



Malatest
International

Report:

Evaluation of Healthy Heart Award for Early Childhood Education: Tohu Manawa Ora – Kōhungahunga



Table of contents

Abbreviations	4
Executive Summary	5
1. The Healthy Heart Award	9
1.1 Background	9
1.2 Purpose of the Award	9
1.3 Award levels.....	9
1.4 Connection with the ECE curriculum.....	11
1.5 Delivery of the Award	11
1.6 Previous evaluations.....	11
2. The Evaluation	13
2.1 Evaluation objectives.....	13
2.2 Document and literature review	13
2.3 Case studies	13
2.4 Key stakeholder interviews.....	14
2.5 Online surveys.....	15
2.6 Strengths and limitations of the evaluation methods.....	16
3. Results: Taking Part in the Healthy Heart Award	17
3.1 Awareness of the Healthy Heart Award	17
3.2 Importance of physical activity and nutrition practices for families/whānau ECE service choice....	19
3.3 Reasons for involvement	20
3.1 Becoming involved in the Award	22
3.2 Developing policies.....	23
3.3 The Health Promotion Coordinators	26
3.4 Healthy Heart Award resources	29
3.5 Professional development	32
4. Award Achievements - Nutrition	34
4.1 Promoting healthy eating	34
4.2 Communicating with families/whānau about nutrition	37
4.3 Changes in nutrition as a result of the Award	38
4.4 Challenges to making changes to nutrition	42

5. Award Achievements - Physical activity	48
5.1 Promoting physical activity.....	48
5.2 Communicating with families/whānau about physical activity.....	50
5.3 Changes in physical activity as a result of the Award.....	50
5.4 Barriers to change in physical activity.....	53
6. Conclusion	56
6.1 Inputs and activities.....	56
6.2 Outputs and outcomes.....	56
6.3 Opportunities for development.....	57
Appendix One: Logic model	58



Abbreviations

ECE	Early childhood education
HF	Heart Foundation
HHA	Healthy Heart Award (“the Award”)
HPC	Health Promotion Coordinator
MOH	Ministry of Health

Executive Summary

Obesity is a major health issue in New Zealand and the Healthy Heart Award for Early Childhood Education: Tohu Manawa Ora – Kōhungahunga aims to combat this in both the short-term and long-term by encouraging healthy eating and physical activity in under-fives. There are three progressive levels of Award: Rito, Whānau, and Pā-Harakeke, each of which have criteria relating to policy, nutrition education, food provision, physical activity, and professional development for staff. The Award reflects the requirements of the New Zealand ECE curriculum and is largely funded by the Ministry of Health.

The evaluation

The objectives of the evaluation were:

- To determine how key stakeholders including those within ECE services perceive the programme
- To identify long-term outcomes as a result of participation in the Healthy Heart Award programme including the learnings gained by teachers through the Award journey
- To establish how the environmental changes that occur from participation in the Healthy Heart Award translate into changes for families/whānau of the children who attend the ECE service.

The evaluation collected data through online surveys of a sample of ECE service staff, including services who held current or expired Awards, had applied for Awards, or were not involved. ECE services distributed a second survey to the families/whānau participating in the Award. Evaluators visited three ECE services, one at each of the three Award levels, to interview staff, and families/whānau as they picked up and dropped off their children.

Awareness

Almost all of the ECE service staff who responded to the survey had heard of the Award and more than half held an Award. Most of those who held an Award were able to identify the level of Award their service held.

More than half of the families/whānau members who responded took their children to ECE services that held an Award. Most did not know what level of Award their ECE service held. Increasing families/whānau awareness of the different levels of Award could increase their engagement with the Award.

Taking part

Some ECE services commented on the amount of paperwork required by the application process, though this has been addressed by the Heart Foundation's recent introduction of an online process.

Almost all ECE service survey respondents reported that they had developed/improved their physical activity and nutrition policies as a result of their participation in the Award. ECE services with Pā-Harakeke Awards had the highest levels of families/whānau involvement in policy development. Families/whānau awareness of ECE services' policies and guidelines was higher for those using ECE services participating in the Award.

The Health Promotion Coordinator (HPC) role is an important element of the Award programme. HPCs have a varied role offering many different forms of support to ECE services from the beginning of the application process. ECE services valued the HPC support and the contribution it made to their progress. ECE services most valued face to face contact with the HPCs and many requested more face to face contact.

ECE services found the Award resources useful, especially those that created new opportunities to engage with children or their families/whānau. Children eating healthy and learning about healthy eating was seen as very important by the ECE service respondents and families/whānau. ECE services with an Award were

more likely to believe the food they provided was consistent with nutrition guidelines and that nutrition was a priority.

Changes in nutrition and healthy eating

Families/whānau attending ECE services participating in the Award were more likely than those attending non-participating ECE to believe their children learned about nutrition and healthy eating at their ECE service and that their ECE service was doing all they could to promote healthy eating. ECE services believed that the Award encouraged them to engage children in learning experiences that supported their knowledge of nutrition. Teaching and learning activities the children took part in at the ECE services included cooking/baking, puzzles and games relating to nutrition, and helping in vegetable gardens.

The Award assisted ECE services to engage with families/whānau with information and education about good nutrition. ECE service providers communicated with families/whānau via newsletters, workshops, notes in lunchboxes and displays at the ECE service, although this developed and changed as the ECE services participated in the Award programme. New information was shared through newsletters, Facebook pages, and conversations with ECE service staff, and workshops and displays/posters provided by the HPC.

Families/whānau from ECE services participating in the Awards were more likely to have learned more about healthy eating from their ECE teachers and to have changed the food they give their children.

Common changes by ECE service providers included discouraging treat food and encouraging children to eat more fruit and vegetables, restricting birthday cakes, introducing a water-only policy, and 'nude lunchboxes'. Children also shared what they had learned at the ECE service with their families/whānau and this often resulted in improvements in healthy eating at home, for example, drinking more water and eating more fruit and vegetables.

Identified challenges to making positive changes to nutrition at home and at the ECE service provider included the perceived higher cost of providing healthy food, lack of understanding (and/or differing views) of what constitutes healthy food, families/whānau attitudes, and cultural beliefs.

Changes in physical activity

Physical activity for under-fives was seen as very important by both ECE service respondents and families/whānau. Children take part in a wide range of physical activities while at the ECE service, including running, jumping, walking to a local park, Jump Rope For Heart as well as ripper rugby, yoga, and dance.

Almost all ECE services recognised the importance of promoting physical activity but ECE services participating in the Awards were more likely to have planned physical activity every day.

ECE service staff agreed involvement in the Award encouraged staff to engage children in physical activity. Likewise, they agreed children at the ECE service had increased levels of physical activity since becoming involved in the Award. Children were also more physically active outside of the ECE service with many families/whānau respondents stating they took part in more physically active activities with their child and/or enrolled their child in a sports team or gymnastics.

Some respondents (both families/whānau and ECE service respondents) believed young children are naturally active and do not need this level of structured physical activity. There was also some conflict between structured activities and Montessori philosophy which focusses on child-led learning.

Conclusion

Almost all respondents participating in the Award (families/whānau, ECE service staff and HPCs) were overwhelmingly positive about the Award. There was a sense of pride associated with achieving an Award.

The changes ECE services and families/whānau implemented through the Award demonstrated their effectiveness. ECE providers who participated in the Award were very positive about the support they

received from the HPCs. They reported that the Award had helped them to engage children in learning and experiences that supported their knowledge of nutrition, and that the Award encouraged ECE services to increase the physical activity they provided for their children.

The Award also helped ECE services engage families/whānau about nutrition and physical activity. Families and whānau who attended ECE services that held an Award were more likely to say they had learned about physical activity and nutrition from their ECE teachers than families/whānau whose ECE services were not participating in the Award. Participating families/whānau were more likely to:

- Believe their ECE service was doing all they could to promote healthy eating
- Report that their children learned about healthy eating at their ECE service
- Increase understanding of the benefits of physical activity for children.

Participating families/whānau were more likely to report that they had changed their own behaviour around nutrition and physical activity than those attending ECE services who did not hold an Award. They were more likely to have:

- Changed the food they give their children at home
- Changed the physical activity they do with their children
- Changed the food they provide their children with for snacks and lunch.

Overall, the Healthy Heart Award programme contributed to ECE services making changes that extended beyond the service and into the home lives of their families/whānau. ECE services staff have developed their skills in talking to children and their families/whānau about nutrition and physical activity. Families/whānau are more aware of good practice in nutrition and physical activity for their children and are making changes in their own lives.

Opportunities for development

HPCs, families/whānau and ECE service provider staff had suggestions of ways to improve the Healthy Heart Award programme. They are discussed in detail throughout the report and summarised below.

- **Application process:** Streamlining the application process and reducing the paper work burden could encourage more ECE services to participate and to reapply for the Award after it expired. The online application process introduced in September 2014 should resolve many of these issues but needs to be strongly promoted to all services, including those with an Award, considering applying and holding expired Awards.
- **Promotion of the importance of nutrition and physical activity:** Increasing ECE service awareness of the importance of good practice in nutrition and physical activity for families/whānau' choice of ECE service for their children could increase ECE service engagement in the Award.
- **Promotion of the Award:** If more families/whānau are aware of the Award then it may carry more weight for ECE services to demonstrate that they have good practice in nutrition and physical activity.
- **Face to face contact:** Face to face contact was most valued by ECE services. Incorporating contact as often as possible, through the application process and after the Award is gained, could strengthen the programme. Some ECE services felt that including families/whānau in workshops and professional development activities could be very beneficial. Linking with other agencies who are also providing face to face professional development or courses for children in ECE services could be one approach to increasing contact with existing resources.

- Resources: ECE services identified some opportunities to provide needed resources. Objects and equipment for games and activities were most valued and could help ECE services engage children in learning activities with positive messages.
- Broadening appeal: There are some resources available in Māori and Samoan as well as English. Adding more resources in these languages as well as other Pacific and Asian languages could broaden the appeal of the Awards. Including traditional games in physical activity resources could add appeal for children and families/whānau.
- Education for families/whānau: There is still a perception among some staff and families/whānau that healthy food can be prohibitively expensive. Continuing effort to promote low budget healthy food ideas in resources for families/whānau could support further change for those families who struggle to manage financially.
- Guidance on driving change with families/whānau: One of the most challenging aspects for some ECE staff was having difficult conversations with families/whānau about healthy food and physical activity. They were unsure about how to raise problems, particularly when initial approaches were not effective. Continuing to provide guidance on how to have conversations with families/whānau about why they are not making changes should be supported with resources targeting the more common issues (affordability, language barriers, and misconceptions about what is healthy and unhealthy). Developing HPCs' skills in teaching and mentoring ECE staff to have conversations with families/whānau is likely to be an effective way to increase ECE service staff communication skills and confidence.

1. The Healthy Heart Award

1.1 Background

New Zealand's high rates of obesity are a major health concern. The 2012/2013 New Zealand Health Survey found that almost one-third (31%) of New Zealanders aged 15 years and over were obese and another one-third (34%) were overweight. One in nine children aged two to 14 years were found to be obese (11%) and a further 22% were overweight.

There is evidence that obese children and adults are at greater risk of poor short-term and long-term health outcomes. Obesity in children is associated with musculoskeletal problems, asthma and psychological problems including body dissatisfaction, poor self-esteem, depression and other mental health problems. Obese children are likely to become obese adults. Obesity in adulthood is also associated with a long list of health conditions including Type 2 diabetes, ischaemic heart disease, stroke, several common cancers, osteoarthritis, sleep apnoea and reproductive abnormalities¹.

It is easier and more effective to prevent unhealthy weight gain than to treat children/adults once they have become overweight/obese². The two most effective ways of doing this are to improve healthy eating habits and to increase levels of physical activity. Early childhood education (ECE) services are in many ways an ideal environment for offering education on healthy nutrition and physical exercise to both families/whānau and their children.

1.2 Purpose of the Award

The Heart Foundation delivers a suite of programmes and initiatives aimed at healthy eating and physical activity, including the Fuelled4life and HeartStart Toitoti Manawa programmes as well as the Healthy Heart Award programme. This project evaluated the Healthy Heart Award for Early Childhood Education: Tohu Manawa Ora – Kōhungahunga ("the Award"). The Award aims to increase levels of healthy eating and physical activity in under-fives in the short-term and ultimately increase health and decrease rates of obesity and heart disease long-term.

The Heart Foundation has delivered the Award since 2002. It is an "established, innovative and credible programme that helps early childhood education (ECE) services build an environment which promotes healthy eating and physical activity". The Award "emphasises the impact of early childhood nutrition and physical activity on children's health and development, both now and in their future" and is offered to ECE services free of charge.³

1.3 Award levels

There are three levels of Award (named for the life cycle of the New Zealand flax plant): Rito, Whānau, and Pā-Harakeke. Examples of what is required from the ECE service for each level are listed below. To move to the next award level the ECE service provider must also fulfil all requirements of the previous level/s (e.g. for an ECE service provider to apply for the Whānau Award they must also meet all the requirements of the Rito Award).

¹ <http://www.health.govt.nz/our-work/diseases-and-conditions/obesity/obesity-questions-and-answers>

² Warren JM, Henry CJ, Lightowler HJ, Bradshaw SM, Perwaiz, S. 2003. Evaluation of a pilot school programme aimed at the prevention of obesity in children. *Health Promotion International*. 18(4): 287-296

³ <http://www.ana.org.nz/sites/default/files/NHF%20Rona%20Te%20Tai%20Tokerau%20PDF.pdf>

Table 1: Examples of Healthy Heart Award criteria

	Aim of award	Nutrition requirements	Physical activity requirements	General
Rito	Establishing an environment which promotes healthy eating and physical exercise	Lunchbox guidelines provided to families/whānau Food safety charts displayed in kitchen Cycle menu of 2-4 weeks Nutrition education implemented at least once a week	Physical education implemented at least once a week	Families/whānau are provided information about the Award (e.g. newsletter) Resources to upskill staff in nutrition and physical activity are used
Whānau	Strengthening of healthy eating and physical activity knowledge base and furthering engagement with ECE community	Recommend families/whānau bring every day and sometimes food, but not occasional food Chef/cook has food safety qualification Cycle menu is 4 weeks Nutrition education involves collaborative work by staff	Physical education involves collaborative work by staff	Healthy eating and physical education are promoted to families/whānau (e.g. parent workshop, display boards) Current nutrition/physical activity professional development plan and learnings from professional development implemented
Pā-Harakeke	Flourishing of a healthy eating and physical activity environment, extending it beyond the immediate ECE setting into the wider community	Summary of regular nutrition and support for families/whānau (e.g. shared recipes) Chef/cook has a food safety qualification/training updated every two years Nutrition education involves parent engagement and staff reflection	Physical education involves parent engagement and staff reflection	Healthy eating and physical education are promoted to the wider community Professional development undertaken by staff for both physical activity and nutrition ECE service incorporates nutrition/physical activity within a self-review action plan

Nationally, half (47%) of ECE services with an Award have a Rito Award, a quarter (24%) have a Whānau Award, and a third (31%) have a Pā-Harakeke Award⁴.

1.4 Connection with the ECE curriculum

The Award content builds on components of the Ministry of Education's Early Childhood Curriculum Te Whāriki⁵. One of the curriculum's strands is children developing an "increasing understanding of their bodies and how they function... [and] knowledge about how to keep themselves healthy", an objective that encapsulates the focus and aim of the Healthy Heart Award. Other goals, identified in the curriculum and consistent with the Award include:

- ECE services should provide challenging opportunities which keep pace with children's physical co-ordination and development.
- Children should develop increasing knowledge about how to keep physically healthy and control over their bodies including development of locomotor skills, non-locomotor skills, manipulative skills and increasing agility, co-ordination, and balance.
- Children should be helped to develop personal health through exercise, good hygiene, and healthy diet and to develop and enjoy recreational, motor, and manipulative skills.
- Children should develop motor skills that allow them to participate actively in the ECE service setting.
- Participation in physical activities should give opportunities for being part of a group and ensuring that all are welcomed and supported
- Children should develop an ability to express themselves through movement and gesture.

1.5 Delivery of the Award

The funding for the programme delivery comes largely from the Ministry of Health with stipulation that "on the ground" resources target ECE services in low socio-economic areas. As of July 2014, 1,127 of the more than 4,300 ECE service providers in New Zealand were taking part in the Award programme⁶. Health Promotion Coordinators (HPCs) deliver the Award around the country. The HPCs are supported by national management responsible for programme development and evaluation located in the Heart Foundation's national office in Auckland.

1.6 Previous evaluations

The Award was evaluated in 2006⁷ and 2013⁸. In 2006, a mixed-methods process evaluation of the Healthy Heart Award found that:

- Services were more likely to achieve an Award if the decision to register for the programme was made by all staff
- Services that placed high priority on achieving an Award in their service were more likely to achieve an Award
- Services registered for the programme were more likely to be from lower socioeconomic areas.

⁴ <http://www.ana.org.nz/sites/default/files/NHF%20Rona%20Te%20Tai%20Tokerau%20PDF.pdf>

⁵ <http://www.education.govt.nz/assets/Documents/Early-Childhood/te-whariki.pdf>

⁶ There are 4,339 ECE services listed in the Education Counts ECE directory.

⁷ The University of Auckland School of Population Health. December 2006. The Healthy Heart Award Programme: Evaluation.

⁸ NZ Heart Foundation: Canterbury Branch. May 2013. Early Childhood Education Healthy Heart Award Evaluation Report.

Following the evaluation the Award was redeveloped and re-launched in 2010 as the Healthy Heart Award for Early Childhood Education: Tohu Manawa Ora – Kōhungahunga.

- The three Award levels were introduced to allow ECE services to get a first Award more easily to encourage them to begin their Award journeys and gave ECE services who already had an Award a higher goal to extend themselves. The original Award was rebranded as the Whānau Award. The Rito Award level was introduced with fewer requirements and the Pā-Harakeke Award level with higher level requirements.
- The duration of the Award was extended from one to two years to allow more time for ECE service providers to plan and implement Award activities.
- Breastfeeding content was included (as part of contract to MOH to promote breastfeeding).
- The Award criteria were made more relevant for under-twos to reflect the increasing number of younger children in ECE.
- Award criteria were adjusted so that food coming from home was required to be at the same (or similar) standard as food provided by the ECE service.
- The name of the Award was changed to reflect a focus on Māori values.

The Write Word conducted a smaller scale evaluation in 2013 with a focus on the outcomes of the Award for Christchurch ECE service providers. The evaluators conducted a survey to compare participating and non-participating ECE services, followed by site visits which included lunchbox audits and interviews. The research found the Award programme had a positive impact on the eating habits of Christchurch pre-schoolers, particularly in reducing the volume and frequency of treat food consumption.

While eating habits had improved, the evaluation noted that many ECE services relied on incidental rather than planned physical activity. The evaluators identified a risk that if physical activity is not planned, children's physical activity may not reach the levels required for healthy development.

The evaluation found that ECE service providers participating in the Award were overwhelmingly positive about the impact on children's food consumption and physical activity. Staff felt that their knowledge and understanding of these important aspects of their service had improved and that there was a higher degree of collaboration with families/whānau following the ECE taking part in the Award programme.

Potential improvements highlighted by the evaluation included:

- More resources for families from non-English speaking backgrounds
- Changes to professional development sessions to ensure ECE staff regularly attending Heart Foundation courses are provided with new or "fresh" information
- Address perceived barriers for ECE services to move from Whānau to Pā-Harakeke Award levels
- Consider ways of addressing the apparent inequity between ECE services in lower and higher socioeconomic localities.

2. The Evaluation

2.1 Evaluation objectives

The purpose of the current 2014 evaluation was to examine the impact and outcomes of the Award to contribute to the continuing development of the Healthy Heart Award programme to ensure positive changes are sustained within ECE services.

The objectives were:

- To determine how key stakeholders including those within ECE services perceive the programme
- To identify long-term outcomes as a result of participation in the Healthy Heart Award programme including the learnings gained by teachers through the Award journey
- To establish how the environmental changes that occur from participation in the Healthy Heart Award translate into changes for families/whānau of the children who attend the ECE service.

A logic model and evaluation framework were developed to provide a theoretical foundation for the evaluation. The logic model set out the Award activities, outputs and aims. A copy of the logic model is appended (Appendix 1). An evaluation framework based on the logic model was developed to set out the evaluation questions, indicators and information sources.

Information for the evaluation was sourced from document reviews and both qualitative (interviews and case studies) and quantitative (surveys) data sources.

2.2 Document and literature review

Publicly available documents and those supplied by the Heart Foundation were reviewed to provide background, context and to build understanding of what is known about the Award, the work completed to date, and the questions that needed to be answered.

2.3 Case studies

The case studies explored changes as a result of the Award at both the ECE service and in the wider ECE community, and identified barriers and facilitators in the context of real-world examples. The case studies provided an opportunity to observe outcomes and evaluate experiences that would not otherwise be available through alternative research methods.

Information for the case studies was obtained through a visit to each ECE site to conduct interviews with ECE service staff, brief conversations with whānau at pick-up and drop-off times, and to observe nutrition and physical activity practices. On-site interviews with ECE service staff and families/whānau were complemented by interviews with the local HPC and online survey responses. The resulting case studies describe the ECE service provider's experience of the Healthy Heart Award from the perspectives of both the ECE service staff and the families/whānau.

Three ECE services were selected by the Heart Foundation as case study sites. The case studies included Māori and Pacific ECE services and services in low and medium socio-economic localities (Table 2). Examples from the case studies are included throughout the report.

Table 2: Distribution of the case studies across the Healthy Heart Award levels

Case study	Award level	Details
Site 1	Rito Award	<ul style="list-style-type: none"> • One of a group of three ECE services located in a major urban area • Privately owned • Bilingual English/Samoan • Strong emphasis on Christian values • Licensed to care for fewer than 50 children
Site 2	Whānau Award	<ul style="list-style-type: none"> • Located in a regional city • Community-based ECE service • Began as part of a church playgroup and teaches based on Bible principles • Majority of children are Māori • Licensed to care for 30 children
Site 3	Pā-Harakeke Award	<ul style="list-style-type: none"> • Located in greater Auckland • Community-based ECE service • Currently 58 children attending

2.4 Key stakeholder interviews

Key stakeholders were interviewed to gain an understanding of what has changed as a result of involvement in the Healthy Heart Award and why those changes have occurred. Interviews were conducted with Heart Foundation staff, HPCs, ECE services staff (management and teachers) and families/whānau attending ECE services across the three different award levels (Table 3).

Table 3: Interview distribution

Interview group	Award stream		
	Pā-Harakeke	Whānau	Rito
ECE services leadership	1	1	1
ECE services teachers	4	3	6
Whānau of children attending ECE services	10	20	8
Health promotion coordinators	Group discussion with all HPCs Three group interviews completed (focus groups) Eight HPCs responded by open-ended survey		
National-level stakeholders	1		

2.5 Online surveys

2.5.1. ECE service staff and management survey

The aim of this survey was to gather feedback on the Award from ECE service staff. There was a focus on the ECE service staff's awareness of policies and of changes that have occurred as a result of participating in the Award both at the ECE service and in the children attending.

Invitations were sent to ECE services as listed below:

Group	Number invited	Survey completions
Services with a current Award	750	76 staff from up to 66 different ECE services
Other services	692	14 staff from up to 14 ECE services no Award 16 staff from 11 to 15 ECE services with expired Awards 12 staff from 11 to 12 ECE services currently applying for Awards

A further 15 staff respondents were unsure about their services level of involvement.

Of the ECE service provider respondents, 28% were managers or supervisors, 22% were head teachers, 39% were ECE teachers, 2% were teacher assistants or supervisors, 5% were administrators, and 2% were parent volunteers. Approximately one-third (30%) were based at a kindergarten, two-thirds (63%) at an education and care service, and small numbers at Kohanga Reo (3%), Puna Reo (1%), Pacific Island Language Nests (2%), and home-based care (2%).

2.5.2. Families/whānau survey

ECE services were sent an email asking them to distribute a link to the survey to their families/whānau. The survey asked families/whānau about their involvement in the Award, changes they observed at their ECE service, and any changes in their children.

Group	Survey completions
Families/whānau from participating ECE services	112 families/whānau from 39 to 41 ECE services
Families/whānau from non-participating ECE services	71 families/whānau from 17 to 27 ECE services

There were an additional four families/whānau respondents who were unsure whether their ECE had an Award and were not able to be matched to an ECE service. Overall, one-quarter (23%) described their ECE service as a kindergarten, two-thirds (67%) as an education and care service, with the remainder participating in Kohunga Reo (1%), Puna Reo (1%), Pacific Island Language Nest (2%), home-based care (2%) and play centre (4%).

2.5.3. Children's survey

A follow-up survey was sent to families/whānau who had responded to the initial survey. The questions were designed to be answered by the children attending the ECE service. Families/whānau recorded their children's responses, which are used in quotes throughout the report.

2.5.4. Data analysis

Qualitative data collected through the interviews, case studies and open-ended survey questions were analysed using a thematic analysis framework developed in the planning phase and refined iteratively in analysis.

Quantitative data collected through the online surveys were analysed using SPSS. Survey respondents self-identified as participating or not participating in the Award. Those who were not sure if their ECE service provider was participating or not were categorised based on the Heart Foundation's listing of ECE services' participation.

2.6 Strengths and limitations of the evaluation methods

The mix of qualitative and quantitative methods provided insight into the experiences of participating ECE and their families/whānau. However, as with many evaluations of social and/or behavioural outcomes, reliance is placed on reported behaviour changes. In this evaluation the interviews, online surveys and observation at the case study sites allowed triangulation, or comparison, of information from different sources. The development of a logic model and evaluation framework provided the foundation for the evaluation and allowed conclusions to be drawn about the extent to which activities and outputs that would support behavioural change were in place.

Responses to the survey were received from different types of ECE services and from those participating and not participating in the Award. Although the responses provide an overview of the experiences of ECE services, the response rate means the proportions responding to the survey questions cannot be considered representative of ECE services as a whole. Despite this limitation the survey responses complement the other evaluation information sources and the absolute numbers responding with descriptions of changes they have made demonstrate the impact of the Award, at least on this group.

3. Results: Taking Part in the Healthy Heart Award

Awareness and application overview

Almost all of the ECE service staff who responded to the survey had heard of the Award and more than half held an Award. Most of those who held an Award were able to identify the level of Award their service held.

More than half of the families/whānau members who responded took their children to ECE services that held an Award. Most did not know what level of Award their ECE service held. Increasing families/whānau awareness of the different levels of Award could increase their engagement with the Award.

Some ECE services commented on the amount of paperwork required by the application process, though this has been addressed by the Heart Foundation's recent introduction of an online process.

3.1 Awareness of the Healthy Heart Award

The online survey was offered to ECE providers with different levels of involvement in the Award, including ECE services that held a current or an expired Award, services in the application process and those with no involvement at all.

Almost all ECE service respondents had heard of the Award (94%) and 83% of those who had heard of the Award were involved in it by either applying, holding a current Award or an expired Award.

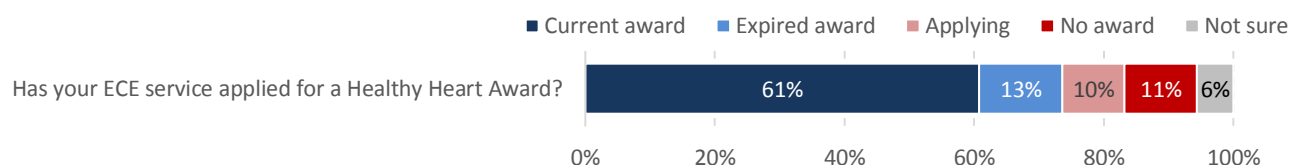


Figure 1: ECE service staff knowledge of their Award status (n = 125)

Awareness of the Award was lower amongst respondents to the families/whānau survey. Only half (56%) of had heard of the Healthy Heart Award. Three-quarters (76%) of those who had heard of the Award said their ECE service was part of the Award programme and a small proportion (5%) said their ECE service was not. The remaining respondents (19%) respondents did not know whether their ECE service participated or not.

In some cases, families/whānau were not aware that their ECE service was involved in the Award. One-fifth (21%) of families/whānau whose ECE services held current Awards either had not heard of them or believed their ECE service was not participating.

You could promote the award more outside education facilities so that families/whānau are more aware of it before encountering it in centres (ECE head teacher).

3.1.1. The Award levels

The ECE survey respondents were spread across the three Award levels and most knew what level of Award their service held, with the highest proportion (36%) holding the highest level of Award, Pā-Harakeke. Only 14% of ECE service respondents who knew their ECE service had an Award were unsure what level the Award was.

As for awareness of the Awards as a whole, families/whānau respondents were less aware of the different levels of Award than ECE service respondents. Four in five families/whānau respondents who knew their

child was attending an ECE provider involved in the Healthy Heart Award did not know what level of Award their ECE service provider had or was working towards.

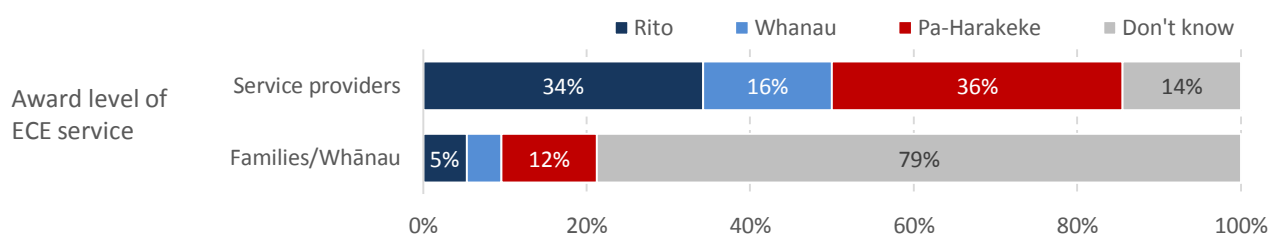


Figure 2: Awareness of the Award level of their ECE service of families/whānau (n = 94) and ECE service providers (n = 76).

ECE service respondents gave some positive feedback about the different Award levels.

I found working through the three levels of the Award enable us to integrate strategies into our centre to promote and sustain the Healthy Heart Award. It has now become an automatic process. (ECE manager/supervisor)

Some ECE services said the different levels encouraged them to advance in the Award levels, though they advanced at different rates and some chose to stay at the same level.

They completely overhauled their menu and policies which made a huge difference. They went for the Pā-Harakeke level award which is no easy task to start from scratch but managed to achieve it and make the necessary changes within a year! I think this centre has really impressed me as they have had such staff changes and have still managed to remain focused and determined to make a healthier environment for their children. (HPC)

It is always helpful when [HPC] comes in to see us and gives us advice on our menu and encouragement as to what we need to do to get to the next level. (ECE manager/supervisor)

Some HPCs suggested the Award could be improved by changing or simplifying the criteria for the different levels. The highest level of Award had some challenging requirements for ECE services of different types and these HPCs felt some ECE service providers may not fully understand the requirements the three Award levels. Having a simple and easily accessible summary could be a useful resource for ECE services to improve their own understanding of the Award levels and to promote them to their families/whānau.

It can be difficult for teachers to understand the three levels. I don't think the website explains this very well at all. I believe as HPCs we will still have to physically go out and meet with most ECEs and explain this in person. It can be hard for them to understand all the criteria face to face let alone stumbling through the website on their own. (HPC)

Case study example: Site 3

Families/whānau members were interviewed when they were picking up and dropping off their children. Their awareness of the Awards ranged from knowing the ECE service held an Award and thinking it had been beneficial to not having heard of it at all. Families/whānau remembered seeing Heart Foundation displays in the entrance area and remembered Jump Rope For Heart and the focus on healthy lunches. None of the families/whānau were able to identify the Award level of the service.

3.1.2. Awareness of Fuelled4Life

Fuelled4Life is another programme offered by the Heart Foundation that focuses on healthy eating for under-fives. Approximately two-thirds (63%) of ECE service respondents had heard of the Fuelled4Life programme. ECE services who held an Award were more likely to have heard of Fuelled4Life than ECE services with no involvement (76% compared to 25%).

More than two-thirds of those who had heard of Fuelled4Life used the tips (70%) and recipes (69%). The Buyer’s Guide was used by a smaller proportion (33%), possibly because more respondents answered did not have a role in buying food.

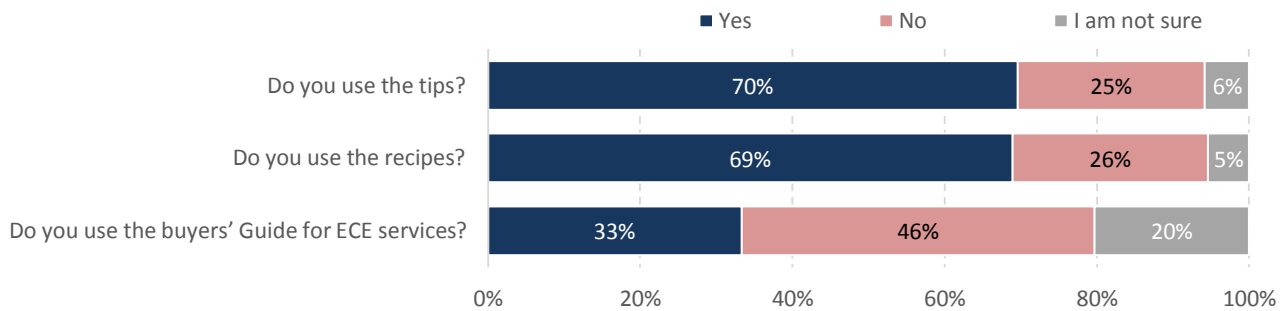


Figure 3: Proportion of ECE service staff who had heard of Fuelled4Life who used the resources (n = 69 to 74)

3.2 Importance of physical activity and nutrition practices for families/whānau ECE service choice

The Award can be a useful tool for ECE services to demonstrate to their communities that they have good practice in the areas covered by the Award. Families/whānau respondents were more likely than ECE service respondents to agree that nutrition and physical activity practices were important for families/whānau’ choice of ECE services.

The service’s policies around food and play were part of the reason we picked them. We are very happy with the choices they make with food. (Family/whānau member)

One-third (35%) of ECE service respondents agreed or strongly agreed that their healthy eating practices were important for families/whānau in choosing to bring their children to the ECE service (Figure 4). Services who held an Award were more likely to agree (38%) than those who had no involvement with the Award (28%).

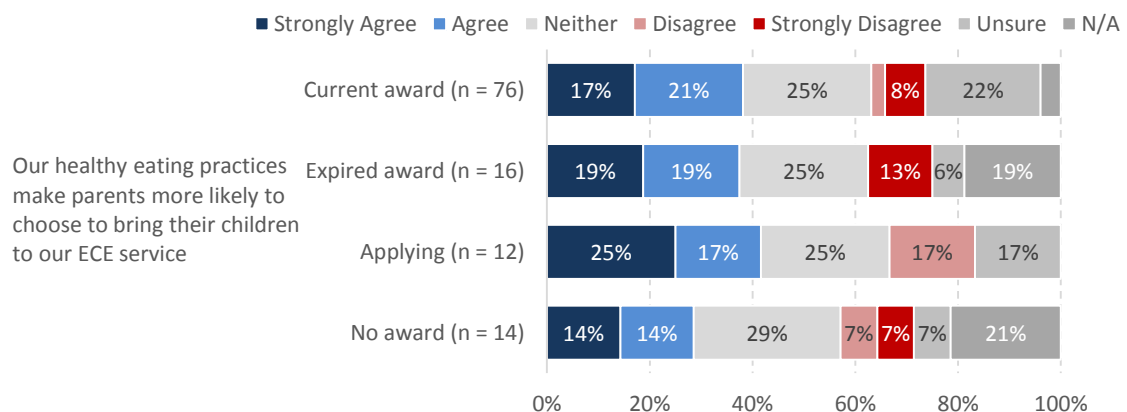


Figure 4: Perceived importance of healthy eating practices on ECE service registrations (n = 118)

In contrast, nearly half (46%) of families/whānau respondents said the food provided at the ECE service was important in their choice to bring their child to this ECE service (Figure 5).

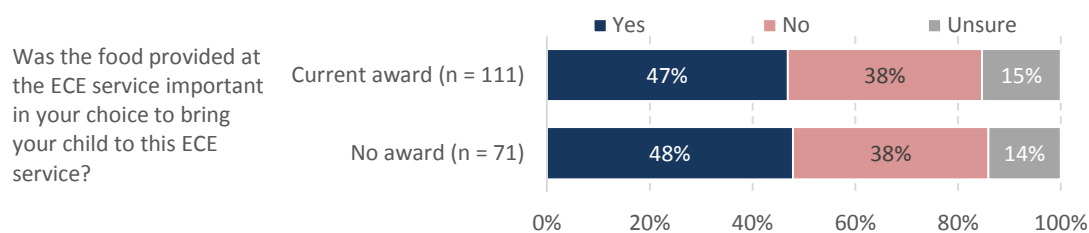


Figure 5: Importance of healthy eating practices on ECE service enrolments (n = 182)

Compared with nutrition, higher proportions of ECE service respondents (45%) (Figure 6) and families/whānau (67%) (Figure 7) agreed or strongly agreed that their physical activity practices were important for families/whānau in choosing to bring their children to the ECE service.

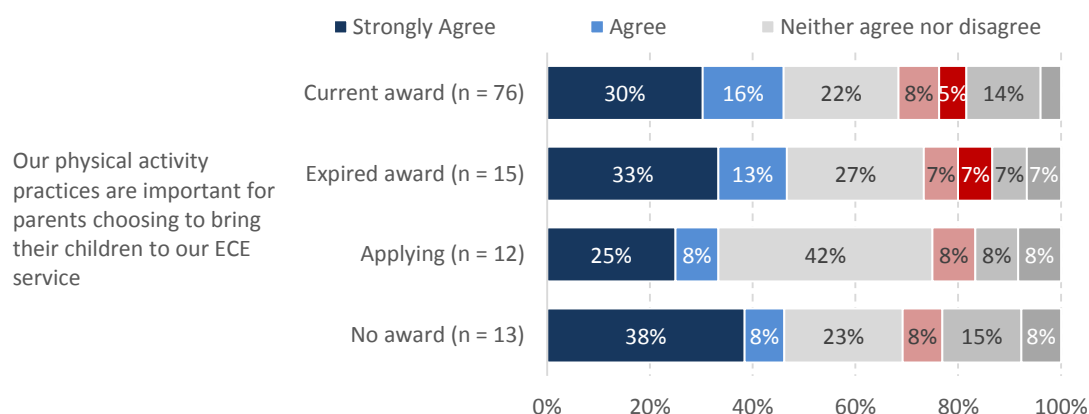


Figure 6: Perceived importance of physical activity practices on ECE service enrolments (n = 116)

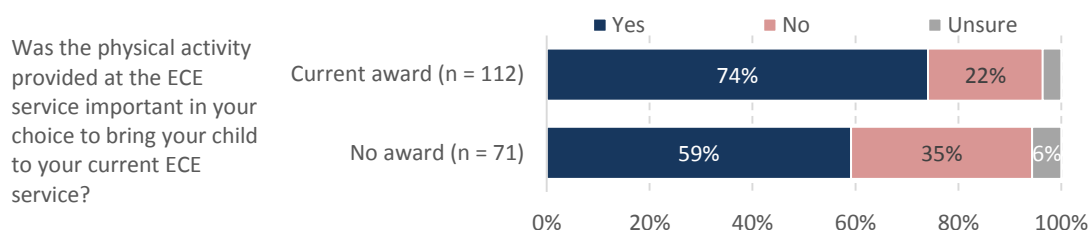


Figure 7: Importance of physical activity practices on ECE service enrolments (n = 183)

The difference between families/whānau respondents and ECE services suggests that nutrition and physical activity practices are more important to families/whānau than ECE staff necessarily realise. Increasing ECE services' awareness of the importance of nutrition and physical activity practice to families/whānau could increase the appeal of the Award.

3.3 Reasons for involvement

The reason for applying for the Award most often provided by ECE service respondents was:

- Wanting to encourage healthy lifestyles for their children/tamariki.
To increase awareness of healthy living amongst children, families and staff. (ECE head teacher)
For our tamariki, kaimahi and whānau to learn and teach new sports activities, exercise and to eat healthy. (ECE manager/supervisor)

We want all our children to know the importance and the benefits of making healthy food choices and healthy exercise choices so that they grow to be healthy happy kids who then become healthy, happy adults. (ECE teacher)

Other reasons included:

- That the Award philosophy fitted with their current ethos or culture.
We have consistently been involved in Healthy Heart Award for seven years... aligns with our open centre philosophy. (ECE teacher's assistant/supervisor)
- The Award provided evidence of their good practice, which was valuable for promoting the service or showing their communities that they were effective.
We wanted to be recognised as a Healthy Heart Award Centre. (ECE manager/supervisor)
Good publicity and encourages the children to be healthy in body and mind. (ECE teacher)

There was a sense of pride associated with achieving an Award.

A sense of pride that they have the top level of award and they've managed to sustain that for a long time. (HPC)

In response to the survey, one ECE service described their pride in being part of the Award programme.

In October 2014, [the Service] received a Pā-Harekeke Award (which they refer to as a "Gold Award") and promoted this on the Kidicorp website:

Here ... we were very proud to receive TWO Gold Healthy Heart Awards from the Heart Foundation. Having two licences meant we needed to obtain an Award for each one, which was already a big undertaking, but the team decided to not only go for the two but to reach for the Gold level as well.

Our cooks came on board with this as well, changing our menu so that it fitted within the strict guidelines to meet the Gold level, and working alongside the Heart Foundation until everything was perfect. Now all the tamariki within our care have morning and afternoon teas, with a hot cooked lunch, that is all Heart Foundation approved!

We were very pleased that all our hard work paid off with the presentation from [names] from the Heart Foundation of our two Awards. We held a special RED day with the tamariki dressing in red, and a shared morning tea of red foods – watermelon, grapes, and jam sandwiches. There was a bouncy castle too, to help keep us fit, and the children all enjoyed the special day celebrating our journey towards these top Awards⁹.

Almost all respondents (families/whānau, ECE service staff and HPCs) were overwhelmingly positive about the Award. They saw the Awards as having long-term benefits for the children at their ECE service and identified ways that their involvement in the Awards had improve their own lives. Families/whānau saw changes in their children and in the ECE services they attended.

As a single working parent it helps me so I know I can drop him off at Kindy and he's going to be properly fed and have a good level of physical activity. (Family/whānau member)

⁹<https://kidicorp.wordpress.com/2014/10/28/healthy-heart-award-for-first-steps-palmerston-north/>

It's a great organisation and we really appreciate its contribution to Early Childhood Centres, it is a much needed fantastic programme. (ECE head teacher)

Some ECE services chose not to apply for an Award. The most common reason given for not taking part in was disagreement with the Award approach to nutrition.

We found some of the requirements a bit too restrictive for our philosophy. We certainly promote healthy eating but don't want to be food police. (ECE manager/supervisor)

Families/whānau and teachers think the food guidelines are very restrictive. For example trim milk for over twos year olds, not being allowed sausages or ham etc. We do not have problems with obesity at our centre... This is why we did not continue to the next level of the Award. It was way over the top for the children in our centres. (ECE manager/supervisor)

Case study example: Site 1

ECE service staff at Case study site 1 focused on the benefits for the children as their reason for involvement in the Awards. They wanted to see the children become healthier and more active through better nutrition and physical activity in the service and at home.

My goal is to let the children live healthy and strong. Keeping them healthy through exercise. I hope that the kids when they get older can stay healthy.

3.1 Becoming involved in the Award

The application process ensures that there are consistent standards amongst ECE services in the Award programme. ECE service providers must provide documentary evidence that they meet Award criteria in six areas. Evidence includes nutrition and physical activity policies, lunchbox guidelines, menus, examples of nutrition and physical activity learning stories and copies of communications with families/whānau about the Award. ECE services compile all the pieces of evidence required and submit it to the Heart Foundation.

Several HPCs and ECE service providers, commented that the application process could be an administrative burden because it required a large amount of paperwork.

The most difficult thing is finding time for our teachers to write extra learning stories specific to our healthy eating regime as well as documenting examples of children's specific active movement. (ECE manager/supervisor)

The programme is very document heavy, requiring copious amounts of evidence to achieve the Award, especially the Pā-Harakeke Award. It should be more about the health promotion that is happening, than about what is written down. (HPC)

The Heart Foundation has recognised the importance of making the application process as easy as possible while maintaining the integrity of the programme. In September 2014, an online application process was introduced. The online process had not yet been experienced by many of the HPCs or ECE services involved in the evaluation but should address concerns about the administrative burden of the applications.

They recently made it easier - the online change. We can apply online now. We can just work on it a section at a time and there's a checklist. Less paper is good! (ECE service staff member)

Promoting the new process to ECE services, including those who hold Awards, hold lapsed Awards or have chosen not to participate, should be a priority. For example, one ECE service was considering letting the Award expire to avoid the paperwork requirements.

[The Award could be improved by] reducing the paperwork for those who have already completed the gold Award. We have practices well embedded and I am wondering how necessary it is to even renew the Award, considering all the requirements needed. (ECE head teacher)

Another suggested that a visit from the HPC could be sufficient to see that an ECE service’s Award should be renewed.

The paper work to renew the Award is too much. I think a rep from the Heart Foundation could come in and assess whether or not the Award should be renewed. (ECE head teacher)

3.2 Developing policies

Policy and governance overview

Almost all ECE service survey respondents reported that they had developed/improved their policies as a result of their participation in the Award. ECE services with Pā-Harakeke Awards had the highest levels of families/whānau involvement in policy development.

More families/whānau were aware of the ECE services’ policies and guidelines around healthy eating than physical activity.

Policy changes are a way of formalising changes made to ECE service practice. As part of all Award level criteria, ECE service providers are required to develop nutrition and physical activity policies, or a Hauora/health policy covering both. The Heart Foundation and HPCs offer resources and support to assist ECE services to develop their policies.

Almost all ECE service survey respondents with Awards reported that they had developed/improved their healthy eating and physical activity policies and guidelines as a result of their participation in the Award (Figure 8).

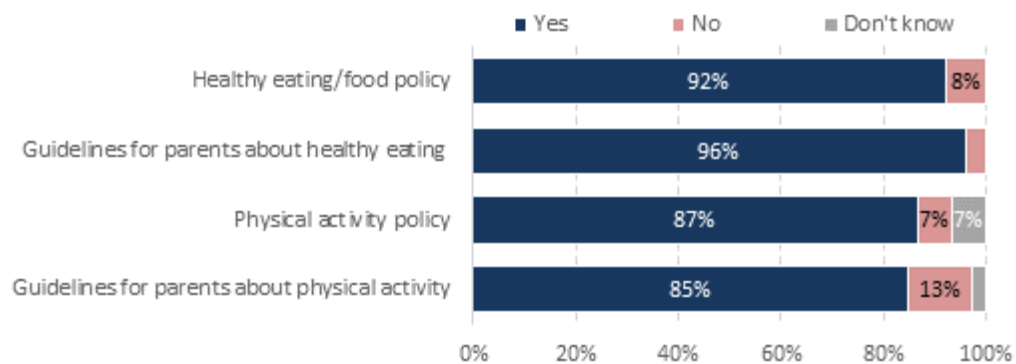


Figure 8: Policy development/improvement as a result of involvement in the Healthy Heart Award (n = 72 to 76)

Collaboration between families/whānau and ECE services in policy development creates an environment that uses family and cultural values to support healthy nutrition and physical activity. Two-thirds (66%) of ECE service respondents with an Award said families/whānau were involved in developing the nutrition policy, and half (54%) said families/whānau were involved in developing the physical activity policy (Figure 9).

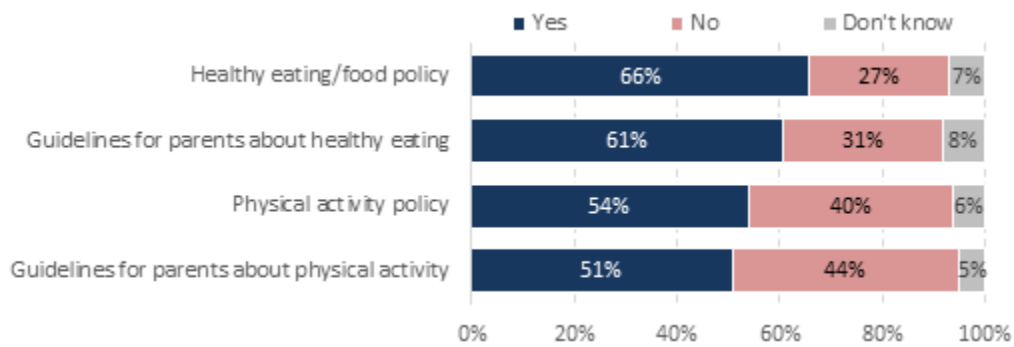


Figure 9: Families/whānau involvement in policy/guideline development (n = 59 to 71)

ECE services with the Pā-Harakeke Award had higher levels of families/whānau involvement in policy development than ECE services with other Award levels (Table 4).

Table 4: Levels of families/whānau involvement in policy development

Families/whānau were involved in developing our:	Rito (n = 23)	Whānau (n = 11)	Pā-Harakeke (n = 25)
Healthy eating/food policy	65%	46%	76%
Guidelines for families/whānau about healthy eating	50%	46%	72%
Physical activity policy	48%	38%	67%
Guidelines for families/whānau about physical activity	32%	17%	70%

Families/whānau from ECE services with an Award were more likely than those from other services to know about the healthy eating policies (67% compared to 49%) and physical activity policies (36% compared to 14%) (Figure 10).

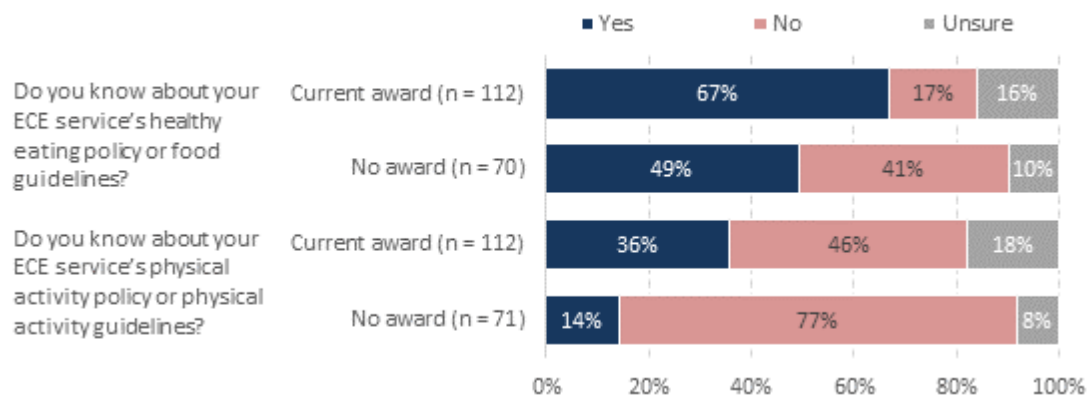


Figure 10: Families/whānau awareness of ECE service providers' healthy eating and/or physical activity policies (n = 182 - 183)

Implementing policy changes created some challenges for some ECE services that were part of chains because they had limited control over policy. An ECE service said:

Our head office is saying we are not to restrict the food families/whānau send in their child's lunch boxes. It has changed from 99.9% healthy lunches to 1% having a completely healthy lunch box. (ECE head teacher)

Some HPCs reported encountering these difficulties with ECE services they worked with.

I have kindergartens from a couple of [ECE service groups] that tell me they can't tell families/whānau what they can and cannot put in their child's lunchbox because the [ECE service group] says they aren't allowed to do that. (HPC)

Case study example: Site 2

Families/whānau were evenly divided on whether they had heard of the nutrition policies of the ECE service. Often they did not respond to being asked about the policies, but instead responded to 'the approach' or 'the rules' about food. Those who had thought the policies were good but only one of the twenty families/whānau interviewed said they had been involved in developing the policies. Most felt that the policies had already been in place before they started at the service.

3.2.1. Effectiveness of policy changes

Policy changes must result in practical changes within ECE services in order for the Award to change children's experiences and to achieve the programme's desired outcomes. More ECE service respondents who held an Award than those who did not thought their nutrition policies were effective (Figure 11). Most (83%) of the ECE service respondents that held a current Award reported that their ECE services' nutrition policies increased the number of their children who ate healthily, while only one-third (35%) of ECE service respondents who did not have an Award thought their policies were effective.

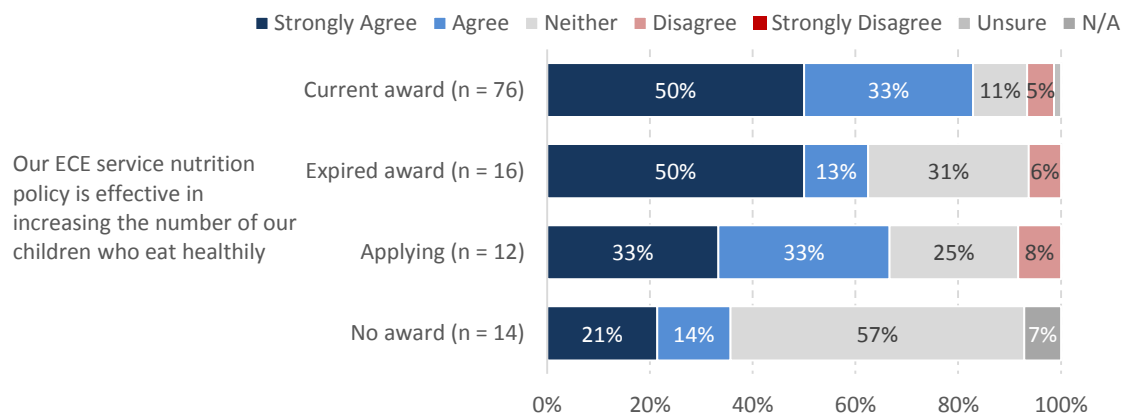


Figure 11: ECE service respondent agreement that nutrition policy is effective in increasing the number of children who eat healthily (n = 118)

ECE services' were more confident in the effectiveness of their physical activity policies. ECE services with a current (68%) or expired (60%) Award were more likely to strongly agree that their physical activity policies were effective in increasing children's physical activity.

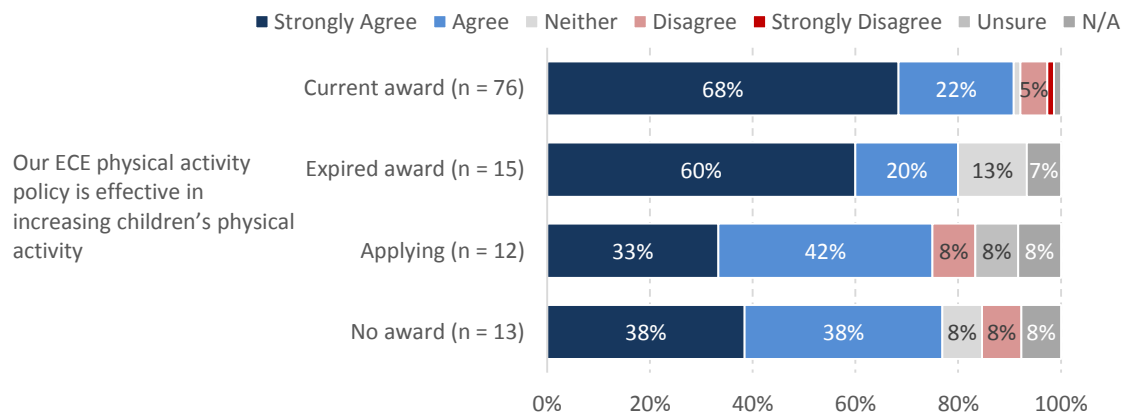


Figure 12: ECE service respondent agreement that physical activity policy is effective in increasing children’s physical activity (n = 116)

The pattern of agreement was similar for the effectiveness of physical activity policies in developing fundamental movement skills. ECE services holding current or expired Awards more likely to strongly agree that their policies were effective.

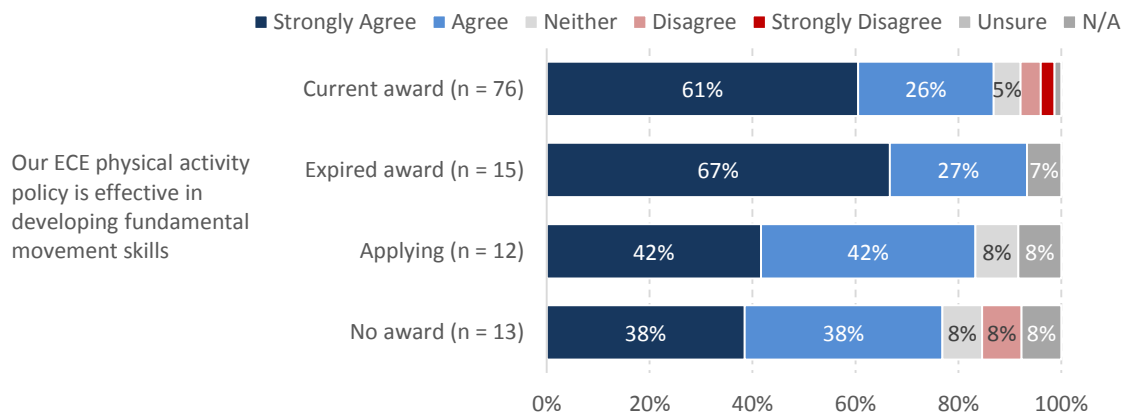


Figure 13: ECE service respondents agree physical activity policy is effective in developing fundamental movement skills

3.3 The Health Promotion Coordinators

Overview: The HPCs and the Award resources

The HPC role is an important element of the Award programme. HPCs have a varied role offering different forms of support to ECE services from the beginning of the application process. ECE services valued the HPC support and the contribution it made to their progress. ECE services most valued face to face contact with the HPCs and many requested more face to face contact.

ECE services found the Award resources useful, especially those that created new opportunities to engage with children or their families/whānau.

The effectiveness of the Award depends on ECE service providers driving change in their services and their communities. They are supported to do so by 20 HPCs across New Zealand (eight full-time equivalents) and by the Award resources (such as guides and displays) provided by the Heart Foundation. The HPCs visit the

ECE service providers, support them through the application process, provide resources and training for staff and families, and visit the ECE services to present them with the Award.

I provide regular support by personal visits, phone calls and emails to all the staff. This gives staff a chance to ask any questions they may have or request information from myself there. The head teacher directed them towards me. (HPC)

I provide them (and families/whānau) with up to date, relevant and easy to understand and put in to practice nutrition knowledge to make sustainable healthy changes. (HPC)

The HPC role is demanding and requires staff to adapt their approach to the needs of each ECE service. The challenges of the role made the successes, seeing change in ECE services, families/whānau and community, very rewarding.

Most rewarding are the “ah-ha” moments on educators faces where they finally “get it” (the nutrition messages that we are trying to promote). (HPC)

On a personal level, the most rewarding thing for me is seeing families/whānau decide to change what they feed their children, and then the realisation that children actually like healthy food. (HPC)

Most ECE service providers were happy with their relationship with their HPC and were positive about examples of the HPCs visiting.

It was awesome that [local HPC] could visit us to present our new Award! (ECE head teacher)

Our Heart Foundation coordinator has been so helpful in providing resources for displays. (ECE teacher’s assistant/supervisor)

ECE services participating in the Award reported that the HPCs had been helpful in promoting physical activity and nutrition (Figure 14).

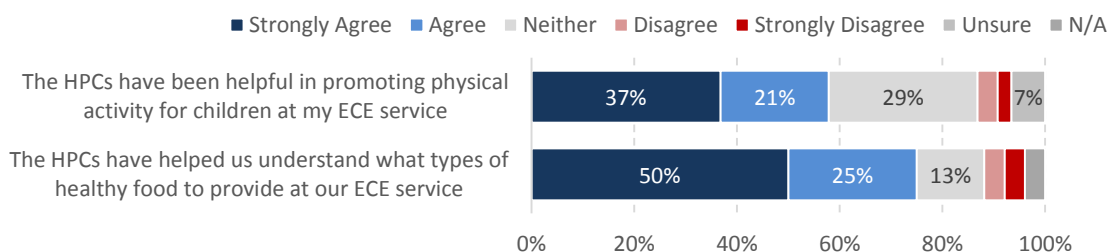


Figure 14: Assistance provided by HPCs in promoting healthy food and physical activity (n = 76)

Examples of HPC support included:

- Providing families/whānau with information at pick up and drop off time and delivering organised information sessions.

I actually [go] along at pick up and drop off and there are a number of displays around fat content in food, sugar, drinks. Handouts around ‘Cheap Eats’ and drinks. Talking to them about lunch box ideas. They [families/whānau] asked about portion sizing. It was about reassuring them and reminding them that children’s stomachs are small and they only need something for lunch. (HPC)

For example, at one site, the HPC attended the service and set up a display showing the volume of sugar contained in different types of food.

Creating a visual resource with the packets in the lunchbox specific to their centre, showing families/whānau how much sugar, salt and fat are in each snacks. (HPC)

- Actively providing resources. HPCs delivered new resources to ECE services as they became available, or as they became aware of them. ECE services valued the contact and being supplied with the resources without having to make requests.

Resources that become available, I provide them. I actively give them things before they ask for it, instead of waiting for them to come ask for it. (HPC)

Provide regular support by personal visits/phone calls/emails. This gives staff a chance to ask any questions they may have or request additional support i.e. resources or request a workshop to run with families/whānau. (HPC)

- Providing resources to ECE service staff on request. Some staff would proactively contact HPCs requesting resources to support their work. HPCs spoke highly of those ECE services and saw it as a sign of active engagement with the Award.

[ECE] engaged more with me than other centres – asked me for more support. The more support a centre asks for and accepts the more they achieve in a shorter space of time. (HPC)

- Delivering information sessions for staff. HPCs provide courses and professional development sessions educating staff on healthy eating, physical activity and other aspects of the Award.

Nutrition workshops, nutrition professional development sessions, helping with ideas for lunchboxes and providing resources. (HPC)

PD workshop opportunities provide more than just HHA for ECE programme requirements. It provides a positive social aspect and an opportunity for services who are often quite isolated to meet and work with other teachers as well as visit each other's ECEs. (HPC)

ECE service staff spoke very highly of the professional development sessions and often wanted more.

More professional development for staff in physical activity and nutrition that looks at different ideas. (ECE teacher)

There was variation in the support ECE services required from HPCs. Some required little contact beyond the application process but others were frequently in touch, requesting resources or support.

We have not had any contact since our last renewal of our award. (ECE head teacher)

They signed up on their own accord, without being encouraged to by the Heart Foundation or management – very rare... They engaged more with me than other centres – they asked me for more support. The more support a centre asks for and accepts the more they achieve in a shorter space of time. (HPC)

HPCs valued the opportunity to address requests for support from ECE services, and some emphasised the importance of proactively supporting ECE services before they asked. Having a strong connection with their HPC was important to ECE services.

More connection between the preschool and facilitators would be good to make sure we are on track and support us in reaching our next award goal. (ECE manager/supervisor)

More regular visits from the co-ordinator if requested. (ECE manager/supervisor)

ECE service staff valued face to face contact. It allowed them to connect with the HPCs and build a relationship, facilitating future contact such as requests for resources or assistance. Many ECE service provider respondents wanted more contact with the HPCs or another member of the Award team.

More regular visits from the co-ordinator if requested. (ECE manager/supervisor)

Maybe a bit more face to face communication with a person from the organisation. (ECE head teacher)

The HPCs recognised the importance of face to face contact but the number of centres they delivered the Award to, alongside the HPCs' other responsibilities, limited the amount of their time available for face to face meetings.

ECE service providers thought extending HPC contact beyond the staff to the families/whānau and children was very positive. Staff saw that the information they were given in professional development was just as relevant to families/whānau as it was to them. Delivering the information to families/whānau and staff at the same time spread information further.

Workshops for families/whānau are so hugely beneficial and helpful that I believe they should be a requirement not optional. (HPC)

Someone to come and talk to families/whānau at a parent meeting. We sometimes feel as if we are not making the impact we would like to. (ECE head teacher)

People coming to the centre to talk to the children at mat times, perhaps put on a puppet show, games and active movement sessions. (ECE manager/supervisor)

Case study example: Site 2

Staff at case study site 2 were very positive about the support they had received from their HPC.

[The HPC] does a lovely job and we appreciated what she brought to the centre.

They valued the face to face contact and the resources for families most highly.

The HPC gave lots of useful information. ... The way she gave us pamphlets really helped - that's what I give families. They had a lot of pictures.

Staff wanted more time and support from the HPC and felt that they would still benefit from more visits. They recognised the difficulty for the HPC to make time to visit them but wanted to see her more.

She has come in two or three times, and she gave some support when we got the award. May have some who say we didn't get enough support but I think we're responsible. She's pleasant and helpful. Would have been good to have more visits. Even during the day, so she could show us the visits in action.

On one visit the HPC made displays around the sugar content of various foods and drinks. This included a sugar chart and pictures showing how much sugar is in different drinks. The HPC set up piles sugar next to different types of food showing how much they contained. Families/whānau remembered the display and their surprise at how much sugar some common food and drink contained. The display also made an impression on the staff members. It was the thing most commonly recalled by families/whānau picking up and dropping off their children at the ECE service.

3.4 Healthy Heart Award resources

HPCs provide ECE services with resources to use with children, such as games and displays, and information for families/whānau, like posters and brochures. The Heart Foundation website also provides resources to support ECE services in their Award journeys, for example:

- Sample policies and guidelines (nutrition, physical activity and breastfeeding)
- Templates of letters to send to families/whānau (in English, Samoan and Māori) explaining the Award
- Information about nutrition such as food groups, food safety, and establishing a garden
- Links to other resources such as DVDs and books.

It is important to note that ECE services not taking part in the Award used the Award resources as well.

We are investigating healthy eating in the preschool room and undertaking a review of our menus so we will use [the Heart Foundation] website for help! ... Information is a barrier but we are using the MOE website and will be also gaining more information from your website. (ECE manager)

Most ECE services with all levels of Award agreed that they had all the resources they needed to achieve the Award guidelines (Figure 15). ECE services with the Pā-Harakeke Award were more likely to strongly agree.

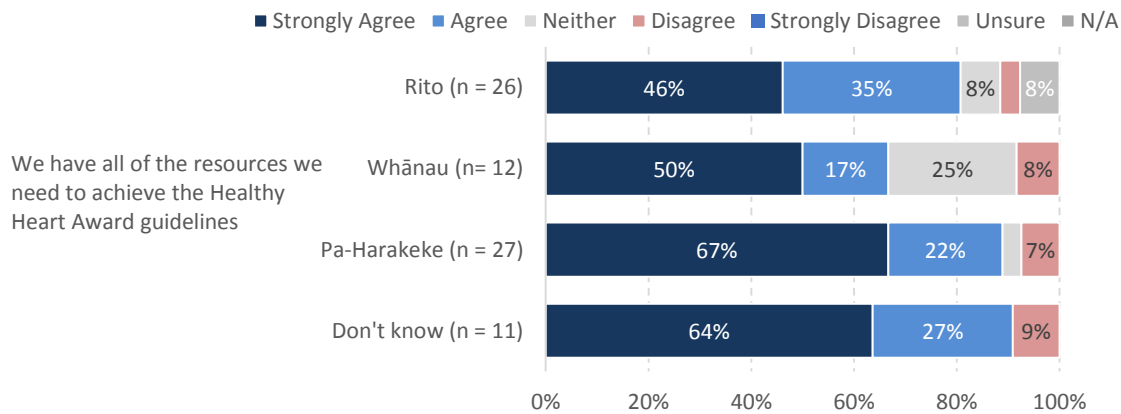


Figure 15: ECE service providers (by Award level) with sufficient resources to achieve the Award guidelines (n = 76)

Most (82%) ECE service respondents with a current Award use Healthy Heart Award resources to promote healthy eating. In comparison, only half (46%) agreed they used Healthy Heart Award resources to promote and plan physical activity. The disparity suggests there is room for further development of resources relating to physical activity.

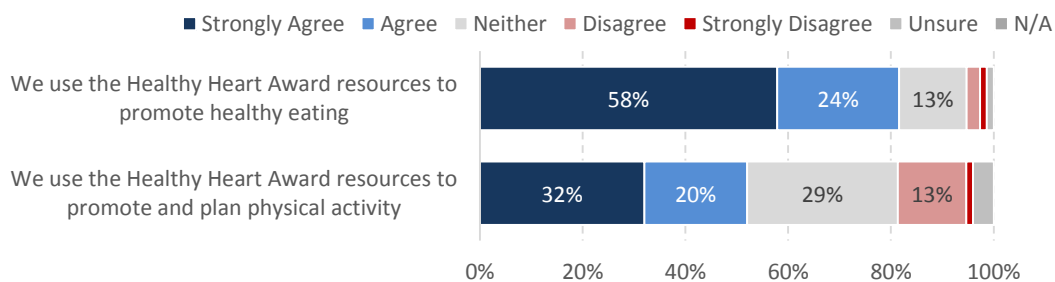


Figure 16: ECE service staff using current Healthy Heart Award resources (n = 76)

ECE service respondents found resources that provided games and activities they could use with their children particularly useful. ECE service staff were always looking for new ideas for engaging children and holding their attention.

We have used the pack containing the flashcard, art activities, and matching games... Within our newsletters we include information from the healthy heart newsletters such as lunchbox ideas, five a day, healthy foods, downloadable information. (ECE teacher)

Some ECE services requested more resources to share with her families/whānau. Having well-presented and explained information to pass on to families/whānau was also valuable because they supported ECE staff to share knowledge with their families/whānau. HPCs recognised the desire for more resources for the families as well.

More food and nutrition resources for ECEs would be good. E.g. a visual food guide for families. (HPC)

More resources around lunchbox ideas and cheap healthy options also a resource around unhealthy snacks all around the supermarket. (HPC)

Resources ECE service providers highlighted they would like more of included:

- More vegan/vegetarian menu ideas for alternative menus.
More menu ideas/vegan or vegetarian menus. (ECE teacher)
 - A wider variety of resources available in Māori, Pacific and Asian languages. Adding content targeting other cultures, for example by including traditional games or sports, could add value to the Award for ECE services in communities with high populations of Pacific and Māori.
It needs to be more inclusive for other cultures and more resources on physical activities as well. (ECE head teacher)
Would like to see some more Māori/Pacific content in the resources. (ECE administrator)
Lunchbox resources for Asian populations i.e. Chinese. (HPC)
 - HPCs and ECE services also thought that videos or examples of children and adults participating in Award activities would be useful.
Perhaps some videos of examples of children and adults participating in activities and learning experiences. (ECE teacher)
 - More resources for the children to interact with (e.g. plastic fruit)
Physical props that can be used to educate families/whānau/children about what goes on inside their body around heart health. Already have: fat blob etc; but others like this would be great. A move away from paper-based material to physical props would be fantastic. Anything that is dynamic and engaging and tactile would be great! (HPC)
Activities that engage children: Magnetic stories, books, music CDs. (ECE manager/supervisor)
 - More resources to promote active movement. Some ECE service staff discussed the challenges in creating new and interesting ways to involve children in physical activity within the ECE spaces. They spoke highly of resources that created new opportunities for physical activity, such as new games or toys with interactive pieces. Information books and displays were not as useful for ECE service staff as tangible equipment that could be used with children.
Like a box of resources so we can just pull them out. They have good ideas for new games etc. (ECE staff member)
Some active movement ideas like a card library or wee book to give you ideas. (ECE teacher)
- A staff member from an ECE service with a high proportion of Pacific children centre suggested providing the resources for traditional Pacific sports as a way to engage families/whānau and children in physical activity.
Having culturally appropriate exercises, Island games and stuff, might get the families interested. (ECE staff member)

ECE service respondents also noted that visits from “Hearty” were memorable for the children and the staff alike.

Extra visits for the children from the ‘giant heart man’. (ECE teacher)

Case study example: Site 1

Staff at case study site one have a range of posters visible in the check-in area of the ECE service. Heart Foundation resources are prominently placed, providing families/whānau with information about good nutrition for their children.

My kids need to eat healthy, I have seen the pamphlets when picking child up.

Staff were positive about the resources and saw them as beneficial for families/whānau. They remembered the food chart most often. Some staff wanted more resources from the Heart Foundation because families/whānau were asking for more information about healthy eating.

Need more resources from Heart Foundation because families/whānau ask for more information about nutrition.

3.5 Professional development

More than three-quarters (79%) of ECE staff respondents from an ECE service with a current Award said they had learned more about healthy eating as a result of involvement in the Award. More than half (57%) said they had learned more about physical activity for children (Figure 17).

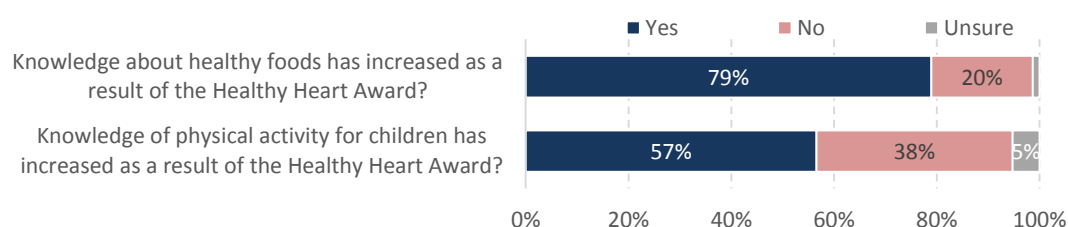


Figure 17: ECE service respondents learned about physical activity and/or healthy eating as a result of the Award programme (n = 76)

ECE staff increased their knowledge about nutrition and physical activity through formal professional development sessions and through participating in the Award programme. Half (49%) of ECE service staff had participated in professional development activities as a result of involvement in the Award.

Added a new programme to follow daily. And gone on a PD about physical activities. (ECE teacher)
PD workshop opportunities provide more than just HHA for ECE programme requirements, it provides a positive social aspect and an opportunity for services who are often quite isolated to meet and work with other teachers as well as visit each other's ECEs. (HPC)

ECE service respondents also said they had learned a lot about healthy eating as a result of involvement in the Award. Examples of new knowledge included:

I have become more aware of the nutritional content of children's snack foods. (ECE teacher)
Learning about how much 'invisible' sugar is actually in ordinary everyday foods and learning how to read the labels on food items. (ECE manager/supervisor)
I didn't realize that the tick was for "the healthiest version of that product range" I always was of the impression that it meant it was "healthy". (ECE manager/supervisor)

ECE service respondents also said they had learned more about physical activity for under-fives as a result of their involvement in the Award programme.

I have changed some of my thinking around the need for physical play/rough and tumble play for boys in the centre environment after attending some professional development and have, along with my team incorporated some activities to cater for the extra needs required for boys to engage in play which specifically allows them to develop their motor skills and brain development to enhance their learning. (ECE teacher)

One-third (35%) of ECE service provider respondents said their ECE service provider had an outside agency who delivers physical activity to the children. At the case study sites, service provider staff often reported valuing the fundamental movement skills courses delivered by Sports NZ. Though courses could be delivered by outside agencies, the HPCs had an important role in connecting ECE services with those agencies to arrange visits and workshops.

We are holding a workshop on fundamental movement skills and will get information/resources we need from the co-ordinator. Our Heart Foundation co-ordinator has been so helpful in providing resources for displays etc. (ECE teacher's assistant/supervisor)

4. Award Achievements - Nutrition

The Healthy Heart Award aims to improve children's current wellbeing, as well as positively influence their health into the future¹⁰. The Award aims to make changes by improving under-fives' knowledge and understanding about healthy food, based on the evidence that habits acquired at this age can continue into adulthood.

4.1 Promoting healthy eating

Overview: Activities promoting healthy eating

Children eating healthy and learning about healthy eating was seen as very important by the ECE service respondents and families/whānau. ECE services with an Award were more likely to believe the food they provided was consistent with nutrition guidelines and that nutrition was a priority.

Families/whānau attending ECE services participating in the Award were more likely than those attending non-participating ECE to believe their children learned about nutrition and healthy eating at their ECE service and that their ECE service was doing all they could to promote healthy eating. Teaching and learning activities the children took part in at the ECE services included cooking/baking, puzzles and games relating to nutrition, and helping in vegetable gardens.

ECE services believed that the Award encouraged them to engage children in learning experiences that supported their knowledge of nutrition.

The role of the ECE services in providing food for the children attending the ECE service varied across ECE service providers surveyed. Nearly half (46%) of families/whānau respondents stated that both they and the ECE service provided food for their children during the day. Typically this meant the ECE service provided morning and afternoon teas while the families/whānau provided a lunchbox. Around a quarter (26%) of families/whānau respondents said they provided all food for their child while at the ECE service, while the remaining quarter (28%) said the ECE service provided all food.

Discussing healthy food at morning and afternoon tea - we provide all meals - so all meals are healthy - when we do baking (cookies) we talk about 'sometimes' foods. We are starting a garden for the children to be able to eat from. (ECE head teacher)

Only one ECE service said they had an outside agency to provide meals.

ECE services with a current Award (80%) and those applying for an Award (92%) were more likely than those without an Award (50%) to believe that the food they provided was consistent with nutrition guidelines (Figure 18).

¹⁰ Healthy Heart Award for Early Childhood Education: Handbook

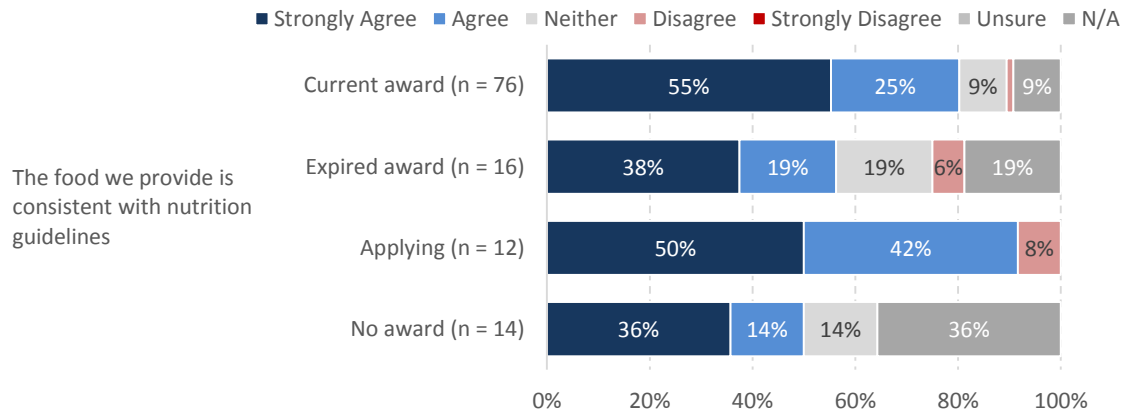


Figure 18: ECE service respondents agree food provided at ECE service is consistent with nutrition guidelines (n = 118)

Almost all (97%) ECE service respondents who had a current Award agreed or strongly agreed that promoting healthy eating was a priority at their ECE service. The proportion of respondents from ECE services without an Award who believed this was a priority was lower but still relatively high (71%) (Figure 19).

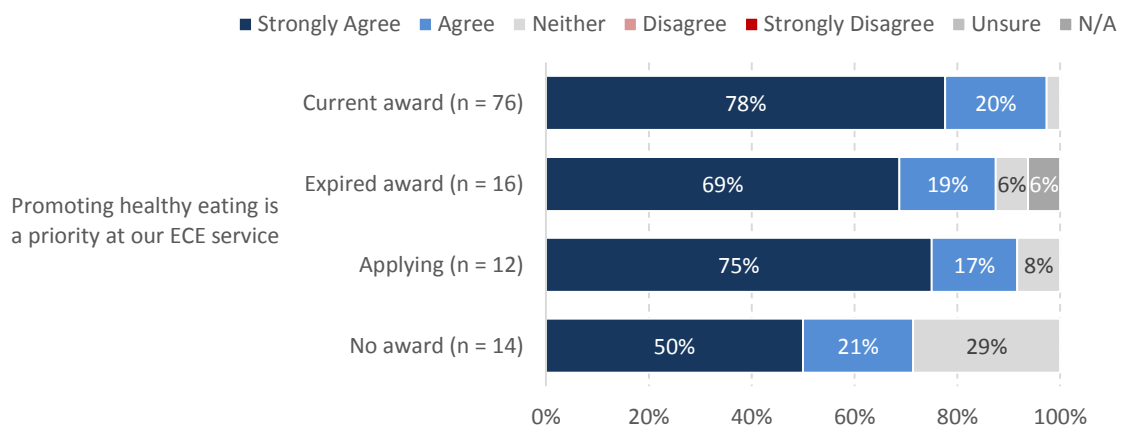


Figure 19: ECE service respondents believe healthy eating is a priority at their ECE service (n = 118)

Similarly, nearly all families/whānau respondents from ECE services with a current Award were confident that their ECE service was doing all they could to promote healthy eating (97%) and that their children learned about healthy eating while at the ECE service (96%) (Figure 20). Families/whānau attending ECE services with an Award were more likely to strongly agree to both.

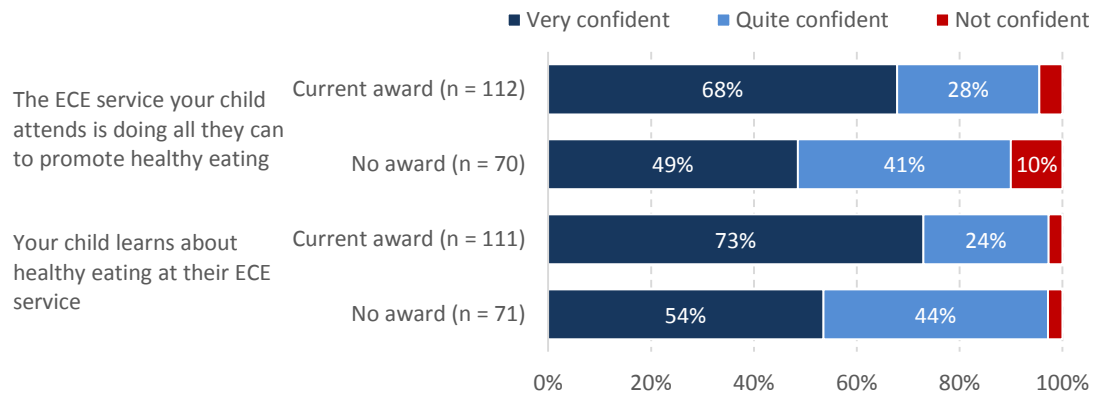


Figure 20: Families' perceptions of healthy eating at their child's ECE service (n = 71 to 112)

Almost all (92%) ECE service respondents with a current Award agreed that the Award encouraged them to engage children in learning experiences which supported the children's knowledge of nutrition. These numbers were higher for those with a Whānau Award (100%) and a Pā-Harakeke Award (96%) (Figure 21).

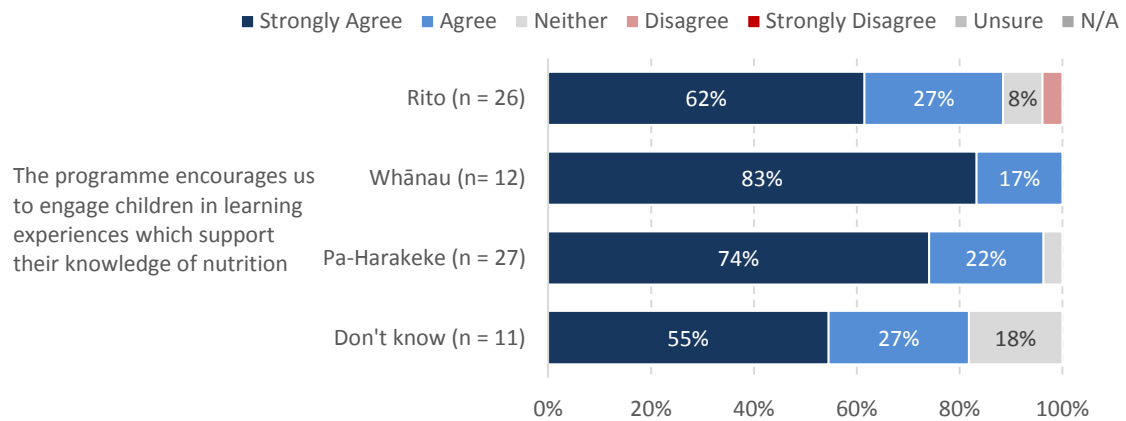


Figure 21: ECE service respondents' agree the Award encourages them to engage children in learning about nutrition (n = 76)

Survey respondents gave examples of teaching and learning activities in their services that related to healthy eating, including planting and growing vegetables, learning to make healthy food choices at morning and afternoon tea, and learning how to cook/bake healthy recipes.

Creating opportunities for children to participate in food preparation was often a focus for the ECE service respondents.

We encourage our children to help prepare their meals with teachers and our cooks in the kitchen. We often have soup days where the children are encouraged to bring along a vegetable to use for our Vege soup that we prepare together. (ECE teacher)

Other activities and games were also used to teach about good nutrition and healthy eating. The activities were almost all interactive and involved engaging the children in a game or task led by the ECE service staff.

Story books, art activities, music songs and actions, healthy plastic food in the family play area, board games and matching games, cooking kai together. (ECE volunteer)

We promote healthy choices in lunch boxes by talking to the children about different foods and why or why they aren't healthy. (ECE teacher)

Many ECE services started herb and vegetable gardens where the children help with planting and watch their plants grow. They then help with harvesting and cooking the produce for the ECE service to eat.

We also have a vege garden where we grow the most delicious veges and encourage our children to help care for the plants. We save our scraps from meals and give them to our pet chickens... When they lay eggs we use them in healthy, nutritional baking. (ECE teacher)

Some of our tamariki have said they have a vegetable garden and they helped to plant the vege plants, and strawberries and to water the plants. (ECE head teacher)

Case study example: Site 3

Families/whānau spoke about the changes they had seen in the nutrition at the ECE service. They were very positive about the changes and thought the ECE service's approach to food was having benefits for their children.

No lollies, chips, orange chips. No chocolate.

There's a massive change. Food's a bit different from 20 years ago. It's healthy, they push for no junk. Actively pushing it, that's good.

For some families/whānau, the changes had carried over to their school aged children.

For my kids at school, they get fruit three times a day. They get healthier snacks like popcorn, now I'm used to packaging healthier options from my involvement here.

Staff felt they had made many positive changes that were having an effect on the families/whānau.

We've done evenings and put up displays on sugar content and allergies. There are some surprised reactions, like for the amount of sugar in muesli bars. But it doesn't take them long to figure it out.

However, they acknowledged that there was still work to be done with some families/whānau.

We give information to families/whānau to teach them how provide healthy food. Some don't know. For some, they run out of time, even some families that have been here ages. All backing food - just because it's easy, with them, I only put the healthy things out.

4.2 Communicating with families/whānau about nutrition

Overview: Communication and collaboration about nutrition

The Award assisted ECE services to engage with families/whānau with information and education about good nutrition. ECE service providers communicated with families/whānau via newsletters, workshops, notes in lunchboxes and displays at the ECE service. Communication strategies developed and changed over the ECE services participation in the Award programme. New information was shared through newsletters, Facebook pages, and conversations with ECE service staff, and workshops and displays/posters provided by the HPC.

HPCs suggested those ECE services who implemented nutrition and physical activity changes using a bottom-up approach were more successful than those using a top-down approach.

Definitely best at the centres that don't just make the changes at top level, but those which involve the children (and whānau) and use the process as learning opportunities with the children. Presenting Awards to those centres, the children are mostly really 'into' health and love telling stories of how they love broccoli. (HPC)

Approaches to communication with families/whānau developed over the course of ECE services' participation in the Award. For example, ECE services communicated more with families/whānau when developing new policies and implementing changes. New information was shared through newsletters, Facebook pages, and conversations with ECE service staff, and workshops and displays/posters provided by the HPC.

Each month we put the Healthy Heart snippet sent to us in the newsletter. The last one was on healthy breakfasts. (ECE manager/supervisor)

Discussion, parent evenings, posters and wall displays and advice and tips to families/whānau. (ECE manager/supervisor)

Families who attended the workshop on nutrition felt motivated and empowered to change their children's diet, and understood why they should do this. (HPC)

ECE service staff were aware of a need to encourage rather than push families/whānau.

I've learnt not to force anything on families/whānau/children. We encourage. At the beginning we said no, but in the last [professional development] session we talked about it, how we were approaching it. Focus on encouragement rather than ban. Let's step back and not be too pushy. They are still bringing the healthy lunches. They are doing so well, let's ease back a bit. (Case study site 1 – staff member)

There was also a need for cross-cultural awareness and Pacific-focused centres in particular were aware of a need to encourage families rather than enforce rules. ECE services noted that providing traditional foods and treat foods was particularly important to some Pacific families to show they provided well for their children. ECE services had to take care to introduce changes slowly.

It is important to note that when promoting health initiatives in our Pacific Island learning centres that we encourage and not enforce it. We are just slowly introducing changes to celebrating birthdays. (ECE manager/supervisor)

4.3 Changes in nutrition as a result of the Award

Overview: Changes in nutrition as a result of the Award

Families/whānau from ECE services participating in the Awards were more likely to have learned more about healthy eating from their ECE teachers and to have changed the food they give their children.

Common changes implemented by ECE service providers included discouraging treat food and encouraging children to eat more fruit and vegetables, restricting birthday cakes, introducing a water-only policy, and 'nude lunchboxes'. Children also shared what they had learned at the ECE service with their families/whānau and this often resulted in improvements in healthy eating at home, for example, drinking more water and eating more fruit and vegetables.

Identified challenges to making positive changes to nutrition at home and at the ECE service provider included the perceived high cost of healthy food, lack of understanding (and/or differing views) of what constitutes healthy food, families/whānau attitudes, and cultural beliefs.

4.3.1. Changes in the food provided by ECE services

Overall, 80% of ECE service staff respondents from an ECE service with a current Award agreed or strongly agreed they provided healthy food more often to the children at the ECE service since becoming part of the Healthy Heart Award. These numbers varied little (78% to 83%) across Award levels (Figure 22).

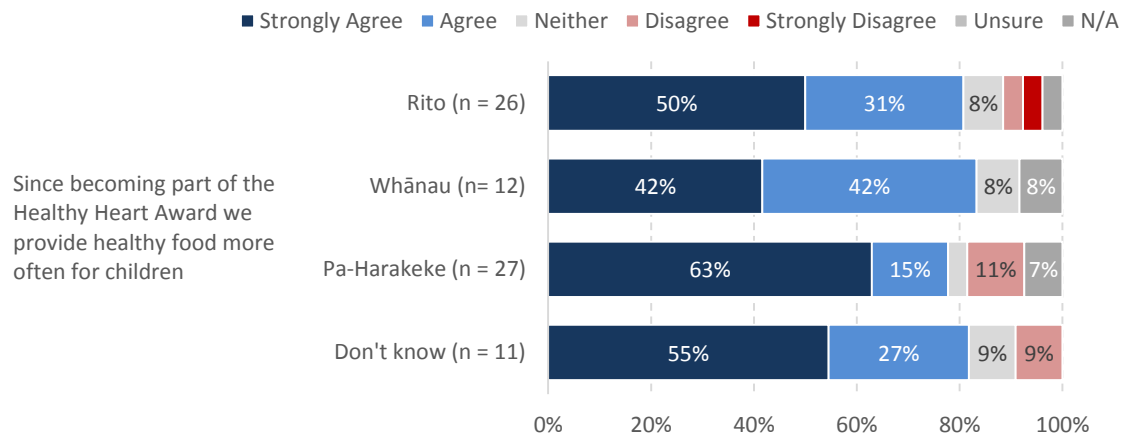


Figure 22. ECE service respondents' agree they provide healthy food more often at the ECE service (n = 76)

Common changes at the ECE service providers included implementing a water-only policy to replace juice and fizzy drinks.

We have a water only policy at Kindergarten. (ECE teacher)

Case study example: Site 1

One of the case study sites notices that most of the children were bringing packaged drinks with high sugar content for lunch. Some families/whānau were providing fruit drinks or even fizzy drinks. The ECE service put a water only policy in place for their drinks. They introduced a water cooler to the centre so that the children could easily access filtered and cooled water for themselves. Staff began putting notes to families/whānau explaining the new policy on sugary drinks and returning them home with their children. Children were given water cooler water instead.

The number of children bringing sugary drinks to the service quickly reduced. Children did not feel that they were missing out and began to like and ask for the filter water.

We have no fizzy drinks. Families/whānau know that. We write a note on the drink and put it back in the boxes, especially with new families/whānau. Now everyone drinks water. Some of the kids used to keep to themselves, but now they are active. They are walking before one. They love the music session, some even start crying when it stops.

Many ECE centres had also introduced changes to birthday party celebrations. For example, these were combined to one cake per week, or limited to only those turning five years old. Other services took a stricter policy banning birthday cakes altogether and instead celebrating with non-food treats.

We no longer have any birthday cake celebrations at the centre. We encourage stickers or balloons instead. (ECE manager/supervisor)

When children celebrate their happy school days we ask that families/whānau only bring popcorn and fresh fruit. (ECE head teacher)

Changes to birthday celebrations were challenging for some staff. At one case study site, older staff continued to insist on providing birthday cakes when children had birthdays to celebrate the occasion.

4.3.2. Changes in lunchboxes

Nearly half (46%) of families/whānau respondents from ECE services participating in the Award programme said they had changed the food they gave their child for snacks and/or lunch, compared to only a quarter (28%) of families/whānau respondents from ECE services not participating in the programme (Figure 23).

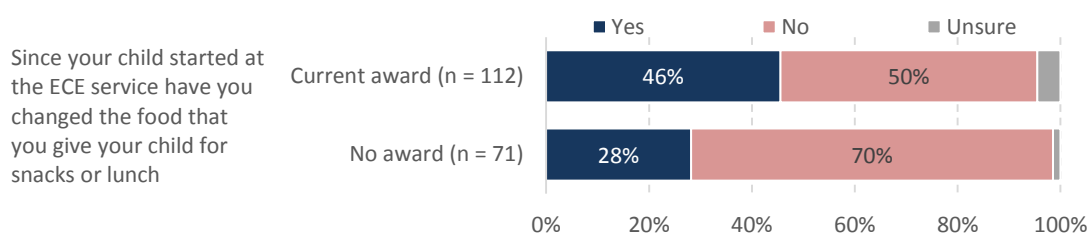


Figure 23: Families/whānau change the food they give their child for snacks and lunch (n = 183)

Many ECE service provider respondents noted a decrease in the number of treat foods children received in their lunchboxes as a result of the Award programme.

I have seen children's lunch boxes change, when they first start and they bring more treat foods but when we guide families/whānau about a range of healthy food choices for lunch boxes the children bring less treat food. (ECE teacher)

Many ECE services promoted the idea of a “nude lunchbox”¹¹ as a means of reducing this type of packaged treat food.

The 'nude food lunchbox' really makes it easy to make good choices in what I put in my children's lunchboxes. (Family/whānau member)

4.3.3. Changes at home

One of the objectives of the Award is for education about healthy eating and nutrition to spread beyond the children attending the ECE service to benefit the families/whānau and wider community. The majority (84%) of ECE service respondents from an ECE service with a current Award agreed or strongly agreed that the Award assisted in engaging with families around good nutrition. These numbers were slightly higher for those with a Rito (92%) or Whānau (92%) Award (Figure 24).

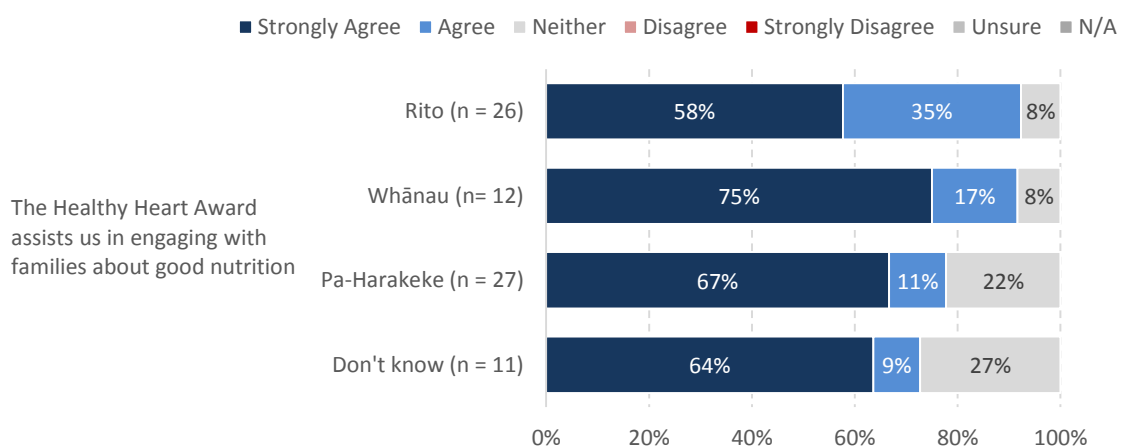


Figure 24: ECE service providers agree the Award assists in engaging with families around good nutrition (n = 116)

¹¹ A lunchbox that does not include any non-reusable packaging.

Families/whānau from ECE services with Awards were more likely than others to have learned more about healthy eating from the ECE teachers (45% compared to 25%) and changed the food they provide their children with at home (37% compared to 24%) (Figure 25).

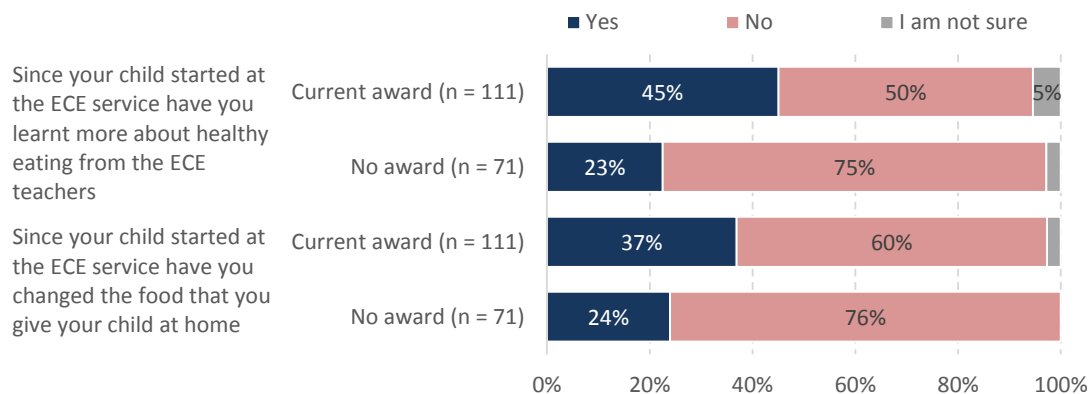


Figure 25: Families/whānau respondents learned about healthy eating and changed their eating habits (n = 182)

Some ECE services reported that the changes they had seen extended to the eating habits of the whole family/whānau.

They have told me they are using more vegetables and getting the children involved with making dinners and lunches. (ECE teacher)

The older sister of one of our current children was involved when we applied for our very first Healthy Heart Award (several years ago). Her mother passed on to me recently that she still 'organises' the family lunches ensuring that mum and dad make sure they are healthy for all three children. (ECE head teacher)

Families/whānau survey respondents described the changes they had made to their approaches to food and nutrition.

We changed our home food too. We started to eat fruit veges - they used to moan before. It's because of the preschool. We went from buying to making our own pizzas, kids love it. (Case study site 2 – Family/whānau)

More fruits and less sugar for lunches. We changed at home, well we have less takeaways and more home cooking and less lollies, they only get them from other people now. (Case study site 1 – Family/whānau)

[The Award] has made me more aware of different healthier options that are simple and he can be involved in i.e. they make vege soup together. (Family/whānau member)

The main message recalled about nutrition and healthy eating focused on eating fruit and vegetables.

Fruit and veges are good for our heart and strengthen our bones. (Child)

That it makes you grow, and makes you not get a sore tummy or get sick. (Child)

Don't eat too much junk food and lollies, eat lots of healthy veges. (Child)

4.3.4. Changes for ECE staff

Some ECE service staff also noted that taking part in the Award had led to them making changes in their own homes.

Yes! I have had a change of lifestyle and now living a more healthy eating programme. Eating more veges and fruit, more white meats and less red meat, having a wheat free diet and enrolled in a gym. (ECE head teacher)

When I started I weighted 130 kilo now I'm 123 kilo, plus I feel a lot better. (ECE manager/supervisor)

No more chocolates, fizzy drinks, sugar in my tea or coffee... We go for walks every day, we cut back a lot on cooking greasy food and boil ups. (ECE manager/supervisor)

There were multiple reasons cited for these changes including wanting to improve their own health but also because of a desire to be a good role model to the children at the ECE services.

I walk to and from work to keep a healthy attitude! I also sit down at meal times with the children with a healthy homemade meal of my own to demonstrate healthy eating and to be a positive, influential role model (ECE teacher).

4.4 Challenges to making changes to nutrition

4.4.1. Staff attitudes

Very few (4%) ECE service respondents stated some staff not supporting the need for healthy food was a significant or very significant barrier to children eating healthily at their ECE service (Figure 26).

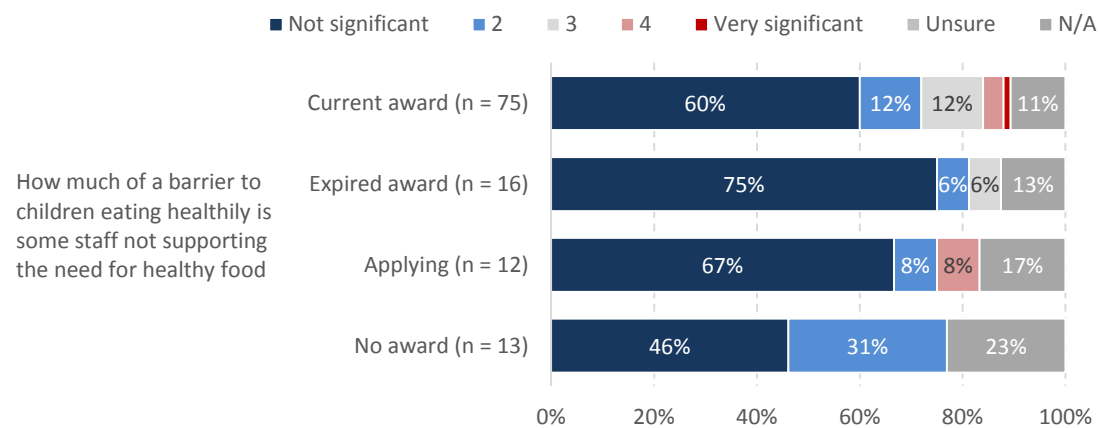


Figure 26: ECE service staff believe some staff do not support the need for physical activity (n = 131)

4.4.2. Understanding of healthy food

Many of the families/whānau respondents who criticised the Award, or ECE service provider respondents who did not engage in the Award, did so because they disagreed with how the Awards defined “healthy food”. For most, this disagreement centred on feeling that children should be given more good fats and protein than carbohydrates.

Fruit and baked goods is not "healthy" - I believe a protein portion must be included.... there is too much "sugar" in the food provided by my ECE in the morning and afternoon teas - there is not enough "good fat" - kids need fat for their brains! (Family/whānau member)

I don't agree with some of the healthy heart guidelines and think that the food tick system the Heart Foundation... have in place is abhorrent... I just think that the Heart Foundation is on the wrong track when it comes to food. (Family/whānau member)

Families who follow vegetarian/vegan or paleo/primal diets also have views that may conflict with those promoted within the Award, particularly with regards to the role of fat and protein.

We have many families/whānau that have alternative eating plans such as primal and paleo. For some children dairy and gluten are not beneficial and it seems to be quite well known that these things do effect the body. It would be nice to see some acknowledgment of this. (ECE manager/supervisor)

For some families/whānau respondents the issue was more a matter of personal freedom and a belief they were entitled to feed their children whatever they wanted, and that this should not be restricted or controlled by the ECE service provider.

It is the one thing about my day care that I don't like! If, as a parent, I want to give my child raisins, for example, in her lunchbox then that is my right... I do not fill her [older daughter at school] lunchbox with junk but she does get two biscuits for play lunch, something not allowed by [ECE] Centre. (Family/whānau member)

Banning certain snacks in the lunchbox e.g. can't bring lollies- have had some backlash in the past with families/whānau saying "they are not your child you can't tell me what I can and can't bring". (HPC)

In the first couple of years, a few families/whānau called us 'the food police'. (ECE manager/supervisor)

4.4.3. Budgets

Very few (6%) of ECE service respondents with a current Award perceived budget as a significant or very significant barrier, compared to one third (33%) of those currently working towards an Award (Figure 27).

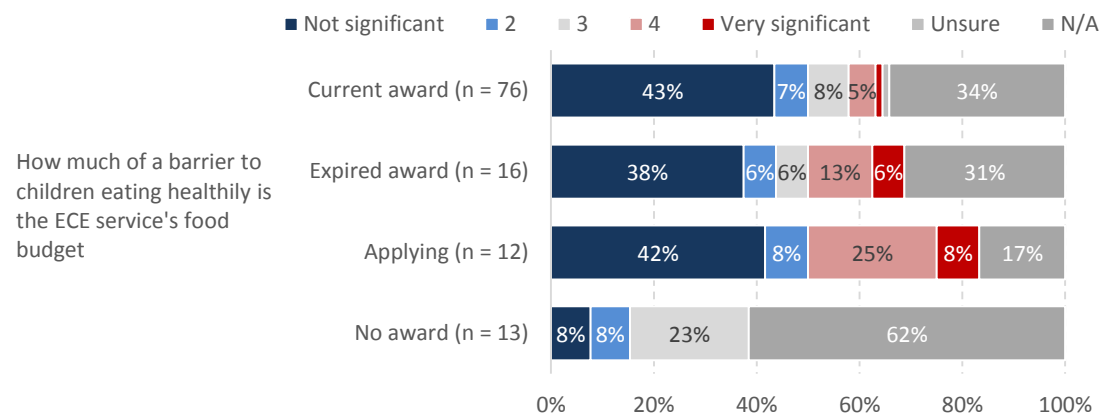


Figure 27: ECE service budget identified as a barrier by ECE service staff (n = 117)

Providing low-cost healthy food was perceived as more expensive or difficult by some ECE services and families/whānau. One HPC reported that ECE service providers who provide a hot lunch find the cost of healthy food difficult.

Budget seems to be the biggest barrier to centres that provide lunches onsite – in order for them to meet our Pā-Harakeke standard especially (meat and dairy prices). (HPC)

4.4.4. Families/whānau attitudes

Two in five (41%) of ECE services with a current Award believed families/whānau not supporting or understanding the need for healthy food was a significant or very significant barrier. Notably, over half (58%) of those currently applying for an Award believed families/whānau attitudes was a barrier. This suggests families/whānau not supporting or understanding the need for healthy food is more of a barrier when an

ECE service is attempting to make changes, for example asking families/whānau not to send treat food in lunchboxes (Figure 28).

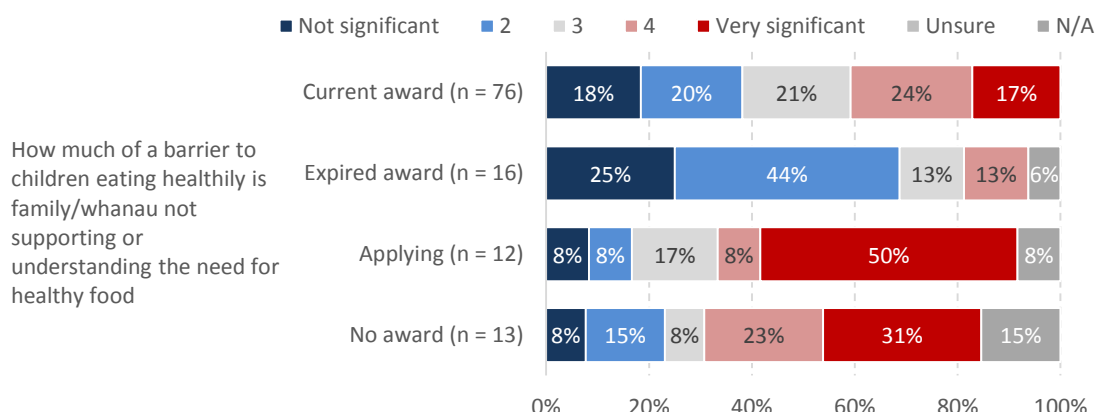


Figure 28: Families/whānau not supporting/understanding the need for healthy food identified as a barrier by ECE service staff (n = 117)

Problems could arise during the initial implementation when families/whānau were asked to change what they put in their child’s lunchbox but did not understand why. As policies became embedded over time these issues diminished. Families/whānau who were new to the services and had not been attending before the changes were made tended to accept the policies as they found them.

Influencing families/whānau are the biggest challenges. Centres that set up an expectation of what food is appropriate at the time of enrolment have the least difficulty with this – particularly if they list specifics of what food is not okay and what the procedure will be if a child attends with this food. (HPC)

Being able to refer to the Award (and the Heart Foundation and Ministry of Health by extension) gave ECE service provider staff more legitimacy when talking to families/whānau about nutrition and physical activity.

Healthy Heart award helps them establish policies so they have something to fall back on and some guidelines to provide families/whānau on what types of food should be in the lunchbox. It also helps them engage with families/whānau that can talk to them about nutrition in a professional manner rather than being approached by a teacher that the parent may not deem specialised in the area of nutrition or know enough about food to be telling them about what they can and can’t put in the lunchbox. (HPC)

Some ECE services saw families/whānau budgets as a barrier. Comments from the open-ended survey questions and the interviews suggest for some families healthy eating is seen as prohibitively expensive.

The availability of processed and "quick" foods makes it harder for busy families/whānau on a budget to make good choices. (ECE teacher)

Our centre is a community centre, some families/whānau don't have enough money to buy the healthier options or are unwilling to try new things. (ECE teacher)

However, this may also relate to lack of knowledge about buying low-cost healthy food. For example, one ECE service was concerned about a child bringing a meat pie to the centre every day. When staff approached the family, the family stated they supplied pies because they wanted their child to eat something warm in the mornings. Negotiation between the family and the ECE service resulted in the family buying a bulk box of Weetbix and the ECE service supplying Weetbix and warm milk to the children each morning.

Only one-quarter of both ECE service providers with a current Award (24%) and ECE service providers currently working towards applying for an Award (25%) identified difficulty communicating with families/whānau about healthy food as a barrier to children eating healthily (Figure 29).

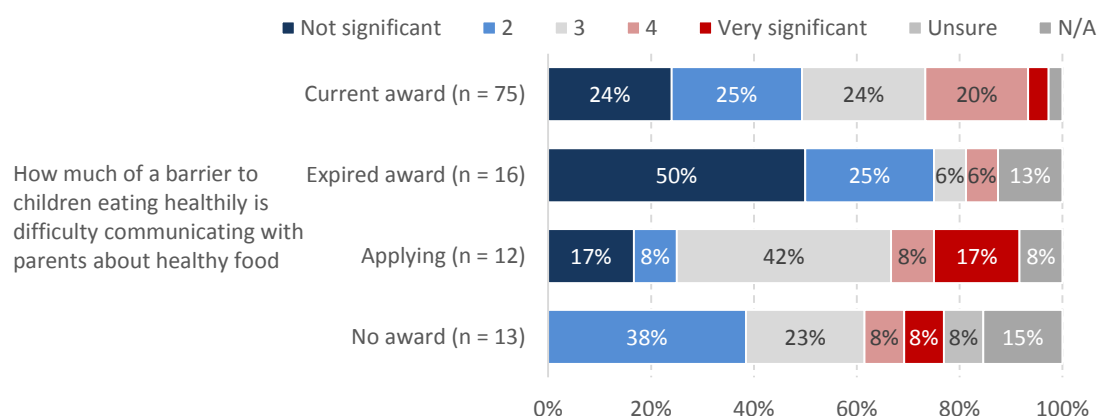


Figure 29: Communicating with families/whānau identified as a barrier by ECE service staff (n = 116)

Some ECE service staff were unsure what to do if a parent did not follow the lunchbox guidelines and sent treat food in their child’s lunchbox. Responses included:

- Banning some foods altogether (e.g. noodles, pies, sausage rolls) or restricting them to one day per week.

Banned noodles and juice from coming in... The changes for the centre were considered quite large as noodles and juice has been common in the centre for a long time. (HPC)

We have enforced that children can only have one treat in their lunch box on a Friday and that it has to meet our "treat" requirements. (ECE manager)

- Letting the child eat the food so that they still had something to eat
- Stopping the child from eating the inappropriate food and sending it home uneaten
- Substituting a healthy option from the service’s own food supply
- Sending a note home to families/whānau stating that the food was against their nutrition policies

No fizzy drinks... Families/whānau know that. Write a note on the drink and put it back in the boxes. (Case study site 1 – staff member)

Some were uncomfortable sending a note home saying this was unacceptable as per the healthy eating policy.

Staff feel uncomfortable with sending home lunchbox guidelines that discourage ‘occasional’ foods from being brought and feel really uncomfortable with having a procedure in place around non-adherence i.e. if families/whānau send in inappropriate foods, what will staff do? i.e. will they send the items home with a note? (HPC)

None of the staff made children go hungry but the situation did create uncertainty, especially where the service did not provide food to their children as part of their normal day to day activity.

Case study example – Site 1

At one case study site, staff had implemented a healthy food policy and began sending unhealthy foods home with children along with notes explaining the policy. Some families/whānau continued to send their children with unhealthy food because they were felt unable to afford to provide healthy food within their budgets.

We keep asking the families/whānau and they keep bringing unhealthy food. But it's just what they have at home, what they can afford.

The ECE service provided food to children who were bringing junk food.

In the last few months. Most of the kids brought junk food. We put notes on the food and send it back, on cookies and things like that. But some families/whānau said that's all that they could afford. If they don't have any food we share what's here.

The ECE service chose to stop sending notes home to families/whānau because it was causing too many problems. The families/whānau were saying they would have to stop bringing their children to the service. However they continue to engage families/whānau at pick up and drop off to encourage them to pack healthy lunches.

Changing the kids' lunches is the hardest, we have to keep bringing it up, don't stop engaging with families/whānau.

4.4.5. Cultural beliefs

Food is closely connected with culture and cultural celebrations. Some families/whānau and ECE service staff assumed traditional foods, such as Tongan frybread, were healthy because they were traditional food. Different cultures also had different views on what constituted “healthy food”.

Asian families... do not understand the "unhealthy food" concept. They think that because their children like it, it's ok to give it to them. (ECE manager/supervisor)

Several Healthy Heart Award resources are currently available in Samoan and Te Reo Māori as well as English. ECE service provider respondents highlighted the need for more Award resources in languages other than English, in particular more resources to be available in Māori, as well as Tongan and Mandarin.

4.4.6. Children's attitudes

ECE staff opinions about whether children not liking healthy food was a barrier were split (Figure 30). ECE services with a current Award and those applying for an Award were most likely to see children not liking Healthy food as a barrier. They have become more aware of this issue as they attempted to implement changes.

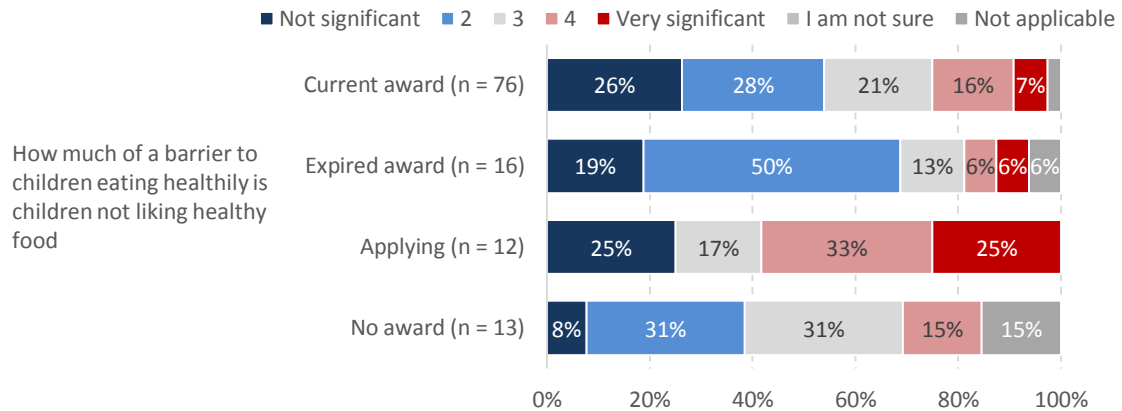


Figure 30: Children not liking healthy food identified as a barrier by ECE service staff (n = 117)

4.4.7. Allergies

Few ECE service respondents identified children’s allergies as a barrier to the children eating healthily at the ECE service. This number varied little between those with a current Award (12%), those with an expired Award (19%), and those currently in the process of applying for an Award (16%) (Figure 31).

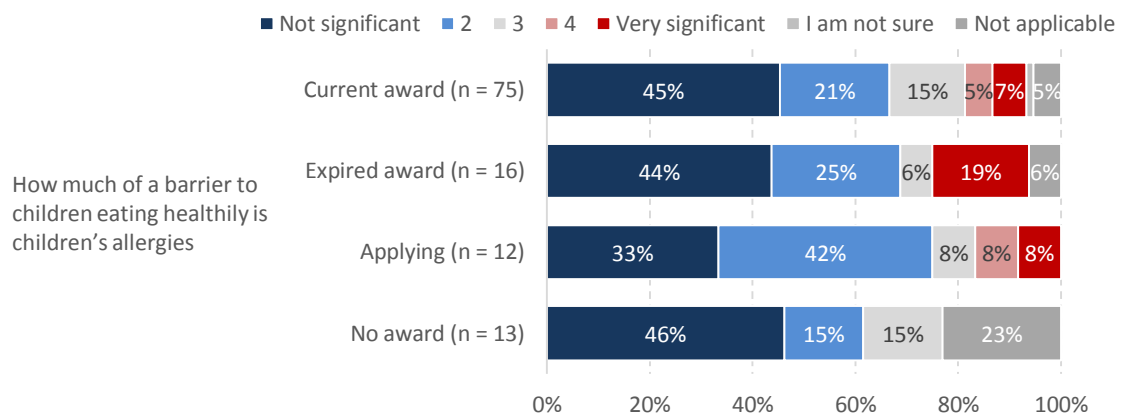


Figure 31: Children's allergies identified as a barrier by ECE service staff (n = 116)

5. Award Achievements - Physical activity

5.1 Promoting physical activity

Overview: Activities promoting physical activity

Physical activity for under-fives was seen as very important by both ECE service respondents and families/whānau. Children take part in a wide range of physical activities while at the ECE service, including running, jumping, walking to a local park, Jump Rope For Heart as well as ripper rugby, yoga, and dance.

Almost all ECE services recognised the importance of promoting physical activity but ECE services participating in the Awards were more likely to have planned physical activity every day.

Physical activity is an essential part of healthy development for young children. Almost all online survey respondents from ECE services recognised the importance of promoting physical activity though ECE service respondents with a current Award were most likely to agree (Figure 32).

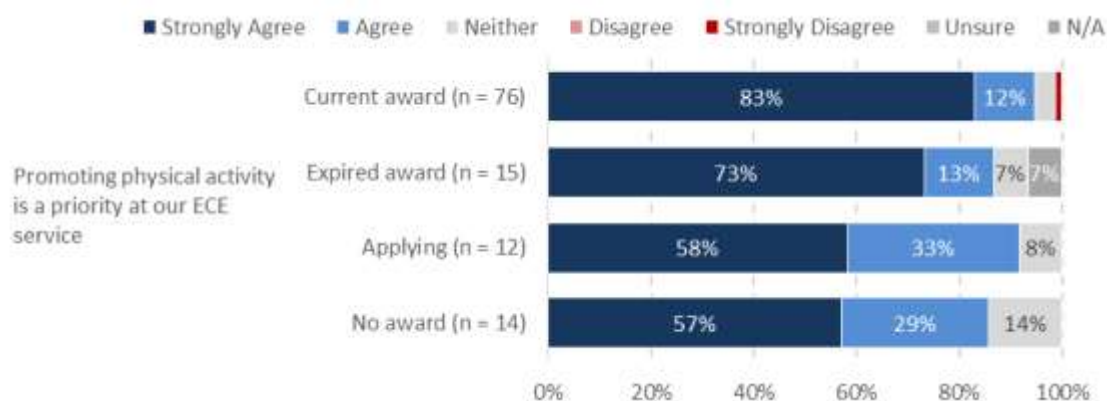


Figure 32: ECE service respondents believe promoting physical activity is a priority at their ECE service (n = 116)

ECE service providers encouraged a variety of physical activity amongst their children while at the ECE service. Physical activity was an integral part of their everyday activities.

We encourage active outdoor play every day. Our playground has multiple levels to challenge children's balance and coordination. We encourage active movement through Yoga sessions, games (like hide n seek), balance bike riding, climbing on the playground equipment etc. (ECE head teacher)

We have access to the outdoor environment for the majority of the day. This enables the children to be involved in physical activities such as swinging. Climbing, crawling, jumping, using monkey bars, running, balancing etc. We use the Moving Smart programme too which is a series of specific activities for the children to enhance their vestibular system, balance, co-ordination etc. (ECE manager/supervisor)

Common examples of the types of physical activities in ECE services included:

- Climbing frames, jungle gyms and monkey bars
- Walks to the local park, climbing trees, rolling down hills

- Games such as hide and seek and duck, duck, goose
- Obstacle courses
- Jump Rope For Heart
- Running, skipping, jumping and other activities.

In the follow-up survey children described some of the activities they did at their ECE service:

Lots of running, going for bush walks and to see the ponies and goats. (Child)

Jumping over poles and ropes, I like to jump down steps and climb up the yellow slide, I run down the yellow slide as well. Climbing down the little brown thing where you put your shoes... (Child)

Jumping, hula hooping, obstacle courses, skipping. (Child)

The 2006 evaluation of the Award, noted the importance of having planned physical activity as opposed to incidental or unplanned activity. The evaluators identified a risk that if activity is not planned, it will not happen.

Case study example: Site 3

Staff at one of the ECE services visited had created a new roster for leading children in a music-based physical activity every day. The rostered staff member would start the music and lead the children in dancing. Different staff members were responsible on different days. Before the roster was implemented, the activity happened often but would sometimes be left out of the day's activities if staff were busy with other tasks.

ECE service providers participating in the Award were more likely than those not participating to report that they planned physical activity sessions focusing on particular skills each day (Figure 33).

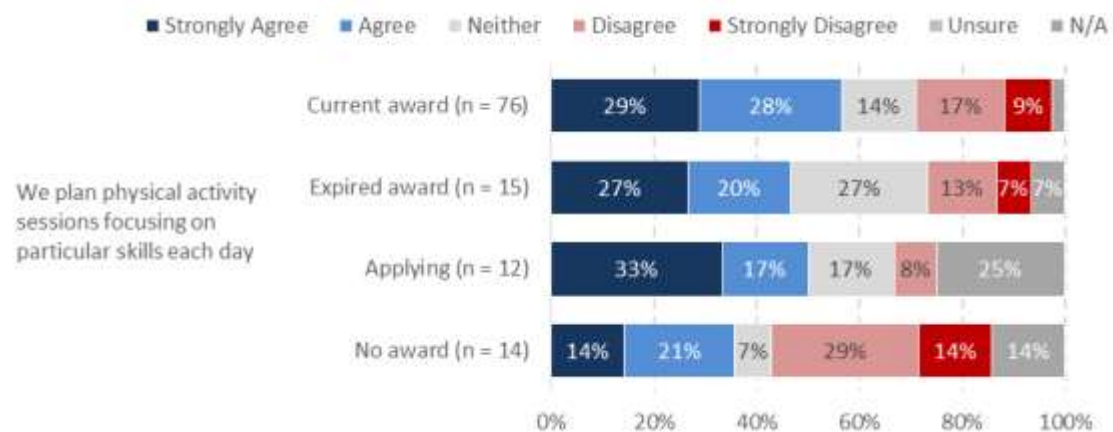


Figure 33: ECE service respondents with planned physical activity every day (n = 117)

Almost all families/whānau respondents from ECE services with and without Awards were very confident (90%) that their children were physically active daily while at the ECE service (Figure 34).



Figure 34: Families/whānau respondents’ confidence that their child is physically active daily at the ECE service (n = 183)

5.2 Communicating with families/whānau about physical activity

Changes related to nutrition in ECE services often required families/whānau to change their behaviour as well. For example, changes to lunch box policies require families/whānau to change the types of food they put in their children’s lunchboxes. Changes to physical activity in the ECE services could be implemented without families/whānau changing their own behaviour.

The Award still encourages and, for the higher levels, requires families/whānau involvement in the ECE service changes. ECE services adopted a range of approaches to engaging families/whānau in physical activity. Like nutrition and information around nutrition, information around physical activity was communicated to families/whānau through the newsletter, display boards, notices, newsletters, and workshops.

Case study example: Site 2

One of the ECE services visited for case studies reported that they had difficulty engaging with families/whānau around physical activity and nutrition. Workshops and other events in the evenings had very low turnouts.

The ECE service adopted another approach with a focus on the more traditional sports and international events involving those sports. They asked families/whānau with expertise in football to run a football day at the service while the World Cup was on and both families/whānau and child interest was high. They have also had success involving dads in rugby days.

Sporting families/whānau, they get involved more. When we really try we can get them involved. Families/whānau love seeing their kids win a race and get involved, they’re there taking photos. We get more families/whānau involved for those games and sports than anything else. More of that would be better. If the Heart Foundation were to provide contacts for people with those sports expertise, they would happen more.

Connecting events with traditional sports popular in their communities was an effective way of increasing families/whānau involvement.

5.3 Changes in physical activity as a result of the Award

Overview: Changes in physical activity

ECE service staff agreed involvement in the Award encouraged staff to engage children in physical activity. Likewise, they agreed children at the ECE service had increased levels of physical activity since becoming involved in the Award. Children were also more physically active outside of the ECE service with many families/whānau respondents stating they took part in more physically active activities with their child and/or enrolled their child in a sports team or gymnastics.

ECE service provider respondents and families/whānau respondents identified changes that had occurred as a result of involvement in the Award.

5.3.1. Changes at the ECE service provider

Most (80%) of ECE service provider respondents agreed or strongly agreed that the Award programme encouraged ECE staff to engage the children in physical activity. None disagreed (Figure 35).

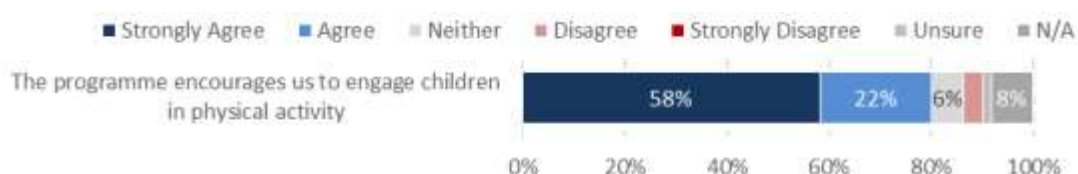


Figure 35: ECE service respondents agree the programme encourages them to engage children in physical activity (n = 76)

Almost all ECE service providers with an Award (90%) agreed or strongly agreed that the Award is effective in helping encourage physical activity in children attending the ECE centre. Nearly two-thirds (60%) of ECE service provider respondents agreed or strongly agreed they had increased levels of physical activity provided for the children since becoming involved in the Award (Figure 36).

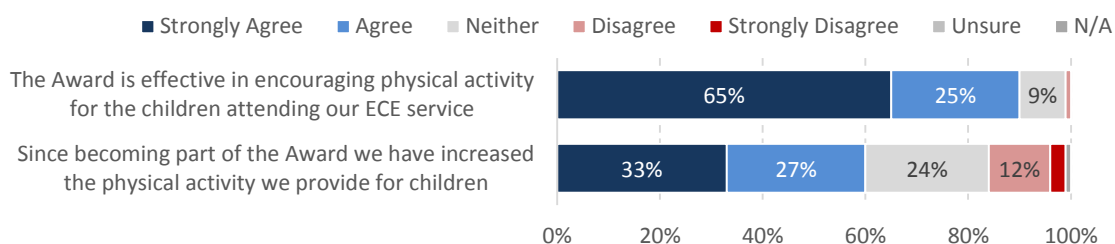


Figure 36: Effectiveness of the Award in encouraging and increasing physical activity from children attending the ECE service (n = 76)

Some providers had not increased physical activity as they considered that they already provided high levels of physical activity before becoming involved with the Award.

They have not made any changes but they were already really active. (Family/whānau)

We do exercise and music in the morning. It has stayed the same. (ECE service)

5.3.2. Changes at home

Families/whānau respondents from ECE services with an Award were more likely than those from other ECE services to report increasing their understanding of the benefits of physical activity (45% compared to 26%) and learning about physical activity from ECE teachers (32% compared to 18%) (Figure 37).

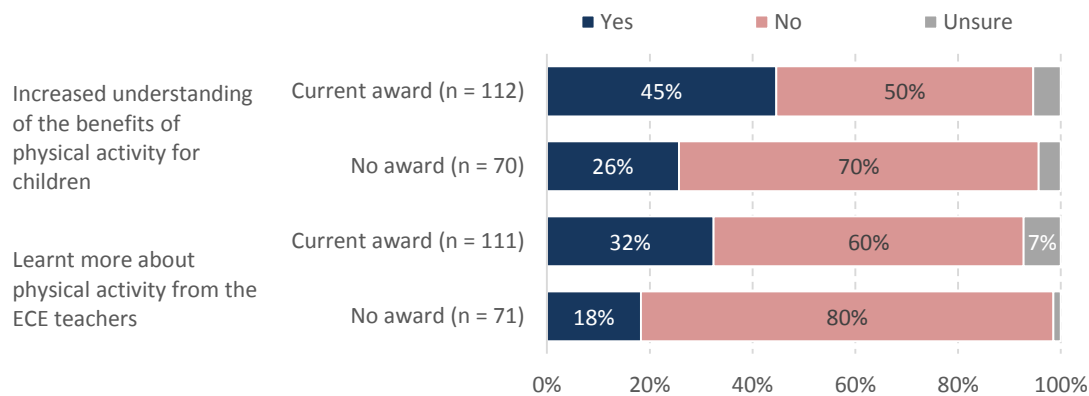


Figure 37: Families/whānau respondents' increased understanding and learning about physical activity (n = 182)

For some families/whānau the changes extended to the home. One-third (30%) of families/whānau respondents with children attending an ECE service provider with an Award said they had changed the physical activity they do with their child, compared to one-fifth (20%) of those attending other ECE services (Figure 38).

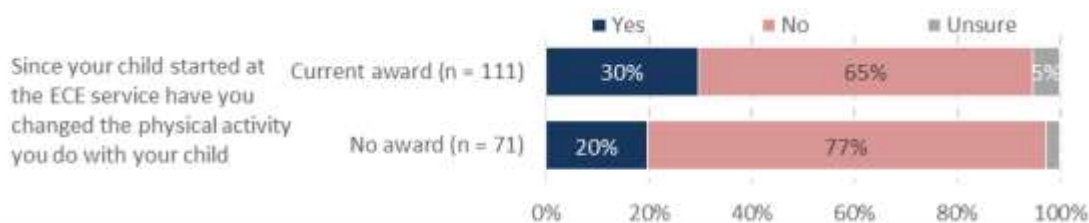


Figure 38: Changes in families/whānau physical activity outside of the ECE service (n = 183)

Changes families/whānau made at home generally involved doing more physical activities with their child, and/or enrolling their child in a sports team or activity such as gymnastics.

We have started as a family to have more outside play, and starting more structured sports. (Family/whānau member)

Some families have enrolled their children in soccer... Some families have enrolled their children in gymnastics... children are encouraged at playground outside of kindergarten. (Family/whānau member)

Some families/whānau had noticed their child had increased stamina and/or fitness.

A few families/whānau have noticed their children can walk further when out with the family due to increase stamina. (ECE administrator)

As well as the children being more physically active, some families/whānau also became more physically active.

One of our families/whānau have started up an exercise group for families/whānau of our centre (ECE volunteer).

Some centre families/whānau engaged in Dragon Boating teams, Netball teams, squash teams and role modelling healthy physical activity for their children. Families entering their pre-schoolers into the local triathlon series. (ECE manager/supervisor)

In the follow-up survey, children were asked if they did any of the physical activities they had learned at their ECE services at home. Some said:

Some, jumping, running, skipping, hopping, dancing. (Child)

Yes we go walking in the weekends. (Child)

Ride the bikes, climb trees. (Child)

Families/whānau who already had a high level of physical activity at home were less likely to report changes.

I am a Physical Education teacher myself so I am very well educated in this area and my kids are certainly very active - they don't keep still! (Family/whānau member)

No as we are already a very physical family so no change was needed, as an overweight child myself I am fully aware of the benefits and will do everything to keep them healthy. (Family/whānau member).

5.4 Barriers to change in physical activity

Overview: Barriers to change

Some respondents (both families/whānau and ECE service respondents) believed children of this age are naturally active and do not need structured physical activity. There was also some conflict between structured activities and Montessori philosophy which focusses on child-led learning.

5.4.1. Staff attitudes

Few staff from ECE services that held a current Award identified barriers to implementing change to physical activities (Figure 39).

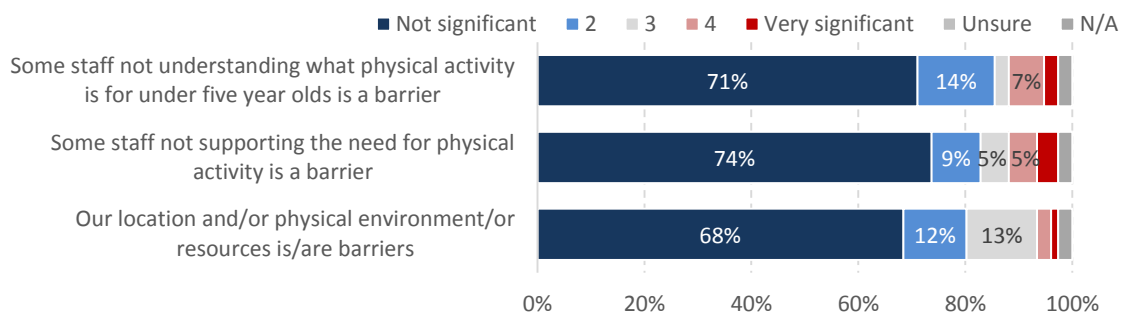


Figure 39: ECE service respondents' rating of barriers to implementing change to physical activities at their ECE service (n = 76)

One issue highlighted by a few was a mismatch between the Award and the Montessori philosophy of child-led learning.

Physical activity is not taught. In the Montessori movement is integral in everything that the children do. We provide a lot of activities to develop movement control rather than activity to increase heart rate. (ECE head teacher)

We are a Montessori School. Our children have a full indoor/outdoor flow which means they can choose to be outside and active whenever they like. (ECE administrator)

5.4.2. Families/whānau attitudes

Only small proportions of ECE service staff felt that families/whānau not supporting physical activity was a barrier to increasing physical activity, though more ECE service staff identified lack of families/whānau support than any other barrier (Figure 40).

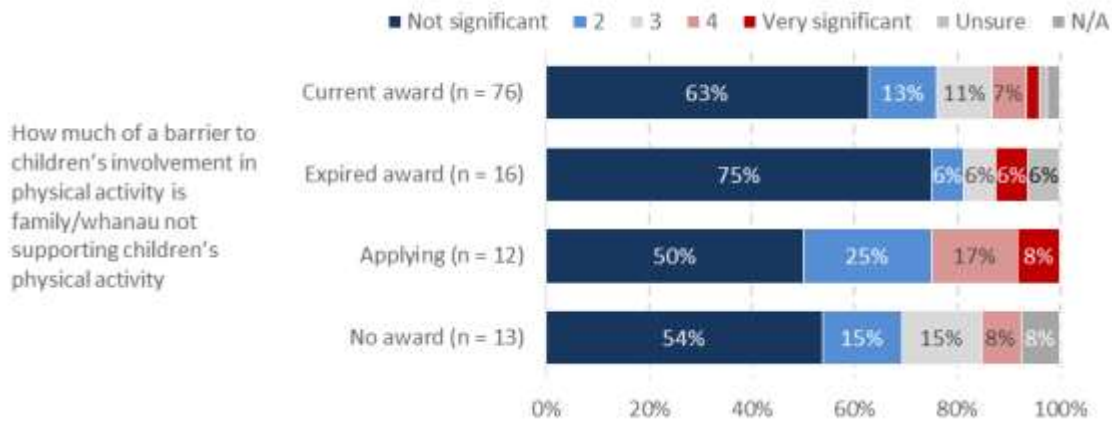


Figure 40: ECE service respondents’ rating lack of families/whānau support as a barrier to physical activity at their ECE service (n = 110)

While families/whānau supported physical activity, some felt that children of this age do not need structured physical activity and that they are very active already.

There are always opportunities available for children to participate in physical activity. This is encouraged but in no way forced. This is how I believe it should be done... Children will explore and become more actively involved in physical activity. (Family/whānau member)

My son is like most three year olds a firecracker and I have no concerns about his physical activity. (Family/whānau member)

Overall, few ECE service respondents felt that difficulty communicating with families/whānau was a barrier to increasing physical activity (Figure 41).

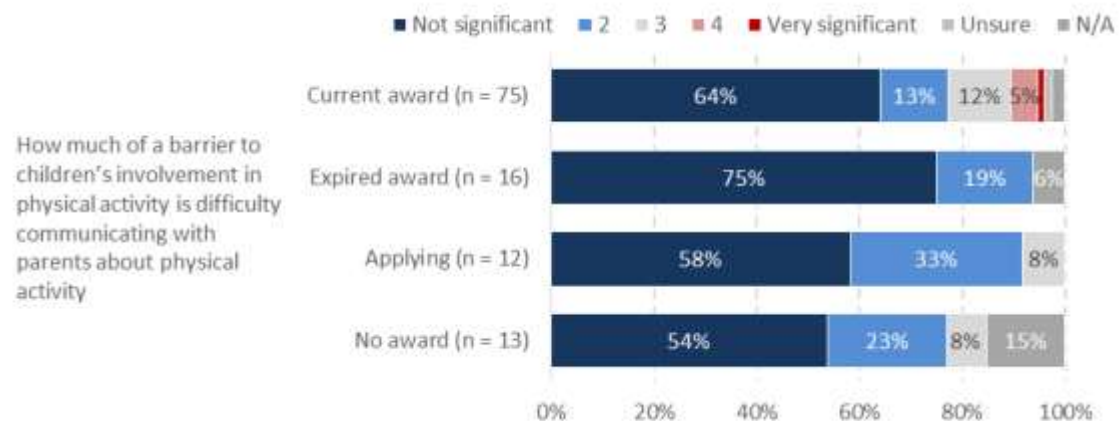


Figure 41: ECE service respondents’ rating difficulty communicating with families/whānau as a barrier to physical activity at their ECE service (n = 110)

While service providers felt that families/whānau supported physical activity, some did highlight an issue with poor parental role-modelling. Some families/whānau who were supportive of the ECE service efforts to increase physical activity did not do the same at home.

Some children find physical activities very difficult because they are not encouraged in the same way at home or their families are in and out of cars everywhere they go and don't get to experience a lot of basic things like walking to a park or running around at a playground. (ECE teacher)

The environment/communities in which people live remain unchanged and reinforce poor nutrition choices and are not conducive to increasing physical activity opportunities. (HPC)

How some families/whānau dressed their child also influenced their child's involvement in physical activity.

Educating whānau about appropriate clothing for young children to move in i.e. dresses/skirts are little dressy shoes. (ECE teacher)

6. Conclusion

6.1 Inputs and activities

Most of the inputs and activities identified in the logic model are in place. The Heart Foundation has developed an effective programme. Almost all respondents (families/whānau, ECE service staff and HPCs) were overwhelmingly positive about the Award and there was a sense of pride associated with achieving an Award.

ECE providers who participated in the Award were very positive about the support they received from the HPCs. They reported that the Award had helped them to engage children in learning and experiences that supported their knowledge of nutrition, and that the Award encouraged ECE services to increase the physical activity they provided for their children.

The evaluation identified the need for some additional resourcing to support:

- Promoting the Award: If more families/whānau are aware of the Award then they may carry more weight for ECE services to demonstrate that they have good practice in nutrition and physical activity.
- Increasing face to face contact with HPCs: Face to face contact was most valued by ECE services. Incorporating contact as often as possible, through the application process and after the Award are gained, could strengthen the programme. Some ECE services felt that including families/whānau in workshops and professional development activities could be very beneficial. Linking with other agencies who are also providing face to face professional development or courses for children in ECE centres could be one approach to increasing contact within existing budgets.
- Additional resources requested by ECE services. Objects and equipment for games and activities were most valued and could help ECE services engage children in learning activities with positive messages.

6.2 Outputs and outcomes

The changes ECE services and families/whānau made through their participation in the Award demonstrated the effectiveness of the Award.

The Award helped ECE services engage families/whānau about nutrition and physical activity. Families/whānau who attended ECE services that held an Award were more likely to say they had learned about physical activity and nutrition from their ECE teachers than families/whānau whose ECE services were not participating in the Award. Participating families/whānau were more likely to:

- Believe their ECE service was doing all they could to promote healthy eating
- Report that their children learned about healthy eating at their ECE service
- Increase understanding of the benefits of physical activity for children.

Families/whānau at participating ECE services were more likely to report that they had changed their own behaviour around nutrition and physical activity than those attending ECE services who did not hold an Award. They were more likely to have:

- Changed the food they give their children at home
- Changed the physical activity they do with their children
- Changed the food they provide their children with for snacks and lunch.

Overall, the Healthy Heart Award programme contributed to ECE services making changes that extended beyond the service and into the home lives of their families/whānau. ECE services staff have developed their

skills in talking to children and their families/whānau about nutrition and physical activity. Families/whānau are more aware of good practice in nutrition and physical activity for their children and are making changes in their own lives.

Although the data from the surveys of ECE service staff and families/whānau cannot be considered representative of all ECE services, responses from the survey provided examples of:

- Children developing healthy eating and physical activity habits that are supported by their families/whānau
- More children being provided with appropriate food.

6.3 Opportunities for development

HPCs, families/whānau and ECE service provider staff suggested ways to improve the Healthy Heart Award programme. The evaluation identified opportunities to continue to develop the Award programme to reach more ECE services and families/whānau. Suggestions are discussed in detail throughout the report and summarised below.

- **Application process:** Streamlining the application process and reducing the paper work burden could encourage more ECE services to participate and continue to reapply for the Award. The online application process introduced in September 2014 should resolve many of these issues but needs to be promoted to all services, including those with an Award, considering applying and with expired Awards.
- **Promoting the importance of nutrition and physical activity:** Increasing ECE service awareness of the importance of good practice in nutrition and physical activity for families/whānau choice of ECE service for their children could increase ECE service engagement in the Award.
- **Broadening appeal:** There are some resources available in Māori and Samoan as well as English. Adding more resources in these languages as well as other Pacific and Asian languages could broaden the appeal of the Awards. Including traditional games in physical activity resources could add appeal for children and families/whānau.
- **Education for families/whānau:** There is still a perception among some staff and families/whānau that healthy food can be prohibitively expensive. Continuing effort to promote low budget, healthy food ideas in resources for families/whānau could support further change for those families who struggle to manage financially.
- **Guidance on driving change with families/whānau:** One of the most challenging aspects for some ECE staff was having difficult conversations with families/whānau about healthy food and physical activity. They were unsure about how to raise problems, particularly when initial approaches were not effective. Continuing to provide guidance on how to have conversations with families/whānau about why they are not making changes should be supported with resources targeting the more common issues (affordability, language barriers, and misconceptions about what is healthy and unhealthy). Developing HPCs' skills in teaching and mentoring ECE staff to have conversations with families/whānau is likely to be an effective way to increase ECE service staff communication skills and confidence.

Appendix One: Logic model

