Treat or Trap?
Factors influencing the provision, availability and consumption of healthy food in Primary School Environments

Final Report
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1 INTRODUCTION

The accelerated rise in the prevalence of overweight and obesity and unhealthy dietary patterns in the Australian population is not confined to adults. The health and psychosocial ramifications are, however, magnified when unhealthy food consumption commences early in the life-course trajectory. Not only are there numerous short and long term morbidity and mortality consequences, but attitudes, behaviours and lifestyle patterns established in childhood are often difficult to change later in life. Moreover, an unhealthy diet compromises the physical development and learning capacity of children, while being overweight can result in many negative emotional consequences arising from teasing, social exclusion, bullying and reduced ability to ‘join in’ in some forms of play and physical activity.

Despite considerable evidence regarding the benefits of healthy eating for children, and in WA, the promotion of sound healthy canteen guidelines, curriculum nutrition education and sporadic initiatives targeting parents, the type of food currently available to, and consumed by students is of considerable public health concern. Good practice is known, but often not taken up or implemented effectively.

The Treat or Trap project was initiated to explore facilitators and barriers influencing the provision and consumption of healthy foods and drinks within the primary school environment. The project proposal was developed in consultation with the WA Canteen Association and a nutritionist within the Department of Health. The Treat or Trap project was funded by a Healthway starter grant and was undertaken in the 2007 school year.

In late 2006, the Western Australian Department of Education and Training (DET) announced the introduction of a new healthy drink and eating policy (“the Traffic Light System”) for all government schools in Western Australia. This policy required the phasing out of food and drink classified as unhealthy (i.e. ‘red’) in Terms 1 and 2 of 2007, with all aspects of the policy to be in place by Term 3. The introduction of the traffic light system coincided with the commencement of the Treat or Trap project; hence the project’s initial objectives were expanded to also consider issues relating to the implementation of the new guidelines in primary schools. In particular, the project recognized that guidelines often encounter barriers in their transition phase, and don’t necessarily help schools overcome practical challenges, such as perceptions that healthy food options are less convenient to prepare.

The Treat or Trap study uses a combination of qualitative and quantitative research methods to explore factors that hinder or enable healthy food availability and
consumption within primary school environments. While children are ultimately the primary target group, the study focused on those within the school environment who play a critical role in determining the availability of healthy food and influencing relevant norms, policies and practices. This includes staff, canteen managers, parent and citizen associations and parents, as well as students as direct consumers and as peer influences.

The project was underpinned by a comprehensive literature review which is presented in the first section of this report. The report then describes the Treat or Trap methodology and results, and concludes with a discussion of findings and implications.

2 LITERATURE REVIEW

2.1 Background to Nutrition and Children

2.1.1 Benefits of appropriate nutritional intake

Appropriate nutritional intake is vital for health and wellbeing, learning, physical, psychological and social development throughout the life course. Consumption of fruit and vegetables have been shown to prevent cancer, diabetes mellitus, hypertension, cardiovascular disease, cataracts, and a number of other diseases. Current Australian dietary standards recommend that children eat a variety of foods. This includes cereals, vegetables, fruit, dairy (yogurt, milk and cheese), lean meat, fish, poultry, legumes and nuts. Two serves of fruit and five serves of vegetables per day are recommended and promoted to Western Australian adults and children.

Poor nutrition is linked with many diseases such as cancer, stroke, cardiovascular disease, bone abnormalities, hypertension and abnormal glucose tolerance. Poor nutrition also contributes to poor school performance, impaired intellectual and social development. Poor diet, including an over-consumption of saturated fat, cholesterol and salt contributes to obesity, which causes high blood pressure. High blood pressure in children affects the function of the heart by reducing artery elasticity, ventricular size and cardiac output.

2.1.2 Changes in nutrition over time

The shift in diet and nutrition patterns in modern times has been referred to as the “nutritional transition” by the World Health Organisation. In developed countries, this nutritional transition has been detrimental, with contemporary diets now consisting of more energy dense foods, fat, sugar and a reduction in complex carbohydrates, fruit and vegetables, dietary fibre, and other important nutrients.
Portion sizes have increased over the past few decades\(^\text{13}\), as have the type of food children are eating\(^\text{14}\). In 2001, 64.1\% of WA children ate fast food at least once a week\(^\text{15}\). Research indicates that children who consume greater portions of calorie dense food, such as potato chips, are more likely to consume less fruit and vegetables\(^\text{13}\). This is exemplified by a Western Australian study which found that that children consumed less fruit, vegetables and milk than the daily recommended minimum although consumed more meat than is recommended and ate more confectionary, snack foods and less vegetables, fruit and milk than previous generations\(^\text{14}\). There has been a corresponding increase in the number of children who are overweight or obese in WA, increasing from just over 9\% of boys and 10\% of girls in 1985 to 23\% and 30\% respectively in 2003\(^\text{14}\).

As with other health risk factors, poor nutrition and the health consequences of unhealthy eating impact disproportionately on some disadvantaged population groups, including Indigenous Australians and people of lower socio-economic circumstances\(^\text{16}\). Of relevance to the school context and economic disparity, a study investigating the cost of school lunch found that students from a lower SES spent more money on the contents of their lunchbox and that they usually had more junk food in their lunchbox than higher SES children\(^\text{17}\).

### 2.1.3 The link between childhood and adult nutrition

Nutritional habits practiced in childhood often persist into adulthood\(^\text{18, 19}\), as can childhood obesity and its related health problems\(^\text{9, 20}\). Investigations into the prevalence of risk factors for nutritional related diseases such as cardiovascular disease, diabetes mellitus, elevated blood pressure have shown that children display similar frequencies of these risk factors as adults\(^\text{1, 9, 21}\). Early intervention is vital to prevent childhood nutrition related diseases, particularly as many health behaviours are consolidated in early years and while children are in primary school\(^\text{18}\). There is a current focus by governments and health organisations, on the increasing prevalence of overweight and obesity among primary school aged children. Targeting nutritional practices of children at an early stage is important to prevent the development of overweight or obesity among children, as obesity is easier to prevent than to treat\(^\text{22, 23}\).

The number of overweight and obese children in Australia has increased considerably among Australian children over the past few decades. The CAPANS study found that boys in 2003 were 12kgs heavier and girls 6.6kgs heavier than their 1985 counterparts. Obesity and overweight among children in Western Australian has increased by more than 10\% for boys and girls since 1985\(^\text{14}\). Similar results were also found among NSW children\(^\text{24}\).
2.2 Perceptions about healthy eating and health

2.2.1 Children

Whether perceptions and knowledge about healthy eating influence children’s actual food choices and habits is yet to be determined and is a subject of debate. Generally, older children are knowledgeable about the causes of obesity. Recent studies have shown that children recognised the difference between healthy and unhealthy food and that eating unhealthy food was a cause of obesity in childhood. However, Hesketh et al. found that despite children’s knowledge of health and nutrition, they still participated in unhealthy behaviour. Younger children were less likely to know what was healthy and it has been suggested that young children organise the information they receive about food and nutrition into evaluative categories and that sometimes wrongly categorise new food information.

In a recent study on food categorisation in young children, results indicated that most children had difficulty categorising some unhealthy food. Particularly, problems occur when children have to classify ambiguous food, such as processed food made from originally healthy ingredients such as vegetables, meat and grains. This highlights the need for thorough and consistent nutrition education for children that will equip them to deal with “grey areas”.

There is a disparity in the literature about children’s perceptions of overweight or obese children. Children have been found to show sympathy for ‘naturally’ overweight children, but little sympathy for lifestyle induced weight problems. Despite findings that children believe that body shape does not matter, there is evidence that they attach a stigma to overweight or obese children and label them with negative characteristics, such as lazy and stupid. Children also acknowledge that being overweight or obese makes children the targets for bullies and makes them less likely to have friends.

International research has shown that children are aware of the childhood obesity epidemic. Some studies have shown that children are more likely to recognise a relationship between obesity and nutrition than obesity and physical activity. The literature suggests that children are generally aware of methods to lose weight and cite healthy eating.

Recent studies have also shown that children are also well aware of the barriers and facilitators to healthy eating, both at school and at home. Children have recognised that barriers to healthy eating at school include a lack of healthy and affordable choices offered by the canteen, availability of cheaper ‘junk’ food at school and a preference for unhealthy food.
Another barrier to healthy eating is children’s perception of unhealthy food as a treat. Compounding this barrier is the fact that many parents and children regard ordering food from the school canteen as a treat. The literature has shown that despite a perception that ordering unhealthy food from the canteen is a treat, some children consume unhealthy canteen options on a regular basis.\(^{14, 25, 34-36}\)

The perception that unhealthy food is a treat can potentially be turned around, and it is possible for children to be reconditioned. For example in a recent study, children rewarded for eating fruit and vegetables were more likely to eat more fruit and vegetables compared with children who did not receive a reward, and their increased consumption lasted beyond the intervention period.\(^{37}\) It has been suggested that such reward-based interventions will be more successful if the reward is desirable or if healthy eating is role-modelled by someone of a similar age.\(^{37}\)

2.2.2 Parents, Teachers, Health Professionals and general community

Parent’s impact on children’s healthy eating extends beyond the food they provide. Interventions to reduce a child’s body weight are more likely to succeed if parents and family are involved and parents have an important role to play in decreasing the incidence of childhood obesity.\(^{38}\) However, the literature suggests that while most parents are aware of the dangers of childhood obesity, few recognise weight problems in their own child.\(^{39, 40}\) Even those that do recognise that their child is overweight or obese, are not guaranteed to intervene.\(^{39}\) Furthermore, parents cite lack of control over what their child eats, particularly whilst at school, as a barrier to enforcing healthy eating for their child.\(^{39}\)

Like children, parents often perceive unhealthy food as a treat. However, there appears to be an inconsistency between the perceptions and behaviours regarding treat food. While treat generally refers to something occasional or associated with special circumstances, the literature suggests that children are consuming ‘treat’ foods on a regular basis, rather than just occasionally.\(^{25}\) Some parents also believe that the canteen is a treat.\(^{25}\) Differing views on how the canteen is a treat may explain the differing opinions parents have regarding the importance of the canteen on childhood nutrition. For instance, while some parents report the school canteen to be insignificant to the overall nutrition and education of their children,\(^{25}\) others believe the canteen to be very important.\(^{34}\)

Overall, the literature suggests that teachers and health professionals place greater emphasis on the school canteen’s role on promoting healthy eating habits than parents. In a study of broader public perceptions of childhood obesity, the majority of participants believed that serving healthy food in school was an important strategy to prevent
Participants also believed that over-consumption of fatty food at school is important cause of childhood obesity and equal to that of over-consumption of fatty foods at home. A recent report reveals that over 86% of school children involved in a study in the Hunter Valley (NSW), bring their lunch from home and supplement it with food bought from the canteen. Therefore it is important to educate children and parents about healthy eating, extending the programs beyond the scope of the school canteen.

2.3 Facilitators and Barriers to Healthy Eating

Facilitators and barriers to healthy eating among children as identified in the literature were reviewed and are summaries in Table 1.

Table 1: Facilitators and Barriers to healthy eating among children – literature

<table>
<thead>
<tr>
<th>Barriers to healthy eating</th>
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<tbody>
<tr>
<td>Contradictions in the message</td>
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<tr>
<td>Unhealthy food being sold in canteens</td>
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<tr>
<td>Perception that junk food is a treat</td>
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<tr>
<td>Perception that parents are main influence on children and that school is not as important</td>
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<tr>
<td>Perception that school lunch has a minimal effect – okay to eat unhealthily at school if eat healthy at home</td>
</tr>
<tr>
<td>Knowledge of health doesn’t translate into healthy behaviour</td>
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<tr>
<td>Maintaining healthy eating</td>
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<td>Children’s preference for unhealthy food</td>
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<td>Unavailability of healthy food at school</td>
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<tr>
<td>Expense of healthy food</td>
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<tr>
<td>Parents provision of unhealthy food in lunch boxes</td>
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<tr>
<td>Vending Machines providing unhealthy food access</td>
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<tr>
<td>Children eating outside of school because the canteen is only selling healthy food</td>
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<tr>
<td>Demographics/socioeconomic status</td>
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<tr>
<td>Outsourcing of the food service – lack of control</td>
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<tr>
<td>Pressure on the canteen to act as a fundraising venture</td>
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<tr>
<td>Unavailability of healthy food at school</td>
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<tr>
<td>Expense of healthy food</td>
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<tr>
<td>Absence of a food policy</td>
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<tr>
<td>Over restriction of palatable food and snacks</td>
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</tbody>
</table>
### Facilitators to healthy eating

<table>
<thead>
<tr>
<th>Facilitator</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reducing the price of unhealthy food</td>
<td>46, 34</td>
</tr>
<tr>
<td>Better availability of healthy food in vending machines and at school</td>
<td>46</td>
</tr>
<tr>
<td>Give out nutritional information on the food served at school</td>
<td>46</td>
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<tr>
<td>Advertising the healthy food on the menu</td>
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<td>Parents or other external influence</td>
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<tr>
<td>Providing a free fruit program at to students</td>
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<tr>
<td>Healthy food only option</td>
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<tr>
<td>Creatively promoting healthy eating initiatives to maintain interest – special offers, other promotions</td>
<td>51</td>
</tr>
</tbody>
</table>

#### 2.3.1 Food Choices and buying habits of primary school aged children

Research focusing on food consumed at schools indicates that the majority of children choose unhealthy options over healthy options. Studies of canteens selling a mix of healthy and unhealthy food consistently found that the popular sale items were chips, pies, sausage rolls, pastries, ice-cream, cakes, pizza and nuggets. As noted in many studies, children’s food preferences are often dictated by taste. Research has also highlighted that children, over time, come to prefer flavours associated with high density over those flavours linked to lower energy density foods. Having such food on the menu is thus a temptation to children and may also contribute to the perception that it is acceptable to eat these foods everyday, rather than just occasionally.

In a study investigating children’s energy consumption, children eating from the school canteen consumed more energy than children bringing lunch from home. It was also found that children who purchased food from the canteen consumed more of their daily energy from junk food (e.g. cake and soft drinks) compared with children who bought lunch from home. Children bringing lunch from home were more likely to get most of their energy from cheese, fruit, eggs and yogurt.

Children’s preference for unhealthy food appears to be a global problem, studies conducted with children in South Africa, Mauritius, United Kingdom, and the United States of America found similar results. Children’s preference for unhealthy food also transcends socio-economic barriers, affecting the well-educated and wealthy and the uneducated and poor equally. These studies recommended amendments to schools canteen menus to exclude unhealthy options.
Studies have shown that increasing children’s consumption of healthier options can be achieved with by focussing strategies to address the factors influencing food choice. In one such study, children who attended schools offering more fruits and vegetables correspondingly consumed more fruits and vegetables. Accessibility of fruit and vegetables in the home was also reported as a factor which influenced children’s fruit and vegetable consumption. According to Reinaerts, habit is the most influential factor in determining whether children consume fruit and vegetables. Horne et al. suggest that there are three factors that influence children’s eating habits: taste exposure, modelling and rewards. In their study, which aimed to increase fruit and vegetable consumption, it was found that merely presenting food to children was ineffective in increasing their consumption of that food. Exposure to fruit and vegetables for more than a fortnight has been shown to increase children’s liking of it, however sustained intervention is necessary to maintain the increase. Research also suggests that children approach fruit and vegetables differently and therefore any intervention to increase the consumption will need to be targeted specifically and separately at these two groups of food.

2.4 What role can schools play in improving nutritional intake?

Governments and health organisations around the world are increasingly focussing on health eating in a schools context. There is growing recognition that the school environment has an important influence on children’s nutrition. Schools can influence students’ health behaviour through the formal curriculum, school ethos and the way the school interacts with the community and the parents. Studies have also found that healthy eating in children is more likely to be achieved through modelling of behaviour rather than using snacks as a reward. Students spend a substantial amount of their day at school and the school environment has a proven effect on their eating habits. Support from the school is also vital in the improving the nutrition of children, as school based interventions that included a whole of school approach is more successful than single setting interventions. This is particularly true in light of research which reveals that between 4% and 25% of school children skip breakfast, suggesting that the food eaten at school becomes an even more important part of their diet.

The term obesogenic has been coined to describe behaviours or environments (e.g. schools) that promote obesity and studies have shown that the school environment is more obesogenic than non-school environments. Factors that contribute to obesogenic schools include the provision of a la carte programs and vending machines, canteens with a lack of facilities to prepare fresh food, reliance on the canteen for revenue raising, lack of a food policy, neutral/disinterested school staff, provision of unhealthy items by the
canteen and overpricing healthy food. The lack of a school canteen can also be a barrier to healthy eating, as these schools may lack control over what the external food supplier is providing. Implementing guidelines as a stand alone measure and without a supporting education program is unlikely to significantly improve nutrition.

Educating children and giving them a positive attitude on nutrition is also important in shaping their eating habits. There is evidence that the most influential factor on behaviour is individual verbalizations (what people tell themselves). Turning healthy eating while at school into a habit has the potential to positively impact on childhood nutrition.

2.5 School based interventions

2.5.1 Are they successful?

School based interventions vary in their success at improving childhood nutrition. The literature suggests that interventions that last longer, utilise a whole of school approach and involve parents and the community are generally more successful. For example, a long term school based intervention utilising multiple settings significantly reduced the consumption of carbonated drinks among students and fat consumption. School based interventions have also been shown to increase fruit and vegetable consumption, nutrition knowledge and physical activity. Setting a healthy example at school is important, as there is evidence that children will equate what they are served at school as healthy, because they assume that school is healthy.

Short to moderate term school based interventions have not impacted significantly on children’s weight and a recent review of the literature suggests longer term interventions are necessary to succeed.

2.5.2 A whole of school approach

There is evidence that incorporating a health promotion message into more than one area of the school environment has a greater chance of success than limiting it to one setting. A school that involves all aspects of the school in the health promotion activity is known as a Health Promoting School and has been shown to be an effective model for addressing health issues within a school setting.

A review of school based interventions targeting childhood overweight and obesity has shown that there needs to be a longer term and consistent intervention in order to positively impact on the children’s weight. There is also need to include the view of stakeholders in designing interventions. Developing policies that recognise the varying attitude of parents, teachers and health professionals will increase the chance that these
policies will succeed. Including parents in the healthy eating strategy is particularly important, as the literature has shown that parental influence greatly impacts what children eat. Including parents in the healthy eating strategy is particularly important, as the literature has shown that parental influence greatly impacts what children eat.

2.6 Current programs and initiatives – Australia and International

2.6.1 International initiatives and studies

The literature includes papers on healthy eating initiatives in school environments in a number of countries, including the UK, Germany, the US, Norway, New Zealand, Spain and Hong Kong (see Appendix 2). In the UK, the Department of Health and the Department of Education and Skills are tackling childhood nutrition by running a number of projects through the “Food in Schools” program. This program uses a whole of school approach to childhood nutrition and consists of projects such as healthier breakfast clubs, tuckshops, cookery clubs, lunch boxes and vending machines as well as water provision and improvement of the dining room environment. These initiatives are complemented with professional development programs for teachers and development of school food policies, publications and material for the curriculum. In addition to this, in May 2006 the Government introduced new legislation and guidelines that govern food provision in schools.

Evaluations of these programs are providing some positive results. Schools that have implemented fruit tuckshops have found that they benefited through newly established links with the community, learning benefits and social benefits. Some schools even made a profit using the fruit tuckshop.

2.7 Australian context

It is estimated that Australian school children consume a third of their daily energy while at school. There has been a growing recognition of the importance school canteen in promoting healthy eating among children, in Australia as well as internationally. Within Australia, a range of programs and initiatives relating to healthy eating in schools have been developed by government at the state and territory level and by some non-government agencies (eg Cancer Foundation, Nutrition Australia). For a summary of the different initiatives in each state and territory see Appendix 1.

2.8 WA Guidelines - Healthy Food and Drink Choices

A 2006 review by the WA Department of Education and Training resulted in the introduction of new nutritional guidelines in all public schools. The guidelines were
introduced in Term 1 of 2007, with mandatory compliance required by Term 3 of 2007. The ‘traffic light system’ was adapted from the Queensland school canteen strategy and NSW school canteen policy. The guidelines aim to provide clarity on which food items are permitted in schools by classifying them as green (fill the menu), amber (select carefully) and red (off the menu). The policy applies to all food provided to children while at school, including food supplied by canteens and external food suppliers (see Appendix 3). Schools are required to report their progress in implementing and complying with the guidelines to school district directors and parents.

There has been mixed reactions to this new initiative. A recent report prepared for the Australian Primary Principal’s Association objects to moves to increase the responsibilities of schools in areas that they believe should be the parents’ role. This report argues that primary schools are under pressure to fit too much into the curriculum and are under-resourced to do so. Media reports have tended to highlight that despite general support for healthy eating guidelines in schools, there is a level of resistance. Resistance has been reported from government representatives and some parents. This resistance appears to be related not to the overall aim of implementing healthy eating guidelines, but rather the logistics of their implementation and confusion over the consequences of non-compliance with the guidelines.

Confusion over the guidelines and the subsequent resistance appears in part to be related to misreporting of the impact of the guidelines and the perceived heavy handed approach to enforcing the guidelines that has been reported in the West Australian media in some instances. For example, a newspaper article preceding the implementation of the guidelines reported the initiative as “one of the toughest childhood-obesity crackdowns in the nation”. Conversely, support for the guidelines has also been reported, including from individual schools in media stories, food manufacturers instigating the supply of healthier food and drinks to schools and Parents and Citizen Associations.

3 TREAT OR TRAP: PROJECT OBJECTIVES

The objectives of the Treat or Trap project were to:

1. Explore attitudes, beliefs and other factors that influence eating within the school environment, particularly in relation to school canteens.

2. Determine factors assisting or hindering the effective implementation of the new government nutritional guidelines (“Traffic Light system”) and other healthy food policies and practices in schools.
3. Assess the effectiveness of training being provided to schools and canteens in association with the Traffic Light system.

4. Explore the receptiveness of different groups within the school community to healthier food guidelines and practices, and identify factors that facilitate receptiveness and support.

5. Identify and ‘case study’ enabling factors and practical strategies that have been used in schools to successfully implement guidelines and overcome barriers to healthier food consumption at school.

4 METHODOLOGY

This project was conducted in two stages. Figure 1 on the following page depicts the overall methodology.

Figure 1: Summary of the Treat or Trap Methodology
4.1 Stage One

The first stage of the project collected perspectives of school food service providers’ attitudes and behaviours in relation to healthy eating within public primary schools. The term food service provider is used in this report to include school canteen managers and external food suppliers that provide food to schools without an on-site canteen.

Stage 1 comprised two components;

i. semi-structured interviews with food service providers

ii. a written survey sent to a random sample of food service providers.

4.1.1 Sampling

One of the requirements of the traffic light system was that food service providers from each school attend training provided by the WASCA. For this study, food service provider participants were recruited using random sampling of Traffic Light training attendees who had participated in training in Terms 1 and 2, 2007. To ensure a representative sample, the list of attendees of the Traffic Light training (as provided by WASCA) was split according to the Social Economic Index (“SEI”) of the school and whether or not the school used a canteen or external food provider (see Table 2). Participants from each group were then randomly selected for recruitment.

Table 2: Socioeconomic status of schools involved in stage one interviews

<table>
<thead>
<tr>
<th>Socioeconomic Status</th>
<th>High SEI</th>
<th>Medium SEI</th>
<th>Low SEI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of schools</td>
<td>5</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

4.1.2 Data collection

Canteen Manager Interviews

Those selected were invited to participate in an interview and advised it would take approximately 45 minutes. All interviews took place at the canteen or food service provider business and were arranged at a time convenient to the interviewee. Participants were provided with an information sheet and a consent form for their records. All participants consented to the audio-recording of the interview for transcribing purposes. Fourteen food service providers participated in a 45 minute qualitative interview. Table 3 displays the response rates for these interviews.
Table 3: Canteen Manager Interviews (stage 1 and 2) – response rates

<table>
<thead>
<tr>
<th></th>
<th>Invited</th>
<th>Responded &amp; participated</th>
<th>Response Rate %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canteen managers (schools with canteens)</td>
<td>14</td>
<td>12</td>
<td>85.7</td>
</tr>
<tr>
<td>External food providers</td>
<td>3</td>
<td>2</td>
<td>75</td>
</tr>
</tbody>
</table>

From the transcripts of food service provider interviews, direct quotes from participants have been labeled according to their school’s SEI and whether they have a canteen. They have also been assigned a de-identified ID (e.g. C1 - CN for canteen managers and E1 for external suppliers) to allow for differentiation between participants.

The interviews were all undertaken by the project research officer using a semi-structured discussion guide. In general, the interview elicited opinions about healthy eating within primary schools, the role of canteens in relation to what students eat, experiences in implementing the new guidelines and feedback on the Traffic Light training course attended. A copy of the interview guide is provided in Appendix 4.

Canteen Manager Survey

A list of all West Australian primary schools with canteens was obtained from DET. A combination of this list and the list provided by WASCA (training attendees) created a new list of all government primary schools that have a canteen and had someone attended the WASCA training. Seventy primary school food service providers from around Western Australia were randomly selected from this list and posted a survey that tapped into similar issues covered in the face to face interviews. A copy of the survey instrument is provided in Appendix 5. A response rate was 44.2% was achieved.

4.2 Stage Two

4.2.1 Sampling

Four government primary schools were recruited to participate in Stage 2 of the study. Schools were divided into two groups (canteen, no canteen), and then divided into the same SEI groups used in Stage 1 (high, medium and low). Stage 2 recruitment focused on low – medium SEI schools. A random selection of schools was made using the random number generator function in Excel whereby the schools were re-ordered based on the random number that they were assigned. The first school from each group (i.e. low SEI school with canteen; low SEI school without canteen; medium SEI with canteen; medium SEI without canteen) were invited to participate. A letter of invitation and a consent form
was sent to the Principal of each school (see Appendix 6), who was asked to return the consent form by fax or post. Follow up phone calls were made if the consent form was not returned. If the Principal consented over the phone, arrangements were made for the first component of the data collection, the Principal interview. For details about each school involved in stage 2, please see Appendix 7.

4.2.2 Data collection

As depicted in Figure 1, Stage 2 included:

I. Child focus group (years 4-7)
II. Parent interviews/focus groups
III. Principal/staff interview
IV. Food service provider interview

A summary of the response rates for stage one and two are displayed in Table 4.

Table 4: Summary of the Response Rates for Stage One and Two

<table>
<thead>
<tr>
<th></th>
<th>Stage One</th>
<th>Stage Two</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stage 1</td>
<td>Stage 2</td>
</tr>
<tr>
<td></td>
<td>Canteen</td>
<td>Canteen</td>
</tr>
<tr>
<td></td>
<td>Manager</td>
<td>Manager</td>
</tr>
<tr>
<td></td>
<td>Interviews</td>
<td>Surveys</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sent: 70</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Received: 31(44.3%)</td>
<td>462</td>
<td>4</td>
</tr>
<tr>
<td>(5 low, 1 medium &amp; 5 high SEI)</td>
<td>118 (25.5%)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Parent</td>
<td>Parent</td>
</tr>
<tr>
<td></td>
<td>Focus Group</td>
<td>Focus Groups</td>
</tr>
<tr>
<td></td>
<td>Surveys</td>
<td></td>
</tr>
<tr>
<td>Sent: 462</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Received: 118(25.5%)</td>
<td>1 low &amp; 1 medium SEI</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Canteen</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Manager</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Interview</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>

4.2.3 Interview and focus group guides

To select children to participate in the children’s focus groups, class lists were obtained from a staff member at each school and 8-10 children were randomly selected. An information letter and consent form was sent home with the child to their parent. If a child did not return their consent form, they were replaced with the next child on the randomly generated list. The parents of these children were also invited to participate in the parent focus group. Instances in which a parent did not return their consent form, other parents were selected (either through the class lists or a P and C contact).

All principals of the participating schools were invited to be interviewed. In some instances, the principal nominated an alternative staff member involved in food related
policy/programs to be interviewed. The food suppliers of stage two schools were contacted and interviewed, using the same format and questions used in stage one interviews. Two of the schools had canteens on site (School B and School D), one school used the local deli as their food supplier (School A) and School C did not use a food supplier for school lunches.

4.2.4 Parent Survey

A written survey was sent home with every child in year 4 – 7 at each school. If parents received more than one survey (as some families have more than one child in years 4 – 7) they were advised to complete only one. (See Appendix 8 for survey).

5 DATA ANALYSIS

All qualitative data from focus groups and interviews was transcribed, and then coded manually for key themes. Where possible, verbatim quotes were extracted that exemplified each of the themes identified. Open ended questions from the parent and canteen manager surveys were also analysed thematically.

Quantitative data from the canteen manager and parent surveys was entered into and analysed using SPSS (version 14.1). Frequencies and descriptives were computed.

6 RESULTS

In accordance with the ethics approval for this project, each school has been de-identified in the results presented. The results for stage one and two have been collated and are reported and synthesised below in the following themes:

6.1 Children’s eating behaviour and knowledge

Parents and children were asked in the focus groups and via the written survey about their general eating practices, both in the home and school setting.

6.1.1 Eating in the home environment

What is eaten at home

Children and parents were asked whether the children eat breakfast and what they would eat. The majority (84%) of parents completing the written survey reported that their children ate breakfast everyday (see Table 5).
Table 5: Frequency that children eat breakfast – as reported by the parents

<table>
<thead>
<tr>
<th>Frequency of breakfast (days/ week)</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>97</td>
</tr>
<tr>
<td>%</td>
<td>0.9</td>
<td></td>
<td>0.9</td>
<td></td>
<td>0.9</td>
<td>1.7</td>
<td>3.4</td>
<td>83.6</td>
</tr>
</tbody>
</table>

Among the children participating in the focus groups, all of those (100%) at School A had eaten breakfast that day, compared with 57% of students at School B, 80% at School C and 64% at School D.

The children were asked why they didn’t eat breakfast and how not eating breakfast made them feel. Some of the reasons mentioned by the children for skipping breakfast were a lack of time in the morning, waking up late or lack of suitable food in their house:

“Don’t eat breakfast.... Sometimes we don’t have enough food for it or I can’t be bothered. Sometimes eat at recess”. (Child, School D)

“Not on Saturday, I have swimming in the morning and it’s too late to have to have breakfast, so I have brunch”. (Child, School D)

“No, sometimes when I wake up late I don’t have breakfast.” (Child, School C)

“Have to leave early and you don’t have time” (Child, School D)

“I sleep in” (Child, School D)

Children recognised the negative effects of not having breakfast in themselves and in other children in their class:

“[I] Feel sick” (Child, School D)

“[I] Feel tired” (Child, School C)

“There are lots of people in our classroom who don’t eat breakfast. They hardly have healthy food too”. (Child, School C)

“There is one boy who is always tired”. (Child, School C)

A similar observation was reported by a canteen manager during an interview:

“I spoke to them [teachers] and said “how did the kids go?” and they said “they worked really well" they could not get enough of the toast.... And they worked better and didn’t come and buy food in the middle of the day and that made a difference by starting off with healthy eating they last better through the day....” (Canteen Manager, High SEI school) C4)
The breakfast routine of participants varied:

“Sometimes we come to school without any food and go to breakfast club”. (Child, School C)

“Eat [breakfast] in the lounge, watching Foxtel” (Child, School D)

Information about what children are eating for breakfast was obtained in the parent and child focus groups. Children reported that they eat a variety of things for breakfast and don’t eat the same thing every day. The most commonly reported breakfast amongst children in the focus groups was toast and cereal, but they also ate yogurt, fruit and non-traditional breakfast food such as soup, pasta and fast food.

Breakfast was provided by some Schools B, C and D through a breakfast club. Breakfast Club was the only food provision done by School C. The majority of parents at School C reported that their child/ren did not attend Breakfast Club at school (42.9%) but 28.6% said their children went once or twice a week.

After school and evening meal

After school snacks varied amongst the children at the focus groups. Some ate simple snacks, such as fruit or chips whereas others had more elaborate snacks, such as fish or noodles.

Dinner routines were discussed in both the parent and child focus groups. Participating children reported having a variety of food for dinner; including meat, pasta dishes, rice, vegetables and soup. Dinner routines were just as varied as the actual dinner. Factors such as who prepared dinner, where it was eaten, with whom it was eaten and rules around dinner time varied greatly amongst the children.

6.1.2 Eating during the school day

Children at each focus group were asked to bring along their lunchbox or to talk about what they were having for lunch on the day of the focus group. What they usually order from the canteen or external food supplier was also discussed at schools were this was applicable. Parents completing the written survey were asked questions relating to school lunches, including what they provide for their children and who decides what the child will eat.

Who decides what children eat at school?

The results suggest that parents have more control over what their children eat at school if they provide a lunch box rather than giving them money to order from the canteen or...
external supplier. The majority of parents completing the written survey reported that they decide what their child brings for lunch (50%) and recess (48.6%). In comparison, parents who provide their child with money to order from the canteen are less likely to decide what the child eats for lunch (22.5%) and recess (31.7%).

Overall, children have more control over what they eat for after school snacks and for their lunch orders than they do over what is in their lunch box (see Figure 2). However, results revealed that often children and parents will both decide what the child eats while at school and as an afternoon snack.

**Figure 2: Who decides what children eat?**

As the primary purchaser of food, parents were noted to have considerable control ultimately over what their child is eating.

“I don’t buy cereal I don’t want them to eat, because if it was there she would just eat it, so I just buy what I want to buy so she doesn’t have a choice” (Parent, School D)

“Maybe the parents [control the food] as they are the ones who buy it” (Child, School C)

**What are children eating at school?**

There were a number of factors that influenced what food parents provide to their children for the school day. The most important factors that arose in the parent survey were the nutritional level of the food, how well the food keeps in hot weather and what food is available in the cupboard (see Figure 3).
The majority of parents provided their child with sandwiches every day and just over half included fruit on a daily basis. While only a minority provided biscuits on a daily basis, very few parents are providing their children with salad every day. Convenience food, such as muesli bars, juice and chips were provided frequently (see Figure 4).

**Figure 3: Factors that influence what food parents provide for school lunches**

![Figure 3: Factors that influence what food parents provide for school lunches](image)

**Figure 4: Types of food eaten by children for lunch**

![Figure 4: Types of food eaten by children for lunch](image)
In the focus groups children were asked what they usually have in their lunch box for recess and lunch. The most common response was sandwiches or bread rolls filled with salad and cold meats. Answers also included yogurt, cheese sticks, spring rolls, left-overs, chips and fruit. Children in two of the focus groups were also asked how often they brought fruit to school. Of 16 children questioned about fruit, only 5 had fruit in their lunch box everyday.

6.1.3 Use of canteen or external supplier

Of the four schools that participated in this study, three provided children with an opportunity to buy food from a canteen or external supplier (e.g. the deli). School D provided canteen once a week for the children, School B provided canteen 3 days a week, School A provided access to an external supplier 5 days a week and School C had no facility or arrangement for children to order their lunch at school.

Parents in the written survey were asked how often their child would order from the canteen or external supplier, if this was a facility that the school provided. The results are displayed in Table 6.

Table 6: Frequency that children order from the canteen or external supplier

<table>
<thead>
<tr>
<th>Frequency</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Everyday/ nearly every day of the week</td>
<td>4</td>
<td>3.9</td>
</tr>
<tr>
<td>Once a week</td>
<td>30</td>
<td>29.4</td>
</tr>
<tr>
<td>Twice a week</td>
<td>11</td>
<td>10.8</td>
</tr>
<tr>
<td>Once a fortnight</td>
<td>19</td>
<td>18.6</td>
</tr>
<tr>
<td>Once a month</td>
<td>15</td>
<td>14.7</td>
</tr>
<tr>
<td>Once a term</td>
<td>15</td>
<td>14.7</td>
</tr>
<tr>
<td>Never</td>
<td>8</td>
<td>7.8</td>
</tr>
</tbody>
</table>

Parents whose children did order from the canteen or external supplier rated a list of factors in terms of their importance in influencing the lunch order. Factors that were more important to parents included that a lunch order is a treat, that children can eat hot food or food that is difficult to send in the lunch box and that lunch orders teach children how to handle money. Factors of less importance were that a lunch order takes less effort, a lack of time in the morning and that their children’s friends order lunch (see Figure 5).
Canteen managers also believed that ‘a treat’ was one of parent’s main reasons for allowing their children to order from the canteen (see Table 7).

Table 7: Reasons for canteen purchases as reported by canteen managers

<table>
<thead>
<tr>
<th>Reason for canteen purchases</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parents run out of suitable food for lunch</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>It is quicker than making lunch</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>It is easier than making lunch</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>It is a treat</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>It is convenient when parents have work</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>Can order something hot or difficult to send in lunchbox</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>It teaches children how to handle money</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>To support school fundraising</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>To support the canteen</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Lunch is fresher and safer than sitting in hot school bags</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>It is usually cheaper than take away at night</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>School lunch is the child’s only meal</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Children won’t eat packed lunch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To teach children that healthy food tastes nice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>
Children at the focus group also mentioned reasons that they don’t use the canteen or external food supplier, including the cost, the food and bad experiences with past orders:

“[We] never order our lunches, because mum doesn’t let us because the old ones were very unhealthy, once we had a lunch order but it made us really sick” (Child, School A).

“When there was a canteen they mucked up our order and gave us all burnt food and yuck food. So every since then my mum didn’t let us buy” (Child, School C).

6.1.4 The notion of a ‘treat’

The concept of a ‘treat’ was explored in all data collection methods. Results from the focus groups suggested that the concept of a treat varies depending on the individual, and could range from food to other tangible items.

For the most part, food treats were more likely to be something unhealthy. Examples suggested by parents in the focus groups included dessert, chocolate, chips, ice-cream, chocolate biscuits, special foods like a sweet. Children referred to take-away, lollies and chocolate and chips as examples of treats.

A summary of parent views of treats from the written survey is presented in Table 8.

Table 8: “What is a treat”, a summary of findings from the parent written survey

<table>
<thead>
<tr>
<th>Food Treat</th>
<th>n (n=288 responses)</th>
<th>Drinks</th>
<th>n (n = 264 responses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fast food/ take away</td>
<td>50</td>
<td>Soft drink</td>
<td>102</td>
</tr>
<tr>
<td>Chips</td>
<td>48</td>
<td>Fruit Juice</td>
<td>49</td>
</tr>
<tr>
<td>Lollies</td>
<td>46</td>
<td>Flavoured milk</td>
<td>34</td>
</tr>
<tr>
<td>Chocolate</td>
<td>41</td>
<td>Cordial</td>
<td>24</td>
</tr>
<tr>
<td>Ice-cream</td>
<td>35</td>
<td>Milkshake</td>
<td>19</td>
</tr>
<tr>
<td>Cake</td>
<td>13</td>
<td>Water</td>
<td>8</td>
</tr>
<tr>
<td>Fruit</td>
<td>10</td>
<td>Slushie/ Frozen drink</td>
<td>6</td>
</tr>
<tr>
<td>Popcorn</td>
<td>5</td>
<td>Sport drink</td>
<td>6</td>
</tr>
<tr>
<td>Sandwich</td>
<td>5</td>
<td>Milk</td>
<td>5</td>
</tr>
<tr>
<td>Vegetables / salad</td>
<td>5</td>
<td>Boxed drink/ pop tops</td>
<td>5</td>
</tr>
<tr>
<td>Rice</td>
<td>4</td>
<td>Spider</td>
<td>2</td>
</tr>
<tr>
<td>Meat</td>
<td>4</td>
<td>Tea/ Coffee</td>
<td>2</td>
</tr>
<tr>
<td>Pancakes</td>
<td>3</td>
<td>Soda Water</td>
<td>1</td>
</tr>
<tr>
<td>Noodles</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nutella</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Convenience snacks</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nachos/corn chips</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yogurt</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
What was consistent was the notion that a treat was an ‘occasional item’ and people did not have it frequently:

“It’s not something they have all the time” (Parent, School D)

“A treat is something that you have a few times, not all the time”. (Child, School B)

“I don’t buy a lot of sweets… unless it’s a special day” (Parent, School B)

The majority of parents who completed the written survey gave their child food (71.8%) or drink (66.7%) treats three days a week or less (see Figure 6).

Figure 6: Frequency of food and drink treats (days per week)

It was also suggested by some participants that a treat is sometimes used as a bargaining tool by adults and children. Some children see a treat as something that they get for good behaviour and they use good behaviour as a tool to get their treat:

“My daughter is like this “I will eat all of these healthy things, but then can I have a treat?” (Parent, School D)

However, most parents completing the written survey did not indicate that they use treats as a bribe or negotiating tool (see Table 9).
Table 9: Parental reasons for giving children treats

<table>
<thead>
<tr>
<th>Rationale for treat</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special occasion</td>
<td>85</td>
<td>72.0</td>
</tr>
<tr>
<td>When they finish their homework/ chores</td>
<td>22</td>
<td>18.6</td>
</tr>
<tr>
<td>When they do well at school</td>
<td>27</td>
<td>22.9</td>
</tr>
<tr>
<td>When they are well behaved</td>
<td>39</td>
<td>33.1</td>
</tr>
<tr>
<td>As a reward</td>
<td>68</td>
<td>57.6</td>
</tr>
<tr>
<td>Bribe/ negotiation</td>
<td>23</td>
<td>19.8</td>
</tr>
</tbody>
</table>

Special occasion was the most common reason for providing a treat. This was reflected in comments from children also in relation to when they are likely to have a treat:

- “New Year’s Eve” (Child, School B)
- “Easter” (Child, School B)
- “You deserve it because you have been doing very good” (Child, School A)
- “Maybe it’s a birthday or something/special occasion” (Child, School A)
- “Maybe you won something like a merit certificate or did well at school” (Child, School A)
- “I normally only have them [chips] on Thursdays, a treat for me when I go to PEAC” (Child, School A)
- “On special occasions we have junk food”. (Child, School C)
- “On Sunday’s, as it’s the sleep in day, we get fish and chips…” (Child, School C)

Parents and children in the focus groups were asked why people associate a treat with something unhealthy. Responses among children and parents were similar:

- “They know that they are not meant to have it, that’s why they want it” (Parent, School D)
- “Because it’s the sugary taste, does it do something chemically to them?” (Parent, School D)
- “Because sweets are forbidden” (Parent, School D)
- “A treat is forbidden, you always say you cannot have it when you are going shopping. I say, no you can’t have that…. Or “if you be good I will give you a lolly if you are good – there is your treat!”. It’s never “if you be good I will give you a strawberry or an apple, its I will give you a piece of chocolate or a lolly pop or I will give you a biscuit or a pack of chips if you are good, its never I will give you a piece of rockmelon or apple or strawberry”. (Parent, School D)
- “It’s not just for children, everybody, humans think of treats as a piece of cake, a scone, a chocolate… don’t you feel the same? I love fruits and I eat it, but I don’t think it as a treat, I
just think of it as something I eat, part of my food for the day but if I had a little piece of
cake, I think, oh I am having a treat so I don’t…” (Parent, School D)

When asked how to change the concept of a treat from something unhealthy to a more
healthy option one parent responded with:

“Unless you can dip apples in chocolate....” (Parent, School D)

“It’s amazed me years because I think that a yummy strawberry or a nice peach is just
gorgeous but kids don’t…. they say “it’s very nice, but can I have a chocolate now?”
(Parent, School D)

“If we were to go out shopping a treat would be a book, if not it would be a piece of cake”
(Parent, School A)

However, when one of the children at the focus group school said that they regarded fruit
as a treat, another child commented:

“Fruit? That’s something you have everyday...” (Child, School B)

This reiterated the popular view that a treat is not something you have everyday.

Some people would see the outing as a treat, and in some cases children would see going
to the canteen as the treat rather than the food they were ordering:

“If I take them to Charcoal Chicken they would see that as a treat, taking them out would
be the treat”. (Parent, School B)

“[It’s] Cheaper to make it [lunch] at home... [the canteen] is sort of like a treat.” (Child,
School A)

The results of this qualitative study highlight the perception of some that the canteen is a
service providing opportunity for treat provision to children. This was further justified by the
reported perception that consuming treats from the canteen did not have a huge impact
on children’s overall nutrition.

“We have a lot of parents saying that their kids buy their lunch at school once a week and if
they want to have garbage they can have garbage” (Canteen Manager, High SEI school)

“I view the canteen as a treat for the children that they might have a couple of times a term
and I don’t have a problem with them having something that might be a bit out of the
ordinary”. (Canteen Manager, High SEI school)

“I have always been very impressed with our canteen and always thought that there are
plenty of options for kids to eat healthy food here, there are other things that are not as
healthy but if its for people like me, whose kids have it as a treat so I don’t think it’s a
problem with that.” (Canteen Manager, High SEI school)

“If they are eating well at home, then there is nothing wrong with having a couple of
sausage rolls...”. (Canteen Manager, High SEI school)
“The canteen is a treat for my children, people who work might see it as a convenience thing but they have to control what they are ordering.” (Canteen Manager, High SEI school - parent helper)

“So if they are eating well at home, then there is nothing wrong with having a couple of sausage rolls and I guess that’s where it falls back to – the parents. They know what they are feeding their children, they know what they have eaten this week and well they should if they don’t, they should have an idea about whether they are able to have a treat...” (Canteen Manager, High SEI school)

### 6.5.16 Fast Food

Attitudes and behaviour relating to fast food consumption was explored in the parents’ written survey. The majority of parents believed that fast food is ok once or twice a week and that it is convenient. However, a majority of parents did not think that fast food was cheaper or easier than a meal prepared at home. Results suggest that fast food is used as a reward or as a special occasion outing for the some of the parents completing the written survey (see Figure 7).

**Figure 7: Parents’ opinions of fast food**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fast food is ok once or twice a week</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Working late makes it difficult to prepare meals</td>
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<tr>
<td>Fast food is easier to prepare than another meal</td>
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<tr>
<td>Fast food is convenient</td>
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<tr>
<td>Fast food is a cheaper alternative to preparing a meal at home</td>
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<td></td>
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<tr>
<td>Fast food is used as a reward</td>
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<tr>
<td>Fast food outlets are visited for special occasions</td>
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</table>

### 6.2 Factors influencing what children eat and drink

One of the main purposes of the project was to explore factors that influence food related attitudes and consumption patterns, including barriers and facilitators for healthier eating.

Findings from the canteen manager interviews, parent and child focus groups, staff interviews and parent survey have been synthesised and factors influencing what children
eat and drink grouped into the following themes as depicted in Figure 8 and expanded upon in the following subsections.

**Figure 8: Factors influencing children’s eating related attitudes and behaviours**

<table>
<thead>
<tr>
<th>Children themselves</th>
<th>School Environment</th>
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</thead>
<tbody>
<tr>
<td>Preference and taste</td>
<td>Canteen – availability of canteen, ethos, options available, appeal of healthier choices</td>
</tr>
<tr>
<td>Peer influence</td>
<td>Initiatives and curriculum promoting healthy eating in schools</td>
</tr>
<tr>
<td>Children’s autonomy and responsibility</td>
<td>School culture, attitudes and practices</td>
</tr>
<tr>
<td>Ability to distinguish between healthy and unhealthy choices</td>
<td>Broader community</td>
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<td></td>
<td>Media and ‘the world around them’</td>
</tr>
<tr>
<td>Parents and families</td>
<td>Availability, promotion and advertising of unhealthy food options</td>
</tr>
<tr>
<td>Parental attitudes and practices</td>
<td>Norms relating to ‘treats’, junkfood and food generally</td>
</tr>
<tr>
<td>Pester power</td>
<td>Cost and perceived relative cost</td>
</tr>
<tr>
<td>Socio-economic factors</td>
<td>Practicalities of sending healthy food to schools</td>
</tr>
<tr>
<td>Cost and perceived relative cost</td>
<td>Perceived influence of food on health and learning</td>
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<tr>
<td>Practicalities of sending healthy food to schools</td>
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<tr>
<td>Perceived influence of food on health and learning</td>
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</tbody>
</table>

### 6.2.1 Parental attitudes and practices

The majority of participants interviewed believed that parents are primarily responsible for ensuring their child eats nutritious and healthy food. Food practices in the home environment were thought to be the most important influence on whether children consumed a healthy diet. One canteen manager summarised their belief as:

“What you are brought up with is what you live” (Canteen Manager, High SEI school)

“It comes back to the family to start with, they have to have the ideals in the home before we can re-enforce anything and we do what we can” (Canteen Manager, High SEI school)

“Everyone’s responsibility, but mainly it’s the parents. They are the ones that ultimately influence what the child eats by what they feed them” (Canteen Manager, High SEI school)

A common frustration among food providers, staff and some parent participants was the content of children’s lunch box, specifically that parents are sending inappropriate food to school:
“We find that they are bringing a lot of food to school for snacks and things for recess mainly that are not suitable, they have lots of salt, the chip packets and the so called muesli bars that are ‘healthy’.” (School Staff, School A)

“Our school is a low SES area and we are multicultural and we also have Aboriginal students. Sometimes our families... provide kids with food we don’t see as appropriate. I can provide you with an example of a student who has been diagnosed with ADHD whose mum will give him a packet of chips and a cool drink for lunch and we are saying “Hang on, this kid is being medicated, he has been diagnosed and what you are giving him is sugar, it’s counteracting it”. We have seen a number of students who react accordingly to what they are given at lunch time”. (School Staff, School B)

“Unless you change the attitudes of the people at home, and I know my attitude has changed and being persistent, saying that your child is fussy, my child is fussy too, I tell you what, she has changed right around and knows she is asking for those healthy things” (Parent, School A)

A lack of parental care and responsibility was highlighted as an issue in some schools. For various reasons, some children are left to prepare their own food and in some cases would miss meals:

“Is it better to know that your child at least has access to a pie once a week and have something hot and filling for lunch during once a week than to have nothing because the chances are they are not going to eat a cup of soup or something” (School Staff, School D)

“I wish more parents would do that for these kids, I wish they would give up their drugs, give up their booze and take time out for the kids... Some of these boys just scream out to be involved in a team... where they could learn the team skills, cooperation, leadership and the sense of belonging to something. It’s not just the skill of kicking the ball, it’s a sense of community. Then from that comes self worth and self concept develops but if parents don’t value that then they are not going to give a rats about whether they give them fruit and vegetables.” (School Staff, School D)

“We have kids who make their own lunch for school simply because of the home environment... they get themselves up and they get themselves ready for school and they make their lunch to bring to school. And that depends on what’s in the house, whether the parents are working as to whether they can provide the good healthy food”. (School Staff, School C)

“Some families are not sending anything, you would be lucky to have them send sugar in bread, is that acceptable?” (School Staff, School D)

Despite the best efforts to inform parents about good health behaviours, some schools feel despondent about their ability to change eating habits:

“You can lead a horse to water but you cannot make it drink” (School Staff, School D)
“The parents that you need to target are the ones that you will get the least success with. Most of the time you are preaching to the converted and the others will either tell you the right thing and do nothing or they will make a token effort and every now and then you will get someone who makes a really significant change to what they are doing, whether it’s healthy eating, nutrition, diet or exercise or whether they have changed their whole outlook on things”. (School Staff, School C)

“I think its family background, it’s difficult to change….. Learned through generations”. (Parent, School C)

“We have some parents who see the school as the enemy and if we ask parents to do something we can have huge arguments on our hands even if its in the best interest of the kids simply because some people see things differently. Societal shift has had an impact on a lot of things, not only nutrition”. (School Staff, School C)

“We can’t stop it. All I can do is try to be proactive. Some of them [teachers] have positive reinforcement programs for how many pieces of fruit they bring in... proactive rather than using a big stick approach”. (School Staff, School B)

The disjuncture between school efforts to promote healthy eating and what parents ‘send in’ was also a frequent comment:

“We have these programs teaching healthy eating and then you see what comes to school and you think you are not getting anywhere. Parent attitudes are a huge part in it, you can keep talking to the kids but it doesn’t filter through to the parents”. (School Staff, School A)

“We have some kids that come to school with potato chips and bottles of coke, chocolate, lollies that type of thing and that’s all that’s in their lunch box. What can you do?” (School Staff, School C)

“If it doesn’t happen at home, it doesn’t happen at school, we need the push, the support of parents at home” (School Staff, School A)

One problem identified by students, parents and school staff, and seen to be particularly an issue in lower SES areas, was the practice of parents bringing fast food into the school at lunch time:

“We see some of our families rocking up at lunch time with McDonalds and giving children happy meals. Two weeks ago, I write a little editorial in the newsletter every fortnight, I wrote about healthy eating. We have the canteen whose working and the whole school who is working on the state policy and then we have mums and dads rocking up at lunch time with Chooks, Red Rooster and McDonalds and such so you know I took the opportunity to express my objection, its contradictory”. (School Staff, School B)

“[Some parents are like] Go down to KFC, that’s at the end of the road, its location location, location, and we will go and spend $20 of my fortnightly cheque and get you McDonalds but don’t worry if we don’t have anything in the fridge for the rest of the week. They have no sense of budgeting, its criminal”. (School Staff, School D)
Schools do not have authority to ban this practice, even though it is inconsistent with DET’s nutrition guidelines; this was a frustration to staff at the schools involved in this study.

“Whereas we can through our curriculum, health programs and that and we have a healthy breakfast community day, all those things, we can promote, and we have a healthy cooking class, all that sort of stuff. We can do it from that perspective, but at the end of the day we cannot control what our parents decide to send, that’s the hard one. I would say....” (School Staff, School D)

“if parents are bringing in potato chips and coke at lunch time and I say “listen, potato chips and coke for lunch?!”, they are just as likely to tell me to get stuffed as saying “oh yeah, I guess I shouldn’t bring them in, I will just rush home and get my multigrain ham and salad sandwich and bring it down with a nice bottle of spring water” that doesn’t happen and even when they do bring those lunches they end up in the bin or they stay in the kids lunch box and that happens in higher SEI schools as well”. (School Staff, School C)

“There are clearly things out there that kids will eat that is inexpensive and better for them than chips and coke, and I think parents have to, again it comes back to what parents send the kids to school with”. (School Staff, School C)

Parents spoken to voiced concerns over this practice also:

“I don’t agree with bringing Hungry Jacks to school. Sometimes that can be a treat for some kids every now and again. But then you see other kids coming with it and it’s not a treat. I have seen it a few times a month when I am here”. (Parent, School B)

“I work at KFC down the road and the amount of kids coming back from the dentist to school getting a two-piece feed or a burger and chips and their mum is going “no, no that’s not going to be enough”. The kids are happy with a little thing of chicken popcorn but the mums say “oh no, you need some nuggets, chips and a drink”. The kid just wants a little but the parents buy them a whole lot more... and they are just coming from the dentist”. (Parent, School D)

However, in some cases this practice of fast food at school has diminished:

“a few years back we constantly had 3 or 4, maybe 5 families who were constantly bringing in take away things to school, now that would be reduced, I wouldn’t see it on a daily basis which is what I was seeing”. (School Staff, School D)

Although parents were more often referred to as ‘part of the problem’ in terms of what children eat, the positive influence of some parents was also evident in the focus group discussions.

“I have two children that love spinach and I hate spinach but I still cook it for them” (Parent, School D)

“...they love them [vegetables]. The only thing they don’t like, which I remember having when I was younger and I have only just introduced it in the last couple of months is Brussel
sprouts and I told them they are little cabbages and I say “just pretend it’s a lolly”…” (Parent, School D)

Parental role modeling is pertinent in this regard:

“They usually eat what I like…. they just watch when you eat a lot and they are encouraged to eat like us” (Parent, School D)

“I don’t like broccoli, but I still make my kids eat it even though I won’t…. They don’t see me not eating it – sometimes I force myself to eat it when they are watching. My mum didn’t bring me up on it” (Parent, School D)

“If they have it from a young age, they just get used to it. Mine love olives and all those sort of things I never touched until I grew up, they just think it’s the norm” (Parent, School D)

“One day my daughter came home and said “oh mummy my friend said you were very good because you were buying the healthy stuff in the fruit section, in the vege section” and I didn’t even know the kids were watching me!” (Parent, School B)

6.2.2 School canteen ethos and practices

All interview and most written survey participants believed that food service providers, such as canteens and external food suppliers had a role to play in children eating healthy food.

“I have no problems with us playing a role because I think canteens should play a role and I don’t think we should be selling high fat, salt and sugar food” (Canteen Manager, High SEI school)

The opinions expressed in interviews were mirrored in responses to the written survey. The majority indicated that they believed that parents (96.8%) and the canteen (87.1%) were responsible for ensuring children consume healthy foods at school. A third of these participants also believed that teachers had some responsibility while others believed the media, the Government, the WA School Canteen Association, the students, P & C association and healthy professionals were also responsible.

Some were of the strong view however, that the canteen and school role is ultimately secondary to that of parents.

“Probably everybody I think, it should start at home but I feel like I should sell good stuff too, not a whole pile of junk. I feel partly responsible as well but I think it should start with the parents, we can’t take all the responsibility” (Canteen Manager, Low SEI school)

Some participants felt that the canteen was being unfairly targeted as a factor in contributing to weight problems primary school children are experiencing:

“In some ways we are being used as a scapegoat, the government is saying its all down to the canteens, it has to be a wider picture, its has to be the canteens, the teachers, principal
and at home… a lot of parents think things should be done at the school and they leave it and they don’t do anything at home… (Canteen Manager, High SEI school)

“I get all shitty that it’s all my fault, the canteen is so bad. And I heard on Sunrise the other day, this young girl, where they point out their views, said “If you want to go to a canteen and buy crap” and I thought “Well you go to a canteen and try to buy crap these days lady and see how much you can buy” (Canteen Manager, High SEI school)

Canteen Managers reported a frustration with the lack of control over what parents are sending in their children’s lunch boxes, and that unhealthy food from home can undermine the canteen and school efforts to promote healthier eating.

“We can’t control what comes in their lunch boxes… we do our best here…” (Canteen Manager, High SEI school)

“I don’t know how you can make the parents responsible – they know they are responsible because they have children but you can’t legislate- there can’t be a lunch box Nazi but perhaps there needs to be, you know to go through the kids lunch boxes every now and then and say – send a note home and say there is no nutritional value in this lunch box". (Canteen Manager, High SEI school)

“It’s not up to me to say little Jimmy needs more calcium this week. I only see them for one meal” (Canteen Manager, High SEI school)

“You have to be realistic, kids will only eat certain things at school” (Canteen Manager, High SEI school)

The absence of a school canteen can limit the ability of the school environment to influence what children eat. Two of the schools involved in the study did not have a canteen and for one of the schools this was seen as impeding their control over what children eat at recess and lunch:

“We don’t have a canteen here so we can’t control it a lot. We use a deli which is more money driven then health driven but we did have a meeting with the guy the other day about what we want included in the lunches are we got a bit of an in there”. (School Staff, School A)

6.2.3 Pester power

Pester power was referred to in a number of interviews and discussions as a barrier to healthy eating.

“[people say] stop showing the McDonalds ads and all of this but it comes back to the parents saying “No you can’t have it”…” (Parent, School D)

The children themselves also reported nagging or manipulating their parents for treats.

“I say ‘Mum, can I have a lolly?!’…” (Child, School B)
“I say ‘Mum can I buy this and she will say ‘no!’…” (Child, School B)

“Dad lets me eat anything and watch anything, or do anything” (Child, School B)

“I sometimes take it behind my mum’s back” (Child, School B)

However, in one parent focus group it was suggested that this behaviour can be overcome by parents who are firm on their children:

“No, mine doesn’t nag. Sometimes I will buy a treat and get one of those packet mix cakes or she bakes it herself but that’s just a treat, a once in a blue moon. Every since she is little I have never allowed her to nag me….. She is good she doesn’t…” (Parent, School D)

“If they don’t eat their dinner they don’t get it [dessert]. They have to eat most of it…..” (Parent, School D)

“I say eat it, or starve” (Parent, School D)

“I always have apples in my bag so that when she says I am hungry… they want something yummy. So I say, “well I have an apple here” but she never goes for it. I always have a bag of apples” (Parent, School D)

Children cited similar examples from their perspective:

“I have to ask for it [unhealthy food]. But I don’t always get it”. (Child, School C)

“At dinner we have to eat vegetables” (Child, School C)

6.2.4 Preference, taste and appeal of food choices

Fussy eating habits and preference for unhealthy food were other barriers to healthy eating identified by parents.

“I feel sometimes very frustrated because I have tried… I eat very healthily I think and I have tried to portray that to my daughter and I think… she is 12 and I am still battling with it … if you make your own choices during the day, she still goes for things that I would prefer her not to eat. I find it very frustrating, because I think after this length of time, surely the penny has dropped? That’s not what you are supposed to eat!” (Parent, School D)

“I said, I know, you are getting older now so go for it and you have what you have what you want and now I am observing and at the end of the day I think, well there hasn’t been a bit of fruit eaten here….. So I didn’t let it go on too long and I said “well you haven’t made good choices and I was relying on you to do that and you didn’t!” so now its still ‘you have to have this and have that’. … I’ll be doing this when she is 21” (Parent, School D)

Children like choice and variety when it comes to what they are eating. Parents who serve a variety of food were more likely to get their child to eat it. Children were less likely to eat their food if there was a lack of variety in what they were presented, as articulated by one child:
Parents reported that when they use creative methods to promote healthier options, their children are more likely to eat the food presented to them:

“Bakers Delight have this thing were they have different sandwiches for different days of the week, so I took a copy of that and I just followed that and she loved it, it was something different everyday and it was really healthy, …..” (Parent, School D)

“If I was to do salad, I don’t prepare it on their plate…. I do little bowls and put it on the table, so they choose what they want to eat and once its on their plate its like “right you chose that, now you eat it”. Vegetables, they are fine, they will eat whatever I put on their plate but with salad they are really fussy about it…” (Parent, School D)

“Just put tomato sauce on it and they will eat it…. I got my son to eat cucumber by dunking the tomato sauce in it, but now he eats the cucumber just on its own…..” (Parent, School D)

“Maybe using many different vegetables, so chop chop- small. Dipping. Because they like dipping foods like carrot or celery”. (Parent, School C)

“On Monday, X had a thing at the zoo and for a change I did him carrots, cheese and bits of ham and a few crackers and he loved it, it was the first time I have ever done anything like it for him so…..” (Parent, School D)

Engaging children in food preparation or selection is another approach used.

“If kids grow their own veges too then they are more likely to try it… my son would never have tried snow peas until he grew them last year and now he is eating snow peas…..” (Parent, School D)

“If they get to make their own bits and pieces they are more likely to eat it…” (Parent, School D)

“And also I think if they help you cook, they will eat things, if they prepare the vegetables or whatever you are doing…. as opposed to “eww I don’t know what that is” whereas if you have made it, chopped it up – you get a better chance of them eating it and trying things” (Parent, School D)

### 6.2.5 Perceived role of food in relation to health and learning

Parents, children, Principals and canteen managers were asked if they thought what children eat affects their learning, behaviour and health. The majority of parents completing the written survey agreed that the food and drink their child consumes has an affect on their physical and mental states, particularly their energy and attention (see Table 10).
Table 10: Parents perception of effects of food on child’s mental and physical state

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<th>Agree</th>
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<th>Disagree</th>
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Some parents believed that food and drink affected their children’s behaviour and concentration while at school:

“I mainly noticed with X, that he was in trouble with the Principal almost twice a week and in the last week he has had a complete turnaround… [he was] on a strict elimination diet for years and they couldn’t handle a lot of things, they had anger and all sorts of things, particularly because of the anti-oxidants” (Parent, School D)

“My kids start bouncing of walls after they have a lolly treat” (Parent, School D)

The survey also asked parents to indicate the importance of a number of characteristics of food when deciding whether they provide it to their child. Parents did place importance on the characteristics of food and this suggests that they are aware of the effect of food on their children (see Figure 9).

Figure 9: Importance of food attributes as perceived by parents

Children had their own views about what caused obesity and overweight. They linked lifestyle factors, such as food consumption and physical activity with obesity:
Children participating in the focus groups also talked about the effect of food and drink on their concentration and ability to learn while at school:

“Healthy food makes you stay alert” (Child, School C)

“Switches your brain on”. (Child, School C)

“Yes [unhealthy food affects you], because you just can’t be bothered working” (Child, School A)

Children also made the link between the type of food they were consuming and their physical state and their behaviour:

“It gives you energy” (Child, School B)

“if you have something that you really like in your lunch box for recess and you really want it might make you behave different” (Child, School A)

Children particularly noted the effect of some foods on creating a sense of heightened energy.

“Makes you hyperactive” (Child, School B)

“Chocolate makes you go crazy…. Get in trouble more” (Child, School B)

“If you eat chocolate in the morning you keep moving and won’t sit still” (Child, School B)

One child also mentioned that certain items should not be consumed at school, but should be left for home:

“No [soft drinks at school] because it really only for home, parents wouldn’t want to order soft drink in a lunch order when there is lots in a container at home” (Child, School A).

All of the Principals involved in this study mentioned that food and drink consumed at school directly impacted on the children’s learning and behaviour. In particular, where the child has been diagnosed with ADHD, Principals felt they noticed a change in their behaviour when certain foods have been consumed. However, they also reported this seems to apply even to children without ADHD:

“We used to have those blue drinks…And the kids get went off” (School Staff, School A)

One school reported that teachers were happy that the new guidelines on food in schools were introduced, as it reduced the chances of children eating inappropriate food while at school:
“The teachers were very, very happy… because it [food and drink] affects their [children’s] behaviour” (School Staff, School A)

A number of participants noted that the effect of nutrition on health and childhood obesity is intertwined with rising trends in physical inactivity:

“…the kids now don’t seem to be out there running or playing sport, they are all sitting in front of the TV…, they are not outside playing”. (Parent, School D)

“…the kids aren’t playing as much sport anymore…” (Parent, School D)

“Too much technology and parents are slack, they let them sit there and they say “oh yes you can have McDonalds 5 times a week for breakfast and dinner” (Parent, School D)

6.2.6 Capacity to distinguish between unhealthy and healthy choices

In an exercise with children participating in focus groups, children were generally adept at distinguishing between healthy and unhealthy food choices. Children’s knowledge of healthy eating was tested in a number of ways. Firstly, children were given a number of food items and asked to put them into three groups (unhealthy, healthy and medium). The results of this activity have been collated in Table 11.

Table 11: Student categorisation of food into healthy, medium or unhealthy

<table>
<thead>
<tr>
<th>School A</th>
<th>School B</th>
<th>School C</th>
<th>School D</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Healthy</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apple</td>
<td>Juice</td>
<td>Rice crackers</td>
<td>Apple</td>
</tr>
<tr>
<td>Orange Juice</td>
<td>Banana</td>
<td>Apple</td>
<td>Yogurt muesli bar</td>
</tr>
<tr>
<td>Milk</td>
<td>Muesli Bar</td>
<td>Flavoured milk</td>
<td>Biscuits</td>
</tr>
<tr>
<td></td>
<td>sandwich</td>
<td>Cheese spread</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Scrambled eggs</td>
<td>Marshmallow</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Milk</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tacos</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Popcorn</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Medium</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rice crackers</td>
<td>Muesli bar</td>
<td>Flavoured milk</td>
<td></td>
</tr>
<tr>
<td>Muesli bar</td>
<td>Cheese biscuits</td>
<td>Cheese spread</td>
<td></td>
</tr>
<tr>
<td>Apple juice</td>
<td>Rice crackers</td>
<td>Marshmallow</td>
<td></td>
</tr>
<tr>
<td>Strawberry milk</td>
<td>Fruit muffins</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cookies</td>
<td>Toast and Jam</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fruit bar</td>
<td>Pizza</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sports drink</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Unhealthy</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tiny teddies</td>
<td>Biscuits</td>
<td>Tiny teddies</td>
<td></td>
</tr>
<tr>
<td>Nutella</td>
<td>Milkyway bar</td>
<td>Juice</td>
<td></td>
</tr>
<tr>
<td>Roll up</td>
<td>Marshmallow</td>
<td>Apricot bar</td>
<td></td>
</tr>
<tr>
<td>Cheese and crackers</td>
<td>Milky way</td>
<td>breakfast bar</td>
<td></td>
</tr>
<tr>
<td>Milkyway bar</td>
<td>Tiny teddies</td>
<td>Roll ups</td>
<td></td>
</tr>
<tr>
<td>Marshmallows</td>
<td>Chocolate</td>
<td>Milky way</td>
<td></td>
</tr>
<tr>
<td>Chocolate milk</td>
<td>croissants</td>
<td>Biscuits</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sippa straw</td>
<td>(cream and strawberry)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Soft drink</td>
<td>Chocolate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Choc milk</td>
<td>Muesli bar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 minute noodles</td>
<td>Biscuits</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(cream and strawberry)</td>
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</tbody>
</table>
Some children showed significant insight when it came to judging the health benefits of certain foods. For example, they recognised that some food can appear healthy (e.g. because it contains fruit) whereas in reality other factors (such as high sugar content) make it unhealthy:

“Some don’t have sugar, but they are not ok as they have other bad things in”. (Child, School C)

“Muesli bar- Sometimes it cannot be healthy and sometimes it can be healthy” (Child, School A)

Further insight was seen when one child explained why ‘red food’ should be restricted in the home environment, and not just at school:

“Well it’s still unhealthy if you have it at home”. (Child, School A)

However, there were instances in the focus group which showed that some children can be misled by the food labeling and advertising. For example, during the categorisation activity one child believed that flavoured milk was only healthy if it was strawberry or banana flavoured. Another child believed the strawberry and cream biscuits were healthy because they contained strawberry. In reality both products do not contain any real fruit.

The majority of children in the focus groups also showed awareness of the reasons behind their parents and teachers encouraging healthy eating. The cited fitness and fatness as some of the reasons why healthy eating is important, as shown in the dialogue below from the focus group at School A:

Interviewer: Any other reasons why you think it’s important to eat healthy food?

Child: So you don’t become obese
Child: Because you can stay fit and it is easier for you to do exercise
Child: More energy than fat foods
Child: And your mum and dad don’t want you to be fat

Parents tended to feel that children have a reasonable knowledge of healthy eating, but may not understand the benefits of doing so, or lack the insight or ability to apply this knowledge to their own eating behaviours:

“I think they know what is healthy and what is unhealthy but I don’t think they realise the impact of what it is doing” (Parent, School D)

“I don think that as a child, I don’t think you have the concept... you know the words but you don’t know the implications. I mean, who cares when you are 12 what is going to be happening when you are 30”. (Parent, School D)
“I think that X.... she will say to me about other children “do you know what they had for their lunch or do you know what they chose as a snack, that wasn’t very healthy was it mum?” and I will say “no, its not” and think wow, she has it all sussed but then she doesn’t do the sort of thing herself that she is observing in other people and telling me what is wrong with somebody else. They know, but they still want to eat what they like the taste of”.

(Parent, School D)

Parents in the focus groups often noted the difficulty in interpreting food labels and the fact that they won’t always know what is in food.

“This is the fallacy of it, they (muesli bars) are full of sugar and a lot of parents think that certain things are healthy but they aren’t…..” (Parent, School D)

“Yeh, yogurt, that’s got lots of sugar” (Parent, School D)

Parents reported attempting to read the labeling on food packaging but often abandoned the task as it was too time consuming and they did not necessarily understand the content information even if read:

“I used to spend ages shopping, I don’t anymore, I gave up [reading food labels]”. (Parent, School D)

“The most difficult thing is trying to read the nutritional information on the backs of foods- you can’t see it or understand it” (Parent, School A)

“Sometimes in the advertising they say it is really healthy but if you look at the box and it tells you about the ingredients, they could tell you wrong and try and make you buy it so you think that it is healthy but its not” (Child, School B)

“Like at subway when you say you want this but you can have extras on it, that means that you could add more fat to it without knowing it And it still says on the packaging that it still has less than six grams of fat but it doesn’t” (Child, School B)

Parents supported implementation of the Traffic Light system in supermarkets as a way to avoid the pitfalls of misleading labeling:

“I don’t know whether I heard something about a colour code thing coming out for food, which I think will be brilliant, it will tell kids whether the……” (Parent, School D)

“… I think that [colour coding in supermarkets] is good for parents too because if you took the time to read the back of everything, you would be shopping for 2 or 3 days…..” (Parent, School D)

6.2.7 ‘Junk food occasionally is ok’

Some participants of the focus groups and interviews believed that junk food is ok occasionally. This was a view shared across participant groups, including children, parents, school staff and canteen managers:
“When we had a canteen it was only once a week, so even if you had unhealthy things it was only once a week” (Child, School C)

“We still have the occasional lollies around the place, like in my office, so anyone who comes into my office can grab a mint. As a treat every now and again I don’t have a problem with that”. (School Staff, School B)

“My view is that kids can still be kids and if it’s someone’s bday and mum sends in a bday cake I don’t think there is any difference to them having a slice of cake there to them having a slice of cake that may occasionally be placed in their lunch box... As long as it’s not excessive, as long as it’s a one off for the week or the month or whatever I don’t see the problem”. (School Staff, School B)

“I think this canteen is as its only 1 day a week, it’s a treat. I certainly wouldn’t let her have it everyday but if she wants a sausage roll, its only once a week, I would say that is fine” (Parent, School D)

Some people expressed a view that a strict approach to restricting unhealthy food would have a negative effect. They believed that this might make the item more attractive for children, and might encourage them to seek it out when they are placed in less restrictive environments:

“I think they should. They should support more healthier choices but I also sometimes think that if the parents are too strict at home they will look for junk food from the canteen, I think that’s ok as long as its not everyday, its ok to get a sweet.... Its not as if they are having a meal out it [the canteen], they are not eating chips all the time” (Parent, School B)

“I think it’s good when they [kids] know to make healthier choices but there will be a time when they know that they should choose that [healthy item] but they think I really feel like something else, that is just human nature” (Parent, School B)

“They need to have some sort of junk food because if you totally denied then that then are just going to go crazy” (Parent, School A)

6.2.8 Perceived cost of healthy food

There appears to be a perception among some participants (school staff, parents and children) that healthy eating is more costly than eating convenience or processed foods.

“Healthier things, like muesli bars, the healthier ones are always the more expensive ones too....”.(Parent, School D)

“Like subway, it’s healthy but it’s expensive” (Child, School B)

“Healthy food is expensive and junk food is cheap, put a tax on junk food and bring the prices of healthy food down” (Parent, School A)

“I think that it comes down to cost again, to go and buy your fruit and veg is expensive” (School Staff, School A)
Children’s autonomy and responsibility

Whether children are responsible enough to make appropriate purchase decisions was raised in the focus groups. Some parents felt that they should restrict their child’s freedom when it came to buying and choosing their lunch. This was influenced by the child’s age, their ability to handle money and their ability to make good choices in relation to their lunch:

“They will lose it [money], they don’t look after it…” (Parent, School D)

“I don’t [do the ordering] my daughter does it because she is 12…” (Parent, School D)

“If I give them the money to pay for it, I will struggle to get the change…” (Parent, School D)

“I tell my kids if they are going to go to the canteen to choose the healthier option” (Parent, School B)

“There are a lot of things on the menu that are healthy, like salad sandwiches, fruit salads but the kids don’t eat them, if you offer the kids junk or healthy, they will choose junk every time…” (Parent, School D)

School staff also reported incidents of children spending their lunch money at the local shops before and after school:

“…especially with the older kids and their parents are giving them money and instead of the kids coming and ordering at the canteen, they are going to the local supermarket. I have actually been down there and they are walking out with high caffeine drinks…with packets of chips and red bull… and we don’t have a lot of control at that time [before school]. I was at the check out and I said “What are you guys doing?” and they said “We are just buying this” and I said “You are not bringing that to school” so I just made them go and put it back and the checkout woman thought I was a crazy man”. (School Staff, School B)

“Where there is a will there is a way, if they have the money, they will find the junk somehow. I go across the shop every morning on the way to school and I bump into them all, and they are at the checkout buying their lollies, choc milks or whatever they think they can’t get from me or cheaper or bigger quantity. They are at the shops getting their lolly fix for the day, I watch it and there is nothing I can do about it”. (Canteen Manager, Low SEI school, C11)

“…the older kids, because there is quite a degree of independence there, will go and spend their money at the supermarket before school….I guess that is a bit of a barrier, because some of our families both parents are working and they might be out the door at 6am and the kids are getting themselves to school. We run a breakfast club and all of our students have access to that, but some of our older kids, instead of coming and having breakfast at breakfast club, they will go and buy rubbish at the supermarket. I’m not sure if
we would have a lot of control over that, its more of a family situation. We just try and get the message across”. (School Staff, School B)

Some staff reported problems with children throwing their lunch away:

“You see some kids, when you are on duty, throwing out half their lunch so they can go off and play cricket” (School staff, School A)

“You still see whole lunches getting thrown out, the sandwiches all wrapped up nicely, whole lot in the bin” (School Staff, School A)

Sometimes this is related to children’s preferences to ‘go and play’.

“I ask why don’t you eat more at lunchtime? Because she wants to play. I ask other parents, and they say the same thing” (Parent, School C)

“...it has to be easy for them to eat and that might be something that may be hard to do... something they can have in their hand, eat in 5 minutes and off they are to play.... That’s all they want to do.... They don’t really think about eating, it’s more of a function...” (Canteen Manager, High SEI school, with canteen)

In other instances, discarding or not eating food is related more to the type of food provided.

“I find if I put healthy stuff in the lunch like salad and that in their lunch boxes they won’t eat it, the sandwiches are still in their lunch box” (Parent, School A)

“...it nearly always comes home, then I make her eat it after school. She says I didn’t have the time, I say ‘well you had the time to eat a little packet of crisps, you made the time to eat that’” (Parent, School D)

“That waste audit we did was a horrific thing, whole pieces of fruit, it was normal fruit and whole pieces that had never even been touched” (Parent, School A)

“So my kids got wise now, ‘did you eat your fruit?’ it’s not in the lunch box they must have eaten it, but it has just been turfed or they play footy with it” (Parent, School A)

6.2.10 Peer influence

Peers can influence food related attitudes and behaviours in both a positive and negative way. Although some participants believed that children foster the popularity of unhealthy options, it was also noted that children can encourage good nutrition amongst other children. As observed by one canteen manager, this can be harnessed to facilitate the uptake of healthier choices, with sales of new menu items picking up once one child had tried it and encouraged their friends to buy it too:

“We find if you don’t tell the kids what’s in it, they will try it and once one has cottoned onto it, like the frozen fruit, it wasn’t selling... until one kid bought it” (Canteen Manager, Low SEI school).
“Their mums say “Oh I don’t think they will eat anything”, well you would be surprised what you Jimmy will eat when little Bill next door is eating it. I have olives and some kids will try olives and sprouts and stuff they wouldn’t have at home and amazing things and we were doing that prior to this anyway though…..” (Canteen Manager, High SEI school)

Factors such as peer pressure and children’s need to fit in also negatively impact on healthy eating at school:

“We have said this, if the older kids don’t know it and they eat the yummy salad sandwiches and they go oh, and if they see their friends eating and you are eating it then you are regarded as a little bit of a wally. Its cool to eat junk...”, (Parent, School D)

“My child wants to be like others, if they have something they feel better.....” (Parent, School D)

“Yes, I want this. Learn about new stuff from TV and other kids”. (Parent, School C)

“They feel like they are missing out if they don’t have what other kids have” (Parent, School A)

6.2.11 Practicalities of sending healthy food to school

Many reasons were offered up by study participants as to why parents don’t provide healthy school lunches. The main reasons were the effect of weather on the school lunch and the convenience of sending snack foods instead of freshly prepared foods.

“I suppose the hard one would be like, the old age thing – keeping lunches cool and all of those sorts of things.... I know as a parent yourself, it is what you can actually send to school that will stay nice and cool and crisp and not go soft and disgusting by lunch”. (School Staff, School D)

“She has an insulated lunch box the whole works, block of ice, the whole thing and yet she won’t touch her yogurt by lunch either. The strawberries have gone soggy, the juice has run through everything, sometimes I must admit you do question in that regard, from a parents perspective, that yes you can send all this stuff along and you can be healthy but the kid for whatever reason does eat it and it comes home and you think, for all that you may as well have done the lunch order and got the sausage roll, at least you know that they would eat it”. (School Staff, School D)

“It’s more that the packet things are easier to put in the lunch bags”. (School Staff, School A)

“Yogurt goes yuk in your lunch box, it goes watery” (Child, School B)

The weather was also recognised by parent survey respondents as a factor that effected what parents send for school lunch (see Figure 3).
Food advertising on television and radio was seen by both parents and children as a deterrent to healthy eating amongst children, both in the home and school environment.

“There is junk food advertising all the time, especially during kids programs, they are non stop” (Parent, School D)

“You see more unhealthy adverts” (Child, School C)

The persuasive effect of junk food advertising was evident in the child focus group at some of the schools. Children could name all major fast food providers and in some cases they could recall whole jingles. As noted by one child, the nice appearance of fast food in ads makes them want to try it.

As articulated by one parent, parental efforts to promote healthier eating are tempered by the influence of the media and fast food advertising.

“We don’t have big advertisements flashing around us and we are not like McDonalds billboard” (Parent, School D)

A few participants mentioned the need to engage food retailers which have a large influence over what children consume.

“It’s the junk people who rule the world” (Parent, School A)

“The government needs to push to have fast food ads not on telly before 8.30pm and get rid of the double arches (McDonalds) but how feasible that is I don’t know…” (Canteen manager, High SEI school)

However, they recognised that commercial businesses were reluctant to limit their sale of junk food, as they were profit driven:

“I think its easier to put sweets out there, I don’t think there is a balance out there. Like in the movies, they have all the fizzy drinks, lollies and chocolates. I don’t think that’s balanced out. There are not enough healthy foods, it seems easier to just put out junk food...” (Parent, School B)

Some participants believed that the government should also focus on fast food advertising and portion sizes:

“the upsizing thing that should be outlawed, there should be portions, just like us where we can only sell 8 gems at a time, McDonalds should adhere to those things like it’s a certain amount per serve and that’s how it comes”. (Canteen Manager, High SEI school)

“The government needs to push to have the fast food ads not on telly before 830pm and get rid of the double arches (i.e. McDonalds)” (Canteen Manager, High SEI school)
6.2.13 **Socio-economic factors**

Wider factors, such as socio-economic status of the community can influence student nutrition directly and indirectly. Lack of financial resources, parenting styles and barriers relating to language and education were some of issues identified as being associated with lower SES schools:

“...about educating the parents, at some schools, like where my children are, its not a problem, it’s a big focus and the P and C have taken it on board and they have crunch and sip in the afternoons, that’s fine but here its... it’s the socio economic situation”. (School Staff, School D)

“A better SES area the more educated people are and the more care they have for their kids.... the lunches and the foods are more for the healthier kind ....” (School Staff, School A)

“Obviously you have your family that could afford it and then you have those that aren’t so fortunate to be able to afford the expensive stuff .... If we had to go healthy we would have to bump it up and it would cost more....” (School Staff, School D)

“That one is always going to be a tough one in our school community because of the context and the demographics... we need it in 10 different languages, I need it in Arabic, Vietnamese, Macedonian and Croatian etc. it depends on the school context and the level of success if going to vary from school to school”. (School Staff, School B)

Diminishing participation in parent bodies such as P and C’s was also thought to be particularly problematic in lower SES schools, and this also impacts on parent support for healthy eating, volunteering in canteens etc.

6.2.14 **School culture, attitudes and practices**

School staff has the potential to play a significant facilitating role in encouraging healthy eating, educating children about nutrition and role modelling healthy eating habits:

“X [canteen coordinator] is quite conscious of the food, when Y [ex-canteen coordinator] was there she was quite like “oh well it doesn’t really matter” but now that X has taken on the role”. (School Staff, School B)

As noted by a number of parents, teachers can influence healthy eating, by what they do in and out of the classroom:

“At school, if the teacher sees students eating fruit they give them a faction point.. (Children, School C)

“Our teacher, he is like pretty keen at teaching us about healthy food habits” (Children, School A)

“He is always talking about obesity” (Children, School A)
Interestingly, one participant reported that attending school was facilitated healthy eating habits by reducing the time spent eating:

“I noticed over summer when you have a break (from school), he (son) gets a real porky because he doesn’t have time to eat at school, he always wants a vegemite sandwich, something that he can slam and then he goes…. When he is at home, he will go through the cupboards and he is eating twice as much more on the school holidays then he is doing at school… I mean he is still running around but he has eaten twice as much and he ends up getting bigger….” (Parent, School D)

A participant in the child focus group also recognised that school can foster healthy eating habits, particularly if the school has a policy on fruit consumption:

“At my old school they always told you to eat bananas for recess…. You had to eat a piece of fruit everyday… happy I could eat a banana everyday” (Child, School D)

A school’s culture or the attitudes and practices of individual teachers however are not always supportive of healthier eating practices.

“…the teachers have to be constantly reminded. They hand out lollies as rewards, and they are not supposed to – its one set of rules for the canteen and one set of rules for the teachers. You hear the kids going ‘We are having pizza and a drink today and a movie’ and I go ‘Oh really!’ …” (Canteen Manager, Low SEI school)

Although the school can play a big role in promoting healthy eating amongst primary school students, there is some dissension surrounding the increasing responsibility being placed on schools, particularly relating to areas that are commonly viewed as the parent’s responsibility:

“Bottom line is, despite all the programs that are run, our job is about education and part of that is educating the kids about good nutrition and healthy eating but at the end of the day the parents have to take on board the fact that they are responsible for their children and they are responsible for providing their kids with a good lunch”. (School Staff, School C)

“Why again does the school have to be the be all and end all solution to everything? We say here we go – now its obesity. How much of the school time do we have to dedicate to the 101 concepts out there when we continually erode our core business and then have to face the music at the end of the day when the children haven’t reached the benchmark? What does the school have to do?” (School Staff, School D)

“The big concern for me is that this sort of stuff is constantly pushed onto schools and we are somehow seen as the panacea for all societal ills and we are not. We are here to educate children and to provide them with a life set of skills that come up – academic, behavioral, emotional, socio, all of that sort of thing. So healthy eating, nutrition and establishing a set of values is all apart of the things we do at schools but the transference of those skills go back to the family….I don’t think the big stick approach works. I think you need to be more subtle about it and I think you need to chip away, you have to chip away and celebrate the
success you have and be realistic about the sort of success you are likely to have. I don’t think there is one simple answer and lumping it onto schools and saying “you guys have to do a better job of educating the kids in terms of healthy eating”, short of turning it into a nanny state, which is what the government is being accused of doing, and we end up disempowering people anyway, I don’t think there is an easy fix”. (School Staff, School C)

There is a strong argument against placing so much responsibility on schools. As one participant pointed out, this over-reliance on the school may disempower parents and create a welfare mentality:

“It becomes part of the welfare mentality and people become disempowered. The critical thing is to empower people to do things themselves, if go and do it for them then they are not going to do it themselves. Its tough love in education” (School Staff, School C)

“It’s a hard one because where do you draw a line between what is a families right and the schools…. it’s a fine line and Principals in particular, administrators at school, that’s a tough one all around…” (School Staff, School D)

6.3 Promoting healthier eating within the broader school environment

6.3.1 Is healthy eating a priority in schools?

Government primary schools are under pressure to meet a number of requirements expected of them and as such they are forced to prioritise the issues that have to be addressed. Results suggest that the schools involved in Treat or Trap do see healthy eating as important, but not all schools are in a situation to place it high on their priority list. While all schools recognise overall health as a priority, there is evidence that limited resources and time result in schools having to prioritise within the health field. It would appear that for three of the schools involved, healthy eating was less of a priority than other health topics, particularly physical activity. These schools also faced issues associated with a lower socio-economic group; such as language barriers and less than ideal family situations.

“I am not sure that we would say in this school that we make it a priority but what we do, and what happens in our classes is that they would have a focus on a cross-curricular approach and an integrated approach and it may fit into health and phys ed but there is a lot of overlap and it would be an integrated approach”. (School Staff School B)

“It’s a hard one because there are so many different things that we do, that its got to the point were its not a priority, we just know its there, its something that we have undertaken that we know we can do, we know we can make an impact in some way”. (School Staff School D)

“... it’s a matter of well, appreciating from a school perspective that each year different priorities come down from above and schools have to take certain things on, as well as undertaking what the school itself sees as priorities as well as what parents see as a priority –
it’s a fine line and sometimes we have to mish mash it all together and yes health and healthy lifestyle is very important to you, it may not be necessarily our top priority here, we have to cut what we can.” (School Staff, School D)

Despite these issues, all schools have woven nutrition education into their curriculum or have implemented additional programs to encourage healthy eating. Some of the participating schools had implemented special initiatives to promote healthy eating. At one school, the Kids Bodz program (an external program) worked with staff, parents and children to raise awareness and modify eating habits. School staff recognised however that programs conducted within schools have limited impact on children’s eating habits if they are not long term.

There was mixed success with this program, and results from that school indicate that healthy behaviours need to be re-enforced through consistent and long lasting change:

“… any change from my experience takes a long time of consistent, concerted pushing... it takes a long time to change those behaviours and like I said with kids being so immature about them trying to influence their parents on the decision about what is going in their lunches, especially what tastes good and is promoted well”. (School Staff, School A)

“It is hard to sustain it, the teachers have still kept it in their health program and they will continue to do that, even if we don’t have the Kids Bodz program next year I am sure they will do it in their programs” (School Staff, School A)

This was also recognised by children who took part in these programs:

“Once the challenge was finished kids stopped [living a healthy lifestyle] because they though they didn’t have to do it anymore” (Child, School A)

“But some of them started undoing them [the good habits]” (Child, School A)

“They might have done it for a few weeks but suddenly they would stop” (Child, School A)

“I don’t think it [effects of health program] has lasted, I have seen the chip packets come back, those little dipping things” (School Staff, School A)

This is a finding that transverses across to every day life and healthy eating. Behaviour that is not practiced consistently and for a long time will not result in long term habits, as shown in the comment below:

“Sometimes I do… try to go healthy. But that goes out of the window 2 days later when I am cooking the lovely spaghetti bolognaise and I say “Ok I’, eating with you kids tonight” (Parent, School D)

There were however examples of sustained impact on some individual families:

“Mind you some of the good practices have gone back home and the kids are talking about it” (Parent, School A)
“Well I am definitely more conscious about what is in the lunch box” (Parent, School A)

“At home I know our diet has changed completely and I know that a lot of other children have changed as well” (Parent, School A)

“I don’t buy packets of chips for my kids anymore” (Parent, School A)

Getting families to participate or support special programs can be problematic in schools. One of the study schools conducted a session for parents and provided child-minding services to make attendance easier. Even this did not encourage parent participation:

“The kidz bodz, we didn’t get many parents that day.... and I looked after the kids as babysitter so they didn’t have to worry about that- it was disappointing” (School Staff, School A)

“We probably wouldn’t [get many parents involved in healthy eating programs] but it depends on how well we push it” (School Staff, School A)

Lifestyle factors, particularly working hours, were recognised as reasons for a lack of parent participation in various school events.

6.3.2 Case Studies – what works to promote healthier eating in schools

The Treat or Trap project sought to document and case study examples where healthier eating at school was achieved. From a school’s perspective, it appears that a more gradual and gentle approach worked best when encouraging parents to provide their children with healthy school lunches:

“The little things you do. We have had far more success with the incentives than we have had with wielding the big stick. That is the other thing we find here is that we have to attack different issues from different directions, if you confront them head on then you are going to have a huge issue. We try and work from a slightly different tack. We chip away at it. We have our Aboriginal parents, Aboriginal education officer who liaises with those parents, sometimes on food issues, lunches etc, attendance, behaviours... there is that, we come in that way”. (School Staff, School C)

The pricing of food was also investigated as a factor that may facilitate healthy eating among primary school children. The children in the focus group suggested that reducing the cost of healthy food available at the canteen will make it more attractive. However, the opinion of parents and school staff differed on this issue. Some participants believed that price played an important role in what children eat and emphasised the importance of reasonable prices:

“Pies are pretty good, 65c for a party pie and $2.30 for a big pie which is pretty good and the same price as a sandwich” (Parent, School D)
However, other participants believed that reducing the price of healthy food would not encourage children to purchase it because they don’t have a concept of money and if they want a certain item, the price will not deter them from purchasing it:

“Kids don’t have any idea of pricing” (Parent, School D)

“No, it’s what they want off the menu” (Parent, School D)

Different strategies to promote healthy eating were implemented in each of the schools involved in this study. This included employing outside service providers to run education programs, implementing programs within the school and conducting events to involve the whole community. For a summary of strategies successfully employed by each school (see Table 12 on the following page).

There are various ways that healthy eating is included in the curriculum, as shown from the comments below:

“We try to get them more involved in healthy eating through the programs we run… and that’s part of our pastoral care program. We try to encourage, in the last few newsletters we have put notices in trying to get parents to provide healthy lunches”[ School Staff, School C]

“Certainly in the classes the teachers spend a lot of time talking about nutrition, distributing fruit at recess and lunch time is a pretty powerful message to kids. We re-enforce that too by giving kids factional tokens if they bring their own fruit. Little things that are a very strong incentive, even to wear school uniforms we use factional tokens just to sort of encourage or bribe”. (School Staff, School C)

“This terms our sport term, faction sport so they might have come away from the healthy eating… no, they would be discussing healthy eating because it comes back through, “as athletes you really need to eat properly”, and I feel confident that the year 6/7 teacher would have addressed it because they have been undertaking cross country training for the whole term. So again, it’s not just about being physically fit but our minds and our bodies must also be fit with the right fuel to give us the energy to conquer those sort of distances. So I feel very confident that that is being address there, even I would suggest that the year 2/3 are undertaking the blue earth program and there is an opportunity there that those teachers would have been bringing that back into their classrooms. Where it revolves around a specific theme or event that is happening in that term, that makes it easier for the teacher to…. It’s a natural progression, that’s what you centre your lesson around. If you would ask do we do much on smoking or drug awareness the answer might be different. But certainly because we do our cooking lessons on a weekly basis, its probably… we do it, but we probably don’t realise (School Staff, School D)
Table 12: Summary of Strategies used to promote healthy eating in Stage 2 schools

<table>
<thead>
<tr>
<th>Program</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>School A</strong></td>
<td></td>
</tr>
<tr>
<td>Kidz Bodz Program</td>
<td>An outside service provider conducted the “Healthy Eating Awareness program” that ran for 10 weeks and aimed to encourage healthy eating.</td>
</tr>
<tr>
<td>Waste Audit</td>
<td>A waste audit was conducted on the schools rubbish bins to evaluate how much food is being thrown in the bin.</td>
</tr>
<tr>
<td>Competitions</td>
<td>Children were included in the process of changing the school lunch menu, with competitions being held to name new menu items and create combinations to put in a wrap.</td>
</tr>
<tr>
<td>Fruit and Vegetable Week</td>
<td>Fruit and vegetable consumption was promoted through activities run during Fruit and Vegetable week.</td>
</tr>
<tr>
<td>Structured lunch</td>
<td>The lunch period at this school is structured, to include a designated time for eating. This prevents children from using the whole lunch period for play and leaving no time to eat.</td>
</tr>
<tr>
<td><strong>School B</strong></td>
<td></td>
</tr>
<tr>
<td>Structured lunch</td>
<td>Children at this school eat their lunch in the classroom. This allows the teacher to monitor what they are eating and to ensure that they eat their lunch.</td>
</tr>
<tr>
<td>Newsletter</td>
<td>The Principal at this school has an editorial in every newsletter. Sometimes the topic of the editorial is health related.</td>
</tr>
<tr>
<td>Health Education</td>
<td>There were examples at this school of staff members observing children’s eating habits. If staff noticed an unhealthy eating behaviour they would educate children against it (e.g. the dangers of red bull) or prevent them from buying it from the canteen.</td>
</tr>
<tr>
<td><strong>School C</strong></td>
<td></td>
</tr>
<tr>
<td>Encourage healthy eating</td>
<td>Healthy eating was encouraged in this school by the giving of faction points to children who practiced healthy eating.</td>
</tr>
<tr>
<td>Pastoral Care Programs</td>
<td>Includes education on healthy eating</td>
</tr>
<tr>
<td>Health Education</td>
<td>Teachers include healthy eating and nutrition as a part of their curriculum</td>
</tr>
<tr>
<td>Newsletter</td>
<td>Sometimes includes information about healthy eating and nutrition</td>
</tr>
<tr>
<td><strong>School D</strong></td>
<td></td>
</tr>
<tr>
<td>Cooking program</td>
<td>Children from across the school are involved in a cooking program that teaches them about different foods and how to cook healthy meals.</td>
</tr>
<tr>
<td>Community Breakfast</td>
<td>Each year group focuses on one health-related topic and creates education material to be exhibited at the Community Breakfast. Healthy food is donated by food manufacturers and the community is invited to participate.</td>
</tr>
<tr>
<td>Breakfast Club</td>
<td>Children have the opportunity to enjoy a healthy breakfast before school.</td>
</tr>
<tr>
<td>Programs</td>
<td>This school applies for funding to run various programs within the school. Education Assistants help run the programs.</td>
</tr>
<tr>
<td>Christmas Lunch</td>
<td>This school planned to hold a whole of school Christmas lunch to show children that healthy food can be delicious. Reports from the school reveal that teachers and school staff were enthusiastic about this idea.</td>
</tr>
<tr>
<td>Dare to Lead program</td>
<td>This is a program aimed to help Aboriginal students. A part of the program this year was cooking.</td>
</tr>
</tbody>
</table>
What else could schools do?

Educating children about healthy eating could also be incorporated within schools’ other obligations as set out by the Education Department. One school conducted a community breakfast, involving school students, staff and the community. This event was supported by all stakeholders in the school and community and was used by the school to promote healthy eating whilst meeting its obligation to engage the community. While this approach involved the whole school community, examples arose throughout this study of individual staff members who have taken it upon themselves to educate children about nutrition and to encourage them to eat healthy. For example, there were a number of canteen managers who have run health promotion programs through the canteen; including fruit and vegetable week and healthy bones week. In one school from stage one of this study, the canteen manager used ‘Benny the Banana’ to encourage students to eat fruit and also educated children about the different vegetables available.

The canteen managers’ survey asked about ways schools could better support the canteen to provide healthy food choices for students. Responses are summarised below:

Table 13: Ways in which schools could help canteens provide healthy food choices

<table>
<thead>
<tr>
<th>Theme</th>
<th>Number of times mentioned*</th>
</tr>
</thead>
<tbody>
<tr>
<td>A school vegetable patch</td>
<td>2</td>
</tr>
<tr>
<td>Better classroom and teacher involvement</td>
<td>6</td>
</tr>
<tr>
<td>More volunteers</td>
<td>5</td>
</tr>
<tr>
<td>Parent and P&amp;C involvement and education in healthy eating</td>
<td>5</td>
</tr>
<tr>
<td>Increase physical activity time</td>
<td>1</td>
</tr>
<tr>
<td>Positive role modeling by teachers, Principals and staff</td>
<td>3</td>
</tr>
<tr>
<td>Canteen manager involvement in healthy eating promotion amongst children</td>
<td>3</td>
</tr>
<tr>
<td>Provide free fruit</td>
<td>1</td>
</tr>
<tr>
<td>Utilise promotions to encourage healthy eating</td>
<td>4</td>
</tr>
<tr>
<td>Promote healthy eating through cooking classes</td>
<td>2</td>
</tr>
<tr>
<td>Extend the guidelines to include preservatives</td>
<td>1</td>
</tr>
<tr>
<td>Changes to the canteen staff, facilities and menu</td>
<td>3</td>
</tr>
</tbody>
</table>

* Note: participants listed more than one method

Some canteen managers that were interviewed expressed a problem within their school relating the communication between the canteen and teachers:

“I don’t actually talk to many teachers and ask if they have talked about it in their classroom, so maybe that is one thing that is lacking, there is not that much communication between me and the teachers....” (Canteen Manager, High SEI school)
“There should be more clarification between the canteen and the teachers and what’s going on and if they are.. say if we doing a healthy bones week how we can incorporate that into the classroom and vice versa, if they are doing something in their classroom it would be nice to say we doing this and you can promote it in the canteen... there could be more dialogue...”. (Canteen Manager, High SEI school)

“Sadly, at the moment it’s just the canteen, its not umm..... we are basically our own identity..... what the teachers do in the classroom its not um in combination with things we do here....” (Canteen Manager, High SEI school)

Communication within the school has been highlighted as an area in which improvement can be made. Some interview participants believed that encouraging healthy eating amongst children would be easier if children were taught something about nutrition and healthy eating in the classroom. The importance of linking classroom lessons with the canteen was also recognised by participants of the written survey. All participants thought that it was quite important or very important that food sold in the canteen reflects what the children are being taught in the classroom.

One of the canteen managers interviewed expressed a desire to work together with the teachers to promote healthy eating amongst children:

“Trying to use the canteen within the school as a tool for the kids to learn about the nutrition, we are not really which is a shame but it would be nice if we were...” (Canteen Manager, High SEI school)

Schools where the teachers take an active role appear to be experiencing success in getting children to eat healthily:

“The pre-primary teacher is quite rigid about what food goes into the pre-primary, not necessarily what comes from here but what the parents send in as well. There are a couple of teachers that have put their foot down and said we don’t want parents sending their kids with chips, they have to send them with good food.... I suppose its working for them... some of them order pretty healthy stuff” (Canteen Manager, Low SEI school).

Another major difficulty that the guidelines have exposed within schools is the lack of volunteers and an over reliance on the same people to get things done within the school:

“a lot of the members are a bit tired and a bit jaded and have been back pedalling a bit because they say it is too much responsibility” (Canteen Manager, High SEI school)

6.3.4 Achieving the right balance

While the importance of healthy eating and maintaining a healthy body weight is paramount; results from this study highlight the need to achieve a right balance in the message. Results have shown that sometimes what is intended as a healthy message might transform into a message that actually has a negative impact. Examples were
reported throughout this study of the message being taken too literally, which resulted in extreme behaviour from some children and teachers. Children and teachers at some schools were described as some as ‘food Nazis’ who took it upon themselves to monitor what other people are eating and in some cases the message created negative feelings among some students as it lead to bullying. The need for a fine balance was recognized by some school staff, who could foresee problems occurring in their school if the message became a catalyst for negative behaviour:

“Maybe we need to steer the kids into action by showing them pictures of grossly obese people and say this could happen to you… if you do something like that as a shock tactic, you run the risk of pushing kids to the other extreme and you could have anorexic or bulimia or those sorts of issues so it’s a really fine line that you walk between getting kids on the right path and sending them down a completely different path that is just as dangerous to them”. (School Staff, School C)

“We also had Kids Bods [program] and that made a change in what they were bringing to school, that was a really good program, it went a little bit too much the other way though because there is few girls now that look down on other kids eating unhealthy things especially the older girls saying things like- you shouldn’t eat that, you shouldn’t eat that, so you can get that too”. (School Staff, School A)

“... there are a few teachers here that we call the Food Nazis that are really into health foods and they choke on anything that they see a star against it [which indicates a green item] that they say “a hamburger cannot be healthy, how can that possibly be healthy?” and I say “it has three salads in it so it qualifies”. I had to go and talk to the headmaster and say we have to work together here, you have to go and talk to the teachers... you cannot say to the kids ‘I suggest you don’t buy on Thursdays because its hamburger and chicken day because I don’t consider that a healthy food’ and I get the kids coming down and saying ‘but Mrs such and such said that’s not healthy’ and I said ‘it has a green star against it so it is, it’s a better choice then the pie and sauce’...”. (Canteen manager, Low SEI school)

Results suggest that the healthy eating and healthy weight message was creating negative perceptions of overweight people in some children. During the focus groups some children made quite derogatory comments about overweight people, including:

“You’re fat and you can’t do anything and your lazy” (Child, School A)

This is obviously one downside of the healthy eating message as it is resulting in some children developing negative attitudes toward overweight people.
6.4 School canteens as a conduit for healthy eating

6.4.1 Attitudes towards healthy eating

Overall the Canteen Managers reported that they supported healthy eating within schools, as reflected in their comments below:

“I don’t think you should deep fry food or sell coke, chips and cakes which we didn’t do anyway here” (Canteen Manager, Medium SEI school)

“Between 9 and 3 kids are at school, they don’t need fizzy drinks they don’t need lollies and they have enough time out of school to have that type of thing” (Canteen Manager, High SEI school)

“Certainly you shouldn’t have soft drink or sell chips and lollies you don’t need, there are a lot of things that can go and it doesn’t matter” (Canteen Manager, High SEI school)

This was supported by findings from the written survey, with nearly all respondents agreeing that healthy eating was an important issue and food supplied to children should be congruent with what they are taught about health and nutrition (see Figure 10).

Figure 10: Canteen managers’ opinion of healthy eating and the new guidelines

6.4.2 Ways in which healthy eating is promoted

Canteen managers who completed the written survey were asked to indicate ways their canteen encourages healthy eating amongst children. As this was an opened question,
the responses were varied. These responses have been categorised into themes and are presented in Table 13. The most popular theme of answers related to what the canteen stocked and what menu items were offered to children.

Interviewed participants also offered insight into the strategies used to encourage healthy eating among children:

‘...we have a book which we said there is a list in there of the artificial flavourings and the additives and we had that printed in the newsletter and said we were going to be proactive in eradicating preservatives and additives from the menu....” (Canteen Manager, High SEI school)

Table 14: Ways in which canteens encourage healthy eating among students

<table>
<thead>
<tr>
<th>Theme</th>
<th>Number of times mentioned*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food stocked and offered by the canteen</td>
<td></td>
</tr>
<tr>
<td>1. Limiting the supply of red and amber items</td>
<td>40</td>
</tr>
<tr>
<td>2. Using products that are low/ no salt, sugar and fat</td>
<td></td>
</tr>
<tr>
<td>3. Providing healthy choices</td>
<td></td>
</tr>
<tr>
<td>4. Limiting the sale of pastry items to certain days</td>
<td></td>
</tr>
<tr>
<td>5. Making healthy items attractive e.g. include it in a meal deal, present it well, use promotions (e.g. buy 6 pastas and get a free fruit slushie)</td>
<td></td>
</tr>
<tr>
<td>6. Promote healthier menu on a pin board outside the canteen</td>
<td></td>
</tr>
<tr>
<td>7. Limit sale of after lunch items</td>
<td></td>
</tr>
<tr>
<td>8. Regularly include new items on the menu</td>
<td></td>
</tr>
<tr>
<td>Encouragement and promotion of healthy eating</td>
<td></td>
</tr>
<tr>
<td>1. Encourage the consumption of green products, fruit and milk</td>
<td></td>
</tr>
<tr>
<td>2. Promote healthy eating through theme days e.g. Healthy Bones Week, Fruit and Vegetable Week</td>
<td></td>
</tr>
<tr>
<td>3. Healthy lunch days</td>
<td></td>
</tr>
<tr>
<td>4. Invite outside groups to run healthy eating programs e.g. Kidz Bodz</td>
<td></td>
</tr>
<tr>
<td>Pricing of healthy food</td>
<td></td>
</tr>
<tr>
<td>1. Keeping prices low</td>
<td>6</td>
</tr>
<tr>
<td>2. Subsidize the price of fruit</td>
<td></td>
</tr>
<tr>
<td>3. Subsidizing the price of healthier options</td>
<td></td>
</tr>
<tr>
<td>Follow and enforce the Traffic Light System and related guidelines</td>
<td>4</td>
</tr>
<tr>
<td>Communication with school community members</td>
<td>2</td>
</tr>
<tr>
<td>Don’t use food as a reward</td>
<td>1</td>
</tr>
<tr>
<td>Apple slinky</td>
<td>1</td>
</tr>
</tbody>
</table>

* Note: participants listed more than one method

6.4.3 Practicalities of serving fresh food in the canteen

Canteen managers in the two schools with canteens noted that healthier food was also harder to store and keep fresh, especially for schools with limited opening hours and low student numbers.
"The thing with a 1 day canteen is the freshness of the fresh products because you are going from one week to the next and that makes a problem in this canteen.... if you are doing fruit kebabs, the fruit will not stay fresh until the next week". (School Staff, School D)

"If I am doing the fruit kebabs on Friday, I have to go on Thursday to buy the fruit... I can’t make them at home the night before because they are going to be brown and yuck by the time I serve them...." (School Staff, School D)

"If you don’t sell them, you can’t do anything about it, it goes to waste... profit-wise its not good....". (Parent, School D)

Some participants also reported that healthier food items were more costly and that this cost had to be passed onto the children.

The lack of volunteers has been highlighted as a barrier to implementing healthier food within schools, which in turn impacts on healthy eating during school hours.

"I couldn’t do any cooking because I was on my own and on a average week I would only have one helper...." (Canteen Manager, High SEI school)

"You can only do what you can do in the time you have got, hence you rely on the prepackaged food and snacks.... its going to be awful for people if there is just themselves and that is why they have to rely on pies and pizzas because they can’t make the food themselves because they don’t have time... its understandable" (Canteen Manager, High SEI school)

"Volunteer aspect is what frightens our school community off running a school canteen" (External supplier 1)

6.5 Responses to Traffic Light Guidelines in Schools

6.5.1 Canteen responses to the Traffic Light Guidelines

Canteen Managers and food service providers generally offered positive comments about the introduction of the guidelines into schools:

"I think it was a good idea, I think it had to happen because.... I collect menus as well.... And you go through a lot of them and you see what they are buying 5 days a week, they would have pies and hotdogs... and I thought that’s a bit much" (Canteen Manager Low SEI school, canteen)

"Its easy to do it and you really can’t go wrong because you have a guideline so its all in a book.... there is a lot to choose from. It’s not that hard" (Canteen Manager, Low SEI School)

Most canteen managers who completed the written survey were positive about the guidelines. Some canteen managers indicated they believed the guidelines to be too stringent:
“My perception was that they are harsh, very difficult for a canteen to make any sort of money if it sold only green products... the idea of a canteen is to sell nutritious food but also it’s run by the P and C” (Canteen Manager, High SEI school)

“They are heading in the right direction, but I think there needs to be a little bit of leeway for things like the choc chips” (Canteen Manager, High SEI school)

“School canteens have all gone really healthy and I just think that .... How healthy can we get?” (Canteen Manager, Low SEI school)

Respondents were asked retrospectively about their views on the guidelines before they attended WASCA training - the responses to this open ended question are summarised in Table 15.

**Table 15: Summary of written participants’ opinion of the guidelines before training**

<table>
<thead>
<tr>
<th>Pre training attitudes towards guidelines</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>The guidelines are too strict or over the top</td>
<td>3</td>
</tr>
<tr>
<td>The guidelines were confusing and I was unsure what they involved</td>
<td>5</td>
</tr>
<tr>
<td>The guidelines were contradictory</td>
<td>1</td>
</tr>
<tr>
<td>I heard a lot of negative rumors about the guidelines</td>
<td>1</td>
</tr>
<tr>
<td>The guidelines are a positive thing</td>
<td>8</td>
</tr>
<tr>
<td>Our school already followed similar guidelines</td>
<td>6</td>
</tr>
<tr>
<td>The guidelines would create difficult or inconvenience</td>
<td>4</td>
</tr>
<tr>
<td>I was worried that the guidelines would impact on profit</td>
<td>1</td>
</tr>
<tr>
<td>The guidelines are not practical</td>
<td>1</td>
</tr>
<tr>
<td>The guidelines are similar to StarCap</td>
<td>1</td>
</tr>
<tr>
<td>The guidelines restricted free choice</td>
<td>1</td>
</tr>
</tbody>
</table>

While most canteen managers indicated that the changes being introduced would positively influence healthy eating, a minority reported being unsure or disagreed.

The majority of participants indicated that their school viewed healthy eating as a whole of school responsibility. Approximately half of interviewees reported that the implementation of the guidelines was left to the canteen manager and the canteen committee. In some cases, the Principal and the P&C also helped with implementing the guidelines. The majority of participants of both the interview and the written survey
reported that the canteen manager was responsible for making decisions about the canteen either solely or as a part of a group.

When asked whether they received support during the implementation period, the general answer among the interviewed and written survey participants was yes. However, this varied depending on who was providing the support. In general, Principals and the P&C were supportive of the canteen managers during implementation. Overall there was mixed support from the parents and less support from the teachers.

6.5.2 Initial student and school responses to the new Guidelines

Canteen managers reported a transitional period once new menus adhering to guidelines were trialed. They indicated that during this period students gradually accepted changes and would try new options:

“It will be good to see kids trying different food and they have to order their lunch and if their favourite options are not there anymore, they still have to eat, so they will choose something and try something different……” (Canteen Manager, High SEI school)

“It took a fortnight of convincing them and giving them one to try, or they would buy a bag and share with their friends and their friends would say it’s not too bad. If you say “you only have enough money for that or that” and they have to choose and they want to walk away with something, they would take it and try it. It grew on them and now I go through a box of those every few days because the kids who only have a little bit of money don’t have enough to buy a jelly cup or ice-cream” (Canteen Manager, Low SEI school)

“If we don’t sell it they can’t buy it. They want something for their 20c; they are not going to walk away with something rather than nothing”. (Canteen Manager, Low SEI school)

In most cases the canteen manager reported that children did not object to changes to the menu:

“Little primary school kids tend to go with the flow and you find that the kids are fine, it’s the parents that cause the fuss” (Canteen Manager, High SEI school)

“when things go that kids are used to having and its nice to see that they don’t kick up too much of a fuss... they say too bad and then they try something else... they are eating healthier options which is kind of nice too to see a kid come up and grab an apple....” (Canteen Manager, High SEI school)

“whole meal pikelet – that’s one thing I have done that’s been really beneficial since the guidelines came in – I use half whole meal and half normal flour in my pikelets and kids have not missed a beat – they haven’t even noticed and that’s a positive thing”. (Canteen Manager, High SEI school)
For participants who did experience complaints from children, they reported that the children were easily placated and were young enough to accept the change:

“We took nuggets off….the kids would come up and we would say “you can’t have that” and they would [complain] and then they would just get over it” (Canteen Manager, Low SEI school)

“They say give fruit and jelly and options like that, and kids are young enough in primary schools to accept that....” (Canteen Manager, High SEI school)

During the focus groups, children were asked if they had noticed a change in the food provided by the school or the food they could buy from the canteen or external supplier. Children were also questioned on whether they knew the reasons behind these changes. Not a lot of students could articulate the reasons behind the changes. Only two reasons were offered up by the children at all four schools, including increases in the obesity rates in children and a change in the law:

“Because it’s the law” (Child, School B)

“Too many kids are getting obese” (Child, School B)

“Because of obesity” (Child, School B)

“Try to make the school eat more healthy” (Child, School A)

“Because there is more fast food advertising and fatty foods more kids want to have it, so they are trying to change it so kids have more healthy stuff to eat” (Child, School A)

Overall written survey participants reported positive experiences when implementing the guidelines, including a better menu, happy children and parents and involvement of children in the Traffic Light system.

Canteen managers reported the guidelines have made some aspects surrounding food supply easier. For example:

“I suppose before I used to take the tomato out and take the carrot out and I used to pamper a bit but it will make it easier in a way”. (Canteen Manager, High SEI school)

“They always will complain about it because they have always had it and then they lose it and its not much fun, but when they next lot come along they will never have had it so they won’t miss it....” (Canteen Manager, High SEI school)

“If the parent orders we tell them that it can’t be ordered without salad, and if they don’t like it then they have to order something else off the menu – simple as” (Canteen Manager, Low SEI school)

There was a realisation amongst participants that there is a great variety of healthy food and that most children will try it if they are encouraged and given the chance:
“we have things like sushi and teriyaki chicken the kids love, they like something different, and because I make my own pasta and fried rice and that type of stuff its embraced and they are not actually reliant on pies...” (Canteen Manager, High SEI school)

“half the kids don’t realize what they are eating as long as its looks and tastes good, they will keep coming back”. (Canteen Manager, High SEI school)

However, on the other hand:

“We were a bit disappointed with the vegetables, we have few veggie places were we go and buy salad but if you don’t get a minimum order of $50, they won’t deliver it to you. The suppliers get you in, the first order is fine and then they go “No, the minimum order is $100 or we are not delivering – they are in for the money. It might be different in the high school situation because they use a bigger volume, but for primary school, they don’t look after you” (Canteen Manager, Low SEI school).

The guidelines also appear to have prompted co-operation among canteen managers at various schools. Some participants revealed that they have either called another canteen manager seeking advice or have given advice:

“Talking to other canteen managers is fantastic to get their ideas (Canteen Manager, Low SEI school.

“We have helped... all you can do is send them your menu and answer their questions... like supplier questions, what you serve for morning tea....” (Canteen Manager, Low SEI school).

6.5.3 School responses to new guidelines

The schools involved in this study were of low and medium socio-economic status and such faced different issues to those that higher socio-economic or private schools would face. Some Principals expressed the difficulty of implementing guidelines into lower socio-economic schools, particularly when they have more pressing issues than nutrition:

“I think you will probably get a better chance in what they call the leafy green schools and the higher SEI schools and you have a reduced chance of doing it in this type of school. That’s a reality, people can write all the guidelines they like but the reality is that if you are to do that in this school, it would not fly, it would not work, and it wouldn’t be for lack of effort, but I am a pragmatist. You can keep bashing your head against a brick wall but it is not going to make a significant difference, particularly in the short term and unfortunately, the way staff turnovers in schools it needs to be short term”. (School Staff, School C)

“The other compounding problem is that societal values have changed so much since I was a kid and people’s responses to different issues is so vastly different know that it is difficult to say here is a set of guidelines go away and implement it because one size doesn’t fit all anymore”. (School Staff, School C)
In schools where the canteen was not open five days a week, there was feeling among some participants that the guidelines were too strict for schools with limited canteen service:

“Well our usual reaction was: well its only 1 pie a week. It would be a different story if we were 5 days a week. That would be the basis for it and probably for some extent it still is. We only open it one day a week, is it not better off to at least have them eating something or an opportunity to receive something and then we can know that they have received something substantive for the week than nothing”. (School Staff, School D)

“...it is a fine line because is one pie a week going to be…. it’s not as if these kids have the opportunity to order everyday. That is where we are finding it hard”. (School Staff, School D)

“It was more they thought it had gone over board….”. (Canteen Manager, High SEI school)

Similar feelings were echoed amongst some teaching staff, who did not appreciate losing lollies as food rewards:

“[it] was sort of “Oh what’s next? What are you going to do next?” and what will we be left with? What are we left with from a teaching perspective to reward? Because its all very well doing “Well done love” and giving them a certificate we have all done that but sometimes they are happy to receive that…”. (School Staff, School D)

6.5.4 Parent response to new guidelines

The opinion of parents regarding the changes in the school as a result of the Government’s nutritional guidelines (the guidelines) was elicited through the parent survey and focus group and by asking Canteen Managers and Principals during an interview.

Prior to completing the written survey, half (n = 59, 54.6%) of parents were aware of the Traffic Light System and the guidelines. Of those that were aware of the system, 70.0% reported knowing the recommendations in relation to “green food”, 53.2% were aware that “amber food” should only be offered to children twice a week and 53.2% knew that “red food” should not be served to children by the school. The majority (91.0%) of parents agreed with the recommendations made by the Traffic Light system.

This support for the guidelines may arise from the recommendations they make but it might also arise from the positive changes that have occurred in the school since the guidelines were implemented. The majority of the parents surveyed agreed that there was an improvement over a number of aspects of the canteen, including the quality, variety and nutrition of the food. However, the majority of parents surveyed also agreed that lunch orders have become more expensive as a result of the guidelines (see Table 16).
Parents of the written survey also rated the importance of a number of aspects of nutrition behaviour and education in the school environment. The majority of these parents believed that it was important that school canteens provide healthy food and drink, that children are taught about healthy eating at school and that the school encourages healthy eating through the canteen (see Figure 11). The majority of parents (97.8%) also believed that it was important for them to follow a Traffic Light system at their own homes.

**Figure 11: Parents perceived importance of various healthy eating strategies**

Canteen managers reported varied reactions from parents:

“It was more they thought it had gone over board….” (Canteen Manager, High SEI school)

“I don’t want them to get to the point where it’s too hard to order, and some of the parents where like that at the P and C meeting I believe…. Some of them were really angry about the legislation”. ….” (Canteen Manager, High SEI school)
“As long as the parents know what is happening, it’s not such a drama” (Canteen Manager, Low SEI school)

“We say to the parents “do you know that your child is coming to the window with $5 buying lollies and ice-creams…. You don’t know that, that’s what they are having for lunch…. Your children! And your complaining about it [the healthy eating changes]” (Canteen Manager, Low SEI school)

One participant completing the written survey reported that children and parents at their school were boycotting the canteen because of the changes.

6.5.5 Difficulties with guidelines and their implementation

Some canteen managers who were interviewed reported that the guidelines were confusing. Participants commented on the perceived arbitrary nature of the classification

“It does make you wonder how some products get in and other products are an amber… you think how they hell did that get green?.... They can’t explain it...... With the slushies, blue is not a natural fruit colour, bright red is not a natural fruit colour, so how did they get green?” (Canteen Manager, Low SEI school)

“Why can we have a choc milk but not a choc chip muffin. To me, what is the difference there? To me there is no difference. You should have plain milk and no choc chip and I can get that, that makes sense to me and the other way doesn’t” (Canteen Manager, High SEI school)

Canteen Managers also reported they felt there was inconsistency in the inclusion and exclusion of products from the different categories:

“…. there is no reason why kids are still allowed to have flavoured milk but if you said the reason that flavoured milk is still there because our kids aren’t getting enough calcium, therefore we have put it in the green section. You know, you have to give people reasons why certain things have fallen into certain categories”. (External supplier 1)

“They can’t tell me that they have put this in this category because it has this much salt and this much fat in it then they are doing it purely on a subjective basis. Obviously [manufacturer name deleted] have lobbied them hard and said “We don’t want you to take flavoured milk out” and they caved on flavoured milk so flavoured milk is still allowed to sell, even though it is high in sugar.” (External Supplier 1)

“We had frosty fruit as ice-cream and they went to a red for some reason, but I don’t see how frosty fruits go to a red and they put slushy machines as green……if we got a slushy machine in here we would be running mad with it but I am not interested in one because to me, they are not a green food and I don’t think the dentist would agree with it” (Canteen Manager, Low SEI school)
One Canteen Manager expressed concern that because of a perception that the product is unhealthy, it was classified as amber, for example, the guidelines would allow disallow ‘pizza’ but allow it on foccacia bread provided it was labeled differently. Additionally, there was the perception that some permitted foods (e.g. flavored milk) were actually less healthy than other disallowed foods.

The majority of participants indicated that the guidelines lacked detail and highlighted repeatedly during interviews the importance of clarification regarding recipe content. This would enable them to classify and categorize the products they made themselves. They indicated that they felt this would have gone a long way to clearing up the confusion about the guidelines for themselves and other schools:

“Having the set guidelines of X amount of fat and that to me was essential – to do it the way they have done it, it has ended up a bit of a minefield. If they had ‘this has too have this much sugar, fat or salt or less’” (Canteen Manager, High SEI school canteen)

“there is no detail in it. It was written by the Government and I wanted more detail. I have asked the School Canteen Association, so if I am inventing a new food – curry puffs – give me some guidelines so I now when I am making this food I know if it is green or amber, do they have guidelines? No. Have they told me, can you have this much salt and fat? They said “Oh we are still making it up”.” (External Supplier 1)

“I don’t mind the changes, it is the fact that we have to submit all the recipes and I wish they had “This item should have this percentage fat or less, sugar – this percentage or less” – let’s make it easy, I don’t know if there is someone out there needing a job....” (Canteen Manager, High SEI school)

Other issues raised by participants were a general confusion surrounding the guidelines and a lack of resources and facilities available to schools to enact the guidelines.

While some written survey and interview participants thought that they would have problems implementing the guidelines, results suggested that the problems experienced were either minor or were easily ironed out. Although the majority of participants experienced minor or no problems, there were some participants who reported major difficulty in relation to the guidelines, such as a downturn in profits.

The minor difficulties being reported by participants related to replacing or removing menu items, quality of products supplied to the canteen and getting parents to comply with the guidelines when placing lunch orders. There was frustration amongst some canteen managers about the quality of the food supplied for canteens:

“I am all for making it healthier, that doesn’t really worry me as long as its. I mean the only muffins that are green are the Pritikan Muffin and I mean most adults wouldn’t want to eat a Pritikan muffin so why would a child want to eat it?” (Canteen Manager, Low SEI school)
There was also frustration with the difficulty of finding good quality ingredients and suppliers, especially when they are not included in the Buyer’s Guide.

A minor difficulty for some canteen managers was finding a replacement for lollies:

“Main problem is with the lollies, kids could come up with 5 or 10 cents changes from their lunch or money that mum gave them to buy a little treat at canteen, we haven’t been able to find a substitute for that and that’s our hardest hurdle. Everything else we can bring out but that’s 50 cents or over, so it’s just the little things and treats that we can’t find a substitute for” (Canteen Manager, High SEI school)

“The Principal did say that if we were going to say no lollies for kids we have to come up with an alternative, and the P and C couldn’t come up with an alternative so they talked about book vouchers and there were a couple of options but nothing that could take the place of sweets....” (External Supplier 1)

“I had to wean the kids off fruit straps... it looked like they were dipped in a sugar bowl, they were coated with white chunks of cubed sugar and they were addicted to them... Certain kids would just buy them all day and have 5 or 6 in a day and in the end I had to literally take note who was buying the most and then cut the supply and I thought I am never going to get these kids off them. I thought, “what am I going to replace them with that is a healthy treat that is small and cheap?” because some kids wouldn’t only have 5c or 10c on them... so I came up with those fruit balls and roo poo – they are fruit balls... They walk out of the door... I never thought I would replace a 10c lolly with another 10c lolly that is 10 times better for them than this 10c candy thing”. (Canteen Manager, Low SEI school)

Some participants have reported that an occasional lack of co-operation from parents and children when placing lunch and recess orders:

“Its really hard to stop, if a child wants no salad in their Sub, I have to get tough and say it comes with salad and it comes as it is, and I could say that in a 1000 newsletters and they still come in...” (Canteen Manager, High SEI school)

“I think at first a lot of people thought it was me being the Nazi, until the stuff came in, because they would hear things – like this has changed or oh no we can’t sell that –or why has the jelly or muffin have fruit in it. I mean I made a dozen muffins and I think there are still a dozen muffins still there”. (Canteen Manager, High SEI school)

“Some kids order 2 sausages rolls. They are not big and you have a 12 or 13 year old boy and they eat a lot and the better parents also put a shaker salad with that but I can assure you there are not that many that do that, but then it is on once a week and that’s all pies and pastries are on once a week”. (Canteen Manager, High SEI school)

“If its an obligation that the school canteens comply with all of this, then we have a big job to do to convince the school community that we need to introduce it and I failed in my case to convince the school community that we need it....” (External Supplier 1)
“It’s the P and C’s job to convince the supplier that she needs to comply with this but I can’t. If I go to her and say “You need to comply with this before the beginning of term four”, she would just not supply us”. (External Supplier 1)

Another minor difficulty reported by some canteen managers was creating variety on the menu and the preparation time taken to make fresh food:

“Thinking of new ideas is the hard one…. Keeping the kids interested, think of new ideas and trendy names is hard” (Canteen Manager, Low SEI school)

“As frustrating as it is, a sandwich is high labour and when there is only one set of hands…. You almost push for the hot foods just so you don’t have to make them.” (Canteen Manager, Low SEI school)

One school without a canteen has reported major difficulty getting their external supplier to co-operate with them and to follow the guidelines. As a result, they are left in the situation where if they push for compliance their supplier will quit and due to the lack of volunteers within the school, the children will not be able to purchase lunch at school. In this case, it has been reported that the other schools buying off this supplier are not pushing for compliance and as a result this has created great tension between the P and C and the supplier. In the participant’s opinion:

“I really think she doesn’t want to know about it and it’s a huge imposition on her”. (External supplier 1)

Another area where the guidelines have the potential to create difficulty is in country or rural schools. This relates back to the opinion of some participants that the guidelines are designed with a specific type of school in mind. One external food supplier highlighted the difficulty country schools had with getting food supplied to them:

“I am having issues with Wooroloo Primary School. Wooroloo Primary School wants to buy our products, I can’t deliver them sushi – Wooroloo is miles away, so what are they going to do?” (External supplier 1)

“Eastern Hills High School wants to buy our products, I am not driving there, forget it. Its in Stoneyville, it’s too far to drive everyday. So I don’t think the Education Department is aware of the problems they have created”. (External supplier 1)

The majority of the interviews were conducted before the mandatory compliance date and therefore some participants had not yet fully implemented the guidelines in their school. Some of these participants did however foresee problems occurring in the school once the guidelines were fully implemented:

“The yummy drummies will be the tough one… the kids love them and we go through a lot of those and now that they are amber they will only be on Monday and Friday and they can only get two at a time…” (Canteen Manager, High SEI school)
“we’ve just this week got rid of our batch of lollies and obviously next term there will be no lollies or treats and we will have to explain ourselves why we are doing this… so we will see, the start of next term may be more difficult” (Canteen Manager, High SEI school)

“Kids bring ten cents and fifteen cents…. Then that’s there treat having the jelly lollies for 5 cents so what do we do to replace that? We are losing revenue that way and also the kids don’t have treats. Its going to be hard to find a replacement and as we know stick a piece of fruit in front of them and that’s not a treat, unfortunately, and we would like to think that kids will eat fruit and they will under duress and certain situations but under that situation they won’t buy it....” (Canteen Manager, High SEI school)

Problems reported by participants completing the written survey have been summarised in Table 17.

Table 17: Problems arising in relation to traffic light system (as reported by canteen managers and external suppliers)

<table>
<thead>
<tr>
<th>Problem</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricting product type or amount</td>
<td>5</td>
<td>17.2</td>
</tr>
<tr>
<td>Parents and children</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boycotting canteen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refusal to try new items</td>
<td>9</td>
<td>31.0</td>
</tr>
<tr>
<td>Refusal to follow guidelines (e.g. requesting no salad, ordering pastry on non pastry day)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increased cost of fresh food</td>
<td>2</td>
<td>6.9</td>
</tr>
<tr>
<td>Lack of variety of products</td>
<td>2</td>
<td>6.9</td>
</tr>
<tr>
<td>Problem with supplier or products</td>
<td>4</td>
<td>13.8</td>
</tr>
<tr>
<td>Changes in the canteen resulted in increased time and effort</td>
<td>2</td>
<td>6.9</td>
</tr>
<tr>
<td>Decrease in profit or sales</td>
<td>1</td>
<td>3.5</td>
</tr>
<tr>
<td>Replacing items</td>
<td>2</td>
<td>6.9</td>
</tr>
<tr>
<td>Unsure what to do</td>
<td>2</td>
<td>6.9</td>
</tr>
<tr>
<td>Total</td>
<td>29</td>
<td>100</td>
</tr>
</tbody>
</table>

6.5.6 Guidelines: Perceived impact on profitability?

Some participants were concerned about the impact of the guidelines on their profitability and the operation of the canteen.

“[I] just thought I can’t just do it because I can’t justify another hour of my time doing paper work, unless you are a big school and have 2 full time helpers you might have time – its not like the wages are hundred per hour (Canteen Manager, High SEI school)

“There is a product on the market that is safe and it’s the same price per kilo but I have to add 7 eggs per kilo and what is a $2 product suddenly become a $3 or 4 product a kilo and that’s doubled in price for goodness sake…” (Canteen Manager, High SEI school)
“Every day of the week we have hot food and we change every day of the week and have one green and one amber product…. Now probably two or three out of those days the amber product gets more bought, so if we don’t have that amber product our sales would go down and that’s one of the reasons we decided to keep the hotdogs, we can’t afford to loose 65 sales in one day…. " (Canteen Manager, High SEI school)

However, some participants were optimistic about the effect the guidelines would have on their profit:

“Well to start with I thought we would lose money, but we were never really making money on those anyway… and just looking, kids are still ordering their lunches and they are coming up with extra money to buy an ice-cream or a muffin or an apple…. ” (Canteen Manager, High SEI school)

“Instead of being able to get those things every week, I put the most popular things on every second day. It took them a little while to get used to the fact that they could only get it on a Tuesday and Thursday instead of [everyday]…. If anything, you get more orders because the kids that want those things will wait until Tuesday to get it, even though they still order other things (Canteen Manager, Low SEI school)

“That’s all that’s on offer so they are going to buy it, it’s that or nothing” (Canteen Manager, Low SEI school)

The majority of written survey participants either did not mention a decrease in sales or profit as a problem they experienced, or said that where they did have a problem with sales, it has since improved. A few Canteen Managers reported experiencing problems relating to decreased sales, patronage and profit. Examples include children and parents boycotting the canteen, parents abusing canteen staff and difficulties sourcing healthy menu items that were low cost.

“The idea of a canteen is to sell nutritious food but also it’s run by the P and C… we have a very profitable canteen so each year we put money back into the P and C… like $8000 to $10,000 a year…..” (Canteen Manager, High SEI school)

“But things are definitely not selling like when I used to do a muffin with a little bit of icing on the top, they (the kids) just don’t cope well with the fruit in the muffin as well, and they used to sell out the door, like you can’t even use a choc chip now either…. (Canteen Manager, High SEI school)

“We have been fortunate because we have a working capital but we have gone through it all. We were 5 days a week, now we have gone to three, we couldn’t survive 5 days. We were in trouble but because we had working capital we were able to survive that, but it was a good term of downward sales since the kids kicked up and didn’t like it” (Canteen Manager, Low SEI school)

One canteen manager thought that profitability would be a problem prior to the guidelines coming into effect, but noted that in reality their canteen did not suffer any loss
in sales or profit. However canteen managers reported that seasonal and other variations in canteen sales that can make it difficult to isolate the impact of the traffic light system:

“I wanted to put it out this term and actually see the difference in what my sales are like and I will be able to look at the end of term…. If we are not making as much money or selling as many things then maybe we will need to look at some strategies”. (Canteen Manager, Low SEI school)

“What increases our sales at the end of the day is our ice-creams… we’ve reduced what ice-creams we sell… but between term 2 and 3 you sell minimal ice-cream anyway… Today I had 6 kids at the window for an ice-cream whereas in summer I would sell 50 slushies and 50 ice-creams in term 1 and 4. Because of the weather it’s had a major impact on our sales but as for the traffic light system, not yet”. (Canteen Manager, High SEI school)

For those that did report an initial decrease in profits and sales, most reported that things balanced out and children started buying from the canteen again:

“They probably stopped ordering for a little while and then they slowly gave into the system. Last term we ran at a loss, a $50 a day loss, this term we are breaking even, maybe just a margin profit. By next year we are hoping to be back and running and supplying things to the schools, like play equipment and books for the library”. (Canteen Manager, Low SEI school)

6.5.7 Guidelines: Training

Canteen Managers and external food suppliers were invited to attend training about the Traffic Light guidelines. To facilitate a discussion about participants’ opinion of the training, they were given a copy of the evaluation sheet handed out after the training and a copy of the sample menus provided during training.

Overall perception of session

The majority of participants had a positive opinion of the training session. They reported that the training was well presented, raised important issues and helped to clarify concerns:

“It was pleasing to go through our menu and see that we were over 60% green items....” (Canteen Manager, High SEI school)

“We have had a lot of information and the training helped to clarify some things with regards to the booklets we have had, what is actually amber and what does it mean two servings...” (Canteen Manager, High SEI school)

“It was useful in the fact that prior to that I didn’t really know what it was – well I did hear about it for years that it was coming, as an introduction to the whole thing it was fine....” (Canteen Manager, High SEI school)
Perception of guidelines

Participants’ reports of their perception of the guidelines after attending the training were varied. Approximately half of the participants completing the written survey reported a positive change in because of the training. While most of the interview participants believed that the guidelines were a step in the right direction, they reported that the way they were implemented and the methods of operation detracted from the meaning:

“My thoughts haven’t changed after going to training. I think it’s a whole lot of headache for me. I don’t mind the changes, it is the fact that we have to submit all the recipes and I wish they had “This item should have this percentage fat or less, sugar – this percentage or less” – let’s make it easy, I don’t know if there is someone out there needing a job…. “(Canteen Manager, High SEI school)

“I think they are a good thing, they aren’t a bad thing its just the way they have been implemented needed to be re-thought a bit” (Canteen Manager, High SEI school)

Sample menu session

Most participants were generally positive about the sample menus and most reported that they reflected their own menus:

“They are fairly basic, they are no different to what I offer, there is nothing on there that I don’t offer”. (Canteen Manager, High SEI school)

“I understand that this is a high green menu and we are all tending towards this… I don’t see any anything outstandingly different to ours…” (Canteen Manager, High SEI school)

Although one participant commented that:

“They were not our cup of tea – it’s not how I would do that” (Canteen Manager, Low SEI school)

One participant commented on the value of showing people a sample menu for guidance about how to run their own canteen:

“The training itself was very good and those sample menus were just what the canteen operator needed to go “Oh ok, this is how other people do it” (External supplier 1)

The majority (69%) of participants completing the written survey reported that the training equipped them to deal with problems that arose during implementation. They were better able to deal with problems that arose because they were given explanations and examples at the training session, they received useful material and could discuss their experiences with other canteen managers during the training session. Some participants also felt that the training had given them confidence in how they were running the canteen.
On the other hand, some interview participants believed that the training did not equip them for the problems that occurred or were likely to occur in the implementation process. Some participants suggested that they needed better access to approved products or would have benefited from contact with other canteen managers. Participants believed that the guidelines should have been mindful that schools have different situations and not every school is a metropolitan school with a canteen operating 5 days a week.

Schools with outside suppliers believed that the guidelines generally, and the training session was not designed with them in mind.

“It was specifically aimed at a certain kind of canteen were the P and C run the canteen and employ one or two people and the rest are volunteers and they buy it pre-made from [manufacturer name deleted]”. (External Supplier 1)

“An appreciation that not all school canteens run the same way. There are some funny situations out there, in some cases the local petrol station supplies the school and that needs to be, there needs to be some appreciation of that.”(External Supplier 1)

Written survey participants were asked whether the training helped them in a number of ways, including whether it improved their knowledge of healthy food and their confidence (see Figure 12)

Figure 12: Canteen managers’ opinions of the training
Participants were asked what if any changes they would make to the training session. While some responded that they wouldn’t change anything about the session, others had some constructive suggestions:

“Focus on fine tuning things” (Canteen Manager, High SEI school)

Participants completing the written survey also made suggestions for how to run future training sessions. These are summarised in Table 17.

**Table 18: Suggestions made by written survey participants**

<table>
<thead>
<tr>
<th>Suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td>More focus and time on menu planning</td>
</tr>
<tr>
<td>Use visual examples and give more suggestions</td>
</tr>
<tr>
<td>Provide clearer definitions of categories</td>
</tr>
<tr>
<td>Provide tips for fruit and vegetable preparations and storage</td>
</tr>
<tr>
<td>Create a contact list of canteen managers who have been successful at implementing healthy eating</td>
</tr>
</tbody>
</table>

Some participants were also surprised that there was no follow up or updates provided to them after the training session:

“I thought they would send us an update since then after speaking to more schools and gathering more information, even a simple memo to say this muffin mix is ok, I mean of all the schools that are sending information, surely that can be correlated and made useful for other people…” (Canteen Manager, High SEI school)

When asked for their opinion about the suggestions made at training to promote healthy eating within the school some problems were raised related to communication and support for canteens:

“They are great ideas but there must be communication between the classroom and the canteen for it to work…” (Canteen Manager, High SEI school)

“Some of those ideas are phenomenal but they are a lot of work and if you don’t have the support – we are still working on them knowing what our names are – and I don’t think its going to change too much in the future…..” (Canteen Manager, High SEI school)

The majority of participants (written survey and interviewees) reported that as a result of attending the training, they were clear about the changes that had to be made for their canteen to comply with the guidelines.
6.5.8 Compliance with Guidelines

Most participants interviewed were compliant with the guidelines, but some left compliance until term 3, when it was mandatory. In one case, a school experienced problems with their external supplier, who did not believe the guidelines applied to them. One school was not clear that the guidelines applied to all school food, including class rewards and activities such as the breakfast club they ran two mornings a week, as they indicated that the guidelines were not relevant as they did not have a canteen or external food supplier.

One interviewee reported that there are ways around the guidelines:

“One of the older girls wanted a [chicken salad roll]... and she wanted no salad and I said, look you can buy a bread roll there, its 20 cents for mayo and you can order 2 plain chicken tenders and that's the [chicken salad roll] so just order it like that and you can have it”.

(Canteen Manager, High SEI school)

6.5.9 Guidelines gains: Impact on menus

The majority of Canteen Managers and external food suppliers interviewed reported that they were already providing healthy food within their school or were a part of the Star Cap program. As a result of this, there were very few changes reported among the participants as a direct result of the guidelines. Some of the canteen managers interviewed were progressive in their attitude to healthy eating in the school environment and implemented changes to their canteen independently of the guidelines. These changes included removing lollies, changing recipes and restricting the sale of certain items:

“When I first started here... there were a lot of lollies so we just got rid of all of that ... A couple of them would comment and say ‘Why can’t we have that anymore’ and I would say ‘Because that’s the way its going to be now’ and over times its not been a real issue”

(Canteen Manager, Low SEI school)

Where changes had to be made as a result of the guidelines, they were mostly minor adjustments to the menu. Commonly mentioned changes were an increase in salad portions or items sold with salad, removal of certain items from the menu and a restriction of items to certain days a week. For example:

“If they are amber we add vegetables to make it green but we do lots of salad and wraps already and don’t have white bread unless they ask....”(Canteen Manager, High SEI school)

When asked what the hardest change was or would be the most common answer for interviewed participants was replacing lollies and other items as treats. There were also some reports of teachers using lollies as a reward even after the guidelines came into force:
“Mr X gives them out…. All the time…. if you answer a question you get a lolly, a mintie”
(Child, School B)

“We have a lolly jar in the class room” (Child, School B)

The hardest changes for written survey participants have been summarised into themes and displayed in Table 19:

**Table 19: Canteen Manager views of most difficult changes**

<table>
<thead>
<tr>
<th>Hardest Change</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricting items</td>
<td>10</td>
<td>32</td>
</tr>
<tr>
<td>Explaining changes to children and parents</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td>Finding products/ supplier problems</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td>Volunteers – recruiting them, getting existing ones to do more</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Changing or adjusting the menu</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Providing variety on the menu</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Preparation</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Getting children to try new items</td>
<td>2</td>
<td>6</td>
</tr>
</tbody>
</table>

In one instance the guidelines were ironically perceived to have had a detrimental effect on health promotion activities in the school. One participant reported that the guidelines had made their method of promoting vegetable consumption redundant:

> “before this started we used to have a vege ticket system – if you bought one of the packs that had fruit salad in it or a sandwich or a toasted sandwich we gave you a vegetable ticket and after they got 5 I had a box of [prizes]….. I thought it was a good way for the little kids to start thinking about eating healthy….. there is no point doing it now, what is there?”
> (Canteen Manager, High SEI school)

However, other interviewees have implemented a reward system to encourage the choice of green items over amber or red menu items:

> “We also give awards now too, if the kids do green choice foods they get an award and it goes into a container and it gets drawn out at the end of the week and someone wins. That gives them an incentive as well” (Canteen Manager, Low SEI school)

### 6.5.10 Guidelines gains: Are children consuming more healthy food?

The majority of participants reported either being optimistic or that they believed that the effort and change that has occurred in schools this year will positively impact on what children are eating while they are at school.
“if it is a part of their life then maybe that will be a good influence” (Canteen Manager, High SEI school)

“you can’t not follow the guidelines, so you have to make changes and it can only then follow through to the classroom and then hopefully at home so then its all each one follows through…” (Canteen Manager, High SEI school)

“I think high school you might as well write them off now because they are not going to change but I think the younger ones are being made more aware of nutrition and what they are eating and not just at this level, also in the classrooms” (Canteen Manager, High SEI school)

However, some reported doubts about the impact it will have at home and whether the impact will be long lasting:

“So some people won’t care and won’t care about the legislation and won’t even know that it’s in and will still continue to write no salad because that’s how their kid likes it and it’s easier just to write no salad on their meal deal and I deal with it at the other end” (Canteen Manager High SEI school)

“No, because they eat enough sh** anyway…. Who knows what they eat at home…. McDonald’s for breakfast and dinner. A lot of parents work these days and I don’t think there is a lot of home cooking.” (Canteen Manager, Low SEI school)

Some participants argued that the guidelines had gone too far, that the canteen was a treat for children and that the guidelines were talking the fun out of ordering at the canteen:

“Certainly you shouldn’t have soft drink or sell chips and lollies you don’t need, there are a lot of things that can go and it doesn’t matter and things like that you think, it’s overboard”. (Canteen Manager, High SEI school)

“Can’t a kid have a treat now and again?” (Canteen Manager High SEI school)

“there is a lot of talk about that as far as kids do and parents do use the canteen as a once a week treat so you are allowed to have a bit of the stuff you wouldn’t get at home.. but now that’s gone its harder for the kids to still think it’s a treat and a fun place to come…..” (Canteen Manager, High SEI school)

“a lot of people have said oh god what are we going to feed our kids because it is a treat and the canteen is no longer a treat and therefore what are we going to do? Is there going to be a black market on lollies and chocolate? Going to be secretly bringing it in because I can’t get it from the canteen?” (Canteen Manager, High SEI school)

This view was echoed by a parent helper who was present during one of the interviews:

“I think the education needs to start with the parents at home and I think that the canteen for most parents viewed as a convenience or as a treat for their children and there are plenty of options to have something healthy if you are using it as a convenience but if you
are using it as treat, its like McDonald’s or something like that, you don’t have it once a week or once a fortnight they have it as a treat every now and again and if they are having it once a week then it’s a problem, its about control – the education needs to start at home”
(Canteen Manager High SEI school)

6.5.11 Schools promoting healthy eating: will guidelines make a difference?

Principals in Stage two were asked whether they thought the guidelines would affect what children eat. Results were mixed. Some believed that it would make a difference:

“Most of the time you end up preaching to the converted anyway but a concerted consistent approach over a number of years by the teachers in the classroom and bringing other bodies into the school, I think it does make a difference”. (School Staff, School A)

“It will be considerable, some of the schools eat rubbish, if you implement it and stick to the guidelines and implement it effectively, I think there is the opportunity for a significant difference, particularly in a school like ours. There are some barriers there and there are all these issues but I think we are quite pleased with the way that the canteen menu has evolved and how it had gone. I think there is considerable opportunity there”. (School Staff, School B)

“I think there is because in this instance, in this school we have a cooking program that we undertake twice a week in small groups in children that are withdrawn and they spend an hour learning about cooking, learning about food and how to prepare it and learning how to prepare a nutritious meal in hope that if nothing else they may become more independent where they could do it themselves at home if they get in situations where, lets be honest, there are some situations where we have some parents that don’t come home, they will become more worldly”. (School Staff, School D)

While others believed that there would be none or little change in children’s eating behaviours as a result of the guidelines:

“I don’t think that has changed between generations, I don’t think there has been an intergenerational shift in those things, not only to do with health and nutrition but to do with fitness, to do with value in education…. All the stuff you read in the media… I don’t think much has changed it has changed significantly, I think the values have shifted, we are still trying to do in part the best message they can but short of going in and force feedings kids good food and force feeding parents on the value of education…. I think that’s a huge shift…”. (School Staff, School C)

“I would love to sit here and say that everything we do has had a significant change but I don’t think it has. I think it has made some change, yes the kids are eating fruit at school, at least we know that about 15 or half of our children are getting breakfast at least twice a week, for kids that come to school without food at least you know they are getting something here at school. We do the best we can to provide them with the best foundation
for their education and maybe we will shift some attitudes and some perceptions along the way, but it’s a hard road...”. (School Staff, School C)

Parents, home life and children’s food preferences were cited as factors that could hinder a long term effect on children’s eating behaviours.

“If it’s a consistent approach with the teachers and plus with the Kids Bodz that we are continuing with... any change from my experience takes a long time of consistent, concerted pushing... It takes a long time to change those behaviours and like I said with kids being so immature about them trying to influence their parents on the decision about what is going in their lunches, especially what tastes good and is promoted well”. (School Staff, School A)

“People don’t care about the energy they just care about how it tastes-how much people want to buy it” (Child, School B)

In both stage one and two of the project, it was highlighted that the guidelines were easily manipulated and by doing so it could make it look like the school was following the guidelines:

“At the end of the day, the school can manipulate anything it wants. So how true is the green, red and yellow? Well all I know is that it’s being looked at, has it been followed through? That’s the million dollar question. I can produce a menu to you, is that the one we use on a weekly basis? Well who knows.... I’m not saying that’s what we do but that’s the way of the world. I can tell you what you want to hear or I can tell you nothing”. (School Staff, School D)

Stage two results reveal that the guidelines did not have a great impact on the schools, and where issues arose, these were ironed out with time. Some problems that did occur in the stage two schools was replacing confectionary as rewards and fundraising within the school:

“The only negative thing is that we have to find the money, the $2000 for the whole of school excursion at the end of the year but that’s mandated and that’s the way it’s got to be. The lollies side... I wouldn’t say that there were many teachers that were overly using that, I don’t see it being a problem...” (School Staff, School D)

“Up until that [introduction of the guidelines], the canteen was driven by revenue and the ice-cream was a great revenue raiser. With the new, traffic light system, the P&C has had to review the menu and they have had to reduce their time from 5 days to 3 days, which would have probably happened anyway because of the lack of support”. (School Staff, School B)

“It has been an issue for us because the Yr 7’s used to do the Mars fundraising and they had to look at doing something else. They ran a lapathon instead which was great and they nearly raised as much money as selling chocolates without the headache”. (School Staff, School B)
6.5.12 Guidelines as a catalyst for change and a source of power

Despite media reports which have suggested that the guidelines were onerous on schools, results from this study suggest that for some schools the guidelines was a catalyst for change. In some cases, they provided schools with the bargaining power needed when dealing with reluctant suppliers, Parent and Citizens Association members, staff, parents and students:

“They would have been reluctant. As a school we have had it on the agenda, as staff we have had concerns anyway so from our viewpoint that policy coming out was a great opportunity to work with the P and C and revise the menus and the food they sell. It gave us extra power because it was government policy and where as previously we kept chipping away and chipping away, saying “come on guys we need to work at this” and they were very reluctant because they knew that the profit would go down, and ok, that has happened but the new policy has given extra authority”. (School Staff, School B)

“They were positively received and we got a committee organized with the P and C and they had the meeting with the Deli guy. It happened quickly… In the past, with the new guidelines it’s easier to get what we want. Whereas before it was money driven and we would battle”. (School Staff, School A)

6.5.13 Rumours and urban myths relating to guidelines

Throughout this study, issues arose with the rumours circulating amongst school communities in relation to the guidelines. It became apparent that rumours has reached every corner of the school community, as parents, children and school staff could all recall a story they had heard about the guidelines:

“I have heard that canteens now have to offer healthy food and they are not to offer unhealthy things. I have heard a lot of people say that they have heard the children said they didn’t want to use the canteen”. (Parent, school D)

“Yes, not at this school though but at other schools I have heard of” (Parent, school D)

“Look at what Jamie Oliver went through when he tried to change the canteen and they all stopped” (Parent, school D)

“My aunty works at the canteen for her son’s school, and they had to take all the bad foods off and put all fruits on”. (Child, School C)

“At my cousin’s school he’s got unhealthy things and healthy as well. So it’s like a mixture, he’s got fruit and hot pies and sausage rolls”. (Child, School C)

“Another school has done it and they had a lot of publicity-about a birthday cake” (School Staff, School A)
Mostly the rumours and stories related to changes being made at other schools, restrictions being placed on schools and reactions within the school to the new guidelines. Despite these rumours, very few schools involved in this study reported problems similar to those recalled in the stories. Where there were problems experienced by the school, the impact was not as exaggerated as that in the rumours. For example, one school had experienced a down turn in sales and patronage at the canteen, however this was short lived.

6.5.14 Do the guidelines encourage healthy eating in non-students?

Questions were included in the focus groups and staff interview to determine whether the nutritional guidelines had an impact beyond the children. The guidelines potential to impact on eating habits of parents and staff members is an important factor to test, given the influence of parents and teachers on children’s health behaviours. It would appear for the most part that the guidelines did not impact on eating behaviours beyond that of the children. Some participants recognised the importance of adults as role models for healthy eating however, it was also pointed out that as adults, and staff cannot be restricted in what they eat for lunch:

“I think staff choose to eat what they wish, I would say that most staff eat healthy and that when they order through the canteen they have access to ordering salad platters and they do that, or a lovely salad sandwich, ham and salad sandwiches and they take that”. (School Staff, School D)

“There is so much that you can ask the schools to role model and undertake but I think for the same token as teachers they are entitled to eat what they choose because we have different cultures ourselves and who are we to say that the person who has the kangaroo stew or soup is any different from someone who has the peanut butter sandwich”. (School Staff, School D)

The influence of staff on the children was reiterated in the children’s focus group, where it became apparent that children are watching what teachers are eating:

“The teachers, on Breast Cancer day have cupcakes, tim tams” (Child, School B)

“They [the teachers] eat lollies too” (Child, School B)

They [the teachers] say chocolate and lollies are bad for the kids but good for the teachers” (Child, School B)

“They [the teachers] come in eating tim tams and cakes” (Child, School B)
However, the need to moderate teacher behaviour in front of children was recognised in
one school:

“We do have a coke machine in the staff room, it’s a mini dispenser. That stays in the staff
room, they do not walk around in front of kids drinking diet coke, the staff are very positive in
that area”. (School Staff, School B)

Extensive data was not collected on the impact of the guidelines on catering at parent
functions. At one school however, he guidelines haven’t appeared to have much of an
impact. A number of factors contribute to the lack of impact of the guidelines in this area,
most notably time and monetary restraints on the school and parents’ perceived lack of
interest in healthier options at these events:

“We would go with the easy option because that is what we have to do. Well, people have
a cup a tea and apiece of watermelon? People don’t go for that. They don’t come for that,
they come for the biscuits…” (School Staff, School D)

Although this was a finding of just one of the schools involved, these factors (time and
monetary constraint, preference for unhealthy options) have the potential to influence
whether other schools provide healthy catering.

7 DISCUSSION AND CONCLUSIONS

Overall, the Treat or Trap project provided confirmation and elucidation of many issues
identified in the literature and anecdotally by those working with schools and school
canteens to promote healthier eating. In addition, the project identified many of the
factors that can both facilitate and impede healthy eating initiatives within a school
setting, as well as broader influences in the home and community environment.
Understanding and overcoming such barriers and impediments and leveraging existing
factors that are supportive of healthier eating is vital, and can impact significantly on the
effectiveness of efforts to influence dietary attitudes, beliefs and behaviours in the
formative childhood years.

Congruent with the literature and with various models of human behaviour, the project
identified multiple factors that interact to influence children’s dietary behaviour. From the
Treat or Trap findings, the following model (Figure 13) has been developed to depict the
factors influencing healthy eating both within the school environment, but just as
importantly, in the home and broader community environment. As stressed by many study
participants, what can be achieved in the school setting in relation to healthy eating and
other health behaviours can be either constrained or supported by a myriad of factors,
many of which may be beyond the direct remit of the school.
Figure 13  Factors influencing healthy eating among primary school students as elucidated by the Treat or Trap study

Government Policies
- Healthy food and drink policies for schools
- Food advertising restrictions
- Private sponsorship of school and sporting events related to food

External influences
- Food advertising
- Availability & promotion of unhealthy food options

School Environment

Culture
- School culture, ethos & practices related to food
- Canteen manager beliefs & practices
- Principal beliefs & practices
- Teacher beliefs & practices
- Availability & promotion of unhealthy food options
- Priority of health foods

Social
- Peer influences

Policy
- School programs
- Application of healthy eating policy
- Breakfast club
- Free fruit

Physical
- Canteen or external supplier food provision
- NO. of days food provided by canteen or external food supplier
- Food available from canteen
- Practicalities with serving healthy food from the canteen

HOME ENVIRONMENT

- Socio-economic factors
- Parent beliefs & practices
- Pester power
- Taste & appeal of food offered
- Perception of relationship between food & learning
- Understanding of food labelling
- Perception of “junk food”
- Perceived cost of healthy food
- Level of autonomy & responsibility allowed to children
- The notion of a treat
- Perception of practicalities in sending healthy food to school

Individual Factors
- Taste preference
- Autonomy & responsibility

Home food consumption

School food consumption
In relation to the original objectives of the Treat or Trap project, the following observations and comments have been distilled from the findings.

**Objective 1: Explore the receptiveness of different groups within the school community to healthier food guidelines and practices, and identify factors that facilitate receptiveness and support**

As in other areas of health and education, the most effective interventions are multifaceted and work across various elements of the school, home and community environment. Schools can play an important role in developing strategies where canteen managers (or food service providers) and classroom teachers work together in normalising healthy food choices. However, in practice, there appeared some disjointedness in schools regarding food related policy, attitudes and practices. Moreover as this study found, parental influences oriented towards unhealthy eating can undermine or serve as a barrier to the impact of strategies being employed through the school (in the class, school environment and by canteens or food providers). Other factors identified in the study as influencing children’s eating related to children themselves, parents and families, the school environment and the broader community and are summarised in the following model (see also Appendix 9).

Factors such as convenience, lack of time and children’s fussiness often over-ride ‘good intentions’. This even occurred amongst parents generally receptive to healthier eating, who acknowledged that food and drinks consumed affects their children’s health and behaviour. Amongst lower socio-economic schools participating in this study there was also some evidence of poor parental practice, as exemplified by each of the participating schools experiencing parents delivering fast-food to their children at lunchtime. Such behaviour made by a minority or just one or two parents, can unfortunately destabilise any progress made in changing attitudes or beliefs made by healthy eating policies or programs and reflects the difficulty encountered by schools in promoting and encouraging parents and children to limit unhealthy food choices. Although the rising prevalence of childhood obesity is driving many healthy food initiatives currently, the study findings support the use of innovative approaches that leverage off other topical issues that might concern parents. For example, encouraging parents to offer food that they believe optimises children’s behaviour and learning could be of particular value, with around 90% of parents reporting that they felt food influences their child’s behaviour, learning, attention and energy.

Decision-making regarding food choices may be an important component in the balancing of a healthy diet for children. When purchasing food and drink from school, children were given an increased role in decision making. While some children may choose healthy food over the alternative, research indicates that children prefer foods
that are higher in sugar and salt, which often coexist with food with high fat content [4]. This supports the need to ensure that school food providers offer a good selection of healthy food to children at school and do not offer unhealthy options. Additionally, it is likely that educating children about making good food choices may have an impact; with changes to attitudes and beliefs able to be practiced and reinforced in decision making about food purchases for lunch and recess (both via school lunch orders, but also empowering children to influence and broaden healthy food choices for lunchboxes and home based snacks).

Contrary to common perceptions, few parents indicated that their children’s reports of peer food consumption or food advertising were important factors in parent’s food choices for school. Hot weather and nutritional value of food were considered by the most parents, as very important factors contributing to decision making about food for their children at school. While it is promising that nutritional value is considered very important, it appears that concerns about fresh food getting hot or spoiled can be a barrier to parents actually sending healthier food in lunchboxes. There is scope to educate parents about ways to control food spoilage. For example, many options for keeping food at an acceptable temperature (such as lunch-box incorporated drink bottles for freezing and insulated lunch bags) are easily accessible and affordable. In addition, schools may be able to respond to this concern by reviewing storage of lunches such as placement of school bags in hot sunny areas; policies relating to lunchboxes being brought into classrooms, cooler boxes at front of classrooms for lunchbox storage or other appropriate strategies.

Objective 2: Identify beliefs surrounding the concept of treat and how this impacts upon children’s food consumption

Although the importance of healthy eating was generally well recognised by study participants, the notion of unhealthy food and drink as ‘a treat’ seems to be embedded within the culture of family and student beliefs, and to some extent still within the school environment. There is a discrepancy between student and parent’s definitions of a treat as something ‘occasional’, with the high frequency of unhealthy ‘treats’ in student diets, both in food consumed while at school and in the home environment. This was the case at the four schools participating in the Treat or Trap study.

Nonetheless, some potential to change the ‘treat’ mind-set emerged. As suggested by some participating students for example, a treat does not have to be food, or could be a food that is healthy but not something they have often (e.g. a hot corn on the cob, fruit kebabs, popcorn or smoothies). Canteen managers in the Treat or Trap study also suggested that it is possible to encourage children to purchase healthy treats that are
innovative and interesting. For example, inexpensive fruit cups were considered a treat at one school and sold well to children.

Children can, in turn, be powerful change agents within their home environment in relation to healthier eating. In the areas of smoking and sun protection, many students have absorbed what is learnt and experienced at school to become significant advocates for changing their parents’ behaviour. Just as the notion of a treat needs to change, so too should we aspire to turn ‘pester power’ around to be about healthier food choices.

**Objective 3: Determine factors assisting or hindering the effective implementation of the new government nutritional guidelines (“Traffic Light system”) and other healthy food policies and practices in schools**

The Treat or Trap study found that overall, the traffic light system introduced into government schools in WA in 2007 appears to have been relatively well accepted at schools by principals, food providers, parents and children. Initial fears which arose when the policy was first announced, that the new guidelines might be too draconian or impact on profitability or food variety, seem to have been alleviated in most schools in this study. However, a number of canteen managers noted that the new menu items are more labour intensive and time consuming than the items previously provided. Despite some teething and transitional issues, noted by canteen managers and external food suppliers, most believed that the guidelines were a step in the right direction and in the best interests of the children. They believe that the healthy eating message portrayed by the guidelines is beneficial, that children need to eat healthy and that something needs to be done to combat childhood obesity.

For schools without a canteen relying upon an external food provider, the Department of Education directive in fact seemed to add compulsory weight to the school’s previous efforts to get a healthier selection of food offered to students. Prior to the guidelines, schools seem to vary considerably in the extent to which they feel empowered to influence the food menus of external suppliers (citing it as either ‘their business’/’their livelihood’: not our place to tell them what they can sell). To a lesser extent, schools also varied in the extent to which they felt they could influence canteens (some seeing it solely as the P and C’s business, while others encouraging the canteen to fit in with broader school policies and curriculum relating to nutrition). The mandatory guidelines have therefore made it easier for individual schools in this regard. There is also some evidence that external suppliers previously reluctant to make changes voluntarily at a risk of lost profit have come on board positively to work with and within the new traffic light guidelines.
School Principals and staff shared some of their own concerns about the type of diet they observe in the current generation of students and hence were supportive of the guidelines. However, they also expressed some frustration with what they see to be increasing reliance on schools to be a panacea for various social, health and emotional issues that affect children. Government primary schools are under pressure to meet a number of requirements expected of them and as such they are forced to prioritise the issues that have to be addressed. Results suggest that the schools involved in Treat or Trap do see healthy eating as important, but not all schools are in a situation to place it high on their priority list. The four schools in this study also faced issues associated with a lower socio-economic group; such as language barriers and unsupportive family situations and practices.

Generally, parents indicated that they felt the school should model healthy food practices for children for food supplied while at school. The majority of parents’ felt that with the introduction of the traffic light system food in the participating schools had improved food in terms of quality, variety, children’s happiness, and health value. While some parents indicated that food prices were more expensive since the guidelines were introduced, this has not necessarily been the experience of all schools, and may reflect a prevailing community misperception that fresh and healthy food choices are inevitably more expensive.

Generally, parents indicated that they felt the school should model healthy food practices for children for food supplied while at school. Conversely, only half thought this modelling should spill over into practices at school social functions. Unfortunately this may reflect the lack of parental insight into how best to model healthy food practices. This also suggests a possible perception that in the formal, controlled and structured environment of the school, healthy eating should be promoted, but once in a fun and social environment, this is not as important. However, it is during social and unstructured events that healthy eating could be promoted as being fun, enjoyable, stimulating and social and easily mirrored in the home environment. Using innovative strategies and healthier options, such as 100% beef burgers with salads instead of a sausage sizzle and frozen fruit icy poles instead of ice-cream, can assist with diffusing the importance of and practical approaches to healthy eating, including offering parents with ideas for alternatives to unhealthy treats.

**Objective 4: Assess the effectiveness of training being provided to schools and canteens in association with the Traffic Light system**

Over two thirds of the canteen managers/food suppliers surveyed reported that the training they attended on the new Traffic Light System equipped them to deal with problems that arose during implementation. They were better able to deal with problems
that arose from explanations and examples provided at the training session. During the training session they also received useful material and could discuss their experiences with other canteen managers. Some participants also felt that the training had given them confidence in how they were running the canteen.

Conversely, some interview participants believed that the training did not equip them for the problems that occurred or were likely to occur in the implementation process. Some participants suggested that they needed better access to approved products or would have benefited from contact with other canteen managers. Participants believed that the guidelines should have been mindful that schools have different situations and not every school is a metropolitan school with a canteen operating 5 days a week. Schools with outside suppliers believed that the guidelines generally, and the training session was not designed with them in mind.

Participants’ reports of their perception of the guidelines after attending the training were varied. Approximately half of the participants completing the written survey reported a positive change because of the training. A number of suggestions for future training and for supporting schools and canteens post training were suggested and are documented in the full report.

Objective 5: Identify and ‘case study’ enabling factors and practical strategies that have been used in schools to successfully implement guidelines and overcome barriers to healthier food consumption at school

The canteen managers involved in this study created and applied a number of successful strategies which resulted in children eating healthy food. The strategies used by schools more broadly (in areas of policy, curriculum, special programs and parent/family initiatives) were also documented. These are detailed in the full report and have been disseminated in a user friendly form to all canteens and food service providers participating in the study (see Appendix 10). Creative and innovative methods to generate appeal for healthy food, and incentives and strategies to encourage students to try things they may not have tried before were recurring ‘keys’ to success.

Schools can play an important role in developing strategies where canteen managers (or food service providers) and classroom teachers work together in normalising healthy food choices. However, as this study found, parental influences oriented towards unhealthy eating can undermine or serve as a barrier to the impact of strategies being employed in the class, school environment and by canteens or food providers.

As some schools have found from past efforts to promote healthier eating, engaging parents and influencing their attitudes, beliefs and practices is a difficult task. This issue was raised frequently in the Treat or Trap study by school staff, canteen managers and
some parents. There was also some questioning of the long term impact of one off type initiatives to change entrenched dietary habits. Long term changes to children’s behaviour may require a longer or ongoing program, or integration with additional strategies. As noted in the Cochrane review, a sustained strategy to bring about supportive environments and behaviour change in physical activity, sedentariness and healthier food choices is likely to make more of a positive impact on children’s weight and eating practices\textsuperscript{7}.

\textbf{Treat or Trap; in conclusion}

The results of the Treat or Trap project confirm that that the school can make a positive contribution to perception and practices of children and parents in relation to healthy eating. However, it is also clear that the attitudes and beliefs about food, eating habits and notions of what constitutes a treat within a school are a reflection of the norms and culture of our broader society. To this end, school-based efforts to promote and encourage healthier choices and eating need to be complemented and supported by broader changes in parent and family attitudes and habits, food and drink marketing, the relative availability and pricing of healthier food choices etc. Schools and educational systems can be powerful advocates for these broader changes, either directly, or through the voices of the children whose views of the world they nurture and shape.
REFERENCES


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89. Hiatt B. School bans students shouting classmates birthday cake. The West Australian. 16th March 2007.
90. Sinclair L. The Australian: Healthier food hits school canteens. 2004
91. Meade K. The Australian: Food chain out to grab pizza the action at school. 2006
92. Maher S. Schools to be starved of junk food. The Australian. 07/08/05.
APPENDICES
# Appendix 1: A summary of initiatives in Australian States and Territories

<table>
<thead>
<tr>
<th>State</th>
<th>Initiative</th>
<th>Aim</th>
<th>Mandatory or Voluntary</th>
<th>Details</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>N.S.W</td>
<td>Fresh Tastes @ School</td>
<td>To move beyond using guidelines to encourage healthy eating in schools to a government-mandated policy on what can be sold in school canteens</td>
<td>Government-mandated</td>
<td>Mandatory for schools to provide food and drink that meets the Australian guide to health eating standards. Uses the Red, Amber, Green approach</td>
<td>Support from the NSW Health, NSW School Canteen Associations, parents, canteen, food companies. There has been a high level of compliance with the strategy.</td>
</tr>
<tr>
<td>NSW</td>
<td>Q4: Live Outside The Box (<a href="http://www.healthpromotion.com.au/PrimarySchool.htm">http://www.healthpromotion.com.au/PrimarySchool.htm</a>)</td>
<td>Raise community awareness about childhood overweight and obesity</td>
<td>Voluntary, self assessment</td>
<td>Student participates by recording their activities over 2 weeks in a passport, which shows how they can: - Limit their TV and computer use - Be physically active everyday - Eat fruit and vegetables everyday</td>
<td>Run in Central Coast schools since 2004 with many schools participating and reporting positive results</td>
</tr>
<tr>
<td>Queensland</td>
<td>Smart Choices: Healthy Food and Drink Supply Strategy for Queensland Schools</td>
<td>Address the nutritional value of food and drink supplied at school</td>
<td>Mandatory</td>
<td>Smart Choices Food Selector – red, amber and green</td>
<td></td>
</tr>
</tbody>
</table>
| ACT | ACT Health Promoting Schools Canteen Project | To increase the amount of healthier food sold at school canteens | Voluntary, self assessment. Works on a rating system which uses incentives for participation | There are three levels of accreditation: bronze, silver and gold. Accreditation is given if school meets prescribed standards, such as:
• attendance at accreditation training,
• food safety, hygiene and occupational health and safety standards
• Having a canteen committee and policy
• Promoting healthy choices. |
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>WA</td>
<td>Healthy Food and Drink Choices in School</td>
<td>To help schools plan menus full of healthy, nutritious and affordable food and drinks</td>
<td>Mandatory</td>
<td>Based on the Traffic Light System – red, amber, green</td>
</tr>
</tbody>
</table>
| WA | StarCAP ([http://www.waschoolcanteens.org.au/pages/starcap/01-starcap.htm](http://www.waschoolcanteens.org.au/pages/starcap/01-starcap.htm)) | To increase the availability, promotion and sales of healthier food choices, consistent with the Australian Dietary Guidelines for Children and Adolescents, in schools in Western Australia | Voluntary | Awards schools operating healthy canteens by using a star rating basis of three, four or five stars. Recognizes and rewards those schools operating healthy, profitable canteens by giving:
• A framed certificate of Award
• Public recognition of achievement through media releases to local newspapers
• Vouchers for a Star |

In 2006 approximately 700 persons from over 400 schools have attended training and approximately 150 schools have committed to the program.
<table>
<thead>
<tr>
<th>State/Region</th>
<th>Program/Initiative</th>
<th>Objective/Description</th>
<th>Voluntary/Other</th>
<th>Comments/Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tasmania</td>
<td>Eat Well Tasmanian Kids</td>
<td>Improve the nutritional wellbeing of all Tasmanians and contribute to the reduction of diet-related health problems</td>
<td>Voluntary</td>
<td>Work through many different children and school-based nutrition projects.</td>
</tr>
<tr>
<td>Tasmania</td>
<td>Cool CAP (Cool Canteen Accreditation Program)</td>
<td>To increase the availability and promotion of healthy food choices prepared in a safe and hygienic environment in Tasmanian school canteens</td>
<td>Voluntary, self assessment</td>
<td>Accreditation is given if standards are met in: 1. Canteen management and policy 2. Canteen and the curriculum 3. Foods sold in the canteen 4. Marketing and promotion 5. Food safety and hygiene</td>
</tr>
<tr>
<td>Victoria</td>
<td>Go For Your Life Healthy Canteen Kit</td>
<td>Assist school to develop healthy canteens and food services</td>
<td>Voluntary</td>
<td>Red, Amber, Green Food groups, Disseminates information to school canteens – canteen manual</td>
</tr>
<tr>
<td>South Australia (similar to Vic)</td>
<td>Eat Well SA schools and preschools healthy eating guidelines. Healthy Eating Guidelines</td>
<td>That all South Australian schools and preschools have supportive food and nutrition environments promoting health, wellbeing and learning to empower children and adolescents with food knowledge and skills for healthy living.</td>
<td>Mandatory, government backed.</td>
<td>Guidelines provide a framework for schools to implement Healthy Eating practices in 6 areas. Introduced in 2005, all schools to have implemented the guidelines by 2008</td>
</tr>
<tr>
<td>Northern Territory</td>
<td>Northern Territory School Canteen Guidelines</td>
<td>Assist canteen managers, canteen committees and other school members to plan and provide nutritious food that complies with current dietary advice.</td>
<td>Provides advice and resources</td>
<td>Described as a promising model that could benefit from social marketing.</td>
</tr>
</tbody>
</table>
### Appendix 2: A summary of International Initiatives

<table>
<thead>
<tr>
<th>Country</th>
<th>Initiative</th>
<th>Aim</th>
<th>Voluntary / Mandatory</th>
<th>Details</th>
<th>Evaluation</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spain</td>
<td>Global Improvement Programme for School Canteens</td>
<td>Analyse, plan and improve quality of school canteens</td>
<td>Not sure</td>
<td>Nutrition education projects. Monitoring of school food. Introduction of aspects related to school canteen services in teachers’ training programme. Collaboration in activities by parents’ organizations.</td>
<td>n/a</td>
<td>84</td>
</tr>
<tr>
<td>UK</td>
<td>National Healthy Schools Scheme</td>
<td>Help schools become healthier schools</td>
<td>Not sure</td>
<td>Provide a Standard that offers support for local program coordinators and provides an accreditation process for education and health partnerships.</td>
<td>94</td>
<td>94</td>
</tr>
<tr>
<td>New Zealand</td>
<td>Healthy Eating – Healthy Action</td>
<td>Improving nutrition, increasing physical activity, and reducing obesity</td>
<td>Mandatory</td>
<td>Compulsory guideline through a Food and Beverage Classification System in all schools</td>
<td>Success of different national initiatives e.g. Fruit in Schools</td>
<td><a href="http://www.moh.govt.nz/healthyeating/healthyaction">http://www.moh.govt.nz/healthyeating/healthyaction</a></td>
</tr>
<tr>
<td>US</td>
<td>National School Lunch Program</td>
<td>Provide nutritionally balanced, low-cost or free lunches to children each school day</td>
<td>Voluntary, federally assisted</td>
<td>School districts and independent schools that choose to take part in the lunch program get cash subsidies and donated commodities from the U.S. Department of Agriculture (USDA) for each meal they serve. In return, they must serve lunches that meet</td>
<td>Operates in over 101,000 public and non-profit private schools and residential child care institutions,</td>
<td><a href="http://www.fns.usda.gov/cnd/Lunch/default.htm">http://www.fns.usda.gov/cnd/Lunch/default.htm</a></td>
</tr>
<tr>
<td>Country</td>
<td>Initiative</td>
<td>Aim</td>
<td>Voluntary/Mandatory</td>
<td>Details</td>
<td>Evaluation</td>
<td>References</td>
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</tr>
<tr>
<td>USA</td>
<td>Planet Health Study</td>
<td>To reduce obesity in middle school aged children through physical activity and dietary risk factors.</td>
<td>Voluntary</td>
<td>Federal requirements, and they must offer free or reduced price lunches to eligible children. School food authorities can also be reimbursed for snacks served to children through age 18 in afterschool educational or enrichment programs</td>
<td>provides nutritionally balanced, low-cost or free lunches to more than 30 million children each school day in 2006</td>
<td>76</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>Health Promoting Schools</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>95</td>
</tr>
</tbody>
</table>
Appendix 3: Healthy Food and Drinks Policy (Department of Education and Training Western Australia)

POLICY AND STANDARDS FOR HEALTHY FOOD AND DRINK CHOICES IN PUBLIC SCHOOLS
Information for schools

From the Minister

Childhood obesity is now recognised as a worldwide epidemic which must be addressed as a priority. Many parts of our community are playing an active role in reducing childhood obesity and schools can—and indeed must—play a vital role.

Schools and their canteens are well placed to support healthy eating. They should reinforce nutrition messages being taught in the classroom by modelling healthy food and drink choices that are tasty, interesting and affordable.

To help schools, the WA Government has set a new policy and standards for the provision of healthy food and drinks in public schools. The standards are based on a traffic light system: GREEN — fill the menu; AMBER — select carefully; and RED — off the menu.

Along with the requirement from 2007 for students in Years 1 to 10 to participate in a minimum of two hours of physical activity each week, this new policy for healthy food and drink choices in schools is another step in ensuring our children are fit and healthy.

Hon Mark McGowan MLA
Minister for Education and Training

GREEN
Fill the menu

AMBER
Select carefully

RED
Off the menu
Scope of the policy and standards

The policy applies to all operators of a canteen or tuckshop on public school sites including Parents & Citizens’ Associations (P&C’s), external contractors and local canteen/shop providers that provide food services to schools. The policy is to be implemented by all canteen operators or negotiated as part of new or existing food service contracts.

The policy also applies to all areas in the school where the principal is directly responsible for the supply of food and drinks – for example, classroom rewards, school camps and excursions.

This whole-school approach provides consistent messages through the curriculum, social and physical environments. The relationships between the school, home and the community are key elements of health promotion in schools.

Sometimes food is supplied during classroom or learning activities or as part of school events, for example a school disco or school excursion. Events and activities organised by the school are included in the scope of the policy.

Those activities organised outside of the direct responsibility of the principal are not required to adhere to the policy or standards, for example, fundraising by the P&C and school fêtes. However, the principal is required to consult with the school community in deciding the policy for healthy food and drinks.

Role of the school canteen

The role of the school canteen is to provide a food service to students and staff that meets their nutritional needs, promotes healthy food, is part of a whole-school approach, and is affordable and financially sustainable.

Making a profit is a secondary objective and should be achieved through the sale of healthy foods.

School canteens must reinforce nutrition messages being taught in the classroom by modelling healthy food and drink choices that are tasty, interesting and affordable. They have the potential to influence food choices by students at school and in the wider community, and help students learn to make healthy choices throughout their adult lives.

In other states/territories it has been consistently shown that healthy school canteens are profitable.

A balanced menu

School canteens will support healthy eating by:

- having available every day and promoting a wide range of the foods that should make up the majority of a healthy diet (GREEN);
- having available only sometimes, choosing healthier alternatives and avoiding large serving sizes of foods that should be eaten in moderation (AMBER);
- not making available foods that do not meet specified minimum nutrient criteria (RED).

The traffic light system is easy to follow and will help with menu planning. It will also remind students of the need to select more frequently from the GREEN group of foods and eat in moderation the AMBER foods.

Some categories have a maximum portion size and/or kilojoule allowance per serve. Savory commercial products in the AMBER group will be limited to those that meet the criteria for registration and will be available no more than twice a week. Judgment needs to be exercised over issues such as serving size.

Minimum standards

All processed food and drink sold in school canteens must meet a minimum nutrient standard.

The Dietary Guidelines for Children and Adolescents in Australia will continue to be used to set minimum nutrient standards for food sold in canteens. All products are measured against criteria for each food type using the national Food Standards Australia New Zealand criteria to determine if products are able to be registered in the Buyers’ Guide. The criteria have recently been reviewed nationally by qualified health professionals, food technologists and food industry representatives.

Registered foods are lower in fat, sugar and salt (and higher in fibre and calcium where relevant) than other products of that food type available in the market. Foods that do not meet the standard are RED foods and processed foods that meet the standards are AMBER.

Canteens are familiar with the registration system and standards. In addition to fresh foods, canteens are able to access healthier versions of manufacturers’ products.

Implementing the policy

The policy will come into effect for the 2007 school year.

All schools will be required to reach at least a minimum level on a rating system which will include criteria such as canteen menu, canteen policy, skills and knowledge, food safety and hygiene and school community involvement. The rating system allows schools to make continuous improvements across levels of achievement.

Schools having difficulty making changes from the beginning of 2007 will have ongoing support from the Western Australian School Canteen Association and the Department.

By gradually introducing changes in the first half of 2007 less healthy food items can be removed and replaced with healthier alternatives of the same food type. This acknowledges that menu changes involve planning and management of existing stock to limit wastage and provides time for the food industry to develop or re-formulate products.

Reporting on progress

Schools are to demonstrate compliance with the principal when required by district directors, and report annually to parents via the school newsletter.

The school review process monitors schools’ compliance on a range of matters. Under this process, school principals report to district directors on school performance and policy implementation.

Through the school review process, schools will need to demonstrate they have a nutritional policy for their school canteens and that they have met the minimum standard on the canteen rating system. The criteria in the rating system provide a means for easily demonstrating system compliance and in reporting to parents.

Support and assistance for canteens

Canteens will be provided with support and assistance through:

- continued funding to support school canteens through training and mentoring for canteen staff;
- increased information to encourage participation, for example through newsletters, the website and/or helplines;
- initiation of combined “buying groups”;
- information/awareness and education resources for parents, teaching staff and health promotion officers;
- coordination with school physical activity strategies and health sector health promotion services.

Resources and strategies will be provided for schools to communicate with local communities about the benefits of a nutritional policy. Education for parents, students, teachers, principals and canteen staff is essential for a whole-school approach that provides consistent messages about health. The resources will need to link to and support initiatives to increase physical activity in public schools.

System-wide training will be provided for canteen staff to increase knowledge about health and nutrition. Canteens not yet achieving the minimum standards of achievement will be given priority for training.

“Buying groups” will be initiated among school canteens within geographical locations to assist in increasing orders and demand from suppliers for registered healthy alternative products. Buying groups will be of most benefit to schools in rural or regional areas where supply of healthier products can be limited.
What's on the menu for WA schools

The table below provides examples of GREEN, AMBER and RED foods under the new traffic light system for WA public schools. This is not the entire list of available foods.

Nuts and nut spreads do not appear in the table. Schools are advised to refer to the Department’s School Health Care Policy and Anaphylaxis Advice Paper before deciding whether or not to include nuts and nut spreads on the canteen menu.

### GREEN

<table>
<thead>
<tr>
<th>Category</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fill the menu</td>
<td>A variety of bread types</td>
</tr>
<tr>
<td>Breeds</td>
<td>Wholegrain cereals, pasta, noodles, rice</td>
</tr>
<tr>
<td>Cereal foods</td>
<td>Wholegrain cereals, pasta, noodles, rice</td>
</tr>
<tr>
<td>Vegetables</td>
<td>Vegetables and salads (reduced fat dressing only), all salad mixtures</td>
</tr>
<tr>
<td>Fruit</td>
<td>Fresh, frozen and tinned (in natural juices)</td>
</tr>
<tr>
<td>Legumes</td>
<td>Tinned (e.g. bean mix, kidney beans), cooked</td>
</tr>
<tr>
<td>Reduced fat dairy products</td>
<td>Reduced fat milk (plain and flavoured), yoghurt (fresh, frozen, plain or fruit), cheese</td>
</tr>
<tr>
<td>Loan meat, fish, poultry and</td>
<td>All lean meats, chicken (no skin) or registered meats, fish (e.g. tuna, salmon, sardines), and egg</td>
</tr>
<tr>
<td>alternatives</td>
<td></td>
</tr>
<tr>
<td>Sandwich fillings</td>
<td>All lean meats, lean chicken, fish, creamed corn/corn kernels, egg, caramel</td>
</tr>
<tr>
<td>Hot food</td>
<td>Jellies/hot rolls/toasted sandwiches (fillings as for sandwich fillings), baked potatoes, rice, soups, toast, English muffins, crumpets, wholemeal, salad mix, and meats meeting the criteria for registration such as curry and rice and pasta dishes</td>
</tr>
<tr>
<td>Snacks</td>
<td>Yogurt, smoothies, raisin or fruit bread, pikelets, cheese sticks, bread sticks, brushetta, water crackers, rice cakes, rice crackers, popcorn (plain/low fat/flavoured), fried nuts, seed packs, trail mix based on breakfast cereals, registered snacks*</td>
</tr>
<tr>
<td>Drinks</td>
<td>Water, reduced fat milk, fresh fruit milkshakes, soy, 100% fruit juice (small size), plain mineral water</td>
</tr>
</tbody>
</table>

### AMBER

<table>
<thead>
<tr>
<th>Category</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select carefully and limit</td>
<td></td>
</tr>
<tr>
<td>Breakfast cereals</td>
<td>Refined cereals with added sugars</td>
</tr>
<tr>
<td>Full fat dairy foods</td>
<td>Milk, yoghurt, custard, low fat dairy desserts and cheese</td>
</tr>
<tr>
<td>Savoury commercial products</td>
<td>Registered products such as overable fish/chicken/potato portions should be chosen because they are lower in fat/salt*</td>
</tr>
<tr>
<td>Snack foods bars</td>
<td>Registered products such as breakfast bars, cereal bars and fruit bars*</td>
</tr>
<tr>
<td>Savoury snacks</td>
<td>Registered products such as oven baked veggie chips, garlic or herb bread (lightly spread)*</td>
</tr>
<tr>
<td>Cakes, muffins and</td>
<td>Registered products such as cakes, muffins and biscuits (reduced fat and/or sugar and based on wholemeal flour)*</td>
</tr>
<tr>
<td>sweet biscuits</td>
<td></td>
</tr>
<tr>
<td>Ice-creams, ice blocks, fruit</td>
<td>Registered ice-creams, milk based ice confectionery, frozen yoghurts and ice cream*</td>
</tr>
<tr>
<td>based icepops, slushes</td>
<td></td>
</tr>
<tr>
<td>Drinks</td>
<td>Fruit drinks, mineral waters flavoured with fruit juice, low joscale cordials</td>
</tr>
</tbody>
</table>

### RED

<table>
<thead>
<tr>
<th>Category</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off the menu</td>
<td></td>
</tr>
<tr>
<td>Sugar and artificially</td>
<td>Soft drinks, artificially sweetened soft drinks, energy drinks, cordials, sports drinks and mineral waters flavoured with sugar, high caffeine drinks (e.g. drinks containing guaran)</td>
</tr>
<tr>
<td>sweetened drinks</td>
<td></td>
</tr>
<tr>
<td>Confectionery</td>
<td>All types, caramelised popcorn</td>
</tr>
<tr>
<td>Pastry items</td>
<td>All types that do not meet the criteria for registration</td>
</tr>
<tr>
<td>Sandwich meats</td>
<td>High fat sandwich meats including polony (downron) and salami</td>
</tr>
<tr>
<td>Deep fried foods</td>
<td>All types</td>
</tr>
<tr>
<td>Savoury snacks</td>
<td>Crisps, chips and other similar products that do not meet the criteria for registration</td>
</tr>
<tr>
<td>Ice-creams</td>
<td>Chocolate coated and premium ice-creams</td>
</tr>
<tr>
<td>Sandwich fillings</td>
<td>Honey, jam, chocolate spreads, confectionary sprinkles</td>
</tr>
<tr>
<td>Cakes, muffins and sweet pastries</td>
<td>Crossants, doughnuts, cream filled buns/cakes, sweet pastries, slices</td>
</tr>
</tbody>
</table>

* Meets the criteria for Star Choice registration
Appendix 4: Canteen Manager Interview Guide

**Canteen Manager Interviews**

**Part One: Beliefs and Attitudes**

1. Please tell me a little about yourself and how long you’ve been working in canteens/ P and C/ food supply business? Please tell us a little bit about your food supply business?

2. What is the most popular item on your canteen menu? Why?

3. Who do you think is responsible for ensuring kids eat healthy food at school?

4. Do you feel that the canteen has a role to play in encouraging or supporting healthy eating among kids?

5. If you could choose what the kids eat at school, what would you give them?

6. If you were giving them a treat, what would you give them?

**Part Two: Perception of Guidelines and Training**

7. What did you think of the new guidelines before you attended training?

8. If it was your job to convince someone of the merits of the guidelines, what would you tell them?

9. What did you think of the sample menus when they showed them to you at the training? *(give sample menus for them to view.)*

   *This is the evaluation they handed out at the end of training. Would you mind thinking back to the training session and completing it now?*

10. Looking at what you’ve just completed
    
    a. You found ….. useful, how did this help you?
    
    b. You didn’t find ….. useful, why not?
    
    c. What could they have done in the training to make this more useful?

11. What did the training provide that was the most useful?

12. What problems do you think the training did not address?
<table>
<thead>
<tr>
<th><strong>PART THREE: IMPLEMENTING THE GUIDELINES</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>13. Whose responsibility was it to implement the guidelines? (make changes to the menu)</td>
</tr>
<tr>
<td>14. Who has been making the decisions about changes in the canteen at your school? Has this changed from what happened before the guidelines?</td>
</tr>
<tr>
<td>15. What was the immediate reaction in your school when guidelines were implemented?</td>
</tr>
<tr>
<td>Prompt: from the children, the teachers, the parents, the Principal</td>
</tr>
<tr>
<td>16. Please tell me about positive experiences of implementing the guidelines?</td>
</tr>
<tr>
<td>17. If you were in charge of the training session, what would you have included that would help other canteen managers in implementing the guidelines?</td>
</tr>
<tr>
<td>18. Do you think the training equipped you to deal with the problems you may have experienced when implementing the guidelines? Prompt to ask about the problems if they say yes – this might allow us to incorporate q20 with this q.</td>
</tr>
<tr>
<td>19. If another canteen manager asked you for help with implementing the guidelines, what advice would you give them</td>
</tr>
<tr>
<td>20. What problems have you experienced when trying to implement the guidelines?</td>
</tr>
<tr>
<td>21. As a result of attending the training, were you clear on what you had to do to implement the guidelines?</td>
</tr>
<tr>
<td>22. Of the changes you have made in the canteen, what was the hardest?</td>
</tr>
<tr>
<td>23. During the implementation process, did you receive support or input from the rest of the school?</td>
</tr>
<tr>
<td>Prompt: from the teachers, parents, children, principal</td>
</tr>
<tr>
<td>24. Does your school see healthy eating and these guidelines as a whole of school responsibility or just a canteen responsibility?</td>
</tr>
<tr>
<td>25. Do you think all this effort and change will influence what kids eat?</td>
</tr>
</tbody>
</table>
This survey relates to your experiences with implementing the new ‘traffic light’ nutrition guidelines and healthy food options in your school. It will take approximately 10 minutes to complete. The survey will allow you to anonymously express your opinion of the guidelines and the WASCA training that you attended, and will provide valuable feedback regarding the issues faced by school canteens.

Please return completed survey in the reply paid envelop provided by November 30th. All returned surveys go into the draw TO WIN A $100 GIFT VOUCHER!

Thank you, we appreciate your time! ☺

1. **Who do you think should be responsible for ensuring that students eat healthy food at school?** *(Tick all that are applicable)*

   - [ ] 1. Parents
   - [ ] 2. The Canteen
   - [ ] 3. Teachers
   - [ ] 4. Other (please specify) __________________________

2. **Please list the three main things your canteen does to encourage healthy eating among the students?**

   __________________________________________
   __________________________________________
   __________________________________________

3. **How important is it that the food sold at the canteen should reflect what children are being taught about health and nutrition at school?**

   - [ ] Not at all important
   - [ ] Quite important
   - [ ] Very important

4. **Who makes the decisions about changes in the canteen at your school?** *(tick all that apply)*

   - [ ] Canteen manager
   - [ ] P and C
   - [ ] Principal
   - [ ] School community
5. What do you think are the three main reasons students at your school purchase lunch from the canteen?
   - We have run out of suitable food for lunch [ ]
   - It is quicker than making lunch [ ]
   - It is easier than making lunch [ ]
   - It is a treat [ ]
   - It is convenient when I have to get to work myself [ ]
   - Can order something hot or difficult to send in lunchbox [ ]
   - It teaches children how to handle money [ ]
   - To support school fundraising [ ]
   - To support the canteen [ ]
   - Other ____________________________

6. What did you think of the new guidelines before you attended training?
   __________________________________________
   __________________________________________
   __________________________________________
   __________________________________________
   __________________________________________

7. Did your opinion of the guidelines change as a result of attending training?
   □ 1 No
   □ 2 Yes →
   If yes, please explain how and why it changed your opinion
   __________________________________________
   __________________________________________
   __________________________________________
   __________________________________________

8. What problems (if any) have you experienced when trying to implement the guidelines?
   __________________________________________
   __________________________________________
   __________________________________________
   __________________________________________
   __________________________________________
   __________________________________________
   __________________________________________
   __________________________________________
9. Do you think the training equipped you to deal with the problems you have experienced when implementing the guidelines?

☐ 1  No → go to Q9A
☐ 2  Yes → go to Q9B

9A. If no, please explain what should have been included in the training to help you deal with the problems

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

9B. If yes, please explain how it equipped you to deal with the problems

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

10. If you were in charge of the training session, what would you include that would help other canteen managers in implementing the guidelines?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

11. What advice would you give other canteen managers or schools who need help implementing the guidelines?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

12. As a result of attending the training, are you clear on what you have to do to implement the guidelines? *(please tick one box)*

☐ 1  No
☐ 2  Yes
☐ 3  Don’t Know

13. Of the changes you made in your school, what was the hardest?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
14. What was the immediate reaction (from the students, teachers, parents or the Principal) in your school when you started implementing the guidelines?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

15. What, if any, positive experiences or feedback have you had from implementing the guidelines?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

16. During the implementation process did you receive support or input from the rest of the school? (Please tick one box per line).

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>P and C</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Parents</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Principal</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Teacher</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>School Community</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

17. In what ways could schools better support canteens to provide healthy food choices to students?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

18. If it was your job to convince someone of the merits of the guidelines, what would you tell them?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

19. When did you attend the WASCA training?
If you cannot remember the exact date, please indicate what month or term you attended.


20. Please indicate whether you agree or disagree with the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The guidelines have helped improved my knowledge of healthy food</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
<td>☐ 4</td>
<td>☐ 5</td>
</tr>
<tr>
<td>I feel confident that I can/ have successfully implement the guidelines</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
<td>☐ 4</td>
<td>☐ 5</td>
</tr>
<tr>
<td>Healthy eating at school is an important issue</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
<td>☐ 4</td>
<td>☐ 5</td>
</tr>
<tr>
<td>Attending the training has made me feel responsible for implementing the guidelines at my school</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
<td>☐ 4</td>
<td>☐ 5</td>
</tr>
<tr>
<td>The effort and change that has occurred within schools this year will influence children to eat healthier</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
<td>☐ 4</td>
<td>☐ 5</td>
</tr>
</tbody>
</table>

The End – Thank-you for your time and effort 😊

Please return your completed survey in the replied paid envelope provided.

To enter into a prize draw for completing and returning this survey, please write your first name and contact telephone number below. This part is removed from the rest of the survey upon receipt at UWA.

First Name: ___________________ Contact Number or email address__________________________
Date

Dear Principal,

Treat or Trap is a research project being conducted by the School of Population Health (University of Western Australia) in conjunction with the Department of Education and Training and WA School Canteen Association.

The purpose of this project is to investigate healthy food consumption within public primary schools. The study recognises that guidelines don’t necessarily help schools overcome practical challenges, such as perceptions that fresh healthy food options are less convenient to prepare. As a result, the study is working with the WA Canteen Association to look at how training can help schools make this transition more easily.

The results of this study will assist schools and government bodies to develop strategies relating to ongoing support and implementation of healthy eating policies and practices.

Your school is one of six that was randomly selected to participate in this project. Participation in this project will require minimal time input. If you agree to participate, the researchers will interview principals and canteen managers; conduct focus groups with parents, children and P & C representatives; and distribute surveys to parents.

For participating in this project your school will receive a summary report of:
- Study findings specific to your school
- Overall study findings
- Strategies used by schools to overcome difficulties in translating guidelines into practice.

For further details about the project please see the enclosed information sheet. If you would like to participate, please complete and sign the consent form and return it by fax (6488 1199) or use reply paid envelop by 14th August 2007.

Thank you in advance for considering your school’s participation in this project.

Dr Lisa Wood
lisa.wood@uwa.edu.au
Phone: 6488 7809

Ms Karen Martin
karen.martin@uwa.edu.au
Phone: 6488 8761
Dear Principal:

Please read this information sheet that explains the study and how and why we would like you and your school to be involved in this study.

**What is the Treat or Trap Project?**
The Treat or Trap project is investigating healthy eating among primary school children and the impact that the school environment has on children’s eating habits. The project is being run by the School of Population Health, University of Western Australia and funded by Healthway. It is supported by the WA School Canteen Association (WASCA) and the Department of Education and Training.

**What is the purpose of the project?**
This project aims to identify factors that help or hinder the introduction of healthy eating guidelines within primary schools in Western Australia. We are also trying to determine what factors influence the availability and consumption of healthy food among primary school-aged children in WA, particularly when they are in the school environment.

**What is involved?**
Principals, canteen managers or external food suppliers, parents and children from six government primary schools will be recruited to participate in this project. Principals will be invited to participate in a 45 minute interview with the researchers. The interview will be held at a time and venue convenient to the Principal. Separate focus groups will be held for:
- Children in Years 4 to 7,
- Parents, and
- Canteen Managers (or external suppliers for schools without a canteen) and P and C representatives.

A further 100 parents from these schools will be asked to complete a parent survey.

**What about confidentiality?**
All name-identifying information will be removed from the data and all participants’ responses will be strictly confidential. No names will appear on any reports and only aggregated data will be used to describe research findings.

**Voluntary Participation**
Participation is voluntary and all participants can withdraw from the study at any time.

**Do you require further information?**
If you have any questions about the project please contact either:
- Darcy Bosch, Research Assistant on 6488 1575 ([darcy.bosch@uwa.edu.au](mailto:darcy.bosch@uwa.edu.au))
- Lisa Wood, Project Coordinator on 6488 7809 ([lisa.wood@uwa.edu.au](mailto:lisa.wood@uwa.edu.au))
- Karen Martin, the Project Coordinator on 6488 8761 ([karen.martin@uwa.edu.au](mailto:karen.martin@uwa.edu.au))
School Consent Form

I, __________________________ (print your name), have read the project information sheet provided and any questions I may have had have been answered to my satisfaction. I agree for ____________ (school name) to participate in the study, realising that it may withdraw at any time without reason and without prejudice.

I understand that all information I provided by the school will be treated as strictly confidential and will not be released by the investigator. The only exception to this principle of confidentiality is if a court subpoenas documentation. I have been advised as to what data is being collected, what the purpose is, and what will be done with the data upon completion of the research.

I agree that research data gathered for this project may be published provided my school’s name or other identifying information is not used. I have been provided with a copy of the Project Information Sheet and Consent Form for my personal records.

Principal's Signature: __________________________

School Name: ______________________________________

Address: __________________________________________

Postcode: __________

Date: _____/_____/ 2007       Phone number: ______________
School Consent Form

I, ______________________________________ (print your name), have read the project information sheet provided and any questions I may have had have been answered to my satisfaction. I agree for ______________ (school name) to participate in the study, realising that it may withdraw at any time without reason and without prejudice.

I understand that all information I provided by the school will be treated as strictly confidential and will not be released by the investigator. The only exception to this principle of confidentiality is if a court subpoenas documentation. I have been advised as to what data is being collected, what the purpose is, and what will be done with the data upon completion of the research.

I agree that research data gathered for this project may be published provided my school’s name or other identifying information is not used. I have been provided with a copy of the Project Information Sheet and Consent Form for my personal records.

Principal’s Signature: ____________________________________________
School Name: _____________________________________________________
Address: __________________________________________________________
Postcode: __________

Date: _____/_____/ 2007        Phone number: _____________
## Appendix 7: Summary of School Characteristics

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Food provision arrangements</strong></td>
<td>No canteen, lunch orders daily from local deli.</td>
<td>Canteen runs 3 days a week, breakfast club run 2 days a week.</td>
<td>No canteen, breakfast club.</td>
<td>Canteen runs 1 day a week.</td>
</tr>
<tr>
<td><strong>Student Numbers</strong></td>
<td>Total primary students: 385, Yrs 4-7: 224</td>
<td>Total primary students: 336, Yrs 4-7: 156</td>
<td>Total primary students: 66, Yrs 4 – 7: 31</td>
<td>Total primary students: 98, Yrs 4 – 7: 46</td>
</tr>
<tr>
<td><strong>Student Body</strong></td>
<td>Indigenous population: 5.2%</td>
<td>Indigenous population: 8.7%, Multicultural students 32 language groups</td>
<td>Indigenous population: 39.3% Multicultural students</td>
<td>Indigenous population: 17.3% Multicultural students</td>
</tr>
<tr>
<td><strong>Suburb Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SEI Category</strong></td>
<td>Medium</td>
<td>Low</td>
<td>Low</td>
<td>Medium</td>
</tr>
<tr>
<td><strong>Total population</strong></td>
<td>22,266</td>
<td>7796</td>
<td>9258</td>
<td>3952</td>
</tr>
<tr>
<td><strong>Indigenous Status</strong></td>
<td>1.8%</td>
<td>3.5%</td>
<td>3.4%</td>
<td>2.5%</td>
</tr>
<tr>
<td><strong>Main language spoken at home</strong></td>
<td>English: 81.1%</td>
<td>43.5%</td>
<td>71%</td>
<td>81.4%</td>
</tr>
<tr>
<td></td>
<td>Other than English: 14.6%</td>
<td></td>
<td>48.1%</td>
<td>29%</td>
</tr>
<tr>
<td><strong>Education level</strong></td>
<td>Completed Year 10: 28.9%, Completed Yr 12: 39.8%</td>
<td>Completed Year 10: 20.4%, Completed Yr 12: 38.2%</td>
<td>Completed Year 10: 23.3%, Completed Yr 12: 35.2%</td>
<td>Completed Year 10: 19.5%, Completed Yr 12: 52.6%</td>
</tr>
<tr>
<td><strong>Country of birth</strong></td>
<td>Australia: 13,495 (60.6%), Overseas: 7553 (33.9%)</td>
<td>Australia: 3403 (43.6%), Overseas: 3609 (46.3%)</td>
<td>Australia: 5586 (60.3%), Overseas: 2949 (31.9%)</td>
<td>Australia: 2738 (69.3%), Overseas: 931 (23.6%)</td>
</tr>
<tr>
<td><strong>Primary School Aged Children (5 years – 13 years)</strong></td>
<td>6.4% total population</td>
<td>16.6% total population</td>
<td>9.6% total population</td>
<td>12.2% total population</td>
</tr>
</tbody>
</table>

* 96, 97
Appendix 8: Parent Surveys
(Note each school had different characteristics and so the surveys reflected these differences)

School B and C Parent Survey
The Treat or Trap project is seeking feedback from parents about children’s eating habits, and the role of food choices within the school environment. Your feedback is valuable and we would appreciate your help in taking a few minutes to complete this survey as honestly as you can. The survey will take about 5 minutes to complete.

Please answer these questions based on your child/children in years 4-7 at this school. We have handed this survey out to all children in Years 4 -7. If you get more than one survey, please just complete one.

All information collected will be strictly confidential and no identifiable data will be reported or published.

Thank you, we appreciate your time! ☺

Please return completed survey to your child's teacher by 13th November to be in the draw TO WIN A $100 GIFT VOUCHER!

1. How many children do you have in this school? 1 2 3 4 5

2. Indicate the year group(s) that your child/children are in:

(Please circle more than one if necessary)

<table>
<thead>
<tr>
<th>Kindy</th>
<th>1</th>
<th>Year 2</th>
<th>4</th>
<th>Year 5</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-primary</td>
<td>2</td>
<td>Year 3</td>
<td>5</td>
<td>Year 6</td>
<td>8</td>
</tr>
<tr>
<td>Year 1</td>
<td>3</td>
<td>Year 4</td>
<td>6</td>
<td>Year 7</td>
<td>9</td>
</tr>
</tbody>
</table>

3. Please list up to three foods and three drinks that you consider to be treats for your child/children:

<table>
<thead>
<tr>
<th>Foods</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drinks</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
4. For which of the following reasons do you give your child/children treats? (Please circle as many as applies)

(Please circle as many as applies)
- Special occasion
- When they finish their homework or chores
- When they do well at school
- When they are well behaved
- As a reward
- Bribe/Negotiating (or in exchange for them to do something)

5. In a typical week, on how many days would you give your child/children a food or drink treat?

(Please circle one for food and one for drink) Number of days
- Food treat
  - 1
t  - 2
  - 3
  - 4
  - 5
  - 6
  - 7
- Drink treat
  - 1
  - 2
  - 3
  - 4
  - 5
  - 6
  - 7

6. For each of the following, please indicate who usually decides what your child:

(Please circle one per row)
- Parent
- Child
- Both
- Brings in their lunch box to eat for lunch
  - 1
  - 2
  - 3
- Brings from home for morning or afternoon tea/snack
  - 1
  - 2
  - 3
- Buys from the canteen for recess
  - 1
  - 2
  - 3
- Buys from the canteen for lunch
  - 1
  - 2
  - 3
- Eats after school (ie afternoon tea)
  - 1
  - 2
  - 3

7. How often do you provide your child/children with the following while at school:

(Please circle one per row)
- Every day
- 3-4 times/week
- 1-2 times/week
- Few times/term
- Never
- Sandwiches
  - 1
  - 2
  - 3
  - 4
  - 5
- Fruit
  - 1
  - 2
  - 3
  - 4
  - 5
- Muesli bars
  - 1
  - 2
  - 3
  - 4
  - 5
- Chips
  - 1
  - 2
  - 3
  - 4
  - 5
- Biscuits
  - 1
  - 2
  - 3
  - 4
  - 5
- Salad
  - 1
  - 2
  - 3
  - 4
  - 5
- Dried fruit
  - 1
  - 2
  - 3
  - 4
  - 5
- Crackers
  - 1
  - 2
  - 3
  - 4
  - 5
- Juice
  - 1
  - 2
  - 3
  - 4
  - 5

8. How many days in a typical week does your child/children eat breakfast? (Please circle one option)

- 0 days
- 1 days
- 2 days
- 3 days
- 4 days
- 5 days
- 6 days
- 7 days
9. **For each of the following factors, please indicate how important it is when deciding what your children eat at while at school:**

(Please circle one per row)  

<table>
<thead>
<tr>
<th>Factor</th>
<th>Not Important</th>
<th>Quite Important</th>
<th>Very Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convenience</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>How well the food ‘fills them up’</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Food other children at school eat</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Food available at the canteen</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Nutritional level of food</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>How much time they have to eat</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Requests from children for specific foods</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Food/drink Advertising or promotions</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>How well it keeps in hot weather</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Time available to organise lunch/ recess food</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>What is available in the cupboard and/or fridge</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

10. **In a typical week, how often does your child/children buy food or drink from the canteen?**

(Please circle only one)  

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Not Important</th>
<th>Quite Important</th>
<th>Very Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Everyday or nearly every day of the week</td>
<td>1</td>
<td>Once a month</td>
<td>5</td>
</tr>
<tr>
<td>Once a week</td>
<td>2</td>
<td>Once a term</td>
<td>6</td>
</tr>
<tr>
<td>Twice a week</td>
<td>3</td>
<td>Never</td>
<td>7</td>
</tr>
<tr>
<td>Once a fortnight</td>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11. **When deciding whether or not your child/children will order from the canteen, please indicate how important the following are:**

(Please circle one per row)  

<table>
<thead>
<tr>
<th>Factor</th>
<th>Not Important</th>
<th>Quite Important</th>
<th>Very Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children’s friends order from the canteen</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Children ask/ nag to order</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>We have run out of food for lunch</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>It involves less effort than preparing lunch</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>It is a treat</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>No time</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Can order something that is hot/difficult to send in lunchbox</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>It teaches children how to handle money</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
12. Do you agree or disagree that the food and drink your child eats during the school day influences?

(Please circle agree or disagree for each row)

<table>
<thead>
<tr>
<th></th>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attention/concentration in class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Energy levels</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mood</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Behaviour</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13. How important is it to you that your child/children has food and drink which is:

(Please circle one per row)

<table>
<thead>
<tr>
<th></th>
<th>Not Important</th>
<th>Quite Important</th>
<th>Very Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low in salt</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Low in fat</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Low in preservatives</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
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<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Not fried</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Comprises of fruit or vegetables</td>
<td>1</td>
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<td>3</td>
</tr>
<tr>
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<td>2</td>
<td>3</td>
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14. Thinking about this year, which of the following applies to your school?

(For each row please circle if you agree or disagree)

<table>
<thead>
<tr>
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<th>Agree</th>
<th>Disagree</th>
</tr>
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<td>Quality of food/drink has improved</td>
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<td>2</td>
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<td>Children are happy with the choice of food</td>
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</tr>
<tr>
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15. The ‘Traffic Light’ system is the new food and drink standards introduced into schools this year. The Traffic Light system guides how often children should have certain food and drinks while at school. Before completing this survey, were you aware that the Traffic Light system existed?

1 Yes
2 No

16. Before completing this survey, were you aware that the Traffic Light system recommends the following:

(Please circle one per row)

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<tr>
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<td>Food in the green category (e.g. fruit, vegetables, wholegrain breads and reduced fat dairy) should be offered on the canteen menu every day?</td>
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17. Do you agree with the recommendations of the Traffic Light system?

1 Yes 2 No

18. Please indicate whether the following is important to you:

(Please circle one per row)

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<tr>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School canteens provide healthy food and drinks</td>
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<td>2</td>
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19. For each of the following statements please tell me whether you agree or disagree:

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<table>
<thead>
<tr>
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<th>Disagree</th>
</tr>
</thead>
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<tr>
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First Name: __________________________ Contact Phone Number or email address: ________________________

120
School A Primary School Parent Survey

The Treat or Trap project is seeking feedback from parents about children's eating habits, and the role of food choices within the school environment. Your feedback is valuable and we would appreciate your help in taking a few minutes to complete this survey as honestly as you can. The survey will take about 5 minutes to complete.

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All information collected will be strictly confidential and no identifiable data will be reported or published.

Thank you, we appreciate your time! 😊

Please return completed survey to your child's teacher by 13th November to be in the draw TO WIN A $100 GIFT VOUCHER!

1. How many children do you have in this school?  
   - 1
   - 2
   - 3
   - 4
   - 5

2. Indicate the year group(s) that your child/children are in:
   (Please circle more than one if necessary)

   | Kindy | 1 |
   | Pre-primary | 2 |
   | Year 1 | 3 |
   | Year 2 | 4 |
   | Year 5 | 7 |
   | Year 3 | 5 |
   | Year 6 | 8 |
   | Year 4 | 6 |
   | Year 7 | 9 |

3. Please list up to three foods and three drinks that you consider to be treats for your child/children:

<table>
<thead>
<tr>
<th>Foods</th>
<th>Drinks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>
4. For which of the following reasons do you give your child/children treats? (Please circle as many as applies)

(Please circle as many as applies)
- Special occasion
- When they finish their homework or chores
- When they do well at school
- When they are well behaved
- As a reward
- Bribe/Negotiating (or in exchange for them to do something)

5. In a typical week, on how many days would you give your child/children a food or drink treat?

(Please circle one for food and one for drink)

<table>
<thead>
<tr>
<th>Number of days</th>
<th>Food treat</th>
<th>Drink treat</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

6. For each of the following, please indicate who usually decides what your child:

(Please circle one per row)

<table>
<thead>
<tr>
<th>Parent</th>
<th>Child</th>
<th>Both</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

7. How often do you provide your child/children with the following while at school?

(Please circle one per row)

<table>
<thead>
<tr>
<th>Every day</th>
<th>3-4 times/week</th>
<th>1-2 times/week</th>
<th>Few times/term</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sandwiches</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Fruit</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Muesli bars</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Chips</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Biscuits</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Salad</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Dried fruit</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Crackers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Juice</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

8. How many days in a typical week does your child/children eat breakfast? (Please circle one option)

0 days  1 days  2 days  3 days  4 days  5 days  6 days  7 days
9. For each of the following factors, please indicate how important it is when deciding what your children eat at while at school:

<table>
<thead>
<tr>
<th>(Please circle one per row)</th>
<th>Not Important</th>
<th>Quite Important</th>
<th>Very Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convenience</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>How well the food ‘fills them up’</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Food other children at school eat</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Food available at the deli</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Nutritional level of food</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>How much time they have to eat</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Requests from children for specific foods</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Food/drink Advertising or promotions</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>How well it keeps in hot weather</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Time available to organise lunch/ recess food</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>What is available in the cupboard and/or fridge</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

10. In a typical week, how often does your child/children buy food or drink from the deli that supplies the school?

<table>
<thead>
<tr>
<th>(Please circle only one)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Everyday or nearly every day of the week</td>
<td>1</td>
<td>Once a month</td>
<td>5</td>
</tr>
<tr>
<td>Once a week</td>
<td>2</td>
<td>Once a term</td>
<td>6</td>
</tr>
<tr>
<td>Twice a week</td>
<td>3</td>
<td>Never</td>
<td>7 ➔ Go to Q12</td>
</tr>
<tr>
<td>Once a fortnight</td>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11. When deciding whether or not your child/children will order from the deli, please indicate how important the following are:

<table>
<thead>
<tr>
<th>(Please circle one per row)</th>
<th>Not Important</th>
<th>Quite Important</th>
<th>Very Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children's friends order from the deli</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Children ask/ nag to order</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>We have run out of food for lunch</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>It involves less effort than preparing lunch</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>It is a treat</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>No time</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Can order something that is hot/difficult to send in lunchbox</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>It teaches children how to handle money</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
12. Do you agree or disagree that the food and drink your child eats during the school day influences?

(Please circle agree or disagree for each row)  

<table>
<thead>
<tr>
<th></th>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attention/concentration in class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Energy levels</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mood</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Behaviour</td>
<td></td>
<td></td>
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13. How important is it to you that your child/children has food and drink which is:

(Please circle one per row)  

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1 Yes  2 No

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<td>The deli supplying the school provide healthy food and drinks</td>
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<td>2</td>
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<td>2</td>
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<td>2</td>
</tr>
<tr>
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<td>2</td>
</tr>
<tr>
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<td>2</td>
</tr>
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19. For each of the following statements please tell me whether you agree or disagree:

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<table>
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<th>Disagree</th>
</tr>
</thead>
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1. How many children do you have in this school?  1  2  3  4  5

2. Indicate the year group(s) that your child/children are in:

<table>
<thead>
<tr>
<th>Year Group</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kindy</td>
<td>1</td>
</tr>
<tr>
<td>Pre-primary</td>
<td>2</td>
</tr>
<tr>
<td>Year 1</td>
<td>3</td>
</tr>
<tr>
<td>Year 2</td>
<td>4</td>
</tr>
<tr>
<td>Year 3</td>
<td>5</td>
</tr>
<tr>
<td>Year 4</td>
<td>6</td>
</tr>
<tr>
<td>Year 5</td>
<td>7</td>
</tr>
<tr>
<td>Year 6</td>
<td>8</td>
</tr>
<tr>
<td>Year 7</td>
<td>9</td>
</tr>
</tbody>
</table>

Please circle more than one if necessary.

3. Please list up to three foods and three drinks that you consider to be treats for your child/children:

<table>
<thead>
<tr>
<th>Foods</th>
<th>Drinks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>
4. **For which of the following reasons do you give your child/children treats?** *(Please circle as many as applies)*

<table>
<thead>
<tr>
<th>Reason</th>
<th>Circle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special occasion</td>
<td></td>
</tr>
<tr>
<td>When they finish their homework or chores</td>
<td></td>
</tr>
<tr>
<td>When they do well at school</td>
<td></td>
</tr>
<tr>
<td>When they are well behaved</td>
<td></td>
</tr>
<tr>
<td>As a reward</td>
<td></td>
</tr>
<tr>
<td>Bribe/Negotiating (or in exchange for them to do something)</td>
<td></td>
</tr>
</tbody>
</table>

5. **In a typical week, on how many days would you give your child/children a food or drink treat?**

<table>
<thead>
<tr>
<th>(Please circle one for food and one for drink)</th>
<th>Number of days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food treat</td>
<td>1  2  3  4  5  6  7</td>
</tr>
<tr>
<td>Drink treat</td>
<td>1  2  3  4  5  6  7</td>
</tr>
</tbody>
</table>

6. **For each of the following, please indicate who usually decides what your child:***

<table>
<thead>
<tr>
<th>Decision</th>
<th>Parent</th>
<th>Child</th>
<th>Both</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brings in their lunch box to eat for lunch</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Brings from home for morning or afternoon tea/snack</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Eats after school (ie afternoon tea)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

7. **How often do you provide your child/children with the following while at school:**

<table>
<thead>
<tr>
<th>snack</th>
<th>Every day</th>
<th>3-4 times/week</th>
<th>1-2 times/week</th>
<th>Few times/term</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sandwiches</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Fruit</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Muesli bars</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Chips</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Biscuits</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Salad</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Dried fruit</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Crackers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Juice</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
8. For each of the following factors, please indicate how important it is when deciding what your children eat at while at school:

(Please circle one per row)

<table>
<thead>
<tr>
<th>Factor</th>
<th>Not Important</th>
<th>Quite Important</th>
<th>Very Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convenience</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>How well the food ‘fills them up’</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Food other children at school eat</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Food available at the breakfast club</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Nutritional level of food</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>How much time they have to eat</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Requests from children for specific foods</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Food/drink Advertising or promotions</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>How well it keeps in hot weather</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Time available to organise lunch/ recess food</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>What is available in the cupboard and/or fridge</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

9. How many days in a typical week does your child/children eat breakfast? (Please circle one option)

0 days 1 days 2 days 3 days 4 days 5 days 6 days 7 days

10. How many days in a typical week does your child/children attend breakfast club at school? (Please circle one option)

0 days 1 days 2 days 3 days 4 days 5 days

11. Do you agree or disagree that the food and drink your child eats during the school day influences?

(Please circle agree or disagree for each row)

<table>
<thead>
<tr>
<th>Influence</th>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Attention/concentration in class</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Energy levels</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Mood</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Behaviour</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

12. How important is it to you that your child/children has food and drink which is:

(Please circle one per row)

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Not Important</th>
<th>Quite Important</th>
<th>Very Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low in salt</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Low in fat</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Low in preservatives</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Low in additives and artificial colouring</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Not fried</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Comprise of fruit or vegetables</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>High in nutritional value</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
13. The Traffic Light system guides how often children should have certain food and drinks while at school. Before completing this survey, were you aware that the Traffic Light system existed?

\[ \begin{array}{ll}
1 & \text{Yes} \\
2 & \text{No}
\end{array} \]

14. Before completing this survey, were you aware that the Traffic Light system recommends the following:

\[ \begin{array}{ll}
\text{(Please circle one per row)} & \text{Yes} \quad \text{No}
\end{array} \]

Food in the green category (e.g. fruit, vegetables, wholegrain breads and reduced fat dairy) should be offered on the canteen menu every day?

\[ \begin{array}{ll}
1 & \text{Yes} \\
2 & \text{No}
\end{array} \]

Food in the amber category (e.g. full fat dairy, refined cereals, snack bars and fruit juice) should only be offered on the canteen menu twice a week?

\[ \begin{array}{ll}
1 & \text{Yes} \\
2 & \text{No}
\end{array} \]

Food in the red category (e.g. soft drink, chips, deep fried foods and chocolate) should not be included on the canteen menu or provided to children by the school?

\[ \begin{array}{ll}
1 & \text{Yes} \\
2 & \text{No}
\end{array} \]

15. Do you agree with the Traffic Light system?

\[ \begin{array}{ll}
1 & \text{Yes} \\
2 & \text{Yes, and we use a similar approach for guiding what foods and drinks are given at home} \\
3 & \text{No}
\end{array} \]

16. Do you believe that the Traffic Light System and the recent changes to food provision in your child’s school have made it easier for your children to eat healthy at school?

\[ \begin{array}{ll}
1 & \text{Yes} \\
2 & \text{No}
\end{array} \]

17. Please indicate whether the following is important to you:

\[ \begin{array}{llll}
\text{(Please circle one per row)} & \text{Not Important} & \text{Quite Important} & \text{Very Important}
\end{array} \]

That the school provide healthy food and drinks at breakfast club

\[ \begin{array}{llll}
1 & \text{Yes} \\
2 & \text{No}
\end{array} \]

Healthy food and drinks are provided at school social functions e.g. school social, end of term lunches

\[ \begin{array}{llll}
1 & \text{Yes} \\
2 & \text{No}
\end{array} \]

Schools encourage healthy eating through whole of school policy

\[ \begin{array}{llll}
1 & \text{Yes} \\
2 & \text{No}
\end{array} \]

Children are taught about healthy eating in class

\[ \begin{array}{llll}
1 & \text{Yes} \\
2 & \text{No}
\end{array} \]

18. For each of the following statements please tell indicate whether you agree or disagree:

\[ \begin{array}{ll}
\text{(Please circle one per statement)} & \text{Agree} \quad \text{Disagree}
\end{array} \]

Fast food is okay once or twice a week

\[ \begin{array}{ll}
1 & \text{Yes} \\
2 & \text{No}
\end{array} \]

Working late makes it difficult to prepare meals

\[ \begin{array}{ll}
1 & \text{Yes} \\
2 & \text{No}
\end{array} \]

Fast food is easier to prepare than another meal

\[ \begin{array}{ll}
1 & \text{Yes} \\
2 & \text{No}
\end{array} \]

Fast food is convenient

\[ \begin{array}{ll}
1 & \text{Yes} \\
2 & \text{No}
\end{array} \]

Fast food is a cheaper alternative to preparing a meal at home

\[ \begin{array}{ll}
1 & \text{Yes} \\
2 & \text{No}
\end{array} \]

Fast food is used as a reward in your household

\[ \begin{array}{ll}
1 & \text{Yes} \\
2 & \text{No}
\end{array} \]

Fast food outlets are visited for special occasions

\[ \begin{array}{ll}
1 & \text{Yes} \\
2 & \text{No}
\end{array} \]
Appendix 9: A summary of findings (stage 1 and 2) relating to barriers and facilitators of healthy eating

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Facilitating factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parents</td>
<td>School staff</td>
</tr>
<tr>
<td>Practicalities of sending healthy food for school lunch</td>
<td>The canteen / food supply</td>
</tr>
<tr>
<td>School’s lack of control over school lunch provided by parents</td>
<td>Children</td>
</tr>
<tr>
<td>Lack of a canteen/ volunteers/ canteen facilities</td>
<td>The school</td>
</tr>
<tr>
<td>Practicalities of serving fresh food in the canteen</td>
<td>Parents</td>
</tr>
<tr>
<td>Children</td>
<td>Health education in schools</td>
</tr>
<tr>
<td>Food advertising and the influence of the commercial world</td>
<td>Food manufacturers and suppliers</td>
</tr>
<tr>
<td>Cost of healthy food</td>
<td></td>
</tr>
<tr>
<td>Misleading food labelling</td>
<td></td>
</tr>
<tr>
<td>Lack of consistency and long term change</td>
<td></td>
</tr>
<tr>
<td>Communication within the school</td>
<td></td>
</tr>
<tr>
<td>Food manufacturers and suppliers</td>
<td></td>
</tr>
</tbody>
</table>
Summary of Canteen Manager Interviews and Surveys and collated tips and success stories

As you may recall, you kindly agreed to participate in our Treat or Trap study in 2007. The overall aim of the study was to explore facilitators and barriers relating to the provision and consumption of healthy foods and drinks within the primary school environment. The study involved interviews with canteen managers and external food suppliers, school staff, students and parents.

WHAT DID WE DO?
- We randomly selected 12 canteen managers from public primary schools in the metropolitan area working in schools ranging from low to high socioeconomic status who had attended WASCA Traffic Light training. Managers were invited to participate in an interview.
- A further 70 canteen managers around Western Australia were posted a survey (31 were returned). The survey contained similar questions to those asked of interview participants.

WHAT DID WE FIND?

Canteen Managers opinions on healthy eating at school
- Most canteen managers interviewed and surveyed supported healthy eating in their school;
- All participants believed that the main responsibility of ensuring children eat healthily belonged to parents. However, most participants believed the canteen can influence what children eat, and can provide opportunities for children to try healthier food and drink options;
- Many canteen managers expressed some frustration with parents who provide their children with inappropriate or unhealthy food for school, particularly if the canteen and school are trying to encourage healthier eating;
- It was noted that efforts to promote healthy eating are supported by the whole school, including the canteen, school policy and practices, classroom activities, positive teacher support and initiatives to target families; and
- Although canteen managers supported healthy eating amongst children, there was a feeling among some that too much responsibility was being placed on the canteen, and that parents and food manufacturers also need to be active in this regard.

Feedback on the Traffic Light guidelines
- The majority of canteen managers interviewed felt they only needed to make minimal changes to their canteen menu as most canteens were offering healthy food already;
It was noted by a number of participants that children enjoy purchasing something from the canteen, and for the most part they will buy healthy food if there is no other option.

Although most welcomed the guidelines, there were still some issues that participants felt needed to be addressed, particularly clearer guidelines and criteria about the red, amber and green classifications;

Most participants did not experience any difficulties when implementing the guidelines. Those that did experience difficulties reported these difficulties as minor.

Some canteen managers reported a lack of information about suppliers and products available which made it difficult for them to provide a variety of healthy food;

Some canteen managers experienced difficulty with the guidelines as the new menu items are more labour intensive and time consuming than the items they used to serve;

A few participants experienced major problems as a result of the guidelines, including a lack of co-operation by the external food provider, a lack of facilities in the canteen or a lack volunteers needed to prepare the new menu items;

Some participants were initially concerned about their lease over food supplier’s equipment (e.g. fridges, pie warmers) in cases of decreased sales of items from the company providing the equipment. However, there were no reported cases where equipment was taken away. Furthermore, there is opportunity to enter lease agreements with other food suppliers if canteens were short of equipment.

Some of the canteen managers interviewed expressed a concern about the impact of the guidelines on their profitability prior to the guidelines coming into effect. However, the results indicate that generally there was little or no impact upon profitability. Some canteens however revised the number of days on which they operate. Most of the canteen managers who did experience a down-turn in sales or profit reported an improvement in the situation over time.

**Healthy Eating Strategies and Success Stories**

Canteen managers used a number of creative strategies to encourage their students to choose the healthy options, including:

- Presenting green items in a way that made them more attractive to the children,
- Using theme days to promote healthy eating (e.g. Healthy Bones week, Benny the Banana, Fruit and Vegetable week),
- Keeping prices of healthy food low,
- Subsidizing the price of fruit (i.e. making fruit cheaper and adding a bit to the price of less healthy foods),
- Giving children who order a green item a raffle ticket to go in the weekly draw for a free lunch order, and
- Replacing lollies with fruit based snack items (give them an interesting name to entice the children to buy them e.g. Roo Poo).
What else can the whole school do to encourage healthy eating?

Participants came up with a number of ideas to encourage healthy eating in the schools that went beyond changing the canteen menu. These included:

- Building a school vegetable patch to service the canteen. This could involve the children caring for and maintaining the patch.
- Linking lessons taught in the classroom about health with promotions by the canteen (e.g. kids might learn about healthy bones in class which could be supported by the canteen promoting dairy products).
- Run health promotion programs that target families as well as students.
- Encourage teaching staff to work with the canteen to promote healthy eating and encourage children to support the canteen.

Success stories: useful hints for healthy eating in the canteen

During this study we have been documenting the ‘success stories’ of canteen managers that have successfully promoted healthy eating in their school. The canteen managers involved in this study used a number of strategies that were successful in getting children to eat healthily.

- Serve green items in a meal deal – most canteen managers reported that children love meal deals, they like having a number of items and felt it was better value for money.
- Make fruit a more attractive option to kids by serving it as fruit kebabs, fruit in a cone, and fruit with jelly or yogurt.
- Frozen fruit has also been a hit in some schools e.g. pineapple rings, grapes, orange quarters.
- Children are more likely to eat vegetables and salads if it is served as a salad tray or as a platter.
- To encourage kids to eat apples, use an apple slinky (apple corer). Some schools have done this free of charge and others have charged a small fee, which is a great alternative fundraiser instead of lollies.
- Due to higher labour intensity required for preparing healthier foods, some canteen managers have found multi-use devices to reduce the workload in the canteen.
- To encourage children to order sandwiches and rolls a number of schools have run “Subway” days, where they kids make their own sandwiches and choose their own fillings. This strategy was successful because the children loved making their own sandwiches.
- Canteen managers have had success by hiding fruit or vegetables in muffins (e.g. blending apples etc first and mixing it through the muffin mix).
- Use the school newsletter: Some canteen managers had a column in the school newsletter and use it to advertise changes to the canteen menu and encourage kids to try the new menu.
- Give out samples of new menu items: this encourages children to try something new and could result in them buying the item or telling their friends to buy it.
Getting volunteers

Almost all canteen managers involved in this study experienced problems recruiting and keeping volunteers. Volunteers are vital to canteens, especially if fresh food preparation is seemingly more labor intensive. Throughout the study we asked people for their advice in getting and keeping volunteers. Tips provided by the Canteen Managers included:

*Use a canteen convener*

Ask a parent in the school to be the canteen convener (i.e. to be in charge of recruiting and organizing volunteers). This might increase the number of volunteers in the canteen as the canteen convener can call upon their friends to volunteer in the canteen.

*Target new parents or parents of Kindy/pre-school kids:*

This strategy has been successful because new parents and parents of the younger children might be looking for ways to get involved in the school and make contacts; the canteen is the perfect place for this. One way to encourage involvement is to go along to the Kindy orientation day, outline the role and provision of healthy food from the canteens and encourage the new parents to get involved.

*Create a roster in advance*

People are more likely to honor their commitment to the canteen if they are included on a roster that is created in advance.

*Have short shifts for volunteers*

Be flexible in the length and time you require of volunteers. A number of canteen managers involved in the study asked people to volunteer what time they had (e.g. an hour in the morning). Canteen managers who did this found that they had more volunteers by being flexible than if they ran a standard shift.

*Broaden your volunteer base*

Volunteers don’t just have to be Mums. Some of the schools we visited broadened their volunteer base by using Dads, Grandparents, other family members and even local community members. Run a Grandparents or Dads day to encourage them to volunteer in the canteen – make it a special day. You can also ask your current volunteers to bring along a friend and make volunteering a social occasion.

---

Thank-you again for participating in the Treat or Trap study! These findings and other findings from the study will help inform future efforts to promote healthy eating and healthy children in WA schools.