National Meal Guidelines

A Guide for Service Providers, Caterers and Health Professionals Providing Home Delivered and Centre Based Meal Programs for Older Australians

More than just a meal

Meals on Wheels

UNIVERSITY OF WOLLONGONG AUSTRALIA

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Disclaimer

The content within this publication was accurate at the time of publication. These Guidelines can accommodate diets for diabetes, cholesterol lowering, no added salt and high fibre diets. However they are not intended to replace individual advice by Allied Health Professionals, such as Accredited Practising Dietitians or Speech Pathologists. It is recommended that all customers on other diets types (e.g. food allergy or texture modified diet or low potassium diet) seek review by the relevant Health Professional before beginning a meal service. Note that the vegetarian options are not equivalent to the meat dishes in terms of protein and other key minerals. It is recommended that customers following a vegetarian diet are reviewed by a Medical Practitioner or an Accredited Practising Dietitian to ensure that all nutrient needs are met.

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2016

UNIVERSITY OF WOLLONGONG AUSTRALIA

Foreword

Many of us have the luxury of easy access to the food we enjoy eating and that keeps us healthy. But there are others who, for whatever reason - illness, isolation, bereavement, disability or a myriad of things that can befall any of us in life – need a bit of help with that. Meals on Wheels has provided a friendly face at the door and a regular chat with a welcome meal, often being the highlight of the day, to millions of people in Australia over the past 60 plus years.

Doris Taylor, who in South Australia in 1953 managed to gather enough community, media and eventually government support to develop what we now know as Meals on Wheels, was way ahead of her time it seems.

In a pamphlet produced in 1955 she asserts that MOW is “NOT a charity”, but instead, a “Social Experiment”. She called it “an attempt to solve the problem of the care of the aged under modern conditions (providing) a scheme (to) enable older people to live their lives as a part of the community with the maximum of independence, freedom, and comfort possible, to old age”. Social change initiatives are all the rage in 2016 – Doris and MOW were ahead of the trend, but the aims of our modern MOW service have changed little.

Right from the start and equally now, MOW meals are intended to mimic ‘home cooked’, providing a significant nutritional contribution, as well as offering some vital social contact to those who are isolated. Most people using the service eat just one of these meals a day and one meal is not intended to supply a whole day’s nutrition needs. But the sound, consistent nutritional guidelines provided here, are the base upon which those preparing meals nationwide are able to build their individual meal services. This means customers enjoy the greater choice and flexibility of seasonal menus, cultural preferences and variety that most of us now take for granted.

Good food is not just nutrition; it’s part of the joy of life, it helps keep families, communities and generations together and so much more. Foods both new and familiar can entice flagging appetites, excite the senses and rekindle decades old happy memories. MOW and these new guidelines help bring all that to people needing a bit of extra help to remain in their own homes and communities, so they get the best chance possible to enjoy that independence, freedom and comfort they so richly deserve.

Ngaire Hobbins,

Dietitian
APD, BSc., Dip. Nutrition and Diet

Preface

When Meals on Wheels first started it was considered a radical preventative health service. Our members have long understood that a meal is an experience and that good food and nutrition are at the heart of what we do. The societal swing back to using fresh seasonal produce, less reliance on convenience products, and the culinary influence of our multi-cultural society are reflected in our recipes and menus.

These innovative National Meal Guidelines are an extension of our contemporary outlook. Choice, variety and flexibility are now customer expectations. These principles are embedded in this document and are underpinned by the latest nutritional science and academic research.

Extensive surveying and face to face meetings with customers, service providers, food producers and other experts have ensured that these Guidelines are also grounded in reality. They build on current best practice and will help providers as we continue to raise the bar on the meal experience we offer our customers. These Guidelines do not prescribe a single solution; instead they allow providers and producers to construct menus appropriate for their customers based on sound nutritional principles. Detailed specifications in relation to weights and measures are counter-balanced with allowances for customer choice.

Governments world-wide are focusing on preventative health care. Weight loss and malnourishment invariably result in a range of health complications leading to more visits to doctors, hospitals, rehabilitation units and sometimes premature admission into residential care. The fiscal and social benefits of Meals on Wheels services are supported by an increasing body of evidence. The relatively small Australian government investment in home delivered and centre-based meal services saves millions of dollars in health costs every year by helping people to remain healthy, active and independent.

These Guidelines are part of that investment. They harness our growing ‘foodie culture’ and interest in diets and cooking programs to address the challenges of ensuring everyone has access to good food they enjoy. If we recognise that eating good nutritious food is important to one’s own health, it follows that our national long term prosperity is intrinsically linked to the same preventative health principles.

These Guidelines are a strong foundation to build on. In that spirit, I am pleased to announce that in early 2017 we will be opening a recipe portal on the Australian Meals on Wheels Association website. We will be inviting our own cooks and chefs as well as others around Australia to contribute their best recipes. In the meantime, I sincerely thank all those involved in the formulation of this landmark document.

Nelson Mathews,

President
Australian Meals on Wheels Association

Abbreviations

ACHA..... Assistance with Care and Housing for the Aged

ACI..... Agency for Clinical Innovation

AIFST ..... Australian Institute of Food Science and Technology

AMOWA..... Australian Meals on Wheels Association

APD ..... Accredited Practising Dietitian

ADG..... Australian Dietary Guidelines

ANZFSC ..... Australian New Zealand Food Standards Code

BMI ..... Body Mass Index

CHSP..... Commonwealth Home Support Programme

DAA ..... Dietitians Association of Australia

DSS ..... Department of Social Services

FSANZ..... Food Standards Australia and New Zealand

HACC ..... Home and Community Care

HACCP ..... Hazard Analysis and Critical Control Point

IHHC..... Institute of Hospitality in Healthcare

MNA®-SF..... Mini Nutritional Assessment - Short Form

MOW ..... Meals on Wheels

MST ..... Malnutrition Screening Tool

NHMRC ..... National Health and Medical Research Council

NRVs ..... Nutrient Reference Values

OTAUS ..... Occupational Therapy Australia

SPA..... Speech Pathology Australia

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1. Introducing the National Meal Guidelines

1.1 The importance of nutrition for older Australians

Good nutrition is critical in supporting older adults living in their own homes. Having a consistent standard for the nutritional quality of meals is essential to support the functional independence of older people to live well at home for as long as possible. This perspective aligns with the current goals of the Australian government and the expectations of the broader community. The Guidelines will need to be updated over time to remain current and to reflect the needs and expectations of older adults receiving meal services into the future.

Older adults living in the community can be at risk of malnutrition and this impedes their independence due to their reduced ability to shop and/or cook, and a reduced appetite and/or changing nutrition needs due to illness or medical conditions. Social isolation can also affect the desire and motivation to consume food. A national approach to these Guidelines is a way forward to support the nutritional needs of older Australians.

1.2 The importance of these Guidelines

It is much easier to prevent malnutrition in older adults than to treat it. The implementation of these Guidelines provides an important and timely opportunity to adopt a consistent approach to enhancing the nutrition, taste, variety and presentation of meals provided for older adults. The Guidelines incorporate contemporary and practical advice about the planning and provision of home delivered and centre based meals for older adults. They include important recommendations about meals and nutrition, and as such should be the central point for menu planning and review, tender specifications and the consideration of new products and recipes.

1.3 Impetus for these Guidelines

In 2013, the Department of Social Services (DSS), (now the Department of Health) undertook a review of Home and Community Care (HACC) Meal Services. Subsequently, the development of voluntary National Nutrition Guidelines for home delivered and centre based meals funded by the CHSP was recommended as outlined in the *Key Directions for the Commonwealth Home Support Programme (CHSP).* [1]

In 2015, the Australian Meals on Wheels Association (AMOWA) sought and obtained a grant from the DSS to proceed with the development of these National Meal Guidelines for the CHSP. A team from the Smart Foods Centre at the University of Wollongong won the tender to develop these Guidelines and the Steering Group also had direct input. These Guidelines were developed by expert and steering group committees and consensus, with formal consultation with stakeholder groups throughout. Further details about the phases of the project consultation and findings are outlined in Appendices 2-5.

1.4 Aims of the National Meal Guidelines

1. To provide nationally consistent advice to CHSP meal providers;

2. To support CHSP meal providers' existing efforts in enhancing the nutritional quality of meals; and

3. To respond to the nutrient requirements and changing needs of older customers receiving meals who are living in the community.

The Guidelines are designed to provide a fresh approach to menu design and meal provision which are essential factors in addressing the needs of older adults. Their focus is on providing nutritious and practical recommendations whilst recognising the wide range of ways that meals are provided across rural, remote, regional and metropolitan Australia.

1.5 Intended users of the Guidelines

The National Meal Guidelines are primarily for the use of service providers of home delivered, and centre based meal programs funded by the CHSP, who directly produce, or procure meals from third party suppliers. The Guidelines will also be a key resource for dietitians, other health care providers and services who procure meals from external sources. More broadly, the Guidelines will assist customers and their families to make informed choices when selecting a meal service provider.

1.6 Related documents

The Guidelines form part of a package of information available to providers and customers, and are seen to be a part of a 'toolkit' through the inclusion of other existing references, resources and web links, as listed in Appendix 1.

2. Clarifying Key Food and Nutrition Issues for Older Adults

2.1 Dietary restrictions

Dietary restrictions can negatively impact on the type and amount of food an older person may eat, therefore these may increase their risk of malnutrition. Adequate nutrition is important at all stages of life. Optimising dietary intakes by encouraging the enjoyment of meals and maintaining an interest in mealtimes is a priority when managing health concerns for older adults. In order to prevent unnecessary dietary restrictions, requests for special diets should be reviewed by health professionals such as an Accredited Practising Dietitian (APD) as well as the person's doctor.

2.2 Weight loss

Losing weight is generally not recommended for older adults without professional supervision. While some older adults may have previously been trying to lose weight, or were advised by a health professional to lose weight in their younger adult life, older age is not usually the best time to do so. **Warning signs of weight loss may include:**

- **clothes are loose and/or people need to tighten their belt or**
- **their rings are loose or**
- **their dentures don't fit well anymore.**

If weight loss occurs in the absence of weight-bearing exercise, the loss of muscle mass is likely to occur. This can reduce limb strength, increase the risk of falls, and reduce the ability to perform the activities of daily living. **Being aware of unintentional weight loss for older adults is very important and should not be ignored.** It is often a sign of poor nutrition and/or an underlying medical condition. In fact, any form of weight loss in older adults should be reviewed by health professionals such as a doctor and an APD. Appendix 6: Malnutrition screening tools also provides further information.

2.3 Vegetarian meals

Vegetarian sources of protein in meals include legumes, lentils, cheese, eggs and tofu. While vegetarian meals are varied, they tend to have lower protein and mineral contents than meat-based meals. Larger serves of vegetarian ingredients are needed to provide a comparable protein content to meat (for example 65g cooked meat = 150g chick peas = 170g tofu). This can be challenging when balancing meal flavours and textures, as well as fitting the meals into standard serving containers. **It is recommended that customers identifying as vegetarian are aware of the importance of consuming additional protein at other meals and snacks to maximise their intakes and to choose as many higher protein entrées and desserts as possible.** Examples of snacks include cheese and biscuits, yoghurt, a milkshake or a cooked egg. Referral to an APD is also recommended.

2.4 Eating enough food

It is extremely important for older adults to ensure that they meet their nutritional needs throughout the day. **Whilst older adults may be less active and consume less food compared to when they were younger, their need for certain nutrients is often higher (e.g. calcium, Vitamin D and protein).** The nutritional needs of older people, their taste and texture preferences, variety, appetite, and the visual appeal of meals has been considered in the development of these Guidelines. Please refer to Chapter 3: Meeting the Nutritional Needs of Older Adults and Appendix 7: Nutrient calculations and rationale for the reference person.

2.5 Splitting meals

While older adults often choose to split a meal with another person, or save meal components for later, it is important to remember that their nutrition requirements may be compromised thus increasing their risk of malnutrition and food safety risks. When a meal that meets the Meal Component Specifications (see page 34-43) is consumed by one person, it will provide one-third of their energy requirements and one-half of their protein requirements for the day. Therefore it is essential that the other meal and snack components of the day are nutritious and contain food sources of protein (e.g. beef, eggs, legumes or milk), starchy food (e.g. cereals, rice, bread or potato) and coloured vegetables/salad or fruit. Chapter 4: The Meal and Menu Planning and Appendix 8: CHSP meal combinations and additional foods needed to meet daily nutrition requirements provide ideas and suggestions for other meals prepared at home.

2.6 Delivered meals

Having meals delivered is not a last resort. Whilst meal services may be suggested to older people who are unwell, this service may only be needed in the short term until the person recovers and is able to prepare their own meals again. Alternatively, a meal service can also be provided to a person who requires ongoing assistance with meals to support functional independence and wellbeing. The provision of a meal each day can be an enabler that can improve opportunities for increased participation in life's other roles, such as meeting friends or engaging in activities. **Home delivered and centre based meals also have the added advantages of providing an opportunity for social interaction and the potential to monitor a person's health and well-being – they are *'More than just a meal.'***

3. Meeting the Nutritional Needs of Older Adults

3.1 Maintaining a healthy weight

Recommended reference values for a healthy weight are currently being reviewed, but it is generally agreed that the Body Mass Index (BMI)* range needs to be more generous for people aged over 65 years. A recent Australian study recommended that the BMI range for older adults should not be less than 23kg/m², with an upper value of 30 kg/m². [2] However, even if weight or BMI measurements are not available there are other indicators of weight loss that are easy to pick up. Please refer to section 2.2 Weight loss for further information.

* Body Mass Index (BMI) is calculated as: $\frac{\text{Weight (kg)}}{\text{Height (m}^2\text{)}}$

3.2 Malnutrition and its impact on health

There is a great deal of scientific research that highlights the unique nutritional needs of older adults and supports the requirement to have clear and consistent Guidelines for home delivered and centre based meals. For example, research shows that many older adults who live at home are at high risk of malnutrition[2]. Social and environmental factors contribute to this risk, including isolation, depression and problems with shopping and food preparation.[4]

Medical, physiological and psychological factors can also have multiple effects on food intakes, such as reduced appetite, and poor nutrient digestion and absorption. Some older adults may have impaired cognition, and/or difficulties with mobility and fine motor skills that further affect their ability to shop and prepare food.[5] All of these factors can lead to decreased food intake.

It is estimated that 5-8% of older Australians living in the community are malnourished.[6,7] An additional 35-39% are considered to be at high risk of malnutrition, which increases the risks of falls, osteoporosis and fractures, slows wound healing and increases the length of hospital stays.[8] These events in turn contribute to the risk of premature death.

3.3 Malnutrition screening

Timely review of weight loss is critical to identify malnutrition which can have direct consequences on health and longevity. Malnutrition screening can be undertaken by individuals with some training and refers to a quick and easy way to determine if someone may be at risk of malnutrition. There are validated instruments available that include a few simple questions and/or measurements. Two examples of these tools are; the *Malnutrition Screening Tool (MST)*, which is validated for use with adults, and the *Mini Nutritional Assessment – Short Form (MNA®-SF)*, which is validated for use with adults over 65 years of age.[9],[10] Appendix 6 includes copies of these malnutrition screening tools. For those identified as at risk or malnourished (using the MNA®-SF), referral to an APD for further nutritional assessment and individualised dietary advice is recommended. Some service providers may have been trained to use nutrition screening tools, while others may seek assistance from an APD.

3.4 Additional needs of some nutrients

The National Health and Medical Research Council (NHMRC) of Australia has developed guidelines for meeting nutritional requirements. These Nutrient Reference Values (NRVs) consider a person's age, stage of life, and gender and are based on the latest scientific evidence.[11] For the general population the nutritional requirements have been translated via the *Australian Dietary Guidelines (ADG)* into the recommended amounts of food to be consumed from each major food group.[12] More information can be found in the resource *Healthy Eating for Adults. Eat for Health and Wellbeing*[13] which is available online:

http://www.eatforhealth.gov.au

Nutrient requirements change for adults aged 70 years and older.[11] Essentially energy requirements fall because of reduced physical activity levels and a drop in metabolic rate.[14] At the same time, certain nutrients are needed in higher amounts – such as

- protein,
- calcium,
- vitamin D,
- vitamin B2 (riboflavin).[11]

This presents a challenge as smaller amounts of food need to be more nutrient dense to ensure these requirements are met. Therefore knowing which foods contain the highest amount of particular nutrients becomes important. For instance, adding butter and margarine to foods and including vitamin D rich high protein foods, such as eggs, and oily fish improve vitamin D intakes. Adding a glass of milk and some cheese each day provides protein, calcium and vitamin B2.

3.5 The importance of eating a variety of food groups

The food groups referred to will be familiar to most people. They include:

- Vegetables and legumes/beans
- Fruits
- Grain (cereal) foods
- Lean meat and poultry, fish, eggs, tofu, nuts and seed, and legumes/beans
- Milk, yoghurt, cheese and/or alternatives such as fortified soy milk
- Essential fats while not formally a food group, are also needed each day

Because these foods are nutrient rich, they are important to help meet the nutritional needs of older people. Consuming foods from all of these food groups is essential to provide variety and deliver the nutrient needs of Australians, as documented in *Healthy Eating for Adults. Eat for Health and Wellbeing*. [13]

Vegetables and legumes/beans such as:

- Orange/red/yellow vegetables (examples include carrots, pumpkin, parsnip and capsicum)
- Green vegetables (examples include green leafy vegetables such as spinach and bok-choy), salad vegetables and others (examples include peas, zucchini, green beans, kale, silver beet and broccoli)
- Starchy vegetables (examples include potatoes, sweet potato, corn and cassava)
- Legumes/beans (examples include chickpeas, baked beans and lentils)

Fruits: Many varieties such as:

- Apples, pears, oranges, grapes, bananas or other seasonal fruit
- Canned or diced fruit
- Dried fruit such as apricots or prunes

Grain (cereal) foods, mostly wholegrain and/or high cereal fibre varieties such as:

- Porridge and breakfast cereals
- Bread
- Rice
- Pasta
- Polenta, couscous and quinoa

Lean meat and poultry, fish, eggs, tofu, nuts and seed, and legumes/beans: Many varieties such as:

- Beef, lamb, veal, pork and kangaroo
- Chicken, turkey, fish and seafood
- Eggs, nuts, seeds and tofu
- Cooked or canned legumes, lentils, chick peas. (A larger serving size is required when these foods are chosen as a meat alternative as opposed to when chosen as a vegetable ie 1 cup of cooked or canned legumes/beans to replace a meat serve versus 1/2 cup if chosen for a vegetable serve).

Milk, yoghurt, cheese and/or alternatives such as fortified soy milk

- Fresh, UHT or reconstituted powdered milk
- Hard cheese such as cheddar or soft cheese such as ricotta
- Soy, rice or other cereal drink with at least 100mg of added calcium per 100mL

Essential fats

- Include polyunsaturated and monounsaturated vegetable oils such as canola, olive and sunflower oils.
- For those with limited appetite and poor food intake consider adding margarine, butter and cream to help meet energy needs.

3.6 Other special nutrition considerations for older adults

- Selecting a wide variety of foods from all of the food groups will help to achieve nutrient targets and minimise boredom with food choices.
- Eating at least three meals each day with nourishing snacks between meals is recommended. Examples of nourishing snacks include cheese and biscuits, fruit, yoghurt and fruit cake. Nourishing snacks are a great source of extra nutrition, especially when appetite is reduced or someone is losing weight.
- Including protein rich foods at each meal time (e.g. beef, fish, egg, cheese, milk, nuts or legumes) will help to maintain muscle mass and strength.
- Including calcium rich foods such as milk, cheese, yoghurt and other dairy alternatives that are also rich in protein and energy every day. At least 3.5 serves per day are recommended for men and 4 serves for women, where one serve is equal to 250mL milk OR 200g yoghurt or 40g cheese. Full cream varieties are preferable unless otherwise specified by a doctor or APD.
- Adequate fibre is recommended to prevent constipation and also to assist in controlling blood glucose and cholesterol levels. Too much fibre will make people feel ‘full’ and may lead to a reduced appetite. On the other hand, too little fibre, or inadequate fluids contributes to constipation. High fibre foods include fruits, vegetables, legumes, lentils, peas, and wholemeal and grainy breads and cereals.
- Drinking adequate amounts of fluids is very important. Reminding an older adult to drink is essential as their thirst sensation can be impaired with age and by the time a person realises they are thirsty, they may already be at risk of dehydration. This is particularly an issue in hot weather. Sources of fluids include water, cordial, tea, coffee, milk and juices. Milk is also an important source of nutrition.
- Low fat diets are not suitable for frail older adults and those who are unwell.
- The addition of flavour, such as lemon juice or herbs and spices, rather than relying solely on salt or sugar, can add interest to food and enhance enjoyment.

3.7 Home delivered and centre based meal considerations

Providing home delivered and centre based meals are strategies designed to keep older adults healthier and to support their independence.[15] Customers are often referred to meal services as a result of ill health or social circumstances.[16] This highlights the need to achieve a balanced approach to ensuring that meals are nutritious, but also tasty and visually appealing, while at the same time affordable.

In recent years, the need for additional meal options within meal services has become evident. For example, some customers may better tolerate smaller sized meals, however these meals or their accompanying meal and snack items need to be fortified with additional energy and protein to ensure that nutritional requirements are still met. Other adaptations of menu options may include offerings from multicultural cuisines and nourishing snack options (e.g. cheese and biscuits).

3.8 Food and Friendship: The role of food, mealtimes and nutrition for older Australians

Food is an essential and enjoyable part of life, particularly for older adults who may be less involved in activities outside of the home and for whom mealtimes become an important part of the day. Certain foods may evoke fond memories of past experiences and provide comfort and familiarity.

The offer of friendship and socialisation is an integral part of home delivered and centre based meal programs. Qualitative research with MOW customers confirms the social significance of the service and their logo, *"More than just a meal"*.[17]

As one customer said:

> “It was a godsend because I wasn’t well enough to do anything and I was quite concerned what I was going to do when I got home, like anyone else would be. (Customer)”

Another project [18] interviewed stakeholders of home delivered meal services and confirmed the benefits of delivered meals and the important role of this community service through the following quotes:

> ““My health has stabilised, my weight has stabilised, the doctors are pleased with my health. And I vouch for anyone ...want a stable diet, to try Meals on Wheels, cause they’ll find it’ll be what they’re maybe looking for in regard to their health.” (Customer)”

> “If people want to stay independent in their own homes good nutrition is really, really important. So it’s actually about supporting their independence, it’s not about taking away, and I try and get that point across. (Service Manager)”

The friendship aspect of meals delivered by volunteers should never be underestimated and this has been shown to have a positive impact on the wellbeing and survival of older people; the mere presence of other people is beneficial.[17]

4. The Meal And Menu Planning

4.1 The CHSP Meal

The most common current format for a home delivered or centre based meal is a combination of an entrée, a main hot dish and a dessert. These new Guidelines aim to promote flexibility in menu design and food options, to enable customers to match their food choices to their preferred eating patterns at home.

It is recommended that meal services provide all three courses to a customer, including an Entrée plus a Main Course plus a Dessert, as shown in Table 4.1. However, in order to accommodate individual preferences, various food combinations are acceptable.

Table 4.1: Options that may be offered for a CSHP Meal

Entree	Main Course	Dessert
Soup or:	Meat and Vegetables or:	Dairy Desserts or:
Sandwiches or:	Wet Dishes or:	Pies and Crumbles or:
Entree Salads	Combination Dishes or:	Cakes and Puddings or:
	Main Salads	Fruit plus Dairy Desserts

It is recommended that customers have all three courses in a meal. If a customer chooses one course, it should be the main course as it contains the highest amount of nutrients. If they order two courses, it should be a main and dessert, as desserts generally have a higher nutrient value than the entrée. If a customer chooses less than the three courses they should be advised that other foods need to be added to this Meal and across the rest of the day to ensure that they are receiving enough nutrition. Please refer to Appendix 8 for further suggestions. Without ordering the three courses, customers will not be meeting the estimated nutrient targets for the Meal, as outlined in Table 4.2.

Based on the results from 2011/12 Australian Health Survey [19] and the Australian Nutrient Reference Values for older adults (>70 years), the nutrient targets for a Meal are defined in Table 4.2.[11] The nutrient targets for males above 70 years have been used as the reference person to ensure adequate provision for all customers. The Guidelines define a CHSP Meal as: *Any combination of course options that provides up to one-half of the daily requirements for protein, up to one-third of the daily requirements for energy, fibre and most other nutrients, with the exception of calcium.*

Table 4.2: Nutrient targets for a home delivered or centre based Meal

Target Nutrients	*Male*	Female
Energy	**2600kJ**	2300kJ
Protein	**40g**	29g
Dietary fibre	**10g**	8g
Calcium	**200mg**	200mg
Vitamin B6	**0.57mg**	0.50mg
Magnesium	**140mg**	107mg

These targets do not need to be met at every Meal, but they should be met when averaged over one week of the menu.

4.2 The CHSP Meal as a strong foundation

The CHSP Meal provides a strong foundation for a nutritious diet. However although it is the most significant meal of the day, it is just one meal. These Guidelines provide practical advice about the provided meal.

Customers will always need to provide their own food at other times of the day to supplement the home delivered or centre based meal. Exactly how much extra is needed will depend on what entrée, main course and dessert options are selected; and the customer's age, gender and individual dietary needs, but suggested additions include:

Another serve of vegetables and legumes/beans

- Where 1 serve = ½ cup cooked vegetables (75g) or ½ medium potato or 1 cup salad vegetables or ½ cup cooked/canned legumes

Another serve of fruit (assuming a fruit dessert is chosen)

- Where 1 serve = 1 medium piece of fruit or 1 cup canned fruit or 30g dried fruit or 125mL juice

Another 4 serves of grain (cereal) foods

- Where 1 serve = 1 slice bread (40g) or ½ cup cooked pasta or rice (75-120g) [13]

Another serve of lean meat and poultry, fish, eggs, tofu, nuts and seeds, and legumes/beans

- Where 1 serve = 65g cooked meat or 80g cooked chicken or 2 large eggs or 150g cooked/canned legumes or 170g tofu

Another 3 serves of milk, yoghurt, cheese and/or alternatives such as fortified soy milk

- Where 1 serve = 250mL milk or 200g yoghurt or 40g cheese

Some suggested ways to add these extras (in addition to the CHSP Meal that may be eaten at lunch or dinner) may include simple options as outlined in Appendix 8.

4.3 Meal component specifications

The following Meal Component Specifications have been based on existing nutrition guidelines and modified and expanded to take into account the new nutrient targets recommended in these Guidelines.[20],[27] These specifications set out the minimum quantities of ingredients in different food categories and recommend how much variety should ideally be available on a menu. They also highlight the minimum recommended mix of types of dishes over 5 days and 7 days.

It is important that the amount of both protein and energy are considered as some items will have adequate amounts of energy and insufficient amounts of protein, and vice versa. An APD can also assist with such reviews.

Entrée Salad

A serving of an entrée salad should contain the following minimum quantities of ingredients.

Entrée Meat Salad Refers to an entrée salad with a small amount of meat Example Ingredients Include:	**Examples:**	Weight (Min)
• Beef or; • Chicken / Turkey or; • Lamb or; • Fish	Chicken, Tuna	30g 30g 30g 30g

OR

Entrée Meat Alternative Salad Refers to an entrée salad with a small amount of meat alternative Example Ingredients Include:	**Examples:**	Weight (Min)
• Cheese or; • Egg or; • Cooked legumes / peas / lentils	Greek, Caesar, Cheese, White Bean	30g 30g 30g

PLUS

Salad Vegetables

35g (min.) salad vegetables of 3 or more different types

PLUS

Dressing

12g (min.) dressing or mayonnaise

Due to the variety of ingredients that may be used in an entree salad, the following table can assist with grouping entree salads together based on their energy and protein content. The number of times each entree salads group should appear on a menu is also provided in the table below.

Entrée Salad Type	Energy / serve (minimum)	Protein / serve (minimum)	Type Over 5 Days	Type Over 7 Days	No. of recipe options (14) over a 4 week menu cycle
Entree Meat Salad	>600kJ	>7g	4	5	8
Entree Meat Alternative Salad	>600kJ	>5g	1	2	6

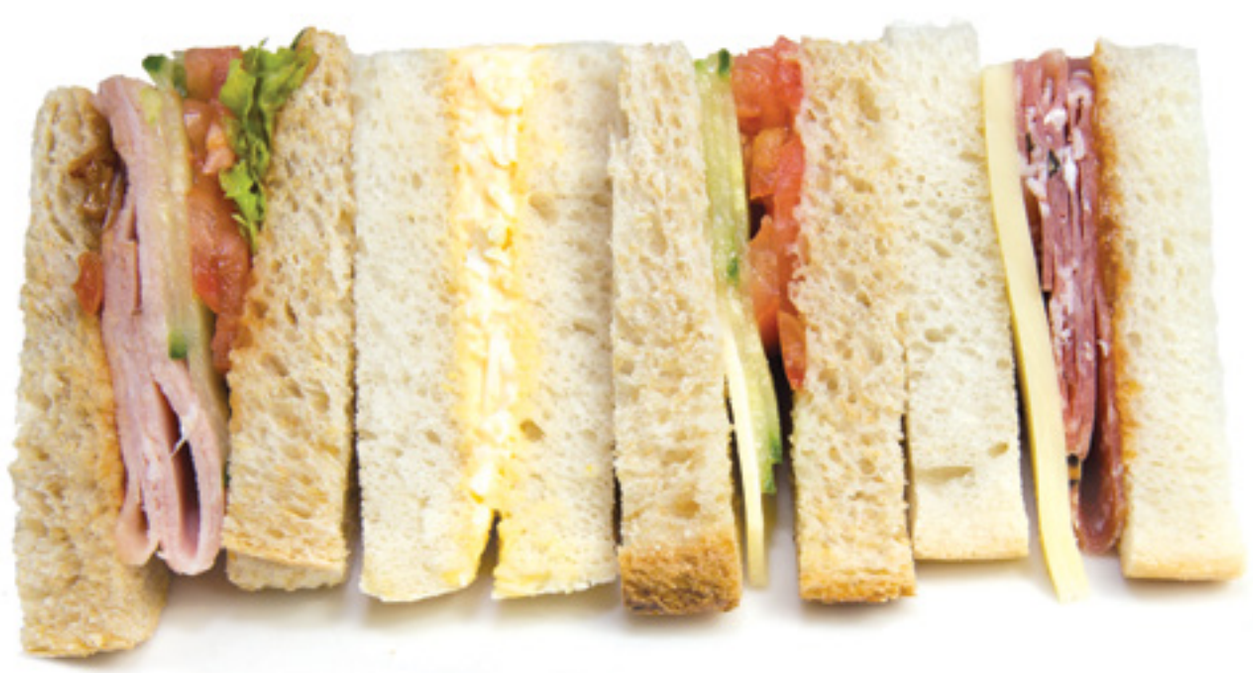
Entrée Sandwich

A serving of an entrée sandwich should contain the following minimum quantities of ingredients.

Entrée Combination Sandwich Refers to a sandwich of four points (as pictured below) which contains a meat or protein source with salad vegetables Example Ingredients Include:	Weight (Min)
• Beef, chicken, lamb, fish or; • Cheese or: • Egg	30g 20g 50g

OR

Entrée Plain Sandwich Refers to a sandwich of 4 points with a single filling of meat/protein source or a salad Example Ingredients Include:	Weight (Min)
• Beef, chicken, lamb, fish or; • Cheese or; • Egg	45g 30g 50g



PLUS

Salad Vegetables

35g (min.) salad vegetables for entree combination sandwich
50g (min.) salad vegetables for plain salad sandwich

PLUS

Starch Ingredient

80g bread OR
80g bread roll OR
80g flat bread

PLUS

Spread

10g spread (eg margarine, butter)

PLUS

Condiments

12g (min.) relish, mustard, pickles and mayonnaise

Notes

- Sandwiches can be presented as combination sandwiches or as a single/plain type
- The final quantity of ingredients presented in a combination sandwich will differ depending on the ingredients used (e.g. 1 point will have one quarter of the above quantities in the combination sandwich)
- It needs to be highlighted that a plain salad sandwich is lower in energy and has minimal protein.
- An entrée plain salad sandwich should be combined with a higher protein main meal, and dessert, or include a protein filling as well as the salad filling.

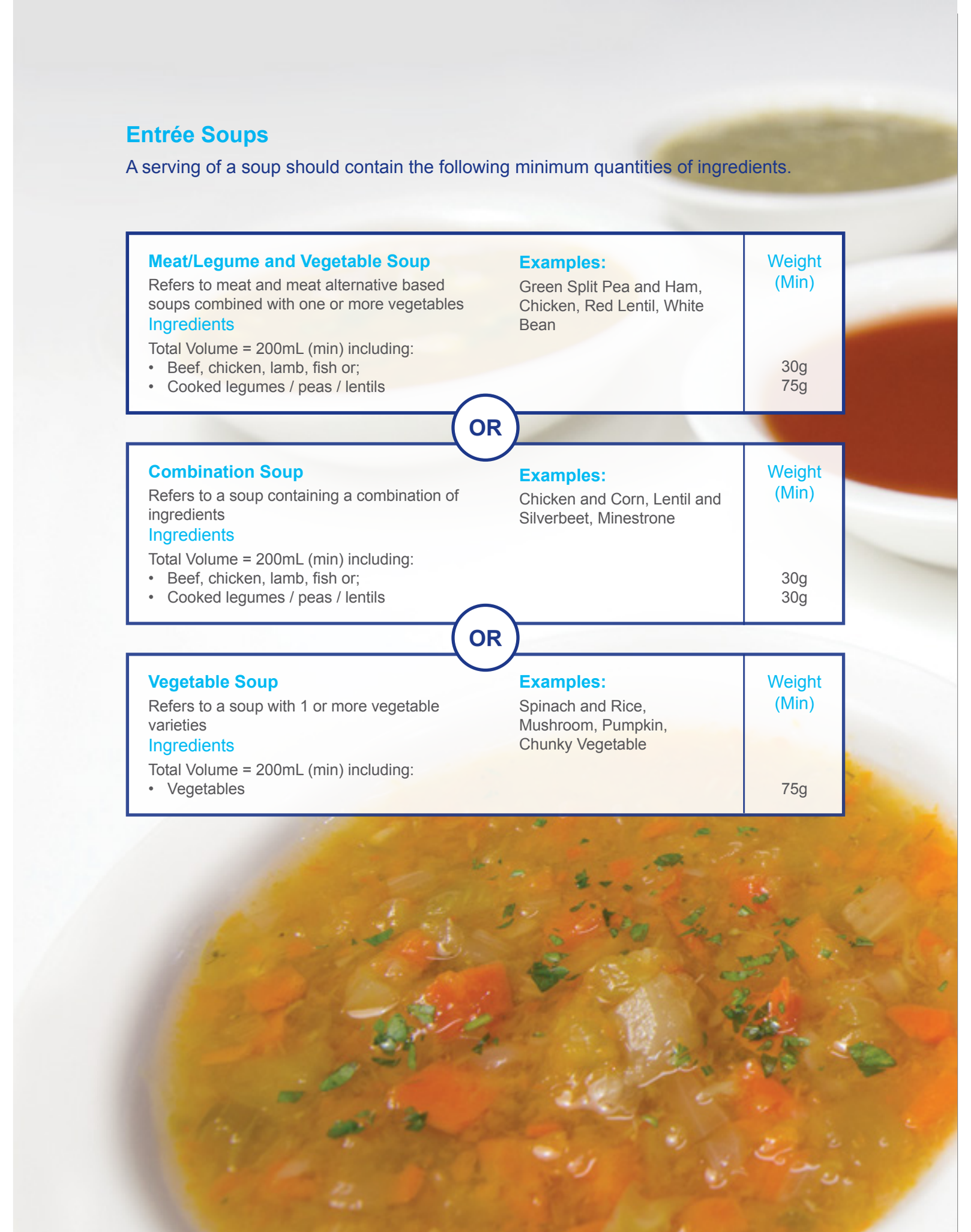
Due to the variety of ingredients that may be used in an sandwich the following table can assist with grouping sandwiches together based on their energy and protein content. The number of times each sandwich group should appear on a menu is also provided in the table below.

Entrée Sandwich Type	Energy / serve (minimum)	Protein / serve (minimum)	Type Over 5 Days	Type Over 7 Days	No. of recipe options (14) over a 4 week menu cycle
Entrée Combination Sandwich	>800kJ	>8g	3	4	6
Entrée Plain Sandwich	>1200kJ	>12g	2	3	8

Entrée Soups

A serving of a soup should contain the following minimum quantities of ingredients.

Meat/Legume and Vegetable Soup Refers to meat and meat alternative based soups combined with one or more vegetables Ingredients Total Volume = 200mL (min) including: • Beef, chicken, lamb, fish or; • Cooked legumes / peas / lentils	**Examples:** Green Split Pea and Ham, Chicken, Red Lentil, White Bean	Weight (Min) 30g 75g
OR		
Combination Soup Refers to a soup containing a combination of ingredients Ingredients Total Volume = 200mL (min) including: • Beef, chicken, lamb, fish or; • Cooked legumes / peas / lentils	**Examples:** Chicken and Corn, Lentil and Silverbeet, Minestrone	Weight (Min) 30g 30g
OR		
Vegetable Soup Refers to a soup with 1 or more vegetable varieties Ingredients Total Volume = 200mL (min) including: • Vegetables	**Examples:** Spinach and Rice, Mushroom, Pumpkin, Chunky Vegetable	Weight (Min) 75g



PLUS

Vegetables

- 45g (min.) vegetables for the meat/legume and vegetable soup, and the combination soup

AND/ OR

Starch

- 20g pasta or rice (for combination soups)

Notes

- A vegetable soup should be combined with a main meat meal or wet dish and/or dairy dessert on the menu
- A combination soup containing legumes should be combined with a main meat meal or wet dish and/or dairy dessert on the menu
- To increase the energy and protein content of the soups, consider the following additions where suitable for the type of soup (e.g. additional legumes to a vegetable soup, or skim milk powder to a pumpkin soup)
- Be aware that over-cooking will decrease the quality and nutritional content

Due to the variety of ingredients that may be used in a soup, the following table can assist with grouping soups together based on their energy and protein content. The number of times each soup group should appear on a menu is also provided in the table below.

Entrée Soup Type	Energy / serve (minimum)	Protein / serve (minimum)	Type Over 5 Days	Type Over 7 Days	No. of recipe options (20) over a 4 week menu cycle
Meat/Legume and Vegetable Soup	>400kJ	>8g	2	2	6
Combination Soup	>400kJ	>8g	2	3	8
Vegetable Soup	>300kJ	>4g	1	2	4

Main Meals

A serving of a main meal dish should contain the following minimum quantities of ingredients.

Meat Dish Refers to single ingredients of meat or other protein sources such as a grill, roast, baked, fried Ingredients include: • Cooked beef, pork, lamb, chicken, turkey or; • Cooked fish, salmon, tuna	**Examples:** Roast Lamb, Beef Steak, Chicken Schnitzel, Poached Fish with Lemon and Parsley Sauce	Weight (Min) 100g 120g
OR		
Wet Dish Wet dish with a high meat/ protein content such as a stew, casserole, braise, stir-fry Ingredients include: • Cooked beef, pork, chicken, lamb, turkey or; • Cooked fish, salmon, tuna or; • Cooked/canned beans/chickpeas/lentils* or; • Tofu*	**Examples:** Chicken Casserole, Osso Bucco, Pork Stew with Prunes, White Bean Pea Casserole	Weight (Min) 100g 120g 75g 75g
OR		
Main Salad Refers to single ingredients of meat, fish, chicken or protein sources Ingredients include: • Cooked beef, pork, chicken, lamb, turkey or; • Cooked fish, salmon, tuna or; • 2 large eggs or; • Cooked/canned beans/chickpeas/lentils* or; • Cheese	**Examples:** Ham, Chicken, Tuna, Salmon, Egg Salad	Weight (Min) 100g 120g 100g 170g 40g
OR		
Combination Dish The bulk of the dish is made up of primarily two to three components totalling **a minimum of 340g** or 190g served with a separate vegetable component weighing 150g. Ingredients include: • Cooked beef, pork, chicken, lamb, turkey or; • Cooked fish, salmon, tuna or; • Cooked/canned beans/chickpeas/lentils* or; • Tofu* or; • Eggs* or; • Cheese	**Examples:** Beef Lasagne, Spinach Pie, Tuna Bake, Noodle and Vegetable Stir Fry with Cashews	Weight (Min) 45g

PLUS

Starch Component	Weight (Min)
• Potato (roast, mashed, wedges, chips etc) OR • Rice (white, brown, basmati, etc) OR • Pasta (penne, spaghetti, fettucine etc) OR • Noodles (Hoikken, Singapore, Udon etc) OR • Couscous, Polenta	90g

PLUS

Vegetables	Weight (Min)
• Cooked vegetables, including both green and yellow/orange/red/purple vegetables OR • Salad vegetables or cooked legumes	150g

PLUS

Dressing	Weight (Min)
• 40mL (min.) gravy, sauce etc OR • 12mL (min.) salad dressing	12g

Notes

- Please be aware that vegetarian protein* meals will have a lower protein content compared to other meals. This is because the equivalent amount of beans/chickpeas/lentil or tofu will not result in a quality product that can be presented well. These should be combined with other higher protein meal components (e.g. legume and vegetable soup and dairy based dessert) to improve the protein profile.
- The main meal can be presented as a combination dish meal (e.g. stir fry with rice) or as a traditional meat and vegetable meal. This combination dish aims to include a 45g serve of meat; however this type of meal is also incorporated for variety, so not all items offered will meet the 45g serve. In such cases it will be important that a higher protein soup and dessert are offered on those occasions. These Guidelines also promote the use of higher protein, entrees, main meals and desserts.
- When a main meat salad is offered it would be in place of a hot meat dish or a wet dish as the nutrient contributions are similar. It is important that 15 different types of Main Salads are available for use over a 4 week menu cycle.

Due to the variety of ingredients that may be used in a main meal, the following table can assist with grouping main meals together based on their energy and protein content. The number of times each main meal group should appear on a menu is also provided in the table below.

Main Meal Type	Energy / serve (minimum)	Protein / serve (minimum)	Type Over 5 Days	Type Over 7 Days	No. of recipe options (20) over a 4 week menu cycle
Meat Dish	>1800kJ	>30g	2	3	8
Wet Dish	>1800kJ	>30g	2	2	7
Combination Dish	>1500kJ	>18g	1	2	5

Desserts

A serving of a dessert dish should contain the following minimum quantities of ingredients.

Dairy Desserts

Refers to a dish where the main ingredient is dairy based such as a cheesecake, blancmange, baked custards (rice, bread & butter, sultana) or crème caramel

Examples:

Passionfruit Blancmange, Crème Caramel, Bread and Butter Pudding, Baked Cheesecake

OR

Pies and Crumbles

Refers to a pastry dough/grain product that covers or contains a filling such as a fruit pie, Danish, strudel or fruit crumble

Examples:

Peach Crumble, Apple Pie, Apricot Strudel, Pear and Berry Danish

OR

Cakes and Puddings

Refers to a sponge-like consistency made from a dough/ heavy batter which has been boiled, steamed, or baked, such as a steamed pudding, shortcake, fruit/vegetable cake, basic foundation cake or heavy cake (e.g. mud cake)

Examples:

Pear and Ginger Shortcake, Rice Pudding with Prunes, Chocolate Mud Cake, Marmalade Pudding

Total Min Weights:

- At least 130g for puddings
- At least 80g for sponges
- At least 90g for foundation cakes
- At least 100g for vegetable based cakes

OR

Fruit plus Dairy Desserts

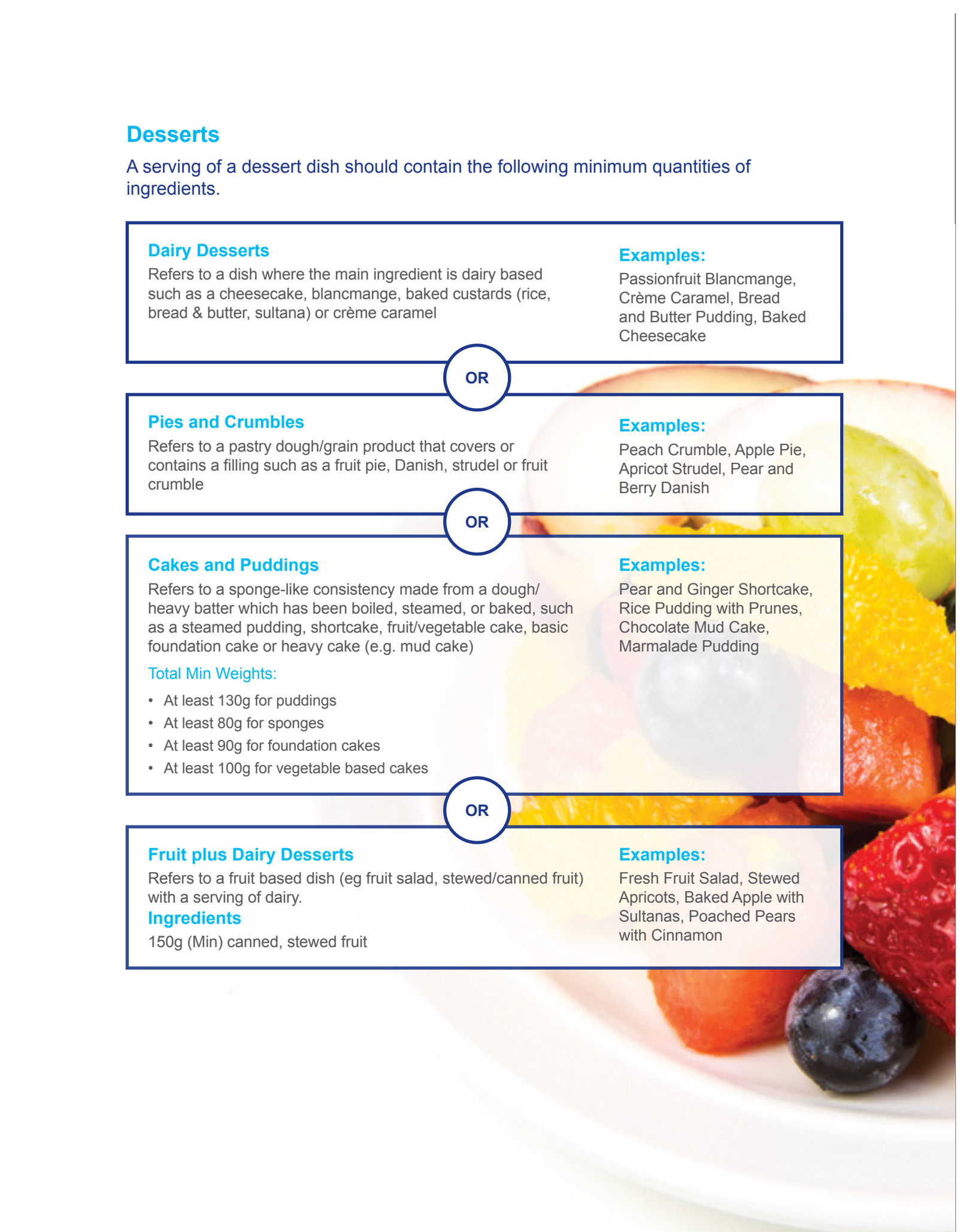
Refers to a fruit based dish (eg fruit salad, stewed/canned fruit) with a serving of dairy.

Ingredients

150g (Min) canned, stewed fruit

Examples:

Fresh Fruit Salad, Stewed Apricots, Baked Apple with Sultanas, Poached Pears with Cinnamon



PLUS

Additions

80g (min.) custard, yoghurt or:
80g (min.) dairy dessert (eg tapioca, creamed rice) or:
50g (min.) cream (Please see notes below)

Notes

- Minimum serving of any dessert is 180g in total. The cake option will be an exception here as the sponge cake often weighs ~80g. The addition of 80g custard will result in at least a 160g total.
- Whilst 50g of cream adds 700kJ energy, there is very little protein (1g) and calcium (30mg) as compared to the other dairy product additions.
- A small amount of sugar as part of a balanced meal plan is suitable for people with Diabetes. For this population, artificial sweeteners and diet products are not required as they do not have any nutritional benefit and may often take the place of more nutritious foods and drinks.
- A simple way to increase calcium and protein is to add extra milk powder to the custards, dairy desserts etc. All of these desserts when served with yoghurt or custard or dairy alone will provide at least 100mg of calcium per serve (e.g. in original form as a baked custard or cheesecake, or as the additional custard or yoghurt).

Due to the variety of ingredients that may be used in a dessert, the following table can assist with grouping desserts together based on their energy and protein content. The number of times each dessert group should appear on a menu is also provided in the table below.

Dessert Type	Energy / serve (minimum)	Protein / serve (minimum)	Type Over 5 Days	Type Over 7 Days	No. of recipe options (20) over a 4 week menu cycle
Dairy Desserts (with 50g cream)	>1500kJ	>4g	2	2	8
Pies and Crumbles	>1000kJ	>4g	1	2	4
Cakes and Puddings	>1000kJ	>4g	1	2	4
Fruit plus Dairy Desserts	>700kJ	>4g	1	1	4

4.4 Menu Planning

Menu planning must address:

- customer expectations
- nutritional considerations
- food and operational costs
- skills and expertise of catering staff

Thus it is a fine balancing act. The following section focuses on the nutritional composition of a menu, keeping in mind that choice, variety, texture and cultural relevance are also extremely important.

The following principles are broad enough to apply to small and large services preparing their own meals or to assess the menus provided by external suppliers.

4.5 Cultural Considerations

When planning a menu you must always consider:

- who the menu is for?
- what are the requirements, preferences and cultural backgrounds of the target population?

The ethnic origins and religious background of Australians varies considerably. This presents both challenges and opportunities for service providers. Altering a menu to accommodate the dietary appeal to a customer from a particular culture can risk compromising the expectations of customers from other backgrounds. Having separate menus is usually not practical for most services. However, rather than focusing on what is not possible, it is important that services reach out and engage with their communities. They might find that some simple alterations to menus and/or dishes can broaden their appeal.

Some things to consider

- Many members of the 'baby boomers' generation are now requiring meal services. Their culinary palate has been influenced by the waves of migration during the last half century from Mediterranean and Asian countries. It is also worth remembering that the reverse is true, and some of those people now making Australia their new home, have embraced certain elements of the culinary culture.

- A vegetarian option goes a long way in providing dishes that appeal to a variety of customers. For example, customers of Italian or Greek origin may like a bean casserole or a vegetable lasagne. These same dishes may also be appealing to someone from an Anglo-Celtic background. Sometimes the acceptability of a meal may be influenced by the name given to the dish for example; a spinach and cheese pie made with filo pastry would be recognised as a 'Spanakopita' by a person of Greek origin.

- Modifying some dishes can also help. The traditional roast dinner is a case in point. Roasted meat is certainly not foreign to people from most European countries. However, the addition of gravy is less familiar. By simply leaving off the gravy, what is considered an iconic Australian dish may become palatable for someone from another culture.

- Ultimately, whether adapting a menu, or sourcing specialised meals, services must take the time to engage with the different cultures and groups in their area. This may mean consulting directly with culturally specific welfare agencies or clubs. Service providers must ensure that the vital socialisation and well-being benefits of centre based and home delivered meals are available to all eligible older adults wherever this is possible.

- The preferences and traditions of older Indigenous adults also need careful consideration and planning. Particular dishes with local fresh ingredients (e.g. fresh fish) that may have been purchased by family members and the community may be possible in some communities. In other settings it is important to focus on food preferences and sources of protein, along with customer feedback about the suitability of options. The website *Australian Indigenous Health Info Net* has a lot of relevant information:[28]

  http://www.healthinfonet.ecu.edu.au

- Sometimes menu and recipe adaptations are not enough, as in the case of Kosher or Halal meals. In these instances, service providers should consider sourcing meals from specialised suppliers or restaurants in their area. Some additional information is provided in sections 7.9 and 7.10.

4.6 Vegetarian meals

The Meal Component Specifications within these Guidelines stipulate the amount of protein for each course (see pages 34-43). In the main course section, plant based (i.e. vegetarian) protein sources fall short of nutrient requirements. For example, to achieve the same amount of protein contained in 100g of roast lamb, 260g of tofu would need to be provided.[13] While plant and dairy based protein ingredients can be used in vegetarian recipes, it will rarely be possible to achieve the required amount of protein without significantly compromising the recipe and overall appeal of the dish, and adding eggs and/or cheese to dishes. It should also be noted that a large proportion of vegetarian dishes are combination dishes, some of which will be quite low in protein (such as macaroni cheese or some vegetable risottos). Therefore it is recommended that service providers inform their customers who identify as vegetarian and encourage them to seek the advice of an APD about how their home delivered or centre based meals can complement the rest of their diet.

4.7 Choice

Choice needs to be considered when planning menus, and it is especially important in relation to the main course. This component of the meal has the highest nutritional value. A minimum of two menu choices is preferable, if a third menu choice is offered it makes sense to have one as a vegetarian dish. Because many services report that non-vegetarian customers may also regularly choose a vegetarian dish from the menu, as one would in a restaurant, it is important to inform customers about the lower protein content of vegetarian meal options.

For small services providing home delivered and centre based meals, it is not always possible to offer many choices. In these cases there should be some attempt to offer a wide variety of meal types across the menu cycle, and incorporate many textures within meal choices. A menu with little choice can still be appealing and satisfy customer needs. In fact, customers are more likely to get a better balance of key nutrients from a nutritionally well-designed menu with little choice. For example, such a menu can ensure that the one dessert provided is high in protein and calcium, if the only soup provided is low in both. While menus that offer a larger choice can attempt this, the multiple combinations chosen by customers make controlling the daily nutritional provision of key nutrients more difficult.

4.8 Variety of type and texture of meals

A person can easily lose interest in meals if there is not enough variation in the type and texture – for example, too many casseroles on a menu. Both home delivered and centre based meals should offer the most well-rounded, nutritious meal a person may consume in a day. Service providers need to appreciate this, regardless of whether they prepare meals in-house, or purchase meals from external sources. Having said this, there will be some customers who choose to order the same item every time.

Any menu cycle menu should offer:

- **a variety of main course options**, including roasts, casseroles, bakes, slices, risottos, stir fries, stuffed vegetables, lasagnes and other pastas.
- **a variety of desserts**, including cakes, puddings, bakes, crumbles, pies, strudels, cheesecakes, baked custards, fresh and stewed fruits, and accompaniments such as fresh cream, yoghurt and custard. While cream provides additional energy, yoghurt and custard are richer sources of energy, protein and calcium, and therefore should be encouraged more often.
- **a range of textures** from dry (crumbed) to wet (casseroles) or somewhere in-between, for example, a savoury bake might be more appealing if the top is crispy and golden brown. This also applies to desserts such as bakes and crumbles.
- **soup** in a variety of styles,such as pureed (pumpkin), moderately chunky (vegetable and barley), and hearty and chunky (minestrone).
- **main course salads** (seasonally) that include a range of protein sources, such as meat, beans and cheese, and a variety of starch and vegetable accompaniments.
- **vegetables** should where possible reflect the season, and only repeat twice over a five-day period. Please see the Enhancing Vegetables section on pages 54-55 for further ideas.
- For information on texture modified meals for people with dysphagia (difficulty swallowing), please see Chapter 7: Special Dietary and Meal Considerations.

4.9 Incorporating a variety of type of meals and texture of meals on a menu

Ideally a menu should:

- be planned over **a four week period**
- **cycle three** times, then,
- **change seasonally**

The number of changes per season required to ensure that a menu remains interesting to customers will depend on how many choices are offered for each course.

For the purpose of explaining the principles of effective menu planning, the information contained in the following table is based on a five day, four week cycle, seasonal menu, that offers no choice of Entrée, two choices of Main Course, and no choice of Dessert. Table 4.3 provides a planner for incorporating the number of Entrée, Main Course and Dessert options over a four week menu cycle.

Table 4.3: Planning for a simplified, limited choice four week menu cycle

	Please refer to the Meal Component Specifications section for explanations of the types of different dishes per course. **Frequency of types of dishes per four week menu cycle**			
Soup	Meat and/or Legume	Combination	Vegetable	
	8	8	4	
Main Course	Meat	Wet	Combination	
Choice 1	8	7	5	
Choice 2	8	7	5	
Desserts	Dairy	Pies and Crumbles	Cake and puddings	Fruit plus Dairy
	8	4	4	4

	Number of different recipes per four week cycle	**Number of new recipes suggested per season (quarterly)**
Soup		
	20	7
Main Course		
Choice 1	20	7
Choice 2*	15	5
Desserts		
	20	7

* Some repetition is allowed over the four week cycle and therefore Choice 2 is shown as 15 recipes, rather than 20.

Additional notes for Table 4.3:

If sandwiches or entrée salads are to be provided as alternatives to soup within the same seasonal cycle menu then there should be 14 different recipes/combinations for each. This would require 5 different recipes/combinations for each alternative.

If a separate vegetarian choice is to be provided on the same seasonal cycle menu, then there should be 20 different recipes/dishes, with 7 changes per season.

If main salads are offered then they should be offered in place of a meat main course as the Meal Component Specifications are similar (please see section 4.3 for more information). There should be 15 different recipes/dishes over a four week menu cycle.

Larger menus give clients the opportunity to choose a wider variety of food combinations. Some services purchase meals from a central kitchen, which in turn may source meals from various external suppliers. Customers have what is essentially an à la carte menu to choose from. This may make it difficult to balance a menu and ensure that all nutrient requirements are met. For example, ensuring that a soup provided on a day that is low in protein and calcium is counterbalanced by a main course and a dessert that are both high in protein and calcium. It is recommended that such services provide advice and information to their customers about how to meet their nutrient requirements when choosing items from a menu with many different options each day.

4.10 Constructing a menu

The following base menu design builds on the Meal Component Specifications (please see pages 34-43) as well as the requirements outlined in the previous sections. It is a simple, limited choice menu. It demonstrates how a menu can be constructed according to a set of principles related to choice, food type, texture and the nutritional value of each dish. Table 4.4 provides a one week sample of a menu that has been constructed using the recommendations in these Guidelines.

Table 4.4: A one week sample of a simplified, limited choice menu

	Meal Component	Monday	Tuesday	Wednesday	Thursday	Friday
Entree	Soup	Red Lentil	Potato and Leek	Chunky Vegetable	Beef and Bean	Chicken and Sweet Corn
Main Course	Main choice	Silverside and Mustard Sauce	Chicken Cacciatore	Roast Pork with Apple Sauce	Braised Chops with Gravy	Roast Beef and Gravy
	Main choice	Macaroni Cheese	Shepherd's Pie	Spinach Quiche	Vegetable and Tofu Stir Fry served with Noodles	Crumbed Fish
Dessert	Dessert	Apple Pie and Custard	Fruit Salad and Yoghurt	Apricot Crumble and Custard	Marmalade Pudding and Custard	Strawberry Cheesecake with Cream

Legend:

The blue shaded options highlight the lower protein options, and how they are counter balanced by the other course items offered on the same day of the menu. For example, chunky vegetable soup (not a high protein soup) is served with roast pork (high protein main) and apricot crumble and custard (high protein dessert).

4.11 Quality recipes and ingredients

Adhering to the previous principles in this section will not necessarily guarantee that what is offered is going to meet customer's expectations, or be considered high in quality; a term hard to define at the best of times. Quality meals start with a good recipe and quality ingredients.

4.12 Recipes

Recipes must be standardised and reviewed regularly. Most chefs and cooks are constantly improving dishes. It is important that this 'tweaking' is reflected in recipe updates.

- Recipes need to adequately reflect the portion sizes in the Meal Component Specifications (pages 34-43), to ensure adequate key nutrients are present. Standard serving sizes need to be in place and adhered to and constantly reviewed and checked.
- It is also critical that ingredients are used consistently and that potential allergens are identified and communicated to customers.
- Wherever possible, recipes should be modified to increase nutritional density.
    - For instance, milk powder (preferably skim milk powder due to higher protein content) can be added to creamy soups to increase protein, calcium and energy, or cream may be added to increase energy.
    - A small amount of lentils can be added to bolognaise sauce (to accompany a lasagne or spaghetti) to increase protein and fibre content without compromising taste or texture.
    - Additional cheese can also be added to dishes like lasagne and macaroni cheese to increase protein, energy and calcium.
- Finally, recipes should be changed to reflect customer feedback. All services need to strive towards a robust customer feedback process. Both positive and negative feedback should be encouraged. Constructive feedback is usually welcomed by catering staff whether they are working in a renowned restaurant or a small centre based kitchen.

4.13 Analysis of recipes

Several nutrient analysis software programs are available to analyse standard recipes for the nutrients provided per serve. The key nutrients are outlined in Table 4.2 (Nutritional targets), and specifically include protein, energy and calcium as per the Meal Component Specifications.

If a service provider does not have access to nutrient analysis software to fully review their recipes, they can use the nutrition panel calculator on the Food Standards Australia New Zealand (FSANZ) website[29]:

http://www.foodstandards.gov.au

This allows food manufacturers to calculate the average nutrient contents of their recipes and develop nutrition information panels. For further information about requirements regarding nutrition information panels please see Standard 1.2.8 Nutrition Information Requirements, which is available via the FSANZ website[30]:

https://www.legislation.gov.au/Details

Additionally an APD can assist with nutrient analyses of standard recipes, and provide expert advice about enriching recipes, understanding food labelling and identifying potential allergens.

4.14 Ingredients

Ingredients are an important part of quality, and their use depends on availability and accessibility, which may be problematic in some rural and very remote regions. In general, however, services should use fresh ingredients as much as possible.

- Fresh stock is preferred, however, it may be beyond the scope of many kitchens. Good quality vegetable stock (cubes or liquid) is often lower in salt and is preferable to chicken or beef stock.
- Packet/tinned soup powder/mix are not recommended. Ideally, all soups should be made from scratch where possible.
- Wherever possible, fresh potato should be used and not substituted with potato powder.
- Fresh cream should be used instead of substitute/cream in a can.
- Ideally gravies should be made with meat juices from roasting trays, with little or no artificial (stock cube) flavouring added. Gravy enhances the flavours, influences the texture and also adds moisture to the meal. This can be very important for older adults who may have a dry mouth or experience problems with chewing due to a sore mouth or poor dentition.

4.15 Vegetables

- Vegetables are an important food for delivering nutritional requirements. Deciding months in advance what vegetables are to accompany each dish can be problematic, so specific vegetables rarely appear in the sample menu provided. While seasonal availability can usually be predicted, prices cannot. The vegetable component of the meal can be planned closer to the time, to allow for seasonal fluctuations in availability, quality, and price.

- Vegetables should be fresh whenever possible. Over the course of a week the use of frozen vegetables should be kept to a minimum. A range of coloured vegetables (white, green, orange, red, purple or yellow) should be included. A range of colours means a range of nutrients. Contrasting colours are also more visually appealing. As a rule, each main meal, in addition to the starch component, should be accompanied by one green, plus another coloured vegetable.

Enhancing vegetables

Vegetables are an important source of fibre, vitamins, minerals and phytochemicals. The way they are cooked and presented can make a major difference to their appeal and acceptability. The following list contains some ideas for enhancing commonly used vegetables. Almost all the examples given will be further enhanced by the addition of a little margarine or butter and seasoning.

Beans

Whole or sliced. These are a staple and a great accompaniment to rich, sauce based dishes. Roasted slivered almonds are a nice addition.

Cabbage (Green)

Can be bland, especially the lighter green variety with little colour. Freshly washed parsley is almost a must. Kale is also a nutrient rich and taste enhancing addition. Most customers do not like it on its own, however a few bunches can be mixed in with green cabbage. Spinach can be used in the same way.

Cabbage (Red)

Takes much longer to cook, and must always be cooked in a pot (not steamed). The addition of onions and apples and a little red wine vinegar almost make this vegetable accompaniment a dish on its own. This goes particularly well with chicken schnitzel.

Carrots

Usually steamed, although roasting large batons in the oven brings out their sweet flavour and adds to the overall appeal of the meal. Both steamed and roasted carrots can be further sweetened by adding a little honey.

Parsnip

Usually roasted, and delicious when combined with roasted carrots. They can also be mashed with carrots and/or potatoes.

Peas

Using fresh peas is not practical for many services due to the labour intensive process of shelling them. However, good quality frozen peas can be enhanced with the addition of some fried, diced onion. Washed mint also provides an interesting addition (and grows anywhere!). Try frying onions in a large pot or brat pan and then adding mint and peas.

Potatoes

Mashed, steamed, and roast are the staples. Even within these three methods there is room for variation in the size of cut. For example, roast potatoes could occasionally be cut smaller into large cubes, for a crispy alternative. Mashed and steamed potatoes come alive with seasoning and freshly chopped parsley. Small chats, or jacket potatoes can be either steamed or roasted. There is also the option of making a bake, with onion, and a little cheese and/or cream and browning in the oven. Freshly washed rosemary and thyme are also welcome additions when roasting.

Pumpkin

There are many varieties, all with different characteristics. Roasted pumpkin is a favourite, and can benefit from a little honey to bring out the sweetness.

Silverbeet

A little fried onion, and / or finely chopped tomato are a nice addition.

Sweet potato

A very versatile vegetable and a great source of colour. They can be used as a substitute for potato, or as an accompanying vegetable. They work very well cut up in large pieces and roasted with a little oil, or baked whole in their skins and then cut up.

Zucchini

They can benefit from being mixed with yellow squash for colour. Another popular option is tossing in some finely chopped tomatoes and/or fresh tomato sauce.

4.16 Purchasing meals from external suppliers

Many meal service providers will obtain meals from external providers, including hospitals, private caterers, nursing homes, hotels and cafes. Meal specifications are therefore important to provide guidance to producers when responding to tenders; and to establish criteria so that service providers can evaluate tender submissions.

Service providers should clearly outline their service requirements within their specifications. They should consider requesting that the prospective tenderer supplies menus and meals in accordance with these Guidelines.

Meals purchased should have the required nutrient data available on their labels. This includes: energy, protein, fat, saturated fat, carbohydrate, sugars and sodium, and these labels should also list ingredients and any potential allergens. Alternatively, the external supplier producer may provide you with a nutrition information panel or data sheet. Service providers need to compare the nutrient information on the label with the amounts of protein and energy outlined in the Meal Component Specifications.

If the previous sections of these Guidelines are agreed upon within the external suppliers response, this will ensure that the principles of choice, variety, portion sizes, menu design, cultural and special dietary considerations, labelling and packaging, are all formally addressed.

In addition, the service providers should conduct blind taste testing of short listed tenderers. This should include all key stakeholders, primarily customers, but also contract management and coordination staff and volunteers. Participants should be provided with a variety of meals from each tenderer without the company name being identified. All meal components should be made available including texture modified meals. Participants should fill out questionnaires that deal with specific criteria. Most important is the overall quality of taste, smell and texture. Presentation, labelling, packaging and ease of opening should also be considered, as well as whether the name or description of the dish meets expectations.

Without such a process, service providers could lock themselves into contracts that seem to tick all the boxes in terms of price, but fall short of customer expectations. Claims such as ‘our menu has been reviewed by a Dietitian’ should also be challenged. In such instances service providers should be asking about the level of engagement. For example:

- did they only request a desk audit menu review?
- did it include nutritional analyses and examination of recipes, including weights and ingredients?
- did it include talking to customers about their level of satisfaction?

Listed on the next page are some additional examples of selection criteria that can be considered when writing tender specifications, evaluating prospective tenders or reviewing tendered services.

- Cost and value for money
- Plan for service transition
- Management experience, capability and past performance
- Customer service and flexibility
- Proven compliance with all relevant regulations and guidelines
- Quality assurance
- Food safety plan
- Occupational health and safety
- Qualifications and experience of staff
- Sustainability and tenderer financial viability

The *MOW Victoria Best Practice Guidelines* [22] also outlines further details on this topic and the link is:

http://www.mealsvictoria.org.au

Service providers will need to weight the selection criteria in order of organisational priorities and loosely group weighting criteria into categories such as quality (blind taste testing, menu planning, recipes and ingredients, quality assurance), experience (management, past performance, transition planning), compliance (food safety, occupational health and safety), and cost and value for money.

There should also be a robust review process in place to ensure that the agreed service requirements are being met. This should include monthly compliance reports, a customer feedback system to the service provider (both meal recipient and service provider) and at least one survey a year of customers conducted by the service provider. Customers should have the opportunity to comment on their satisfaction with the meals and service and also to offer suggestions.

4.17 Food labelling requirements

There is increasing awareness by government authorities to enforce food labelling to better inform service providers, health professionals and customers of the ingredients and composition of meals prepared by external services. Australian food labelling regulations have recently been revised and are set out in Standard 1.2.1 of the Australia New Zealand Food Standards Code.[31] This can be accessed via the following link:

https://www.foodstandards.gov.au

The regulations are very detailed and open to some interpretation. However there are specific requirements for the labelling of foods. If service providers are unsure whether a particular prepared food item requires a food packaging label they can seek advice from their relevant State and Local Food Authorities (such as Environmental Health Officers).

Australian food labelling regulations apply to the following types of meals:

1. Hot food (i.e. centre-based meals) - hot food that is served in a dining hall (i.e. at a senior citizen's centre).
2. Cooked and chilled food - cooked food that is delivered and stored at refrigerated temperatures which are below 5°C.
3. Frozen food (usually defined as hard frozen) – cooked food that is delivered and stored at frozen temperatures at or below -18°C.

4.18 Food safety

Food safety programs are mandatory, as is the auditing of services providing meals to vulnerable populations, including hospitals, aged care facilities, child care centres and customers of home delivered meal services. Hazard Analysis and Critical Control Point Planning (HACCP) is an example of a systematic and proactive approach to food safety planning.[32],[33] Such an approach should underpin food safety programs as it involves the review of all stages of meal preparation, from the ordering of ingredients to the provision of meals to customers, identifying hazards and putting controls in place to maximise food safety. The *Guidelines for Food Service to Vulnerable Persons* (2015) from the NSW Government also highlight important advice [33] and can be accessed via the following link:

http://www.foodauthority.nsw.gov.au

If food is not stored or cooked correctly, or if it is left out in the open, bacteria that may be present on or in the food, or on food utensils, can cause food poisoning. This can be **life threatening**, particularly for older adults. Bacteria need a food source, time, warmth and moisture to grow and multiply. It is essential to have sound manufacturing practices that prevent this combination of conditions where bacterial growth can take hold.

A food safety program must encompass all aspects of food safety, and also must include allergen management. A national approach to food safety and the relevant national legislation is outlined in *Safe Food Australia* (2001).[32]

http://www.foodstandards.gov.au

Some important food safety tips include:

- All staff and volunteers must be competent in their roles in safely preparing and handling food at their service. Everyone involved must have the skills and knowledge to provide safe food.
- Never work with food for others if you have a gastrointestinal illness, a contagious illness, weeping wounds or influenza, and allow at least 48 hours free of such conditions before your return.
- The temperature and condition of goods received should be checked, recorded, signed and dated on a monitoring sheet, and stored appropriately as soon as they are received. Any items received outside the acceptable limits (e.g. meat received at a temperature above 5°C, frozen goods that have started to defrost, dented cans) should be returned immediately.
- Hot food should be cooked thoroughly and always served above 60°C. This means that all food is cooked/or reheated to a temperature capable of producing safe food (e.g. a core temperature of 70°C for at least 2 minutes) [32]. The temperature, date and time should be recorded on the recipe used and filed as a record.
- All cold foods should be held and served below 5°C. All frozen food should be hard frozen (usually -18°C). The temperature danger zone occurs between 5°C and 60°C, so any time in this temperature range should be minimised and documented.[32]

5. Enhancing the Service: Enriched Meals, Using Snacks and Shopping Lists

Referral to a Dietitian

Referral can be arranged with the person's permission by contacting:

My Aged Care
on 1800 200 422 or
www.myagedcare.gov.au

or

Referral from their Doctor via a Chronic Management Plan

or

An appointment with a Private Practice Dietitian

5.1 Providing more nutrients

This section provides guidance for service providers about how to include further sources of nutrients that older Australians often find hard to adequately consume. The information is outlined under nutrient headings, such as calcium and fibre, but it is important to remember that people eat food, not nutrients.

The addition of ingredients to existing recipes (e.g. skim milk powder and cream to blended vegetable soups to routinely increase their energy and protein content) requires recipe testing and the development of a suitable standard recipe to ensure that it is suitably textured and flavoured, as well as nutritionally enhanced. It is also important that ingredients, nutrient analyses and potential allergen information is also readily available for customers.

Enriching meals for additional protein and energy

Protein is a key macronutrient which is needed in large amounts by older adults. However it can be difficult to obtain adequate amounts of it. Some of its many important functions include the maintenance of muscles, red blood cells and hormones. It also contributes to immune function and wound healing. The protein content of a recipe can be enhanced by adding or increasing the content of the following ingredients:

- Beef, chicken, pork, lamb, veal or fish
- Lentils and legumes
- Soy products and tofu
- Dairy foods such as milk, cheese and yoghurt
- High protein/enriched milk instead of regular milk [24], [34],[35] Please see a recipe on page 65
- Incorporating skim milk powder into recipe items to increase protein (and energy) content. Examples include adding skim milk powder to the following items:
  - creamy soups
  - mashed potato
  - custard and milk based desserts

Additional energy can also be added to suitable recipes by adding energy dense ingredients such as:

- Cream/sour cream
- Oil
- Butter
- Margarine
- Honey
- Almond meal

Enriching meals for additional calcium

Calcium is a key mineral, particularly for bone health. Many Australians, particularly older adults need to think consciously about obtaining enough calcium in their diet. It is primarily found in dairy products. Some ways to increase the calcium content of recipes include:

- Melt cheese on vegetables (e.g. cauliflower)
- Add extra cheese to pasta dishes (e.g. sprinkling cheese on spaghetti bolognaise or adding extra cheese to lasagne)
- Use high protein/enriched milk instead of regular milk
- Add skim milk powder and/or cream to creamy style soups wherever possible
- Add skim milk powder to mashed vegetables
- Use dairy based sauces (e.g. white sauces and cheese sauces) wherever possible
- Choose yoghurt or custard to regularly accompany stewed fruit or crumbles, instead of cream. Yoghurt contains 160mg calcium per 100g, and custard contains 120mg calcium per 100g, whereas cream only contains 60mg calcium per 100g.

Enriching meals for additional fibre

Fibre is routinely found in breads and cereals (especially wholemeal and wholegrain types), fruits, vegetables, legumes and lentils. Different types of fibre have different benefits including; laxation, blood glucose control, satiety and lowering cholesterol.

Some ways to increase fibre content of recipes include:

- Add extra fruits and vegetables to dishes (cooked and salad types)
- Add dried fruit to dishes
- Add vegetables, legumes and lentils to soups and casseroles
- Add vegetables, legumes and oat bran to patties/rissoles, meatloaf and mince style dishes
- Add legumes (e.g. four bean mix) to salads
- Choose wholemeal and wholegrain breads and cereals
- Add breadcrumbs to dishes
- Add almond meal to cakes
- Using rolled oats in a crumble
- Include fruits, vegetables and oat bran to suitable crumbles and cakes

Note: It is suggested that any increases in fibre are introduced gradually. Adequate fluids are also required to prevent constipation. Fibre can add to feelings of fullness so it is important that additional fibre does not interfere with customers' intakes of high protein foods such as meat/meat alternatives and dairy.

Enriching meals for additional vitamin B6

Vitamin B6 is an important vitamin. Good sources of vitamin B6 can be incorporated into meals by using ingredients such as:

- Chicken, beef, salmon and pork
- Fortified cereals and wholegrain bread and cereals
- Bananas
- Vegetables

Enriching meals for additional magnesium

Magnesium is an important mineral in the body. Magnesium is widely distributed in foods, highlighting the importance of a wide variety of recipe ingredients. Some good sources of magnesium which can be added to meals include:

- Wholegrain breads and cereals (particularly bran, barley and oats)
- Kidney beans, baked beans and black-eyed peas
- Green leafy vegetables
- Seafood
- Yoghurt and milk

5.2 Supporting adequate intakes for small appetites

Some customers may prefer to choose smaller sized main meals (200-250g) due to a reduced appetite and their dislike for waste. Smaller meals may encourage intakes for these customers, but it should be noted that they cannot provide the nutrients outlined in the CHSP Meal, or the Meal Component Specifications (See pages 34-43). The tendency to request a small meal serve is an important flag for the risk of malnutrition, and highlights the importance of a discussion about a referral to their doctor and an Accredited Practising Dietitian (APD) for a nutrition assessment. Practical information about enriching meals and the regular use of nourishing snacks is also particularly relevant.

Whilst splitting meals between two people and saving items for later is a common practice, it should not be encouraged. If customers tell you they are splitting meals, this is an important warning sign for further follow up. Ordering less than the 3 meal components also serves as a warning sign. The reasons for these practices may be complex, and often include a poor appetite, or financial insecurity, both of which increase the risk of malnutrition. Providing further information on enriching meals could be useful. Malnutrition screening (using one of the tools in Appendix 6) is also recommended, as is a discussion about a referral to their doctor and a dietitian for further follow up. An APD can be accessed through the CHSP via My Aged Care.

5.3 Enriching meals for small appetites

Meals and snacks can be enriched (with additional energy and protein) without adding further volume. This is important if someone has a reduced appetite as they often feel full before they have eaten enough to meet their nutrition requirements. A range of strategies is often required to enhance intakes.

These may include encouraging customers to:

- Make additions to porridge or semolina (e.g. cut up banana, honey, almond meal, cream or dried fruit)
- Have 3 nourishing snacks (e.g. cheese and biscuits, a milkshake, piece of chocolate) each day in addition to their meals.
- Have cheese and biscuits or yoghurt instead of sweet biscuits
- Choose full cream dairy products instead of low fat varieties
- Add white sauce to relevant dishes (e.g. fish and silverside)
- Melt cheese on vegetables (e.g. cauliflower)
- Add extra cheese to pasta dishes (e.g. sprinkling cheese on spaghetti bolognaise or adding extra cheese to lasagne)
- Use high protein/enriched milk instead of regular milk[24,34,35]
- Add skim milk powder and/or cream to creamy style soups, mashed potato and custard
- Eat croutons or garlic bread with soup

A list of quick small meals and nourishing snacks can also be a handy prompt to encourage adequate intakes. Examples of small meal ideas and nourishing snacks are outlined below.

A nourishing snack should contain at least 2g of protein and 500kJ energy. Further examples are included on page 68.

Recipe for High Protein/ Enriched Milk

1 Cup of full cream milk

2 Tablespoons of skim milk or full cream milk powder

Flavouring may be added

Mix and enjoy!

Provides 875kJ energy and 12.5g protein, 400mg calcium (when made with skim milk powder)

Provides 950kJ energy and 11.5g protein, 360mg calcium (when made with full cream milk powder)

Analysed via FoodWorks 8 [35]

Small meal ideas

- Cheese and biscuits
- Baked beans on toast
- Quiche and salad (with dressing or olive oil)
- Boiled eggs and toast
- Scrambled eggs on toast
- Melted cheese on toast
- Cheese and tomato sandwich
- Cold meat sandwich (e.g. roast beef and pickles)
- Can of tuna or salmon on toast, or as a sandwich
- Porridge with milk, honey and cream

Quick dessert ideas

- Scone with jam and cream
- Carrot cake or banana cake
- Fruit or savoury muffin
- Stewed fruit and yoghurt
- Crème caramel
- Rice pudding
- Cheesecake
- Stewed fruit and custard

5.4 Additional meal and snack considerations

A meal provided either in the home or a centre based setting can provide up to a maximum of half of the daily nutrition requirements. Therefore it is **ALWAYS** essential for customers to consume two other meals as well as snacks between meals. Appendix 8 highlights the approximate amounts of different food items required depending on the combinations chosen to make up the CHSP Meal.

This section is intended to be a resource for service providers to assist in providing information sheets and further education for customers. It also expands on other considerations including enriching meals, meals for small appetites, small meal and nourishing snack ideas, texture modified options and shopping lists for customers. These suggestions should only be made for customers on a regular diet or a high protein high energy diet. Customers on special diets (for example, texture modified diets, low potassium diets and diets due to food allergies) should not be given dietary suggestions by the meal service. Instead they should be referred to an APD for individual dietary advice.

For further relevant references and resources please refer to Appendix 1.

Nourishing Snacks

Nourishing snacks between meals are an important way to increase nutrition intakes when appetite is reduced. A list of suggestions is included below for some ideas.[24],[25],[35],[36] The best choices for calcium and protein include cheese and biscuits, high protein/enriched milk, flavoured milk, custard and yoghurt. As outlined in section 5.4, these suggestions are **not** to be shared with customers on special diets as some of the suggestions could be harmful to such customers. They should be referred to an APD for individual dietary advice.

Table 5.1 Examples of nourishing snacks

Food Item	Portion Size	Energy (kJ)	Protein (g)
Cheese & Biscuits	20g slice cheese and 10g biscuits	500	6
Chocolate	25g	550	2
Crisps	30g	650	2
Custard	140g / 0.5 cup	550	4
Flavoured Milk	200mL	700	7
*High Protein/Enriched Milk			
-With added Skim Milk Powder	250mL	875	12.5
-With added Full Cream Milk Powder	250mL	950	11.5
Fruit Cake	80g	1100	4
Raisin Toast and Spread	1 slice with spread	450	2
Vanilla Yoghurt	200g	750	10

*The recipe for the high protein/enriched milk can be found in this chapter, on page 65.

5.5 Shopping lists

This sample shopping list is a suggested starting point for discussions between service providers and customers about nourishing products that could be used for a quick meal or a snack. Some of the items have a long shelf life allowing a ready supply of food for older adults who do not go to the shops frequently.

- Milk (full cream)
- Long life milk (full cream)
- Milk powder (full cream)
- Flavoured milk
- Ice cream (full cream)
- Ice cream topping
- Yoghurt (full cream)
- Cheese (full cream)
- Custard (full cream)
- Ice Cream
- Long life custard (full cream)
- Cream
- Margarine or butter
- Jam/honey/peanut butter
- Eggs
- Quiche
- Ham or other cold meat
- Canned salmon, tuna and sardines
- Canned baked beans
- Canned soups (and add milk and/or cream when making up)
- Canned fruits
- Fresh fruit
- Frozen vegetables
- Potatoes
- Instant rice
- Instant oats
- Wholegrain breakfast cereals
- Cereal bars
- Bread
- Cake
- Crispbread or crackers
- Sweet/chocolate biscuits
- Chocolate
- Crisps
- Flavoured milk

Many of these items can be used to quickly arrange small meals and nourishing snacks as discussed earlier in this chapter.

Some of these items may be stocked by services for delivery as a ‘pantry box’ to customers in times of need (e.g. may have just returned from hospital, or are unable to get grocery items for a few days). The ‘pantry box’ concept may suit some services and may include items like: long life milk, canned fish, canned beans, individual serves of custards and fruits, eggs, cold meat, bread and cheese.

6 Managing Presentation and Meal Enjoyment

Referral to an Occupational Therapist

or information from an Independent Living Centre on useful adaptive aids and equipment may be required.

This can be arranged with the person's permission by contacting:

My Aged Care
1800 200 422 or
www.myagedcare.gov.au

or

Referral from their Doctor via a Chronic Management Plan

Independent Living Centres Australia
1300 885 886 or
ilcaustralia.org.au

or

An appointment with a Private Practice Occupational Therapist

While meals should be nutritious, it is just as important that they appeal to all of the senses. First impressions of sight and smell will increase the likelihood of a meal being eaten. These aspects, as well as packaging and social and dining room considerations, are addressed in this section.[24,25]

The following are some presentation tips for home delivered and centre based meals.

- Always consider the way a meal is presented to the customer, whether being placed in a container for home delivery or on a plate in a dining room setting.
- Inform the customer what is on the menu for the day, even if a packaged meal is provided with a label.

6.1 Colour and shape

- A variety of colours and shapes will make the meals more appealing.
- A range of colours and textures on the plate adds sensory appeal. Include something green, yellow/orange/purple on the plate, along with something starchy (e.g. potato or pasta) and some meat, fish, chicken or meat alternative. For example, fish served with mashed potato, cauliflower and a white sauce would not be the best colour or texture combination.
- Dressings and sauces (e.g. gravy, white sauce, cheese sauce and salad dressings) can also be used for added flavour, colour, moisture and energy.
- Browning and crisping up some vegetables can provide good textural and visual contrast.
- Adding garnishes, herbs and spices over the dish can make a significant visual impact.

6.2 Food plating and placement

- Use non-disposable plates for centre based meals and a non-divided container for home delivered meals. These allow an improved presentation and avoid forcing food items to fit into small defined spaces.
- Arrange the food items neatly in the container or on the plate so that all of the foods can be seen. Wider shallow containers rather than deep dishes assist with this.
- Consider the arrangement of the food to allow space on a plate or in a container. For example, sausages may be best served diagonally to avoid the need to cut them into two pieces.
- Avoid overfilling containers, as food can be squashed, and gravy/sauce may leak through the lid. This becomes unsightly and potentially risks cross contamination.
- Consider taking photos of 'ideal' presentation formats to ensure consistency and to assist in training new staff members and volunteers.
- Use quantified serving scoops to ensure accurate portion sizes. This will ensure consistency in the amounts served (e.g. colour coded handles can be used to identify different scoop sizes – e.g. 90g or 120g).
- Wherever possible, use traditional cream or white plates. Use cream or white containers for home delivered meals to provide a greater contrast between the plate and the meal.
- Plates and containers should be free of patterns and should contrast the colour of the tablecloth or placemat. This is particularly important for customers with cognitive impairment.[37],[38] Some customers may prefer black containers or plates.

6.3 Meals and social opportunities

Eating is a social experience for all of us, so it should not be treated differently as people age. People who regularly eat alone have an increased risk of malnutrition,[39] and may get into a habit of 'soup and toast' or 'tea and toast' rather than sitting down and enjoying a more nourishing meal.

Where possible, referral to lunch outings or centre based meals should be encouraged. Arranging to have a volunteer share a meal or a cup of tea and a chat with someone may also encourage meal consumption and enjoyment.

In a dining room setting, ambience is also important in setting the scene for a meal occasion. This can involve simple strategies such as using good crockery, glassware, and tablecloths, setting mealtime routines, and having appropriate music and lighting.[24]

6.4 Special mealtime requirements

There are many functional reasons why a person may require modified meals, or assistance with eating meals. Without the right information, tools and/or assistance, it may be difficult for the person to have an enjoyable meal experience. Any functional difficulties with eating food should be discussed with the person when they commence the service, and then reviewed with them each year.

6.5 Opening packaging

Home delivered meals need to be delivered in food safe, disposable containers. Various packaging types are available, and it is important to consider how easy or difficult they are to open, especially for a person who may not have good hand strength, dexterity and/or vision. Conditions that may require assistance and/or easier to open packaging include arthritis, stroke, cognitive impairment, other neurological conditions and visual impairments.

Some tips when considering food packaging

- Items with more prominent openings (e.g. a larger tab to pull or a colour coded opening). Small plastic packets (e.g cheese, biscuits, spreads) and sandwich containers can be very fiddly to open, especially for someone with arthritis and/or vision issues.
- Drinks that have more prominent openings (e.g. a larger tab to pull or a colour coded opening). Drinks with small lids, foil seals or straws can be problematic.

If a person has difficulty with opening containers or managing eating utensils, or is living with Dementia, a referral to an Occupational Therapist is recommended.

This can be arranged with the persons permission by contacting the **My Aged Care** on 1800 200 422 or on the internet at www.myagedcare.gov.au

- Consider these issues when sourcing options for customers and try to select items with more apparent and easier openings. Round plastic dessert containers with firm lids or small branded desserts with small tight seals can also be difficult.
- Containers with a peel off plastic cover (as long as it has an easy view larger tab, which is perhaps colour coded to see where to grip and pull off). Foil meal containers and cardboard lids can be difficult on the hands of older adults.
- Clear covers allow a good view of the food items to be consumed, but are often obscured by a large food label. Leave some of the food visible – perhaps by ensuring that the label is not placed in the centre of the clear cover.

7. Special Dietary and Meal Considerations

Referral to a Speech Pathologist

Referral can be arranged with the person's permission by contacting:

My Aged Care
on 1800 200 422 or
www.myagedcare.gov.au

or

Referral from their Doctor via a Chronic Management Plan

or

An appointment with a Private Practice Speech Pathologist

7.1 Meal considerations for people living with dementia

A person living with dementia may experience difficulty in many aspects of eating and meal enjoyment, including a loss of appetite (and increased appetite for some people), chewing and swallowing issues, difficulty in completing meals themselves, difficulty judging food temperature as well as difficulty consuming adequate fluids.

These issues increase their malnutrition risk. There are many free resources for further information, including from Alzheimer's Australia *https://fightdementia.org.au* This website includes many helpful fact sheets, including two called 'Nutrition' and 'Eating'.[37, 38] An APD can also support customers and families to maximise nutrition intakes by working with customers and service providers.

Some recommended tips include

- Serve familiar food and encourage a usual routine in preparing for a meal. Familiar sights, smells and names can make the meal environment more enjoyable.
- Ensure that the crockery is plain. Cream or white crockery is recommended, and it provides a contrast to a table cloth and the food being served.
- Eating with other people can provide visual cues and allow the person to copy.
- The environment where the person usually eats their meals needs to be as familiar as possible, while also removing unnecessary distractions.
- If the use of cutlery is problematic, then sandwiches and finger food are good options.
- Watch food temperatures. Some people with dementia may have lost the ability to judge when food is hot or cold.[37,38]

7.2 An introduction to special diets

The terms 'Special' or 'Therapeutic' diets refer to over 100 different diet types which customers or their families may request. This section briefly outlines some of the more common diets that you may be asked about. More extensive details about these diets may be found in two other useful resources: [40],[41]

- Dietitians Association of Australia (2014) Nutrition Manual. Available for purchase from the Dietitians Association of Australia. *http://daa.asn.au*

- NSW Agency for Clinical Innovation (2011) Therapeutic Diet Specifications for Adult Inpatients. *http://www.aci. health.nsw.gov.au/resources/nutrition/nutrition-food-in-hospitals/nutrition-standards-diets*

It is recommended that the general/standard menu for home delivered and centre based meals cater for the following diet types:

- Unrestricted diet
- Diabetes management (Type 2 Diabetes)
- Cholesterol lowering
- No added salt
- High fibre diets

The development of separate menus is not required in these instances as the management of these dietary issues has changed over the years. For example, the total avoidance of sugar is no longer required for a person with diabetes. Instead, a varied and healthy diet is key, with nutritious carbohydrate rich foods being available at each meal and snack.[42] The CHSP Meal provides only one meal of the day. Each of the three courses provides some carbohydrates, although the dessert course contributes the most sugar. This being said, the portion sizes are moderate with yoghurt or custard being the preferred accompaniments (both of which have a low glycemic index).[43] For more information or advice about menus, or for a customer on a special diet, an APD should be contacted.

Some special diets may restrict the type and amount of certain foods that a person can consume. These diets may not be appropriate for older adults and may place them at risk of poor nutrition and potentially even malnutrition. Restrictive diets are not recommended for older people except in extenuating and often life threatening circumstances (e.g. food allergies, intolerances, texture modified diets or chronic renal disease). The focus should be on quality of life where maintaining energy and protein intake is a priority along with providing nutritionally dense meals and snacks.

Specific advice should be obtained from a doctor and/or an APD and a Speech Pathologist (regarding texture modified diets) for customers requiring one of the following diet types, as inappropriate meal choices can be **life threatening** (e.g. if someone with a nut allergy received nuts).

- Diets for food allergies (e.g. nut free)
- Intolerances (e.g. gluten intolerance for someone with Coeliac disease)
- Texture modified diets (e.g. smooth pureed, minced and moist and/or thickened fluids)
- Renal diets (e.g. low sodium, low potassium, fluid restricted)
- Special dietary products will often be required for such diets (e.g. gluten free bread for Coeliac disease and calcium enriched soy milk for Lactose Intolerance).
- Other diets may also require specific ingredients or items that may have to be purchased in from specialist suppliers. Some examples may include meals suitable for vegan diets and meals for Kosher and Halal diets.

7.3 Referral to Allied Health Professionals

Accredited Practising Dietitians (APDs) have the qualifications and skills to provide expert nutrition and dietary advice. APDs are university educated professionals who undertake ongoing training and education programs to ensure that they can provide the most up-to-date and credible source of nutrition information, in line with Dietitians Association of Australia (DAA) Professional Standards.

“APDs are trained to assess nutritional needs. They also assist people to manage health conditions and diseases using food as Medical Nutrition Therapy. APDs help treat a wide range of conditions including diabetes, heart disease, cancers, gastrointestinal diseases, food allergies, food intolerances, disordered eating as well as overweight and obesity.[44]

It is highly recommended that the provision of special diets includes some form of oversight by a dietitian. Involving an Accredited Practising Dietitian (APD) will certainly add value in:

- Undertaking menu development and review
- Reviewing and developing standard recipes which are essential to purchasing ingredients, nutritional quality, consistency of product, costs and allergen management
- Providing advice on dietary needs in relation to supporting communication around allergens, intolerances, sodium, potassium and protein
- Undertaking nutrition screening and assessment of customers who have small appetites; who have lost weight; or who are not eating well
- Providing details on restricted or included foods for certain medical conditions
- Providing professional review of individual customer’s nutritional needs

Speech Pathologists are university educated health professionals who diagnose and prescribe treatments for people who have speech and communication issues (e.g. stuttering), and/or dysphagia (difficulty swallowing). They prescribe texture modified diets (e.g. smooth pureed and moderately thick fluids) for people who have been individually assessed.

Occupational Therapists are university educated health professionals who strive to assist people with their activities of daily living. 'Occupation' refers to activities and Occupational Therapists assist people in the way they conduct their activities and/or manage the environment they live in. For example, they may recommend built-up cutlery, or rails in the home to assist safety.

For further details about the roles of these Allied Health Professionals, and how to refer customers to them, please contact their Australian associations as follows:

Dietitians Association of Australia (DAA)
www.daa.asn.au

Speech Pathology Australia (SPA)
www.speechpathologyaustralia.org.au

Occupational Therapy Australia (OTAUS)
www.otaus.com.au

Allied Health Professionals are funded under the CHSP and access to CHSP Dietitians (and other Allied Health Professionals such as a Speech Pathologist or Occupational Therapists) is via the My Aged Care. If a CHSP Allied Health Professional is not available, then My Aged Care will access a non-funded Allied Health Professional either in the public or private health sector. Alternatively, a referral to a private dietitian, speech pathologist or occupational therapist can be arranged by the customer's doctor under Medicare, via a Chronic Management Plan.

Many medical conditions require special dietary modifications. Several key modifications are summarised below.

7.4 Texture modification

Texture modified diets and thickened fluids are used for older people with swallowing difficulties (dysphagia) or poor dentition (modified diet texture to minimise chewing, but not usually thickened fluids). There are Australian Standards for Texture Modified Foods and Fluids, which outline the standardised texture modified diets (smooth pureed, minced and moist, soft) and fluids (mildly thick, moderately thick and extremely thick). These are called the *Australian Standards for Texture Modified Foods and Fluids*.[45]

It is extremely important that texture modified diets are consistent across the country as variations or unsuitable textures can have serious and life threatening outcomes such as choking, aspiration pneumonia and death. Referral to a Speech Pathologist is highly recommended for individual reviews and the prescription of suitably textured foods and fluids. They can also advise on the suitability of pre-made items from reputable external suppliers, in-house made items and commercial thickeners. Many premade items are available from reputable suppliers, if it is not possible to make them in-house.

People on texture modified diets are at an increased nutritional risk for several reasons such as:

- The monotony of the same texture
- Underlying medical reasons for the texture modified diet (e.g. a recent stroke)
- The loss of nutrients through blending and additional processing.

A variety of choices within the appropriate textures are important to assist in preventing texture fatigue. Suitable high protein, high energy choices, as well as strategies to enrich meals (that are appropriate to the texture requirement) should also be carefully considered (e.g. always using full cream products; adding cream). An APD can assist with advice in this area.

- Divided plates and containers may be of assistance for texture modified diets, as they allow food to be presented clearly as separate items. The divisions may also be helpful if a person has some difficulty feeding themselves as the divisions allow someone to push against them to assist putting food onto the fork or spoon.

- When meals have been texture modified, it is very important to tell the person what they are eating, as the visual cues of texture, shape and even colour may be missing. For example, it is difficult to tell the difference between chicken, turkey or pork when it has been pureed.

- Where available, the use of food moulds or buying in reshaped food to simulate the original look of food can enhance visual appeal. Some companies that sell texture modified individual reshaped items that look like the original item but are actually smooth pureed or minced and moist texture. These can increase the visual appeal of a texture modified diet. [46]

7.5 Diabetes

Older adults with diabetes should be able to select items from the regular menu. A sugar free diet is no longer required for a person with diabetes and special diet foods are not necessary.[34],[42] Small amounts of sugar can safely be included in foods; it is more important to focus on the portion size of the carbohydrate foods consumed at any one meal. Carbohydrate foods include bread, pasta, rice, potato, corn, fruit and dairy. A diet for diabetes should include a variety of foods from all of the food groups with a focus on eating regular meals and snacks that are based on *Healthy Eating for Adults: Eat for Health and Wellbeing* and are low in glycemic value.[13],[43] For more information about eating for diabetes, please refer to the Diabetes Australia website [42] as well as the resources listed in section 7.2. An excellent resource titled, *Healthy Eating. A guide for older people living with diabetes* is available [34] at the following link:

http://www.diabetesaustralia.com.au

7.6 Coeliac disease

A gluten free diet is an essential lifelong diet for people diagnosed with Coeliac disease. They are intolerant to the protein found in some cereal products called gluten. The diet must totally exclude gluten as it will cause damage to the small intestine which leads to malabsorption of nutrients with outcomes such as iron deficiency anaemia and osteoporosis. Gastrointestinal upsets, diarrhoea, mouth ulcers and headaches are some of the symptoms it causes. Eating gluten also increases their risk of developing cancers of the gastrointestinal tract. Gluten is found naturally in wheat (including spelt), rye, triticale, barley and oats. It is also found in many prepared products and ingredients such as starch, modified starch, cornflour, thickeners 1400-1450, dextrin and maltodextrin. However, ingredients derived from wheat need to be declared e.g. cornflour (wheat). If it is not declared to be from wheat, e.g. cornflour, it will be gluten free (GF). Learning to interpret a food label is very important. Coeliac Australia's Ingredient List phone App can assist here. Low gluten items are NOT suitable for Coeliac disease.

Naturally gluten free foods include fresh meats, fruits, vegetables, eggs, plain dairy, rice, rice noodles, polenta, psyllium, buckwheat, soy, millet, amaranth, sorghum and quinoa (food labels always need to be checked). A large range of GF products are available (e.g. GF bread, GF pasta, GF biscuits). If labelling the food produced gluten free, it is imperative that (i) the policy and procedure guidelines ensure no contamination of gluten during food storage and preparation and (ii) all ingredients used are gluten free (information from suppliers or reading food labels). Please see section 4.17 on Food Labelling Requirements. An APD can provide advice to service providers before they make any statements about any products being gluten free. Further information is also available from an Accredited Practising Dietitian and Coeliac Australia.[47]

http://www.coeliac.org.au

7.7 Food allergies

Food allergies can be **life threatening** and are the result of an immune response when a food is eaten.[48] Symptoms may include wheezing, swollen lips, swollen throat, a rash, vomiting or anaphylaxis, which means extreme difficulty breathing and in need of urgent medical assistance.

There are many food allergens, but the most common are: nuts, fish and shellfish, eggs and dairy. A person with a food allergy **must avoid** the foods to which they have had allergic responses.

Food allergies are different to food intolerances. Food intolerances do not involve the immune system and can cause various symptoms including: nausea, vomiting, joint aches, headache, rash and sore joints. Examples of substances that can cause food intolerances include lactose, amines, salicylates, MSG, added preservatives and colours. Customers may have more than one food intolerance and the amount of food they can tolerate will vary, as there is a threshold before symptoms occur, which varies between individuals.[48] Symptoms vary from person to person. The commonest ones are recurrent hives and swellings, stomach and bowel irritation, and headaches. Some people can feel vaguely unwell with flu-like aches and pains, or get unusually tired, run-down or moody.

For people with food allergies or food intolerances, it is essential that standard recipes are followed and that people can have confidence in the information available, or labelled on food products. Detailed information will be needed for people to make safe choices, which should also be in consultation with an APD and their doctor.

Further advice can be obtained from the two resources mentioned in section 7.2. A letter from the person's dietitian is also **required** so that meal service providers are clear about what foods need to be avoided.

Finally, it is essential that kitchens have a detailed procedures and/or step by step processes documented regarding allergies and food intolerances as part of their Food Safety Program. It is also vital that all staff are properly briefed and trained in relation to this issue.

For further information

For allergy

Australasian Society of Clinical Anaphylaxis and Immunology
www.allergy.org.au and

Anaphylaxis Australia
www.allergyfacts.org.au

For intolerance

Royal Prince Alfred Hosptial (RPAH) Allergy Unit
www.allergy.net.au

7.8 Renal disease

There are many different types of modifications for renal diets (for people with kidney disease). Common nutrients that need to be reduced are sodium and potassium. Some people might say that they are on a low sodium and low potassium diet, while some will also be on a fluid restriction.[41]

These diets are very important as their body is not as good at removing waste products (including urine), potassium and sodium, and high levels of these in the body can be **life threatening**. As the potassium content of meal items is not on food labels as yet, it is best to have the customer liaise with an APD and doctor about ingredient lists and the available nutrient content of meals, as well as the rest of their individual diet, in order to decide on the most appropriate meals. The availability of appropriate low potassium meal options are essential for customers requiring them, as too much potassium can lead to cardiac arrest and become **life threatening**.

7.9 Halal diets

- The Halal diet excludes pork, pork products (e.g. bacon, ham, salami, pork based stock, gelatine) and alcohol.
- The diet also excludes any foods or beverages stored, cooked or served in containers that have held pork, pork products or alcohol and any meat not prepared in accordance with Halal produce.
- Specialist Halal catered meal providers are routinely used to ensure that these requirements are met for customers receiving home delivered meal and centre based meals.

7.10 Kosher diets

- The Kosher diet must include Kosher meat (prepared by a specialist Kosher butcher) and exclude any foods or beverages stored, cooked or served in containers that have been in contact with non-Kosher produce.
- Kosher meat and milk/milk products must not come into contact with one another.
- There is an Australian Kosher Food Bulletin that strict followers of the Kosher Diet may use to guide their diet.
- Specialist Kosher catered meal providers are routinely used to ensure that these requirements are met for customers receiving home delivered and centre based meals.

7.11 Vegetarian diets

- There is no single definition of 'vegetarian' but people following a vegetarian diet usually need high protein alternatives to red meats, chicken and fish.
- There are different types of vegetarian diets. Some people may still eat fish (Pescetarian), while others will eat eggs but avoid dairy foods (Ovo Vegetarian). Others may eat eggs and dairy (Lacto Ovo Vegetarian).
- It is always best to enquire about which foods are eaten, and which are avoided if someone says they require a vegetarian diet. This way you can explore the best options in terms of choice to meet their nutrition needs.
- People who enjoy meals that do not include meat are not necessarily following a vegetarian diet, but may prefer some dishes that are mainly plant based.
- It is important to point out that it can be difficult to provide the same amount of protein as is provided in non-vegetarian dishes, without adding cheese and eggs to most dishes. Referral to an APD for individual dietary review is recommended.
- It is important to note that the vegetarian options outlined in the Meal Component Specifications (see section 4.3) do not meet the nutrient targets especially in regard to protein and minerals; making it more difficult for a customer choosing a vegetarian diet to meet their requirements. This highlights the need to choose a high protein entrée option and a high protein dessert option (e.g. a dessert with custard or yoghurt instead of cream), as well as the importance of protein rich snacks such as cheese and biscuits, milk and yoghurt.

7.12 Vegan diets

- People who follow a vegan diet generally choose to avoid all foods and beverages of animal origin. Their diet usually consists of fruits, vegetables, plant based oils, grains, legumes, lentils, beans, textured vegetable protein products, soy products, nuts and seeds.

- Vegan meals are often provided by external meal caterers who are familiar with providing varied meals with appropriate ingredients. Standard recipes and the revision of ingredient lists is especially important.

- It is very difficult to provide the same amount of protein and minerals as non-vegan dishes without adding enriched soy products, legumes, or fortified ingredients to all meals. Referral to an APD for individual dietary review is recommended.

- It is important that the ingredients complement each other, and that the meal has an enjoyable taste, texture, aroma and appearance.

- The Meals Component Specifications (see section 4.3) do not specifically outline vegan specific options. These options would often be purchased from specialist suppliers to ensure that vegan requirements are met (i.e. no products of animal origin are included). In these cases it is important to check their nutrition information panels against the Meal Component Specifications to compare information such as the amounts of energy and protein. It is also important that appropriate entrées and desserts are sourced that counterbalance protein and energy needs.

As mentioned in the introduction to this chapter, the information presented here has only summarised the key considerations. Additional information is provided in the accompanying resources, however this should not replace professional advice. Timely consultations with health professionals are highly recommended and are available to customers through the My Aged Care website.

A number of cultural and religious dietary considerations have been outlined in this section. It is important to find out what customers consume, and not to make assumptions about food choices.[41]

8. Conclusions and Further Recommendations

Key messages include:

- The Meal consists of an Entrée plus a Main Course and a Dessert
- The CHSP Meal is an important foundation for dietary intakes but additional food and beverage items are needed across the day
- The CHSP Meal aims to provide up to one-half of the daily requirements for protein, up to one-third of the daily requirements for energy, fibre and most other nutrients, with the exception of calcium
- Home delivered and centre based meals assist with socialisation, as well as providing nutrition
- Doctors and Allied Health Professionals are available for consultation and referral
- There is a focus on enjoyable, modular, varied and well presented meals using quality ingredients

These National Meal Guidelines incorporate recommendations regarding nutrition, presentation, portion size, flavour and packaging of home delivered and centre based meals for older Australians. They have been informed by extensive input with stakeholders (see Appendices 2-5 for details), as well as existing, related guidelines and standards and the scientific literature. They have adopted food focused, practical and modular approaches as recommended by stakeholders.

It is important that these National Meal Guidelines are a 'live' document that can be readily accessed and used, particularly by service providers, to ultimately assist customers. An evaluation and future updates are recommended to ensure that they can continue to meet and evolve with the future needs of older Australians receiving home delivered and centre based meals. To assist with future updates, a list of further recommendations from stakeholders is summarised below:

- Sharing standardised recipes
- Tools and further information about conducting recipe analyses
- Webinars and further training opportunities for service providers (e.g. nutrition screening)
- Additional web based content and fact sheets
- Pictorial guides for customers
- Validated questionnaires to review customer satisfaction with meals
- Review of food and beverage packaging
- Consideration of 'pantry box' options and other meal options (e.g. breakfasts and snacks)

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10. Appendices

Appendix 1: Resources and web links

The National Meal Guidelines serve as the national recommendations for home delivered and centre based meals for older Australians. They take a 'toolkit' approach in that they regularly summarise key points and refer to a range of other available resources and links for more information. The many resources and links that have been referred to throughout the Guidelines document are listed here.

Alzheimer's Australia
https://www.fightdementia.org.au

Dementia and Nutrition in the Home – Discussion Paper No. 14 (2015)
https://nsw.fightdementia.org.au

Eating Help Sheet
https://www.fightdementia.org.au/files/helpsheets

Nutrition Help Sheet
https://www.fightdementia.org.au/files/helpsheets

Anaphylaxis Australia
https://www.allergyfacts.org.au

Australian Society of Clinical Anaphylaxis and Immunology
https://www.allergy.org.au

Best Practice Food and Nutrition Manual for Aged Care Nutrition Services
Bunney C & Bartl R (2015) (2nd Edition). Central Coast Local Health District, Gosford.

http://www.cclhd.health.nsw.gov.au/ourservices/nutrition/Documents/BestPracticeFoodandNutritionManual-Edition2.pdf

Diabetes Australia
https://www.diabetesaustralia.com.au

Eating Well. A Nutrition Resource for Older People and their Carers
Bunney C & Bartl R (2015) (3rd Edition). Nutrition Services, Central Coast Local Health District, Gosford.

http://www.cclhd.health.nsw.gov.au/ourservices/nutrition/DocumentsEatingWellResource.pdf

Food and Friendships – Why Meals Need Wheels
http://www.uowtvmultimedia.com

Guidelines for Food Service to Vulnerable Persons (2015)
http://www.foodauthority.nsw.gov.au

Healthy Eating. A guide for older people living with diabetes
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https://www.eatforhealth.gov.au/sites/default/files/files/the_guidelines/n55g_adult_brochure.pdf

Indigenous Older People's Health Web Resource, within the Australian Indigenous Health Info Net
http://www.healthinfonet.ecu.edu.au

Meals on Wheels Best Practice Guidelines (2015) Victoria
http://www.mealsvictoria.org.au

Menus, Recipes and Nutrition. Meals on Wheels (SA) Inc. (2007) (2nd Edition), Adelaide.

My Aged Care
Ph: 100 200 422 or https://www.myagedcare.gov.au

Nutrition Manual. Dietitians Association of Australia (2014) (9th Edition), Canberra.

Nutrition Manual. Queensland Meals on Wheels Association Inc. (2012), Strathpine.

Nutrition Standards for Adult Inpatients in NSW Hospitals. NSW Agency for Clinical Innovation (2011), Chatswood.
https://www.aci.health.nsw.gov.au

Recipe Cards. NSW Meals on Wheels Association Inc. (2002), Sydney.

Safe Food Australia (2001), Canberra.
http://www.foodstandards.gov.au

Standard 1.2.1 of the Australia New Zealand Food Standards Code: Requirements to have labels or otherwise provide information
https://www.foodstandards.gov.au

Therapeutic Diet Specifications for Adult Inpatients. NSW Agency for Clinical Innovation (2011), Chatswood.
http://www.aci.health.nsw.gov.au

Appendix 2: Overview of the phases of the project

The National Meal Guidelines were underpinned by a review of the scientific literature and the application of age-appropriate Nutrient Reference Values (NRVs) to provide a framework for the nutritional adequacy of meals.[11] These Guidelines were developed by expert and steering group committees and consensus, with formal consultation with stakeholder groups informing their development throughout.

The following framework was concurrently applied:

1. Review of existing guidelines, standards and documents to inform the development of the draft National Meal Guidelines.

2. Review of the relevant scientific literature and evidence base to examine the impact of home delivered meals on the health and wellbeing of recipients.

3. Stakeholder engagement meetings to enable consultation on the National Meal Guidelines with meal service providers, customers and their families, dietitians and other health care providers.

4. Surveys of both meal service users, as well as service providers, caterers and health professionals to identify customers' meal and snack preferences and suggestions for Guidelines and future directions.

5. Development of meal planning guidelines that are food-based, practical and innovative which will meet nutritional recommendations.

The project was conducted in three phases, as follows:

Phase 1: Establishment of the Project Steering Group and collection of existing guidelines and standards

Current state based hospital standards, relevant aged care resources and community based resources served as background reference material. This included the NSW MOW guidelines (2002)26, the Meals on Wheels (SA) Inc. Menus, Recipes & Nutrition (2007) [21], the QLD MOW Nutrition Manual (2012) [20], the Best Practice Food and Nutrition Manual (2015) [24] and Eating Well. A Nutrition Resource for Older People and their Carers.[25] A systematic literature review was conducted to examine the scientific evidence base underpinning the development of the Guidelines. Four databases (Scopus, Web of Science, CINAHL and Medline) were searched for relevant articles about the food and nutrition requirements of older community living adults, and to identify the impact of guidelines on the provision of food-based interventions in this sector of the population.

Phase 2: Engagement and consultation with stakeholders

Widespread engagement and regular consultation was a critical component to the development of these Guidelines. In addition to five face-to-face meetings with the steering group, the consultation with stakeholder groups included:

- Six state based workshops were held with customers and representatives from MOW members (providers and managers), nutrition/health organisations and the food industry.
- The provision of an online survey for service providers, caterers and health professionals.
- The provision of a paper based survey for current customers receiving home delivered, and centre based meals.
- Individual interviews were conducted with stakeholders on the development, review and feedback on the final draft of the National Meal Guidelines.
- The involvement of key stakeholders in reviewing of the draft National Meal Guidelines.

Phase 3: Determination of the Meal Component Specifications for meals and the compilation of the National Meal Guidelines

The evidence based framework of the Australian Dietary Guidelines[12] and NRVs was taken into account in developing the National Meal Guidelines.[11] While the Australian Dietary Guidelines were not specifically designed for older people (who may have special nutritional needs), the Australian Guide to Healthy Eating provided a useful reference for determining portion sizes of nutritious foods.[13] This was applied to the Meal Component Specifications provided from various food groups within the entrée, main course and dessert options. The NHMRC approved NRVs for adults >70 years were applied to assure the nutritional adequacy of the suggested combinations of meals and foods. A team of Accredited Practising Dietitians (APDs) reviewed the Meal Component Specifications and the menu plans for nutritional adequacy and variety.

Appendix 3: Summary of the workshop consultation

Half-day face-to-face workshops were held in Perth, Brisbane, Melbourne, Launceston, Adelaide and Sydney during March-April 2016. These workshops aimed to seek and discuss the views and experiences of key stakeholders in planning for the National Meals Guidelines. These important consultative opportunities included 212 participants, of which 13 were customers, 151 were service providers and volunteers, and 48 were health professionals. The importance of customer focused guidelines was a common theme, with an emphasis on individual dietary requirements, as well as the taste, quality, presentation and cost of the meals.

Opportunities and issues

Participants reported positive experiences with other guidelines that use a flexible, step-by-step approach and include plenty of suggestions/ideas which together provide a realistic, practical method for achieving outcomes. It was reported that many of the current guidelines used are outdated, inflexible, complicated and filled with jargon which reduces people's ability to put them into practice without adequate training.

The National Meal Guidelines were described by the group as an opportunity to unify home delivered and centre based meal services in Australia, differentiating them from other services and increasing client/carer confidence. Participants also identified the opportunity to use the Guidelines as a marketing tool to continue to improve the perception of meal services, and as a political tool that may assist with funding applications. Generally, the group perceived the Guidelines as an opportunity to improve the quality of the meal service and the overall customer experience.

The difficulty in developing guidelines which are achievable by all services across Australia was a major issue identified by the group. It was felt that it would be difficult to get all services to adhere, particularly if the Guidelines were too rigid, too impractical or used too much jargon.

Key considerations

The top three areas most commonly reported as a priority for the Guidelines included:

1. Customer/carer education
2. Nutrition, particularly in relation to protein and energy
3. Special needs/diets, e.g. dementia, macular degeneration, diabetes

The inclusion of food focused, practical examples and the functionality of the Guidelines (i.e. flexible, easy to understand), was also frequently reported.

Format

The accessibility of the document by all potential users was a shared concern amongst participants. They recommended the development of both hard copy and web versions of the Guidelines, with the potential future development of brochures, recipes and training materials to accompany the Guidelines.

Participants suggested that the document align with the current Meals on Wheels (MOW) branding and have a high readability by adhering to the Vision Australia guidelines (appropriate text size with high contrast between text and background) and ensuring that words, sentences and examples are user friendly, practical and not too long. However, the group also acknowledged that the appearance of the document needed to suit the audience which reinforced the need for different versions for different users. It was also suggested that pages needed to be able to be removed (i.e. not a bound booklet) and/or printed (i.e. from the web version) to increase functionality and ease when updating the resource.

The inclusion of visual components throughout the Guidelines was also very important to the group, who recommended that relevant photos be used to break up the text (e.g. photos of plated meals or packaging), to provide practical examples, and to enhance visual appeal and engagement with the Guidelines. Practical videos and short clips could also be considered to complement priority areas.

Appendix 4: Summary of the customer survey

A paper based survey was distributed to service providers via state and territory offices during June-July 2016 for delivery to their customers. Ethics approval was obtained from the University of Wollongong Human Research Ethics Committee (HE16/193).

Surveys were completed by 337 customers (61% female) with an average age of 82 years. All states and territories were represented (the highest response was from New South Wales) and included customers from large country towns (23%), small country towns (27%) and major cities (50%). Sixty-six percent of the customers live alone, 93% identify as Australian and 50% have been receiving home delivered meals for between one and four years.

Key findings included the usage of frozen (57%), chilled (32%) and hot (31%) delivered meals, or a combination of these (as indicated by the percentages) at different times. Approximately one-half of the customers chose to eat their meals from the containers provided. Roast meals were very popular mains, as were crumbles, puddings and custard for dessert. For those customers receiving a three course meal, more than half of them indicated that they consumed a component of the meal separately (most often the soup or the dessert).

Customers were keen to have more opportunities to eat with others, which included having the option of additional meals being delivered for visitors, as well as social occasions away from the home. They were also interested in the availability of snacks and the option of pantry items being provided when required. The meal was highly valued, as were the social and monitoring aspects. With respect to the meal itself, the nutritional aspects, the taste and the portion size were rated as highly important.

Appendix 5: Summary of the service provider, caterer and health professional survey

An online survey was conducted via Survey Monkey® with 289 service providers, caterers and health professionals during June–July 2016. Ethics approval was obtained from the University of Wollongong Human Research Ethics Committee (HE16/241). The survey questions were developed following the workshop consultations and built on their findings. The questions also attempted to quantify current and future service activities, as well as recommendations for the National Meals Guidelines.

Participants were mostly female, with 47% being service providers, 9% caterers, 23% health care professionals, and 21% as 'other' (mostly volunteers and consultants). Forty-six percent of respondents were from major cities, 20% were from large towns, and 34% were from small towns. State and territory participation was: 1% ACT, 24% NSW, 1% NT, 36% QLD, 7% SA, 12% TAS, 12% VIC and 7% WA.

Forty-two percent of service providers prepared their own meals, 47% sourced meals elsewhere, and 11% prepared some meal items and sourced some meal items. The number of service providers who purchased meals from external suppliers was evident by the result that approximately seven main meal choices may be offered by some service providers and the variety of food service systems used. Sixty-four percent of service providers included some cook-fresh items, 37% incorporated cook-chill, 42% included some cook-freeze, and 24% used a combination of food service systems. Home deliveries made up the bulk of the services (57%), while centre based meals were 11% and 32% of services offered both options.

Up to 40% of service providers reported providing a soup, main meal and dessert as their usual course options. The most popular main meals included roast lamb, roast beef and roast chicken dishes. The most popular desserts were apple pie with custard, apple crumble and cheesecake. Approximately 21% of services stated that they requested a medical referral to provide a special diet.

The largest concerns regarding the development of National Meal Guidelines included: that they may be too restrictive and difficult to meet, especially for smaller services, or rural and remote services; that they may not be practical; that they are voluntary and may not be taken up by services; that the criteria may restrict the suppliers that meals can be purchased from; and that they may increase meal costs.

The perceived benefits of the National Meal Guidelines included: consistency across the country; a document that outlines the important contribution of CHSP home delivered and centre based meals; further useful nutrition and meal information and education for services and customers; cultural considerations; and quality assurance. A manual (print version and online), checklists, information brochures and training were all accompanying suggestions to enhance the implementation of the National Meal Guidelines.

Appendix 6: Malnutrition screening tools

Early identification of risk of malnutrition in customers is important and may prevent a rapid downward spiral in health and independence. Several screening tools are available to determine nutritional risk. The *Mini Nutritional Assessment Short Form* (MNA®-SF)[10] has been validated in community living older adults whereas other available tools have not been shown to specifically apply to older people.[49] The most useful instruments include the MNA®-SF[10] and the *Malnutrition Screening Tool* (MST).[9]

Malnutrition Screening Tool (MST)

Have you lost weight recently without trying?

- ► No 0
- ► Unsure 2
- ► If yes, how much weight (kilograms) have you lost?
  - 1–5 1
  - 6–10 2
  - 11–15 3
  - >15 4
  - Unsure 2

Have you been eating poorly because of a decreased appetite?

- ► No 0
- ► Yes 1

Total

Permission to reproduce this screening tool was obtained from Elsevier.

Interpreting the score from the Malnutrition Screening Tool

If the total score is ≥ 2, the customer is likely to be underweight and/or at risk of malnutrition and should be assessed by a dietitian. In these situations, timely referral to a doctor and APD via your meal service procedures is required.

It is important to note that overweight or obese customers can still have protein and nutrient deficiencies that can often be missed. Unintentional weight loss in these customers may be equally detrimental as they will also lose muscle mass.

References:

9. Ferguson M, Capra S, Bauer J, Banks M. 1999. Development of a valid and reliable malnutrition screening tool for adult acute hospital patients. Nutrition;15, 458-64.

50. Banks M, et al. Malnutrition and Pressure Ulcers in Queensland Hospitals. Proceedings of 22nd DAA Conference, Melbourne 2004. Abbott Australasia Pty Ltd.

Note: The wording in this interpretation section has been modified from 'patients' to 'customers' to reflect the population.

Mini Nutritional Assessment
MNA®

Nestlé NutritionInstitute

Last name: First name:

Sex: Age: Weight, kg: Height, cm: Date:

Complete the screen by filling in the boxes with the appropriate numbers. Total the numbers for the final screening score.

Screening

A Has food intake declined over the past 3 months due to loss of appetite, digestive problems, chewing or swallowing difficulties?
0 = severe decrease in food intake
1 = moderate decrease in food intake
2 = no decrease in food intake ☐

B Weight loss during the last 3 months
0 = weight loss greater than 3 kg (6.6 lbs)
1 = does not know
2 = weight loss between 1 and 3 kg (2.2 and 6.6 lbs)
3 = no weight loss ☐

C Mobility
0 = bed or chair bound
1 = able to get out of bed / chair but does not go out
2 = goes out ☐

D Has suffered psychological stress or acute disease in the past 3 months?
0 = yes 2 = no ☐

E Neuropsychological problems
0 = severe dementia or depression
1 = mild dementia
2 = no psychological problems ☐

F1 Body Mass Index (BMI) (weight in kg) / (height in m)^2
0 = BMI less than 19
1 = BMI 19 to less than 21
2 = BMI 21 to less than 23
3 = BMI 23 or greater ☐

IF BMI IS NOT AVAILABLE, REPLACE QUESTION F1 WITH QUESTION F2.
DO NOT ANSWER QUESTION F2 IF QUESTION F1 IS ALREADY COMPLETED.

F2 Calf circumference (CC) in cm
0 = CC less than 31
3 = CC 31 or greater ☐

Screening score (max. 14 points)

12 - 14 points: Normal nutritional status
8 - 11 points: At risk of malnutrition
0 - 7 points: Malnourished ☐☐

References

1. Vellas B, Villars H, Abellan G, *et al.* Overview of the MNA® - Its History and Challenges. *J Nutr Health Aging.* 2006;**10**:456-465.
2. Rubenstein LZ, Harker JO, Salva A, Guigoz Y, Vellas B. Screening for Undernutrition in Geriatric Practice: Developing the Short-Form Mini Nutritional Assessment (MNA-SF). *J. Geront.* 2001; **56A**: M366-377
3. Guigoz Y. The Mini-Nutritional Assessment (MNA®) Review of the Literature - What does it tell us? *J Nutr Health Aging.* 2006; **10**:466-487.
4. Kaiser MJ, Bauer JM, Ramsch C, et al. Validation of the Mini Nutritional Assessment Short-Form (MNA®-SF): A practical tool for identification of nutritional status. *J Nutr Health Aging.* 2009; **13**:782-788.

For more information: www.mna-elderly.com

Permission to reproduce this screening tool was obtained from Nestlé.

Appendix 7: Nutrient calculations and rationale for the reference person

For most people, the idea of a meal is primarily a social, not a nutritional, concept. The New Oxford English Dictionary defines a meal as 'any of the regular occasions in a day when a reasonably large amount of food is eaten'.[50] However, meals can be distinguished in three different ways: [51]

1. Meal format describes the composition of the meal and the sequence of foods consumed (eg, entrée, main course and dessert).

2. Eating pattern is defined by three different elements: time, the number of eating events, and the alternation of hot and cold meals and snacks.

3. Social organisation describes where and with whom people eat and who did the cooking.

For providers of home delivered or centre based meals, the meal format is the primary focus of these guidelines, encompassing nutritional standards for individual food items and the overall meal plan.

The 1977 Commonwealth Department of Health Nutrition Guidelines for Meals on Wheels (Commonwealth Department of Health 1977)[52] were used in the Victorian Home and Community Care (HACC) Guidelines for Delivered Meals (Department of Health 2013)[53] and recommended that a meal should provide:

i) Two-thirds of the recommended dietary requirements for vitamin C;

ii) One half of the dietary requirement for other vitamins (vitamin A, thiamin, riboflavin, niacin), protein and minerals (calcium, iron); and

iii) At least one-third of the dietary requirement for energy.

This guidance now seems somewhat outdated for two reasons. Firstly it appears to be based on the assumption that only three meals are consumed per day – similar to the requirements in the US, where the standards for nutrition programmes for older Americans require that a meal provide one third of the recommended dietary requirements.[54] However several reports suggest that this assumption does not properly describe modern eating practice in Australia.

- One study of data from the 1995 National Nutrition Survey analysed the percentage of energy consumed at different eating occasions.[55] The authors reported that Australians consumed three main meals and two to three snacks per day. In adults aged 70 years and over the snacks provided 23% of the daily energy intake, with only 77% from the three main meals (19% at breakfast, 23% at lunch and 35% at dinner).

- A second Australian study of 2410 adults recorded the number of their eating occasions per day, and found it ranged from 1-10. The most frequent number of meals consumed per day was 4 for men and 5 for women.[56]

Secondly, the nutrients that are specified in the HACC definition do not appear to be the most important to the older population in Australia today. In the 2011/12 Australian Health Survey, the nutrients most at risk in the diets of Australians aged >70 years (with mean intakes less than 80% of the recommended levels) were calcium, vitamin B6 and magnesium.[19] Generally energy and protein intakes were more than adequate, and intakes of iron and vitamins A, B1, B2, B12, C, E and folate were also all above requirements. Dietary fibre intakes (25g for men and 21g for women) were marginal at around 16% below the estimated adequate levels.

The results from 2011/12 Australian Health Survey suggest which nutrients are likely to be inadequate in the diets of older Australians and it thus makes sense to assess the overall adequacy of home delivered meals by ensuring that these nutrient requirements are provided by the meal.[19] Table A1 sets out the nutritional requirements of relatively inactive 75 year olds, according to the NRVs for Australia and New Zealand.[11] It derives a target that can be used for meal planning purposes, assuming that the delivered meal provides up to one-half of the daily requirements for protein, up to one-third of the daily requirements for energy, fibre and most other nutrients, with the exception of calcium.

The nutrient targets for men have been adopted to ensure that adequate nutrient amounts can be provided in 'a meal' for men and women. It is acknowledged that women make up approximately 65% of customers, thus there may be some waste, however the higher values were chosen to ensure adequate amounts for all. [58]

Table A1.Target nutrient requirements for home delivered and centre based meals

	75yo Male 164.7cm, PAL = 1.4 *	75yo Female 155.7cm, PAL = 1.4 *	Nutrient Targets for CHSP Meal #
Energy kJ	7800	6900	**2600kJ**
Protein g	81	57	**40g**
Dietary Fibre g	30	25	**10g**
Calcium mg	1300	1300	**200mg**
Vitamin B6 mg	1.7	1.5	**0.57mg**
Magnesium mg	420	320	**140mg**

* Median height of Australians over 75 years in the 2011/12 Australian Health Survey[19]
PAL = physical activity level

Based on one-half of daily requirements for protein and one-third for energy, fibre and most other nutrients, with the exception of calcium for a male >70 years.

A change to the previous recommendations is that the calcium target is now set to represent a realistic achievable target of only one dairy serve provided in the CHSP Meal. It was previously one-half of the daily target, however calcium requirements have increased since the earlier Guidelines were released and it is harder to meet the one-half of the target in 'a Meal'. In consideration of this, there are numerous references to calcium in foods and the importance of nourishing snacks also (e.g. yoghurt, or cheese and biscuits, or a milkshake). Please see pages 67-68.

In addition to these nutrient targets, *Healthy Eating for Adults. Eat for Health and Wellbeing* recommend the number of serves of key food groups that should be consumed for good health.[13] Table A2 gives the values for men and women aged >70 years.

Table A2. Recommended minimum daily serves for men and women 70+ years

Food Group	Number of serves: Men	Number of serves: Women
Cereal foods (eg. Bread, pasta, rice, etc)	4.5	3
Vegetables	5	5
Fruits	2	2
Dairy	3.5	4
Meat and alternatives (eg. Meat, chicken, fish, soy etc)	2.5	2

Not all of these daily serves can be included in just one meal. However, they provide a means of educating customers about which food groups are necessary (in addition to their provided meal) to balance their overall daily diet. Appendix 8 contains further information about daily nutrition requirements.

Appendix 8: CHSP meal combinations and additional foods needed to meet daily nutrition requirements

Some alternative ways to meet nutrient targets

There are many alternative meal combinations that can be offered to clients to meet their daily nutrient targets. Ideally, service providers will tailor their meal offerings to suit the lifestyle and preferences of their clients. While the average of all of the combinations meets the requirements for men for a CHSP Meal (2600 kJ energy and 40g protein), some combinations do not meet the recommendations for men for protein and/or energy **(shown in bold)**, and several that also do not meet the protein recommendation for women **(shown with an *)**. It is important that these combinations are not offered often and are only present for variety. Table 4.3 and Table 4.4 provide a menu cycle and a sample menu to favour the routine offering of the higher quality nutrition items. For illustration, the range of combinations is outlined below. The analyses are based on sample Meals using the meal component specifications and nutrient analyses using FoodWorks 8.

Table A3. The approximate protein and energy provisions from the various Meal combinations

Food Group	Energy (kJ)	Protein (g)
M & V Soup/Main/Dairy Dessert	3700	49
Combo Soup/Main/Dairy Dessert	3700	47
Vege Soup/Main/Dairy Dessert	3600	41
Combo SW/Main/Dairy Dessert	4100	47
Plain SW/Main/Dairy Dessert	4500	49
Meat Entrée Salad/Main/Dairy Dessert	3900	45
M & V Soup/Combo/Dairy Dessert	3400	**34**
Combo Soup/Combo/Dairy Dessert	3400	**32**
Vege Soup/Combo/Dairy Dessert	3300	**26***
Combo SW/Combo/Dairy Dessert	3800	**32**
Plain SW/Combo/Dairy Dessert	4200	**34**
Meat Entrée Salad/Combo/Dairy Dessert	3600	**30**
M & V Soup/Main/Pies or Crumbles or Cakes or Puddings	3500	52
Combo Soup/Main/Pies or Crumbles or Cakes or Puddings	3500	50
Vege Soup/Main/Pies or Crumbles or Cakes or Puddings	3400	44
Combo SW/Main/Pies or Crumbles or Cakes or Puddings	3900	50
Plain SW/Main/Pies or Crumbles or Cakes or Puddings	4300	52

Food Group	Energy (kJ)	Protein (g)
Meat Entrée Salad/Main/Pies or Crumbles or Cakes or Puddings	3700	48
M & V Soup/Combo/Pies or Crumbles or Cakes or Puddings	3200	**37**
Combo Soup/Combo/Pies or Crumbles or Cakes or Puddings	3200	**35**
Vege Soup/Combo/Pies or Crumbles or Cakes or Puddings	3100	**29**
Combo SW/Combo/Pies or Crumbles or Cakes or Puddings	3600	**35**
Plain SW/Combo/Pies or Crumbles or Cakes or Puddings	4000	**37**
Meat Entrée Salad/Combo/Pies or Crumbles or Cakes or Puddings	3400	**33**
M & V Soup/Main/Fruit plus Dairy Desert	2900	49
Combo Soup/Main/Fruit plus Dairy Desert	2900	47
Vege Soup/Main/Fruit plus Dairy Desert	2800	41
Combo SW/Main/Fruit plus Dairy Desert	3300	47
Plain SW/Main/Fruit plus Dairy Desert	3700	49
Meat Entrée Salad/Main/Fruit plus Dairy Desert	3100	45
M & V Soup/Combo/Fruit plus Dairy Desert	2600	**34**
Combo Soup/Combo/Fruit plus Dairy Desert	2600	**30**
Vege Soup/Combo/Fruit plus Dairy Desert	**2500**	**26***
Combo SW/Combo/Fruit plus Dairy Desert	3000	**32**
Plain SW/Combo/Fruit plus Dairy Desert	3400	**34**
Meat Entrée Salad/Combo/Fruit plus Dairy Desert	2800	**30**
Average	3433	40

Legend:

SW: Sandwich, **Combo SW:** Combination sandwich, **Plain SW:** Plain sandwich, **M & V Soup:** Meat/Legume and vegetable soup, **Vege Soup:** Vegetable soup, **Main:** Main meal, **Combo:** Combination dish (main meal)

Some suggestions for the number of additional serves of breads and cereals, fruit, vegetables, dairy, fortified dairy alternatives and meat/meat alternatives are outlined over the following pages. Additional drinks also need to be included

Example 1: Meat and Legume Soup/Main Meat Meal/Dairy Dessert

This outline makes suggestions about additional daily requirements when a customer chooses the above Meal combination.

This Meal combination provides approximately:
0 Bread/Cereal, 2 Meat, 4 Vegetable, 0 Fruit and 1 Dairy serves

Additions recommended for a Male:
4.5 Bread/Cereal, 0.5 Meat, 1 Vegetable, 2 Fruit and 2.5 Dairy serves

Additions recommended for a Female:
3 Bread/Cereal, 0 Meat, 1 Vegetable, 2 Fruit and 3 Dairy serves

Meal	Suggestions for a Male	Suggestions for a Female
Breakfast	1-2 Slices of Toast with Baked Beans **AND** 1 Cup of Milk	1/2 Cup of Porridge with a Cup of Milk OR 2/3 Cup of Cereal with a Cup of Milk
Morning Tea	Pear (fresh or canned) **AND** 20g Cheese and Crackers	Chocolate Milk OR Milk Coffee **AND** Toast with Spread and Honey
Lunch	Main Meat Meal **PLUS** Dairy Dessert	Main Meat Meal **PLUS** Dairy Dessert
Afternoon Tea	Banana **AND** 1 Cup of Milk/Flavoured Milk OR 200g Fruit Yoghurt	20g Cheese, Carrot Sticks and Crackers **AND** Apple OR Orange Juice
Dinner	Meat and Legume Soup **AND** 30g cold Meat and Salad Sandwich	Meat and Legume Soup **AND** Pear **AND** 200g Yoghurt OR a Cup of Milk

Example 2: Combination Soup/Combination Meal/Fruit plus Dairy Dessert

This outline makes suggestions about additional daily requirements when a customer chooses the above Meal combination.

This Meal combination provides approximately:
0 Bread/Cereal, 1.5 Meat, 3.5 Vegetable, 1 Fruit and 0.5 Dairy serves

Additions recommended for a Male:
4.5 Bread/Cereal, 1 Meat, 1.5 Vegetable, 1 Fruit and 3 Dairy serves

Additions recommended for a Female:
3 Bread/Cereal, 0.5 Meat, 1.5 Vegetable, 1 Fruit and 3.5 Dairy serves

Meal	Suggestions for a Male	Suggestions for a Female
Breakfast	1-2 Slices of Toast with Baked Beans **AND** 1 Cup of Milk	1 Slice of Toast with Baked Beans OR Cheese **AND** 1 Cup of Milk
Morning Tea	Cheese and Crackers	Chocolate Milk OR Milk Coffee **AND** Toast with Spread and Honey
Lunch	Combination Meal **PLUS** Fruit plus Dairy Dessert	Combination Meal **PLUS** Fruit plus Dairy Dessert
Afternoon Tea	Apple **AND** 1 Cup of Milk/Flavoured Milk OR 200g Fruit Yoghurt	Peach **AND** 200g Yoghurt OR 1 Cup of Milk/Flavoured Milk
Dinner	Combination Soup **AND** 30g Cold Meat and Salad Sandwich	Combination Soup **AND** 30g Cold Meat and Salad Sandwich **AND** 1 Cup of Milk/Flavoured Milk

In my mind, accessing good food is an entitlement, regardless of age, and should not be the exception. Achieving this goal takes a combined and committed effort from all involved; providers of meal services should always be challenging themselves and aspiring to do better, so we can all set a benchmark for best practice and always ask ourselves; would we be happy if we were the recipient?

These guidelines are a great step towards providing the advice so many individuals and groups are looking for; offering a collection of simple but practical tips to compliment the meals provided with everyday food choices to support optimal living.

I can think of no better way to respect our elderly than by providing them access to good food.

I truly believe that with help from so many committed people we can bring about life-altering change to the well-being of the elderly by having access to food full of flavour and nutrients. My hope is that every meal can give comfort and pleasure, always something to look forward to, and that these guidelines become an important reference tool for anyone providing meal services for older Australians.

Maggie Beer, Founder
Maggie Beer Foundation