Primary School Healthy Eating Follow-up Surveys

Findings Report- April 2017

Lower Hume Primary Care Partnership Integrated Health Promotion Collaborative

Lower Hume Primary Care Partnership

Acknowledgments:

This document is the product of work completed by a team from the Lower Hume Primary Care Partnership Integrated Health Promotion Collaborative.

We acknowledge the following team members for their extensive contributions and commitment to this work:
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Executive Summary:

This report outlines the process and key findings from the Primary School Healthy Eating follow-up surveys conducted in the Murrindindi and Mitchell Shires in 2017. These surveys were a follow-up from surveys conducted in 2013-14 and this report makes comparisons between the baseline and follow-up data. The survey methodology was chosen as an action from one of the strategies in the Lower Hume Primary Care Partnership Integrated Health Promotion Plan 2012-2017 (LHPCP 2013).

The Healthy Eating Surveys were conducted to address the Healthy Eating Integrated Health Promotion Priority of the Hume Region, in line with the Lower Hume Healthy Eating objective and strategies targeting 0-12 year old children. Four Primary Schools were surveyed in 2017 and six in 2013-14 (baseline data). The Primary schools surveyed in 2017 were: Alexandra, Eildon, Buxton, and Upper Plenty. The two schools not included in the follow up surveys were Taggerty and Highlands as they were no longer open when the surveys were completed.

A total of 257 DILQ (Day in the Life Questionnaire) surveys and 55 NFS (Nutrition and Food Security) parent surveys were completed. In comparison, in 2013-14 this was 284 and 94 respectively, only 10% less of the DILQ surveys, but a more significant drop of over 40% less NFS surveys.

A marked difference in the baseline to follow up survey results of children's reported consumption of both fruit and vegetables on the previous day was evident, as they had increased, both over the day and the amount they consumed at school. In 2017 83% consumed fruit during the day, compared to 66% reporting consumption in 2013-14. 62% consumed vegetables during the day, compared to 46% previously. Fruit consumed at school on the previous day increased from 51% to 76% and vegetable consumption at school increased from 19% to 25%. This may be influenced by the fruit (and/or veg) breaks at schools. In contrast, parent surveys reported a small drop in average daily serves of fruit and vegetables consumed by their children.

Similarly to the baseline report, the follow up data analysis of both children and parent survey results suggested that while children's fruit consumption was adequate, overall

vegetable consumption remains below recommended levels, with the inclusion of vegetables in school lunch boxes minimal. Using the healthy lunch box guidelines (Healthy Eating Advisory Service 2013), food variety in school lunch boxes slightly increased but continued to be low.

Regarding parents' perceptions of their knowledge of, and how much they care about, eating nutritious foods and their suggestions, there was little change to the findings over the 3-4 years (a small increase in both). The findings suggest that parents are interested and willing for their families to eat well, but identify the same 3 reasons that make it difficult to eat a variety of nutritious foods: food costs; not having enough time to cook/prepare meals and their children being fussy eaters as the leading factor.

Cars were parents' most commonly reported mode of transport to access fruit and vegetables, with 75% using cars in 2017 (from 95% in 2013-14). Nearly half of parents (40.7%) reported travelling between 1 and 4 kilometres to access fresh fruit and vegetables, a slight increase from 32.1%. The next highest distance travelled was 50-100 kilometres, with 21% of parents reporting travelling this distance. Of the parents responding, none had reported that getting to a location to purchase fruit and vegetables was difficult; however in 2013-14 this was 11% of parents. Two out of 55 parents (4%) reported that they had run out of money to buy food in the previous 12 months. In comparison to 2013-14 this represents a slight increase in the proportion of parents, from 2 out of 94 (2%).

With the above information in mind, future planning should continue with a focus on children's vegetable consumption, especially in school settings. Parent based nutrition education strategies regarding quick and easy, affordable recipes and how to manage fussy eaters are also recommendations. Fussy eating is a common childhood problem that can start at pre-school age. Based on this and current findings, it may be useful to target parents of children in the early school years with regards to support and education on behaviour management strategies. Initiatives that encourage family involvement in vegetable gardening at home, school or community are also recommended. The suggestions from the parent's surveys may also offer some creative ideas to implement change (see Appendix A).

The results also highlight the importance of addressing the social determinants of health and their potential impact on healthy eating, with the need to address these for improved

outcomes (e.g. food and other costs, transport, and education). The report provides important data on shopping and healthy eating habits of the Murrindindi and Mitchell shire school families and we will endeavour to disseminate the data to add to the evidence base both at a local level and to the wider sector.

Introduction:

Background:

As stated in the 2012-2017 Integrated Health Promotion Plan (IHPP), Lower Hume Primary Care Partnership (LHPCP) and their member agencies are committed to working together on one Hume region priority; 'healthy eating' (Lower Hume Primary Care Partnership 2013).

The first Lower Hume Objective from the IHP is:
By 2017, 75% of primary schools and early childhood settings (inclusive of childcare and kindergartens) will be involved/engaged with one or more Victorian Healthy Eating Enterprise (VHEE) initiative.

The regional priority target population is children aged up to twelve years of age, including a wider focus on the families of those children (Lower Hume Primary Care Partnership 2013).

One of the strategies from the IHPP was to collect data on current health eating practices and activities in the Lower Hume area (Mitchell and Murrindindi Shires). School children and their families were selected as target respondents to participate in the baseline surveys, in 2013 and 2014. The primary schools which voluntarily participated in the baseline surveys were, Alexandra, Buxton, Eildon, Highlands, Taggerty, and Upper Plenty.

Purpose:

A key strategy of the first regional priority objective is to 'collect baseline data from schools on current health eating practices and activities' (LHPCP 2013). This was completed with student and parent surveys conducted in 2013-14 and follow up surveys were planned to compare and contrast any changes over time.

This report aims to summarise the methodology and findings of the follow-up surveys conducted in the primary school settings by the children, and the surveys completed by

their parents. These survey results will be compared to the baseline data from 2013-2014 and will provide Lower Hume PCP and their partner agencies with key information about the nutrition and dietary behaviours of primary school aged children in the area. The findings of the parent surveys will provide Lower Hume PCP with information about the barriers to food security and the social determinants of health associated with healthy eating patterns. These findings will add to the evidence base for future health promotion initiatives in the local municipalities.

Methods:

Survey Tools and Data Collected:

The Nutrition and Food Security (NFS) Survey was developed for parents to collect the baseline data. An ethics application was submitted to the Department of Education and Early Childhood Development (DEECD) at the end of 2012. The key objectives as outlined in the ethics application were: to evaluate the implementation of the Achievement Program, assess serves of different food groups consumed by the targeted primary school aged population and learn more about local food security.

Originally only the NFS for parents was submitted for ethics approval. This proposal was approved with recommendation to introduce a second survey for students to complete, to allow for confirmation and comparison to the parent survey. With this purpose in mind, the Day in the Life Questionnaire was selected as an evidence-based tool for students to demonstrate dietary patterns over a set 24 hour period. The joint submission for ethics approval to DEECD for both surveys to be conducted within Murrindindi and Mitchell Shires was approved in February 2013.

The parent NFS survey was modified from a Children's Nutritional Questionnaire developed by Harvard School of Public Health in 1993 and adapted by the LHIHP Collaborative. It was reviewed by a local Accredited Practising Dietician who was actively involved in the LH IHP Collaborative who ensured the serving sizes were up-to-date with current Australian dietary guidelines.

The parent NFS survey is a 4 page survey, comprising of 2 parts. Part 1 of the survey asks parents to estimate the number of serves of fruit, vegetable, snack foods (or discretionary

foods), drinks and cereal foods that their child consumes on a daily basis. To assist with data validity, they are also asked to estimate the number of serves of these food groups over the last 7 days. Additional questions used a Likert scale, asking parental knowledge, perceived importance of nutrition and the perceived healthiness of their child's diet. To provide more information in relation to the determinants of healthy eating practices, Part 2 includes a range of multiple choice and open ended questions related to food shopping practices, food security, and suggestions for improving childhood nutrition at home, school and in the community.

The Day in the Life Questionnaire (DILQ) is designed for Grade 3-6 students to demonstrate their food intake over the previous 24 hours via writing and drawing. In addition to foods consumed at meal and snack times, students are also asked about their consumption on the way to and from school as well as their activity levels throughout the day. This data provides information regarding the frequency and location of the student's consumption of key foods such as fruit, vegetables, juice and discretionary foods, as well as how well their school lunches compare to general healthy lunch box guidelines.

Recruitment Method:

In June 2013 the baseline surveys were distributed in Murrindindi to 2 schools, the remaining schools data was collected over 12 months and the last school collected in October 2014. This should be taken into consideration when assessing data as seasonal variance may affect results.

The Primary schools surveyed in 2013/14 were: Alexandra, Eildon, Taggerty, Buxton, Highlands, all within Murrindindi, and Upper Plenty from Mitchell Shire.

Initially, surveys were used by some agencies as a means of making contact with schools. In the case of 3 schools, copies of the surveys were sent to the school with the suggestion of meeting with the Achievement Program (AP) coordinator and discussing the program and baseline data collection. Of these 3 schools, one school responded and participated in the survey process. In the case of other schools, school principals were introduced to the surveys during their initial introductory meeting with their AP coordinator and the AP. Over

the 2013/14 period 6 out of 26 schools participated in the survey process, 5 located in Murrindindi and 1 in Mitchell Shire.

As per the baseline data collection, in 2017 all schools elected to complete their student surveys in one day, led by AP staff coordinators (and in one case a student on placement) with assistance from teachers. Generally with upper year levels, one or two staff members per class were adequate to assist students with the completion of the survey. When working with lower year levels however, significantly greater time was required to assist students with interpreting questions, recalling recent food intake and interpreting student's pictures and writing.

Again, prior to survey completion, consent forms were signed by both school principals and parents to indicate their understanding of the research process and consent for the school to take part. Student surveys were completed during class time, with parents given the choice of excluding their child from the survey process (no parents took up this option). Schools were advised that the tool was designed for students in years 3, 4, 5 and 6, however in most cases school principals decided to ask all student levels to complete the survey.

In both baseline and follow up processes student surveys were completed by all students present at school on the day of the survey, providing a high response rate. The process of completing the Parent NFS Survey was tailored for each school and commenced with information included in the school newsletter to advise parents about the survey and its purpose. Surveys were then sent home with students (including consent form, NFS survey and envelope), and parents were asked to return completed consent forms and surveys to school. The different survey designs made it difficult to compare results and incomplete parent surveys made it difficult to match child and parents surveys, as was the initial intention.

Data Analysis:

In both cases data on the students self-reported food intake for the previous 24 hour period was collated on an excel spreadsheet for analysis. Clarification of students' pictures and hand writing was attempted during the survey process by AP coordinators and teachers asking students what they meant, however interpretation of responses remained

challenging at times. Data provided information including frequency of intake of fruit, vegetables, water, soft drinks and discretionary foods during that period as classified by the 2013 Australian Dietary Guidelines. The tool provided qualitative information regarding the types of foods children consumed, where they consumed them and when. The quantity of food consumed could not be estimated using the DILQ. When collating the DILQ responses the following foods were classified as discretionary; chocolate, crisps, muesli bar, cake, muffins, fruit straps, fruit sticks, pizza, nuggets, hot chips, hash browns, hot dogs.

Data collation was a very time consuming process with 284 DILQ survey results collated in 2013-14 and 257 in 2017. The parent NFS survey quantitative data was collated and analysed by a previous staff member using SPSS (Statistics Package for Social Sciences) software package in 2013-14. This staff member was the author of the initial ethics research application in a paid capacity and is no longer working for LHPCP agencies, but kindly gave her time on a volunteer basis. All of the 2017 DILQ and NFS parent survey data was collated and analysed by a Deakin University student working with the LHPCP as part of mandatory work placement.

Data collected from the NFS survey included the estimated number of serves of fruit, vegetables and soft drink consumed by children on both a daily and weekly basis. Data analysis provided a parent estimate of their child's average daily intake of fruit, vegetable and soft drink serves as well as average servings a week. Qualitative data collected regarding parental views on strategies for addressing healthy eating and food security in school, community and home settings was collected to inform future strategies and activities. This was collated using Thematic Analysis by the previous IHP Coordinator in 2013-14 and by a student on work placement in 2017.

Upon completion of this report all schools will be sent an appreciation letter, the final report and any data analysis/ summaries that are relevant to their school.

Results:

Response rates:

In the 2013-14 surveys, there were 6 out of 26 Primary schools volunteered to participate. For the follow up surveys in 2017, only 4 were able to participate as the primary schools in Taggerty and Highlands were no longer operating. In 2017, 257 students of mixed gender completed the Day in the Life Questionnaire follow-up surveys out of a possible 282 indicating a response rate of 91%. Only 55 parent surveys were returned. The voluntary nature of the parent surveys may have played a role in the low response rate.
In 2013-2014, 284 DILQ surveys were completed, and 94 parent NFS surveys were completed.

Table 1: The number of surveys completed by students and parents according to primary school in 2017 compared to baseline (2013/14)

Primary School	**Student DILQ survey completed (baseline 2013/14)**	**Parent NFS Survey completed (baseline 2013/14)**
Alexandra	159 (173)	38 (44)
Buxton	11 (30)	2 (15)
Eildon	33 (31)	0 (0)
Upper Plenty	54 (34)	15 (19)
Taggerty	0 (7)	0 (1)
Highlands	0 (9)	0 (15)
Total	257 (284)	55 (94)

Thematic Analysis of open ended questions:

The final page of the NFS parent surveys included open-ended questions. The responses that parents provided were thematically analysed by a LHPCP staff member in 2013-14 and by a Deakin University student on placement in 2017, to determine common concepts and themes, which were then coded. This analysis process consisted of coding similar responses into particular themes, and then counting the number of comments for each theme.

The open ended question that was thematically analysed was “What changes do you think would help our children eat more nutritiously?”

1) At home

2) At School

3) At the shops

4) In the community

All of the identified themes in each category, including the number of responses for each category are in Appendix A. The following are the top 3-4 responses for each category, those with a total of 5 or more responses:

Table 2: Thematic Analysis of parents suggested changes to help children eat nutritiously

Themes	**Total number of responses**
AT HOME	
Limit Unhealthy foods in the house/only for special occasions	9
More time for food preparation and recipes for cooking interesting and tasty food/cook from scratch	9
Other	8
AT SCHOOL	
Healthy eating education and promotion	16
Restriction and policies on what foods and drinks children can bring/buy at school canteen	10
Other	5
AT SHOPS	
Less junk food/ don’t position unhealthy options where attractive to children	12
Promotion of healthy options	8
Wide variety of healthy foods available	5
Taste tests/samples/free fruit for kids	5
IN COMMUNITY	
Other	7
Education programs/nutrition/workshops/cooking/recipes	6
Community gardens	5

In 2013-14, data indicated that the top three themes for changes ‘At Home’ were Limit Unhealthy foods in the house/only for special occasions, more time for food preparation and recipes for cooking interesting tasty food/cook from scratch, and grow own fruit and

vegetables at home. The top three themes for ‘At School’ were Restriction and policies on what foods and drinks children can bring/buy at school, Grow fruit and vegetables at school and other changes. The top three themes for changes ‘At the Shops’ were promotion of healthy food options, other, and having less junk food/ not positioning unhealthy food where it is attractive to children. The top three changes for ‘In the Community’ were Promotion / advertising through newspaper, newsletter, radio, packaging etc., education programs/workshops cooking/recipes/nutrition and other. All of these themes were seen again in the 2017 data, three to four years later, indicating that parents are still wishing to see these changes happen. It should be noted that many respondents skipped certain sections and solely focused on changes in one. This happened most often with ‘at the shops’; parents made recommendations for this section only, but not for the other three areas.

Children’s Day in the Life Questionnaire (DILQ):

The following tables and graphs provide a summary of occasions of food and drink consumption, and activities reported by primary school children on the day prior to the completion of the survey. The data focuses mainly on the children’s fruit and vegetable consumption, and the patterns of their consumption throughout the day.

As displayed in Figure 1 below, in 2017, 38% of children did not report the consumption of vegetables throughout the course of the day. In 2013-14, 54% of children did not report consuming vegetables during the day. In addition to this, 17% of children did not report the consumption of fruit throughout the day, while 34% did not consume fruit when the baseline surveys were completed. In 2017, 76% of children indicated that they consumed fruit whilst at school, and 25% of children consumed vegetables whilst at school. In the baseline data vegetable consumption at school was minimal, with only 19% of children reporting that they consumed vegetables whilst at school. Fewer children (51%) consumed fruit at school in 2013-14 than in 2017 (76%).

Figure 1: **Occasions of consumption of fruit and vegetables reported by primary school students on day prior to survey completion**

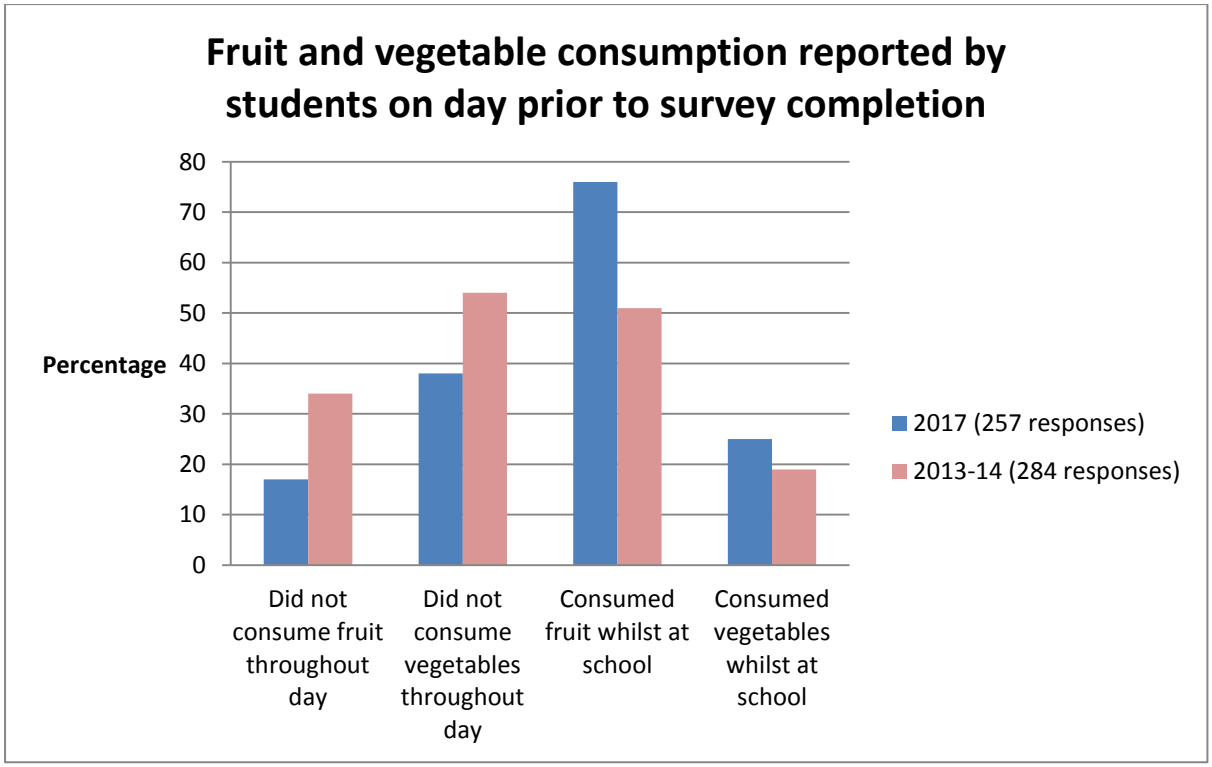
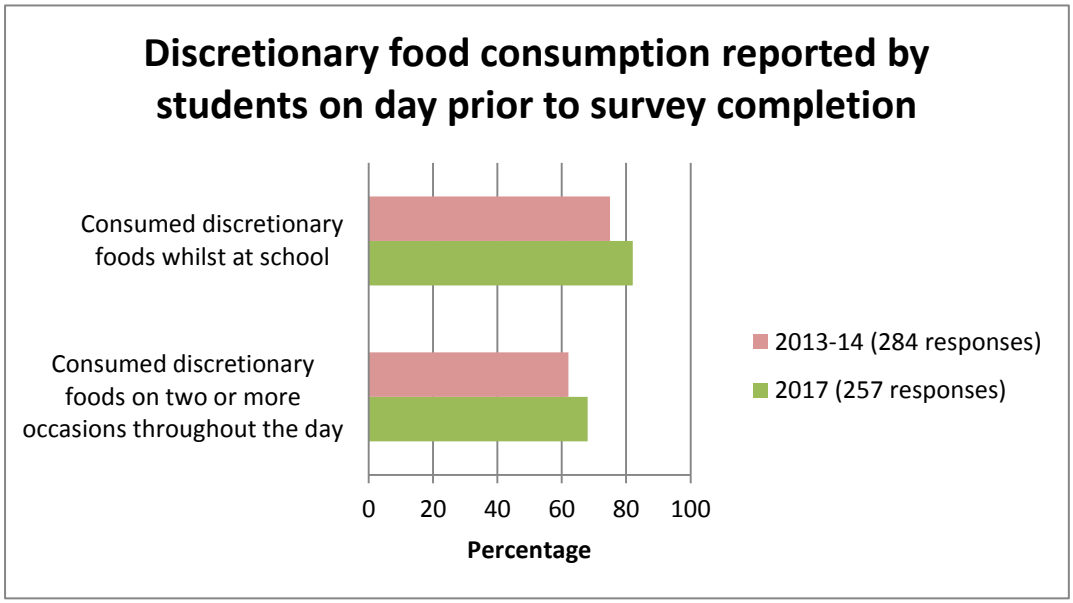


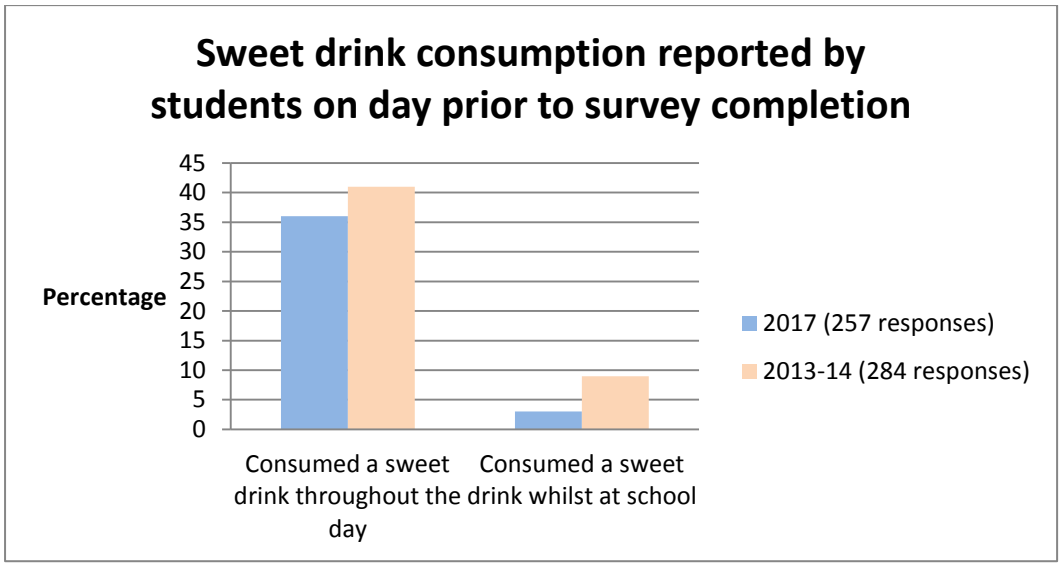
Figure: 2 indicate that 68% of students reported the consumption of discretionary foods on 2 or more occasions throughout the day, with 82% of students consuming a discretionary food item whilst at school. In 2013-14 these numbers were slightly less, with 62% of students reporting that they consumed discretionary foods on 2 or more occasions throughout the day, and 75% consuming discretionary foods whilst at school. In 2017, the average student consumed discretionary foods on 2.1 occasions throughout the day, with 1 student consuming discretionary foods on 6 occasions. In 2013-14 this was 1.9 occasions, again with one student consuming discretionary foods on 6 occasions.

Figure 2: Occasions of consumption of discretionary foods reported by primary school students on day prior to survey completion



Students were also surveyed about their sweet drink consumption (Figure 3) with soft drinks and cordials falling into this category. It was found that 36% of students consumed a sweet drink throughout the day. In 2013-14, this was 41% of students surveyed. Of those who did drink a sweet drink throughout the day, 3% consumed a sweet drink whilst at school. The baseline data from 2013-14 indicates that 9% of students consumed a sweet drink whilst at school. The average student consumed sweet drinks on 0.5 occasions throughout the day in 2017, with this being 0.6 occasions in 2013-14. In 2017 no students consumed sweet drinks on 5 occasions, down from 2 in 2013-14.

Figure 3: Occasions of sweet drink consumption reported by primary school students on day prior to survey completion



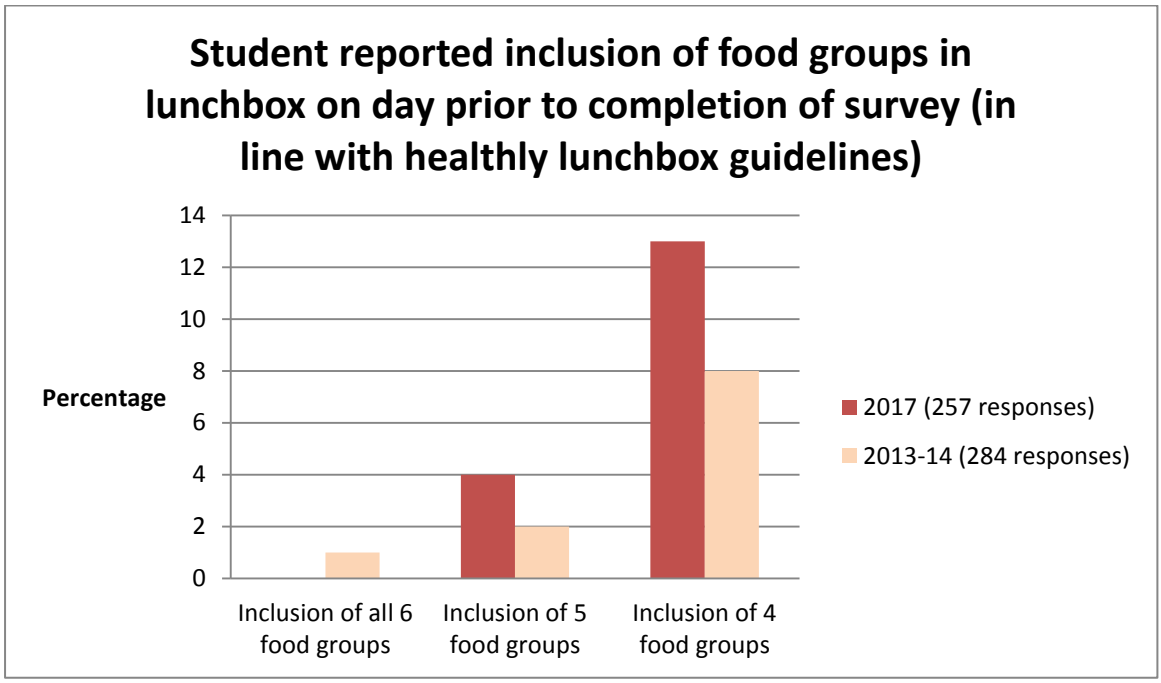
Healthy Eating Advisory Service's (2013) current healthy lunch box guidelines for students recommend the inclusion of at least one food from 6 food groups. These groups are cereals and grains, protein foods, dairy foods, fruit, vegetables and water. The guidelines recommend the inclusion of at least one food from 6 groups in a child's lunchbox (Healthy Eating Advisory Service 2013).

The 2017 data shows that cereal products were most likely to be present in student lunch boxes with 81% of students reporting this. Data from 2013-14 indicate very similar results with 80% of students having cereal products in their lunch boxes.

The 2017 data regarding healthy lunchbox guidelines (Figure 4) indicates that no students reported the inclusion of all 6 food groups in their lunchbox. Only 4% of students reported the inclusion of 5 of the food groups in their lunchbox and 13% of students reported the inclusion of 4 of the food groups in their lunchbox

In 2013-14, only 1% of students reported the inclusion of all 6 food groups in their lunch box, while 2% students reported the inclusion of 5 of the food groups in their lunchbox and 8% of students reported the inclusion of 4.

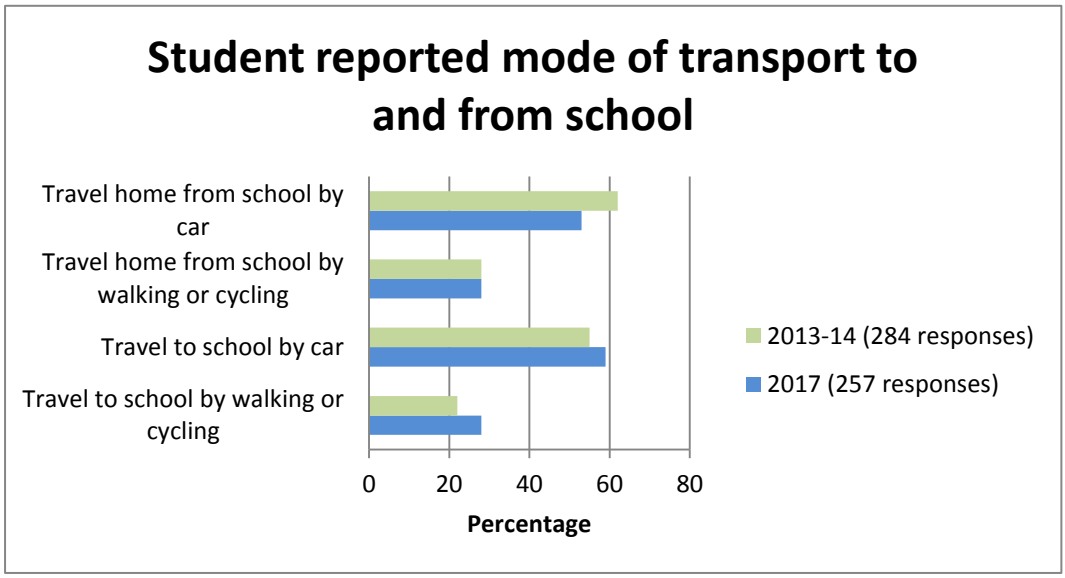
Figure 4: Student lunch boxes containing 4 or more recommended 6 food groups



The results in Figure 5 indicate that 28% of students reported they travelled to school by walking or cycling, and 59% travelled to school by car in 2017. This is compared to 22% of students walking or cycling to school, and 55% arriving by car in 2013-14 The completion of repeat DILQ in peak summer, compared to autumn/spring completion for the majority of baseline surveys, may influence the finding that slightly more children were walking to school in 2017, compared to baseline reports.

In respect to mode of travel when returning home from school, 28% of students walked or cycled, and 53% arrived home from school by car in 2017. Similarly, in 2013-14, 28% of students also walked or cycled home from school, and 62% arrived home from school via car.

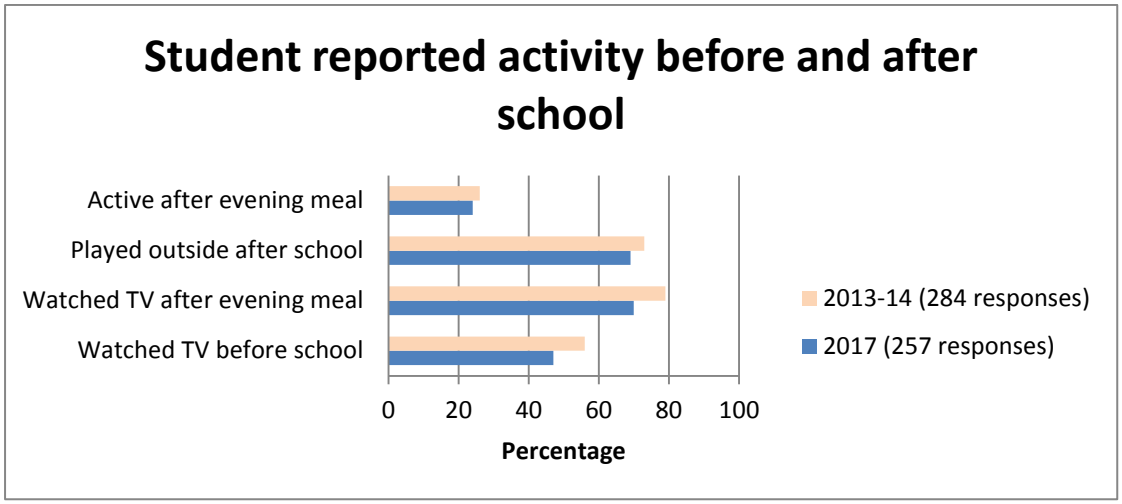
Figure 5: Student reported mode of transport to and from school



The data below indicates that 47% of students reported that they watched TV before school and 70% after their evening meal in 2017, compared to 56% and 79% respectively in 2013-14. This suggests a slight drop in TV watching, however as the use of technology (eg. Tablet devices) was not specifically included, it is not known if there was a change in screen time overall.

In addition, 69% of students reported playing outside after school in 2017, a small reduction compared to 73% in 2013-14. The data in Figure 6 also indicate that students were less active in the evenings in 2017 (24% were active) than in 2013-14 (26%). Different seasonal weather at the time of surveying may also have some influence of findings.

Figure 6: Type of activity reported by primary school students on day prior to survey completion



Nutrition and Food Security- Parent Survey:

Food and Drink Consumption:

Parents reported that their children's fruit and vegetable consumption on average was 2.5 serves of fruit and 2.2 serves of vegetables per day. As seen in Table 4 below there were outliers in this data range, with some parents reporting their children consumed up to 6 serves of fruit and 5 serves of vegetables per day, and some reporting zero serves per day.

In 2013-14, child fruit and vegetable consumption as reported by the parent's averaged 2.77 serves of fruit and 2.94 serves of vegetables per day, as displayed in Table 4 below. There was a larger range of reported intake in the 2013-2014 data, with up to 9 serves of fruit and 14 serves of vegetables serves reported. As the tables below indicated, standard deviation for 2017 fruit and vegetable intakes was lower than that for the 2013-14 data. Low standard deviation shows that the data are clustered closely around the mean, have low variation and are therefore more reliable (Rumsey n.d)

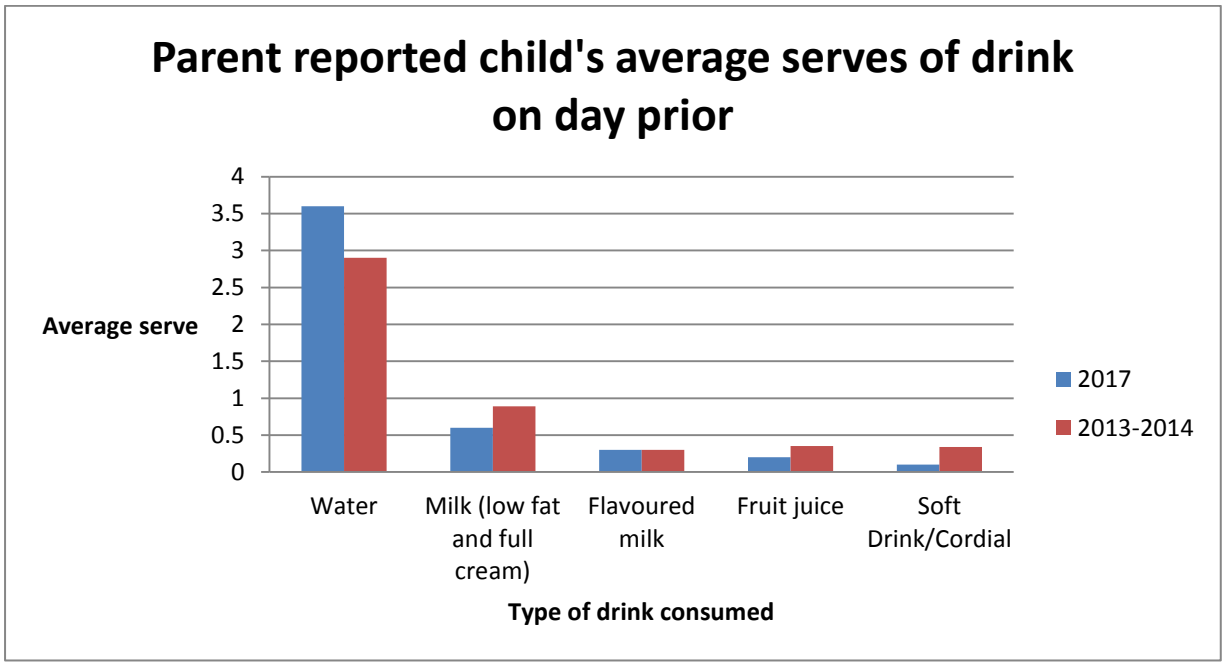
Table 3: Parent survey summary of their child's food consumption on the day prior to survey completion 2017

Servings consumed yesterday by their child (n=55)	Minimum - Maximum	Mean	Standard Deviation
Fruit	0-6	2.5	1.2
Vegetables	0-5	2.2	1.4

Table 4: Parent survey summary of their child's food consumption on the day prior to survey completion 2013-2014			
Servings consumed yesterday by their child (N=94)	**Minimum - Maximum**	**Mean**	**Std. Deviation**
Fruit	0-9	2.77	1.688
Vegetables	0-14	2.9309	2.013

As displayed in Figure 7 below, parents reported that their children on average consumed water the most out of any of the other drinks on the day prior to survey completion. Parents reported that on average their children were consuming 3.6 serves of water per day, with milk being the next highest drink consumed with 0.6 serves per day, and soft drink/cordial being the least consumed drink with only 0.1 serves consumed on average. In 2013-14, parents reported that their children on average consumed less water than in 2017, with 2.9 serves of water daily. They also reported higher milk consumption and higher soft drink/cordial in 2013-14 consumption with 0.89 serves and 0.34 serves respectively. It should also be noted that a small portion of parents simply wrote 'lots' or 'heaps' instead of writing down the amount of serves of water their children had consumed and so the researchers did not include those responses at all. Potentially skewing results under what the reality of water consumption may have been.

Figure 7: Parent reported child drink consumption on day prior to survey completion



Sourcing Healthy Food:

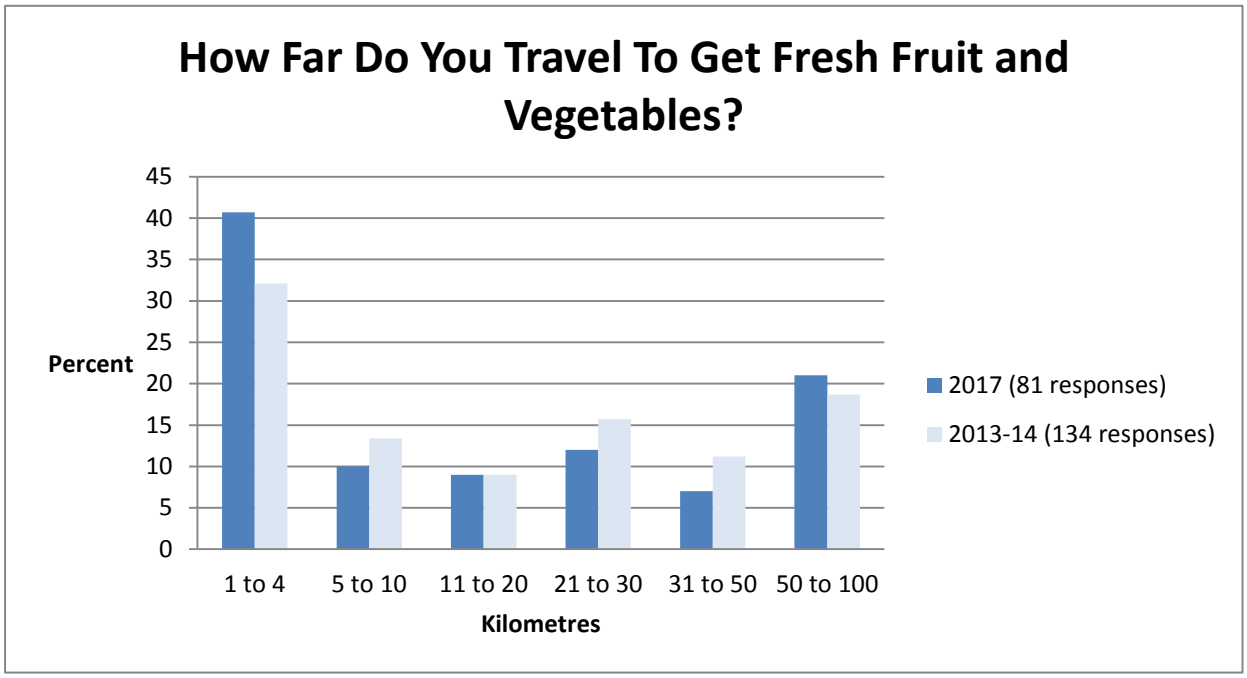
In regards to food security the NFS survey asked parents if they had run out of food in the past twelve months and what they would do if they did run out of food. Two out of 55 parents (4%) reported that they had run out of food in the last twelve months, while in 2013-14 this was again 2 parents but out of larger number of 96 respondents (2%). The data displayed in Table 4 shows that the majority of parents (36%) indicated they would borrow money from a family member or friend if they run out of food. The 2013-14 data shows very similar results with majority of parents (38%) again claiming they would borrow money from friends and family if they run out of food. Similarly, 28% of parents indicated they would use credit to pay for food if they ran out; this was 29% in 2013-14.

Table 5: Parent survey responses to food security related questions

Question	**Number of parents responding yes (total respondents to question) 2013-2014**	**(% of respondents) 2013-2014**	**Number of parents responding yes (total respondents to question) 2017**	**(% of respondents) 2017**
In the past 12 months, have you ever run out of food and not been able to afford more?	2(96)	2%	2(55)	4%
If you run out of food would you?			(71 responses)	
Go to friend/family house for meals	30	36%	18	25%
Borrow money from friend or family member	31	38%	24	34%
Go to food bank	5	6%	4	6%
Use credit	24	29%	20	28%
Take out a loan	0	0%	1	1%
Not eat	4	5%	4	6%

Note: The total will be larger than the sample size as respondents were able to select multiple options

Figure. 8: Distance parents travel to get fruit and vegetables

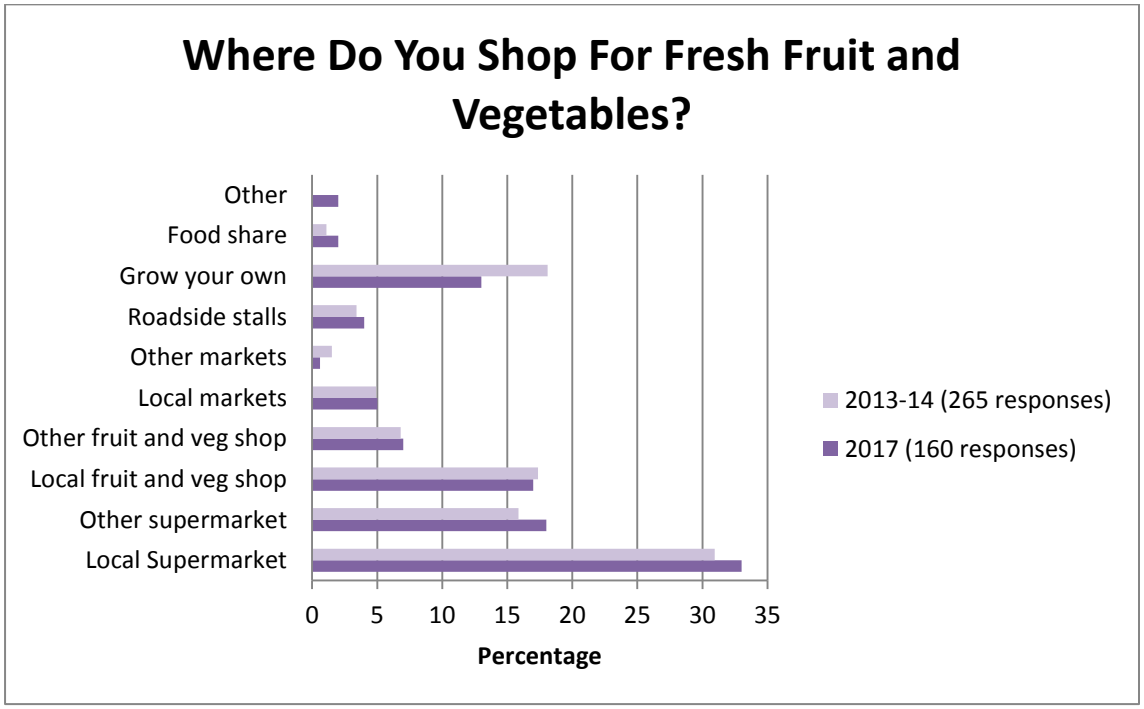


Note: The total will be larger than the sample size as respondents were able to select multiple options

As Figure 8 suggests the majority of parents (40.7%) reported travelling between 1 and 4 kilometres to access fresh fruit and vegetables while the next most common response was to travel 50 to 100 kilometres (21%). In 2013-14, the majority of parents again responded that they travel 1 to 4 kilometres (32.1%), with the next highest response again being 50 to 100 kilometres (18.7%).

Parents were also asked about their mode of transport to get fresh fruit and vegetables. The 2017 data indicates that 75% of parents drive their own car to access fresh fruit and vegetables, while 1.4% get a lift with a friend or family member and 24% walk. In 2013-14, 95% of respondents said they used a car to shop while 22% said they sometimes walk. There were no responses for using public transport or catching a taxi.

Figure 9: Outlets where respondents shop for fruit and vegetables



Note: The total will be larger than the sample size as respondents were able to select multiple options.

In addition to being asked of their mode of transport and how far they travelled to access fresh fruit and vegetables, parents were asked where they purchase their fruit and vegetables from. As per Figure 9, in 2017 the majority of parents (33%) reported that they buy their fruit and vegetables from the local supermarket, and 18% from other supermarkets. This is similar to the 2013-14 survey results which showed that 31% of parents would buy their fruit and vegetables from the local supermarket, and 16% from other supermarkets. Only 3% of parents in the 2013-14 surveys reported accessing fruit and vegetables from roadside stalls which is similar to the 4% in 2017. A slightly greater percentage of parents reported growing their own fresh fruit and vegetables in 2013-14 (18%), than those in 2017 (13%).

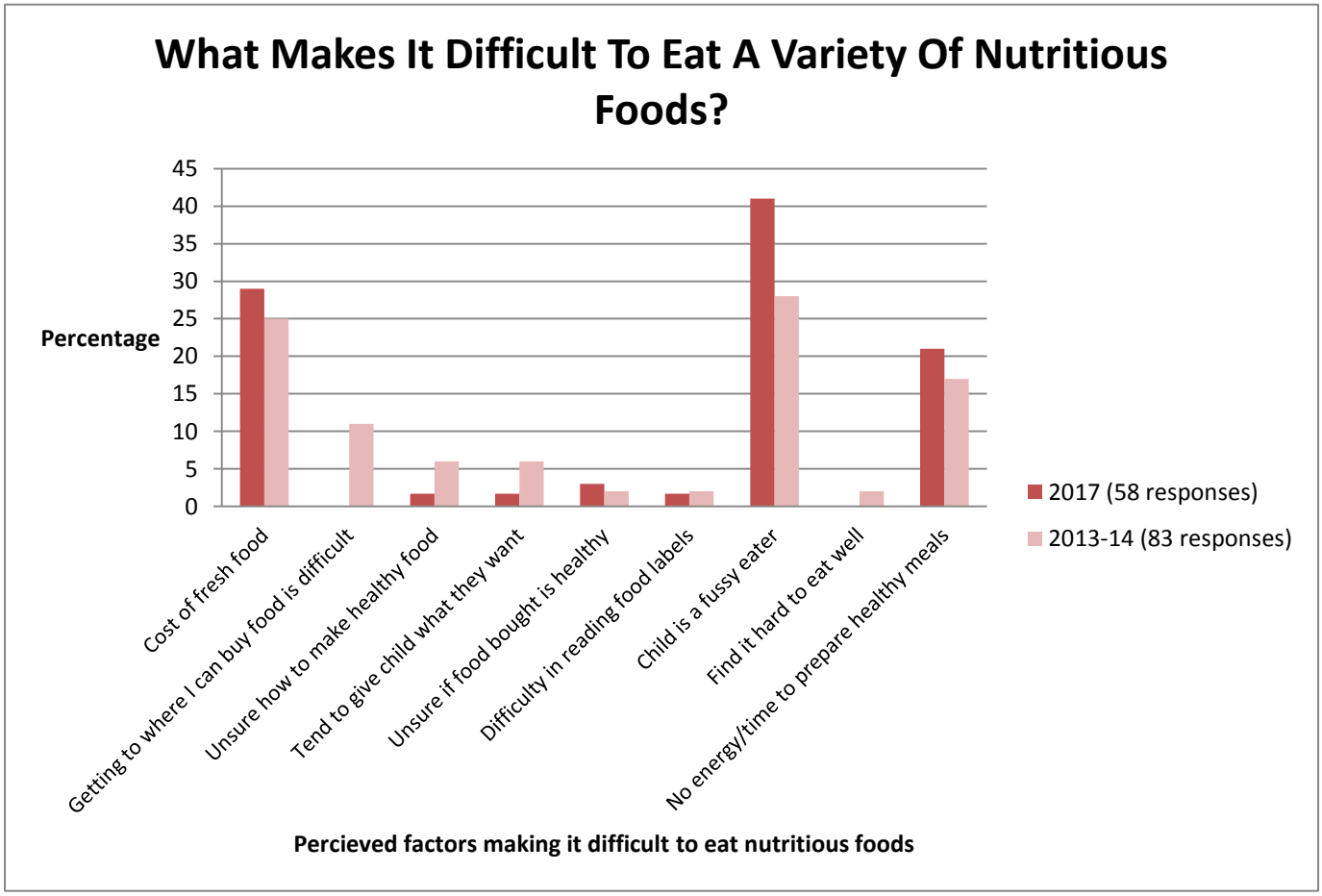
<u>Healthy Eating:</u>

Using a Likert scale, parents were asked to rate how much they cared about eating nutritious foods and to rate their knowledge about healthy foods. In response to the question '*How much do you personally care about eating nutritious foods?*', the majority of the 2017 respondents cared 'very much' (60%) and 'quite a lot' (36%), with none of the parents indicating that they did not care about eating nutritious foods. In 2013-14, 53%

reported caring ‘very much ‘and 47% reported caring ‘quite a lot’. Similar to 2017 data, no parents responded that they did not care about eating nutritious foods in 2013-14.

When asked about their knowledge of nutritious foods, the majority of parents rated their own knowledge as either ‘excellent’ (33%) or ‘above average’ (56%), with 11% indicating their knowledge to be ‘average’. None of the parents indicated they have ‘poor’ or ’very poor’ knowledge. The 2013-14 data shows significantly less parents rated their knowledge of nutritious foods as ‘excellent’ (13%), with more indicating that their knowledge was ‘above average’ (53%), or ‘average’ (33%). Again, no parents reported their knowledge to be ‘poor’ or ‘very poor’ in the 2013-14 surveys.

Figure 10: The difficulties in getting children to eat a variety of nutritious foods



Note: The total will be larger than the sample size as respondents were able to select multiple options.

Parents were asked about what factors they believed were making it difficult for their families to eat a variety of nutritious foods. The data in Figure 10 indicates that in both 2013-14 and 2017 surveys the majority of parents (28% and 41% respectively) found that

their ‘child being a fussy eater’ was the main difficulty in eating nutritious foods. Moreover, both surveys showed that the ‘cost of fresh food’ was the next most common difficulty in eating well, with this an issue for 25% and 29% of parents in the 2013-14 and 2017 surveys respectively. The third most common report difficulty was having ‘no time/energy’, reported by 17% of parents in 2013-14 and 21% in 2017. In 2013-14 around 11% of parents identified ‘getting to where they can buy fresh food’, and 2% identified ‘finding it hard to eat well’, as difficulties in eating nutritious foods. In 2017, no parent responses indicated that these two options were difficulties.

Discussion:

In 2013-2014 six primary schools in the Lower Hume catchment voluntarily took part in the completion of baseline student and parent healthy eating surveys. The main aim of this was to identify children's fruit and vegetable consumption; however more detailed information was obtained. In 2013-2014 a total of 284 students completed the Day in the Life Questionnaire (DILQ) and 96 parents completed the Parent Nutrition and Food Security (NFS) Surveys.

In 2017, 4 of these primary schools (Alexandra, Eildon, Buxton and Upper Plenty) took part in the completion of follow-up student and parent healthy eating surveys. This represents less than one quarter of primary schools in the area. Having two schools less did not have a big impact on the overall number of DILQ surveys (10% less) but there was a larger percentage reduction in NFS surveys (just over 40%). In the follow-up surveys, the DILQ were completed by 257 students and the NFS surveys were completed by 55 parents.

Fruit and Vegetable consumption:

The average child fruit consumption as reported by parents was 2.5 serves daily, which is higher than in 2013-14, with parents reporting their child consumed 2.77 serves daily. The Australian Dietary Guidelines recommends 2 serves of fruit per day (NHMRC 2013), therefore still meeting the guidelines. An average child consumption of vegetables was also reported by parents as being 2.2 serves of vegetables daily; in 2013-14 this was 2.9 serves, both less than the recommended 4.5-5 serves (NHMRC 2013).

In comparison, the National Health Survey (ABS 2015) indicated that on average, children aged 2-18 years consumed 2 serves of fruit and 1.9 serves of vegetables each day, suggesting that the survey population are consuming slightly more servings of fruit and vegetables than the national average.

As per Tables 3 and 4, there was a large range of parent reported child fruit and vegetable intakes. This was evident when up to 6 serves of fruit and 5 serves of vegetables were reported to be consumed by their children per day. This was even higher when the baseline data was collected with up to 9 serves of fruit and 14 serves of vegetables reported daily. Results suggest the higher reports were from a very small number of parents and may be due to overestimation by participants or errors in data entry. Alternatively it suggests that a number of students are consuming somewhat more than the recommended intake of fruit and vegetables as outlined in the Australian Dietary Guidelines (NHMRC 2013).

Although the parent NFS surveys indicated the estimated numbers of serves of fruits and vegetables that children consume, the DILQ only indicates the occasions of consumption, not the quantity, making it impossible to compare. The DILQ survey however, does provide an indication of whether or not children consumed certain foods and when those foods were consumed over the day, which is a valuable indicator of dietary habits.

In line with parental reporting, less than desirable vegetable intake is supported by the student completed DILQ, which suggested that 38% of students (54% in 2013-14) did not consume any vegetables on the day prior to survey completion. Additionally only 25% of students (19% in 2013-14) indicated that they consumed vegetables whilst at school. In contrast, 76% of students (51% in 2013-14) reported consuming fruit whilst at school. A greater consumption of fruit at school may be due to the “morning fruit break” policy that occurs at the majority of early childhood centres and primary schools, which encourages children to consume fruit at a designated hour of the morning.

With this in mind, the poor consumption of vegetables at schools should be an area of focus when promoting healthy eating initiatives in a school setting in future.

Lunchbox guidelines:

Current healthy lunch box guidelines for students (Healthy Eating Advisory Service 2015) recommend the inclusion of at least one food from each of the 6 food groups. These groups are cereals and grains, protein foods, dairy foods, fruit, vegetables and water. Using these guidelines to assess student reporting on the DILQ, food variety in lunch boxes was limited in both 2017 and in 2013-14. More specifically, no student reported the inclusion of foods from all 6 food groups in their lunchbox, which has decreased from 2013-14 where 2 (1%) students reported having foods from all 6 food groups in their lunchbox. There was an increase in the inclusion of foods from 4 and 5 of the food groups in 2017. Data showed that 4% of students reported the inclusion of 5 of the food groups in their lunchbox, compared to only 2% in 2013-14. Additionally, 13% of students reported the inclusion of 4 of the food groups in their lunchbox, rising from 8% in 2013-14.

The 2017 data shows that cereal products were most likely to be present in student lunch boxes with 81% of students reporting this. Data from 2013-14 indicate very similar results with 80% of students having cereal products in their lunch boxes.
Vegetables were unlikely to be included in children's lunchboxes with only 17% of students reporting having vegetables at lunch. This has increased from only 11% when the baseline data was recorded.

It was found that 19% of students reported the inclusion of a discretionary food item in their lunchbox. This has remained steady since 2013-14.

Results from the DILQ show that 69% of students reported the inclusion of water in their lunchboxes. This has increased in recent years as baseline data only indicated that 52% of students had water at lunchtime. It was also shown that 2% of students reported the inclusion of a sweet drink (soft drink/cordial etc.) in their lunchbox. This is down from 6% of students when baseline data was recorded. This downward trend may be a result of "water only" policies being implemented in some schools.

Travel and Activity:

The results in Figure 5 indicate that 28% of students travel to school by walking or cycling, and 59% travel to school by car. The number of students walking or cycling to school has increased from only 22% in 2013-14. Additionally, the number of students arriving to school by car has also increased from 2013-14, with 55% arriving by car when the surveys were completed.

Moreover, 28% of students walked or cycled home from school, this trend has remained the same since 2013-14. Around 53% arrived home from school by car, compared to 62% of students reporting that they arrived home from school via car when the baseline data was collected. Both of these results, on getting to and from school, may be influenced by the different months of collection of baseline versus follow up surveys.

The results from the DILQ (Figure 6) indicate that 47% of students watched TV before school and 70% after their evening meal, this has decreased from 2013-14 with 56% of students watching TV before school and 79% watching TV after their evening meal. With the increased use of tablet and similar technologies since the 2013-14 surveys there were queries around whether this question included other technologies. Subsequently, this result is not indicative of general 'screen' time.

Fewer students reported playing outside after school in 2017 with only 69% reporting doing so, compared to 73% in 2013-14. The data in Figure 6 also indicate that students were less active in the evenings in 2017 with only 24% reporting they were active, compared to 26% in than in 2013-14. This may have been influenced by different seasonal timeframes of the surveying, although a difference of 2% does not seem significant.

Food security:

Food security has been defined as all people at all times having access to sufficient, safe, nutritious food to maintain a healthy and active life (World Food Programme 2017). There are three main elements associated with food security. These include Food Access (time, mobility and ability to buy/grow, transport, store and prepare nutritious food); Food Availability (location of shops, availability, consistency and price within community); and Food Utilisation (knowledge of basic nutrition and food safety and that food must have a

positive nutritional benefit) (World Food Programme 2017). Food security is a right for all people yet estimates suggest that approximately 5% of all Australian people experience food insecurity (Rosier 2011).

It is known that living in rural or remote areas will mean there is a heavy reliance on car usage to go shopping. This was evident in the current research when 75% of parents reported that they drive their own car to access shops, while 1.4% get a lift with a friend or family member and 24% walk. In 2013-14, more respondents (95%) reported using a car to shop, while fewer reported walking (22%). No parents reported using public transport or a taxi to access food. This is most likely a result of their towns of residence having limited to non-existent public transport options available to them. The finding that 11% of respondents in 2013-14 reported getting to a location to buy food was difficult also suggests that transport may be an issue. However, more recent data shows that no parents claimed getting to a location to buy food was difficult. This suggests that improvements for food accessibility may have been made in recent years, although it may be indicative of the characteristics of parents who are more likely to complete the voluntary survey.

Parents were also asked how far they travelled to access fruit and vegetables, with 40% of respondents in 2017 and 45% in 2013-14, indicating they drove over 20 kilometres to shop, despite local food store options being available. Twenty one percent of parents reported that they travel between 50 and 100 kilometres in 2017, and is similar to baseline results (18.7). Regarding accessing to local food stores, 33% of respondents (31% in 2013-14) indicated dependence on the local supermarket for buying fruit and vegetables, while 17% reported they shopped at their local fruit and vegetable shop; remaining the same since 2013-14. The reasons for this relatively low use of local food stores were not explored. However, it could be assumed that the low use of local supermarkets and food stores may be contributed to the perceived high costs and limited variety of fresh foods and parents already travelling to larger regional or metropolitan areas for other reasons, and therefore using that opportunity to shop.

In relation to the rising costs of fresh food, Palermo et al. (2016) found that the price of fruit and vegetables from supermarkets had increased by 12% since 2012-14. It was also found that the further the store is from metropolitan Melbourne, the higher the total cost of the

food basket will be (Palermo et al. 2016). A recent Victorian Healthy Food Basket survey was conducted within the Mitchell/Murrindindi community and indicates very similar findings. These results suggested that the average cost of a healthy basket of food for a typical family in the Mitchell/Murrindindi local government areas represented 31% of their household income (Lower Hume Primary Care Partnership 2016). In comparison, the average Australian spends 20% of their income on food, with food costs over 30% of the household income are considered unaffordable (Monash University 2016). Given the rising costs of living (real or perceived) and related food stress, eating a healthy diet therefore may not be within reach for those families on lower incomes (Monash University 2016).

Of the 55 parents who completed the NFS survey in 2017, 2 (5%) reported that they had run out of food in the last twelve months. In 2013-14 this was 2 out of 94 parents (2%). Results also show that 28% of parents would use credit to pay for food if they ran out; this trend has decreased only slightly with 29% of parents claiming they would use credit in 2013-14.

Regarding food use and knowledge, survey results indicated that 1 (2%) parent was unsure about how to make or offer healthy foods. This number has decreased from 6 (6%) parents when the baseline data was collected. Two percent of parents indicated that they found it hard to read food labels; this proportion has remained the same from 2013-14. Meanwhile, 2 (3%) parents indicated that they were not sure if what they were buying was considered healthy. This was similar to 2013-14 when 2 (2%) parents indicated this. In respect to home grown produce 7 (13%) parents reported growing their own food, which is less than the 14(15%) of parents who indicated this in 2013-14.

Barriers to healthy eating:

Parents reported that their top 3 barriers to consuming a variety of nutritious foods were: cost, time/energy and their children being fussy eaters and is the same finding from baseline survey results.

Fussy eating was the most common response, with 41% of parents reporting this as a barrier and 28% of parents reporting this in 2013-14. Fussy eating is a normal behaviour that can occur in 50% of toddlers and often continues on into the primary school years (Victoria Government 2016). It is important for parents to address this early on however, as eating

behaviours established in childhood can persist into adolescence and adulthood, with implications such as continued fussiness, or high responsiveness to food cues and increased risk of obesity (Finnane et al. 2017). It also is suggested that creating a mealtime structure and encouraging a varied diet can help manage fussy eaters (Finnane et al. 2017), challenging given evidence of low variety in lunchboxes, and the other two factors; high costs and lack of time to provide a variety of nutritious foods.

In relation to food costs, 29% of parents found that food costing too much made it difficult to eat a variety of nutritious foods; an increase from 25% of parents in 2013-14. As discussed above, this is supported by Healthy Food Basket Survey (Lower Hume Primary Care Partnership 2016) findings that food costs in the Mitchell/Murrindindi LGA are high.

Twenty one percent of parents found that having no time or energy to prepare healthy food made it difficult to eat a nutritious diet. This is compared to 17% of parent's responses in the baseline data. These findings are consistent with other research, such as that by De Mestral et al. (2017) that indicate a lack of time and energy and increasing cost are very common barriers to eating a nutritious diet and have remained constant barriers for many years in high income countries such as Sweden and Australia.

When asked about how much they personally care about eating nutritious foods, the majority of the 2017 respondents responded that they cared 'very much' (60%) and 'quite a lot' (36%), with none of the parents indicating that they did not care about eating nutritious foods. Baseline data indicated similar results with again no parents responding that they did not care about eating nutritious foods.

When asked about their knowledge of nutritious foods, the majority of parents rated their own knowledge as either 'excellent' (33%) or 'above average' (56%), with none of the parents indicating they have 'poor' or' very poor' knowledge. The 2013-14 data shows significantly less parents rated their knowledge of nutritious foods as 'excellent' (13%), with more indicating that their knowledge was 'above average' (53%). Again, no parents reported their knowledge to be 'poor' or 'very poor' in the 2013-14 surveys. This is further confirmed by only a small number of parents identifying 'not knowing if what they buy is healthy' as a barrier to healthy eating in both baseline and follow-up data.

These findings suggest that parents are interested and willing for their families to eat well, but find food cost; time and fussy eaters make it hard. However, further demographic information of parent respondents would have allowed for researchers to better understand the variety of the responses provided and analyse reasons behind them. This would have helped explain the noticeable shift in respondents claiming their knowledge is 'excellent' in the baseline and follow-up data.

Parents perceived solutions to healthier eating:

In the NFS survey, parents were asked the open-ended question *"What changes do you think would help our children eat more nutritiously?"* in a variety of different settings. These settings included the home, school, shops and in the community. Parents were asked to respond to this question in order to establish their identified strategies to encourage healthy eating habits in children. Many of the parent's suggestions were already occurring in schools such as scheduled fruit or vegetable breaks, whilst other ideas could be further investigated to better understand how they could be implemented in the desired setting.

The most common changes suggested by respondents for <u>at home</u> were to 'Limit unhealthy foods in the house/only for special occasions' and to 'allow more time for food preparation and recipes for cooking interesting and tasty food/cook from scratch'. In 2013-14 the most common suggestions were to 'limit unhealthy foods in the house/only for special occasions'. These findings suggest that parents are aware of their own roles in helping their children eat nutritiously in the home. This is especially evident when many parents in both the baseline data and follow-up suggested that 'role modelling' good eating habits was an important change to make. Additionally, the notion that lack of parental time is a barrier for eating nutritiously is further noted through food security questions earlier in the survey (see Figure 10) which again supports the view that parents see themselves as playing a role in their family's eating habits.

<u>At school</u> 'Healthy eating education and promotion' and 'Restriction and policies on what foods and drinks children can bring/buy at school canteen' were the most common changes suggested. In 2013-14 'fruit/healthy snack break/reward program' and 'restriction and

policies on what foods and drinks children can bring/buy' were the most common changes suggested. The latter incorporates 'no discretionary foods sold at canteen' which was a very common response from parents. It should also be noted that 'growing fruit/vegetables at school or introducing the Stephanie Alexander Kitchen Garden program' was also a common theme suggested by parents for how the school can help children eat more nutritiously. This proposes that parents will be very supportive of school based healthy eating interventions.

The most common changes suggested for at the shops were the 'promotion of healthy options' and 'less junk food/ not positioning unhealthy foods where attractive to children' were the most common changes reported by parents. In 2013-14, these were again the most common responses, indicating that there has been little intervention or change since baseline data was collected regarding these themes.

In the community some common changes suggested by parents to help their children eat more nutritiously were 'community gardens' and 'education programs on nutrition/cooking/recipes'. The most common response however was 'other' with each parent suggesting a different change that couldn't be grouped with any other theme. The 'promotion of healthy eating through the print media, radio and food packaging', 'education programs on nutrition and cooking' and 'local food swaps, stores and markets' were the most popular changes suggested in the community in 2013-14. Again this shows that parents would be quite supportive of community based healthy eating interventions for their children. It should be noted that the responses for changes made in the community were diverse and so it was harder to group these responses by themes, leaving a larger number under 'other'.

Limitations:

It was suggested that both parent and student surveys be completed in order to verify intake data. This capacity was limited as questions on each survey were different, one being 'serves' the other being 'occasions'. As a result comparison based on intake was not possible. It was also nearly impossible to match parent data with student data for verification as many students did not write their surnames on their DILQ and many parents did not write their child's name on the indicated area of their NFS survey.

Further limitations relate to completion of the DILQ by students which is developed for use by Grades 3 to 6 students. All but one of the participating schools disregarded the suggested year levels for completion and allowed for all year levels from prep to grade 6 to complete the DILQ. Completion of this survey by students may have posed some difficulty for those who had forgotten aspects of their previous day's food intake, indicating recall bias. This was especially relevant for students in prep to grade 2 whose levels of recall, understanding, and interpretation may have been limited. In addition interpretation of students' handwriting and pictures was difficult at times. Every effort was made to ask students what their pictures were of, or to clarify individual student's written answers during the survey completion; however this was not always possible with time constraints. Therefore, the interpretation of student pictures and descriptions relied heavily on subjective interpretation during data analysis. To eliminate researcher bias in future this limitation must be addressed.

The accuracy of student responses also contributes to the current studies limitations. Some surveys were excluded from data collation because they were not sufficiently completed, while a very small number of students with learning disabilities were excluded from completing the survey. A small number of responses were also questionable and may have skewed results (for example, students writing that they did not eat breakfast, lunch or dinner on the previous day or students on the same table all reporting the same meals).

While the method of survey completion for the DILQ meant that in most cases all school students completed the survey, the parent surveys were voluntary and had a much lower response rate. Due to the voluntary nature, responder bias may be a limitation of the NFS Survey as parents who completed the survey may have had differing characteristics to those non-responders (Queensland Government 2017).

One could suggest for example, that parents who have a greater interest in healthy eating would be more likely to complete a voluntary written survey on the subject. This is supported by the NFS findings that none of the parents completing the survey reported they had poor nutrition knowledge or that they did not care about healthy eating. Also worth noting is that only 2 of the 94 parents in 2013-14 and 2 of the 55 parents in 2017 reported that they had run out of money to buy food in the last 12 months. Apart from this question,

the survey did not explore parent background such as education level, occupation or socioeconomic status which would have helped explore responder bias in further detail.

Conclusion:

Overall, both parent and children dietary reporting suggest that vegetable consumption amongst primary school aged children is inadequate and does not meet dietary recommendations. Parents involved in the current study have consistently indicated that this and other childhood eating habits are influenced by the cost of food, lack of parental time and children's fussy eating behaviours. While parents acknowledge the role they play in promoting health eating habits in their children, they also identify opportunities for schools, retailers and communities in areas such as school policy, community gardens and food swaps and the promotion of healthy foods in shops.

These and other findings of the current study can all contribute to the development and implementation of future health promotion interventions that target healthy eating for children and families.

Achievements:

The report was able to create a follow-up to the baseline data that documented the fruit and vegetable intake of children within the Lower Hume region and highlight some of the factors that affected intake. The results also allowed a detailed description of where people in regional and remote areas source their fruit and vegetables from as well as the transport choices they make.

The process and results of the surveys allowed for greater engagement with schools as both highlighted the importance of healthy eating and nutrition in schools. The data was able to be used and inform other projects, such as food security initiatives in the area, and will be a useful tool for gaining basic physical activity data amongst vulnerable groups such as children.

Localised data and trends are imperative to effective evidence based decision making for future planning and implementation in our area.

Lessons learnt and Recommendations:

- The two survey tools were not able to be used for comparative purposes as measurement were not comparable and differences not significant
- The tools need to be more appropriate for the age ranges. Prep to grade 2 was too young for the DILQ.
- The subjective nature of data interpretation must be addressed and not underestimated.
- In the 2013-14 process the complexity and time consuming nature of data collation and analysis could have been simplified if completed as a team rather than individually.
- For future practice, if comparing parent data to student data it must be made clear to both parties to include the full names of the other on their survey, so that data can be matched.
- Vegetable consumption must continue to be an area of focus for children's health.
- Further develop strategies to help parents ensure their children are eating a nutritious diet, such as sessions on managing fussy eaters.
- Continue to focus on the social determinants of healthy eating, like accessibility and affordability of food.
- Further investigate ways to assist parents in food budgeting, finding time to plan ahead meals, home based gardening and quick, affordable and healthy meal ideas.

Dissemination strategies:

- Investigate whether this study is suitable for journal publication or media publication.
- Report back to schools and acknowledge their contribution, sending them the final report, as well as a summary of data for their school.
- Disseminate copies of this report to other Hume Region Primary Care Partnerships and Health Promotion agencies/organisations who are working in the area of healthy eating in the 0-12 year old age group.
- Present findings at relevant Health Promotion forums within the Hume region.

Appendices:

Appendix A: Thematic Analysis themes and number of responses in each theme

AT HOME

Response themes	Number of parental responses
Limit Unhealthy foods in the house/only for special occasions	9
More time for food preparation and recipes for cooking interesting and tasty food/cook from scratch	9
Grow fruit and vegetables at home	5
Good supply of healthy food/drinks at home	7
Other (supplying variety of meals, cook vegetables in more appealing ways, reduce portion sizes, limit snacking between meals etc.)	8
Involve kids in cooking	5
Parents as role models	5
Eating together as a family	2
No changes needed	2

AT SCHOOL

Response themes	Number of parental responses
Restriction and policies on what foods and drinks children can bring/buy at school canteen	10
Grow fruit and vegetables at school/Stefanie Alexander Kitchen Garden Programme	4
Other (education regarding individual	5

circumstances preventing good nutrition, more opportunity for food sharing etc)	
Parents pack healthy food for their children	1
Fruit/Healthy snack break/reward program	3
Healthy eating education and promotion	16
Nude food lunchbox policy	4
Positive role models/guest speakers	1
Cooking programs/days	4
Healthy lunchbox ideas	1
Assistance with food prep: heating meals/cutting fruit/access to fridge	2
Cookbook	0
Allow nuts/other healthy 'banned' foods	1
No changes needed	3

SHOPS

Response themes	Number of parental responses
Promotion of healthy options	8
Other	2
Less junk food/ don't position where attractive to children	12
Healthy foods at affordable prices	1
Wide variety of healthy foods available	5
Recipes/ideas	2

Local produce	0
Taste tests/samples/free fruit for kids	5
Education	1
No changes needed	1

COMMUNITY

Response themes	Number of parental responses
Promotion/advertising through newspaper, newsletter, radio etc.	3
Education programs/workshops/cooking/recipes/nutrition	6
Other (lollies not to be given as rewards, less unhealthy options at community events, reduce price of unhealthy options etc)	7
Local food swaps/stores/markets	2
Community gardens	5
Less fast food/healthier options	3
Exercise programs	0
Better food labelling/education on food labelling	3
Policy change such as sugar/junk food tax	2
No changes needed	1

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