



# The affordability of healthy eating for low-income households

## Introduction

Healthy Food for All is an all-island multi-agency initiative which seeks to combat food poverty by promoting access, availability and affordability of healthy food for low-income groups.<sup>1</sup>

National surveys indicate that up to 15% of the population is unable to have an adequate and nutritious diet, with 30% of poorer families affected.<sup>2</sup>

Healthy eating is a determinant of good health and helps to prevent heart disease, stroke, cancers and obesity. Poor diet is one reason why people on a low income have a greater chance of getting these conditions.

This policy briefing, drawing on new scientific research by the Food Safety Authority of Ireland (FSAI), examines the affordability of a healthy diet for low-income households. The briefing suggests policies the government could pursue to make it easier to purchase healthy food.

The Food Safety Authority of Ireland (FSAI) research will be shortly published in various international scientific journals.<sup>3</sup> The views expressed in this briefing paper are not necessarily those of the FSAI. FSAI is a statutory independent and science-based body, dedicated to protecting public health and consumer interests in the area of food safety and hygiene.

## Key findings

- A healthy diet costs €88 per week for a couple and €141 per week for a family of two adults and two children when bought in a multiple supermarket. It costs a lone parent with one child €59 per week and €35 for an older woman living alone. The largest cost items are fruit and vegetables (33–37% total food cost), followed by lean meat and fish (29–34% total food cost).
- Where people shop has a big bearing on the cost of a healthy diet. It is twice as expensive to purchase a healthy diet in a local convenience store compared to a multiple supermarket. A discount store is on average 16% cheaper than a multiple supermarket.
- When purchased in a multiple supermarket, healthy foods cost between 15 and 30% of weekly social welfare and child benefit, depending on household size. This rises to between 25 and 58% if bought in a local convenience store and falls to 13 to 26% if purchased in a discount store.
- It is up to ten times cheaper to provide calories in the form of unhealthy foods that are high in fat, salt and sugar than it is in the form of protective foods such as fruit and vegetables and other important foods such as lean meat and fish.
- For a teenager, the cost of healthy eating is €35 per week using a multiple supermarket, as compared with €18 for a younger child. This represents 54% of total child income support<sup>4</sup> for a teenager and 28% for a younger child. For a male teenager the cost of healthy food bought in a local convenience store is greater than his total child income support.
- Government policy should address the financial and other barriers to healthy eating. At a minimum, welfare rates should not be reduced. Ideally, income support for poorer children should be raised.

## Background



Low income, inadequate housing, lack of access to education and healthcare and poor nutrition are social determinants of health and contribute to health inequalities in society.<sup>5</sup> People on low incomes have a greater chance of getting conditions such as heart disease, cancers and obesity at a younger age and have an increased risk of dying younger as a consequence. The need for households on low incomes to have a 'healthy diet', which helps protect against these conditions, is therefore crucial.

### Why healthy eating advice?

The purpose of healthy eating advice is to translate nutrients into foods and guide people towards food choices that will provide all of their nutrient (e.g. vitamins, minerals, fibre) and calorie needs for good health and disease prevention. The types and amounts of food recommended vary depending on age and gender.

**Age:** the needs of growing children and adolescents for nutrients such as calcium are greater than the needs of fully developed adults. Childhood and adolescence are critical periods for disease prevention and good nutrition is crucial to support the rapid physical growth and development at this life stage. Getting enough calcium during puberty is a key factor for preventing brittle bones in later life (osteoporosis) because 50% of bone mineral density is laid down over these few short years.

**Gender:** males and females have different nutrient needs. For example, females generally have higher iron needs than males, due to menstruation. For optimal health, it is important that people at all ages eat the foods that provide enough nutrients to meet their needs, without consuming excess calories or fat which contribute to heart disease, cancers and obesity.

The challenge of healthy eating usually involves choosing protective foods that are low in fat, saturated (animal) fat, trans fats, salt and sugar, but which are rich in fibre (for prevention of bowel cancer, heart disease and obesity), vitamins, minerals (such as calcium and iron) and other essential nutrients.

Choosing a diet rich in fruit and vegetables is especially vital because they are low in calories, high in fibre, bulk up the diet and help combat obesity. Fruit and vegetables also contain a multitude of protective substances, which help provide protection against heart disease, stroke and cancer.

Protective foods such as fruit and vegetables are expensive, whereas unhealthy foods that are high in fat, sugar and salt are more affordable. Similarly, lean meat, which is a good low-fat source of iron, is more expensive than processed fatty meats, which are also high in salt. The World Cancer Research Fund recommends that excessive consumption of this type of meat should be avoided in order to reduce the risk of bowel cancer in particular.

### Examining the cost of healthy eating

In 2009 the Food Safety Authority of Ireland (FSAI) was requested to review Ireland's food-based dietary guidelines. The FSAI looked at all of the foods that individuals would need to eat in order to meet their goals for healthy eating. These goals include getting enough nutrients such as calcium, iron and fibre, without excess calories, fat and saturated (animal) fat. To enhance dietary quality, excessively fatty and sugary foods were avoided and instead nutritious foods high in fibre (e.g. porridge, wholemeal breads) as well as fruit and vegetables were included.

As part of the work, the FSAI undertook a study to examine the cost of healthy eating for a sample of common households. The study built on the work of Friel et al. (2004), who examined the financial cost of healthy eating for the Combat Poverty Agency.<sup>6</sup>

Based on the 2006 Census, the following four typical households were selected:

- A man and woman (aged 40 to 44 years) with two children (males aged 5 to 9 and 10 to 14 years).
- A man and woman (aged 40 to 44 years) with no children.
- A lone parent (woman aged 40 to 44 years) and a male child (aged 5 to 9 years).
- A woman living alone (aged 65 years+).

Each household was assumed to be solely dependent on social welfare and child benefit.<sup>7</sup>

A shopping basket of foods needed for healthy eating over a week-long period was derived for all the adults and children in the four households. The cost of these diets was calculated using prices in March/April 2009 from three Dublin grocery stores:

- A multiple supermarket.
- A discount store.
- A local convenience store.<sup>8</sup>

The cheapest items were chosen from among branded and own brand foods.

**Table 1: Cost of a healthy diet**

Household composition and calorie needs	Multiple supermarket	Discount store	Local convenience store
Household 1: man, woman and two children; 8,200 calories per day	€141.42	€122.65	€272.90
Household 2: man, woman without children; 4,400 calories per day	€87.85	€70.29	€165.25
Household 3: single woman with one child; 3,400 calories per day	€58.55	€48.54	€116.78
Household 4: elderly woman; 1,800 calories per day	€34.64	€28.87	€57.66

The weekly cost of healthy eating is higher for households with children than it is for those without. For a family of four, the cost is €141.42 when bought in a multiple supermarket; for two adults with no children it is €87.85; for an older woman living alone it is €34.64; and for a single parent with one child it is €59.09 (see Table 1).

Where people shop has a big bearing on the cost of a healthy diet.

A local convenience store is up to twice as expensive for purchasing a healthy diet compared to a multiple supermarket (e.g. €272.90 for a couple with two children), while a discount store is up to 14% cheaper (e.g. €122.65 for a couple with two children).

The largest proportion of money spent on healthy eating is for fruit and vegetables. Lean meat and fish are the next most costly part of the weekly healthy eating spend.

For a family of four, 33% of the weekly money spent on food for healthy eating is required to cover the cost of fruit and vegetables (€46.81). For the same

family, 29% of the weekly money spent on food goes towards the cost of lean meat and fish (€40.86). These figures are similar for the other household types, with between 33 and 37% of the weekly spend on food going to cover the cost of fruit and vegetables, and 29 to 34% needed to buy lean meat and fish. Hence, it is more affordable to replace lean meat with less expensive processed meats, which are higher in fat, saturated fat and salt.

If food is bought in a multiple supermarket, healthy eating accounts for between 15 and 30% of weekly household income.

The spend on healthy eating as a proportion of household income is higher for couples with children than for those without. The couple with two children had the highest expenditure. A lone mother with a child would have to spend 22% of total welfare income for a healthy diet, while an older woman living alone would need to spend 15%. Table 2 shows the percentage of weekly social welfare and child benefit that needs to be spent to buy the foods necessary for healthy eating for each household.<sup>9</sup>

**Table 2: Cost of a healthy diet as a percentage of weekly income**

Household composition	Multiple supermarket	Discount store	Local convenience store
Household 1: man, woman and two children	30%	26%	58%
Household 2: man, woman without children	26%	21%	49%
Household 3: single woman with one child	22%	18%	43%
Household 4: elderly woman	15%	13%	25%

Purchasing healthy food in a discount store requires 2 to 5% less of weekly household income, compared with a multiple supermarket.

On the other hand, healthy eating for the couple with two children would consume almost twice the share of weekly income (58%) if purchased in a local convenience store. This is a significant finding as more families on low incomes rely on local stores due to transport and other difficulties in accessing multiple supermarkets and discount stores.<sup>10</sup>

It is up to ten times cheaper to provide calories in the form of foods high in fat, salt and sugar than it is to provide calories from protective foods such as vegetables.

Only 3 to 4% (€1.38 for the elderly woman to €5.27 for the family of four) of the weekly spend on foods for healthy eating is for fat spreads (e.g. margarine) and oils. Between 2 and 4% (€1.40 for the elderly woman to €6.06 for the family of four) is spent on snacks that are high in fat and/or sugar.

Table 3 shows that for a family of two adults and two children shopping in a discount store, the cost of fruit and vegetables works out at approximately 45 cent per 100 calories compared with 17 cent per 100 calories for snacks and 4 cent per 100 calories for fat spreads and oils.

It is more expensive to meet daily calorie needs by eating healthier foods such as fruit and vegetables. In contrast, it is more affordable to provide calories in the form of snack foods that are high in fat, salt and sugar, which are also more accessible and which satisfy hunger quickly. It is also cheaper to use high-fat spreads and oils to fry foods.

A further issue is that local convenience stores, which are more frequented by low-income households, are less likely to carry a good range of healthy foods.<sup>11</sup>

**Table 3: Cost of food groups per 100 calories**

Food groups	Cost in cheapest store
Fruit and vegetables	€0.45
Snacks, crisps, biscuits etc.	€0.17
Fats and oils	€0.04

The cost of healthy eating for an older child is twice that of a younger child.

For a teenager, the cost of healthy eating is €35.10 per week using a multiple supermarket, as compared with €18.20 for a younger child (see Table 4). This represents 54% of total child income support for a teenager and 28% for a younger child. This cost differential reflects the higher calorie and nutrient needs of older children compared with younger children. Adolescence is the time when the most rapid growth and development occur. Fifty% of bone is laid down at this age, and about one-third of a person's height is gained at this time.

To meet all of his nutrient needs, an active fourteen-year-old boy should consume approximately 2,400 calories per day, compared with 1,400 calories per day for an active five-year-old boy. Depending on which store is used to buy food, the cost of healthy eating for the fourteen-year-old boy can represent between 54 and 106% of weekly child income support. The cost of healthy eating for a five-year-old boy varies from 27 to 61% of weekly child income support. The higher share for older children arises because welfare payments for children are the same regardless of age.



**Table 4: Cost of healthy eating for children as a percentage of child income support (and actual cost, €)**

Age and calorie needs	Multiple supermarket	Discount store	Local convenience store
Five-year-old boy; 1,400 calories per day	28% (€18.20)	27% (€17.55)	61% (€39.65)
Fourteen-year-old boy; 2,400 calories per day	54% (€35.10)	55% (€35.75)	106% (€68.90)

## Policy implications

Healthy eating is a necessary part of preventing lifestyle-related diseases such as heart disease, stroke, cancers, obesity and their related complications. This costing exercise has highlighted the fact that healthy eating is challenging for households on low incomes, particularly for those households with children. This finding is of particular significance because the immediate and long-term consequences of poor nutrition at a young age are far-reaching. In addition, the food habits a child or teenager becomes 'used to' can influence their lifelong eating habits.

Furthermore, the cost of healthy eating is higher for an older child than it is for a younger child, yet welfare payments do not take these different needs into account. Lack of affordability of healthy eating is an even greater problem for households who have to rely on more expensive local convenience stores.

It is cheaper for low-income households to meet their calorie needs by eating snacks that are high in fat and sugar rather than eating fruit and vegetables, by consuming processed meats rather than lean meats and fish and by using extra fat spreads and oils to fry foods. It is likely that the diets of these households will contain too many calories, excess fat, saturated fat, sugar and salt and not enough of the protective substances found in fruit and vegetables. This will increase their chances of getting heart disease, stroke, cancers and obesity.

The ability of households on low income to achieve the healthy eating goals ( $\geq 5$  fruit and vegetables a day, high fibre, low fat etc.) and so to reduce their risk of disease is unjustly compromised. Consequently, those in low-income households are at increased risk of illness and death from these lifestyle-related diseases and they are likely to be affected by these diseases at a younger age.

The findings on the affordability of healthy eating for low-income households have a number of policy implications. The first policy response should be to make universal access to healthy food the cornerstone of government food and nutrition policy. This should be a cross-cutting commitment across a range of government departments, including health, agriculture, local government and enterprise, trade and employment, as well as all associated state agencies.

Second, welfare payments should not be decreased, as proposed by Report of the Special Group on Public Service Numbers and Expenditure Programmes ('the McCarthy report').<sup>12</sup> We have calculated that a reduction in adult welfare payments of 5% and a reduction in child benefit of between 18 and 30% will increase the proportion of total welfare income required to purchase a healthy diet by up to 4%, depending on place of purchase. This would at a minimum offset the fall in food prices in recent months.<sup>13</sup>

For children, the proportion of child payments required for healthy eating under the McCarthy report will increase even further, by between 4 and 5% to 32 and 61% for a younger and older child respectively (the rise would be between 8 and 14% if shopping in a local convenience store). In fact, given the higher healthy food costs for older children, not alone should child benefit not be cut, but the qualified child allowance for older children in welfare-dependent families should be increased by €4 per week to €30.

Third, access to the cheaper grocery outlets should be improved for low-income households. This can be addressed through revision of retail planning guidelines and by enhancing local transport systems. A community mapping exercise of retail outlets should be conducted in disadvantaged areas to identify where the gaps are in terms of low-cost outlets for healthy food.

Fourth, alternative non-commercial ways of providing healthy food should be explored. This includes the development of community food initiatives, such as food cooperatives, and the expansion of school food initiatives based on healthy eating guidelines for children. The new EU school fruit and vegetable scheme is a welcome step, but needs to be adequately funded.



## Endnotes

- <sup>1</sup> Healthy Food for All is funded by the Combat Poverty Agency/Department for Social and Family Affairs, Food Safety Authority of Ireland, Health Service Executive and safe food. Healthy Food for All is housed by Crosscare. The views expressed in this briefing are not necessarily those of funders or other bodies associated with Healthy Food for All. See [www.healthyfoodforall.com](http://www.healthyfoodforall.com) for further information.
- <sup>2</sup> Data extracted from the user database on the CSO Survey on Income and Living Conditions, 2005.
- <sup>3</sup> See V. Ross, C.M. O'Brien, S.J. Burke, G.P. Faulkner and M.A.T. Flynn (2009), 'Affordability of healthy eating for low-income families', *Int J Paed Obes*, in press; V. Ross, C.M. O'Brien, S.J. Burke, G.P. Faulkner and M.A.T. Flynn (2009), 'How affordable is healthy eating?', *Proc Nut Soc*, in press; M.A.T. Flynn (2009), 'Strategies to promote healthy eating (European Childhood Obesity Group 2009)', *Int J Paed Obes*, in press.
- <sup>4</sup> Total child income support for a child in a low-income family is €64.16, made up of the qualified child allowance (€26 per week) payable for welfare recipients with child dependants and universal child benefit (equivalent to €38.16 per week).
- <sup>5</sup> Clare Farrell, Helen McEvoy, Jane Wilde and Combat Poverty Agency (2008), *Tackling health inequalities – an all-island approach to social determinants*, Dublin: Combat Poverty Agency/Institute of Public Health.
- <sup>6</sup> Sharon Friel, Orla Walsh and Denise McCarthy (2004), *The financial cost of healthy eating in Ireland*, Dublin: Combat Poverty Agency. There are important methodological differences between the Friel et al. and FSAI studies. The FSAI food patterns are based on the total food intake required to meet all aspects of a healthy diet, including provision for calorie needs (based on people being active enough for health), adequate in vitamins and minerals as well as meeting goals for fat, fibre and sugar to prevent chronic diseases such as heart disease and cancer. Friel et al. used the household budget survey and supplemented this with foods from the food pyramid, so although this basket was representative of healthy eating food requirements, it was not a precise list of foods required by people of different ages and gender.
- <sup>7</sup> Households incomes are based on welfare rates under specific schemes and include the personal payment, the qualified adult allowance and the qualified child allowance (where relevant), along with universal child benefit (where relevant). The incomes for the four sample households are: €468.52 per week for a couple with two children (on jobseeker's assistance); €339.90 for a couple (also on jobseeker's assistance). €268.46 for the lone parent with one child (on one-parent family payment) and €230.30 for an older woman (on the state contributory pension). The fuel scheme, back to school clothing and footwear allowance and the household benefits package are excluded.
- <sup>8</sup> Since the fieldwork was undertaken, average food costs have fallen by 5% (CSO Consumer Price Index, September 2009). It is unclear how applicable this price reduction is to healthy foods. Assuming a full 5% reduction in multiple supermarkets, the revised figures for healthy eating are €134.34 for a couple and two children, €83.64 for a couple, €55.62 for a mother and child and €32.91 for an elderly woman.
- <sup>9</sup> The expenditure on healthy food as a proportion of social welfare payments calculated by Friel et al. (2004), using a different methodology, were: 69% for a couple with two children, 80.5% for a lone parent with one child and 38% for a single older person. The main change in the intervening period is a significant increase in welfare payments.
- <sup>10</sup> Friel et al. (2004), op cit.
- <sup>11</sup> Ibid.
- <sup>12</sup> *Report of the Special Group on Public Service Numbers and Expenditure Programmes* (2009). Dublin: Government Publications Office.
- <sup>13</sup> Adjusting for food deflation and the proposed reductions in welfare rates and child benefit, the revised figures for the proportion of weekly household income required for a healthy diet purchased in a multiple supermarket are 31% for a couple with two children (up from 30%), 26% for a couple (no change), 22% for a lone parent and child (no change), 15% for an elderly adult (no change), 58% for an older child (up from 54%) and 30% for a younger child (up from 28%).

### Healthy Food for All

Clonliffe College, Drumcondra, Dublin 3

 [www.healthyfoodforall.com](http://www.healthyfoodforall.com)

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