

**Examination of the cost of healthy eating and
specialised diets for a single individual in
Ireland 2013 Update**

Prepared for the Department of Social Protection

By the

Irish Nutrition and Dietetic Institute.

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Background & Terms of Reference

Summary Note on Diet Supplement Arrangements

Background

In 2004, the Department of Social and Family Affairs commissioned the Irish Nutrition and Dietetic Institute (INDI) to examine a number of issues in relation to its dietary supplement allowance namely:

- 1) Examine the various types of diets then prescribed and the extent of the need for a special diet over a nutritionally balanced diet.
- 2) Examine the costs of the specialised food items which form the various diets consumed by specific categories of patients, having regards to any other forms of support available to these individuals (*i.e.* medical cards).
- 3) The average cost of a proper, nutritionally balanced healthy eating diet and to establish how this corresponds to the current measure of costs *i.e.* one third of a single person's basic social welfare payment.

The review examined the cost to an individual receiving social welfare payment of consuming a healthy diet and then examined the additional cost to consume a diet required for a specific dietary condition. A report entitled 'The Examination of the Cost of Healthy Eating and Specialised Diets' was published in January 2006.

2006 Diet Regulations

In April 2006, revised regulations on the dietary supplement allowance came into effect. These regulations reflected the findings of the 2006 INDI report and also the objective that all social welfare recipients, including those with special dietary needs, should be able to purchase an appropriate diet at a cost of no more than one third of their income. The 2006 INDI report priced the costs of diets in a variety of outlets from the

cheapest (large discount stores) to the more expensive (local convenience) stores. The diet levels for the purposes of the Diet Supplement were set by the Department of Social Protection at the highest prices surveyed (those at convenience stores).

2007 Diet Regulations

The Diet Regulations were revised in January 2007 to take account of:

- 1) An increase of 4.4% in the overall rate of inflation as measured by the Consumer Price Index over the twelve months to November 2006 and
- 2) An increase in welfare rates announced in Budget 2007.

The increase of 4.4% in the overall rate of inflation on current diets resulted in an increase of €3.16 in the dietary supplement allowance to all diets. This increase of €3.16 is based on the highest increase in dietary costs as a result of the increase in inflation.

From January 2007, the new arrangements were applicable to all new claims for the dietary supplement allowance. The legislative provisions on the current Diet Supplement are set out in Part 4 of the Social Welfare (Consolidated Supplementary Welfare Allowance) Regulations 2007 to 2011.

In 2013, the Irish Nutrition and Dietetics Institute won the tender for a review of the diet costing's applicable to the Diet Supplement Scheme.

Terms of Reference for 2013 Project

It is proposed to carry out an updating exercise in 2013 on the diets outlined in the previous reports to ensure that the prescribed diets remain valid and that the rates of Diet Supplement payments are appropriate. It will involve revisiting the costing exercises undertaken by the INDI in 2004 and 2007 to see if there has been significant change in the cost of diets. The study will feed into a review of the current Diet Supplement scheme policy and regulations.

Project Responsibility and Project Lead

Deirdre McCormack, Suzanne Seery and Dr Muireann Cullen undertook this project on behalf of the Irish Nutrition and Dietetic Institute (INDI), with the support of other INDI members as required. The INDI assumed overall responsibility for the project.

Key Tasks

1. Assessment of and updating the literature available in the Irish context, where feasible with regards to food availability, insecurity and poverty, the long term health impact of same and support provided through the dietary supplement allowance scheme.
2. Assessment of and updating of the 4 specialised diets currently supported under the diet supplement scheme and outlined in the 2006 and 2007 diet reports to ensure nutritional adequacy and to take account of any changes that have occurred in dietary advice due to recent evidence.
3. Carry out a thorough assessment of the costs incurred to consume a nutritionally balanced and healthy diet.
4. Advise the Department of Social Protection as to whether the current types of specialised diets eligible for the dietary supplement allowance remain relevant.

5. Carry out a thorough assessment of the additional costs incurred to consume each of the 4 specified specialised diets.
6. Advise the Department of Social Protection of any recommended revisions to existing diet supplement provisions arising from the examination of the diets and costs incurred.
7. Attend meetings as required with Department of Social Protection to provide overview of progress and outline plans to ensure all targets in relation to the management and control of the project are achieved by contract end.
8. Liaise with the INDI on a regular basis to provide overview of progress and outline plans to ensure all targets in relation to the management and control of the project are achieved by contract-end.

Key Deliverables

1. A draft report to be submitted to the Department of Social Protection by 16th August 2013.
2. A final report to be submitted to the Department of Social Protection by 13 September 2013.

Payment Conditions

Payment to the INDI will be made on delivery of the final report to the Department of Social Protection, on production of an invoice and valid tax clearance certificate.

General Note on Diet Supplement

Summary

Under the Supplementary Welfare Allowance Scheme, a person who has additional dietary needs may qualify for a weekly supplement to assist with the cost of those needs. Diet supplements are available for a number of prescribed diets which must be certified by an appropriate medical practitioner. The rate of payment is based on a set diet cost for each of the 4 prescribed diets.

Relevant Legislation

Section 198 of the Social Welfare Consolidation Act 2005 (No. 26 of 2005) contains the legal provisions for payment of all supplements under the supplementary welfare allowance scheme.

Part 4 of the Consolidated Supplementary Welfare Allowance Regulations 2007 (S.I. 412 of 2007) refers specifically to diet supplements.

2006 INDI Diet Cost Report

In 2004, the Department of Social Protection commissioned the INDI to examine a number of issues in relation to its diet supplement. The review examined the cost to an individual receiving social welfare payment to consume a healthy diet and then examined the additional cost to consume a diet required for a specific condition and a report entitled 'The Examination of the Cost of Healthy Eating and Specialised Diets' was published in January 2006.

2006 Diet Regulations

In April 2006 revised regulations on diet supplements came into effect. These regulations reflected the findings of the INDI report and the objective that all social welfare recipients, including those with special dietary needs,

should be able to purchase an appropriate diet at a cost of no more than one-third of their income. The diet report priced the cost of diets in a variety of outlets from the cheapest - large discount stores - to the more expensive local convenience stores. The diet levels for the purposes of the Diet Supplement were set by the Department of Social Protection at the highest prices surveyed – those at convenience stores.

In 2006, the Regulations prescribed a new range of specialised diets and diet costs, as recommended by (INDI), as follows:

2006 Diet Costs

1. High protein, high calorie	€68.27
2. Gluten free diet	€65.27
3. Low lactose, milk free	€62.27
4. Liquidised (altered consistency)	€71.77

2007 Diet Regulations

The Diet Regulations were revised in January 2007 to take account of

- an increase of 4.4% in the overall rate of inflation as measured by the Consumer Price Index over the twelve months to November 2006, and
- an increase in welfare rates announced in Budget 2007.

The increase of 4.4% on current diets resulted in increases of between €2.74 and €3.16 per diet. In order to achieve round figures in calculation of the supplement, the Department of Social Protection increased all diet rates by €3.16. This decision was the most favourable to the customer as:

- (i) It was the increase on the highest cost diet – Altered Consistency Liquidised ($€71.77 \times 4.4\% = €3.16$), and
- (ii) The base figure for the diet was based on the highest costs surveyed in the INDI Report – those in convenience stores.

In 2007, the Regulations updated the diet costs, as follows:

2007 Diet Costs

1. Low-lactose, milk-free	€65.43
2. Gluten-free	€68.43
3. High-protein, high calorie	€71.43
4. Altered consistency (liquidised)	€74.93

The amounts of supplement payable are based on the above diet costs and reduced by one-third of the relevant 2007 social welfare single rate or one-sixth of the 2007 rate for a couple. For example, a single person on Jobseeker's Allowance with a requirement for a Gluten-free diet would receive a diet supplement of €6.50 (Gluten Free Diet cost of €68.43 less €61.93, one-third of his/her equivalent 2007 social welfare rate of €185.80).

2007 INDI Diet Report Update

In 2007, the INDI were commissioned to carry out an update of the 2006 report. The updated report was provided to the Department in November 2007. On the basis of the costs for specialised diets as identified in that update, it was decided by the Department of Social Protection that Diet Supplement rates were adequate and that there was no justification at that time for a change in the Diet Supplement levels.

Note - Since 2007, the policy on diet supplements has been that diet supplement calculations continue to be based on the diet costs as per the 2006 INDI Report adjusted for inflation in 2007 and equivalent 2007 social welfare rates.

Introduction

Diet plays a very prominent role in determining nutritional status and inequalities in health outcomes, such as premature death from a number of dietary related chronic health conditions including cardiovascular disease, diabetes and some cancers (James *et al*, 1997 Pluciński, Ngonghala, Getz, Bonds 2012). Low income is associated with poor nutrition at all life stages with poor nutrition during infancy and childhood impacting development of chronic disease in adulthood. In fact, the burden of obesity in children (with 100,000 already obese), is already seeing the development of chronic diseases during childhood.

On the other end of the scale, at any time, more than 140,000 adults in Ireland are malnourished or at risk of malnutrition with half being over 65 years of age. The vast majority of malnourished patients are living in the community with 1 in 3 patients admitted to Irish hospitals being found to be at risk of malnutrition and over 75% at high risk (Rice & Normand 2012; Elia &Stratton 2009, BAPEN, 2013).Compared with normally nourished patients, malnourished patients have;

- Threefold greater risk of infection.
- Between two and threefold greater mortality risk, according to age.
- 85% higher risk of hospital admission and re-admission (over 65).
- 30% longer length of hospital stay, on average.

(Schneider *et al*, 2004; 92(1):105-111; Stratton & Elia (2006); Stratton *et al* (2006).

In 2005, the report of the National Taskforce on Obesity (NTO) stated that while obesity levels have increased across all socio-economic groupings, these increases are most noticeable in the lower social classes. This is supported by Halpin, Morales-Suárez-Varela, Martin-Moreno (2010) where relatively disadvantaged racial, ethnic, and socioeconomic groups show higher incidence rates of heart disease, stroke, cancer and diabetes. A UK study recorded purchases made by over 3,000 households over 2006-2009

and found that while the number of calories consumed fell slightly from nearly 2,300 to less than 2,200 per day, people switched their purchases away from nutrient dense and towards energy dense (i.e. sugary and fatty) foods (Griffith, O' Connell, Smith, 2012).

Many European countries have used strong welfare policies to narrow the income gap between the wealthiest and poorest citizens and to extend access to healthcare across society, yet lung cancer incidence and mortality is still closely related to socioeconomic status (Halpin, Morales-Suárez-Varela, Martin-Moreno, 2010).

Food security, regardless of location, depends on food availability; and households' ability to access food depends on income as well as food prices (Cohen and Garrett, 2010). Most people make dietary decisions in relation to food and not nutrients; thus when shopping food choices are more likely to be influenced by factors such as price, availability, taste preference and convenience than by the vitamin and mineral content of the food. Research has shown that the type of food people buy influences dietary quality. The food choice differences between socio-economic groups translate into concomitant differences in nutrient intake (Turrell et al, 2009).

Low income households spend a relatively higher proportion of their income on food and despite this have a poor diet in terms of nutritional intake. People in low income households tend to shop at convenience stores where prices are high and variety is poor. Living in a socioeconomically deprived area may influence dietary behaviours by limiting access to supermarkets (through lower servicing of these areas by supermarkets or lower access to transport) and increasing access to corner/convenience stores (Morland, Diez Roux, Wing, 2006). Both financial and physical barriers limit the opportunity of many low income households to purchase healthy

food. Ensuring that people have sufficient income to access an affordable, sustainable and healthy diet is a key step in food security (Wilde, 2011).

In a study by Monsivais and Drewnowski (2009), it was found that higher-quality diets were not only more costly per kilocalorie but were also consumed by persons of higher educational level. One study showed that higher intakes of dietary fibre, vitamins A, C, D, E, and B12, beta carotene, folate, iron, calcium, potassium, and magnesium were associated with higher diet costs. Conversely, higher intakes of saturated fats, trans saturated fats and added sugars were associated with lower diet costs. Lower cost lower quality diets were more likely to be consumed by lower socio-economic groups (Aggarwal, Monsivais and Drewnowski, 2012).

In a review by Geiskes et al, (2010), weight status was most consistently associated with features of the environment; residents of areas with greater access to supermarkets or lower accessibility to takeaway outlets had a lower prevalence of overweight/obesity compared with those living in areas with limited supermarket access or a greater accessibility to takeaway outlets. Residents of socioeconomically deprived areas have a greater likelihood of obesogenic dietary intakes than their counterparts in advantaged areas. In addition, poor transportation options and, restricted access to cooking and storage facilities affect many disadvantaged groups (Cullen, 2006, Friel and Conlon, 2004). In Ireland it was found, as it was in the UK, that the foods recommended in the Irish healthy eating dietary guidelines were often more expensive than the less healthy options (NTO, 2005).

Food poverty is defined as the inability to access a nutritionally adequate diet and includes related impacts on health, culture and social participation (Combat Poverty Agency, 2004) such as educational attainment and job opportunities (Reynolds and O' Dwyer, Ireland, 2002).

Low income households are twice as likely as the whole population to experience food poverty and almost 50% of lone parent households and 36% of unemployed people experience some sort of food deprivation (Healthy Food for All, 2009). A 2012 report by *safefood* estimates that 10% of people are now living in food poverty, a rise of 3% between 2009 and 2010.

Access to food more consistent with preventing the development of obesity is reduced in low income areas compared to higher income areas. Based on the findings of *safefood* research (2005), low income families on the island of Ireland are having difficulty in allocating the relatively high expenditure necessary for healthy living from their weekly budgets.

Even now, urban poor people tend to buy food from local markets or neighbourhood shops. These are frequently, small and widely scattered (Cohen and Garrett 2010). This is supported by previous research where the most common type of retail outlet used by the lower income groups are local convenience outlets (Wilde, 2011) followed by the local independent traders. In general, the outlets where socially disadvantaged people shopped were less likely to carry a good range of healthy foods and when they did they were more expensive (Friel *et al*, 2004, Drenowski, 2004, Friel, Walsh and McCarthy, 2006). In 2012, the FSAI examined the cost of healthy eating in Ireland (2012) and found that where a family shops influences the cost of eating healthily with convenience stores tending to be almost twice as expensive for the foods required to meet a healthy diet.

Large retail outlets often have a greater choice of healthy affordable food, but may be difficult to access, especially if there is not adequate public transport (NTO, 2005, Friel *et al*, 2004). Several of these large retail stores have introduced 'value line' or 'economy line' foods to improve their attractiveness to low income consumers. Economy line foods represent excellent value for money and are often not nutritionally inferior to the

branded foods. They have a potentially important role to play in the promotion of healthy eating, especially amongst low income households (Cooper and Nelson, 2003, Darmon et al, 2009). Key elements in achieving good nutrition are ensuring the accessibility and availability of affordable healthy food (Manandhar *et al*, 2006). Improving physical access to supermarkets may be one strategy to deal with the obesity epidemic; improving economic access to healthy foods is another (Drenowski, 2012).

Methodology

Overview

Pricing for a selection of foods based on branded and own label foods was surveyed in a sample of retail outlets for each diet. A Microsoft Excel database was used to enter the data collected and analyse the costs of the diets.

Method

The Diets

The healthy eating menu plan was devised based on the food pyramid from the Department of Health and Children (2012) and FSAI, 1999 and 2012 recommendation with regards to macro and micronutrients for the adult male and female Irish population, see Table 1.

The therapeutic diets from the 2006 and 2007 reports were reviewed against current therapeutic diets in use in Irish hospitals in 2013. Resources used in a clinical setting to advise patients regarding therapeutic/specialised diet (e.g. clinical nutrition diet sheets) were used in devising the meal plans. The diets were planned to provide the patient with nutritious food, to meet their dietary requirements and to provide variety and flavour. Specialised diets used in the malnourished population such as liquidised and high protein high calorie, require higher energy and protein requirements and for the purposes of the meal plans an additional 500-700kcal were included in the menu plan to reflect these requirements.

Table 1. Goals for different age and gender groups in the Irish population

Gender/ Age (years)	Calories (inactive) ^f	Calories (moderately active) ^f	Total fat (% energy)	Saturated fat (% energy)	Sugars ^a (% energy)	Fibre ^b (g)	Iron ^c (mg)	Calcium ^e (mg)	Vit D ^e (µg)
Boys/girls (5-13)	N/A	1400-2200	25-35	≤10	≤10	Age + 5	8-11	800-1300*	5
Boys (14-18)	2200	2400-2800	20-35	≤10	≤10	Age + 5	7	1300	5
Girls (14-18)	1800	2000	20-35	≤10	≤10	Age + 5	10	1300	5
Men (19-50)	2200	2400-2800	20-35	≤10	≤10	≥ 25	7	1000	5
Women (19-50)	1800	2000-2200	20-35	≤10	≤10	≥ 25	10(6) ^d	1000	5
Men (51+)	2000	2200-2400	20-35	≤10	≤10	≥ 25	7	1200	10
Women (51+)	1600	1800	20-35	≤10	≤10	≥ 25	6	1200	10

^a Sugars are "non-milk extrinsic sugars" and include table sugar, syrups, fruit juice and sugars added to foods such as cakes, biscuits, confectionery, breakfast cereals, sweets, soft drinks, tinned and stewed fruit, jams, preserves, yoghurts and milk puddings. The goal of ≤10% daily energy was set by the UK COMA panel in their 1989 report on sugars and health ⁽¹⁾

^b The 1995 US goal for fibre intake of "age plus 5 years" for children up to the age of 18 years was considered most appropriate ⁽²⁾. The goal of ≥25g per day was taken from the Irish Heart Foundation recommendations ⁽³⁾

FSAI, 2012

For specialised diets, in particular the gluten free diet, resources such as the Coeliac Society of Ireland Food list 2013, were consulted to ensure the menu plans and food items chosen were appropriate. The gluten free diet menu plan also took into consideration the higher calcium and iron requirements, essential micronutrients for good health.

These sample diets are based on average portion sizes and frequency of consumption so that all nutritional requirements are met for good health. Alcohol is not included in the diets. Diet analysis software (Nutritics) was used to verify the nutritional content of each menu plan to ensure nutritional adequacy.

Data collection

Data was collected by shop visits in a variety of different social demographic locations in the greater Dublin area (e.g. Dublin 8, Dublin 4) between June and July 2013. The head offices of several of the store categories were contacted regarding pricing outside of the Dublin area with most stores having a national pricing policy with the exception of some smaller convenience stores where some indicated 5% uplift on prices due to lower sales volumes and consequent additional costs in stocking.

Both own label and branded foods were examined. The stores were subjectively categorised according to size i.e. large stores (e.g. Tesco, Superquinn, Dunnes Stores), large low cost stores (e.g. Lidl, Aldi), medium sized stores (e.g. Supervalu, Centra, Tesco Express), and convenience stores (e.g. Day today, Mace, Spar, Londis, Gala).

A price check was conducted on a range of 2 to 3 stores in each store category to provide a comprehensive overview of product costs and availability for each diet. In addition to this where possible at least 2-4 branded and own label price checks were recorded for each food item. In each store, the manager on duty was contacted and a supporting letter from the Department of Social Protection was shown.

Branded foods were defined as foods that were stocked by the store but were not produced in the name of the store itself. Own label foods were defined as foods that could be found in the store with the brand name of the store or other similar labelling e.g. Tesco value, Euroshopper, St. Bernard etc.).

Prices for branded and own label foods were logged for foods that fell within each food category in the diets. An average cost was calculated for

each food item and used to calculate the total cost of each diet for branded and own label foods.

The cost of the food items was examined in large stores, large low cost stores, medium sized stores as well as convenience stores in order to determine the difference in costs between shop types. Special offers were not included in the costs of the diets as the variability in pricing and cost to the consumer would be difficult to reflect due the transient nature of discounts and special offers.

The dietary costs were based on average portion usage over a week, however it must be recognised that an individual may have had to purchase larger units of food or drink in the shop e.g. 26 teabags used in the week, however the minimum number of teabags available is 40.

Examples of the diets used over the course of 7 days and their costs can be found in Appendices 2 – 7.

Stage 1: Examination of therapeutic diets in 2013

A review of the current dietary guidelines for each specialised diet was undertaken by the Dietitians involved in this study. Further information regarding the background to the prescription of each specialised diet is detailed when assessing the cost of each specialised diet below.

2013 Diets

1. Low-lactose, milk-free
2. Gluten-free
3. High-protein, high calorie
4. Altered consistency (liquidised)

Stage 2. Examination of the cost of a Healthy Eating Diet.

Healthy Eating Diet

A healthy eating diet can be defined as a well-balanced and nutritious diet that provides all nutrients in sufficient quantities required by the body to remain healthy. All members of the general public are advised to consume such a diet, not only by health professionals but also by government departments e.g. Department of Health. An updated food pyramid (below) was launched in 2012 with the following changes: in the dairy section, pregnant women are now recommended to only consume 3 servings a day instead of 5, oils and fats were differentiated from high fat high sugar foods and allocated a separate shelf with a recommended intake of 2 servings a day. Whereas previously the top shelf had no servings allocated, the shelf now advises that food and drinks high in fat, sugar and salt are to be limited to 1 serving a day.

The Department of Health advise that an average member of the public consumes per day: 6 or more servings of high fibre varieties of carbohydrates; 5 or more servings of fruit and vegetables; 3 servings of low fat dairy foods; 2 servings of protein foods; 2 servings of fats and oils as well as food and drinks high fat, sugar and salt to be consumed a maximum of 1 serving a day. The food pyramid (Figure 1) outlines this advice.

The seven day menu plan for healthy eating was designed to meet an average of the recommended dietary allowances for energy, protein and micronutrients for both male and female adults for the Irish population as recommended by FSAI, 1999 and the Department of health 2012.

Figure 1. The Food Pyramid¹.

An example of a 7-day healthy eating diet can be found in Appendix 2

Understanding the Food Pyramid



¹ Reproduced with the kind permission of the Department of Health and Children

Results

The following table shows the cost of consuming a healthy eating diet when purchased in a number of different store types.

- In the large stores, the cost of a healthy eating diet was examined both for branded and own label foods.
- In large discount stores, where a product was unavailable, the product price of the large stores was substituted.
- In medium sized stores; where a product was unavailable, the product price of the large stores was substituted
- In convenience stores, where a product was unavailable, the product price of the large stores was substituted.
- On average approximately 30% of items had to be sourced in large stores where they were unavailable in large discount, medium and convenience stores.

Table 2. Cost of a healthy eating (HE) diet (€) and percentage (%) of welfare allowance spent

	Large Stores			Large Discount Stores			Medium Stores			Convenience Stores		
	Branded	Own label	Average	Branded	Own label	Average	Branded	Own label	Average	Branded	Own label	Average
Cost of HE diet €	50.24	38.68	44.46	37.90	34.47	36.19	56.49	49.16	52.82	65.78	58.66	62.22
% of allowance spent	27	21	24	20	19	19	30	26	28	35	32	33

The minimum weekly social welfare allowance for a single person is €186. One third of this is €62.

Notes on product costing:

1. Where no own label existed for a food, substitution of the branded food for that store category was used as the consumer may be unable to travel to another store to purchase an own label substitute.
2. Where no food could be purchased, the branded food of the large store was used.
3. Where no branded food existed, substitution of the own label food was used.

Stage 3: Examination of costs for specialised diets

Specialised diets

The following diets may incur additional financial burden due to the requirement of particular or specialised foods or foods. These diets are dealt with individually and examples can be found in the appendices.

- High protein, high calorie
- Gluten free diet
- Low lactose, milk free
- Liquidised (altered consistency). Description: A smooth, pouring, uniform consistency (IASLT, INDI, 2009)

Menu plans for each specialised diet were devised to cover 7 days of eating in line with advice given by Dietitians and the cost of consuming each was examined.

Results

Tables 2 - 6 outline the costs of each diet purchased in a number of different premises. In each store category the cost of each diet was examined both for branded and own label foods with an average of between 2-4 items within each product category used in the final costing.

High Protein High Calorie diet

At any time, more than 140,000 adults in Ireland are malnourished or at risk of malnutrition with half being over 65 years of age. The vast majority of malnourished patients are living in the community with 1 in 3 patients admitted to Irish hospitals being found to be at risk of malnutrition and over 75% at high risk (Rice & Normand 2012; Elia & Stratton 2009, BAPEN, 2013)

Compared with normally nourished patients, malnourished patients have (Schneider et al, 2004; 92(1):105-111; Stratton & Elia (2006); Stratton et al (2006)

- Threefold greater risk of infection.
- Between two and threefold greater mortality risk, according to age.
- 85% higher risk of hospital admission and re-admission (over 65).
- 30% longer length of hospital stay, on average.

A HPHC diet is based upon fortification of the diet using high protein, high calorie ingredients and appropriate cooking methods in order to boost the nutritional value of the foods consumed.

Nutritional support may be required in addition to the HPHC diet whereby specially formulated nutritional products are taken orally or administered as liquids via tubes into the stomach or small intestine (enteral feeding).

An example of a high protein, high calorie diet can be seen in Appendix 3.

Table 3. Average cost of a high protein, high calorie (HPHC) diet, percentage (%) of welfare allowance spent, cost of healthy eating (HE) diet and additional cost above that of HE diet.

	Large Stores			Large Discount Stores			Medium Stores			Convenience Stores		
	Branded	Own label	Average	Branded	Own label	Average	Branded	Own label	Average	Branded	Own label	Average
Cost of HPHC diet €	55.06	36.93	45.99	37.80	35.66	36.73	57.49	48.82	53.15	64.31	55.02	59.66
% of allowance spent	30	20	25	20	19	20	31	26	29	35	30	32
Cost of HE diet €	50.24	38.68	44.46	37.90	34.47	36.19	56.49	49.16	52.82	65.78	58.66	62.22
Variance HE €	4.82	-1.75	1.53	-0.11	1.19	0.54	1.00	-0.34	0.33	-1.48	-3.64	-2.56
Variance SWA € (€62)	-6.94	-	-16.01	-24.20	-26.3	-25.27	-4.51	13.18	-8.85	2.31	-6.98	-2.34

The minimum weekly social welfare allowance for a single person is €186. One third of this is €62.

Notes on product costing:

1. Where no own label existed for a food, substitution of the branded food for that store category was used as the consumer may be unable to travel to another store to purchase an own label substitute.
2. Where no food could be purchased, the branded food of the large store was used.
3. Where no branded food existed, substitution of the own label food was used.

Gluten free diet

Coeliac Disease is an autoimmune disease and a long term, chronic condition. It affects 1 in 100 Irish people. It is a condition causing adults and children to react to the gluten, the protein found in such grains as wheat, barley and rye. Some people with coeliac disease are also sensitive to the protein, avenin, found in oats. It is not triggered or worsened by lifestyle choices, unlike obesity and related conditions such as high cholesterol, type 2 diabetes or coronary heart disease. There is no known cure for Coeliac Disease. The only proven treatment to relieve the symptoms of this disease is strict adherence to a gluten-free diet.

In untreated coeliac disease, damage to the surface of the small intestine results in a reduced ability to digest and absorb food and causes malabsorption of essential nutrients such as iron, folic acid and calcium.

In infants and children, this can result in health problems such as faltering growth, unexplained anaemia, chronic diarrhoea and abdominal distension. In adults, ill health with symptoms of tiredness, reduced appetite, weight loss, mouth ulcers, abdominal bloating, diarrhoea and anaemia may occur. In addition, the prevalence of autoimmune thyroid disease in people with Coeliac Disease is up to 7% and the prevalence of Type 1 diabetes is between 2 and 10%

Due to the variability of symptoms and the belief that it is not a common condition, it often goes unrecognised and undiagnosed. Delayed diagnosis is a concern because of the associated long-term complications, such as subfertility, osteoporosis, small intestinal malignancy and lymphoma.

Basic healthy eating principles still apply with a gluten free (Coeliac) diet. The substitution of gluten free foods is required where appropriate. Any food using such ingredients or ingredients based on the grains listed above are to be avoided, as the only treatment available is lifelong avoidance of gluten in the diet. Continued vigilance is required when shopping as ingredients can change without notification.

In order for individuals suffering from Coeliac Disease to meet their nutritional needs, specialised gluten free foods are substituted for many of the everyday foods a non-Coeliac would use. These foods can be homemade or chosen from the variety available in stores. The Coeliac Society of Ireland produce a booklet on an annual basis listing the brands of gluten free foods or regular foods that are naturally gluten free and are suitable for consumption. This booklet acts as a reference point for their members and was used as a point of reference during this study.

Enriched, fortified cereal products contribute a large percentage of iron to the diet. However, gluten-free products tend not to be fortified and studies have shown that gluten-free cereal products generally provide lower amounts of iron (Thompson 1999, 2000). Nutritional quality of gluten-free diets and health of coeliac patients may be compromised due to limited varieties of ingredients being used (do Nascimento et al, 2013). In addition, gluten-free foods have poor availability and are more expensive than their gluten-containing counterparts. The impact of these findings on dietary compliance and the quality of life needs to be addressed (Lee et al, 2007, Singh, Whelan, 2011).

Whilst every effort was made to maintain the same foods as in the healthy eating diet, this was not always possible due to the lack of the

gluten free variety of a food being available. Greatest availability was found in the large and large low cost stores with limited availability in medium sized and convenience stores. It was also noted that branded gluten free products contained more fortification with the nutrients required in greater amounts for good health in coeliac disease and that these branded products were mainly available in the large stores .

In 2012, the HSE removed all gluten free products from the GMS list, making them unavailable to patients who qualify for a medical card or use the drugs payment scheme. Research has shown that coeliac patients obtain a greater percentage of their intake of nutrients such as fibre, calcium, iron, carbohydrate and energy from specialist gluten free products on prescription compared with retail alternatives. The foods that were cut from the GMS are the staple source of energy in the diet such as breads, pastas and cereals. Gluten-free products have been shown to be up to four times more expensive as ordinary gluten-containing foods.

Studies also show that cost is a major factor in non-compliance with the diet. The removal of gluten free food on prescription could significantly impact upon dietary adherence along with nutritional status and result in an increased risk of long-term health complications such as osteoporosis, sub-fertility and increased risk of bowel cancer.

It also needs to be borne in mind that patients with Coeliac Disease are advised to become a member of the Coeliac Society of Ireland and these results in an additional outlay of €20 which can be substantial for some.

An example of a gluten free diet can be seen in Appendix 4.

Table 4. Average cost of a Gluten Free (GF) diet, percentage (%) of welfare allowance spent, cost of healthy eating (HE) diet and additional cost above that of HE diet.

	Large Stores			Large Discount Stores			Medium Stores			Convenience Stores		
	Branded	Own label	Average	Branded	Own label	Average	Branded	Own label	Average	Branded	Own label	Average
Cost of GF diet €	60.95	51.61	56.28	49.98	46.36	48.17	65.15	58.71	61.93	73.83	69.51	71.67
% of allowance spent	33	28	30	27	25	26	35	32	33	40	37	39
Cost of HE diet €	50.24	38.68	44.46	37.90	34.47	36.19	56.49	49.16	52.82	65.78	58.66	62.22
Variance HE €	10.71	12.93	11.82	12.08	11.89	11.98	8.67	9.55	9.11	8.05	10.85	9.45
Variance SWA € (€62)	-1.05	-	-5.72	-12.02	-26.3	-13.83	3.15	-3.29	-0.07	11.83	7.51	9.67

The minimum weekly social welfare allowance for a single person is €186. One third of this is €62.

Notes on product costing:

1. Where no own label existed for a food, substitution of the branded food for that store category was used as the consumer may be unable to travel to another store to purchase an own label substitute.
2. Where no food could be purchased, the branded food of the large store was used.
3. Where no branded food existed, substitution of the own label food was used.

Low Lactose, Milk Free Diet

This type of diet is warranted when an individual is either allergic to dairy foods or intolerant to the sugar contained within i.e. lactose.

Milk allergy is an abnormal response by the body's immune system to milk and products containing milk. Cow's milk is the usual cause of milk allergy, but milk from sheep, goats and buffalo also can cause a reaction (e.g. protein allergy).

It's important to differentiate a true milk allergy from milk protein intolerance or lactose intolerance. Unlike a milk allergy, intolerance doesn't involve the immune system. Milk intolerance causes different symptoms and requires different treatment from a true milk allergy. Common signs and symptoms of milk protein or lactose intolerance include digestive problems, such as bloating, gas or diarrhoea, after consuming milk or products containing milk (Mayo Clinic, 2011). In children, it is often the case that after a bout of gastroenteritis they can suffer from a temporary reaction to lactose, however this usually resolves with time.

Depending on whether a person is allergic or intolerant dictates whether they need complete avoidance for life or in some more tolerant cases a reduction in consumption of dairy foods and foods that contain any ingredients of dairy origin. Presented here is the diet for complete avoidance. Again, continued vigilance is required when shopping as ingredients can change without notification.

Whilst every effort was made to maintain the same foods as in the healthy eating diet, this was not always possible due to the lack of the dairy free variety of a food being available in all stores. An example of a low lactose, milk free diet can be seen at Appendix 5.

Table 5. Average cost of a Low lactose, milk free (LLMF) diet, percentage (%) of welfare allowance spent, cost of healthy eating (HE) diet and additional cost above that of HE diet.

	Large Stores			Large Discount Stores			Medium Stores			Convenience Stores		
	Branded	Own label	Average	Branded	Own label	Average	Branded	Own label	Average	Branded	Own label	Average
Cost of LLMF diet €	51.19	42.81	47.00	38.58	38.01	38.29	55.12	50.60	52.86	65.22	63.35	64.29
% of allowance spent	28	23	25	21	20	21	30	27	28	35	34	35
Cost of HE diet €	50.24	38.68	44.46	37.90	34.47	36.19	56.49	49.16	52.82	65.78	58.66	62.22
Variance HE €	0.95	4.13	2.54	0.68	3.54	2.11	-1.37	1.45	0.04	-0.56	4.69	2.06
Variance SWA € (€62)	-10.81	-19.19	-15.00	-23.42	-26.3	-23.71	-6.88	-11.40	-9.14	3.22	1.35	2.29

The minimum weekly social welfare allowance for a single person is €186. One third of this is €62.

Notes on product costing:

1. Where no own label existed for a food, substitution of the branded food for that store category was used as the consumer may be unable to travel to another store to purchase an own label substitute.
2. Where no food could be purchased, the branded food of the large store was used.
3. Where no branded food existed, substitution of the own label food was used.

Liquidised (altered consistency) (AC) diet

This diet is used in cases where the individual is no longer able to chew or swallow normally, this is known as dysphagia. There are many causes of dysphagia e.g. swallow impairment post stroke, impairment of swallow post radiotherapy or surgical treatment of cancer of the mouth, throat, upper oesophagus, or mandible etc. or a neurological disease such as motor-neuron disease. Candidates for this diet are seen by the speech and language therapist (SLT) to assess their swallow and to determine the appropriate altered consistency of the diet. National guidelines have been published regarding 'Irish consistency descriptors for modified fluids and food' (IASLT, INDI, 2009). A Dietitian then designs a nutritionally appropriate therapeutic diet. AC diets generally require fortification in order to meet nutritional requirements to avoid the malnutrition associated with these conditions.

An example of an AC diet (Texture D) can be seen in appendix 6.

Table 6. Average cost of an Altered Consistency (AC) diet, Texture D, percentage (%) of welfare allowance spent, cost of healthy eating (HE) diet and additional cost above that of HE diet.

	Large Stores			Large Discount Stores			Medium Stores			Convenience Stores		
	Branded	Own label	Average	Branded	Own label	Average	Branded	Own label	Average	Branded	Own label	Average
Cost of AC diet €	59.08	43.30	51.19	41.42	39.81	40.62	71.53	61.96	66.75	73.97	65.03	69.50
% of allowance spent	32	23	28	22	21	22	38	33	36	40	35	37
Cost of HE diet €	50.24	38.68	44.46	37.90	34.47	36.19	56.49	49.16	52.82	65.78	58.66	62.22
Variance HE €	8.85	4.62	6.73	3.52	5.35	4.43	15.04	12.81	13.92	8.19	6.37	7.28
Variance SWA € (€62)	-2.92	- 18.70	-10.81	-20.58	-26.3	-21.38	9.53	-0.04	4.75	11.97	3.03	7.50

The minimum weekly social welfare allowance for a single person is €186. One third of this is €62.

Notes on product costing:

1. Where no own label existed for a food, substitution of the branded food for that store category was used as the consumer may be unable to travel to another store to purchase an own label substitute.
2. Where no food could be purchased, the branded food of the large store was used.
3. Where no branded food existed, substitution of the own label food was used.

Table 7. Summary of costs of all diets examined

	Large Stores			Large Discount Stores			Medium Stores			Convenience Stores		
	Branded	Own label	Average	Branded	Own label	Average	Branded	Own label	Average	Branded	Own label	Average
Cost of HE diet €	50.24	38.68	44.46	37.90	34.47	36.19	56.49	49.16	52.82	65.78	58.66	62.22
Cost of HPHC diet €	55.06	36.93	45.99	37.80	35.66	36.73	57.5	48.82	53.15	64.31	55.02	59.66
Cost of GF diet €	60.95	51.61	56.28	49.98	46.36	48.17	65.15	58.71	61.93	73.83	69.51	71.67
Cost of LLMF diet €	51.19	42.81	47.00	38.58	38.01	38.29	55.12	50.60	52.86	65.22	63.35	64.29
Cost of AC diet €	59.08	43.30	51.19	41.42	39.81	40.62	71.53	61.96	66.75	73.97	65.03	69.50

The minimum weekly social welfare allowance for a single person is €186. One third of this is €62.

HE = Healthy Eating

HPHC = High Protein, High Calorie

GF = Gluten Free

LLMF = Low Lactose, Milk Free

AC = Altered Consistency (Liquidised Diet)

Table 8. Average costs of diets in different store categories versus HE diet

	Large Stores		Large Discount Stores		Medium Stores		Convenience Stores	
	Average Cost of Brand & Own Label	% increase versus HE diet	Average Cost of Brand & Own Label	% increase versus HE diet	Average Cost of Brand & Own Label	% increase versus HE diet	Average Cost of Brand & Own Label	% increase versus HE diet
Cost of HE diet €	44.46		36.19		52.82		62.22	
Cost of HPHC diet €	45.99	103.44%	36.73	101.49%	53.15	100.6%	59.66	96%
Cost of GF diet €	56.28	126.59%	48.17	133.10%	61.93	117.25%	71.67	115%
Cost of LLMF diet €	47	105.71%	38.29	105.80%	52.86	100.76%	64.29	103%
Cost of AC diet €	51.19	115.14%	40.62	112.24%	66.75	126.37%	69.5	112%

The minimum weekly social welfare allowance for a single person is €186. One third of this is €62.

HE = Healthy Eating

HPHC = High Protein, High Calorie

GF = Gluten Free

LLMF = Low Lactose, Milk Free

AC = Altered Consistency (Liquidised Diet)

Discussion & Conclusion

Discussion & Conclusion

As can be seen from the Terms of Reference the aim of this work was to provide an update of the Diet Report on the Examination of the Cost of Health Eating and Specialised Diets for a single individual in Ireland – (published in January 2006 and February 2008).

When shopping for a healthy eating diet, it became apparent that there were cheaper brands within the branded foods. In the majority of cases the own label foods were found to be cheaper than the branded foods. It was also evident in some shops that there were two types of own label foods, the regular own label food and the “value” own label foods that were cheaper again.

The Diet Supplement Scheme is based on the assumption that up to approximately 33% (€62.00) of a weekly social welfare allowance may be spent on food. The results of the 2004 study showed that an individual could spend up to 37% of their social welfare allowance on food for a healthy eating diet. The 2008 publication showed that an individual in receipt of the minimum social welfare payment could spend between 18% - 30% of their weekly welfare allowance on foods for a healthy eating diet. In this 2013 review, an individual could spend between 19% - 35% of their social welfare allowance on purchasing a healthy eating diet per week. The range in cost of a healthy eating diet for an individual was €34.47-€65.78, a difference of €31.31. Similar to the FSAI findings, the category of store influences greatly the cost of the diet, the lowest cost was the large discount store and the highest cost was the convenience store. With the convenience stores being almost double the cost of the large low cost stores.

Based on the work of the Department of Social and Family Affairs in implementing the recommendations of the INDI 2006 report and taking

account of rises in inflation the level of spend by a social welfare recipient on the foods for their specialised diet has increased from up to a maximum 35% in 2007 to up to 40% in 2013. From the data shown it can be seen that a specialised medically prescribed diets such as the gluten free diet and the liquidised diet do incur additional financial burden to an individual over and above the cost of a normal healthy eating diet in an effort to meet their basic nutritional and dietary requirements.

The 2013 diet costs range as follows:

Table 9: 2013 diet cost ranges

Diet	Lowest Cost	Store category	Highest cost	Store category
Healthy Eating	€34.47	Large discount	€65.78	Convenience
High Protein High Calorie	€35.66	Large discount	€64.31	Convenience
Gluten Free	€46.36	Large discount	€73.83	Convenience
Low Lactose, Milk Free	€38.01	Large discount	€64.29	Convenience
Altered Consistency (Liquidised)	€39.81	Large discount	€73.97	Convenience

It should be noted that in general choice was limited in the convenience stores with regard to healthier options e.g. high fibre breakfast cereals and often significant higher prices were charged for fresh fruit and vegetables compared with large or discount stores. Significant variances between own label and branded products were noted particularly for staple foods such as milk and bread, for example in a large store 1 litre of branded full fat milk costs €1.15 while unbranded 0.75 cent. This is particularly evident in convenience stores where there is a reduced choice in terms of own label products for staple foods such as milk, spreads, breads, sugar and eggs which corresponded to significant higher cost for specialised diets requiring

high fat high sugar foods to increase the energy density of the diet, e.g. altered consistency (liquidised diet). Furthermore, due to the lack of the gluten free variety of a food being available it was not always possible to maintain the same foods as in the healthy eating diet. The greatest availability for gluten free foods was found in the large stores and with limited availability in medium sized and convenience stores. Large discount stores have a significant listing of products in the coeliac society foods listing book but during this study we found inconsistency in availability in these stores.

Dietitians in both the community and hospital setting assess patients nutritional requirements based upon their presenting medical condition and nutritional consequences of that condition. A major role of the Dietitian is in providing guidance and adequacy with regard to specialised diets to enable patients to live as healthy a life as possible. However, many patients do not have access to a Dietitian in order to receive the appropriate guidance which may lead to inappropriate usage of specialised diets.

Changing dietary habits is difficult, especially if the change is imposed due to a medical diagnosis. Attempts to make changes in the diet can be affected by many socioeconomic factors including cost of foods, availability, and accessibility to shops, poor education and lack of cooking skills. Although outside of the direct scope of this study, the following factors should be considered with regards to costs of a diet.

- Possession of a freezer is an influencing factor as to whether an individual could avail of the special offers or the cheaper own label foods. Those living in one-person households have lower odds of fridge-freezer ownership, as do part-time workers and those with no education or primary school education only (Leahy

and Lyons, 2009). It was often the case that larger portions packs (more than would be sufficient for the week's intake) of foods needed to be purchased in order to keep the diet cheaper on a per unit and per portion basis. Therefore, freezing would be the only option available to take advantage of such offers without food wastage.

- There is the question to consider as to whether one can take advantage of such large portion packs due to financial constraints; therefore the individual may be forced to purchase the smaller quantities which more often than not work out more costly overall.
- Vigilance and education are required as there are cases where it would appear to be cheaper to buy double the smaller quantity rather than the larger pack e.g. 2 x 1 litre carton of milk could be cheaper than 2-litre carton of the same brand.
- The calculations for the cost of each diet do not reflect that a consumer may need to travel to source food items essential to the overall improved nutritional profile of their diet. It is noted that the DSP provides assistance towards travel costs in certain circumstances and also provides a free travel pass to qualified persons and their spouses. However, certain circumstances may impede ability to access public transport and therefore additional costs may be incurred in accessing private transport. Dependence on private transport will exacerbate the incidence of food poverty and the health inequalities consequent upon it (Morland, Diez Roux, Wing, 2006, Harrington et al, 2008).

It has been currently and previously found by this study and is supported by the work of Friel *et al*, 2004, Wilde, 2011 that by far the cheapest place to purchase food can be the large low cost stores but the range of items available there is not exhaustive. The second least expensive place to purchase foods is in the large stores and is where the best range of food items is available with both branded and own label pricing options. Whilst these type of retail outlets have low cost, health food choices available for purchase, low income groups do not regularly shop there (Friel *et al*, 2004, Wilde, 2011). Healthy Food for All (2009) found that where people shop has a big bearing on the cost of a healthy diet. It was twice as expensive to purchase a healthy diet in a local convenience store compared to a multiple supermarket which corroborates with the research done by the FSAI in 2012 on the cost of healthy eating in Ireland.

This study also shows that in convenience stores the range of brands and types of foods available is limited, often without fresh meat, fish, poultry, vegetables or wholemeal alternatives. The price of foods was found to be substantially higher when compared to the larger stores which has been since in several other studies (Cullen, 2006, 2008, Friel *et al*, 2004, Healthy Food for All, 2009). One of the biggest issues when trying to shop for a specialised diet is the lack of availability and range of foods available to the consumer. Trying to follow the principles of a specialised diet is difficult as often there is limited variety. It may be necessary for individuals to find and travel to larger shops or other areas in order to complete the ingredient list for a diet. This can have a major financial impact due to the additional costs involved. Friel *et al* 2004 and Wilde, 2011 found that convenience stores were the most common type of retail outlet used by the low income groups.

Specialised foods such as gluten free foods are significantly more expensive than the 'regular' foods, therefore placing an additional financial burden on individuals that must consume such diets to remain fit and healthy.

It also needs to be borne in mind that the more specialised the diet (e.g. Gluten Free); the more the individual is required to frequent the larger stores in order to be able to purchase the necessary foods. Typically when purchasing for a specialised diet, one is not able to take advantage of in store offers for foods, as these are unsuitable for the diet in question or one does not have the transport options to travel to the store, has reduced mobility due to age or medical condition.

RECOMMENDATIONS

Recommendations

The Dept for Social Protection should consider the following in examining the diet supplement scheme:

1. The cost of specialised diets in this study ranged from €35.66-€73.97, which represents a range of 19-40% of weekly social welfare allowance. The range of costs being influenced mainly by the shopping location. The cost of the healthy eating diet is now 35% of the social welfare allowance, based on the highest cost store (convenience store) and consideration should be given to the impact this is having on people in the community.
4. The average cost of the gluten free diet is 15-33% more expensive than a healthy eating diet. As referred to previously, a healthy diet is composed of a large proportion of high fibre carbohydrate foods. The removal of the staple carbohydrate gluten free foods from the GMS scheme has impacted on the difficulties in sourcing suitable products due to limited availability and higher costs compared with a regular healthy eating shopping basket.
5. The average cost of the AC diet is between 12-26% more expensive than a healthy eating diet. The AC diet is primarily used in many malnutrition related diseases where swallow is compromised e.g. post stroke, post radiotherapy or surgical treatment of cancer of the mouth, throat, upper oesophagus, or mandible or a neurological disease such as motor-neuron disease, all of which likely to incur greater costs in general from the complications arising from malnutrition.
6. This study found that fortification foods used in larger quantities in the high protein high calorie diet such e.g. full fat milk, cream, fat

spreads and sugar were significantly more expensive in a convenience store. Although the diet cost was not much greater than a healthy eating diet it is used primarily in malnutrition related disease which are likely to incur greater costs in general from the complications arising from malnutrition which affects more than 140,000 adults in Ireland are malnourished or at risk of malnutrition, with half being over 65 years of age.

7. The average cost of the LLMF diet is between 3-6% more expensive than a healthy eating diet. This study revealed the difficulties in sourcing these products in large discount, medium and convenience stores, therefore low income families may struggle to source the appropriate dairy substitute items routinely.
8. The Department of Social Protection should review the Diet Supplement scheme in line with the findings of this research.
9. The Irish Nutrition and Dietetic Institute should continue to work with the Department of Social Protection in order to ensure appropriateness of the diets on the dietary supplement allowance form.

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Appendix 1: Letter of Introduction



Seirbhís Leasa Shóisialaigh
An Roinn Coimirce Sóisialaí
Bóthar an Choláiste
Sligeach



Social Welfare Services
Department of Social Protection
College Road
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April 2013

To Whom It May Concern:

This is to confirm that Dr. Muireann Cullen, MINDI, MNS, Irish Nutrition and Dietetic Institute, is carrying out research on behalf of the Department of Social Protection into the average cost of a proper, nutritionally balanced healthy eating diet and the cost of specialised prescribed diets.

This research will require Dr. Cullen to interact with food stores in order to establish the actual cost of individual food items.

Your co-operation with this research would be appreciated.

Yours sincerely,

Jackie Harrington
Principal Officer

Supplementary Welfare Allowance Section, Department of Social Protection

071 - 9157155

Appendices 2 -6: Special Diets

Appendix 2 Healthy Eating Meal Plan:

HE 2200kcal Mealtimes	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Breakfast	2 Weetabix Milk 135mls 2 slices of wholemeal toast with 1 portion of low-fat spread and 15g reduced sugar jam 100mls of Unsweetened Juice Cup of tea + 35 mls of Milk	2 x slices of Wholemeal toast Boiled egg 1 portion of butter (for two slices) 100mls of Unsweetened Juice Cup of tea + 35 mls of Milk	40g dessertspoons of dry porridge oats + water + 135mls of low-fat milk Fruit Salad (1 portion, 140g) 10g sunflower seeds Cup of tea + 35 mls of Milk	Wholemeal scone 1 portion low-fat spread. 100mls of Unsweetened Juice Cup of tea + 35 mls of Milk	40g dessertspoons of dry porridge oats + water + 135mls of low-fat milk 2 wholemeal slices of toast and 1 portion of low-fat spread. Cup of tea + 35 mls of Milk	Bowl of high fibre cereal (40g portion) 1 banana chopped 135mls of low-fat milk 2 slices of wholemeal toast with 1 portion of low-fat spread and 15g reduced sugar jam Cup of tea + 35 mls of Milk	2 x Poached Egg 2 Slices of Wholemeal toast 1 portion of low-fat spread 100mls of Unsweetened Juice Cup of tea + 35 mls of Milk
Mid morning	Apple 2 wholemeal crackers 1 portion reduced-fat cheese spread (21g)	10g of sunflower seeds	1 x low-fat yogurt	10g Pumpkin seeds	Kiwi 2 wholemeal crackers (2 x 24g) 1 portion reduced-fat cheese spread (21g)	Orange	Peanuts 25g portion
Lunch	2 Slices of wholemeal bread	1 Wholemeal roll (96g)	1 Bagel (82g) 1 boiled egg with	Wholemeal pitta (67g)	Baked beans 205g (snack-	1 baked potato 25g of grated	Wholemeal pasta (63g)

HE 2200kcal Mealtimes	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	2 slices turkey 1 portion home-made vegetable soup (220g) 1 x low-fat yogurt	2 slice of Ham (2 x 20g) ½ portion of ice-berg lettuce ½ tomato, 23g cucumber 1 x low-fat yogurt Kiwi	1 teaspoon of low-fat mayonnaise 1 portion of low-fat spread ½ portion of lettuce, ½ tomato. 23g cucumber 1 x 200mls of Low-fat Milk 1 x Apple	1 small tin of Sardines (109g) ½ portion of lettuce and 1 tomato 1 x low-fat yogurt 1 Banana	size tin) 2 slices of wholemeal toast ½ portion of low-fat spread 1 glass of Low-fat milk 1 portion of melon (250g)	low-fat cheddar cheese 1 tomato 1 x low-fat yogurt 1 x Pear	dried) Tinned tuna (72g) Sweet corn (4 dessertspoons) 1 x low-fat yogurt Melon (250g)
Mid-afternoon	1 x Orange	1 x Banana	1 x Orange	1 x Pear	1 x Orange	10 grapes	1 x Pear
Dinner	2 x medium baked potatoes 1 portion Carrots (60g) 1 portion Broccoli (76g) Lean pork chop (136g) 1 x 200mls of Low-fat milk 1 portion of mixed fruit salad Cup of tea + 35 mls of Milk	3 scoops of mashed potatoes 2 portions of mixed vegetables (180g) 1 medium lean beef steak (166g) Portion of gravy 1 x 200ml of Low-fat Milk Cup of tea + 35 mls of Milk	1 portion of steamed salmon (122g) Large portion of brown rice (290g, cooked) 2 portions of mixed vegetables 1 glass of Low-fat milk Cup of tea + 35 mls of Milk	Spaghetti Bolognese* 125g uncooked wholemeal pasta 140g lean stewed minced beef ½ carrot, ¼ onion, ½ portion sweet corn, 1 tablespoon of peas. ¼ tin of	135g of Haddock 2 x medium boiled potatoes 2 portions of mixed vegetables 15g of tartar sauce 1 x 200mls glass of low-fat milk. 1 portion of mixed fruit salad Cup of tea + 35	Vegetarian curry* ½ pepper, ¼ onion, ½ carrot, ½ tin of chopped tomatoes, 38g Broccoli, 3 tablespoons of pulses. Large portion of brown rice (290g) 1 x 200mls 1 pot of low-fat	1 medium fillet of chicken (120g) Roasted root vegetables (1 carrot and 1 x parsnip, ½ pepper) 1 teaspoon of vegetable oil 1 large baked potato 1 x 200mls glass of Low-fat milk

HE 2200kcal Mealtimes	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
		150g of low-fat custard		chopped tomatoes 1 glass of low-fat milk Cup of tea + 35 mls of Milk	mls of Milk	natural yogurt Cup of tea + 35 mls of Milk	1 portion of mixed fruit salad and 1 scoop of vanilla ice-cream
Supper	Cup of tea + 35 mls of Milk 2 digestives	Cup of tea + 35 mls of Milk 2 digestives	Hot chocolate made with low-fat milk (200mls) 1 wholemeal scone and 1 portion of low-fat spread	1 slice of wholemeal toast ½ portion of low-fat spread, 15g reduced sugar jam Cup of tea + 35 mls of Milk	1 x 30g bag of pop-corn	1 treat/fun sized chocolate coated bar	

Home-made vegetable soup recipe

Onion – 50g
Carrot – 70g
Potatoes – 50g
Broccoli – 50g
Water
Seasoning
Total weight of veg 220g

Fruit salad recipe

Chopped fruit as follows:

1 Banana
Half an orange
Half an apple

Appendix 3 HPHC meal plan

HPHC Mealtimes	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Breakfast	2 Weetabix Milk, full fat 135mls 2 slices of toast with 2 butter and 15g sugar jam 100mls of Juice Cup of tea + 35 mls of Milk(ff)	2 x slices of Wholemeal toast Fried egg 2 portion of butter 100mls of Unsweetened Juice Cup of tea + 35 mls of Milk	40g dessertspoons of dry porridge oats + 135mls of full-fat milk + cream Fruit Salad (1 portion, 140g) 10g sunflower seeds Cup of tea + 35 mls of Milk	Fruit scone 2 portion butter. 100mls of Unsweetened Juice Cup of tea + 35 mls of Milk	40g dessertspoons of dry porridge oats + water + 135mls of full-fat milk + cream 2 slices of toast and 2 portion of butter. Cup of tea + 35 mls of Milk	Bowl of cereal (40g portion) 135mls of full-fat milk 2 slices of toast with 2 portion of butter and 15g jam Cup of tea + 35 mls of Milk	2 x Sausage, 1 x Fried Egg, 2 x Fried Bacon 2 Slices of toast 2 portion of butter 100mls of Orange Juice Cup of tea + 35 mls of Milk
Mid morning	2 cream crackers 1 portion fat cheese spread (21g)	Glass of Milk with 28g of Skimmed Milk Powder	1 x yogurt	Full Fat Yoghurt	2 cream crackers (2 x 24g) 1 portion cheese spread (21g)	Glass of Milk with 28g of Skimmed Milk Powder	Peanuts 25g portion
Lunch	2 Slices of bread 2 slices turkey 1 portion home-made vegetable soup & 20 mls cream (220g) 1 yogurt	1 Wholemeal roll (96g) with butter 2 slice of Ham (2 x 20g) ½ portion of ice-berg lettuce ½ tomato, 23g cucumber 1 x yogurt	1 Bagel (82g) 1 boiled egg with 1 teaspoon of mayonnaise 1 portion of butter ½ portion of lettuce, ½ tomato. 1 x 200mls of Milk	Pitta (67g) 1 small tin of Sardines, in oil (109g) ½ portion of lettuce and 1 tomato 1 x full-fat yogurt	Baked beans 205g (snack-size tin) + 30g grated cheese 2 slices of toast 2 butter 1 glass of Full-fat milk 1 portion of melon (250g)	1 baked potato 30g of grated cheddar cheese 1 tomato 1 x full-fat yogurt	Pasta (63g dried) Tinned tuna in oil (72g) Sweet corn (4 dessertspoons) 1 x Full-fat yogurt

Mid-afternoon	Milk Pudding	Custard	Milk Pudding	Custard	Chocolate Bar e.g. Mars	Crisps	Milk Pudding
Dinner	<p>2 x medium baked potatoes with butter 1 portion Carrots (60g) 1 portion Broccoli (76g) Pork chop, fried (136g) 1 x 200mls of Milk</p> <p>Fruit Cocktail in syrup & 1 Scoop of ice cream</p> <p>Cup of tea + 35 mls of Milk</p>	<p>3 scoops of mashed potatoes, made with milk and butter 1 portions of mixed vegetables (90g) 1 medium fried beef steak (166g) Portion of gravy 1 x 200ml of Milk Cup of tea + 35 mls of Milk</p> <p>2 scoops of Ice cream</p>	<p>1 portion of fried salmon (122g) Large portion of (290g, cooked) 1 portions of mixed vegetables 1 glass of milk Cup of tea + 35 mls of Milk</p>	<p>Spaghetti Bolognese* 125g uncooked pasta 140g fried minced beef ½ carrot, ¼ onion, ½ portion sweet corn, 1 tablespoon of peas. ¼ tin of chopped tomatoes 1 glass of full-fat milk Cup of tea + 35 mls of Milk</p>	<p>135g of Fried Haddock in Batter 2 x medium boiled potatoes 1 Peas 15g of tartar sauce 1 x 200mls glass of Full-fat milk. 1 portion of Fruit Cocktail in syrup with Ice Cream(1 scoop)</p> <p>Cup of tea + 35 mls of Milk</p>	<p>Vegetarian curry* ½ pepper, ¼ onion, ½ carrot, ½ tin of chopped tomatoes, 38g Broccoli, 3 tablespoons of pulses + cream. Large portion of rice (290g) 1 x 200mls 1 pot of full-fat natural yogurt Cup of tea + 35 mls of Milk</p>	<p>1 medium fillet of chicken fried(120g) Roasted root vegetables (1 carrot and 1 x parsnip, ½ pepper) 1 teaspoon of vegetable oil 1 large baked potato</p> <p>1 x 200mls glass of Full-fat milk</p> <p>1 portion of Fruit Cocktail in syrup and 1 scoop of vanilla ice-cream</p>
Supper	<p>Cup of tea + 35 mls of Milk 2 sweet biscuits</p>	<p>Cup of tea + 35 mls of Milk 2 sweet biscuits</p>	<p>Hot chocolate made with full-fat milk (200mls) 1 fruit scone and 1 portion of butter</p>	<p>1 slice of toast 1 portion of butter, 15g jam</p> <p>Cup of tea + 35 mls of Milk</p>	<p>Hot Chocolate and 2 Sweet biscuits e.g. chic digestives</p>	<p>Cup of tea + 35 mls of Milk, Slice of Cake</p>	<p>Hot chocolate made with full-fat milk (200mls) and 2 sweet biscuits</p>

Appendix 4 GF diet

GF Mealtimes	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Breakfast	40g Gluten free High fibre flakes Milk 135mls 2 slices of gluten free wholemeal toast. 1 portion of low-fat spread and 15g reduced sugar jam 100mls of Unsweetened Juice Cup of tea + 35 mls of Milk	2 x slices of Gluten free Wholemeal toast Boiled egg 1 portion of butter 100mls of Unsweetened Juice Cup of tea + 35 mls of Milk	45g of Gluten free Muesli 135mls of low-fat milk Fruit Salad (1 portion, 140g) 10g sunflower seeds Cup of tea + 35 mls of Milk	1 medium High fibre roll 1 portion low-fat spread. 100mls of Unsweetened Juice Cup of tea + 35 mls of Milk 1 gluten free low fat yogurt	Gluten free Muesli + 135mls of low-fat milk 2 gluten free wholemeal slices of toast and 1 portion of low-fat spread. Cup of tea + 35 mls of Milk	Gluten-free high fibre flakes (40g portion) 1 banana chopped 135mls of low-fat milk 2 slices of Gluten free wholemeal toast with 1 portion of low-fat spread and 15g reduced sugar jam Cup of tea + 35 mls of Milk	2 x Poached Eggs 2 Slices of Gluten free Wholemeal toast 1 portion of low-fat spread 100mls of Unsweetened Juice Cup of tea + 35 mls of Milk
Mid-morning	Apple 2 rice cakes 1 portion reduced-fat cheese spread (21g)	10g of sunflower seeds	1 x Gluten free low-fat yogurt	10g Pumpkin seeds	Kiwi 2 Gluten free wholemeal crackers, 1 portion reduced-fat cheese spread (21g)	Orange	Peanuts 25g portion
Lunch	2 Slices of gluten-free wholemeal bread 2 slices turkey	1 Gluten free Wholemeal roll (96g)	1 Gluten free fibre roll 1 boiled egg with	4 Crisp breads (67g) 1 small tin of	Gluten-free Baked beans 205g	1 baked potato 25g of grated low-fat	Gluten free pasta (63g dried)

GF Mealtimes	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	1 portion gluten free home-made vegetable soup (220g) 1 x gluten free low-fat yogurt	2 slice of Ham (2 x 20g) ½ portion of ice-berg lettuce ½ tomato, 23g cucumber 1 x gluten free low-fat yogurt Kiwi	1 teaspoon of gluten free mayonnaise 1 portion of low-fat spread ½ portion of lettuce, ½ tomato. 23g cucumber 1 x 200mls of Low-fat Milk 1 x Apple	Sardines (109g) ½ portion of lettuce and 1 tomato 1 x gluten-free low-fat yogurt 1 Banana	2 slices of Gluten-free wholemeal toast ½ portion of low-fat spread 1 glass of Low-fat milk 1 portion of melon (250g)	cheddar cheese 1 tomato 1 x Gluten-free low-fat yogurt 1 x Pear	Tinned tuna (72g) Sweetcorn (4 dessertspoons) 1 x low-fat yogurt Melon (250g)
Mid-afternoon	1 x Orange	1 x Banana	1 x Orange	1 x Pear	1 x Orange	10 grapes	1 x Pear
Dinner	2 x medium baked potatoes 1 portion Carrots (60g) 1 portion Broccoli (76g) Lean pork chop (136g) 1 portion of gluten free gravy made on water 1 x 200mls of Low-fat milk 1 portion of mixed fruit salad Cup of tea + 35 mls of Milk	3 scoops of mashed potatoes 2 portions of mixed vegetables (180g) 1 medium lean beef steak (166g) Portion gluten free of gravy 1 x 200ml of Low-fat Milk Cup of tea + 35 mls of Milk	1 portion of steamed salmon (122g) Large portion of brown rice (290g, cooked) 2 portions of mixed vegetables 1 glass of Low-fat milk Cup of tea + 35 mls of Milk	Spaghetti Bolognese* 125g uncooked gluten free pasta 140g lean stewed minced beef ½ carrot, ¼ onion, ½ portion sweetcorn, 1 tablespoon of peas. ¼ tin of chopped	135g of Haddock 2 x medium boiled potatoes 2 portions of mixed vegetables 15g of gluten free tartar sauce 1 x 200mls glass of low-fat milk. 1 portion of mixed fruit salad	Vegetarian curry* ½ pepper, ¼ onion, ½ carrot, ½ tin of chopped tomatoes, 38g Broccoli, 3 tablespoons of pulses. Large portion of brown rice (290g) 1 x 200mls 1 pot of low-fat natural yogurt	1 medium fillet of chicken (120g) Roasted root vegetables (1 carrot and 1 x parsnip, ½ pepper) 1 teaspoon of vegetable oil 1 large baked potato 1 x 200mls glass of Low-fat milk

GF Mealtimes	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
		150g of low-fat custard		tomatoes 1 glass of low-fat milk Cup of tea + 35 mls of Milk	Cup of tea + 35 mls of Milk	Cup of tea + 35 mls of Milk	1 portion of mixed fruit salad and 1 scoop of Gluten-free vanilla ice-cream
Supper	Cup of tea + 35 mls of Milk 2 Gluten-free digestives	Cup of tea + 35 mls of Milk and 2 gluten free tea biscuits	Hot chocolate made with low-fat milk (200mls) 2 gluten free crackers and 1 portion of low-fat spread	1 slice of gluten free wholemeal toast ½ portion of gluten free low-fat spread, 15g reduced sugar jam Cup of tea + 35 mls of Milk	1 x 30g bag of pop-corn Cup of tea + 35 mls of Milk	2 gluten free chocolate chip cookies Cup of tea + 35 mls of Milk	Cup of tea + 35 mls of Milk

Appendix 5 – Low lactose, Dairy Free

Low Lactose, Dairy Free	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Breakfast	Dairy Free Cereal (40g) Low Fat Fortified Soya Milk 135mls 2 slices of wholemeal dairy free toast with 1 portion of low-fat spread and 15g reduced sugar jam 100mls of Unsweetened Juice Cup of tea + 35 mls of Low Fat Fortified Soya Milk	2 x slices of Wholemeal Dairy Free toast Boiled egg 1 portion of Dairy Free spread (for two slices) 100mls of Unsweetened Juice Cup of tea + 35 mls of Low fat Dairy Free Milk	40g dessertspoons of dry porridge oats + water + 135mls of low-fat Dairy Free milk Fruit Salad (half portion, 125g) 10g Pumpkin seeds Cup of tea + 35 mls of Low fat Dairy Free Milk	Dairy Free Wholemeal scone 1 portion low-fat dairy free spread. 100mls of Unsweetened Juice Cup of tea + 35 mls of Low Fat Dairy Free Milk	40g dessertspoons of dry porridge oats + water + 135mls of low-fat Soya milk 2 Dairy Free wholemeal slices of toast and 1 portion of Dairy Free low-fat spread. Cup of tea + 35 mls of Low fat Dairy Free Milk	Bowl of high fibre Dairy Free cereal (40g portion) 1 banana chopped 135mls of low-fat Soya milk 2 slices of wholemeal Dairy Free toast with 1 portion of low-fat Dairy Free spread and 15g reduced sugar jam Cup of tea + 35 mls of Low Fat Soya Milk	2 x Poached Egg 2 Slices of Wholemeal Dairy Free toast 1 portion of low-fat Dairy Free spread 100mls of Unsweetened Juice Cup of tea + 35 mls of Low Fat Soya Milk
Mid morning	Apple 2 wholemeal dairy free crackers 1 portion reduced-fat spread (21g)	10g of pumpkin seeds	1 x low-fat soya yogurt	10g Pumpkin seeds	Kiwi 2 wholemeal Dairy Free crackers (2 x 24g) 1 portion reduced-fat Dairy Free	Orange	Peanuts 25g portion

Low Lactose, Dairy Free	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
					Spread (21g)		
Lunch	2 Slices of Dairy Free wholemeal bread 2 slices turkey 1 portion home-made vegetable soup (220g) 1 x low-fat dairy free yogurt	1 Dairy Free Wholemeal roll (96g) 2 slice of Ham (2 x 20g) ½ portion of ice-berg lettuce ½ tomato, 23g cucumber 1 x low-fat Soya yogurt Kiwi	Dairy Free Bagel (82g) 1 boiled egg with 1 teaspoon of Dairy Free mayonnaise 1 portion of Dairy Free spread ½ portion of lettuce, ½ tomato. 23g cucumber 1 x 200mls of Low-fat Soya Milk 1 x Apple	2 Slices Wholemeal Dairy Free Bread (67g) 1 small tin of Sardines (109g) ½ portion of lettuce and 1 tomato 1 x low-fat Dairy Free yogurt 1 Banana	Baked beans 205g (snack-size tin) 2 slices of wholemeal Dairy Free toast ½ portion of low-fat Dairy Free spread 1 glass of Low-fat Dairy Free milk 1 portion of melon (250g)	1 baked potato 25g of grated low-fat Soya cheese 1 tomato 1 x low-fat Soya yogurt 1 x Pear	Wholemeal pasta (63g dried) Tinned tuna (72g) Sweetcorn (4 dessertspoons) 1 x low-fat Soya yogurt Melon (250g)
Mid-afternoon	1 x Orange	1 x Banana	1 x Orange	1 x Pear	1 x Orange	10 grapes	1 x Pear
Dinner	2 x medium baked potatoes 1 portion Carrots (60g) 1 portion Broccoli (76g) Lean pork chop (136g) 1 x 200mls of Low-fat dairy freemilk 1 portion of mixed fruit salad 250g Cup of tea + 35 mls of	3 scoops of mashed potatoes 2 portions of mixed vegetables (180g) 1 medium lean beef steak (166g) 1 x 200ml of	1 portion of steamed salmon (122g) Large portion of brown rice (290g, cooked/100g uncooked) 2 portions of mixed vegetables 1 glass of Low-fat Dairy Free milk Cup of tea + 35	Spaghetti Bolognese* 125g uncooked wholemeal pasta 140g lean stewed minced beef ½ carrot, ¼ onion, ½ portion	135g of Haddock 2 x medium boiled potatoes 2 portions of mixed vegetables 15g of Dairy Free tartar sauce 1 x 200mls glass of low-fat Soya	Vegetarian curry* ½ pepper, ¼ onion, ½ carrot, ½ tin of chopped tomatoes, 38g Broccoli, 3 tablespoons of pulses. Large portion of	1 medium fillet of chicken (120g) Roasted root vegetables (1 carrot and 1 x parsnip, ½ pepper) 1 teaspoon of vegetable oil 1 large baked potato

Low Lactose, Dairy Free	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	Low fat dairy free Milk	Low-fat Dairy Free Milk Cup of tea + 35 mls of Milk 150g of low-fat Soya custard	mls of Dairy Free Low Fat Milk	sweetcorn, 1 tablespoon of peas. ¼ tin of chopped tomatoes 1 glass of low-fat Dairy Free milk Cup of tea + 35 mls of Dairy Free Low Fat Milk	milk. 1 portion of mixed fruit salad (250g) Cup of tea + 35 mls of Low Fat Soya Milk	brown rice (290g) 1 x 200mls 1 pot of low-fat Soya yogurt Cup of tea + 35 mls of Low Fat Soya Milk	1 x 200mls glass of Low-fat Soya milk 1 portion of mixed fruit salad (250g) and 1 scoop of Dairy Free ice-cream
Supper	Cup of tea + 35 mls of Low Fat Dairy Free Milk 2 Dairy Free Biscuits (2 x 14g)	Cup of tea + 35 mls of Low Fat Dairy Free Milk 2 Dairy Free Biscuits (2 x 14G)	Low-fat Dairy Free milk (200mls) 1 wholemeal Dairy Free scone and 1 portion of low-fat Dairy Free spread	1 slice of Dairy Free wholemeal toast ½ portion of low-fat Dairy Free spread, 15g reduced sugar jam Cup of tea + 35 mls of Low Fat Dairy Free Milk	1 x 30g bag of pop-corn	1 treat/fun sized Dairy Free chocolate coated bar	2 x rice cakes with low fat spread 1 portion and reduced sugar jam 1 portion Cup of tea + 35 mls of Low Fat Dairy Free Milk

Appendix 6: AC/L Diet

AC meal times	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Breakfast	<p>Liquidised Porridge Oats, 25g Fortified Milk(200mls Full Fat milk with 1 ½ tbsp), sugar, Cream</p> <p>100mls of Unsweetened Juice</p> <p>Cup of tea + 35 mls of Fortified Milk</p>	<p>Liquidised eggs: 2 cooked eggs, fortified milk(50mls), butter 10g</p> <p>100mls of Unsweetened Juice</p> <p>Cup of tea + 35 mls of Fortified Milk</p>	<p>Liquidised Instant Oat Cereal, 25g Fortified Milk(200mls Full Fat milk with 1 ½ tbsp), sugar, Cream</p> <p>100mls of Unsweetened Juice</p> <p>Cup of tea + 35 mls of Fortified Milk</p>	<p>Liquidised Porridge Oats, 25g Fortified Milk(200mls Full Fat milk with 1 ½ tbsp), sugar, Cream</p> <p>100mls of Unsweetened Juice</p> <p>Cup of tea + 35 mls of Fortified Milk</p>	<p>Liquidised eggs: 2 cooked eggs, fortified milk(50mls), butter 10g</p> <p>100mls of Unsweetened Juice</p> <p>Cup of tea + 35 mls of Fortified Milk</p>	<p>Liquidised Instant Oat Cereal, 25g Fortified Milk(200mls Full Fat milk with 1 ½ tbsp), sugar, Cream</p> <p>100mls of Unsweetened Juice</p> <p>Cup of tea + 35 mls of Fortified Milk</p>	<p>Liquidised Porridge Oats, 25g Fortified Milk(200mls Full Fat milk with 1 ½ tbsp), sugar, Cream</p> <p>100mls of Unsweetened Juice</p> <p>Cup of tea + 35 mls of Fortified Milk</p>
Mid morning	<p>Smoothie: Liquidise Full Fat Yoghurt(125g) + 200ml yop style yoghurt drink + Banana/s off fruit</p>	<p>Tropical Shake: Liquidise Small tin of fruit in syrup + coconut milk 100ls, 200ml Fruit Juice</p>	<p>Strawberry Milkshake: Liquidised strawberries(10) + ice cream(1 scoop) + fortified milk(200ml) + sugar(20g)</p>	<p>Fizz: Liquidise Juice drink(200ml) + lemonade (110mls) + ice cream(1 scoop)</p>	<p>Hot Chocolate: Made up on fortified milk(200ml) with cream</p>	<p>Nourishing Soup: Liquidise half of a packet soup made up on full fat milk with butter + cream added</p>	<p>Smoothie: Liquidise Full Fat Yoghurt(125g) + 200ml yop style yoghurt drink + Banana/soft fruit</p>

Lunch	Cream of Chicken Liquidised Lunch: 150mls cream of chicken soup, cream(50 mls), cooked chicken(75g), mashed potatoes(80g), skimmed milk powder(15g), well cooked vegetables(15-30g)..Liquidised	Liquidised Fish meal: cooked salmon / white fish portion Fish(no bones)75g, white sauce(300ml),100g of mashed potatoes, double cream(30ml), well cooked vegetables(50g)..Liquidised	Liquidised Vegetarian Meal: Dried Lentils 60g, cooked rice(60g), skimmed milk powder(15g), double cream(30mls), tinned soup(200ml)..Liquidised	Liquidised Beef and Potato Curry: Cooked beef(60g), tomato soup(200ml), skimmed milk powder(15g), curry powder(5g), well cooked potatoes mashed(80g), well cooked vegetables(25g), double cream(20ml)	Liquidised Oily Fish meal: Fish(no bones)75g, tomato based sauce(300ml), 100g mashed potatoes, double cream(30ml), well cooked vegetables(50g)..Liquidised	Liquidised Vegetarian Meal: Quorn 60g, cooked rice(60g), skimmed milk powder(15g), double cream(30mls), tinned soup(200ml)..Liquidised	Liquidised Lamb and Potato Curry: Cooked Lamb(60g), tomato soup(200ml), skimmed milk powder(15g), curry powder(5g), well cooked potatoes mashed(80g), well cooked vegetables(25g), double cream(20ml)
Mid-afternoon	Tropical Shake: Liquidise Small tin of fruit in syrup + coconut milk 100ls,	Smoothie: Liquidise Full Fat Yoghurt(125g) + 200ml yop style yoghurt drink + Banana/soft fruit	Nourishing Soup: Liquidise half of a packet soup made up on full fat milk with butter + cream added	Hot Chocolate: Made up on fortified milk(200ml) with cream	Strawberry Milkshake: Liquidised strawberries(10) + ice cream(1 scoop) + fortified milk(200ml) + sugar(20g)	Tropical Shake: Liquidise Small tin of fruit in syrup + coconut milk 100ls, 200ml Fruit Juice	Fizz: Liquidise Juice drink(200ml) + lemonade (110mls) + ice cream(1 scoop)

	200ml Fruit Juice						
Dinner	Liquidised Beef and Potato Curry: Cooked beef(60g), tomato soup(200 ml), skimmed milk powder(15 g), curry powder(5 g), well cooked potatoes mashed(80g), well cooked vegetables(25g), double cream(20 ml) Dessert: Liquidised Easy Cheesecake i.e. single	Liquidised White Fish meal: Fish(no bones)75g, white sauce(300ml),100g of mashed potatoes, double cream(30ml), well cooked vegetables(50g)..Liquidised Dessert: Liquidised Milk Custard i.e. 200mls cooked custard made on fortified milk, fortified milk(100ml), double cream(20ml), sugar(10g).	Liquidised Cream of Chicken: 150mls cream of chicken soup, cream(50mls), cooked chicken(75g), mashed potatoes(80g), skimmed milk powder(15g), well cooked vegetables(15-30g). Dessert: Liquidised Milk Pudding i.e. 200mls cooked pudding made on fortified milk, fortified milk(100ml), double cream(20ml), sugar(10g).	Liquidised Lamb and Potato Curry: Cooked Lamb(60g), tomato soup(200ml), skimmed milk powder(15g), curry powder(5g), well cooked potatoes mashed(80g), well cooked vegetables(25g), double cream(20ml) Dessert: Liquidised Easy Cheesecake i.e. single portion tub of cheesecake including base(100g), fortified milk(100mls),	Liquidised Vegetarian Meal: Quorn 60g, cooked rice(60g), skimmed milk powder(15g), double cream(30mls), tinned soup(200ml)..Liquidised Dessert: Liquidised Milk Custard i.e. 200mls cooked custard made on fortified milk, fortified milk(100ml), double cream(20ml), sugar(10g).	Cream of Chicken Liquidised Lunch: 150mls cream of chicken soup, cream(50mls), cooked chicken(75g), mashed potatoes(80g), skimmed milk powder(15g), well cooked vegetables(15-30g)..Liquidised Dessert: Liquidised Milk Pudding i.e. 200mls cooked pudding made on fortified milk, fortified milk(100ml), double cream(20ml), sugar(10g).	Liquidised Beef and Potato Curry: Cooked beef(60g), tomato soup(200ml), skimmed milk powder(15g), curry powder(5g), well cooked potatoes mashed(80g), well cooked vegetables(25g), double cream(20ml) Dessert: Liquidised Milk Custard i.e. 200mls cooked custard made on fortified milk, fortified milk(100ml), double cream(20ml)

	portion tub of cheesecake including base(100g), fortified milk(100mls), double cream(20ml).			double cream(20ml)			, sugar(10g).
Supper	Smoothie: Liquidise Full Fat Yoghurt(125g) + 200ml yop style yoghurt drink + Banana/s of fruit	Hot Chocolate: Made up on fortified milk(200ml) with cream	Tropical Shake: Liquidise Small tin of fruit in syrup + coconut milk 100ls, 200ml Fruit Juice	Fizz: Liquidise Juice drink(200ml) + lemonade (110mls) + ice cream(1 scoop)	Nourishing Soup: Liquidise half of a packet soup made up on full fat milk with butter + cream added	Strawberry Milkshake: Liquidised strawberries(10) + ice cream(1 scoop) + fortified milk(200ml) + sugar(20g)	Hot Chocolate: Made up on fortified milk(200ml) with cream