



Public Health
England

Healthier and More Sustainable Catering

A toolkit for serving food to adults

Includes useful information for organisations aiming to meet
Government Buying Standards for Food and Catering Services

About Public Health England

Public Health England's mission is to protect and improve the nation's health and to address inequalities through working with national and local government, the NHS, industry and the voluntary and community sector. PHE is an operationally autonomous executive agency of the Department of Health.

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1. Executive summary

- 1.1 This toolkit supports all those working within national and local government, the NHS, voluntary and community sector and food related businesses who want to offer consumers a choice of affordable, healthy and sustainable food.
- 1.2 This toolkit also summarises government dietary recommendations for achieving a healthy diet as described in *Healthier and More Sustainable Catering: Nutrition principles*.
- 1.3 The information presented in this toolkit supports Government Buying Standards for Food and Catering Services (GBSF) to ensure food sold to consumers is produced to higher sustainability and nutritional standards, and more sustainable catering service provision.
- 1.4 Table 2 provides summary information to help those buying, preparing and serving food. Support tools are also provided, including a GBSF checklist and case studies to guide all those responsible for food to achieve healthier, sustainable provision.

2. Introduction

Why is this toolkit important?

- 2.1 Food and drink sales in public sector organisations accounted for £2.1 billion (6.5%) of total sales in the food service sector in 2011.¹
- 2.2 The Department of Health estimates costs to the NHS of treating the health effects of poor diets to be around £5 billion per year.²
- 2.3 Organisations serving or selling foods to adults can enable positive changes to the diet of the nation by reducing foods high in saturated fat, salt and sugar and increasing provision of higher fibre foods, fruit, vegetables and oily fish.
- 2.4 This includes government departments, hospitals, residential care homes, local authorities, prisons, other workplaces, community venues such as temples and museums and educational establishments such as universities and further education colleges.
- 2.5 The practical guidance included in this toolkit enables organisations to offer people a “healthy food experience” that is a selection of food and drink which meets their daily nutritional needs in a sustainable way.

Who is this toolkit for?

- 2.6 This toolkit will be of interest to:
 - those involved in commissioning catering services for large organisations
 - catering managers, chefs and cooks responsible for the preparation, cooking and serving of food
 - caterers, procurement and sustainability managers within organisations that must meet or have voluntarily chosen to adopt GBSF
 - those responsible for purchasing food or food ingredients for use in catering
 - organisations, caterers and procurement managers with an interest in delivering healthier and more sustainable catering either within the workplace or in the wider catering industry
 - public health professionals advising organisations on how to meet healthier standards
 - businesses developing new foods for the general public

What information does this toolkit contain?

- 2.7 This toolkit contains practical information and useful tips to help those within large organisations to buy, cook and serve healthier, more sustainable food.
- 2.8 The guidance does not make recommendations for individuals or groups with clinical conditions who may require specialised dietary interventions.
- 2.9 This toolkit also provides example, analysed menus that meet the nutrient based standards described in *Healthier and more sustainable catering: Nutrition principles*.
- 2.10 Information on food hygiene, cultural/religious needs, allergy and calorie labelling is also covered. Additional information on food hygiene and food safety is included in the appendices.
- 2.11 Practical information included in this toolkit refers to **Government Buying Standards for Food and Catering Services** (GBSF – see Appendix 1). GBSF ensures that:
- foods procured are served to higher nutritional standards
 - foods are produced to higher sustainability standards
 - procurement of catering operations meets higher sustainability standards, eg through reducing food waste

3. Background

Diet and health

- 3.1 Data from the National Diet and Nutrition Survey of Adults (NDNS)³ (2008/2009 – 2010/2011) tells us that, on average, the population consumes too much saturated fat, salt and sugars, and eats too little fibre, fruit and vegetables and oily fish than is recommended. We also know that some sections of the population have intakes of some vitamins and minerals below recommended levels.
- 3.2 Diets high in salt and saturated fat but low in fish, fruit, vegetables and fibre increase the risk of high blood pressure, cardiovascular disease and some cancers. Consuming foods and drinks that are high in fat and non-milk extrinsic sugars (NMES, often referred to as added sugars but also includes sugars in fruit juice and honey) too frequently can contribute to excess energy intake and weight gain. Obesity carries with it many negative effects on health.
- 3.3 The government recommends that everyone eats a diet that contains:
 - plenty of starchy foods such as potatoes, rice, bread and pasta (choosing wholegrain varieties or eating potatoes with their skins on for more fibre)
 - plenty of fruit and vegetables; at least five portions of a variety of fruit and vegetables a day
 - some meat, fish, eggs, beans and other non-dairy sources of protein
 - some milk and dairy products, choosing reduced fat versions, eating smaller amounts of full fat versions or eating them less oftenand just a small amount of foods and drinks high in fat, salt and/or sugar.
- 3.4 It is also important to avoid dehydration and so it is recommended that people drink between six to eight glasses (about 1.2 litres) of water, or other fluids, every day.
- 3.5 These government recommendations are reflected in the eatwell plate. This is a pictorial representation of the types and proportions of food that should be eaten to make a well-balanced, healthy diet. The eatwell plate balance does not need to be achieved at every meal; it is a guide to getting the balance right over time such as each day, or over the course of a week. The eatwell plate can be applied to snacks as well as meals.

Figure 1: The eatwell plate



Key nutrition principles

- 3.6 The nutrient-based standards used to develop menus in this toolkit use evidence from the government's national diet and nutrition survey and sets targets for a range of nutrients consumed in excess or in insufficient amounts by adults aged 19-74 years (see Appendix 2). The basis for setting these targets are covered in the companion document *Healthier and More Sustainable Catering: Nutrition principles*.
- 3.7 These principles define an average population requirement which is the dietary reference value for each nutrient listed as a minimum, average or maximum provision and in addition set targets for those nutrient intakes in excess or insufficient amounts. However, it is important to recognise that low intake of a nutrient does not necessarily indicate a deficiency.
- 3.8 In 2011, The Scientific Advisory Committee on Nutrition (SACN)⁴ reviewed energy requirements and recommended levels of energy intake required to maintain a

healthy body weight in otherwise healthy people at levels of physical activity at that time. The updated SACN energy requirements for men and women are slightly higher than previously recommended. However, in light of the high levels of overweight and obesity in the UK population, the government continues to advise that, as a guide, men and women should consume 10.5MJ (2500kcal) per day and 8.4MJ (2000kcal) per day, respectively. These values are readily understood, are not meaningfully different to SACN's updated recommendations and are the basis of the average population energy requirement provided in Table 1 (9.4 MJ/2250kcal per day).

Table 1. Nutrient-based standards for adults aged 19-74 years

Nutrient	Average population requirement (provided as daily averages over seven days)	Recommended target for areas of excess or insufficiency (provided as daily averages over seven days)
Energy* (MJ/kcals)	9.4/2250	
Total fat (g)	Max 87.5	Less than 85.8
Saturated fat (g)	Max 27.5	Less than 27.0
Carbohydrate (g)	Min 300	
NMES (g)	Max 66.0	Less than 64.7
Fibre (as NSP) (g)	18	
Protein (g)	Min 50	
Sodium (mg)	Max 2400	Less than 2352
Salt (equivalent g)	Max 6.0	Less than 5.9
Calcium (mg)	700	More than 700
Iodine (µg**)	140	More than 140
Iron (mg)	14.8	More than 14.8
Magnesium (mg)	300	More than 300
Potassium (mg)	3500	More than 3500
Selenium (µg**)	75	More than 75
Zinc (mg)	9.5	More than 9.5
Riboflavin (mg)	1.3	More than 1.3
Folate (µg**)	Min 200	More than 200
Vitamin A*** (µg**)	700	More than 700
Vitamin D (µg**)	Min 10****	

* If only considering adults aged 60-74 years average energy requirements is lower

** µg = micrograms. 1000 micrograms = 1 milligram (mg)

*** Retinol equivalents = Retinol + (beta-carotene divided by 6)

**** Some population groups will need supplementary vitamin D, see paragraph 3.10

- 3.9 The nutrient based standards shown in Table 1 are for illustrative purposes for adults aged 19-74 years only. Insufficiencies for adults can include the micronutrients in Table 1. However, nutrient based standards should be determined based on nutrient requirements and potential nutrient insufficiencies for different population groups. Registered nutritionists or dietitians are able to develop appropriate nutrient based standards for particular groups reflecting current evidence of nutrient intake (eg using current data from the government's National Diet and Nutrition Survey) and nutrient requirements.
- 3.10 Certain groups within the population may have particular dietary requirements that are not easily met within a planned menu. In some settings, targeted advice to these groups may be possible or appropriate. Caterers need to ensure that they cater for people with specific medical needs as they may have different requirements – these should be met on an individual basis. Some groups may also need to take supplements. For adults, these include:
- women who could become pregnant or who are planning a pregnancy are advised to take an additional 400 micrograms (μg) of folic acid per day as a supplement from before conception until the 12th week of pregnancy. In addition to this, they should also eat folate rich foods such as, green vegetables, some fruits (oranges for example) and fortified breakfast cereals (making a total of 600 μg of folate per day from both folate rich foods and a supplement)
 - some adult groups of the population at risk of not getting enough vitamin D and the Department of Health recommends they take a daily supplement. These groups are:
 - all pregnant and breastfeeding women (10 $\mu\text{g}/\text{day}$)
 - all people aged 65 and over (10 $\mu\text{g}/\text{day}$)
 - people who are not exposed to much sun, such as people who cover up their skin when outdoors, or those who are housebound or confined indoors for long periods (10 $\mu\text{g}/\text{day}$ for adults)
 - people who have darker skin, for example people of African, African-Caribbean and South Asian origin are also at risk of vitamin D deficiency because their bodies are not able to make as much vitamin D

4. Taking action

Offer balance and variety

- 4.1 Healthier and more sustainable catering practice starts with senior leadership commitment to change, organisational buy-in and a plan designed around this. This commitment should be described in the organisation's food policy. The accompanying implementation plan should incorporate a review of procurement systems and processes, menu development and a communications plan that promotes healthier and more sustainable food practices to the public. All individuals involved in catering should be aware of and working towards the whole plan.
- 4.2 Most organisations have contracts with companies that supply catering goods and services. It is important that mandatory and/or best practice criteria are included in contract specifications. These standards can be clearly set out to contractors and suppliers from the beginning of the procurement process, as well as throughout the contract management phase. This applies to both procuring goods (equipment, ingredients and food products) and catering services (chefs and catering support staff).
- 4.3 Through careful buying of foods and ingredients, procurement managers, menu planners and catering managers can reduce the salt, saturated fat and added sugars content and increase the fibre, fruit, vegetables and fish in the food they provide. By doing this they can make a positive impact on the dietary health of those who consume the food provided. This is particularly true where people eat most or all of their food in such settings, eg within a residential settings.
- 4.4 A healthier menu is varied and balanced, uses a range of cooking methods and includes appetising food and drink. It does not exclude or ban foods that are higher in fat, salt and sugars or methods of cooking like frying. However, it does offer choice and variety.
- 4.5 Table 2 provides ideas on how to start planning a healthier, more sustainable catering facility. A description of each food group is provided followed by tips on choosing, cooking and serving foods as well as guidance on allergies, food safety and cultural preferences.
- 4.6 Appendices 3 to 5 provide additional information on fruit and vegetables, food hygiene and allergen labelling.

- 4.7 Case studies, including those from PHE's own staff buildings, Hull and East Yorkshire Hospitals NHS Trust and the British Heart Foundation's "Social Cooking Project", demonstrate how it is possible to offer a range of healthy food options within a diverse range of settings.

Government agency's catering service is leading by example

Public Health England is boosting the popularity of meals by focusing on healthy, sustainable, freshly cooked ingredients.

The meal deals in PHE canteens are not only good value for money but good for health and the environment. Currently, catering services in PHE's own staff buildings are provided by facilities management company EMCOR, working in partnership with the Catering Academy. Providers have worked together with PHE to build a food service that will be fully compliant with GBSF mandatory standards by April 2014. PHE staff restaurants offer diners several types of meal choice, with a hot counter, a deli counter for freshly made sandwiches and soups, a salad bar, and a "Grab and go" area for snack items such as yoghurts, fruit salads and pre-packed sandwiches. No matter which area diners choose from, they are offered foods that support healthy eating as the current catering service meets all GBSF mandatory nutritional criteria. Achievements around supporting healthy eating are matched by environmental standards. For example, all eggs are free range, fish is certified sustainable and more than 50% of tea/coffee is certified as fairtrade. Food waste has been reduced to around 3% or less and is digested into compost at one of two sites.

The vast majority of the food is freshly prepared, with the emphasis on menus that promote seasonal produce. All sauces, soups and stocks are made on site and no ready meals are bought in. The winter 2013 menu features meals such as "Honey and cinnamon baked ham with winter spices, crispy roasted seasonal potatoes, winter greens, roasted carrots and a parsley sauce" and "Roasted winter veg crumble in a light white sauce topped with a crumbly oat crust served with a rich tomato sauce". The redesigned salad bar has been a success, with offerings changing every day and based around the seasons. Where foods are purchased in, more than 50% meet Responsibility Deal salt targets for items such as breakfast cereals, pre-packed sandwiches, breads, and meat products such as bacon and sausages. Meat products, biscuits, cakes and pastries are also lower in saturated fat. Semi-skimmed milk is used as standard, and 70% of the hard, yellow cheese used in recipes has a maximum total fat content of 25g/100g. More than 50% of desserts on offer are fruit-based and a portion of fruit is cheaper than an equivalent portion of hot or cold dessert. Chefs include oily fish on the menu several times a week, tempting people with different tastes by offering it on the salad counter, "Fresh sardines with chilli and spring onion", hot counter "Thai salmon, vegetables and noodles" and in a mix of sandwiches. The catering services also make achievements in GBSF best practice criteria, with vending at most locations offering sugary drinks in 330ml portions as maximum, savoury snacks in packs not greater than 35g and confectionery in the smallest standard serving size.

Regular newsletters and events help raise awareness among PHE staff of the benefits of healthy eating. Chefs are trained in GBSF and supported with tools such as a seasonality calendar. Increased costs associated with some of the changes have been offset by increasing revenues from higher uptake of meals.

See Appendix 7 for case study contact details.

Table 2. Food based guidelines for caterers to choose, cook and serve healthier food to adults

Bread, rice, potatoes pasta and other starchy foods	
Guidance	<ul style="list-style-type: none"> • Starchy foods should make up about a third of the daily diet. • Offer wholegrain varieties where possible, which are often higher in fibre and other nutrients.
What foods are included?	<ul style="list-style-type: none"> • All breads including wholemeal and granary bread, pitta bread, chapattis, tortillas and bagels. • Potatoes, plantain, yam, sweet potato, squash and cassava (where sweet potato or squash are eaten as a vegetable portion to a main meal, they do not count as a starchy food). • Breakfast cereals. • All rice, couscous, bulgar wheat, semolina, tapioca, maize, cornmeal, quinoa. • All noodles (including rice, soba and egg noodles) and pasta. • Other grains eg oats, millet, barley, buckwheat, rye, spelt, bulgar (cracked wheat).
Why are these foods important?	<ul style="list-style-type: none"> • Foods from this group are a good source of energy and the main source of a range of nutrients in the diet. • As well as starch, these foods supply fibre: <ul style="list-style-type: none"> ○ Insoluble fibre in wholegrain bread, brown rice, fruit and vegetables helps to keep bowels healthy and help prevent constipation. • These foods can also provide a good source of folate, riboflavin and iron.
Tips on choosing starchy foods	<ul style="list-style-type: none"> • Ask suppliers for information on the salt, fat, saturated fats and sugars in their products. Use Tables 3 and 4 to identify products as “high, medium or low” in salt, fat, saturated fat and sugar. • Choose products that meet Responsibility Deal salt targets. • Look for products produced to certified or assured higher environmental standards such as organic or LEAF. <p>Bread</p> <ul style="list-style-type: none"> • Choose a variety of breads – including wholegrain, brown, wholemeal, granary and seeded. • Look for white bread with added nutrients and fibre for customers who do not like brown or wholemeal bread. • Choose lower salt bread where possible.

	<p>Flour</p> <ul style="list-style-type: none"> • Wholemeal flour can be used for some recipes or used to replace some of the white flour to add folate, iron and fibre to the dish. <p>Breakfast cereals</p> <ul style="list-style-type: none"> • Choose fortified breakfast cereals as they can be a good source of vitamin D, folate and iron. • Include cereals which are higher fibre and cereals with added dried fruit and nuts. • Remove cereals that are high in salt and added sugar. <p>Potatoes</p> <ul style="list-style-type: none"> • Potatoes are a useful source of folate.
<p>Tips on cooking and serving foods</p>	<ul style="list-style-type: none"> • Offer a variety of starchy foods with main meals including potatoes, rice, pasta, noodles and other grains. <p>Breads</p> <ul style="list-style-type: none"> • Use thick cut bread for sandwiches. • A variety of breads should be available daily as starters or meal accompaniments. • Try not to add too much fat, eg butter/spreads on bread, mayonnaise in sandwiches. • Use combinations of wholemeal and white bread in sandwiches to encourage consumption of wholemeal varieties. <p>Breakfasts</p> <ul style="list-style-type: none"> • Offer a variety of breakfast cereals (preferably fortified including high fibre, low sugar varieties), porridge and/or bread at breakfast. • Oats can be served in a variety of ways including porridge, granola and bircher museli. • Restrict cake style muffins and pastries and offer a range of bread instead including wholemeal, granary, brown, seedy, fruity and bagels. • If offering a traditional English breakfast, use wholemeal toast rather than fried bread or waffles. <p>Potatoes</p> <ul style="list-style-type: none"> • Boil potatoes in the minimum amount of water and for the shortest amount of time or steam them to retain vitamins. Do not add salt to the cooking water or prior to serving.

- Use skimmed or semi-skimmed milk rather than butter or margarine to mash potatoes to smoothness.
- Roast potatoes in small amounts of vegetable oil. Brush the oil on to potatoes rather than pouring over to use smaller amounts.
- Try to cut down on the amount of fried potatoes offered, such as chips and reconstituted potato dishes. Offer mash, steamed/boiled new potatoes, baked potatoes, and oven baked potato products as alternatives.
- Choose thick cut chips or potatoes wedges instead of thin cut chips – they absorb less oil when cooking or use oven chips.
- Pre-blanch chips in steamers before frying to reduce the amount of oil absorbed.
- Use baked products where possible instead of frying as they are likely to contain less fat; compare product labels for more information.
- Use sweet potatoes as an alternative. These can also be boiled, mashed, roasted and turned into wedges.

Pasta, rice and other grains

- Do not add salt to water when cooking pasta, rice and other grains. Herbs, spices, garlic, vegetables, dried fruit, seeds and nuts can be used during or after cooking to add flavour.
- Use more starchy foods eg pasta in relation to meat/rich sauces in lasagne, potato to meat in cottage pie, sausages and mash – have more of the mash and include vegetables for a balanced meal.
- Serve boiled/steamed rice or Indian breads with curries, rather than poppadums, fried Indian breads or fried rice.
- Choose tomato and vegetable based sauces in preference to creamy, buttery sauces where appropriate.
- Rice or other grains can make filling salads and meals, eg rice salads, pearl barley risottos and bulgar salads.
- Add pulses like beans and lentils to casseroles, stews and curries to increase fibre content.

When frying starchy foods

- Make sure the oil used for frying is at the correct temperature – this reduces the amount of fat absorbed.
- Drain/blot fried foods before serving.

<p>Allergy tips</p>	<ul style="list-style-type: none"> • Be aware of adults who have coeliac disease, also known as gluten intolerance, who need to avoid all cereals containing gluten (wheat, oats, barley or rye). Alternative foods made from maize (ie polenta), rice, rice flour, potatoes, potato flour, buckwheat, sago, tapioca, soya and soya flour are available. Seek expert advice from a dietitian where necessary. Some gluten-free foods are available on prescription.
<p>Food safety tips</p>	<ul style="list-style-type: none"> • Starchy foods and particularly foods such as grains and rice can contain spores of <i>Bacillus cereus</i>, bacteria that can cause food poisoning. When the food is cooked, the spores can survive. Then, if it is left standing at room temperature, the spores will germinate, multiply and may produce toxins (poisons) that cause either vomiting or diarrhoea. Reheating will not get rid of the toxin. • Low numbers of <i>Bacillus cereus</i> will not make someone ill, but if food contains high numbers of the bacteria, or if a toxin has been produced, it could cause food poisoning. The longer that food is left at room temperature, the more likely it is that bacteria, or the toxins they produce, could make food unsafe. Therefore these types of food should be served directly after cooking. If this is not possible they should be cooled within an hour and kept in the fridge until reheating (for no more than one day). Avoid reheating more than once.
<p>GBS for food and catering services (relevant criteria)</p>	<ul style="list-style-type: none"> • Boiled starchy foods eg rice, potatoes and pasta, and grains are cooked without added salt. • At least 50% of breakfast cereals (procured by volume) are higher fibre (ie more than 6g/100g) and do not exceed 12.5g/100g added sugars. These values may be updated in line with government policy in due course. • At least 50% of breads, breakfast cereals and pre-packed sandwiches (procured by volume) meet Responsibility Deal salt targets and all stock preparations are lower salt varieties (ie below 0.6g/100ml reconstituted). • Meal deals include a starchy carbohydrate.

Fruit and vegetables	
Guidance	<ul style="list-style-type: none"> • Fruit and vegetables should make up at least a third of the daily diet. • Offer at least five different portions of fruits and vegetables every day. • A portion of fresh or cooked fruit or vegetables should be about 80g (see Appendix 3).
What foods are included	<ul style="list-style-type: none"> • All types of fresh, frozen, tinned, juiced and dried fruit. • All types of fresh, frozen, juiced and tinned vegetables. • 100% fruit and vegetable juices count as one portion however much you drink. • Some smoothies can count as more than one portion if they contain all the edible pulped fruit/vegetable. The number of portions depends on how many fruits of vegetables are used and how the smoothie was made. • Beans and pulses are also included but, again, only count as a maximum of one portion per day.
Why are they important	<ul style="list-style-type: none"> • Fruit and vegetables are good sources of many vitamins (including folate), minerals and fibre. • There is evidence that consuming more than 400g (five portions) of fruit and vegetables every day may reduce the risk of developing chronic diseases such as coronary heart disease and some cancers. • Fruit and vegetables are very low in fat. • Increasing fruits and vegetables in the diet helps to increase the fibre intake, which can reduce the total amount of calories consumed amongst those who wish to lose weight.
Tips on choosing foods	<ul style="list-style-type: none"> • Ask suppliers for information on salt, fat, saturated fat and sugar in their products • Use Tables 3 and 4 to classify products as “high, medium or low” in salt, fat, saturated fat and sugar. • Choose products that meet Responsibility Deal salt targets (eg for tinned products). • Buy tinned fruit in juice rather than in syrup. • Buy tinned vegetables and pulses in water, with no added salt or sugar. • Fruit and vegetables that are useful sources of iron include dark green leafy vegetables, broccoli, dried apricots and raisins, blackcurrants and broad beans. • Fruit and vegetables that are useful sources of folate include green leafy vegetables, broccoli, Brussels sprouts, peas, asparagus and oranges.

	<ul style="list-style-type: none"> • When sourcing fresh fruit and vegetables choose those that have been grown in season using a seasonality guide. • Look for fruit and vegetables produced to certified or assured higher environmental standards such as organic or LEAF. • When buying fruits and vegetables grown abroad consider fairly traded options. Visit Fair Trade or Rainforest Alliance certified produce.
<p>Tips on cooking and serving foods</p>	<p>Storing and preparation</p> <ul style="list-style-type: none"> • Use fresh fruit and vegetables as soon as possible, rather than storing them, to avoid vitamin loss. Alternatively, use frozen fruit and vegetables. • Store fresh vegetables in a cool, dark place. • Avoid leaving any cut vegetables exposed to air, light, heat or leaving them to soak. Cover and chill them. <p>Cooking and including fruit and vegetables in dishes</p> <ul style="list-style-type: none"> • Steaming and cooking vegetables with minimum amounts of water (with no added salt), for as short as time as possible and serving as soon as possible will help retain vitamins. • Vegetables can also be stir-fried, grilled and roasted in a small amount of oil. • Vegetable juices and soups can count as one portion towards the five-a-day target. • Pureed stewed fruit can be offered with custard or yoghurt or ice cream as dessert. • Add vegetables and pulses to stews, casseroles or other dishes and offer a variety of vegetables at main meals. • Incorporate fruit into other desserts and dishes, including cold starters and savoury dishes (eg citrus chicken, serving apple sauce with pork, dried fruits like apricots and raisins in Moroccan style tagines and casseroles). • Add vegetables in rice eg mushrooms, peas, sweetcorn, peppers. <p>Serving</p> <ul style="list-style-type: none"> • Offer a variety of dried fruits to add to cereal options and porridge and include dried fruit in cakes and desserts. • Aim for one or two portions with each meal and offer fruit as a snack. • Offer a variety of salads by combining vegetables and fruits with nuts, seeds, noodles, quinoa, bulgar and couscous eg roasted vegetables and couscous. Use lower fat salad dressings.

	<ul style="list-style-type: none"> • Always have appealing, blemish free, ripe fresh fruit on display. • Provide easy access to fresh fruit salads in take away containers. Some people prefer chopped fruit rather than whole fruit. • Fruit juice is still a healthy choice at mealtimes, and counts as one of the five portions of fruit and vegetables. • Offer fruit and vegetables as prominently as other snack foods. • Control the amount of fat or rich sauces added to vegetables (such as carrots glazed with butter). • Do not add sugar or syrupy dressings to fruit (such as stewed apple). • If you offer any kind of “meal deal”, ensure that you include at least one portion of vegetable and a portion of fruit. • Make a portion of fruit cost less than a portion of hot or cold dessert. • Place fruit conveniently and prominently with other snack foods. • Offer fruit based desserts. Government Buying Standards for Food and Catering Services suggest at least 50% of desserts are fruit based (ie at least 50% fruit based on raw weight of ingredients).
Tips on food-related customs	<ul style="list-style-type: none"> • Some people such as Jains are vegetarian but do not eat root vegetables. • Caterers should check with the individual customer about their needs.
Allergy tips	<ul style="list-style-type: none"> • Some people can be allergic to certain fruits, such as apples, peaches, melon, mango, pineapple and kiwi. Allergy to fruits can be linked to pollen allergy and hay fever.
Food safety tips	<ul style="list-style-type: none"> • Because most fresh fruits and vegetables are grown outdoors in non-sterile environments, it is possible that they may occasionally harbour potential food poisoning organisms that are present in soil, air and water. The number of potentially harmful micro-organisms on fresh produce intended to be eaten raw can be reduced by using hygienic growing practices and careful washing of fruit and vegetables. • NEVER use household cleaners/washing up liquid as these products may not be safe for human consumption, and by using them, harmful residues may be left on the food.
GBS for food and catering services (relevant criteria)	<ul style="list-style-type: none"> • At least 50% of the volume of desserts available is based on fruit, which can be fresh, canned in fruit juice, dried or frozen. • Vegetables are cooked without added salt. • A portion of fruit is cheaper than a portion of hot or cold dessert. • Meal deals include vegetables and one portion of fruit.

Milk and dairy foods	
Guidance	<ul style="list-style-type: none"> • Milk and dairy foods should be served every day. • Moderate amounts should be offered each day as milk in drinks, cheese, yoghurt or milk-based puddings and sauces. • Where appropriate choose lower fat and salt options or use higher fat/salt options in smaller amounts or less frequently.
What foods are included	<ul style="list-style-type: none"> • All types of milk, including dried milk, reduced fat milk, goat's and sheep's milk. • Cheeses eg Cheddar, cottage cheese, cheese spreads, Edam, goat's cheese, stilton • Yoghurt (fruit or plain, whole milk or low-fat), or fromage frais. • Milk-based sauces, custard and milk puddings. • Fortified soya drinks.
Why are they important	<ul style="list-style-type: none"> • Milk and dairy products are excellent sources of calcium, which is needed for optimal bone strength as well as a source of protein and vitamin B12. • The fat content of different dairy products varies, and much of this is saturated fat. • Fortified dried milks are a good source of vitamin D. • Milk, cheese and yoghurt are useful sources of riboflavin.
Tips on choosing foods	<ul style="list-style-type: none"> • Dairy products can be high in fat and salt. Ask suppliers for information on salt, fat, saturated fat and sugar content of their products. • Use Tables 3 and 4 to classify products as "high, medium or low" in salt, fat, saturated fat and sugar. • Choose products that meet Responsibility Deal salt targets for salt wherever possible. • Dairy products can make a large contribution to the saturated fat content of your menu. Often, products are available that are lower in fat and saturates and can easily be incorporated into the menu. • Consider switching to semi-skimmed, 1% or skimmed milk. • Milk drinks such as milkshakes and yoghurt drinks can be high in added sugars so choose varieties that are lower in sugar or include natural sugars from fruit. • Choose a variety of cheeses to vary the fat content. Hard cheeses such as cheddar tend to be higher in saturated fat than softer cheese such as Edam and Brie. • Crème fraiche and soured creams are available in lower fat varieties and can be used with little difference to the taste of the recipe. • Hard, Cheddar style cheese, used for general cooking use in

	<p>catering kitchens, is available in lower fat varieties</p> <ul style="list-style-type: none"> • Look for milk and dairy produced to certified or assured higher environmental standards such as organic or LEAF.
<p>Tips on cooking and serving foods</p>	<ul style="list-style-type: none"> • Use fromage frais, quark or plain yoghurt in dishes in place of some of the cream (but be careful not to alter the taste or appearance of the dish). • Offer frozen yoghurts as an alternative to ice cream, to reduce fat content. • Use reduced fat milk in sweet and savoury sauces, custard and puddings. • Use béchamel, instead of cheese, sauce for dishes covered in cheese (eg lasagne). • Use reduced fat cheese in sandwiches, on cheese boards, in sauces, and for toppings on hot dishes like jacket potatoes, gratins etc. • Use smaller amounts of stronger tasting cheese to provide flavour. This helps lower salt and fat content of dishes. • Grate cheese for use in salads, sandwiches and fillings; you will tend to use less. • Use plain yoghurt and fromage frais instead of cream, soured cream or crème fraîche. • Use reduced fat milk when making milky drinks such as lattes and hot chocolate.
<p>Tips on food-related customs</p>	<ul style="list-style-type: none"> • People who identify themselves as vegans, including some Rastafarians and Jains, will not consume milk products. • Jewish law forbids eating a mixture of milk and meat. • Caterers should check with the individual customer about their needs or should invite individuals concerned to specify dietary preferences in advance of using catering facilities.
<p>Allergy tips</p>	<ul style="list-style-type: none"> • Some people are allergic to milk and will need to avoid all milk products, including yoghurts and cheese. • This includes milk from other species such as sheep and goats as well as cows' milk. • Other people may be intolerant to lactose, the sugar found in milk. Such people may be able to tolerate small amounts of milk in their diets but people's sensitivities can vary. Lactose intolerance is found in about 5% of the adult population in the UK but is more common in certain ethnic communities where milk is not traditionally part of the adult diet. For example, in South America, Africa and Asia, more than 50% of the population are intolerant to lactose, rising to nearly 100% in some parts of Asia. • There are a number of alternative products such as soya or

	<p>rice drinks. Choose alternatives that are fortified with nutrients such as calcium.</p>
<p>Food safety tips</p>	<ul style="list-style-type: none"> • Unpasteurised (raw) milk should be avoided as it may contain micro-organisms harmful to health. • Milk and dairy products should always be refrigerated and stored at temperatures below 8°C (ideally at temperatures between 0°C and 4°C). • Pregnant women and older people should avoid unpasteurised and soft-mould-ripened cheese (eg Camembert, Brie and soft blue-veined cheeses). These cheeses should be clearly labelled as they are more inclined to allow the growth of bacteria such as <i>Listeria</i>. Vulnerable groups are more susceptible to complications of food poisoning bacteria.
<p>GBS for food and catering services (relevant criteria)</p>	<ul style="list-style-type: none"> • At least 50% of hard yellow cheese has a maximum total fat content of 25g/100g. • At least 75% of milk is reduced fat.

Meat, fish, eggs, beans and other non-dairy sources of protein	
Guidance	<ul style="list-style-type: none"> • A meat or meat alternative should be offered at all main meals. • Fish should be offered at least twice a week, one of which should be oily (a typical portion is about 140g). • Meat alternatives for vegetarians and vegans should be varied and a variety of foods from this group should be used. Cheese may be used as a substitute; however it should not be used too often as the protein source for vegetarians as it can be high in salt and saturated fat. • Consider the amount and frequency of red and processed meats on your menu – it is recommended that consumers have no more than 70g per day on average.
What foods are included	<ul style="list-style-type: none"> • Meat, poultry, offal, fish, eggs, nuts, beans, pulses, seeds and other non-dairy sources of protein. • Meat includes all cuts of beef, lamb and pork and meat and meat products such as ham, bacon, salami, corned beef, beef burgers and sausages. • Fish includes any fresh, frozen and tinned fish, such as tuna, sardines, pilchards, and mackerel, and fish products such as fish cakes and fish fingers. • Oily fish includes salmon, sardines, trout and fresh tuna. Canned tuna is not considered an oily fish as the long chain omega-3 fatty acids are lost in the canning process for tuna. Other canned oily fish are not affected in the same way. • All eggs eg boiled, poached, scrambled, fried, omelettes. • Beans and pulses eg baked beans, chickpeas, butter beans, kidney beans and lentils are in this group and provide a good source of protein for vegetarians and are low in fat and can be used to increase the fibre content of meals. • Other protein products suitable for vegetarians, such as nuts, tofu and quinoa and textured protein products such as soya and Quorn.
Why are these foods important	<ul style="list-style-type: none"> • Meat and fish are good source of protein and of vitamins and minerals such as iron and all the B vitamins except folate. Meat is a particularly good source of riboflavin. • Oily fish provide long chain omega-3 fatty acids, which may help to prevent heart disease. Such foods are also a source of vitamins D and iron. • Beans and pulses are sources of protein, fibre and iron. • Eggs are useful sources of protein, vitamins A, vitamin D and Riboflavin (B2).

	<ul style="list-style-type: none"> • Nuts provide a source of protein, iron, fibre and essential fatty acids.
<p>Tips on choosing foods</p>	<ul style="list-style-type: none"> • Ask suppliers for information on the salt, fat and saturated fat content of their products. • Use Tables 3 and 4 to classify products as “high, medium or low” in salt, fat, saturated fat and sugar. • Choose products that meet Responsibility Deal salt targets wherever possible. • Choose a variety of meats and meat products and choose less red and processed meat. • Choose lean cuts of meat where possible. Some types and cuts of meat are higher in fat, particularly saturated fat. • Look for meat products with higher meat content, look at the label for more information – also consider the fat and salt content. • Oily fish, such as herring, mackerel, pilchards, salmon, sardines, trout or roe and egg yolks, are rich in vitamin D • Choose tinned fish in spring water rather than oil. • Source fish from sustainable sources meeting the FAO Code of Conduct for Responsible Fisheries (includes Marine Stewardship Council certification and Marine Conservation Society “fish to eat”). • Turkey and chicken are lower fat options when the skin is removed. • Meat products in pastry, such as pies and sausage rolls, are often high in fat; choose the lower fat options where available. • Look for canned beans and pulses with no added salt and sugar. • Liver/pâté is a useful source of nutrients but liver and liver products should not be served more than once a week as it contains a lot of vitamin A and there are risks of having too much particularly for specific groups of people. • Look for products produced to certified or assured higher environmental standards such as organic or LEAF. • Conventional battery cages for laying hens have been banned in the EU since January 2012. Enriched cages are used in Britain. • Free-range or organic egg options are also available and guarantee higher animal welfare standards.

Tips on cooking and serving foods	<p>Preparation</p> <ul style="list-style-type: none">• Remove visible fat from meat and skin from poultry. <p>Cooking</p> <ul style="list-style-type: none">• Stand poultry and joints on racks when cooking to allow the fat to flow away.• Larger pieces of meat will absorb less fat than smaller pieces.• Boil, bake, grill or poach rather than frying or roasting where possible as this will lower the fat content.• Add pulses to meat dishes to increase the fibre content, reduce the overall fat content.• If frying, make sure the temperature is correct, change fat/oil regularly and drain well to reduce fat content.• When baking fish, brush with unsaturated vegetable oil rather than butter.• Boil, poach or scramble eggs rather than frying them.• Gradually lower the salt content of food you cook to allow customers taste buds to adapt. Try using garlic, herbs and spices to flavour foods. <p>Serving</p> <ul style="list-style-type: none">• Serve red and processed meat and processed fish eg coated chicken, burgers and fish fingers less often.• Serve slightly less meat with extra vegetables and starchy foods.• Serve foods with tomato or vegetable based sauces rather than creamy, buttery sauces to lower the fat content.• Quiches and flans can be high in fat and salt, so try not to provide these too often.• Offer smoked meats and fish less often as they can be high in salt.• Serve oily fish as pâtés and spreads on bread and toast.• If a dish must be finished with butter, try lightly brushing with melted butter before serving.• When serving foods with gravy opt for lower salt versions of gravy mixes, or stock/bouillon cubes/granules.• Season food sparingly with salt or seasonings containing salt. Note that a chef's palette may be less sensitive to salt than those of many of the customers.• Nuts and seeds can be a good alternative to snacks high in saturated fat, however avoid salted nuts where possible.• Seeds can be eaten raw, dry fried or dry roasted in a frying pan or in a roasting tin without any oil.
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<p>Tips on food-related customs</p>	<ul style="list-style-type: none"> • Rastafarians and Jains are mainly vegetarian or vegan. • Practicing Jews consume kosher meat only and do not consume pork, pork products or shellfish. Eggs should not contain blood spots. • Practicing Muslims consume halal meat only and will not consume pork or pork products. This includes gelatine. • Jews who eat kosher foods do not eat meat products at the same time as, or immediately before or after foods/meals containing milk. • Hindus and Sikhs may not eat beef and other meat consumption may be restricted. • Caterers need to prepare for cultural and religious food sensitivities and also be aware that some individuals/groups may fast on occasion. Fasting may involve exclusion of meat and/or other foods at specific times.
<p>Allergy tips</p>	<ul style="list-style-type: none"> • Some people are allergic to nuts, peanuts, fish, shellfish and eggs. The labelling of bought-in products will need to be checked carefully to see if these allergenic foods are used as ingredients.
<p>Food safety tips</p>	<ul style="list-style-type: none"> • Always store meat and fish in the fridge, ideally at temperatures between 0°C and 4°C. • Always ensure that uncooked meat/fish and ready to eat foods are stored apart. Ideally raw meat/fish should be covered and stored on the bottom shelf where they can not drip onto other foods. Cooked meat and fish should be covered and stored above raw meat/fish in the fridge. • Eggs are a useful source of nutrients but when served to older people, pregnant women and individuals who are immune compromised, they should always be well cooked, until both the yolk and white are solid. This is to avoid the risk of Salmonella, which causes a type of food poisoning. Alternatively, for foods that require raw eggs to be used, eg meringues, consider using pasteurised egg. • At risk groups should avoid all types of pâté, including vegetable. This is because pâté can sometimes contain Listeria. • Always ensure that meat is well cooked. This is especially important with poultry, pork, offal and products made from minced meat, such as sausages and burgers. Make sure these are cooked until they are piping hot all the way through, any juices run clear and no pink meat is left. • Vulnerable groups should avoid raw shellfish. This is because raw shellfish can sometimes contain harmful

	<p>bacteria and viruses that could cause food poisoning. It is far safer to eat shellfish as part of a hot meal, such as in a curry.</p>
<p>GBS for food and catering services (relevant criteria)</p>	<ul style="list-style-type: none"> • Meat and meat products (procured by volume) are lower in saturated fat where available. • At least 75% of ready meals contain less than 6g saturated fat per portion. • If caterers serve lunch and an evening meal, fish is provided twice a week, one of which is oily. If caterers only serve lunch or an evening meal, an oily fish is available at least once every three weeks. • At least 50% of meat and meat products meet Responsibility Deal salt targets.

Foods and/or drinks high in fat and/or sugar	
Guidance	<ul style="list-style-type: none"> • Use foods containing fat sparingly. Look out for lower fat alternatives or eat these foods in smaller amounts. • Where possible replace saturated fat with unsaturated fat • Snacking on sugary foods and drinks throughout the day is discouraged as this can cause tooth decay.
What's included	<ul style="list-style-type: none"> • Foods containing saturated fat include: butter, margarine, lard, other spreading fats and, cooking oils (eg palm oil and coconut oil), oil-based salad dressings, mayonnaise, cream, crème fraiche, chocolate, crisps, biscuits, pastries, cakes, puddings, ice cream, rich sauces, and gravies. • Foods containing unsaturated fats include: low-fat spreads, cooking oils (eg sunflower, olive), oil-based salad dressings • Foods containing sugar include soft drinks, fruit juice, sweets, jams, honey and sugar, as well as foods such as cakes, puddings, biscuits, pastries and ice cream.
Why are they important	<ul style="list-style-type: none"> • Foods from this group principally provide energy in the forms of fats and sugars but may contain other nutrients in much smaller amounts. Some can also be high in salt. These nutrients are consumed in greater amounts than required and are associated with disease progression and/or dental caries. • Foods from this group can contribute to excess energy intakes if they are eaten in large amounts. • Having too much saturated fat can increase the amount of cholesterol in the blood, which increases the chance of developing heart disease. • Often foods high in calories offer few other nutrients. It is important that these foods do not displace more nutrient rich foods.
Tips on choosing foods	<ul style="list-style-type: none"> • Ask suppliers about and check the levels of salt, fat, saturated fat and sugars in their products. • Use Tables 3 and 4 to classify products as “high, medium or low” in salt, fat, saturated fat and sugar. • Where possible choose products that meet Responsibility Deal targets. • Opt for smaller pack sizes of confectionery, savoury snacks and soft drinks. • Choose cooking and spreading fats that are based on mono- and polyunsaturated fats wherever possible. • Choose soya, rapeseed and olive oils for cooking and salad dressings.

	<ul style="list-style-type: none"> • Choose sunflower oil, soya oil or olive oil fat spreads. • Choose a range of cold drinks that are lower in sugar eg water, unsweetened fruit juices and milk drinks. • Choose wholegrain breakfast cereals rather than those coated with sugar or honey.
<p>Tips on cooking and serving foods</p>	<p>Lowering fat</p> <ul style="list-style-type: none"> • Consider using spreads that are soft straight from the fridge, so it is easier to spread thinly. • Choose tomato and vegetable based sauces rather than cream based ones. • Offer fewer fried foods. • Use reduced calorie mayonnaise in dressings or dilute with lower fat yoghurt. • Serve salad dressings and dessert toppings separately so that customers can decide how much they want. • Do not automatically garnish potatoes and vegetables with butter prior to service. • Ensure correct temperatures when frying so that foods absorb less fat. <p>Lowering sugar</p> <ul style="list-style-type: none"> • Reduce the amount of sugar used in dishes where practical and acceptable. • Use dried or fresh fruit to sweeten dishes. • Try halving the sugar you use in your recipes. This works for most recipes except jam, meringues and ice cream.
<p>Tips on food-related customs</p>	<ul style="list-style-type: none"> • Many religious celebrations may include traditional foods that are high in fat or sugars. Providing these foods occasionally as part of a celebration or festival is important for many adults.
<p>Allergy tips</p>	<ul style="list-style-type: none"> • Many foods high in fat or sugar, such as cakes and biscuits, can contain eggs, milk or nuts and are not suitable for people allergic to these foods.
<p>Food safety tips</p>	<ul style="list-style-type: none"> • Some foods high in fat would traditionally use raw egg eg mayonnaise, some desserts. Where providing food for older people, pregnant women and immune compromised individuals use products where the egg has been pasteurised. This is to avoid the risk of salmonella, which causes a type of food poisoning.
<p>GBS for food and catering services (relevant criteria)</p>	<ul style="list-style-type: none"> • Biscuits, cakes and pastries (procured by volume) are lower in saturated fat where available. • At least 50% of breakfast cereals (procured by volume) do not exceed 12.5g/100g added sugar. These values may be updated in line with government policy in due course. Many

popular breakfast cereals are high in sugar.

- At least 75% of ready meals contain less than 6g saturated fat per portion.
- From the end of 2015 all palm oil (including palm kernel oil and products derived from palm oil) used for cooking and as an ingredient in food must be sustainably produced.

Voluntary best practice criteria

- All sugar containing drinks are available in no more than a 330ml portion size (excluding hot drinks).
- Confectionery and packet sweet snacks are in the smallest standard single serve portion size available within the market.
- Savoury snacks are only available in packet sizes of 35g or less.

“Hey it’s healthy” for meals in hospital

With creative menu planning, meticulous attention to detail and a can-do attitude, Jill Venables, Head of Facilities at Hull and East Yorkshire Hospitals NHS Trust, has made healthier, more sustainable eating easier by ensuring full compliance with GBSF in patient, staff, and visitor catering.

Restaurant menus at Hull Royal Infirmary and Castle Hill Hospital offer “Hey it’s healthy” meal options, such as pork schnitzel or chilli con carne with seasonal vegetables, potatoes or rice, and fresh fruit salad. Vegetarians and vegans can choose main courses such as “Mushroom and spelt risotto” or “Vegetable medley bake” (with optional low-fat cream sauce). The healthy options are lower calorie dishes with menu boards including information about fat, saturated fat and calorie content. A daily salad bar offers the choice to make-up a salad from fresh produce options such as grated carrot, sliced cucumbers or beetroot, sweetcorn, tomato, and boiled eggs while pre-made salads such as “Mackerel and beetroot” or “Roasted vegetables with cous cous” are also available. A daily fruit bar promotes lower cost, healthier dessert options such low fat yoghurt with toppings including fresh or dried fruit or fruit compote.

The patient meal service is mostly cook-freeze with dishes bought in ready-made and then served onto plates on the wards. A wide range of therapeutic diets including energy dense are made on site. Jill works with branded catering companies on the NHS Supply Chain list which can provide menu options that meet specifications in the GBSF, and patient meals are analysed to ensure nutritional needs are met. That includes meeting specific nutritional criteria around the salt and saturated fat content of many product ranges including meat/meat products, hard yellow cheese, milk, breads, soups, cooking sauces, biscuits/cakes/pastries, and oils/spreads. More than 50% of breakfast cereal options meet salt and sugar reduction targets as well as being higher in fibre.

Not satisfied with these improvements, Jill also ensures that patients, staff and visitors are offered foods produced to higher environmental and ethical standards, including organic milk, fair trade tea/coffee, and sustainable fish. Retail outlets now sell smaller portion sizes of confectionery, savoury snacks and sugar-containing drinks. The higher standards have cost money but Jill has worked with her menus to save in some areas. For example, producing mashed potato and fruit crumbles in-house (rather than buying in) means savings of almost £60,000 per year that can go towards innovations. Jill has put spreadsheet-based monitoring systems in place that track how menus meet standards and these are available to any healthcare caterer. She says: “Why shouldn’t NHS patients eat really well? With careful monitoring and creative thinking it really is possible.”

For contact details see Further information and resources.

Making meals healthier at Sikh and Hindu temples

A British Heart Foundation (BHF) “Social Cooking Project” has delivered significant reductions in the salt and saturated fat content of the free vegetarian meals served to thousands of weekly visitors to the Shree Jalaram Hindu Mandir in Greenford, and the Sri Guru Teg Bahadur Ji Sikh Gurdwara in Wolverhampton.

The cultural tradition of “sewa”, selfless community service, means volunteer cooks and donated food ensure free meals are available every day at Hindu and Sikh temples. Each meal tray traditionally includes: bread, rice, lentil dahl, vegetable curry, cucumber relish, dessert and is accompanied by pickles/chutneys. Community meals are at the heart of religious life in Sikh and Hindu culture but the meals in Greenford and Wolverhampton now also support healthier living – with a BHF project having cut the salt content by around 20% and the saturated fat by 50%. After a nutrition analysis showed many of the foods on offer were individually high in salt/saturated fat, and meal trays often contained more than half of daily calorie recommendations along with maximum recommended daily levels of salt/saturated fat, religious leaders backed the altering of cooking practices and the foods requested as donations.

There has been a shift to semi-skimmed milk and lower fat yoghurt/cream, and away from butter/ghee to vegetable oils. When semi-skimmed milk is not available, milk is watered down. Lower fat paneer is not available, so cooks boost the amount of vegetables in recipes and cut back on cheese. When stacking chapatis, only alternate ones are spread with margarine. Creamy, buttery, sugary desserts are no longer placed on meal trays automatically but have to be requested, whilst fruit is made readily available. Salt shakers have been removed from dining tables, unsalted butter is requested as a donation, and cooks have replaced salty, branded pickles/chutneys with lower salt versions they prepare themselves. As cooks do not weigh out the salt added to recipes, a technique has been developed whereby they scoop out a cup or spoonful and then give their hand a quick shake to get rid of some of the amount. Overall, calorie and fat content has been reduced by adding vegetables to curries without frying them. Portions have also been reduced, with diners having to return to the service point to request extra amounts.

Chemical analysis of meals and foods confirms significant reductions in salt, saturated fat and calories. Equally importantly, BHF dietitian Tracy Parker says: “When we ask cooks and diners what they think of the meals, they still love them. This is backed up by cooks reporting food waste has not increased.” What is more – diners take home healthy eating messages to their families – and report shifting their own cooking practices. The BHF and places of worship feel there is great potential in the projects as there are an estimated 400 Gurdwaras and Mandirs around the UK that feed tens of thousands of people weekly.

See Appendix 7 for case study contact details.

Support consumers to eat less sugar, saturated fat and salt

- 4.8 The general population consumes too much sugar, saturated fat and added salt. Reducing these by small amounts can make us healthier by supporting weight management and protecting against heart disease, diabetes and other long-term disease conditions.
- 4.9 The food industry, including catering companies, have reformulated some products to contain a lower content of sugar, salt and fat and some members of the food industry continue to work towards lower salt, fat and sugar products.
- 4.10 When choosing products refer to Tables 3 and 4 to help select those that are lower in fat, saturated fat, sugars and salt where possible.

Table 3. Criteria for 100g of food (whether or not it is sold by volume)

	Low	Medium	High	
Total fat	3.0g or less per 100g	More than 3.0g and less than or equal to 17.5g per 100g	More than 17.5g per 100g	More than 21g per portion
Saturated fat (saturates)	1.5g or less per 100g	More than 1.5g and less than or equal to 5.0g per 100g	More than 5.0g per 100g	More than 6.0g per portion
(Total) Sugars	5.0g or less per 100g	More than 5.0g and less than or equal to 22.5g per 100g	More than 22.5g per 100g	More than 27g per portion
Salt*	0.3g or less per 100g	More than 0.3g and less than or equal to 1.5g per 100g	More than 1.5g per 100g	More than 1.8g per portion

* Sodium from all sources expressed as salt

Table 4. Criteria for drinks (per 100ml)

	Low	Medium	High	
Total fat	1.5g or less per 100ml	More than 1.5g and less than or equal to 8.75g per 100ml	More than 8.75g per 100ml	More than 10.5g per portion
Saturated fat (saturates)	0.75g or less per 100ml	More than 0.75g and less than or equal to 2.5g per 100ml	More than 2.5g per 100ml	More than 3g per portion
(Total) Sugars	2.5g or less per 100ml	More than 2.5g and less than or equal to 11.25g per 100ml	More than 11.25g per 100ml	More than 13.5g per portion
Salt*	0.3g or less per 100ml	More than 0.3g and less than or equal to 0.75g per 100ml	More than 0.75g per 100ml	More than 0.9g per portion

* Sodium from all sources expressed as salt

4.11 Catering and procurement managers should consult suppliers to identify products that meet GBSF for reducing saturated fat and reducing salt (see Appendix 1). Not all businesses make this information readily available but this should not stop procurement managers from specifying GBSF criteria when writing catering contracts.

4.12 All organisations should have a food policy that is made available to staff and customers. This can include detail on products high in saturated fat, sugar and salt, the risk associated with over consumption of these products and suggestions for healthier alternatives.

4.13 The case study from the Royal Bolton Hospital on the following page meets GBSF best practice criteria with colour coding of menus and provision of snacks which are lower in fat and sugar. Improving the nutritional quality of patient, staff and visitor menus required the dedication and persistence of health improvement staff, shop workers and hospital staff.

4.14 The case study on page 37 explains how some businesses are making it easier for organisations to buy GBSF compliant food and drinks.

Winning hearts and minds

Bolton Foundation NHS Trust and Bolton Public Health Team's joint "Healthier Hospital Food Programme" has led the Royal Bolton Hospital to successful achievement of GBSF mandatory standards allied to significant progress around best practice nutritional criteria with colour coding/calorie labelling of menus and provision of healthier snacks.

When the Royal Bolton Hospital set out to revamp its catering service, one of the first things done was a calculation about sugar. Gary Bickerstaffe, health improvement specialist, reckoned that limiting the portion size of sugar-based drinks to a maximum 330ml and adding a bigger range of diet and fruit-based drinks to vending machines would take around 17 tonnes of sugar a year out of the diets of staff, patients and visitors. Gary calculated that each staff member would consume around 19 standard-sized bags less of sugar each year just by having one fewer sugar-based drink per day.

Spurred on by the idea of how seemingly small changes could make a big difference to diets, staff set out on a programme of improvements to vending machine contents, shop products and menus for patients, staff and visitors. One of the biggest changes has been to restaurant menus, where dishes are now labelled with calorie content and green/amber/red colour coding for the salt, sugar, fat and saturated fat content of dishes so that healthier choices can be encouraged. New menus not only meet nutritional standards around salt, saturated fat, fruit and vegetable content but are produced to higher environmental specifications, including sustainable fish, and seasonal produce. Work with the Royal Voluntary Service and vending machine suppliers has ensured high-fat versions of bagged savoury snacks have been replaced with lower fat versions in smaller packet sizes. Confectionery and sweet snacks are now available in smaller portion sizes. A spokesperson for the Trust's Food and Nutrition Working Group says: "The trust always works hard to provide healthy nutritious food and uses guidance to drive its progress. The success with GBSF helps to assure us we are making the right changes".

Not content with simply making the changes, the hospital makes sure people know about them. A "Less fat, less salt, less sugar" poster campaign around the hospital site has drawn attention to the improvements. Gary says it is important to win hearts and minds by first "getting people's attention and making sure they talk about healthier eating". Not all the changes have been easy and most need regular monitoring so the Food and Nutrition Working Group has been set up to maintain and oversee progress. The hospital community is consulted on changes, and the support of senior staff is crucial.

See Appendix 7 for case study contact details.

Catering suppliers help buyers build GBSF into decision-making

Between them, NHS Supply Chain, Brakes and 3663 supply thousands of public and private sector organisations with the food products they need to run their catering operations. Now they are making it easier for buyers to access GBSF compliant foods and drinks from their product lists.

Acting as a “one stop shop” for buyers, Brakes and 3663 have a wide-ranging remit, including care homes, restaurants, prisons, hospitals and schools, while NHS Supply Chain (NHSSC) focuses predominantly on hospitals and other public sector healthcare organisations. A wide array of food and drink products are available through framework agreements managed by NHSSC or direct from Brakes and 3663, from ready meals to raw ingredients to ready-made sauces, stocks, soups and spice mixtures. In an effort to support the GBSF, Brakes, 3663 and NHSSC now offer buyers a broader range of products that meet the nutritional and sustainability criteria specified in the standards. These suppliers are also working to ensure that buyers from catering operations keen to build GBSF criteria into their procurement decisions can access information that makes it clear which products comply, and which do not.

NHSSC procures foods and drinks for the NHS from more than 200 suppliers and aims to have full information about all product compliance with the GBSF available on its website by the end of 2014. Currently, information from around 50 suppliers is available to NHS procurement teams via the website. For example, a “Gravies, stocks and sauces” spreadsheet details whether products available for sale meet relevant criteria around salt and saturated fat content and whether the products are produced to higher sustainability standards. The business has been supporting the Department of Health in educational and promotional work with NHS trusts now that hospital inspection guidelines require assessment of achievements around meeting the GBSF. NHS Supply Chain has also undertaken work with manufacturers to ensure GBSF compliant products are available in all food categories procured via their framework agreements.

Brakes and 3663 sell own brand products alongside branded products from other manufacturers. 3663 produces reports about GBSF compliance of branded and own-brand products at buyer’s request whilst Brakes offers such information about their own-brand products. Both distributors now offer a wider range of branded products that help caterers to meet GBSF specifications. For example, both offer higher fibre and lower sugar breakfast cereal options and meat products, cakes and cheeses that are lower in saturated fat. Each has also undertaken programmes of own brand product reformulation. For example, 3663 has reformulated recipes for 50% of its own brand products to meet 2012 Responsibility Deal salt targets. Brakes sell around 5,000 own-brand products and, for example, has worked to reduce the salt content across popular items such as baked beans and bacon. A “Healthier Choices” baked beans option now meets GBSF salt criteria, as does its basic bacon pack.

See Appendix 7 for case study contact details.

5. Calorie labelling – helping people to make informed choices

- 5.1 Kilojoules (kJ) and kilocalories (kcal) are both used as units of food energy. In catering settings kilocalories are often used to provide the energy value present in each portion of food product on offer.
- 5.2 Calorie labelling helps consumers to make informed choices when eating away from home and also helps caterers to provide lower calorie options.
- 5.3 When displaying calorie information it is recommended that these four principles of calorie labelling are followed:
- display calorie information clearly and prominently at the point of choice. In quick service settings, point of choice would mean the menu boards, unless there is robust evidence to show that other points of choice are equally effective for consumers
 - provide calorie information for standardised food and drink items sold or provided (standardised is defined as a reproducible product that is offered for at least 30 days a year)
 - provide calorie information per portion/item/meal; and for multi-portion or sharing items provide the number of portions
 - display reference information on calorie requirements (eg women need around 2000 calories per day) clearly and prominently and in a way that is appropriate for the consumer. The hospital case study on page 39 shows how to make use of calorie labelling and nutrition analysis

Big business supporting staff and customers to make healthier choices

In collaboration with Unilever food solutions, Morrisons developed new menus for all their staff canteens across the country, incorporating a range of healthy choices.

Staff can make informed choices about what they eat as canteens display calories at point of choice which includes the price list and menu boards. Calorie information is also displayed in customer cafes as part of Morrison's commitment to the Responsibility Deal.

In addition, new recipes include guidance for cooks to help produce nutritionally balanced dishes. Adding salt is not recommended and staff are encouraged to minimise use of oil.

Signposting healthier meal choices

Guy's and St Thomas' NHS Foundation Trust has revamped its restaurant menus to ensure meal options have less fat, saturated fat, salt and sugar, with calorie labelling and colour coding used to promote healthier choices, including a "Healthy Meal of the Day".

Fish and chips, curries, meat and vegetable stews, risottos, and pasta dishes are all still on the menu in restaurant outlets in Guy's and St Thomas' Hospitals but new recipes mean they are not only tasty, but healthier. Calorie labelling and colour coding of menu choices, using the Government's *Front of Pack Labelling Guidance*, with green (low), amber (medium) or red (high) for fat, saturated fat, salt and sugar gives staff, patients and visitors some of the information they need to make healthier choices. Careful monitoring of purchases in restaurants gives the trust the information it needs to keep improving the nutritional content of menus. Intent on improving the diets of the hospitals' patients, visitors and staff, Susan Stagg, group catering manager, supported by the health and wellbeing dietitian, Chloe Schibeci, reviewed the dishes offered by the in-house restaurants and cafes. A full nutrition analysis of the dishes provided the basis for re-engineering recipes in order to reduce fat, saturated fat, salt and sugar. The result is at least one option a day that is mainly "green". This is promoted on the menu as the "Healthy Meal of the Day" and accompanied by a complimentary portion of vegetables.

Healthier menu options that have been introduced include Mediterranean chicken, spiced tuna rice, cajun lentil stew, and cod with a herby crust. Starchy foods and vegetables are no longer cooked with salt and the salt content of recipes has been cut. Susan will be evaluating the responses of the staff, patients and visitors to these menu changes, and working to promote understanding and support for them.

See Appendix 7 for case study contact details.

6. Promoting healthier menus

- 6.1 Caterers sometimes feel that the consumer is not interested in healthier food. A recent report incorporating survey findings demonstrated that “consumers favour positive encouragement to help them make more environmentally friendly and healthy choices”⁵. It is important to consult with customers before making changes to menus.
- 6.2 Consumers also want to be inspired about products that are healthy and have a positive environmental impact. Three in four agree with this compared with two years ago (up 7% since 2011)⁵. It is important for caterers to recognise that this change in consumer behaviour needs to be reflected in the menus offered. The GBSF framework helps recognise this.

Getting started

Ask suppliers for a list of products that meet the mandatory and best practice nutrition criteria set out in GBSF.

Use suppliers' nutrition information to procure products within the food category that are healthier, eg sausages with the lowest fat and salt.

Purchasing fruit and vegetables in season to help keep costs down for both buyers and consumers.

Provide easy access to fruit and ensure that this is cheaper than a sweet dessert. Offer a wide selection such as whole fruit eg banana, portions eg strawberries and sliced eg melon.

Add vegetables to popular dishes like curry, spaghetti bolognese and casserole. Ensure a variety of methods are used when preparing vegetables to keep customers interested.

Be creative when developing menus:

- international themes may include balanced Chinese, Indian or Italian meals
- national events and holidays may also be used to promote consumption of healthier food, eg strawberries during Wimbledon or a variety of vegetables for the Christmas meal

Work with workplace wellbeing, sustainability, public health or nutrition teams to promote the menu and healthy eating campaigns.

Introduce vending machines stocked with healthy options to offer a choice to consumers that want lower calorie treats, drinks and snacks.

6.3 The case study from Nottingham Trent University below highlights how students became interested in healthier menus when they were actively promoted.

Healthier food at university is easier than you think

Nottingham Trent University's head of catering and hospitality Ivan Hopkins is proving a catering service can thrive by making the freshly prepared, healthier meals that students are demanding, at a price they can afford.

For Ivan Hopkins, making healthier, more environmentally-friendly meals is all about continually challenging his own assumptions – about what students will eat, what ingredients cost too much, and what university catering staff can be expected to prepare and serve. Around 5,000 meals a week are served at the various restaurants on the university's three campuses, with the vast majority freshly prepared by in-house catering staff trained to promote healthier eating. Ivan highlights the team's success with the fact that 84% of diners choose the chef's choice, freshly prepared menu over the cheaper, daily snack menu. That means choosing dishes such as "Roasted mushroom, squash and onion pie with fresh mash and seasonal vegetables" or "Hot and sour chicken with vegetables, beansprouts, and pineapple with egg fried rice and salad" over the pasties and pizza slices that cost considerably less.

Ivan takes particular pride in the work he has done to boost the vegetable and fibre content of meals, and the popularity of vegetarian dishes. Vegetarian options are now listed at the top of menus and this has increased take-up. Restaurants all have a counter where brown and white rice, chips and jacket potatoes are offered alongside toppings that include just one meat-based option and several vegetable options such as "Vegetable, lentil and pineapple curry" or "Mixed bean and vegetable chilli". Free, organic mixed seeds (pumpkin, sunflower, linseed) are offered to sprinkle. Recipes have been revamped to include more vegetables, for example, each serving of cottage pie now has 20% less meat, with the extra made-up of vegetables. All soups are freshly produced and are thickened with pureed root vegetables or butter beans instead of milk or cream. Nuts and pulses are used in a wider range of meals. Salt has been taken off dining tables and vegetables/starchy foods are steamed without salt. Hot desserts are generally offered only in winter months, with fruit-based desserts promoted all year round at lower prices.

The cost savings that have come with using more vegetables have allowed meals to be made with products produced to higher environmental standards such as organic eggs, milk and yoghurt, certified sustainable fish and seasonal fruit and vegetables. Healthier options are promoted in regular publicity and by staff who are proud of the changes. Ivan says: "I am not sure any of us thought we could go as far we have in making these changes, and what is nicest is that so many of those who eat with us, including students, are always asking about how the food is made or where it comes from. That can only be a good thing."

See Appendix 7 for case study contact details.

7. Planning food provision for across the day

- 7.1 A healthy food experience implies that everyone should be offered a selection of food and drink that meets their daily nutritional needs. For most people this would equate to the “eatwell plate”. In hospitals and residential care settings for example, some individuals may need more energy-rich food and drink and others less.
- 7.2 Food provision across the day is an important consideration for those responsible for food provision in hospitals, residential care settings and prisons where individuals may spend whole days, weeks, months or even years of their lives.
- 7.3 When planning menus it is useful to consider how people consume food and how to apportion nutrient intake throughout the day. For the purposes of developing menus, the convention is that people usually divide their intakes across four eating occasions; breakfast, lunch, evening meal and foods consumed between meals (snacks).
- 7.4 Using this approach, it is possible to estimate the proportion that each eating occasion makes to intake. Since most people usually consume a wider range of foods at lunch and evening meals, these meals account for a greater proportion of intake. As such, breakfast contributes 20% of daily intake with lunch and evening meals contributing 30% each. The remaining 20% is for foods consumed between meals (snacks).
- 7.5 Where people consume certain nutrients in excess of recommended amounts for example saturated fat, salt and non-milk extrinsic sugars (NMES, often referred to as added sugars but also includes sugars in fruit juice and honey), menus should be planned to provide these nutrients in lower amounts relative to the energy content of meals. This will prevent excess consumption. To achieve dietary recommendations, where excesses are apparent, target recommendations are set equivalent to 98% of the Estimated Average Requirement (for fat and sugar) and 98% of the population target for average salt consumption provided from all meals and snacks. For further information see the companion document *Healthier and More Sustainable Catering: Nutrition principles*.
- 7.6 For vitamins and minerals where insufficiencies are apparent target recommendations are set so that, in general, 100% of the average population requirement is provided from breakfast, lunch and evening meals. Any food and drink eaten outside these eating occasions would further contribute to intakes.

- 7.7 Not all caterers will be providing all meals for their customers. Using the proportions identified here will allow those providing for only some eating occasions to set and plan menus to meet relevant nutrient intake levels.
- 7.8 This approach was used to develop the example menus in Appendix 2 to support the first edition of this toolkit, published in 2011. The menus met the nutrient-based standards set at that time and are likely to meet the nutrient based standards for adults aged 19-74 years identified in Table 1, which incorporates updates made in line with National Diet and Nutrition Survey³ (2008/2009 to 2010/2011).
- 7.9 The five menus are designed to reflect different approaches for different settings, such as hospitals, workplace canteens and prisons. There are many ways to meet nutrient-based standards and other menu options will be able to meet these standards including different hot and cold main meals, snacks and drinks. Careful consideration of the acceptability of the options and sufficient variety are extremely important.
- 7.10 Developing menus that meet nutrient based standards requires the support of someone with nutrition knowledge and training. It is likely that an organisation wishing to do this would need to secure the services of a registered nutritionist or dietitian or procure a catering supplier that has the capacity to carry out menu planning in this way.
- 7.11 Registered nutritionists or dietitians are able to develop appropriate nutrient standards for the population being catered for, develop menus and assess menus against nutrient-based standards.
- 7.12 In order to do this, software packages can provide nutrient analysis of menus. There are several such packages on the market. It is important that appropriate software with up-to-date information (as a minimum the most recent edition of McCance & Widdowson⁶) is used and takes accounts of cooking losses and waste. Those responsible for commissioning food provision to nutrient standards will wish to check that actual provision reflects the planned menus and that analysis has been carried out appropriately.
- 7.13 The nutrient analysis of the five example menus is also provided in Appendix 2. The technical basis for this analysis is recorded in separate reports from an independent dietitian⁷⁻¹⁰. The analysis of the menus is taken as a daily average over a seven-day period. All five seven-day example menus are likely to meet the revised nutrient standards and targets over the average of seven days and for each eating occasion.
- 7.14 Analysis of the menus identifies some occasions across individual eating occasions where the salt target has not been met. Since the development of these

example menus there has been considerable reformulation and it would be expected that level of salt in particular would now be lower than the analysed levels stated.

- 7.15 The example menus identified as relevant to the prison service have further assumptions applied. As the prison service is responsible for the provision of meals, example menus 4 and 5 do not include the contribution from snacks, which inmates have the opportunity to purchase. The prison service will need to consider the implications where such opportunities may not be available. Targets and analysis of example menus 4 and 5 therefore exclude snacks, covering only breakfast, lunch and evening meal.
- 7.16 The example menus are not intended for those who may have different nutritional requirements due to illness or disease, and are undernourished or at risk of under nutrition because of a poor appetite.
- 7.17 Additional processes may be set-up to enable catering providers to meet the needs of individuals with specific dietary requirements. Such requirements reflect clinical conditions, allergies and intolerances or religious/cultural background. Dietitians and other professional groups should be consulted when considering the dietary needs of sub-groups within the general population.
- 7.18 Nutritious and appetising food and drink is only one part of nutritional care. Other aspects include nutrition screening, providing assistance and protected mealtimes. Without this, all the hard work of the catering staff is wasted. In settings like hospitals and residential care, clinical and catering staff should work together to make sure that all aspects of food provision and nutritional care are as good as they can be.
- 7.19 Changing catering provision requires input from dietitians, nutritionists and chefs. The prison case study on the following page describes how informed professionals worked with prison staff to change food provision. The case study from Plymouth on page 48 describes how a school-based service adopting higher nutrition standards has been extended into other community settings. In both cases, there is limited fixed budget available to feed the population being served but the importance of good nutrition for all has been recognised.

Promoting a healthy food culture in prison

Her Majesty's Prison Bristol is helping prisoners to eat more healthily via a programme of practical changes to the catering service allied to prisoner food education.

With a limited daily food and drink budget per prisoner, catering manager Mark Haddow says it takes “careful planning and creative thinking” to ensure the men in HMP Bristol are able to access a healthy diet. Catering staff work closely with a registered dietitian and food technology teacher on menu planning and in running a healthy eating course that gives prisoners advice and a chance to improve their cooking and budgeting skills. Prison staff and prisoners who are involved in preparing and serving food are encouraged to attend so they can learn how to promote healthy choices. The aim is to ensure healthier foods are not only on offer but taken up by prisoners while in jail and also upon release.

Registered dietitian Sue Baic has worked with the catering team over the past few years to help them reduce the saturated fat and salt content of prisoners’ meals and to boost provision of wholegrain foods, fruit, vegetables and oily fish. Cooks use vegetable oils and low fat spreads, instead of butter, for cooking and in sandwiches and rolls. Semi-skimmed milk is provided for drinks and has replaced full fat milk in creamy sauces. There are fewer dishes made with cheesy sauces. Fatty meat is well-trimmed and fat is drained from meat before it is served or added to dishes. Salt is not used in cooking starchy foods or vegetables. The vast majority of foods are cooked from fresh, including sauces, and cooks have cut back significantly on the salt that is added. Wholemeal bread is available as an option at breakfast and lunch, and at least one high fibre cereal option is available at breakfast, including porridge oats or homemade muesli. Oily fish is served at least twice a week and is one of the most popular foods on the menu. Pilchard pasta pots and pilchard filled baguettes are just two of the well taken-up options. Fruit is available as a dessert option at lunch and dinner, and cooks have worked to boost the vegetable content of dishes. Pulses are routinely added to stews and curries. Sue has worked with catering staff to encourage the development of some new vegetable-based dishes such as a roasted root vegetable side dish that is well liked. Although the aim is to make all of the meals healthier, a “Heart Healthy” option is also identified and marked by a heart symbol on the lunch and dinner menus.

Over 350 prisoners and staff have attended the in-house course, which is based on the “eatwell plate”. Prisoners learn about how to make healthier choices from the prison menu and the prison shop. In response to changing demand, the shop sells a range of tinned oily fish, nuts/seeds, oats and tinned/fresh/dried fruit. Dried noodles are a popular shop item but prisoners have learned to use less of the salty flavouring packet by replacing it with tinned oily fish. In anticipation of their release, prisoners experiment with healthy cooking including more use of fruit and vegetables and adapting a noodle stir fry dish to include peanuts, oily fish or chicken, depending on their available budget. According to a prison spokesperson, the success of the programme of changes is evident in the increased consumption of healthy items, decreased fruit/vegetable waste, declining salt procurement and the positive staff and prisoner feedback.

See Appendix 7 for case study contact details.

8. Sustainable food in the UK

- 8.1 Sustainable food is food which is produced, processed and distributed to feed a growing global population in ways that:
- provides and encourages healthier eating choices
 - uses global natural resources sustainably
 - promotes high standards of animal and plant health and welfare
 - protects food safety
 - makes a significant contribution to rural communities and local economies
 - reduces waste and promotes low carbon processes and technologies
 - supports a thriving and competitive food industry
 - protects farmers in developing economies from exploitation
- 8.2 The diet of a nation can impact health, the economy and sustainability. By showing global leadership on food sustainability the UK demonstrates how to start addressing the challenges of climate change, a growing population and finite natural resources. In response to these challenges, the government's priorities for food and farming are to support and develop British farming and encourage sustainable food production.
- 8.3 The government aims to achieve this by enhancing the competitiveness and resilience of the whole food chain, including farms and the fish industry, to ensure a secure, environmentally sustainable supply of healthy food with improved standards of animal welfare.
- 8.4 By procuring healthier more sustainable food, the public sector can contribute towards tackling ill health due to poor diet as well as reducing the negative environmental impact of catering services (see Appendix 6). GBSF provides a framework for caterers to begin this process.
- 8.5 GBSF should be used in tendering processes. Using this guidance will also help to avoid contravening EU public procurement law which regulates the purchasing by public sector bodies of contracts for goods, works or services.
- 8.6 This law is designed to open up the EU's public procurement market to competition, to prevent "buy national" policies and to promote the free movement of goods and services. Public bodies must award all contracts in line with EU Treaty principles, including the principles of non-discrimination, equal treatment, transparency, procedural fairness, mutual recognition and proportionality. This applies whether or not the contracts are over the value threshold that would make them subject to the EU procurement rules.

8.7 The case studies below demonstrate how organisations in the UK are beginning to change catering and procurement practices in order to have a beneficial impact on both food security and health. The importance of dynamic individuals and organisational commitment to change is clear in the case studies that follow.

Buying together for quality and sustainability at an affordable price

A group of public sector caterers led by Gerry Clinton, catering and traded services manager for the London Borough of Havering, is revolutionising procurement by purchasing together to deliver multi-million pound food contracts to higher ethical, environmental and nutrition standards.

When Gerry Clinton pulled together a small group of public catering managers about eight years ago he was mostly interested in the power of group purchasing to deliver cost savings and efficiency to the school meals service in Havering that was his responsibility. But, within a few years Gerry decided the group could deliver so much more for the school children, university students, care home residents and public sector workers who it purchased food for. In collaboration with colleagues, he set about redefining the terms under which the group purchased food so they not only continued to meet European Union procurement laws but aspirational standards for ethics, sustainability and nutrition.

The buying group is open to any in-house, public sector caterer and Gerry urges people to get in touch. Although the group procures a wide range of food categories, those who join the group are welcome to buy-in on any or all they choose. In Havering, Gerry has ensured that purchasing delivers meals that exceed the mandatory national food and nutrition standards for schools. All fish is sustainable, eggs are free range and the cooking milk and carrots are organic. Three-quarters of the food is freshly prepared and menus are designed around seasonal produce. All milk is semi-skimmed and 50% of hard yellow cheese has a maximum total fat content of 25g/100g. Contracts stipulate that suppliers should deliver lower saturated fat and lower salt products across a wide range of food categories wherever possible. Promotional material ensures a high awareness in school communities of the achievements.

These high standards are delivered at prices that are affordable to buyers and beneficial to sellers. For example, the power of group purchasing ensured free range eggs could be made available at 1p more per egg, with even that extra cost made back by efficiencies delivered elsewhere in the contracts. Organic carrots cost no more as a local supplier provides perfectly good seconds that he was struggling to sell at retail. As Gerry says: "I need our suppliers to stay in business and we work closely with them as all of our contracts require them to be responsive in helping us to meet the high standards we set." The group also takes care to construct and advertise contracts so that small and medium-sized enterprises can bid for parts of them.

See Appendix 7 for case study contact details.

Health and sustainability go together in school and community meals services

Plymouth's school cooks now produce not only some of the healthiest, most sustainable children's meals in the country but also the city's "Meals on Wheels" for housebound and older residents.

When Brad Pearce, Plymouth City Council's education catering manager, took over running the city's school meals eight years ago his main aim was to get the service onto a sound financial footing. Since then, he has done that through innovations in healthy, sustainable menu planning and thinking creatively in terms of how the service works. Most recently, that has meant school kitchens have started production of community meals, including Meals on Wheels and meals for a local residential home. These services take advantage of the high government standards set for the school meals, the expertise of cooking staff and also ensure school kitchens are used to maximise benefits for the wider city community.

Menus for all services are designed around seasonal produce and 86% of the food is produced from fresh. Vegetables and starchy foods such as rice/pasta are cooked without salt and a mixture of herbs and garlic replaces salt in recipes. According to Brad: "The change has been a bit of an adjustment for some adults but the children are still really open to new tastes and don't notice the absence." Chefs also choose the lowest salt options available of the relatively few bought-in items such as sausages, bread, and spreads. To cut back on saturated fat, recipes use semi-skimmed where milk is required, and meat is well-trimmed. Chefs boost the vegetable content of meals by blitzing them to add to sauces and to use as toppings. There is also a focus on achievements around sustainability. Plymouth holds The Soil Association's Catering Mark gold award, and allied to progress around the GBSF, this means all fish is certified as sustainable, eggs are free range, and all milk, herbs and wholemeal flour are organic. Menus also include foods and ingredients such as bananas and cocoa that are certified as fairly-traded. Meal options for adults and children include choices such as locally-caught pollock fillets with a homemade tomato relish, new potatoes and seasonal vegetables or Cornish silverside of beef with roast potatoes, broccoli, sweetcorn and gravy. Both fruit and dessert can be chosen as part of meals. Adult meal service recipes are adapted, if necessary, to suit adult tastes and portion requirements. Adult menus are nutritionally analysed and Brad is working with dietitians to ensure the meals are produced to meet appropriate dietary guidelines.

Looking to the future, Brad intends to expand the food service to more residential and nursing homes. He is also working with the city's primary head teachers' association to set up a joint venture co-operative that will ensure a collective approach to food service delivery with partners sharing benefits and risks. Bigger and smaller institutions working together will deliver stronger purchasing power and more sustainable services that support a wide cross-section of the community.

See Appendix 7 for case study contact details.

Health, wellbeing and sustainability at university

Harper Adams University's catering department sustainability policy includes criteria that work to ensure nutrition and environment go together in the student, staff and visitor meal service.

Catering manager David Nuttall oversees the in-house production of around 2,500 meals a day at England's largest university for agriculture and land-based studies. That includes providing three meals a day for 450 young people in student housing. The university works to maximise the potential of its Shropshire campus by integrating the food production from its farms with its meal service and on-site waste management facilities.

Each day begins with a chat between the head chef and the farm manager to discuss how menus can be designed to incorporate the fruit, vegetables, enriched cage eggs and Red Tractor beef, pork, and lamb produced on-site. Sustainable fish is bought in along with seasonal produce to top-up what is produced on the campus. Menus include meal deals that offer a protein (meat, fish or vegetarian), starchy food such as potatoes or rice, a fresh vegetable and portion of fruit. Oily fish is offered at least once a week. Menus have been nutritionally analysed so that calorie counts can be placed on menus with a view to working towards reductions where appropriate. Salt is no longer used to cook vegetables/starchy foods and has been pulled from dining tables. Students on the university's meal plan are able to take as much fruits and vegetables as they like. The university's catering department sustainability policy works alongside ambitious environmental projects on the campus. Food waste from farming, catering, and student kitchens is taken to the on-site anaerobic digestion plant that turns it into compost, except for waste cooking oil that is converted into the biodiesel that powers all campus vehicles. The energy generated by composting provides almost all of the heat and electricity for the main campus. The catering service makes a big contribution to the more than 11,000 tonnes of carbon dioxide equivalent savings each year – meaning the campus saves more than three times the carbon dioxide it emits. Harper Adams has boosted the number of recycling bins around campus food outlets for glass, plastics, paper, cardboard and tin cans.

As David says: "We want to do the best we can for our students and set an example of achievement to our future farmers, caterers and environmentalists."

See Appendix 7 for case study contact details.

9. References

1. Department for Environment, Food and Rural Affairs. *Food Statistics Pocketbook 2012* <https://www.gov.uk/government/publications/food-statistics-pocketbook-2012> (accessed 30 November 2013).
2. Scarborough P, Batangar P, Wickramasinghe et al. The economic burden of ill health due to diet, physical inactivity, smoking, alcohol, and obesity in the UK: An Update to 2006- 07 NHS Costs. *J Public Health*, (2011) 33 (4): 527-535.
3. Bates B, Lennox A, Prentice A, Bates C & Swan G. *National Diet and Nutrition Survey: Headline results from years 1, 2 and 3 (combined) of the Rolling Programme (2008/2009 – 2010/2011)* <http://webarchive.nationalarchives.gov.uk/20130402145952/http://transparency.dh.gov.uk/2012/07/25/ndns-3-years-report/> (accessed 30 November 2013).
4. Scientific Advisory Committee on Nutrition. *Dietary reference values for energy*. London: TSO; 2011.
5. IGD. *Sustainable Diets: Helping Shoppers 2013* <http://www.igd.com/our-expertise/Nutrition-food-and-farming/Sustainable-diets/> (accessed 30 November 2013).
6. Food Standards Agency *McCance and Widdowson's The Composition of Foods, Sixth summary edition*. Cambridge: Royal Society Chemistry; 2002.
7. Daniels L. *Example Menus for Adults*. Food Standards Agency; 2007 <http://collections.europarchive.org/tna/20100927130941/http://food.gov.uk/multimedia/pdfs/adultmenus.pdf> (accessed 30 November 2013).
8. Daniels L. *Example Menus for Care Homes*. Food Standards Agency; 2007 <http://collections.europarchive.org/tna/20100927130941/http://food.gov.uk/multimedia/pdfs/carehomemenus.pdf> (accessed 30 November 2013).
9. Daniels L. *Menus for adult men in prison (19 – 74 years) in prison*. Food Standards Agency; 2008 <http://collections.europarchive.org/tna/20100927130941/http://food.gov.uk/multimedia/pdfs/adultprison.pdf> (accessed 30 November 2013).
10. Daniels L. *Menus for adult women (19 – 74) in prison*. Food Standards Agency; 2008 <http://collections.europarchive.org/tna/20100927130941/http://food.gov.uk/multimedia/pdfs/womenprison.pdf> (accessed 30 November 2013).

Appendix 1. Government Buying Standards for Food and Catering Services

Food and catering services overarching commitments

For guidance on the food and catering GBS see:

<http://sd.defra.gov.uk/advice/public/buying/products/food/guidance/>

IMPACT AREA	OVERARCHING COMMITMENT
Production standards	Central government must source food, subject to no overall increase in costs, meeting UK or equivalent standards of production.
Origin of meat and dairy	In line with the industry principles on country of origin information suppliers should be able to indicate the origin of the meat, meat products and dairy products either on the menu or accompanying literature, or at least when the information is requested by the consumer.

Food and catering services standards

IMPACT AREA	MANDATORY
Animal welfare	All eggs, including fresh in-shell, liquid and powdered eggs, are sourced from systems that do not use conventional cages. If from a caged system, enriched cages must be used.
Seasonal produce	Where fresh produce is used, menus are designed to reflect in-season* produce and in-season produce is highlighted on menus.
Fish	All fish** are demonstrably sustainable with all wild-caught fish meeting the FAO Code of Conduct for Responsible Fisheries (includes Marine Stewardship Council certification and Marine Conservation Society 'fish to eat').
	If caterers serve lunch and an evening meal, fish is provided twice a week, one of which is oily. If caterers only serve lunch or an evening meal, an oily fish is available at least once every three weeks.
Environmental production standards	At least 10% by value of primary commodity (ie raw ingredient) food and drink is produced to certified or assured higher level environmental standards (eg organic, LEAF).

Ethical trading	At least 50% of tea and coffee is fairly traded
Water	Tap water is visible and freely available and such provision is promoted.
	Pre-bottled water (mineral or spring) is not included in the hospitality menu
Reducing Salt	Vegetables and boiled starchy foods such as rice, pasta and potatoes, are cooked without salt.
	Salt is not available on tables
	At least 50% of meat and meat products, breads, breakfast cereals, soups and cooking sauces, ready meals and pre-packed sandwiches (procured by volume) meet Responsibility Deal salt targets and all stock preparations are lower salt varieties (ie below 0.6g/100mls).
Increasing Fruit and Vegetable Consumption	At least 50% of the volume of desserts available is based on fruit – which can be fresh, canned in fruit juice, dried or frozen.
	A portion of fruit is cheaper than a portion of hot or cold dessert.
	Meal deals include a starchy carbohydrate, vegetables and 1 portion of fruit.
Reducing Saturated Fat	[each of the following must be met] Meat and meat products, biscuits, cakes and pastries (procured by volume) are lower in saturated fat where available. At least 50% of hard yellow cheese has a maximum total fat content of 25g/100g; at least 75% of ready meals contain less than 6g saturated fat per portion; at least 75% of milk is reduced fat; and at least 75% of oils and spreads are based on unsaturated fats.
Cereals	At least 50% of breakfast cereals (procured by volume) are higher in fibre (ie more than 6g/100g) and do not exceed 12.5g/100g added sugars.
SMEs	Provide opportunity for separate contracts for supply and distribution; and advertise all food-related tenders to SMEs
Reducing Landfill	There are facilities available to staff and customers for recycling cans, bottles, cardboard and plastics.
Food waste	Any contractor must take steps to minimise food waste in its on-site operation using the guidance provided to help decide what action they will take. Contractors should set out what they will do, and feed back to clients on progress and results
	The procuring authority must check whether a separate food waste collection service can be provided (see guidance on how to do so). If the service can be provided, while achieving value for money, then it should meet the best practice standard.
Energy Management	The on-site catering operation is run in accordance with the host building's overall energy management policy.

Catering equipment	<p>The minimum mandatory Government Buying Standards for catering equipment apply where relevant:</p> <p>Domestic refrigerators and freezers – it meets Energy efficiency standard A and meets standards on greenhouse gases.</p> <p>Commercial refrigerators and freezers – it meets the latest Enhanced Capital Allowance criteria and meets standards on GHGs.</p> <p>Covers for refrigerated units – it meets the latest Enhanced Capital Allowance criteria</p> <p>Domestic electric ovens – it meets Energy Efficiency standard A, at varying energy efficiency indices depending on cavity size.</p> <p>Domestic dishwashers – it meets Energy Efficiency standard A, at varying energy efficiency indices for overall energy efficiency, drying and cleaning performance.</p> <p>Kitchen taps – have flow rates of not less than 5l/min delivered through either automatic shut off, screw down/lever, or spray taps; and non-flow rate elements shall meet the Enhanced Capital Allowance Scheme (ECA) Water Technology List criteria.</p>
Paper products	<p>The minimum mandatory Government Buying Standards for paper products apply where relevant:</p> <p>Tissue paper (for example kitchen and toilet tissue and hand towels) must have 100% recycled content, to include only genuine recovered fibre (ie no “mill broke”), in accordance with NAPM definition</p>
Palm oil	<p>From 2015 all palm oil (including palm kernel oil and products derived from palm oil) used for cooking and as an ingredient in food must be sustainably produced.</p>
Pigmeat welfare standards	<p>Where buying pork and pork products compliant with UK standards, as set out in the Welfare of Farmed Animals Regulations 2007, or equivalent would lead to an overall increase in costs for the authority, all pork and pork products are to be sourced at minimum from pig production systems that comply with EU requirements.</p>

* Fresh produce that is outdoor grown or produced during the natural growing or production period for the country or region where it is produced. It need not necessarily be grown or produced locally to where it is consumed and this applies to seasonal food from both the UK and overseas.

** Fish includes all fish including where it is an ingredient in a composite product.

IMPACT AREA	BEST PRACTICE
Environmental production standards	At least 20% of primary commodity (ie raw ingredient) food and drink procured is produced to certified or assured higher level environmental standards (organic, LEAF or equivalent).
Ethical trading	All tea, coffee, cocoa and bananas is certified as fairly traded
Snacks	Savoury snacks are only available in packet sizes of 35g or less.
	Confectionery and packet sweet snacks are in the smallest standard single serve portion size available within the market
Reducing Sugar	All sugar containing drinks are available in no more than a 330ml portion size (excluding hot drinks).
Menu analysis	Menu cycles are analysed to meet stated nutrient based standards relevant to the major population subgroup of the catering provision.
Calorie and allergen labelling	Menus (for food and beverages) include calorie and allergen labelling
Packaging waste	Packaging waste in delivering food for the catering service is minimised so that: i. tertiary and secondary packaging consists of at least 70% recycled cardboard; and ii. where other materials are used, the tertiary packaging must either be reusable or all materials contain some recycled content.
Food waste	Any contractor has a food waste minimisation plan in place, including actions and estimated quantifiable reductions, and ensures appropriate training is given to staff to ensure best practice in terms of food waste minimisation.
	An appropriately-licensed separate food waste collection service should be procured as part of overall site waste management (with the food waste collected going either for treatment at an in-vessel composting or anaerobic digestion facility or other suitable facility (as opposed to landfill)).
Energy efficiency	The on-site catering operation is run in accordance with the Carbon Trust food preparation and sector guide (CTV035).
Waste minimisation	Food and drink to be consumed in restaurants and canteens must be served using cutlery, glassware, and crockery which are reusable and washable.
Environmental Management Systems	The contractor must prove its technical and professional capability to perform the environmental aspects of the contract through: an environmental management system (EMS) for catering services (such as EMAS, ISO 14001 or equivalent).
Catering equipment	The best practice Government Buying Standards for catering equipment apply where relevant: Domestic dishwashers Commercial cooking equipment, including ovens, fryers and steam cookers Domestic fridge freezers

Paper products	The best practice Government Buying Standards for paper products apply where relevant: Napkins and kitchen tissue meets the criteria of the Ecolabel or equivalent
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Note that GBSF criteria may be updated in 2014 in line with any changes in government policy.

For more information see the guidance notes at

<http://sd.defra.gov.uk/advice/public/buying/products/food/>.

For salt targets see <https://responsibilitydeal.dh.gov.uk/wp-content/uploads/2012/01/Salt-Targets-for-Responsibility-Deal.pdf>.

Appendix 2. Example menus

Example menu 1 for adults aged 19-74

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Early morning	Tea/Coffee/Water	Tea/Coffee/Water	Tea/Coffee/Water	Tea/Coffee/Water	Tea/Coffee/Water	Tea/Coffee/Water	Tea/Coffee/Water
Breakfast	Fruit/Fruit Juice Cereals/Porridge Sausage & Tomato Yoghurt/Parfait Toast with butter/spread Preserves Tea or Coffee Water	Fruit/Fruit Juice Cereals/Porridge Poached Egg Yoghurt/Parfait Toast with butter/spread Preserves Tea or Coffee/Water	Fruit/Fruit Juice Cereals/Porridge Bacon & Mushroom Yoghurt/Parfait Toast with butter/spread Preserves Tea or Coffee/Water	Fruit/Fruit Juice Cereals/Porridge Cottage Cheese & Tomato Yoghurt/Parfait Toast with butter/spread Preserves Tea or Coffee/Water	Fruit/Fruit Juice Cereals/Porridge Baked Beans Yoghurt/Parfait Toast with butter/spread Preserves Tea or Coffee/Water	Fruit/Fruit Juice Cereals/Porridge Bacon & Tomato Yoghurt/Parfait Toast with butter/spread Preserves Tea or Coffee/Water	Fruit/Fruit Juice Cereals/Porridge Boiled Egg Yoghurt/Parfaits Toast with butter/spread Preserves Tea or Coffee/Water
Mid morning snack	Tea/Coffee/Water	Tea/Coffee/Water	Tea/Coffee/Water	Tea/Coffee/Water	Tea/Coffee/Water	Tea/Coffee/Water	Tea/Coffee/Water

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Lunch	<p>Carrot & coriander Soup</p> <p>Beef Goulash Vegeburger & gravy Jacket Potato & Cheese Egg Mayonnaise Sandwich Ham Salad</p> <p>Boiled New Potatoes/Rice Carrots/Green Beans/Salad</p> <p>Apple Crumble & Custard Fruit/Yoghurt/Ice-Cream</p>	<p>Mushroom Soup</p> <p>Grilled Salmon Vegetable Moussaka Jacket Potato & Beef Chilli Turkey Salad Sandwich Vegetable Samosa & Salad</p> <p>Roast Potato/Smashed Potato Broccoli /MixedVegetables/ Salad</p> <p>Chocolate Gateau Fruit/Yoghurt/Ice-Cream</p>	<p>Vegetable Soup</p> <p>Cottage Pie Tofu/Cashew Stir Fry & Noodles Jacket Potato & Tuna Paté & Tomato Sandwich Egg & Bean</p> <p>SaladPeas/Leeks/ Salad</p> <p>Plum Sponge & Custard Fruit/Yoghurt/Ice-Cream</p>	<p>Tomato Soup</p> <p>Roast Turkey Cheese & Tomato Pizza Jacket Potato,Ratatouille, Cheese Beef Salad Sandwich Sardine Salad</p> <p>Roast Potato/Mashed Potato Spinach /Broad Beans/Salad</p> <p>Fruit Pie & Custard Fruit/Yoghurt/Ice-Cream</p>	<p>Leek & Potato Soup</p> <p>Fried Haddock Pasta & Tomato Sauce Jacket Potato &Baked Beans Cheese & Pickle Sandwich Corned Beef Salad</p> <p>Chips/Mashed Potato Peas/Sweetcorn/S alad</p> <p>Banana Custard Fruit/Yoghurt/Ice-Cream</p>	<p>Minestrone Soup</p> <p>Chicken Tikka Masala & Rice Chicken Liver & Onions Vegetarian Quiche Jacket Potato&Vegetable Chilli Sardine & Salad Sandwich Mozzarella & Tomato Salad</p> <p>Smashed New Potatoes Green Beans/Courgettes/ Salad</p> <p>Rice Pudding & DriedApricots Fruit/Yoghurt/Ice-Cream</p>	<p>Pea Soup</p> <p>Roast Lamb Vegetable Curry & Rice Jacket Potato & Cottage Cheese Ham & Cheese Sandwich Chicken Salad</p> <p>Roast Potato/Mashed Potato Broccoli/Parsnip</p> <p>Rhubarb Pie & Custard Fruit/Yoghurt/Ice-Cream</p>
Afternoon tea and night-time snack*	Tea/Coffee/Water & snack	Tea/Coffee/Water & snack	Tea/Coffee/Water & snack	Tea/Coffee/Water & snack	Tea/Coffee/Water & snack	Tea/Coffee/Water & snack	Tea/Coffee/Water & snack

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Evening meal	Fish Pie Vegetable Lasagne Jacket Potato & Tuna Beef Sandwich Pâté & Salad Peas/Spinach ChocGinger&Apricot Mousse Fruit/Yoghurt/Ice-Cream	Lamb Casserole Mushroom Risotto Jacket Potato & Cottage Cheese Prawn Sandwich Ham & Cheese Salad Boiled Potatoes Broad Beans/Ratatouille Prune & Hazelnut Cream Fruit/Yoghurt/Cheese&Biscuits	Sausage & Tomato Nut Roast Jacket Potato & Cheese Chicken Cranberry Sandwich Smoked Mackerel Salad Smashed Potatoes Carrots /Baked Beans/Salad Fruit & Cereal Yoghurt Fruit/Yoghurt/Ice-Cream	Spaghetti Bolognese Vegetarian Sausages Jacket Potato & Beef Chilli Egg Mayonnaise Sandwich Chicken Salad Boiled New Potatoes Sweetcorn/Swede/ Salad Fruit Mousse & Flapjack Fruit/Yoghurt/Ice-Cream	Stir Fry Pork & Rice Vegetarian Shepherds Pie Jacket Potato & Cottage Cheese Hummus & Pitta Bread Tuna Salad Broccoli/Spinach/Salad Banana Bread & Apricots Fruit/Yoghurt/Ice-Cream	Braised Steak Vegetarian Ravioli Jacket Potato & Tuna Turkey Sandwich Ham Salad Roast Potatoes Broad Beans/Carrots/Salad Black Forest Gateaux Fruit/Yoghurt/Ice-Cream	Grilled Chicken Breast Cauliflower Cheese Jacket Potato & Baked Beans Beef Sandwich Prawn Salad Smashed New Potatoes Sweetcorn/Spinach/Salad Trifle Fruit/Yoghurt/Ice-Cream
Daily snacks	Currant Bun Fruit/Nuts/Biscuits/ Cereal Bar Cheese&Crackers/ Yoghurt Chocolate/Crisps Beverages	Scone & Jam Fruit/Nuts/Biscuits/ Cereal Bar Cheese&Crackers/ Yoghurt Chocolate/Crisps Beverages	Chocolate Swiss Roll Fruit/Nuts/Biscuits/ Cereal Bar Cheese&Crackers/ Yoghurt Chocolate/Crisps Beverages	Malt Loaf Fruit/Nuts/Biscuits/ Cereal Bar Cheese&Crackers/ Yoghurt Chocolate/Crisps Beverages	Toasted Tea Cake Fruit/Nuts/Biscuits/ Cereal Bar Cheese&Crackers/ Yoghurt Chocolate/Crisps Beverages	Carrot Cake Fruit/Nuts/Biscuits/ Cereal Bar Cheese&Crackers/ Yoghurt Chocolate/Crisps Beverages	Chocolate Krispie Cakes Fruit/Nuts/Biscuits/ Cereal Bar Cheese&Crackers/ Yoghurt Chocolate/Crisps Beverages

* Hot drink for night-time snack is choice of tea, coffee or hot chocolate

Nutrient analysis of example menu 1 for adults aged 19-74 years setting

Nutrient	Average population requirement (provided as daily averages over seven days)	Recommended target for areas of excess or insufficiency (provided as daily averages over seven days)	Nutrient provision from example menu plan for <u>mixed adults</u> (provided as daily averages over seven days)
Energy MJ/kcals	9.4/2250		9.4/2244
Total fat (g)	Max 87.5	Less than 85.8	74.5
Saturated fat (g)	Max 27.5	Less than 27.0	24.4
Carbohydrate (g)	Min 300		311
NMES (g)	Max 66.0	Less than 64.7	50.3
Fibre (as NSP g)	18		28
Protein (g)	Min 50		101
Sodium (mg)	Max 2400	Less than 2352	2201
Salt (equivalent g)	Max 6.0	Less than 5.9	5.3
Iron (mg)	14.8	More than 14.8	16.8
Potassium (mg)	3500	More than 3500	5289
Riboflavin (mg)	1.3	More than 1.3	2.7

Example menu 2 for adult men 19-74 years

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Early morning	Tea/Coffee/Water	Tea/Coffee/Water	Tea/Coffee/Water	Tea/Coffee/Water	Tea/Coffee/Water	Tea/Coffee/Water	Tea/Coffee/Water
Breakfast	Fruit/Fruit Juice Cereals Scrambled Egg Yoghurt/Parfait Toast with butter/spread Preserves Tea or Coffee/Water	Fruit/Fruit Juice Cereals Baked Beans & M'room Yoghurt/Parfait Toast with butter/spread Preserves Tea or Coffee Water	Fruit/Fruit Juice Cereals Poached Egg & Tom Yoghurt/Parfait Toast with butter/spread Preserves Tea or Coffee Water	Fruit/Fruit Juice Cereals Sausage Sandwich Yoghurt/Parfait Toast with butter/spread Preserves Tea or Coffee Water	Fruit/Fruit Juice Cereals Cheese on Toast Yoghurt/Parfait Toast with butter/spread Preserves Tea or Coffee /Water	Fruit/Fruit Juice Cereals Bacon Sandwich Yoghurt/Parfait Toast with butter/spread Preserves Tea or Coffee /Water	Fruit/Fruit Juice Cereals Boiled Egg Yoghurt/Parfaits Toast with butter /spread Preserves Tea or Coffee /Water
Mid morning snack	Tea/Coffee/Water	Tea/Coffee/Water	Tea/Coffee/Water	Tea/Coffee/Water	Tea/Coffee/Water	Tea/Coffee/Water	Tea/Coffee/Water
Lunch	Vegetable Soup Chicken Pie Tuna Pasta Bake Jacket Potato & Vege Chilli Boiled New Potatoes Carrots/Broccoli/Salad Cheesecake Fruit/Yoghurt/Ice-Cream	Tomato Soup Beef Goulash Quorn Curry & Rice Jacket Potato & Tuna Mashed Potato Cabbage/Peas/Salad Fruit Pie & Custard Fruit/Yoghurt/Ice-Cream	Minestrone Soup Roast Chicken Meat Moussaka Jacket Potato & Cheese & Fromage Frais Roast/Mashed Potato Spinach/Leeks/Salad Apple Crumble & Ice-Cream Fruit/Yoghurt	Leek & Potato Soup Pork Chop Vegetable Quiche Jacket Potato & Baked Beans & Coleslaw Smashed New Potatoes Cauliflower/Carrots/Salad Rice Pudding & Fruit Compote Fruit/Yoghurt/Ice-Cream	Chicken Noodle Soup Fried Cod Broccoli & Cheese Sauce Jacket Potato & Chicken Salad Chips /Mashed Potato Peas/Corn /Salad Bread Pudding & Custard Fruit/Yoghurt/Ice-Cream	Carrot & Coriander Soup Lamb Casserole Vegeburger in Bun Jacket Potato & Chilli Con carne Boiled New Potatoes Leeks/Green Beans/Salad Fruit Pie & Ice-Cream Fruit/Yoghurt	Mushroom Soup Roast Beef & Y Pudd Vege Curry & Rice Jacket Potato & Ratatouille & Cheese Roast/Mashed Potato/ Sprouts/Carrots/Salad Plum Sponge & Custard Fruit/Yoghurt/Ice-Cream

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Afternoon tea and night-time snack*	Tea/Coffee/Water & snack	Tea/Coffee/Water & snack	Tea/Coffee/Water & snack	Tea/Coffee/Water & snack	Tea/Coffee/Water & snack	Tea/Coffee/Water & snack	Tea/Coffee/Water & snack
Evening meal	Lancashire Hot Pot Mushroom Risotto Egg&CottageCheese Salad Roast Potato Green Beans/Leeks/Salad Chocolate Ginger & Apricot Mousse Fruit/Yoghurt	Grilled Salmon Cheese & Tomato Pizza Ham Sandwich Smashed New Potatoes Ratatouille/Corn/Salad Trifle Fruit/Yoghurt	Beefburger in Bun Vege Shepherds Pie Prawn Salad Jacket Potato Peas/Swede/Salad Tinned Peaches & Ice-cream Fruit /Yoghurt	Spaghetti Bolognaise Vegetable Pakora & Rice Tuna Salad Sandwich Ratatouille/Salad Black Forest Gateaux Fruit/Yoghurt	Stir Fry Turkey&Noodles Vegetarian Lasagne Egg Sandwiches Mixed Vegetables/Salad Fruit Mousse & Flapjack FruitYoghurt	Chicken Tandoori Cottage Pie Cheese Ploughmans Rice/Mashed Potato Broccoli/Leeks/Salad Banana Custard Fruit/Yoghurt/Ice-Cream	Grilled Sausage & Onions Pasta & Tomato Sauce Prawn Sandwiches Smashed New Potatoes Tomato/Mushroom /Salad Lemon Meringue Pie Fruit/Yoghurt/Ice-Cream
Daily snacks	Carrot Cake Fruit/Nuts/Biscuits Yoghurt/Cereal bar Cheese & Crackers Chocolate/Crisps Beverages	Chocolate Muffin Fruit/Nuts/Biscuits Yoghurt/Cereal bar Cheese & Crackers Chocolate/Crisps Beverages	Currant Bun Fruit/Nuts/Biscuits Yoghurt/Cereal bar Cheese & Crackers Chocolate/Crisps Beverages	Toasted Tea Cake Fruit/Nuts/Biscuits Yoghurt/Cereal bar Cheese & Crackers Chocolate/Crisps Beverages	Sponge Cake Fruit/Nuts/Biscuits Yoghurt/Cereal bar Cheese & Crackers Chocolate/Crisps Beverages	Scone & Jam Fruit/Nuts/Biscuits Yoghurt/Cereal bar Cheese & Crackers Chocolate/Crisps Beverages	Chocolate Eclair Fruit/Nuts/Biscuits Yoghurt/Cereal bar Cheese & Crackers Chocolate/Crisps Beverages

* Hot drink for night-time snack is choice of tea, coffee or hot chocolate

Nutrient analysis of example menu 2 for men aged 19-74 years

Nutrient	Average population requirement (provided as daily averages over seven days)	Recommended target for areas of excess or insufficiency (provided as daily averages over seven days)	Nutrient provision from example menu plan for <u>men</u> (provided as daily averages over seven days)
Energy MJ(kcals)	10.5/2500		10.5/2507
Total fat (g)	Max 97.2	Less than 95.3	87.6
Saturated fat (g)	Max 30.6	Less than 29.9	29.5
Carbohydrate (g)	Min 333		343
NMES (g)	Max 73.3	Less than 71.9	53.9
Fibre (as NSP g)	18		29
Protein (g)	Min 54		104
Sodium (mg)	Max 2400	Less than 2352	2563
Salt (equivalent g)	Max 6	Less than 5.9	6.2
Iron (mg)	8.7	More than 8.7	16.6
Potassium (mg)	3500	More than 3500	5486
Riboflavin (mg)	1.3	More than 1.3	2.5

Example menu 3 for adult women aged 19-74 years

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Early morning	Tea/Coffee/Water	Tea/Coffee/Water	Tea/Coffee/Water	Tea/Coffee/Water	Tea/Coffee/Water	Tea/Coffee/Water	Tea/Coffee/Water
Breakfast	Fruit/Fruit Juice Cereals/Porridge Yoghurt/Parfait Toast with butter/spread/ preserves Tea or Coffee Water	Fruit/Fruit Juice Cereals/Porridge Yoghurt/Parfait Toast with butter/spread/pres erves Tea or Coffee Water	Fruit/Fruit Juice Cereals /Porridge Yoghurt/Parfait Toast with butter/spread/pres erves Tea or Coffee Water	Fruit/Fruit Juice Cereals /Porridge Yoghurt/Parfait Toast with butter/spread/pres erves Tea or Coffee Water	Fruit/Fruit Juice Cereals/Porridge Yoghurt/Parfait Toast with butter/spread/pres erves Tea or Coffee Water	Fruit/Fruit Juice Cereals/Porridge Yoghurt/Parfait Toast with butter/spread/pres erves Tea or Coffee Water	Fruit/Fruit Juice Cereals/Porridge Yoghurt/Parfaits Toast with butter/spread/pres erves Tea or Coffee Water
Mid morning	Tea/Coffee/Water	Tea/Coffee/Water	Tea/Coffee/Water	Tea/Coffee/Water	Tea/Coffee/Water	Tea/Coffee/Water	Tea/Coffee/Water
Lunch	Roast Chicken Vegetable Curry & Rice Jacket Potato & Smoked Mackerel Roast Potatoes/Boiled potato Carrots/Spinach/S alad Fruit & cereal yoghurt Fruit/Yoghurt/Ice- cream	Lamb Chop Pizza Jacket Potato & Tuna Smashed Potato/Rice Peas/Cauli/Salad Chocolate Gateau Fruit/Yoghurt/Ice cream	Beef Goulash Tuna Pasta Bake Jacket Potato & Baked Beans Boiled Potatoes/Rice Courgette/Broad beans Fruit pie & custard Fruit/Yoghurt/Ice- cream	Chicken liver & onions Vegetarian Sausages Jacket potato & cottage cheese Rice/Mashed potato Green beans/Cabbage Banana & apricot custard Fruit/Yoghurt/Ice- cream	Fried cod Vegetarian lasagne Jacket potato & beef chilli Chips/mashed potato Peas/Sweetcorn Prune & Hazelnut Cream Fruit/Yoghurt/Ice- cream	Chicken curry & rice Grilled salmon Jacket potato, ratatouille & cheese Smashed potatoes Mixed vegetables Fruit Mousse & Flapjack Fruit/Yoghurt/Ice cream	Roast Beef Vegetable Shepherds Pie Jacket Potato, cheese & Fromage frais Roast potatoes/Mash Parsnips/Broccoli Apple crumble & custard Fruit/Yoghurt/Ice cream
Afternoon tea and night-time snack*	Tea/Coffee/Water & snack	Tea/Coffee/Water & snack	Tea/Coffee/Water & snack	Tea/Coffee/Water & snack	Tea/Coffee/Water & snack	Tea/Coffee/Water & snack	Tea/Coffee/Water & snack

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Evening meal	<p>Leek & potato soup</p> <p>Cottage pie Vegetarian quiche Ham sandwich</p> <p>Boiled potato Leeks/Sweetcorn</p> <p>Trifle Fruit/Yoghurt</p>	<p>Tomato & rice soup</p> <p>Stir fry pork & rice Hummus & salad Egg sandwich</p> <p>Banana bread & apricots Fruit/Yoghurt</p>	<p>Carrot & coriander soup</p> <p>Grilled trout Spaghetti & tomato sauce Beef sandwich</p> <p>Smashed potatoes Spinach/Ratatouille</p> <p>Malt loaf Fruit/Yoghurt</p>	<p>Pea soup</p> <p>Spaghetti bolognaise Broccoli & cheese sauce Prawn sandwich</p> <p>Mashed potato Salad</p> <p>Chocolate Krispie cakes Fruit/yoghurt</p>	<p>Vegetable soup</p> <p>Beef grillsteak Stir Fry Tofu, Cashew & Noodles Cheese Ploughman's</p> <p>Boiled potatoes Courgettes/Cabbage</p> <p>Rice Pudding & Compote Fruit/Yoghurt</p>	<p>Butterbean/tomato soup</p> <p>Lamb Casserole Vegetarian Moussaka Pate Sandwiches Jacket Potato</p> <p>Broad beans/carrots/Salad</p> <p>Chocolate Ginger & apricot dessert/Fruit/Yoghurt</p>	<p>Spinach soup</p> <p>Shish Kebab Vegetable Chilli & Rice Salmon sandwich</p> <p>Chips Tomato/Salad</p> <p>Peaches & ice-cream Fruit/Yoghurt</p>
Daily snacks	<p>Fruit/Nuts/Biscuits Yoghurt/Cereal bar Cheese & Crackers Chocolate/Crisps Beverages</p>	<p>Fruit/Nuts/Biscuits Yoghurt/Cereal bar Cheese & Crackers Chocolate/Crisps Beverages</p>	<p>Fruit/Nuts/Biscuits Yoghurt/Cereal bar Cheese & Crackers Chocolate/Crisps Beverages</p>	<p>Fruit/Nuts/Biscuits Yoghurt/Cereal bar Cheese & Crackers Chocolate/Crisps Beverages</p>	<p>Fruit/Nuts/Biscuits Yoghurt/Cereal bar Cheese & Crackers Chocolate/Crisps Beverages</p>	<p>Fruit/Nuts/Biscuits Yoghurt/Cereal bar Cheese & Crackers Chocolate/Crisps Beverages</p>	<p>Fruit/Nuts/Biscuits Yoghurt/Cereal bar Cheese & Crackers Chocolate/Crisps Beverages</p>

* Hot drink for night-time snack is choice of tea, coffee or hot chocolate

Nutrient analysis of example menu 3 for women aged 19-74 years

Nutrient	Average population requirement (provided as daily averages over seven days)	Recommended target for areas of excess or insufficiency (provided as daily averages over seven days)	Nutrient provision from example menu plan for women (provided as daily averages over seven days)
Energy MJ/kcals	8.4/2000		8.2/1949
Total fat (g)	Max 77.8	Less than 76.2	60.4
Saturated fat (g)	Max 24.4	Less than 24.0	20.3
Carbohydrate (g)	Min 267		276
NMES (g)	Max 58.7	Less than 57.5	42.4
Fibre (as NSP g)	18		25
Protein (g)	Min 46		90
Sodium (mg)	Max 2400	Less than 2352	1754
Salt (equivalent g)	Max 6	Less than 5.9	4.1
Iron (mg)	14.8	More than 14.8	15.6
Potassium (mg)	3500	More than 3500	4893
Riboflavin (mg)	1.3	More than 1.3	2.5

Example menu 4 for adult men in prison

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Breakfast	Fruit Cereal & milk Bread with spread Preserves Tea/Water	Fruit Cereal & milk Bread with spread Preserves Tea Water	Fruit Cereal & milk Bread with spread Preserves Tea Water	Fruit Cereal & milk Bread with spread Preserves Tea Water	Fruit Cereal & milk Bread with spread Preserves Tea Water	Fruit Cereal & milk Bread with spread Preserves Tea Water	Fruit Cereal & milk Bread with spread Preserves Tea Water
Lunch	Shish kebab, pitta and hummus Pork chop Vegetarian Chilli Tuna fish sandwiches Rice Peas Fresh Fruit Fruit Bun Tea/Water	Spicy chicken with fruit Fish Pie Vegetarian lasagne Egg & tomato sandwich Boiled potatoes Carrots Fresh Fruit Choc Chip Muffin Tea/Water	Lamb chop & mint gravy Cottage Pie Vegetarian Quiche Sardine Sandwich Roast Potatoes Sweetcorn Fresh Fruit Cake Tea/Water	Spaghetti Bolognese Roast Turkey & stuffing Mushroom risotto Cheese Pickle Sandwich Mashed Potatoes Green beans Fresh Fruit Flapjack Tea/Water	Fish & chips Beef & onion pie Vegeburger & bun Ham and salad sandwich Chips Mixed Vegetables Fresh Fruit Cake Tea/Water	Jerk Chicken Beef Hotpot Tuna Pasta bake Dahl curry & rice Rice & peas Broccoli Fresh Fruit Fruit Cake Tea/Water	Roast beef & Yorkshire Pudding Gammon & pineapple Roast chicken&stuffing Jacket Potato & baked beans & cheese Roast Potatoes Cabbage Fresh fruit Applecrumble+cus tard Tea/Water

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<p>Evening meal</p>	<p>BBQ Chicken Legs Chilli con Carne Liver & Onions Vegetarian Sausages Beef Baguette Pack Up</p> <p>Jacket Potato Leeks</p> <p>Fresh fruit Crunchy Fruit Dessert</p> <p>Tea/Water</p>	<p>Beefburger in bun Turkey stir fry and rice Moussaka Falafel and hummus Ham baguette Pack up</p> <p>Potato Wedges Diced Salad</p> <p>Fresh Fruit Carrot Cake</p> <p>Tea/Water</p>	<p>Grilled Salmon Sausage & Onion Beef Goulash Pasta & Tomato Sauce Egg Baguette Pack up</p> <p>Boiled Potatoes Carrot & Parsnip Mash</p> <p>Fresh Fruit Cheesecake</p> <p>Tea/Water</p>	<p>Moroccan Lamb Ham/Pineapple Pizza Chicken and mushroom Pie Cheese/Tomato Pizza Chicken Pack Up</p> <p>Rice Ratatouille/ Coleslaw</p> <p>Fresh Fruit Banana Bread</p> <p>Tea/Water</p>	<p>Pack Up Baguettes Cheese Sardine Beef</p> <p>Rice Salad Mixed Salad</p> <p>Fresh Fruit Yoghurt Biscuit Pack</p> <p>Tea/Water</p>	<p>Pack Up Baguettes Egg Turkey Corned Beef</p> <p>Coleslaw Mixed Salad</p> <p>Fresh Fruit Yoghurt Biscuit Pack</p> <p>Tea/Water</p>	<p>Pack Up Baguettes Tuna Ham Hummus</p> <p>Potato Salad Mixed Salad</p> <p>Fresh Fruit Yoghurt Biscuit Pack</p> <p>Tea/Water</p>	
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Nutrient analysis of the example menu 4 for adult men in prison

Nutrient	Male Prisons	
	Standard/target ^φ	Menu provision
Energy MJ(kcals)	8.4/2000	8.5/2043
Total Fat (g)	Less than 76.2	58.3
Saturated fat (g)	Less than 24.0	17.8
Carbohydrate (g)	Min 267	304
Non Milk Extrinsic Sugars (g)	Less than 57.5	44.8
Fibre (g)	14	24
Protein (g)	43	91
Sodium (mg)	Less than 1882	2161
Salt equivalent (g)	Less than 4.7	5.3
Potassium (mg)	More than 3500	3947
Iron (mg)	More than 8.7	16.4
Riboflavin (mg)	More than 1.3	2

^φ compared to dietary recommendations for breakfast, lunch and evening meal excluding snacks

Example menu 5 for adult women in prison

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Breakfast	Fruit Cereal & milk Bread with spread Preserves Tea Water	Fruit Cereal & milk Bread with spread Preserves Tea Water	Fruit Cereal & milk Bread with spread Preserves Tea Water	Fruit Cereal & milk Bread with spread Preserves Tea Water	Fruit Cereals & milk Bread with spread Preserves Tea Water	Fruit Cereal & milk Bread with spread Preserves Tea Water	Fruit Cereal & milk Bread with spread Preserves Tea Water
Lunch	Beef Goulash Pork Sausage Cheese & onion sandwich Salmon & cucumber sandwich Bean/VegetableBake Rice Carrots Potato crisps Fruit/Yoghurt Tea/Water	Shish kebab & pitta Chicken nuggets Tuna salad sandwich Corned beef and tomato sandwich Jacket potato & baked beans Oven Chips Green beans/Salad Fruit/Yoghurt Tea/Water	Bolognaise Bruschetta Fish pie Hummus & salad sandwich Ham & salad sandwich Vegetarian sausages Potato wedges Peas Fruit/Yoghurt Tea/Water	Jacket potato & beef chilli Meat Pie Sardine salad sandwich Beef coleslaw sandwich Cheese & tomato pizza Boiled potatoes Cabbage/Coleslaw Potato crisps Fruit/Yoghurt Tea/Water	Chicken & lentil soup Beefburger in bun Egg & cress sandwich Tuna sandwich Jacket potato & vegetarian chilli Potato wedges Sweetcorn Fruit/Yoghurt Tea/Water	Moroccan lamb Pork Chop BBQ Chicken Wings Vegeburger Boiled potatoes Broccoli Rice Pudding & fruit puree Tea/Water	Roast beef Grilled fish Chicken Curry and rice Tofu stir fry & rice Roast potatoes/Rice Mixed vegetables Fruit Pie & custard Tea/Water

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<p>Evening meal</p>	<p>Roast Turkey Grilled Salmon Coronation chicken salad Mixed Bean salad Vegetarian lasagne</p> <p>Boiled potato Ratatouille</p> <p>Fruit Krispie Cakes</p> <p>Tea/Water</p>	<p>Tandoori Chicken Liver & onion Smoked mackerel salad Egg mayo salad Stir Fry Veg & noodles</p> <p>Rice Mixed Vegetables</p> <p>Fruit Currant Bun</p> <p>Tea/Water</p>	<p>Lamb Kheema & rice Chicken chasseur Tuna & pasta salad Ploughman's salad Dahl curry & rice</p> <p>Mashed potato Carrots</p> <p>Fruit Flapjack</p> <p>Tea/Water</p>	<p>Spaghetti bolognaise Gammon Steak Cottage cheese & pineapple salad Beef salad Cheese & Onion Flan</p> <p>Boiled Potato Spinach</p> <p>Fruit Fruit Cake</p> <p>Tea/Water</p>	<p>Breaded fish Cottage Pie Hummus & tahina salad Ham & egg salad Pasta & Tomato sauce</p> <p>Chips Peas</p> <p>Fruit Chocolate Chip Muffin</p> <p>Tea/Water</p>	<p>Pack Up Sandwiches Salmon/Beef Soft Cheese</p> <p>Mixed Salad Rice salad</p> <p>Fresh Fruit Yoghurt Biscuit Pack</p> <p>Tea/Water</p>	<p>Pack Up Sandwiches Turkey Tuna Egg</p> <p>Mixed Salad Bean Salad</p> <p>Fresh Fruit Yoghurt Biscuit Pack</p> <p>Tea/Water</p>
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Nutrient analysis of the example menu 5 for adult women in prison

Nutrient	Female prisons	
	Standard/target ^φ	Menu provision
Energy MJ/kcals	6.7/1600	6.6/1574
Total Fat (g)	Less than 61.0	42.1
Saturated fat (g)	Less than 19.2	13.5
Carbohydrate (g)	Min 213	235
Non Milk Extrinsic Sugars (g)	Less than 46.0	34.3
Fibre (g)	14	21
Protein (g)	Min 37	76
Sodium (mg)	Less than 1882	1619
Salt equivalent (g)	Less than 4.7	4.0
Potassium (mg)	More than 3500	3521
Iron (mg)	More than 14.8	15.1
Riboflavin (mg)	More than 1.3	2

^φ compared to dietary recommendations for breakfast, lunch and evening meal excluding snacks

Appendix 3. What counts as a portion of fruit or vegetable?

ONE portion = 80g = any of these

1 apple, banana, pear, orange or other similar sized fruit

2 plums or similar sized fruit

½ a grapefruit or avocado

1 slice of large fruit, such as melon or pineapple

3 heaped tablespoons of vegetables (raw, cooked, frozen or tinned)

3 heaped tablespoons of beans and pulses (however much you eat, beans and pulses count as a maximum of one portion a day)

3 heaped tablespoons of fruit salad (fresh or tinned in fruit juice) or stewed fruit

1 heaped tablespoon of dried fruit (such as raisins and apricots)

1 handful of grapes, cherries or berries

a dessert bowl of salad

a glass (150ml) of fruit juice (however much you drink, fruit juice counts as a maximum of one portion a day)

Further information on fruit and vegetables can be found on the following websites:

www.nhs.uk/LiveWell/5ADAY/Pages/5ADAYhome.aspx

www.nhs.uk/Livewell/5ADAY/Pages/Portionsizes.aspx

Appendix 4. Food hygiene

Food businesses in the UK must be registered with the local authority and comply with both the European and national food hygiene legislation (which includes temperature control requirements). The food business operator should be able to demonstrate, on inspection, that they have the required knowledge to prepare food in a safe manner. They would also need to show that any staff handling food are supervised and instructed and/or trained in food hygiene matters relating to their job.

If you have any questions about how the EU food hygiene legislation applies to food handling, serving or supply at your institution, the Food Standards Agency strongly recommends seeking further advice from your local authority Environmental Health Department. New businesses should be registered with the EHD at least 28 days before they start to trade. To find contact details for the relevant EHD please go to:

<http://www.food.gov.uk/enforcement/yourarea/>

The Food Standards Agency also has further information and guidance on its website. Background to the food hygiene legislation and PDF copies of the EU rules can be accessed from: www.food.gov.uk/business-industry/guidancenotes/hygguid/#.UnjrZfmpWoM

Appendix 5. Allergen labelling

The consequences for someone with a food intolerance or a food allergy who consumes food containing the food to which they react can range from mild (eg itchy sensation in the mouth or skin rash) to severe, and in some cases potentially fatal anaphylaxis, including difficulties breathing and cardiac arrest.

Current food labelling legislation requires foods sold pre-packed to declare the presence of a list of specified allergenic foods. This applies to foods sold retail or to mass caterers. The list currently consists of cereals containing gluten (wheat, barley, rye, and oats), crustaceans, fish, peanuts, soybeans, milk, eggs, nuts (such as almond, hazelnut, walnut, cashew, and Brazil nut), celery, mustard, sesame, sulphur dioxide/sulphites, molluscs and lupin.

At the end of 2014, new legislation (the EU Food Information for Consumers Regulation 1169/2011) will be introduced that will require food businesses to provide allergy information on food sold unpackaged, in for example catering outlets, deli counters, bakeries and sandwich bars. There will also be changes to existing legislation on labelling allergenic ingredients in pre-packed foods.

Within a catering setting there are several important points to consider to help people with food allergies or intolerances to make safe and informed choices:

- businesses will have to provide information on the 14 specified allergenic foods if they are used as ingredients in food products. This can be given in written form on menus or tickets or it can be given orally by staff. However, if a business chooses to make allergen information available orally, then there must be clear information on the menu or a notice in the premises saying that people with food allergies and/or intolerance can get allergen information by talking to the staff. It is very important that the allergen information provided by the business is accurate and is kept up-to-date in response to any changes in ingredients or to the menu
- careful training of staff to minimise cross contamination with foods containing the specified allergenic foods
- training staff to deal appropriately and accurately with an enquiry regarding ingredients that may cause a reaction

The Food Standards Agency provides allergy advice and guidance for all food related businesses and also has a freely available allergy e-learning module. These are available on its website: www.food.gov.uk/policy-advice/allergyintol/label/.

The NHS website also offers advice at: <http://www.nhs.uk/conditions/food-allergy/pages/Intro1.aspx>.

Appendix 6. Sustainable food

Animal welfare

UK consumers are concerned about animal welfare. Government is supporting efforts across the supply chain to ensure that animals are reared ethically. Department for Environment, Food and Rural Affairs (Defra) has produced advice on the legislation and codes of practice designed to protect animal welfare on farms, in transport, at markets and at slaughter. This can be accessed at www.gov.uk/animal-welfare.

Seasonal produce

Foods produced in season (including fruits, vegetables, meat and fish), tend to require fewer inputs in terms of energy, water and other resources than if produced out of season or under cover. Businesses focusing on seasonal produce may increase sales of fresh produce, raise greater awareness of local produce and build stronger links with local food suppliers. This relates to multiple criteria set out in GBSF.

Sustainably sourced fish

Overfishing is widely acknowledged as the greatest single threat to marine wildlife and habitats and many fish stocks are widely reported to be in a state of serious decline. GBSF requires that 100% of fish is from sustainable sources. The Marine Stewardship Council's ecolabel (<http://www.msc.org/>) and the Marine Conservation Society's Fish online guide (<http://www.fishonline.org/>) can be used to verify that sustainable fish is being sold.

Higher environmental production standards

Farmers are stewards of more than 70% of EU land. Encouraging environmentally responsible organic or integrated farm management systems supports sustainable food production. Higher environmental standards are recognised by the LEAF marque (<http://www.leafuk.org/leaf/consumers/theLEAFmarquecons.eb>) and the Soil Association as well as others. GBSF criteria specify that at least 10% (by value) of procured foods should meet assured higher level standards.

Fairly traded produce

Procuring items such as tea, coffee, chocolate and bananas that are certified under schemes that help to promote ethical procurement practices and better social and economic conditions for producers and employees involved in the supply chain, for example providing assurance that minimum employment and pay standards are being observed.

Waste minimisation and management

This includes reducing the amount of food wasted in the catering operation and avoiding sending all types of waste to landfill through recycling, composting and so on. This will

reduce the greenhouse gas impacts of waste management and, in addition, minimising food waste can reduce costs to the caterer.

Reducing energy consumption

To reduce your greenhouse gas impacts you should look to reduce your organisation's energy consumption through the equipment you buy and the way you run your catering operations. This will also have the added benefit of reducing your costs.

Opportunities for small suppliers

Small and medium-sized enterprises (SMEs) drive innovation and growth in the economy. They can provide innovative and cost-effective solutions and opening tendering opportunities to them increases competitiveness across the food industry. Procurers should look to create a level playing field so that smaller businesses are able to compete alongside larger businesses for access to government contracts. It is not about providing preferential treatment, but removing barriers like the size of contracts and complex and time consuming bidding processes.

Appendix 7. Case study contact details

Bolton NHS Foundation Trust and Bolton Public Health Team

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NHS Supply Chain

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