Healthy eating is associated with lower rates of disease and increased health status. Inadequate food intake is emerging as a key behavioural determinant contributing considerably to burden of disease in Australia, particularly with regards to obesity, cardiovascular disease and type 2 diabetes. The prevalence of these conditions is high and is predicted to increase if food behaviours are not modified among many Australians.

The direct, indirect and intangible costs associated with diet-related diseases are significant and have great impacts on the community and individuals. The federal and state governments, as well as non-government agencies such as Nutrition Australia, play a number of roles in promoting healthy eating in the community that aim to decrease the costs associated with these conditions.

**KEY KNOWLEDGE**

2.3 The role of Australia’s governments in promoting healthy eating through:

- the information provided by nutrition surveys and how it is used (pages 280–4, 302)

2.4 The role of Australia’s non-government agencies, including Nutrition Australia, in providing dietary advice to promote healthy eating (pages 295–9, 302)

**KEY SKILL**

- Explain and draw informed conclusions about the role of government and non-government agencies in promoting healthy eating (pages 284, 294, 299, 300–2).
KEY TERM DEFINITIONS

discretionary foods  foods and drinks that are not necessary to provide the nutrients the body needs but may add variety. However, many of these are high in saturated fats, sugars, salt and/or alcohol, and are therefore described as energy dense.

mandatory fortification  the compulsory addition of specific nutrients to selected food items as directed by the federal government

novel foods  non-traditional foods that require assessment by the government in order to establish their safety before they are added to the food supply
KEY CONCEPT Understanding the role of Australia’s governments in promoting healthy eating through nutrition surveys

As well as Medicare and the PBS, there are a number of initiatives the federal government implements to improve the health of the population. Nutrition is an area that requires attention if the level of Australia’s health is to improve, and the federal government plays a key role in bringing about improvements to food intake. The government has conducted research and developed strategies and policies with the aim of improving the eating habits of all Australians. The initiatives that will be explored in this chapter are shown below.

Nutrition surveys

Nutrition surveys provide a snapshot of what Australians, or population groups within Australia, are eating at a particular time. A range of data is collected relating to food intake so that actions can be taken to improve overall health status.

Nutrition surveys involve a proportion of the population recording all the foods, drinks and supplements consumed in a 24-hour period. Participants record the items and serving sizes consumed. This information is entered into a database to determine the amounts of nutrients consumed. Intake is analysed for a range of nutrients, including carbohydrates, protein, fat (total), monounsaturated fat, polyunsaturated fat, cholesterol, fibre, calcium, phosphorus, sodium and vitamin D.

This information is then compared to recommended intakes for each nutrient to determine which nutrients are being consumed in adequate amounts, in excess, or in inadequate amounts. This allows government and non-government groups to monitor food intake over time and to take steps to improve the nutrition status of the population.

Survey participants are also questioned about their general food habits. Questions are asked in relation to:
- supplements consumed. Supplements can be in tablet, liquid or powdered form and may include protein, fats and oils (including fish oils), vitamins such as vitamin D, and minerals such as calcium and phosphorus.
- type of milk consumed. Different varieties of milk contain different nutrients and different levels of fat. Examples include cow’s milk, soy milk, evaporated and condensed milk, regular or full-cream milk, reduced-fat or skim milk and other unspecified types.
• salt use. Participants are asked about their usual salt use during cooking and just before consumption.
• food security questions. Participants are asked about food security issues such as affordability and access to nutritious foods.
• location of food consumption. The locations at which people consume food are also recorded. Home, work, school, social events, restaurants and fast-food outlets are common places for food to be consumed. These data allow links to be made between the place of consumption and the types of foods being consumed.
• alcohol consumption. Alcohol contributes significant amounts of energy with very few nutrients so it can have a large impact on health.
• main source of drinking water. Participants are asked about the usual source of their drinking water, such as community/city supply, tank, spring or bottled. Although body measurements and physical activity behaviours are often recorded in conjunction with nutrition information, these data do not technically relate to the nutrition component of the survey, which is the focus of this key knowledge point.

Once all this information is collected and collated, it can be used to:
• monitor and assess nutrient intake against the Dietary Guidelines for Australians, and for those population groups at risk of health problems related to diet
• assess changes in dietary habits and nutritional status over time to allow comparison with future surveys
• assist with setting health-related goals and targets and to provide a basis for new nutrition guidelines and promotion strategies. For example, if vegetable intake is deemed to be insufficient, strategies such as advertising campaigns can be put in place to promote greater vegetable consumption.
• provide information on the interrelationship of health, social, economic and nutrition factors in selected population groups for policy and strategy development, including health promotion
• assist the evaluation of current policies and strategies such as the ‘Closing the gap’ Indigenous Australian campaign to see whether health goals and targets for nutrition and diet-related disease are being met. Results will assist in future revision of these strategies.
• provide key stakeholders, such as non-government organisations, food professionals and those concerned with public health, with data on which they can base their strategies and interventions
• inform the development and evaluation of national food regulations to:
  – allow informed decisions to be made with regard to standards for food chemicals, such as food additives, novel foods, nutrients, contaminants, and pesticide and veterinary drug residues (FSANZ 2010)
  – enable assessment of the impact of current mandatory fortification regulations and determine if further action is required with regard to mandatory fortification
  – assist in dealing with future challenges such as food insecurity, environmental sustainability and nutrition-related disease.

National Nutrition and Physical Activity Survey program

As nutrition becomes an increasingly important focus for policy makers and health organisations, up-to-date information on nutrition is needed. To provide this information, the Australian government has introduced an ongoing National Nutrition and Physical Activity Survey program. The surveys gather information similar to that collected in the 1995 National Nutrition Survey; however, these
The results of the National Nutrition and Physical Activity Survey 2011–12 are used to provide governments, health researchers and the community with important information about health problems and emerging nutrition-related issues in Australia today. Policies and strategies will then be updated to reflect the needs of Indigenous and non-Indigenous populations.

Findings of the National Nutrition and Physical Activity Survey 2011–12

The National Nutrition and Physical Activity Survey (NNPAS) collected information relating to a range of factors including nutrition, levels of physical activity, engagement in passive recreation and body weight. Although all of this information is useful, the results relating to nutrition are our focus and include the following.

- Vegetable products and dishes were consumed by three-quarters (75 per cent) of the population, with potatoes making up about one-quarter (by weight) of all vegetables consumed. Based on people’s self-reported usual consumption of vegetables, just 6.8 per cent of the population met the recommended usual intake of vegetables.

- Fruit products and dishes were consumed by six out of ten people (60 per cent) overall on the day before the interview. Based on self-reported usual serves of fruit eaten per day, just over half (54 per cent) met the recommendations for usual serves of fruit.

- The most popular beverages consumed were water (consumed by 87 per cent of the population), coffee (46 per cent), tea (38 per cent), soft drinks and flavoured mineral waters (29 per cent) and alcoholic beverages (25 per cent).

- Soft drinks (including flavoured mineral waters) were consumed by 29 per cent of the population. The level of consumption peaked among 14- to 18-year-olds, with 51 per cent of males and 38 per cent of females in this age group consuming a soft drink on the day prior to the interview.

**FIGURE 7.3** Questions about salt consumption are often included in nutrition surveys.
• Just over one-third (35 per cent) of total energy consumed was from ‘discretionary foods’; that is, foods considered to be of little nutritional value and which tend to be high in saturated fats, sugars, salt and/or alcohol. The proportion of energy from discretionary foods was highest among the 14- to 18-year-old group (41 per cent).
• The average daily intake of sodium from food was just over 2404 mg (equivalent to about one teaspoon of table salt). This amount includes sodium naturally present in foods as well as sodium added during processing, but excludes the ‘discretionary salt’ added by consumers in home-prepared foods or at the table. In addition to sodium from food, 64 per cent of Australians reported that they add salt very often or occasionally either during meal preparation or at the table. Therefore the true average intake is likely to be significantly higher.
• Seventeen per cent of Australians aged 2 years or more (or 3.7 million people) reported avoiding a food type due to allergy or intolerance and 7 per cent (1.6 million) avoided particular foods for cultural, religious or ethical reasons.
  – The most common type of food intolerance reported was cow's milk/dairy (4.5 per cent), followed by gluten (2.5 per cent), shellfish (2.0 per cent) and peanuts (1.4 per cent).
  – Pork was the most commonly avoided food type (3.9 per cent) for cultural, religious or ethical reasons, while 2.1 per cent specified avoiding all meat.

Case study

Soft drink, burgers and chips — the diet of our youth

TEENAGERS and young adults consume more soft drinks, burgers and chips than any other age group according to a report released today from the Australian Bureau of Statistics (ABS).

In the first detailed information on Australia’s eating habits available in 15 years, Ms Louise Gates, ABS Director of Health Statistics, said that new results released today from the Australian Health Survey showed 51 per cent of teenage males (aged 14–18 years) and 44 per cent of young adult males (aged 19–30 years) had consumed soft drink on the day prior to interview. This is compared to under 30 per cent for the rest of the population.

These results show that on a typical day in Australia, one in four teenage males consume a burger compared with around only one in 14 for the whole population. One in five males in this age range also consume chips compared with only one in seven across the whole population.

‘The report also recorded that rates of consumption of fruit and vegetables for teenagers and young adults were relatively low. Across these age groups, around 40 per cent of males and 50 per cent of females consumed fruit compared with 60 per cent for the whole population.

‘While just under three quarters of teenagers and young adults consumed vegetables on the day prior to interview, almost half of this consumption was potatoes (including chips) for both teenage males and females.

‘However, we did find that teenagers and young adults are not the nation’s biggest coffee drinkers,’ added Ms Gates. ‘While nearly one in two Australians overall drank coffee on the day prior to the interview, only one in seven teenagers and one in three young adults consumed coffee,’ Ms Gates said.

Other results from the survey included that just over 2.3 million Australians aged 15 years and over reported being on a diet to lose weight or for some other health reason. Being on a diet was most prevalent among 51–70 year olds where 19 per cent of females and 15 per cent of males were on a diet.

Additionally, 3.7 million people reported avoiding a food due to allergy or intolerance. The most common type of food reported as causing intolerance was cow’s milk followed by gluten.

These results are only a taste of the wealth of information available from the nutrition component of the Australian Health Survey which is based on a 24 hour dietary recall of over twelve thousand Australians.


(continued)
7.1 The role of governments in promoting healthy eating

Case study review
1 Identify three pieces of nutrition information identified in the case study and explain the possible impact on health status of each.
2 Explain how the federal government may use the above information to promote healthy eating.

TEST your knowledge
1 Identify five examples of dietary information that can be gathered from nutrition surveys.
2 Outline five ways that information from nutrition surveys is used.
3 Outline the benefit of carrying out regular nutrition surveys.

APPLY your knowledge
4 Select three findings of the National Health and Physical Activity Survey. For each one, complete the following.
   (a) Suggest two actions that might be taken by governments or the private sector to address the finding stated.
   (b) What other information might such organisations want to access with regard to the finding? Why?
   (c) What might be the long-term costs if nothing is done about this finding?
   (d) Compare your results with a partner.
5 How can nutrition surveys contribute to better health outcomes for Australians?
6 Devise a survey sheet that includes the information governments might want to collect in nutrition surveys.
Dietary Guidelines recommend the number of serves per day required by different needs and choices regarding food intake, including for:

- Australians to:
  - the types and amounts of foods, food groups and dietary patterns that will help reduce the risk of developing chronic conditions such as type 2 diabetes, cardiovascular disease and some cancers.
  - reduce the risk of developing a range of diet-related conditions such as type 2 diabetes, cardiovascular disease and some cancers.
  - reduce the risk of developing chronic conditions such as type 2 diabetes, cardiovascular disease and some cancers.
- serious medical conditions, such as type 2 diabetes, who require specialised dietary advice.
- individuals aiming to lose weight
- pregnant and lactating women
- vegetarians and vegans
- people from different backgrounds, such as Australians of Asian origin
- Indigenous Australians
- people living in rural and remote areas
- people living in socioeconomic disadvantage
- individuals aiming to lose weight
- individuals aiming to maintain their weight.

Advice is also provided on individual differences among the population that contribute to different needs and choices regarding food intake, including for:

- those at different lifespan stages, such as childhood and late adulthood
- pregnant and lactating women
- vegetarians and vegans
- people from different backgrounds, such as Australians of Asian origin
- Indigenous Australians
- people living in rural and remote areas
- people living in socioeconomic disadvantage
- individuals aiming to lose weight
- individuals aiming to maintain their weight.

As well as providing general advice, such as to eat ‘plenty of vegetables’, the Dietary Guidelines recommend the number of serves per day required by different age groups for each sex as well as pregnant and lactating women.
TABLE 7.2 The Australian Dietary Guidelines

GUIDELINE 1 To achieve and maintain a healthy weight, be physically active and choose amounts of nutritious food and drinks to meet your energy needs.
- Children and adolescents should eat sufficient nutritious foods to grow and develop normally. They should be physically active every day and their growth should be checked regularly.
- Older people should eat nutritious foods and keep physically active to help maintain muscle strength and a healthy weight.

GUIDELINE 2 Enjoy a wide variety of nutritious foods from these five groups every day:
- Plenty of vegetables, including different types and colours, and legumes/beans
- Fruit
- Grain (cereal) foods, mostly wholegrain and/or high cereal fibre varieties, such as breads, cereals, rice, pasta, noodles, polenta, couscous, oats, quinoa and barley
- Lean meats and poultry, fish, eggs, tofu, nuts and seeds, and legumes/beans
- Milk, yoghurt, cheese and/or their alternatives, mostly reduced fat (reduced fat milks are not suitable for children under the age of 2 years)
And drink plenty of water.

GUIDELINE 3 Limit intake of foods containing saturated fat, added salt, added sugars and alcohol.
(a) Limit intake of foods high in saturated fat such as many biscuits, cakes, pastries, pies, processed meats, commercial burgers, pizza, fried foods, potato chips, crisps and other savoury snacks
- Replace high fat foods which contain predominantly saturated fats such as butter, cream, cooking margarine, coconut and palm oil with foods which contain predominantly polyunsaturated and monounsaturated fats such as oils, spreads, nut butters/pastes and avocado.
- Low fat diets are not suitable for children under the age of 2 years.
(b) Limit intake of foods and drinks containing added salt.
- Read labels to choose lower sodium options among similar foods.
- Do not add salt to foods in cooking or at the table.
(c) Limit intake of foods and drinks containing added sugars such as confectionery, sugar-sweetened soft drinks and cordials, fruit drinks, vitamin waters, energy and sports drinks.
(d) If you choose to drink alcohol, limit intake. For women who are pregnant, planning a pregnancy or breastfeeding, not drinking alcohol is the safest option.

GUIDELINE 4 Encourage, support and promote breastfeeding.

GUIDELINE 5 Care for your food; prepare and store it safely.

Source: NHMRC 2013, Eat for Health — Australian Dietary Guidelines.

Table 7.2 summarises the recommended number of servings for each of the five food groups identified in Guideline 2.

TABLE 7.2 Recommended number of serves per day from each food group

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Vegetables and legumes/beans</th>
<th>Fruit</th>
<th>Grain (cereal) foods, mostly wholegrain and/or high cereal fibre varieties</th>
<th>Lean meats, poultry, fish, eggs, tofu, nuts and seeds, and legumes/beans</th>
<th>Milk, yoghurt, cheese and/or alternatives, mostly reduced fat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2–3</td>
<td>2½</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1½</td>
</tr>
<tr>
<td>4–8</td>
<td>4½</td>
<td>1½</td>
<td>4</td>
<td>1½</td>
<td>2</td>
</tr>
<tr>
<td>9–11</td>
<td>5</td>
<td>2</td>
<td>5</td>
<td>2½</td>
<td>2½</td>
</tr>
<tr>
<td>12–13</td>
<td>5½</td>
<td>2</td>
<td>6</td>
<td>2½</td>
<td>3½</td>
</tr>
<tr>
<td>14–18</td>
<td>5½</td>
<td>2</td>
<td>7</td>
<td>2½</td>
<td>3½</td>
</tr>
<tr>
<td>Men</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19–50</td>
<td>6</td>
<td>2</td>
<td>6</td>
<td>3</td>
<td>2½</td>
</tr>
<tr>
<td>51–70</td>
<td>5½</td>
<td>2</td>
<td>6</td>
<td>2½</td>
<td>2½</td>
</tr>
<tr>
<td>70+</td>
<td>5</td>
<td>2</td>
<td>4½</td>
<td>2½</td>
<td>3½</td>
</tr>
</tbody>
</table>
(continued)
TABLE 7.2 (continued)

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Recommended number of serves per day</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Vegetables and legumes/beans</td>
</tr>
<tr>
<td>Girls</td>
<td></td>
</tr>
<tr>
<td>2–3</td>
<td>2½</td>
</tr>
<tr>
<td>4–8</td>
<td>4½</td>
</tr>
<tr>
<td>9–11</td>
<td>5</td>
</tr>
<tr>
<td>12–13</td>
<td>5</td>
</tr>
<tr>
<td>14–18</td>
<td>5</td>
</tr>
<tr>
<td>Pregnant (up to 18 years)</td>
<td>5</td>
</tr>
<tr>
<td>Breastfeeding (up to 18 years)</td>
<td>5½</td>
</tr>
<tr>
<td>Women</td>
<td></td>
</tr>
<tr>
<td>19–50</td>
<td>5</td>
</tr>
<tr>
<td>51–70</td>
<td>5</td>
</tr>
<tr>
<td>70+</td>
<td>5</td>
</tr>
<tr>
<td>Pregnant (19–50 years)</td>
<td>5</td>
</tr>
<tr>
<td>Breastfeeding (19–50 years)</td>
<td>7½</td>
</tr>
</tbody>
</table>

Note: Additional amounts of the five food groups or unsaturated spreads and oils or discretionary food choices are needed only by people who are taller or more active to meet additional energy requirements.

Source: NHMRC 2013, Eat for Health — Australian Dietary Guidelines.

To help people consume the required number of serves from each food group, examples of foods making up one ‘serve’ are also provided within the guidelines. People can use this information to analyse their food intake more accurately and make informed changes to their food intake.

TABLE 7.3 Sample serving sizes for vegetables and legumes/beans

<table>
<thead>
<tr>
<th>Food group</th>
<th>Serving sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetables and legumes/beans</td>
<td>75 g (½ cup) cooked green or Brassica or cruciferous vegetables</td>
</tr>
<tr>
<td></td>
<td>75 g (½ cup) cooked orange vegetables</td>
</tr>
<tr>
<td></td>
<td>75 g (½ cup) cooked dried or canned beans, chickpeas or lentils, no added salt</td>
</tr>
<tr>
<td></td>
<td>75 g (1 cup) raw green leafy vegetables</td>
</tr>
<tr>
<td></td>
<td>75 g starchy vegetables (e.g. ½ medium potato, or equivalent of sweet potato, taro, sweet corn or cassava)</td>
</tr>
<tr>
<td></td>
<td>75 g other vegetables e.g. 1 medium tomato</td>
</tr>
</tbody>
</table>

Source: NHMRC 2013, Eat for Health — Australian Dietary Guidelines.

FIGURE 7.4 Foods that represent one serve of vegetables and legumes/beans
TABLE 7.4 Sample serving sizes for fruit

<table>
<thead>
<tr>
<th>Food group</th>
<th>Serving sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fruit</td>
<td>150 g (1 piece) of medium-sized fruit e.g. apple, banana, orange, pear</td>
</tr>
<tr>
<td></td>
<td>150 g (2 pieces) of small fruit e.g. apricots, kiwi fruit, plums</td>
</tr>
<tr>
<td></td>
<td>150 g (1 cup) diced, cooked or canned fruit¹</td>
</tr>
<tr>
<td></td>
<td>125 mL (½ cup) 100% fruit juice²</td>
</tr>
<tr>
<td></td>
<td>30 g dried fruit² e.g. 4 dried apricot halves, 1½ tablespoons of sultanas</td>
</tr>
</tbody>
</table>

Notes: 1 Preferably with no added sugar  
2 Only to be used occasionally as a substitute for other foods in the group

Source: NHMRC 2013, Eat for Health — Australian Dietary Guidelines.

FIGURE 7.5 Foods that represent one serve of fruit

TABLE 7.5 Sample serving sizes for grains (cereal) foods

<table>
<thead>
<tr>
<th>Food group</th>
<th>Serving sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grain (cereal) foods, mostly wholegrain and/or high cereal fibre varieties</td>
<td>1 slice of bread or ½ a medium roll or flat bread (40 g)</td>
</tr>
<tr>
<td></td>
<td>½ cup cooked rice, pasta, noodles, barley, buckwheat, semolina, polenta, bulgur or quinoa (75–120 g)</td>
</tr>
<tr>
<td></td>
<td>½ cup cooked porridge (120 g), ¼ cup wheat cereal flakes (30 g) or ¼ cup muesli (30 g)</td>
</tr>
<tr>
<td></td>
<td>3 crispbreads (35 g)</td>
</tr>
<tr>
<td></td>
<td>1 crumpet (60 g) or 1 small English muffin or scone (35 g)</td>
</tr>
<tr>
<td></td>
<td>¼ cup flour (30 g)</td>
</tr>
</tbody>
</table>

Source: NHMRC 2013, Eat for Health — Australian Dietary Guidelines.

FIGURE 7.6 Foods that represent one serve of grain (cereal) foods

TABLE 7.6 Sample serving sizes for lean meats, poultry, fish, eggs, tofu, nuts and seeds, and legumes/beans

<table>
<thead>
<tr>
<th>Food group</th>
<th>Serving sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lean meats, poultry, fish, eggs, tofu, nuts and seeds, and legumes/beans</td>
<td>65 g cooked lean red meats (e.g. beef, lamb, pork, venison or kangaroo) or ½ cup of lean mince, 2 small chops, 2 slices of roast meat (about 90–100 g raw weight)</td>
</tr>
<tr>
<td></td>
<td>80 g cooked poultry (about 100 g raw weight) e.g. chicken, turkey</td>
</tr>
<tr>
<td></td>
<td>100 g cooked fish fillet (about 115 g raw weight) or 1 small can of fish, no added salt, not in brine</td>
</tr>
<tr>
<td></td>
<td>2 large eggs (120 g)</td>
</tr>
</tbody>
</table>

(continued)
TABLE 7.6  (continued)

<table>
<thead>
<tr>
<th>Food group</th>
<th>Serving sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 cup (150 g) cooked dried beans, lentils, chickpeas, split peas, or canned beans</td>
<td></td>
</tr>
<tr>
<td>170 g tofu</td>
<td></td>
</tr>
<tr>
<td>30 g nuts or seeds or nut/seed paste, no added salt⁴</td>
<td></td>
</tr>
</tbody>
</table>

⁴ Only to be used occasionally as a substitute for other foods in the group

Source: NHMRC 2013, Eat for Health — Australian Dietary Guidelines.

FIGURE 7.7  Foods that represent one serve of lean meat, poultry, fish, eggs, tofu, nuts and seeds, and legumes/beans

TABLE 7.7  Sample serving sizes for milk, yoghurt, cheese and/or alternatives

<table>
<thead>
<tr>
<th>Food group</th>
<th>Serving sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk, yoghurt, cheese and/or alternatives, mostly reduced fat</td>
<td>1 cup (250 mL) milk — fresh, UHT long life or reconstituted powdered ½ cup (120 mL) evaporated unsweetened milk ¼ cup (200 g) yoghurt 40 g (2 slices or 4 × 3 × 2 cm piece) hard cheese e.g. cheddar ½ cup (120 g) ricotta cheese 1 cup (250 mL) soy, rice or other cereal drink with at least 100 mg of added calcium per 100 mL</td>
</tr>
</tbody>
</table>

Source: Adapted from NHMRC 2013, Eat for Health — Australian Dietary Guidelines.

FIGURE 7.8  Foods that represent one serve of milk, yoghurt, cheese and/or alternatives

The Australian Dietary Guidelines also provide advice on how many serves of unsaturated fats should be consumed on a daily basis to promote health.

TABLE 7.8  Recommended number of serves of unsaturated spreads and oils per day

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Number of serves</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td></td>
</tr>
<tr>
<td>2–3</td>
<td>½</td>
</tr>
<tr>
<td>4–8</td>
<td>1</td>
</tr>
<tr>
<td>9–11</td>
<td>1</td>
</tr>
<tr>
<td>12–13</td>
<td>1½</td>
</tr>
<tr>
<td>14–18</td>
<td>2</td>
</tr>
<tr>
<td>Men</td>
<td></td>
</tr>
<tr>
<td>19–50</td>
<td>4</td>
</tr>
<tr>
<td>51–70</td>
<td>4</td>
</tr>
<tr>
<td>70+</td>
<td>2</td>
</tr>
</tbody>
</table>

(continued)
Examples of food items counting as one serve of unsaturated fats are shown in table 7.9.

**TABLE 7.9 Sample serving sizes for unsaturated fats**

<table>
<thead>
<tr>
<th>Serving sizes</th>
<th>Number of serves</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsaturated fats</td>
<td></td>
</tr>
<tr>
<td>10 g polyunsaturated spread</td>
<td></td>
</tr>
<tr>
<td>10 g monounsaturated spread</td>
<td></td>
</tr>
<tr>
<td>7 g polyunsaturated oil, for example olive or canola oil</td>
<td></td>
</tr>
<tr>
<td>10 g tree nuts or peanuts or nut pastes/butters</td>
<td></td>
</tr>
</tbody>
</table>

The Dietary Guidelines state that discretionary foods can be added for those who are taller or more physically active. Discretionary foods are food and drinks that are not necessary to provide the nutrients the body needs but may add variety in a diet (see table 7.10). Intake of these foods should be limited, as many are high in saturated fats, sugars, salt and/or alcohol, and are therefore described as energy dense.

Discretionary foods can sometimes be included in small amounts by people who are physically active, but they are not a necessary part of a healthy diet. Foods in this category include cakes and biscuits; confectionery and chocolate; pastries and pies; ice confections, butter, cream and spreads that contain predominantly saturated fats; potato chips, crisps and other fatty or salty snack foods; sugar-sweetened soft drinks and cordials; sports and energy drinks; and alcoholic drinks (see figure 7.10).

**TABLE 7.10 Sample serving sizes for discretionary foods**

<table>
<thead>
<tr>
<th>Serving sizes</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Discretionary foods</td>
<td></td>
</tr>
<tr>
<td>2 slices (50–60 g) processed meats, salami or Mettwurst</td>
<td></td>
</tr>
<tr>
<td>½ snack-size packet (30 g) salty crackers or crisps</td>
<td></td>
</tr>
<tr>
<td>1 (40 g) donut</td>
<td></td>
</tr>
<tr>
<td>½ bar (25 g) chocolate</td>
<td></td>
</tr>
<tr>
<td>1 tbsp (20 g) butter</td>
<td></td>
</tr>
<tr>
<td>1 can (375 mL) soft drink (sugar-sweetened)</td>
<td></td>
</tr>
<tr>
<td>¼ (60 g) commercial meat pie or pastie (individual size)</td>
<td></td>
</tr>
<tr>
<td>12 (60 g) fried hot chips</td>
<td></td>
</tr>
</tbody>
</table>

Source: NHMRC 2013, Eat for Health — Australian Dietary Guidelines.
With this information, the 24-hour food intake of an individual can be assessed against the Australian Dietary Guidelines.

**Applying the Australian Dietary Guidelines**

If the food and drinks consumed by an individual in a 24-hour period are recorded, it is possible to evaluate a day's intake against the Australian Dietary Guidelines. This information can give an indication as to the adequacy of the amount of food consumed and the proportion of different food groups consumed. It is important to remember that differences between individuals exist and that foods eaten in a 24-hour period do not always reflect longer-term food consumption patterns. The following foods were consumed by Sam, a 24-year old female, in a 24-hour period.

<table>
<thead>
<tr>
<th>Breakfast</th>
<th>Morning tea</th>
<th>Lunch</th>
<th>Afternoon tea</th>
<th>Dinner</th>
</tr>
</thead>
<tbody>
<tr>
<td>½ cup of muesli with 1 cup of milk and banana</td>
<td>1 small packet of chips</td>
<td>A chicken, cheese and salad sandwich (80 g chicken, 1 slice of cheese, 75 g salad vegetables)</td>
<td>2 sweet biscuits</td>
<td>1 beef stir fry with 1 cup of vegetables and noodles (130 g beef, 1 cup of noodles, 1 cup of cooked vegetables)</td>
</tr>
<tr>
<td>250 mL freshly squeezed orange juice</td>
<td>Glass of water</td>
<td>1 apple</td>
<td>Coffee (with ¼ cup of milk) and sugar</td>
<td>10 pieces of chocolate</td>
</tr>
</tbody>
</table>

Coffee (with ¼ cup of milk) and sugar 250 mL fruit juice

These foods can be broken down into their parts in order to classify them into the five food groups. Creating a table like table 7.11 can be useful for doing this. Refer to the sample serves table to see how many serves are present in each food item. For example, the muesli with milk and banana would contribute two serves to the ‘breads’ group, one serve to the ‘milk’ group, and one serve to the ‘fruit’ group. Include a column for unsaturated fats and discretionary food items, as even though these foods are not considered a food group, they can have significant impacts on health. Sam’s 24-hour food intake is shown in table 7.11.

**TABLE 7.11 Categorisation of Sam’s 24-hour food intake**

<table>
<thead>
<tr>
<th>Serves</th>
<th>Vegetables and legumes/beans</th>
<th>Fruit</th>
<th>Grain (cereal) foods, mostly wholegrain and/or high cereal fibre varieties</th>
<th>Lean meats, poultry, fish, eggs, tofu, nuts and seeds, and legumes/beans</th>
<th>Milk, yoghurt, cheese and/or alternatives, mostly reduced fat</th>
<th>Unsaturated spreads and oils</th>
<th>Discretionary foods</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Vegetables from sandwich</td>
<td>Banana</td>
<td>Muesli</td>
<td>Chicken</td>
<td>Milk from muesli</td>
<td>Sugar from coffee</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Vegetables from stir fry</td>
<td>Orange juice</td>
<td>Muesli</td>
<td>Beef from stir fry</td>
<td>Milk from coffee = ¼ serve Cheese from sandwich = ½ serve Milk from coffee = ¼ serve</td>
<td></td>
<td>Packet of chips</td>
</tr>
<tr>
<td>3</td>
<td>Vegetables from stir fry</td>
<td>Orange juice</td>
<td>Bread from sandwich</td>
<td>Beef from stir fry</td>
<td>Sugar from coffee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Apple</td>
<td>Bread from sandwich</td>
<td></td>
<td></td>
<td>2 sweet biscuits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Fruit juice</td>
<td>Noodles from stir fry</td>
<td></td>
<td></td>
<td>Chocolate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Fruit juice</td>
<td>Noodles from stir fry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total 3 6 6 3 2 0 5
Instead of having to write each food in the table (as was done in table 7.11), ticks or marks indicating a serve can be placed under each food group as you go through each of the foods consumed (as shown in table 7.12).

TABLE 7.12 A simplified version of a summary table

<table>
<thead>
<tr>
<th>Monday</th>
<th>Vegetables and legumes/beans</th>
<th>Fruit</th>
<th>Grain (cereal) foods, mostly wholegrain and/or high cereal fibre varieties</th>
<th>Lean meats, poultry, fish, eggs, tofu, nuts and seeds, and legumes/beans</th>
<th>Milk, yoghurt, cheese and/or alternatives, mostly reduced fat</th>
<th>Unsaturated spreads and oils</th>
<th>Discretionary foods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>3</td>
<td>6</td>
<td>6</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>5</td>
</tr>
</tbody>
</table>

In order to do this accurately, you need to know how much of each food group was in each item. If no amounts are given, you can base your judgements on what an average serve might be (but some accuracy will be sacrificed). You may be able to do this more accurately for foods you have eaten yourself.

Once the number of serves from each group has been estimated, the results can be compared with the recommendations for someone of Sam’s age (women, 19–50, from table 7.2).

TABLE 7.13 Comparison of Sam’s intake with the daily recommendations

<table>
<thead>
<tr>
<th>Women 19–50</th>
<th>Vegetables and legumes/beans</th>
<th>Fruit</th>
<th>Grain (cereal) foods, mostly wholegrain and/or high cereal fibre varieties</th>
<th>Lean meats, poultry, fish, eggs, tofu, nuts and seeds, and legumes/beans</th>
<th>Milk, yoghurt, cheese and/or alternatives, mostly reduced fat</th>
<th>Unsaturated spreads and oils</th>
<th>Discretionary foods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sam’s intake</td>
<td>3</td>
<td>6</td>
<td>6</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>5</td>
</tr>
</tbody>
</table>

Overall, Sam’s diet is fairly good. Some specific observations include:
- She is eating adequate amounts from the grain group.
- She is consuming only 3 serves of vegetables and should be consuming 5 serves.
- She is consuming 6 serves of fruit and should be consuming 2 serves.
- Her meat intake is slightly above the recommended amount.
- She may be consuming too many ‘discretionary’ foods.
- She may not be consuming enough milk-based products.
- She is not consuming any unsaturated fats.

Some advice regarding Sam’s diet could include:
- Ensure that the number of foods from the breads group is not decreased.
- Maintain the amounts being consumed from the milk group.
- Reduce the amount of fruit being consumed — even though fruit contains many important nutrients, it also has a relatively high amount of natural sugar, which adds to the total kilojoules being consumed.
- Drink water instead of fruit juice in the morning and with lunch.
- Replace one coffee with a glass of water.
- Replace the chips at morning tea with carrot and celery sticks.
- Replace the discretionary food items with foods containing monounsaturated and polyunsaturated fats, such as nuts or a small tin of tuna.
The Australian Guide to Healthy Eating

The Australian Guide to Healthy Eating is a food selection tool incorporated into the Australian Dietary Guidelines. It is intended to be used by consumers to assist them in planning, selecting and consuming adequate proportions of foods from the five food groups. The Australian Guide to Healthy Eating is a visual tool that reflects the recommended dietary advice detailed in the Australian Dietary Guidelines.

The guide shows a circle broken down into five wedges representing each of the five food groups: fruit; vegetables; grains; milk, yoghurt and cheese products; and lean meats (or alternatives). The size of each wedge reflects the proportion of each food group that should be consumed on a daily basis.

Associated servings and serving sizes can be applied by using the details provided in Guideline 2 of the Australian Dietary Guidelines (see table 7.1).

Consumers are advised to ‘consume plenty of water’, and a provision is made to include ‘small amounts’ of monounsaturated and polyunsaturated fats. Advice is provided to limit discretionary foods, including soft drinks, sweets such as lollies and chocolate, alcohol, full cream dairy products, baked goods such as cakes and donuts, processed meats, and high-energy takeaway foods such as hamburgers. This advice reflects Guideline 3 of the Australian Dietary Guidelines.

The Australian Guide to Healthy Eating endeavours to develop the knowledge and skills of all Australians in consuming a healthier diet.

Case study

Brett’s food intake: applying the Australian Dietary Guidelines

Consider the following food intake of Brett, a 20-year-old male.

**Breakfast:**
- 4 pieces of toast with margarine (5 grams per slice) and 1 slice of cheese on each piece
- 2 cups of orange juice

**Snack:**
- Roast beef roll (2 slices of beef, medium roll)
- 1 can of soft drink
- 1 chocolate bar

(continued)
Dietary Guidelines and the Australian Guide to Healthy Eating

Lunch:
2 egg and lettuce sandwiches (total filling equal to 1 cup of lettuce, 2 large eggs)
1 small carton of yoghurt (100 g)
2 glasses of soft drink

Snack:
50 grams of peanuts
1 banana
1 glass of water

Dinner:
2 slices of roast pork and 1 cup of cooked, mixed vegetables, 1 medium bread roll with butter
1 cup of fruit salad with cream

Case study review
1. Complete a table similar to table 7.12 for Brett’s food intake.
2. Compare Brett’s intake to the guidelines given in table 7.2.
3. (a) Which food groups did Brett consume the optimal amount of?
   (b) Explain how consuming an optimal amount of these foods might promote Brett’s health.
4. (a) Which food groups did Brett not consume enough of?
   (b) Explain how not consuming enough of these foods might affect Brett’s health.
5. (a) Which food groups did Brett consume too much of?
   (b) Explain how consuming too much of these foods might affect Brett’s health.
6. Comment on Brett’s water consumption. What modifications would you recommend for Brett in relation to his water intake?
7. Why might it be more accurate to assess food intake over three days instead of only one?
8. Explain the changes Brett could make to his diet to more closely reflect the recommendations of the Australian Guide to Healthy Eating.

TEST your knowledge
1. Briefly describe the Australian Dietary Guidelines.
2. Briefly describe the Australian Guide to Healthy Eating.
3. (a) What are the five food groups represented in the Australian Guide to Healthy Eating?
   (b) Which key nutrients are present in each food group?
   (c) Why are fats and oils not classified as a food group?
4. Why has the government released two different strategies (the Dietary Guidelines and the Australian Guide to Healthy Eating)?

APPLY your knowledge
6. The Australian Guide to Healthy Eating provides a visual representation of which Australian Dietary Guidelines?
7. Choose three of the Australian Dietary Guidelines and write a short response explaining why each guideline is important. Share your results with a partner.
9. Use the Servings calculator and Nutrients calculator links in the Resources section of your eBookPLUS to find the weblink and questions for this activity.
7.3 The role of non-government agencies in providing dietary advice

KEY CONCEPT Understanding the role of Australia’s non-government agencies, including Nutrition Australia and the Heart Foundation, in providing dietary advice to promote healthy eating

Non-government agencies or organisations (also known as NGOs) play an important role in promoting healthy eating. These organisations may have a specific focus (such as cardiovascular health) or may focus on nutrition in general. Two such organisations are Nutrition Australia and the Heart Foundation.

Nutrition Australia

Nutrition Australia is Australia’s major community education nutrition body. Established in 1979, Nutrition Australia is represented by a wide range of members from the community and services all of Australia. The focus of Nutrition Australia is to promote healthy eating and adequate physical activity. The objectives of Nutrition Australia are to:
• act as a source of scientific information on key nutrition issues
• produce and disseminate material on nutrition to policy makers, the media, educators, the food industry and consumers
• act as consultants to government departments, the food industry and consumer groups as required on issues related to food and nutrition
• encourage innovation in the dissemination of nutritional knowledge.

Actions

Nutrition Australia acts to promote healthy eating by providing the latest information on nutrition research, and current food and health trends. This information is dispersed via media campaigns, the Nutrition Australia website and through seminars for health professionals and the general public.

Nutrition Australia also provides a range of resources and services aimed at helping groups and individuals to implement their own healthy eating plan. Examples include:
• the Healthy Eating Advisory Service. This service offers menu assessments, information and support on food and nutrition and the provision of healthy food and drinks in early childhood services, schools, hospitals and workplaces across Victoria.
• publication of recipes. A range of healthy recipes are provided free of charge on the Nutrition Australia website, and cookbooks are available for purchase.
• workplace health and wellbeing services. Health professionals provide healthy eating workshops in workplaces. Examples include one-hour demonstrations showcasing smoothies and salads (summer workshops), and soups and warm salads (winter workshops).
• preparation and design of publications and resources. Nutrition Australia produces a wide range of publications and resources, including nutrition books, booklets, posters, fact sheets, leaflets, jigsaw puzzles, aprons and magnets, each of which is designed to encourage individuals, families and communities to enjoy optimal health through food variety and physical activity. Nutrition Australia has produced resources to address each lifespan stage:
  – For schools, Nutrition Australia provides DVDs, teacher resource packages, posters and publications that include activities and games for students relating to healthy eating. The 'Packing a School Lunchbox' DVD helps educate parents, students and teachers about healthy eating at school.
– For childcare centres, Nutrition Australia produces resources on meeting accreditation and menu planning, as well as stickers and puzzles designed to entertain and educate children about healthy eating.

– For adults, Nutrition Australia produces a range of nutrition cookbooks, resources and manuals on nutrition information for seniors.

• food industry consultancies. This includes providing assistance to manufacturers to make their products more nutritious.

• coordination of the events in the annual National Nutrition Week campaign. National Nutrition Week runs during the week of 16 October (World Food Day) each year. Information, recipes and resources can be downloaded from the Nutrition Australia website to support schools, health centres, community fairs and shopping centres in promoting healthier eating in line with the annual theme.

• development of the Healthy Eating Pyramid (see figure 7.12).


The Healthy Eating Pyramid

The Healthy Eating Pyramid is a simple visual guide to the types and proportion of foods that individuals should eat every day for good health. Based on the Australian Dietary Guidelines, it contains the five core food groups, plus healthy fats, according to how much they contribute to a balanced diet.

The Healthy Eating Pyramid encourages Australians to enjoy a variety of foods from every food group, every day by showing four layers with different food groups in each, representing the proportion in which each should be consumed.

The first two layers of the Healthy Eating Pyramid are known as the ‘foundation layers’ and include the three plant-based food groups:

• vegetables and legumes
• fruits
• grains.

These layers make up the largest portion of the pyramid because plant foods should make up the largest portion of the diet — about 70 per cent of what a person eats. The first foundation layer contains vegetables and legumes, and fruits. Vegetables and legumes account for the majority of this layer with fruits making up a smaller portion, reflecting the fact that vegetables and legumes should be consumed in greater amounts than fruits. The second foundation layer contains the grains group, which is represented by whole grains (such as brown rice, oats and quinoa) and wholemeal/wholegrain varieties of bread, pasta, crisp breads and cereal foods, instead of highly processed, refined varieties such as white bread and pasta.

Foods in the foundation layers contain a wide variety of nutrients such as vitamins and minerals. They are also the main source of carbohydrates and fibre.

The middle layer includes milk, yoghurt, cheese and alternatives, and the lean meat, poultry, fish, eggs, nuts, seeds and legumes food groups.

Foods in the milk, yoghurt, cheese and alternatives are a major source of calcium and protein, as well as other vitamins and minerals. This food group also refers to non-dairy options such as soy, rice or cereal milks that are fortified with calcium.

Foods in the lean meat, poultry, fish, eggs, nuts, seeds and legumes section are a major source of protein and can contain healthy fats.

The top layer presents foods that contain monounsaturated and polyunsaturated fats, which individuals should consume in small amounts to support heart health and brain function. Choosing foods that contain these healthier fats instead of foods that contain saturated fats and trans fats can provide health benefits.

The pyramid recommends that consumers enjoy herbs and spices. Using herbs and spices to add flavour to food is preferable to adding salt, sugar and/or fat.
FIGURE 7.12 The Healthy Eating Pyramid

Enjoy a variety of food and be active every day!

© Copyright The Australian Nutrition Foundation Inc. 3rd edition, 2015

Source: © The Australian Nutrition Foundation, Inc.
Water is shown at the bottom of the pyramid as it is the best drink for hydration and it supports many other essential functions in the body. Choosing water also reduces the number of sugary options consumed, such as soft drinks, sports drinks and energy drinks, which can add energy to the diet and contribute to weight gain.

The Healthy Eating Pyramid recommends limiting the intake of salt (which contains sodium) and added sugar. Although sodium is required for optimal functioning, too much can contribute to hypertension and cardiovascular disease. Consuming a lot of added sugars, especially from foods such as lollies, chocolate, cakes, biscuits, desserts and soft drink, can add extra kilojoules to the diet. This can lead to weight gain and increase the risk of developing type 2 diabetes, cardiovascular disease and some cancers. The average Australian already consumes too much salt and added sugar and this is linked to an increased risk of diseases such as cardiovascular disease, type 2 diabetes and some cancers.

The Healthy Eating Pyramid provides consumers with a simple visual tool that promotes healthy food intake. However, serving sizes and provisions for composite foods (such as pizzas and casseroles) are not included, which may make the model difficult to follow.

**The Heart Foundation**

The Heart Foundation is a charitable organisation that works to inform the Australian public and health professionals about matters regarding heart health. Its aim is to reduce suffering and death from heart, stroke and blood vessel disease in Australia.

The objectives of the Heart Foundation that relate to healthy eating are to:

- support and inform people with or at risk of cardiovascular disease
- build partnerships with all levels of government, other health organisations, the media and community groups to implement policies and programs that improve the cardiovascular health of Australians
- promote lifestyle changes to improve cardiovascular health among all Australians.

Source: Heart Foundation.

**Actions**

The Heart Foundation promotes healthy eating through a number of actions. Specifically, the Heart Foundation:

- raises awareness of healthy eating and heart health. The Heart Foundation provides a telephone information service and website that offer heart health information to thousands of Australians each year. As well as these services, the Heart Foundation distributes more than 1.3 million heart health brochures to the general public, some of which relate to healthy eating.
- holds annual awards to recognise the initiatives of local governments. This encourages local governments and communities to take an active role in reducing the impact of cardiovascular disease by promoting healthier lifestyles and education about nutrition.
• administers a number of strategies to raise funds, promote awareness and assist people in making healthier lifestyle choices, including healthy eating. Examples include:
  – the Heart Foundation Tick program, which indicates that a particular food product is a healthy choice (see chapter 4, page 154)
  – the Heart Foundation Fish Oil program. This initiative promotes the consumption of omega 3 fatty acids that promote cardiovascular health. The Heart Health logo helps consumers to identify products containing fish oils that meet the criteria set by the Heart Foundation.
  – Mums United. This program aims to provide mothers with the information and resources they need to encourage their family to consume healthy foods. Various tools, resources and recipes are available for mothers to use in making healthier choices for themselves and their families.

TEST your knowledge
1 (a) List two non-government agencies that promote healthy eating.
   (b) Outline two ways that each agency promotes healthy eating.
2 (a) What is the Healthy Eating Pyramid?
   (b) Explain how the Healthy Eating Pyramid promotes healthy eating.

APPLY your knowledge
3 Select one non-government agency’s actions and identify priority areas of the Ottawa Charter evident within those actions.
4 Record everything you have eaten in the past 24 hours and then draw a pyramid with four layers. For each food item you consumed, put a stroke in the appropriate layer of the pyramid.
   (a) Was your diet in the past 24 hours consistent with the proportions suggested by the Healthy Eating Pyramid?
   (b) Did you have any difficulties completing this activity? Why or why not?
   (c) Suggest two ways the Healthy Eating Pyramid could be changed to be more user-friendly.
5 What are the advantages and disadvantages of the Healthy Eating Pyramid?
6 What is the goal of the Heart Foundation’s Tick program?
7 Use the Nutrition Australia and Heart Foundation links in the Resources section of your eBookPLUS to research a specific strategy supported or developed by each of the non-government organisations in this section and produce a fact file for each.
8 Use the Global Kitchen cookbook links in the Resources section of your eBookPLUS to find the weblink and questions for this activity.
9 Use the Mums United links in the Resources section of your eBookPLUS to find the weblink and questions for this activity.
**KEY SKILL** Explain and draw informed conclusions about the role of government and non-government agencies in promoting healthy eating

A range of knowledge is required to be able to apply this skill effectively. The knowledge required includes:

- examples of government and non-government agencies that promote healthy eating
- why government and non-government agencies have an interest in promoting healthy eating
- the impact government and non-government agencies have in promoting healthy eating
- a range of strategies implemented by government and non-government agencies, with a focus on:
  - which level of government or non-government agency is implementing the strategy
  - which aspect of healthy eating is being addressed
  - why this area is the focus of the strategy
  - what the aims of the strategy are
  - what the actions of the strategy are (that is, how the strategy is implemented)
  - what the advantages and disadvantages of the strategy are.

A typical scenario that might be considered in terms of healthy eating solutions is the following. Jess is a 22-year-old student who works part time at the local supermarket three nights a week. She goes out with friends on weekends and, as a result, is not home for several meals per week. Jess’s parents are Italian and her mother does all of the cooking in their home. In recent months, Jess has started to put on weight, which has taken her above her healthy weight range. To investigate a solution to Jess’s healthy eating challenges, an approach might be to identify two non-government initiatives; describe one of these; and then discuss how it could promote healthy eating for Jess.

Two non-government initiatives established to promote healthy eating are the Heart Foundation’s Tick program and Nutrition Australia’s Healthy Eating Pyramid. The Healthy Eating Pyramid is a resource developed by Nutrition Australia. The pyramid arranges food groups into four layers. Plant-based food groups such as grains, fruit, vegetables and legumes are in the bottom two layers, followed by dairy foods (and calcium-enriched alternatives) and protein-rich foods (such as lean meat, fish, eggs, nuts and legumes) on the next layer, with mono and polyunsaturated fats in the top layer.

The Healthy Living Pyramid can assist Jess in adopting a healthy diet, but some of her circumstances may reduce her ability to follow it closely. The pyramid is in graphic form, which might make it easier for Jess to understand it and make changes to her diet. The pyramid does not include serving sizes, which might make it hard for Jess to consume an adequate amount of food. If she overeats, it will add to her weight gain. As Jess’s mum does most of the cooking, Jess would need to make her aware of the pyramid so the meals Jess consumes at home reflect the pyramid. As Jess is out for several meals per week, she may eat composite foods from fast food outlets, which she might have trouble classifying according to the pyramid.

---

**1** It is a good idea to identify who has established the initiative. This ensures that the organisation is not listed as the initiative. For example, the Tick program is the **initiative** whereas the Heart Foundation is the **organisation** that has implemented it.

**2** One initiative is described in more detail and the main aspects of the strategy are explained.

**3** Key aspects of the Healthy Eating Pyramid are included. It is important to avoid being general in an evaluation and to provide examples specific to Jess where possible.

**4** This point makes the discussion more balanced. There will always be aspects of an initiative that are negative. The discussion can highlight these; not all comments have to be positive.

**5** Factors relating to Jess’s individual circumstances are discussed.
Jack is 82 and has been married to Isabel for over 50 years. Isabel had done all the cooking in their home but recently had a stroke and now lives in long-term residential care. Jack visits Isabel every day and has lunch with her. He uses Meals on Wheels (a local government initiative where meals are delivered to those who are unable to prepare their own food) for a few dinners per week and makes do with the limited cooking skills he has for the remainder of his meals. Jack's diet is not very nutritious at this point in time and it has started to impact on his health.

(a) Besides Meals on Wheels, describe two ways in which governments work towards improving the nutritional status of older Australians.

(b) Select one of these and comment on whether you think it would be effective in helping Jack consume a healthier diet.

The Australian government has developed dietary guidelines across the life span, partly in an attempt to reduce the risks associated with obesity. Choose two of the Australian Dietary Guidelines and show how they may assist an individual to maintain a healthy body mass index. (© VCAA 2006, from the written exam paper, 2006, Q. 4di)

‘The work of a non-government organisation such as Nutrition Australia can help to address health gains.’

Outline two ways that Nutrition Australia is contributing to the promotion of good nutrition for school-aged children. (Adapted from the VCAA written exam paper, 2007, Q. 3c)
Chapter summary

- Governments play an important role in promoting healthy eating by carrying out nutrition and food surveys, and developing the Australian Dietary Guidelines and the Australian Guide to Healthy Eating.
- Nutrition surveys are used to guide policy and funding to combat health issues in Australian society, such as obesity.
- The Australian Dietary Guidelines encourage individuals to maintain a healthy body weight, include adequate amounts of foods from the five food groups, limit energy-dense foods and salt, support breastfeeding and care for food.
- The number of serves for each food group and the size of a serve are also included in the Australian Dietary Guidelines.
- The Australian Guide to Healthy Eating is a graphic representation of the Australian Dietary Guidelines. The Australian Guide to Healthy Eating is a practical tool that is intended to be used by consumers.
- Non-government agencies play an important role in promoting healthy eating. Nutrition Australia and the Heart Foundation are two examples. These agencies advocate for good health relevant to their particular cause and provide a range of services that promote healthy eating, including education, advice, and informative websites.
- Nutrition Australia’s Healthy Eating Pyramid is a food selection model that encourages healthy eating by showing the types and proportion of foods that should be consumed.
- The Heart Foundation’s Tick Program promotes healthy eating by helping consumers to identify healthier food options.

TEST your knowledge

1 Discuss three ways the federal government promotes healthy eating.
2 Discuss three ways each of the following reflect the Dietary Guidelines for Australians.
   (a) The Australian Guide to Healthy Eating
   (b) Nutrition Australia’s Healthy Eating Pyramid

APPLY your knowledge

3 Explain how each of the following could be used to reduce the incidence of cardiovascular disease in Australia.
   (a) Nutrition surveys
   (b) The Heart Foundation’s Tick Program
4 The National Nutrition and Physical Activity Survey showed that many Australians do not meet the guidelines for limiting saturated fat intake. Describe one way that a non-government agency could use this information to decrease saturated fat intake in Australia.
5 (a) Using your knowledge of one of the Dietary Guidelines (the Australian Guide to Healthy Eating or the Healthy Eating Pyramid) design a three-day diet for yourself that you feel satisfies the requirements of the selected model.
   (b) How different is this from your actual diet?
6 Which diseases do you think are being targeted by the Dietary Guidelines for Australians? Explain.
7 Draw a table that shows each of the following examples used to promote healthy eating. Beside each one, briefly outline the advantages and disadvantages.

<table>
<thead>
<tr>
<th>Method/resource used to promote healthy eating</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutrition surveys</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australian Dietary Guidelines</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australian Guide to Healthy Eating Pyramid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Healthy Eating Pyramid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Heart Foundation Tick Program</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>