eat well sa schools and preschools

healthy eating guidelines

Department of Education and Children’s Services
Foreword

Schools and preschools have a unique and important role in enabling children and adolescents to develop their capacity for healthy growth and development and healthier futures. The *eat well sa schools and preschools healthy eating guidelines* provide a framework through which schools and preschools can promote learning, health and wellbeing in relation to food and nutrition.

The guidelines reflect and support a number of Commonwealth and state policies and priorities, principally:

- *Eat Well Australia: An agenda for action for public health nutrition 2000–2010* and its Indigenous component, the *National Aboriginal and Torres Strait Islander Nutrition Strategy and Action Plan 2000–2010*
- *Eat Well South Australia. Public health nutrition action plan 2004–2008*
- *Dietary guidelines for children and adolescents in Australia*
- *The Australian guide to healthy eating*
- *Healthy weight 2008—Australia’s future*
- *SA Healthy Weight Action Plan*
- *Creating opportunity, South Australia—Strategic plan.*

The guidelines also acknowledge that primarily families are responsible for the provision of food to their children. The guidelines support families in this role, and use strategies that are inclusive of the socio-economic, cultural and spiritual perspectives of their communities.

The guidelines will be implemented in the daily work of schools and preschools through:

- the South Australian Curriculum, Standards and Accountability Framework
- creation of safe, supportive and inclusive environments for learning and wellbeing
- provision of inclusive pathways for care and learning that ensure the particular and local needs of individuals and communities are addressed
- partnerships with families, communities, professionals, services and industry to support a whole-of-community commitment to wellbeing and learning.

The *eat well sa schools and preschools healthy eating guidelines* are the result of a very successful collaboration between educators, health professionals and communities. We commend them to you as a framework for planning school and preschool strategies to ensure children and students learn about, experience and practise healthy eating.

Steve Marshall  
CHIEF EXECUTIVE  
DEPARTMENT OF EDUCATION

Jim Birch  
CHIEF EXECUTIVE  
DEPARTMENT OF HEALTH AND CHILDREN’S SERVICES
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Introduction

Global concern about levels of diet-related chronic disease

Healthy eating is fundamental to good health throughout life for all people. It underpins healthy growth and development, contributes to health and wellbeing, positive mental health and quality of life, and plays a role in preventing disease and disability.

Internationally, concern about growing levels of chronic disease has prompted the World Health Organisation (WHO) to announce in May 2004 a global strategy on diet, physical activity and health. This reflects evidence for the relationship between diet and the prevention of chronic diseases such as Type 2 diabetes, cardiovascular disease, cancer, dental disease, obesity and osteoporosis. The WHO urges a focus on prevention, starting from before birth, by improving nutritional status during all five life-course stages: the foetus and maternal environment, infancy and childhood, adolescence, adulthood and old age.

Recommendations for healthy eating

The National Health and Medical Research Council (NHMRC) has published dietary guidelines for Australian infants, children and adolescents; adults; and older people. These guidelines provide recommendations for healthy eating not only to reduce the risk of diet-related disease, but also to improve the community’s health and wellbeing. The Dietary guidelines for children and adolescents in Australia are listed in Appendix A.

Overall, for good health, school-aged children need to drink plenty of water and eat plenty of fruit, vegetables, legumes and cereals; adequate amounts of lean meat and low fat milk products; and, importantly, choose foods containing less fat, less saturated fat, less sugar and less salt. The Australian guide to healthy eating (see Appendix B), translates the dietary guidelines into recommendations for the particular foods to eat to promote health.

The South Australian government’s strategic plan has a focus on improving the wellbeing of the community and individual citizens. One of the recommendations for achieving this is a reduction in the percentage of South Australians who are overweight or obese by 10 per cent in ten years.

Developing healthy eating patterns

Children and adolescents with appropriate nutrition have improved cognitive development, attention span, work capacity, classroom behaviour, and attendance at school and preschool. Establishing healthy eating patterns at a young age provides a critical foundation for good eating patterns in adult life with health, social and financial benefits to individuals, families and society.

Role of schools and preschools in supporting healthy eating

In South Australia, 96 per cent of 5 to 17 year olds attend school and 88 per cent of young children attend preschool. These settings are therefore a critical part of the social environment that shapes eating behaviour and can play a large role in ensuring that health-enhancing eating behaviour is learned, practised and supported.
Priorities: fruit and vegetables and healthy weight

Increasing fruit and vegetable consumption and promoting healthy weight are two priorities highlighted in state8 and national9 nutrition strategies because of their impact on improving health outcomes.

Increasing fruit and vegetable consumption

A diet rich in fruit and vegetables is beneficial to health, particularly in reducing the risk of cardiovascular disease, Type 2 diabetes and some forms of cancer.9,10,11 Results of the most recent national nutrition survey in 199512 showed that many young Australian children are not eating the recommended number of serves of fruits and vegetables.13 On the survey day:

- 6 per cent of boys and 4 per cent of girls did not eat any fruit or vegetables
- 69 per cent of 2 to 4 year olds, 61 per cent of 5 to 12 year olds, and 19 per cent of 13 to 18 year olds ate the recommended number of serves of fruit
- 28 per cent of 2 to 4 year olds, 33 per cent of 5 to 12 year olds, and 32 per cent of 13 to 18 year olds ate the recommended number of serves of vegetables.

For children to eat and enjoy adequate amounts of fruit and vegetables as part of a healthy diet, they need to be offered a wide range of fruit and vegetables from the age of about 6 months. In addition, parents and carers need support in how to foster their children’s enjoyment of healthy food. Strategies include appropriate role modelling (leading by example), a parenting style that focuses on positive messages such as allowing children choice about eating the foods offered by parents, praise for eating healthy food, not using food as a reward or rewarding children for eating a ‘disliked’ food, encouraging children to eat to their appetite (rather than an amount on their plate), as well as structured meal patterns.14,15,16,17

Effective school- and preschool-based interventions that increase fruit and vegetable consumption require a ‘portfolio’ of strategies. These include: supportive policy; collaborative involvement of staff, children and students, parents/caregivers and health and other industry groups; active participation (eg through tasting, cooking); coordination between school food services and education activities; adequately trained educators; and adequate resourcing.18
Promoting healthy weight

Australians’ weight is increasing at alarming rates. Between 1983 and 1995 increases were 5.2 kg for adult men and 6.9 kg for women. Between 1985 and 1995, weight increased by 4.8 kg for girls and 6.5 kg for boys.20 South Australian data show a trend of increasing prevalence of overweight in both adults21 and 4 year olds.21

Excessive weight gain results from excess in energy eaten in food compared with energy used up in physical activity. Energy intakes from food have increased for both adults and children and many Australians are not engaging in sufficient physical activity. Between 1985 and 1995 energy intake increased greatly and significantly: by 11 per cent for girls and 15 per cent for boys aged 10 to 15 years. (This equates to the amount of energy in three or four slices of bread each day.)

Latest estimates suggest that the costs of excessive weight may now be as high as $1.3 billion per year and rising quickly.22

To promote healthy weight, we need to make it easy for people to eat healthy food and be physically active, addressing individuals’ and families’ knowledge and behaviour and the environments in which they live.23 This requires attention to factors as diverse as urban planning, public transport, agriculture, food processing, food marketing, advertising and regulation. A national agenda for action, Healthy weight 2008—Australia’s future, was released in 2003.22 A state healthy weight plan, based on the national plan, is currently being developed by South Australian government departments, including the Department of Health and the Department of Education and Children’s Services, in consultation with the South Australian community.

While there is concern about the number of overweight children, it is important to remember that childhood is a period of growth and development that is best supported by adequate amounts of appropriate healthy food. Between birth and 18 years of age, body weight increases about twenty-fold.

Interventions that promote growth and development and prevent overweight are a high priority. These include a focus on breastfeeding, healthy eating and physical activity. Prevention needs to start early in life. A significant proportion of overweight children and adolescents become overweight adults, and a significant number of overweight adults were overweight as children and adolescents.24

Priority groups

Some populations require priority and inclusive consideration in addressing healthy eating issues. These include Indigenous communities, children and students with food-related health support needs and overweight children and adolescents.

Indigenous communities

The National Health and Medical Research Council (NHMRC) reported in 2000 that: ‘Aboriginal and Torres Strait Islander peoples experience a much greater burden of ill-health than other Australians. The health disadvantage begins in early life, continues through the life-cycle and is
exacerbated by low socio-economic status ... Aboriginal people have high rates of ill health from Type 2 diabetes and cardiovascular disease, for which overweight is a risk factor. They also have high rates of renal disease and dental health problems ... Poor nutrition has had a great impact on the health of Aboriginal people. Nutrition needs to be addressed across the life-span, with education programs targeting women in pregnancy, parents, adolescents, children and people at risk of lifestyle-related ill-health.25

Children and students with food-related health support needs

Some school- and preschool-aged children have particular dietary needs related to medical conditions such as anaphylaxis, diabetes and cystic fibrosis. These need to be taken into account in implementing the guidelines.

Overweight children and adolescents

The NHMRC has reviewed the evidence around factors associated with overweight in children and adolescents.24 Overweight children and adolescents tend to display the risk factors for cardiovascular disease and there is an association with increased levels of Type 2 diabetes, particularly in some ethnic groups. Overweight children may experience problems of physical discomfort—such as musculoskeletal discomfort, heat intolerance, and shortness of breath—that appear to greatly affect their lifestyle. It also appears that a significant proportion of children and adolescents use unhealthy dietary practices for weight control. Overweight children and adolescents may experience medical conditions, problems related to unacceptable teasing and bullying, difficulties playing sports, low self-esteem and fatigue. This means that schools and preschools must plan for the safety and wellbeing of learners for whom overweight may be an issue, working with all school and preschool community members in a holistic approach to wellbeing, rather than having a limited focus on weight, diet and physical activity.

Implementing the guidelines

The guidelines acknowledge that healthy eating underpins good health and that good health is a resource for life and learning.

The eat well sa school and preschool healthy eating guidelines reflect an understanding that effective learning about healthy eating must be supported in all aspects of the learning environment.26

For this reason, the guidelines apply to learning programs and environments for all school and preschool settings including canteens, other food services and the local store; out of school hours care, vacation care services, homework centres and related settings.

The DECS website at <www.decs.sa.gov.au/speced/pages/default/eatwellsa> contains information to support implementation of the healthy eating guidelines. This information can be used to assist educators to reflect upon and enhance current practice.
Curriculum

The complex nature of the food and nutrition system and its relationship to healthy, active living is a key concept in the South Australian Curriculum, Standards and Accountability (SACSA) Framework.

A range of personal, cultural and societal factors influence what foods are eaten. These factors impact on food availability and choice. They include the location of shops, cost of food compared with income, food items available, agriculture and trade policy and regulation, food advertising, location of farms, cooking facilities in houses, and cooking skills. Changing established eating habits is difficult: it is essential to teach people about healthy eating patterns and related food selection, preparation and cooking skills when they are young.

Children and students are taught the knowledge, understandings, principles and skills of healthy eating through the SACSA Framework.

The health and physical education Learning Area provides opportunities for links between learning about food and nutrition, the practices of the site’s food service/canteen areas, health and wellbeing. The Key Ideas and Outcomes can be explored through the strands of the Learning Area.

Promotion of health and wellbeing across the school or preschool community can link to other Learning Areas, and the Essential Learnings of Identity, Futures, Independence, Thinking and Communication also provide avenues for investigating food and nutrition.

Equity Cross-curriculum Perspectives provide Aboriginal and Torres Strait Islander, gender and multicultural perspectives (see also guideline 1.3).

All delivery of practical lessons in relation to food must comply with food safety legislation and policies (see also section 4).

Australia has the highest number of food advertisements per hour during children’s television viewing time in the world. Exploring issues such as food advertising within the curriculum could assist with encouraging children and students to become critical thinkers and link with a range of Learning Areas.

In 2003 it was reported by Dibb that: ‘Up to 80 per cent of the food ads shown during children’s television viewing time are for foods that are high in fat, sugar, or salt and of low nutritive value ... Studies show that food advertising can influence children’s food preferences, request for advertised products and food consumption.’
Healthy eating guidelines

Curriculum (continued)

Learning programs should provide opportunities for developing practical food skills related to growing, selection, storage, preparation, cooking and serving food.

Food literacy comprises knowledge, skills and capacities to grow, select, store, prepare, cook and serve food. Skill development in the growing, selection, storage, preparation, cooking and serving of healthy food enables people to make improved food and nutrition choices. Young people who learn these practical skills and have nutrition choices have a greater likelihood of becoming healthy adults and reducing their risk of developing diseases linked to poor nutrition.

Teaching and learning methods are critical: learners need to be engaged as active participants in decisions relating to food and nutrition, and the learning environment needs to support the content of the food skills and nutrition curriculum.

Effective learning programs for food and nutrition help children and students to understand the interconnectedness of living systems. School and preschool gardens can assist learners to gain skills and knowledge for building ecologically sustainable communities that promote social and environmental wellbeing. Gardens provide an opportunity to integrate curriculum related to food, nutrition and environmental issues. They enable children and students to learn to grow, harvest and prepare nutritious seasonal produce. Gardens also play a vital role in therapeutic activities, development of multicultural understandings, intergenerational learning and skill sharing. Produce from community gardens and local regional foods can be linked into learning about food and food preparation, recycling and composting.

Attaining sustainability, including reducing water consumption and minimising waste, is a priority for South Australia. Gardening and food preparation provide opportunities for children and students to consider these issues more fully.

A study of South Australian adults showed that between 10 to 12 per cent of people believe that lack of cooking skills and lack of time are barriers to preparing healthier meals.30
Effective healthy eating programs will acknowledge food sufficiency issues in their communities. South Australian Department of Human Services data show that, for a twelve-month period (June 2002 to June 2003):

- 8 per cent of all households sampled were food ‘insecure’ (ie they did not know whether they would always have enough food in the house)
- prevalence of reported levels of food insecurity was higher in respondents aged under 16 years of age
- running out of food, with no money to buy more, usually occurred less than once a month
- households adopted a range of coping mechanisms to food insecurity, with the most common being a reduction in food variety.

Australia is a multicultural society in which there is a wide variety of foods and eating patterns that reflect diverse cultural, ethnic and spiritual groups. Healthy eating programs should reflect cultural and spiritual perspectives within their communities and provide opportunities for children and students to develop and enhance their appreciation of this diversity.

Children and students benefit from an understanding of the traditional foods from their own cultural backgrounds. This should be encouraged wherever possible, giving consideration to consistency with the Dietary guidelines for children and adolescents in Australia and The Australian guide to healthy eating and, where appropriate, identifying alternative healthier food options that are most like traditional foods.

Children and students are more likely to select and eat food that meets their taste and cultural preferences when they are in a safe and supportive environment (see also guideline 2.2).
The learning environment

2.1 While at school and preschool, learners should eat routinely at scheduled break times.

The early years of life are critical in establishing food attitudes and habits. Childhood is a period of continuous education about healthy eating.

The establishment of regular eating times can support this; for example, breakfast, morning snack break, lunch, after school snack, evening meal.

Food should not ordinarily be consumed in the classroom, where focused learning without disruptions should be occurring. The exception is where children and students have specific health care requirements. However, learners should have continuous access to fresh, clean tap water (see guideline 2.4).

2.2 Preschool children and primary-aged students should eat lunch in a supervised social environment.

Sound health and wellbeing habits are developed when children are encouraged to eat meals in a positive social setting, followed by recreational physical activity.

Children need enough time to eat their lunch in a safe, comfortable environment. The opportunity for enjoyable social and cultural interactions while eating in a pleasant relaxing environment encourages children to develop sound eating habits and reduces the likelihood of skipping meals. This also provides a structured opportunity to learn and practise good personal hygiene in relation to eating (see guideline 3.2) and for learning about recycling and not littering.

Eating with children and students provides school and preschool staff with the opportunity to model and reinforce healthy behaviour. Supervision also reduces the risk of young children or at-risk students of choking while trying to play and eat at the same time.

Eating areas should be clean, attractive and shaded.

Participating in healthy activity at break times is important for the health and wellbeing of children and adolescents. Learners should not have to wait in queues for a large proportion of their break time for ordering, purchasing or collecting food.
State and national nutritional priorities for children and adolescents include increasing fruit and vegetable consumption to promote health and prevent and reduce the risk of chronic diseases such as coronary heart disease, stroke, some cancers, Type 2 diabetes mellitus, and degenerative eye diseases. The WHO recommends the daily intake of fruit and vegetables should be at least 400g.

The recommended daily intakes of fruit and vegetables in *The Australian guide to healthy eating* are:

- 4 to 7 years old—1–2 servings of fruit, 2–4 servings of vegetables (including legumes)
- 8 to 11 years old—1–2 servings of fruit, 3–5 servings of vegetables (including legumes)
- 2 to 18 years old—3–4 servings of fruit, 4–9 servings of vegetables (including legumes).

One serve of fruit is: a medium piece (e.g., apple, banana, orange, pear); two small pieces (e.g., apricots, kiwi fruit, plums); a cup of diced pieces or canned fruit; half a cup of juice; some dried fruit (e.g., four dried apricot halves, one-and-a-half tablespoons of sultanas).

One serve of vegetables is: 75g or half a cup of cooked vegetables; 75g or half a cup of cooked dried beans, peas or lentils; a cup of salad vegetables; one potato.

Many children and adolescents do not eat enough fruit and vegetables. Some children, for example, those living in remote areas (including Aboriginal communities) and in households with low incomes, are likely to be at greater risk of inadequate consumption.

The 1995 National Nutrition Survey showed that, on the survey day:

- 25 per cent of 2 to 4 year olds, 37 per cent of 5 to 12 year olds, and 54 per cent of 13 to 18 year olds ate no fruit (this excludes consumption of fruit juice)
- 22 per cent of 2 to 4 year olds, 21 per cent of 5 to 12 year olds, and 16 per cent of 13 to 18 year olds ate no vegetables.

In contrast to this, over 40 per cent of 5 to 18 year olds’ energy intake was from foods that should be eaten sometimes or in small amounts, or food outside the circle in *The Australian guide to healthy eating*.

Replacing unhealthy snacks with fruit and vegetables will assist in improving the nutritional quality of the food eaten by children and adolescents.

### Possible strategy: fruit, vegetable and water program

Schools and preschools can maintain a morning fruit, vegetable and water program up to at least the end of middle schooling. Such a program:

- encourages consumption of healthy snacks
- promotes time for eating in a social setting and trying new food
- sets aside a time each day to practise and apply learning about healthy eating.
Schools and preschools should support frequent drinking of fresh, clean tap water.

Water is essential for life. A balance between fluid intake and output is important for effective body function and the maintenance of good health.

In the Australian climate, people—particularly young children—can be at risk of dehydration. Contributing factors can include a poor thirst mechanism and dissatisfaction with the taste of water. Dehydration can also result from alcohol and caffeine consumption, exercise, and environmental conditions such as high altitude and low humidity. Dehydration has been linked to adverse health outcomes such as increased risk of kidney stones, urinary tract and colon cancer and diminished physical and mental performance.3

Children’s and adolescents’ fluid needs are best met by water and milk. Fruit juice in limited quantities (half a cup per day) can provide valuable nutrients. Soft drink consumption should be discouraged because these liquids have a high sugar and energy content. They contribute to tooth decay and may displace other nutrients from the diet and affect bone mineralisation.33

The consumption of carbonated drinks and aerated beverages in Australia has increased from 87.4 litres per capita in the late 1980s to 113 litres per capita in 1998–1999, an increase of 30 per cent in a decade.34 One 375ml can of soft drink contains between 9 and 14 level teaspoons of sugar. Results of the New South Wales 2001 Child Health Survey showed that 28 per cent of 2 to 4 year olds and 43 per cent of 5 to 12 year olds drank one or more cups of soft drink, cordial or sports drink each day.35 The average teenage soft drink consumer in New South Wales is estimated to consume between 300 and 600 ml/day, more than their daily intake of milk.36

The WHO has noted that the high and increasing consumption of sugar-sweetened drinks by children in many countries is of serious concern. It is thought that the reason for the relationship between soft drink consumption and overweight is that the energy in fluids is not detected very well by the body, so people do not adjust the amount of energy consumed through other foods to account for that consumed in fluids.2
The learning environment (continued)

While food is a part of social events and celebrations, it should not be used in reward or punishment situations related to an individual’s behaviour. Children and students receive many mixed messages in relation to food. Giving learners foods and drinks of poor nutritional value, such as lollies, chips, chocolates and soft drinks, for good behaviour, and punishing misbehaving learners by denying them such ‘treats’ is a contradiction to curriculum designed to empower children and students to make healthy eating choices. This practice may contribute to making a food of poor nutritional value more desirable to learners.

Alternatives to food involvement in rewards and punishments need to be considered, and could include interesting activities and non-food rewards.

The family is the primary provider of food. Schools and preschools can communicate with learners and their families about affordable, locally relevant healthy eating ideas, including the importance of breakfast and its relationship to learning and wellbeing. This can be done through the curriculum and information to parents/caregivers.

Children and adolescents who eat breakfast decrease their risk of becoming overweight and have an overall more nutritious diet, compared with those who don’t have breakfast.37

Eating breakfast can provide nutritional necessities and prevent symptoms such as headache, fatigue, restlessness and sleepiness. One in five Australian children consume nothing at all for breakfast and one in four consume an inadequate breakfast that consists of only fluids such as cordial, water, tea, coffee or soft drink.38

Children and adolescents who eat breakfast perform better in school through increased problem-solving ability, memory, verbal fluency and creativity. A healthy breakfast correlates to less inattention and absence, improved educational outcomes and reductions in problems like depression, anxiety and hyperactivity.3

Opportunities exist for schools and preschools to collaborate with community agencies to establish and assist with breakfast and other programs if necessary. Some communities will have priority needs in this area, for example those where poverty limits healthy eating options. Schools and preschools can address community priorities through learning programs and creating environments supportive of healthy eating.
Breastfeeding provides immediate and long-term benefits for infants. The *Dietary guidelines for children and adolescents in Australia* recommend exclusive breastfeeding for at least the first six months of life, with breastfeeding continued for twelve months and beyond as mother and infant desire. Breastmilk provides the optimal nutrition for brain development and infant wellbeing.

Many children and adolescents are not exposed to breastfeeding and do not know that breastfeeding is recommended for infant feeding. It is important that through curriculum delivery, both male and female children and students are made aware that breastfeeding is ‘normal’ and that it has nutritional importance for infant development and future health. There are many opportunities to address breastfeeding through the SACSA Framework (see guideline 1.1 and Appendix C).

To help promote, encourage and support breastfeeding in the school or preschool community, it is recommended that all sites provide environments that will support breastfeeding and extend this ‘good practice’ to staff, parents/caregivers, children and students and community members who make use of the site.

Young pregnant and parenting students and their infants are potentially vulnerable to sub-optimal nutrition because of their age and social and economic factors. It is important that they are encouraged to breastfeed. Schools can, for example, support students with young children to continue to breastfeed by providing an appropriate place for feeding and support structures that encourage the student’s continued education.

*By the time children reach age 3, their brains are twice as active as those of adults.*

*Brain development in early years provides the foundation for development of future competence and coping skills.*
Food supply

Supply of food in schools and preschools can be through canteens and other food services, vending machines and as part of learning programs, camps, excursions, fundraising and celebrations. In all cases, the food supplied should be consistent with the Dietary guidelines for children and adolescents in Australia (Appendix A) and The Australian guide to healthy eating (Appendix B).

All food and drink supplied in the course of school and preschool activities should comply with the Dietary guidelines for children and adolescents in Australia and be inclusive of community socio-economic, cultural and spiritual perspectives. Foods that do not comply with the Dietary guidelines for children and adolescents in Australia might be supplied as part of a special event. They should not be supplied more than twice per school term.

The Dietary guidelines for children and adolescents in Australia provide the framework for selecting healthy foods. The Australian guide to healthy eating translates the Guidelines into practice by recommending the foods to eat each day for good health. In summary, The Australian guide to healthy eating recommends:

- eating a variety of foods from each of five food groups (‘everyday foods’):
  1. Breads, cereals, rice, pasta, noodles
  2. Vegetables, legumes
  3. Fruit
  4. Milk, yogurt, cheese
  5. Meat, fish, poultry, eggs, nuts, legumes

- eating
  - plenty of plant foods (breads, cereals, rice, pasta, noodles, vegetables, legumes, fruit)
  - moderate amounts of animal foods (milk, yoghurt, cheese, meat, fish, poultry, eggs)

- drinking plenty of water

- eating foods that do not fit into the five food groups (‘extra foods’) only sometimes or in small amounts.

‘Extra foods’ include those that are high in fat, salt and sugar; low in fibre; and of poor nutritional value and high energy density. Data from the 1995 National Nutrition Survey showed that for young people aged 2 to 18 years, around 40 per cent of total food energy came from foods that are inconsistent with the Dietary guidelines and The Australian guide to healthy eating. This translates to more than four times the amount of foods described by the Guide as ‘extras’, to be eaten sometimes or in small amounts.
Food supply (continued)

Providing healthy meals, snacks and drinks for children and students has a positive effect on learning outcomes, behaviour and attendance as well as health, wellbeing and the prevention of diet-related illnesses. Canteens and other food services must supply affordable, culturally acceptable, nutritious foods and meals that promote healthy eating habits and support and reflect classroom teaching on food and nutrition issues.

Canteens and other food services are one of the largest sources of takeaway food in South Australia. Schools and preschools should provide foods from the five food groups as described in The Australian guide to healthy eating.

Vending machines are often used to dispense foods that are high in kilojoules, inconsistent with recommendations for healthy eating and heavily marketed to children and adolescents. Snacking on unhealthy foods and drinks displaces healthier items from the diet and contributes to tooth decay, unhealthy weight and related diseases (see guideline 3.2).

It is recommended that all schools and preschools prohibit vending machines unless they dispense foods that are essential components of a healthy diet as recommended by The Australian guide to healthy eating.

Vending machines on sites should be free of product advertisements (see guideline 6.3).

Appendix D summarises ‘recommended’ and ‘not recommended’ foods, according to The Australian guide to healthy eating.
Despite having one of the world’s safest food-supply systems, Australia has seen an increase in the number of food-borne illnesses in the last ten years. Children are especially prone to food-borne illness and other infectious diseases. The main causes of food-borne illness in Australia are:

- inadequate cooking
- improper holding temperatures
- contaminated equipment
- unsafe food sources
- poor personal hygiene.

Correct food handling from paddock to plate, including transport, preparation and storage phases, is essential in minimising the risk of food-borne illness.

Lunches prepared at home should not be stored in warm areas. For additional safety, a frozen drink or ice brick could be included in the lunch box in warm weather if the lunches include foods such as meats and prepared salads.

The following guidelines are taken from the Food Act 2001. Further information about the Act, Regulations, food safety standards and consequences of breaching the legislation is available at <www.dhs.sa.gov.au/pehs>, then click on Food.

School and preschool activities subject to food safety legislation

These activities are subject to the legislation:

- selling food, such as in the canteen
- supplying food together with accommodation, another service or with entertainment, such as in a boarding facility
- supplying food in after-school child minding or care services where a fee is paid
- catering at school and preschool functions where a fee is charged for meals
- selling and handling food at fundraising events
- raffling food and offering food as prizes or rewards.
The labelling of food sold in canteens is also subject to the legislation. Packaged food for sale at school is generally required to have the following information:

- name or description of the food
- ingredient listing and percentage labelling
- name and business address
- date marking
- lot identification
- mandatory warnings specified in the code
- nutrition information panel
- directions for safe use and storage where appropriate
- country of origin of products sold in Australia, other than those imported from New Zealand.

There are exemptions from these requirements for foods that are:

- unpackaged
- made and packaged on the premises from which they are sold (e.g., the canteen)
- packaged in the presence of the purchaser
- sold at a fund raising event
- whole or cut fresh fruit or vegetables in packages that do not obscure the nature or quality of the food (e.g., fruit salad in a clear container)
- delivered, packaged and ready for consumption, at the express order of the purchaser, such as school lunch orders.

Activities not covered by the legislation

These activities are not subject to the legislation:

- supplying food from home for snacks and lunches
- providing food from home for a child or student to share at a school or preschool social event
- preparing and consuming food as a teaching and learning activity (i.e., not for sale)
- providing food at a function for which there is no charge.
Hand washing is the single most important and effective standard precaution for the control and prevention of transmission of infection in school and preschool settings.

Effective hand washing involves the following steps:

1. Use soap and running water; warm to hot is best.
2. Wet hands thoroughly and lather with soap.
3. Rub hands vigorously for at least 10 to 15 seconds as you wash them.
4. Pay attention to back of hands, wrists, between fingers and under fingernails.
5. Rinse hands well under running water.
6. Dry hands with a disposable paper towel or a clean towel. To minimise chapping (reddening, roughening or cracking of the skin) of hands pat dry rather than rub them. Electric hand-driers may be used. If cloth towels are used, select a fresh towel each time, or if a roller towel is used, select a fresh portion of towel.
7. Turn off the tap with the used paper towel, if applicable.
8. Use skin lotion, if necessary, to prevent dry, cracked skin.
9. If skin lotion is used to prevent dry, cracked skin, it should be rinsed off before preparing or handling food.
Some children and students have medical conditions that require special healthy eating accommodations; for example, learners with diabetes, cystic fibrosis or anaphylaxis (a history of severe life-threatening allergic shock reaction).

Some learners may have a mental health issue that can manifest in unhealthy eating: support for healthy eating for these learners needs to be skilfully managed to attain health, wellbeing and recovery.

In all cases where children and students have special needs related to their eating, educators should use the DECS Health support planning guidelines to ensure a planned approach to support that is respectful, inclusive and safe.
Working with families, health services and industry

Families are primarily responsible for the provision of food for their children.

Involving parents/caregivers in the nutrition curriculum can enable families to contribute their knowledge and expertise to school and preschool programs while also learning about the healthy eating practices being promoted through their children’s learning programs.

Culturally inclusive communication with families through newsletters, invitations, website information, involvement in policy development, homework and canteen and other food service menu planning provides the opportunities for family support and reinforcement of nutrition and other wellbeing education.

Health services have valuable expertise and resources that can assist schools and preschools in the implementation of the healthy eating guidelines.

Educators are primarily responsible for the curriculum in schools and preschools and visiting health services should not replace this role. Rather, they can supplement and enhance the role of the educator and provide direct support to families and the wider community in the promotion of healthy eating for all.

Where professionals and health agencies support learning programs, schools and preschools must ensure these agencies have information to enable them to do this safely. This will include, for example, information about duty of care, child protection, and children with special needs.
Children and students are more likely to receive consistent and effective healthy eating messages when these are supported by a cooperative approach involving families, educators, food service and other staff, partnerships with the health sector and, where relevant, industry groups.

Fundraising and sponsored activities on school and preschool sites that involve food or beverages need to be aligned with Dietary guidelines for children and adolescents in Australia. The promotion, for example, of vouchers for high fat/salt/sugar foods and the sale of confectionery for profit are counter-productive to healthy eating messages within the curriculum and school and preschool environment.

Some food industry groups in South Australia already have programs in place that relate to healthy eating and children and adolescents. One example is the project steered by the South Australian Fruit and Vegetable Coalition. This involves education, health and industry groups working together to promote increased consumption of fruit and vegetables in order to alleviate and prevent chronic disease in the South Australian population.
Appendix A

Dietary guidelines for children and adolescents in Australia

- Encourage and support breastfeeding.
- Children and adolescents need sufficient nutritious foods to grow and develop normally:
  - growth should be checked regularly for young children
  - physical activity is important for all children and adolescents.
- Enjoy a wide variety of nutritious foods.
- Children and adolescents should be encouraged to:
  - eat plenty of vegetables, legumes and fruits
  - eat plenty of cereals (including breads, rice, pasta and noodles), preferably wholegrain
  - include lean meat, fish, poultry and/or alternatives
  - include milks, yoghurts, cheese and/or alternatives. Reduced fat milks are not suitable for young children under 2 years, because of their high energy needs, but reduced fat varieties should be encouraged for older children and adolescents
  - choose water as a drink.
- Alcohol is not recommended for children.
- And care should be taken to:
  - limit saturated fat and moderate total fat intake. Low fat diets are not suitable for infants
  - choose foods low in salt
  - consume moderate amounts of sugars and foods containing added sugars.
- Care for your child's food: prepare and store it safely.

Appendix B

The Australian guide to healthy eating


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Appendix C

SACSA mapping

The SACSA Framework describes a single, cohesive Birth to Year 12 curriculum entitlement for all learners within Department of Education and Children’s Services schools and preschools. One of the Key Ideas within the health and physical education Learning Area addresses issues related to food and nutrition. The SACSA Framework is the only framework in Australia to mandate the teaching of these issues. Within the strand of **health of individuals and communities**, food is investigated as being vital to human functioning. The mapping exercise below is based on this strand.

In the SACSA Framework the Learning Areas have been transformed and redefined by the interweaving of the Essential Learnings, Equity Cross-curriculum Perspectives and Enterprise and Vocational Education. Educators can engage with each of these dimensions through processes of interweaving as they construct learning experiences for particular learners. The investigation of food and nutrition, for example, can occur through design and technology (products, processes and systems), society and environment (societies and cultures), mathematics (exploring, analysing and modelling data; measurement), and science (energy systems, life systems, matter). The Essential Learnings of Identity, Futures, Interdependence, Thinking and Communication also provide avenues through which to investigate food and nutrition.
### Appendix C (continued)

<table>
<thead>
<tr>
<th>STRAND</th>
<th>STRAND OVERVIEW</th>
<th>KEY IDEA</th>
<th>OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Learning Area:</strong> The physical self—Health and personal care</td>
<td></td>
<td></td>
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<tr>
<td>Early Years Band Birth to Age 3</td>
<td>During the first three years, individual patterns emerge for children's nutrition, rest, relaxation, activity and sleep. (Please note: There are no strands in this phase of the Band.)</td>
<td>In partnership with educators in safe and planned environments, children develop an awareness of their body's needs and their routines for food, relaxation, activity and sleep, and develop increasing independence in their personal care. Id KC1</td>
<td>Developmental Learning Outcomes: Children develop a sense of physical wellbeing Id In Children develop a positive sense of self and a confident personal and group identity Id In Children develop a sense of being connected with others and their worlds F Id In</td>
</tr>
<tr>
<td><strong>Learning Area:</strong> Health and physical development</td>
<td></td>
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<tr>
<td>Early Years Band Age 3–Age 5</td>
<td>Children are extending their knowledge about how to keep themselves healthy. The self-help, self-care skills for eating, drinking, food preparation, relaxation, toileting, resting, sleeping, washing, dressing and attending to injuries are explored. Differences and commonalities are identified as children share their own experiences and self-care practices to take increasing responsibility for their own safety and welfare. (Please note: There are no strands in this phase of the Band.)</td>
<td>Children begin to develop responsibility for their personal health and safety. Id In</td>
<td>Developmental Learning Outcomes: Children develop a sense of physical wellbeing Id In Children develop a positive sense of self and a confident personal and group identity Id In Children develop a sense of being connected with others and their worlds F Id In</td>
</tr>
<tr>
<td><strong>Health of individuals and communities</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early Years Band R–2</td>
<td>Food is investigated in this strand as being vital to human functioning. Children learn about the need for particular foods for healthy growth and energy. They investigate the importance of food in meeting emotional, spiritual and social needs, while developing an appreciation of the use of foods across a variety of cultures. KC1 Knowledge and skills are developed that relate to many aspects of food, such as analysing and evaluating food intake, acting on nutrition related issues, and preparing food. KC1 The importance of food in children's lives and the impact it has on their health becomes a focus to develop the skills to make choices and begin to understand food preparation. T KC6</td>
<td>Children collect, organise and use information about the types of food that comprise a healthy diet and identify skills for safe handling and preparation of food. In T KC1</td>
<td>At Standard 1, towards the end of Year 2, the child: 1.8 Communicates understanding about foods they can eat to enhance their health and practises good hygiene when handling food. In T C KC2</td>
</tr>
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</table>
## Healthy eating guidelines

### Appendix C (continued)

<table>
<thead>
<tr>
<th>STRAND</th>
<th>STRAND OVERVIEW</th>
<th>KEY IDEA</th>
<th>OUTCOMES</th>
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<tbody>
<tr>
<td><strong>Health of individuals and communities</strong></td>
<td><strong>Primary Years Band</strong>&lt;br&gt;Food is investigated in this strand as being vital to human functioning. Students learn about the need for particular foods for healthy growth and energy. They investigate the importance of food in meeting emotional and social needs, while developing an appreciation of the use and sources of food across a variety of cultures. KC1 Knowledge and skills are developed that relate to many aspects of food, such as analysing and evaluating food intake, acting on nutrition-related issues, and preparing food. KC1</td>
<td>Students read and interpret information about food selection in relation to sound dietary practice. They analyse their own meals, consider factors that influence food choice and develop skills to prepare a variety of foods which are physiologically and environmentally healthy. <strong>Id T C</strong> KC1</td>
<td>At Standard 2, towards the end of Year 4, the student:&lt;br&gt;2.8 Evaluates and reports about their diet and considers influences on their choice of foods for an active and healthy life. <strong>T C</strong> KC1 KC2</td>
</tr>
<tr>
<td><strong>Health of individuals and communities</strong></td>
<td><strong>Middle Years Band</strong>&lt;br&gt;Food is investigated in this strand as being vital to human functioning. Students learn about the need for particular foods for healthy growth and energy. They investigate the importance of food in meeting emotional and social needs, while developing an appreciation of the use of food across a variety of cultures. KC1 Knowledge and skills are developed that relate to many aspects of food, such as analysing and evaluating food intake, acting on nutrition-related issues, and preparing food. KC1 The acquisition of knowledge and skills is crucial for developing healthy dietary practices and appreciating the important role food plays in their lives. <strong>Id In T</strong></td>
<td>Students increase their knowledge of and skills for healthy dietary practice. They research and critically analyse information, including online, on food choice, and identify the influence of peers and the media on nutritional choices. <strong>Id T C</strong> KC1</td>
<td>At Standard 3, towards the end of Year 6, the student:&lt;br&gt;3.8 Researches and shares findings about issues related to why individuals and groups have different eating patterns. <strong>T C</strong> KC1 KC2&lt;br&gt;At Standard 4, towards the end of Year 8, the student:&lt;br&gt;4.8 Understands a range of influences on nutritional needs and implements a dietary strategy for adolescence. <strong>T C</strong> KC3</td>
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## Appendices

### STRAND

<table>
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<tr>
<th>STRAND OVERVIEW</th>
<th>KEY IDEA</th>
<th>OUTCOMES</th>
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</table>
| Health of individuals and communities | Students evaluate the latest scientific research on diet and diet-related diseases for different stages of the life span, and develop skills to prepare healthy food suitable for people at the different stages of life. | **At Standard 5, towards the end of Year 10, the student:**

5.8 Critically analyses current dietary trends, and the impact they have on health, and experiments with different approaches to preparing and presenting food. |

<table>
<thead>
<tr>
<th>KC1 KC6</th>
<th>F T C</th>
<th>F T C</th>
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</table>

The Year 12 Standards for health and physical education comprise the capabilities of the Essential Learnings demonstrated along with standards from external curriculum. Relevant SACE Curriculum Statements:

- Community Services (VET)
- Community Studies
- Health Education
- Home Economics
- Nutrition
- Outdoor Education
- Physical Education
- Work Education

VET National Training Packages

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**Senior Years Band**

Nutrition is investigated in this strand as being vital to human functioning. Students learn about the need for particular foods for healthy growth and energy. They investigate the importance of food in meeting emotional and social needs, while developing an appreciation of the use of food across a variety of cultures. Knowledge and skills are developed about many aspects of nutrition, such as analysing and evaluating food intake, acting on nutrition-related issues, and preparing food. **In KC1**

Students in this Band assess their own values, attitudes and behaviour, and develop a critical but positive and responsible approach towards factors that influence their quality of life. **F T KC1 KC6**

They critically reflect on community health structures and practices, and generate ideas for different solutions. An understanding of the links between a balanced diet and good health and of the impact of drugs on the body can develop attitudes that promote healthy living. They make and act on important decisions about futures, and establish lifestyle patterns, both socially and in relation to health behaviours that have implications for the health of themselves and of others. **F C KC1 KC6**
Appendix D

Examples of foods that are ‘recommended’ and ‘not recommended’

The food that children and students eat while they are at school or preschool makes an important contribution to their total daily food and nutrient intake. Schools and preschools should provide and promote foods and beverages that are consistent with the Dietary guidelines for children and adolescents and The Australian guide to healthy eating.

Below are two lists of foods:
- examples of ‘recommended’ foods and drinks—these foods and beverages are consistent with the dietary guidelines
- examples of foods that are ‘not recommended’—these foods and beverages are not consistent with the dietary guidelines.

### Recommended foods

<table>
<thead>
<tr>
<th>GROUP 1 (breads, cereals, rice, pasta, noodles):</th>
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<tbody>
<tr>
<td>● All types of bread (white, wholemeal, wholegrain, rye); breads from various cultures and of different shapes (eg pita, flat breads, slices, rolls, pocket)</td>
</tr>
<tr>
<td>● Breakfast cereals: wholegrain ready-to-eat varieties; minimally processed such as rolled oats; those with minimal added sugar, fat and salt (eaten with milk for breakfast or as a snack)</td>
</tr>
<tr>
<td>● English muffins, crumpets, rice cakes, low fat scones and pikelets, fruit loaf</td>
</tr>
<tr>
<td>● Rice, pasta, noodle dishes (eg eaten with low fat/low salt sauces containing vegetables).</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>GROUP 2 (vegetables, legumes):</th>
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</thead>
<tbody>
<tr>
<td>● Cooked vegetables (eg corn on the cob; as part of meals such as stir-fries containing rice or noodles)</td>
</tr>
<tr>
<td>● Salads (eg in sandwiches and hamburgers)</td>
</tr>
<tr>
<td>● Baked beans (eg served with bread); 3 bean mix (eg on salad plates or with pita bread pockets)</td>
</tr>
<tr>
<td>● Soups (eg served with bread)</td>
</tr>
<tr>
<td>● Popcorn (plain).</td>
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<thead>
<tr>
<th>GROUP 3 (fruit):</th>
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<tbody>
<tr>
<td>● Fruit: fresh, frozen, tinned (in water or natural juice)</td>
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<tr>
<td>● Fruit salad.</td>
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</tbody>
</table>

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<thead>
<tr>
<th>GROUP 4 (milk, yogurt, cheese):</th>
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</thead>
<tbody>
<tr>
<td>● Yoghurt (fresh and frozen): low fat, plain and fruit (eg served with fruit)</td>
</tr>
<tr>
<td>● Cheese: hard, yellow and soft white varieties (eg in sandwiches, to garnish pasta dishes or as a snack with vegetables)</td>
</tr>
<tr>
<td>● Custards (eg served with fruit).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GROUP 5 (meat, fish, chicken, eggs, nuts, legumes):</th>
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</thead>
<tbody>
<tr>
<td>● Lean meats, fish, chicken (eg in sandwiches, hamburgers and hot vegetable-based dishes such as stir-fries)</td>
</tr>
<tr>
<td>● Nuts, unsalted (not recommended for under 5 years of age) (eg as a snack)</td>
</tr>
<tr>
<td>● Eggs (eg hard boiled with salads, omelettes served with bread)</td>
</tr>
<tr>
<td>● Legumes (eg baked beans).</td>
</tr>
</tbody>
</table>

### BEVERAGES:
- Water: plain tap water, spring water and plain mineral waters (no sugar, no artificial sweeteners)
- Milk (low or reduced fat): plain or flavoured; soy milks (calcium fortified) for those who don’t drink other milk
- Hot milk drinks (low or reduced fat milk)
- Fruit smoothies (low or reduced fat milk or yoghurt with unsweetened fruit).
NOT recommended foods

Availability of these foods in school and preschool food supply services should be limited to a maximum of twice per term.

- Deep fried foods such as hot chips (French fries) and doughnuts.
- High fat foods including pastry-based foods such as meat pies, pasties and sausage rolls; sausages; pasta with creamy sauces; pizza; crumbed and coated foods that are deep fried or oven-baked.
- Snack foods (sweet and savoury) with high fat, salt and/or sugar contents, such as extruded snack foods; potato crisps; lollies, chocolate, sweet snack bars such as ‘muesli’ bars; cakes, muffins, Danishes and sweet biscuits; ice creams, ice confection and dairy desserts; savoury biscuits; jelly.
- Beverages such as soft drinks, sports drinks, cordials and fruit juice drinks (containing sugar or artificial sweeteners).
- Foods and drinks containing significant levels of caffeine and/or guarana (a source of caffeine).
Appendix E

Advisory and feedback groups

**Education**

*Education advisory group:*
Rob Bryson, SA Association of State School Organisations Inc  
Penny Cook and Heather Ward, Department of Education and Children's Services  
Steve Freeman, Department of Education and Children's Services  
Christopher Glaser, Occupational Health, Safety and Welfare  
Stephanie Grant and Claude Hamam, Catholic Education Office  
Bob Heath, Department of Education and Children's Services  
Debra Kay, Department of Education and Children's Services  
Peter Lang, Association of Independent Schools of South Australia  
Carol Laverick and Trisha Knott, Department of Education and Children's Services  
Marion McCarthy, South Australian Association of School Parent Clubs Inc (SAASPC)  
Ray Marino, Department of Education and Children's Services  
Jillian Miller, Department of Education and Children's Services  
Di Nicholson, Out of School Hours Care (OSHC)  
Mike Tilbrook, Department of Education and Children's Services

*Health and nutrition advisory group:*
Patricia Carter, Health Promotion SA, Department of Health  
Katrina Howard, Heart Foundation (SA Branch)  
Simone Lee and Peta Conor, The Cancer Council of South Australia  
Mandy MacGillivray, Food and Safety Network  
Louisa Matwieczyk, Noarlunga Health Services  
Christine Morris, South Australian Dental Service  
Jane Raymond, Department of Nutrition and Food Services, Women's and Children's Hospital  
Alison Shanks, Department of Health  
Alison Smith, Centre for Health Promotion, Women's and Children's Hospital  
Adele Wood, Wakefield Regional Health Service

*Consultation schools and preschools:*
Blair Athol Primary School—Bev Nester  
Clovelly Park Primary School—Hilary Barr  
Kingscote Area School—Heather Fisher  
Lincoln Gardens Primary School—Lyndsey Haigh  
Reynella East High School, Reynella East Primary School—Kath Oliphant  
Spence Primary School—Marilyn Peterson  
Victor Harbor Primary School, Port Elliot Kindergarten—Sue Wirth, Chris Adams  
Whyalla Stuart Campus—Nadia Cusselli

*Other:*
Rita Alvaro, Senior Nutritionist, Centre for Health Promotion, Women's and Children's Hospital  
Linda Crutchett, Senior Project Officer, Healthy Weight, Health Promotion SA, Department of Health  
Jane Raymond, Department of Nutrition and Food Services, Women's and Children's Hospital  
Carol Fudali, Adelaide Produce Market Limited  
Anthea Magarey, National Health and Medical Research Council, Postdoctoral Fellow, Flinders University Adelaide  
Caroline Martin, Nutritionist  
Rhonda Matthews, NSW Health  
Debbie Moyle, Aboriginal Education  
SA Fruit and Vegetable Coalition  
Lorraine Shephard, The University of South Australia  
Rosemary Stanton, Nutritionist  
Julie Zuppa, Dietitian

**Community feedback**

Canteens  
Education sector  
Health sector  
Industry sector  
Parents/caregivers  
Students
References


