of schools in sample	National percentage of schools
Main urban area	25	87	64
Secondary urban area ⁴⁷	1	3	10
Minor urban area	2	7	20
Rural area ³⁰	1	3	6
Total	29	100	100

Table 11: School size

School roll ⁴⁸	Number of schools in sample	Percentage of schools in sample	National percentage of schools
Very small ³⁴	0	0	1
Small	4	14	27
Medium	12	41	37
Large	12	41	28
Very large ³⁴	1	4	7
Total	29	100	100

⁴⁴ The national percentage of schools is as at 3 May 2016.

⁴⁵ Deciles 1-3 are low decile schools; deciles 4-7 are mid decile schools; deciles 8-10 are high decile schools.

⁴⁶ Main urban areas have a population greater than 30,000; secondary urban areas have a population between 10,000 and 30,000; minor urban areas have a population less than 10,000.

⁴⁷ The expected cell count is less than 5. This means that this calculation is less reliable.

⁴⁸ Roll sizes for secondary schools are: very small (1-100); small (101-400); medium (401-800); large (801-1500); very large (more than 1500).

