



The availability and price of food in rural Northern Ireland

Results from a Food Basket Study undertaken in the 'Decent
Food for All' (DFfA) Programme areas

Prepared by

Kevin P Balanda, Niamh Shortt, Orla Walsh and Jorun Rugkåsa

On behalf of the Institute of Public Health in Ireland (IPH)

July 2006



ACKNOWLEDGEMENTS

We would like to thank Robin Willis and Louise McKee from Armagh City and District Council who undertook the fieldwork for this study, and the shop owners who agreed to participate.

The Institute of Public Health in Ireland gratefully acknowledges the grant provided by the Food Safety Promotion Board that allowed this work to be undertaken.



CONTENTS

Executive Summary	1
1. Introduction	4
2. Methods	6
Aims	6
The food basket	6
Types of shops	6
Deprivation scores	7
Data collection	7
Statistical analysis	8
3. Findings	9
Distribution of shops	9
Availability of food items in different types of shops	9
Availability of food items in areas in different socio-economic circumstances	11
Price of food in areas in different socio-economic circumstances	12
Price of food in different types of shops	13
4. Discussion	18
5. Conclusions	19
References	21
Appendices	23



EXECUTIVE SUMMARY

Previous research has suggested that availability and price are major determinants of food choice for low income groups. In this paper we report on the availability and price in rural Northern Ireland (selected areas in the Armagh and Dungannon Health Action Zone) of a basket of 53 staple food items.

This food basket study forms a component of the comprehensive research and evaluation programme, 'All-island learning from the Decent Food for All Programme' which runs in parallel with the Decent Food for All programme. Launched in 2003 and implemented by the Armagh and Dungannon Health Action Zone, DFfA aims to address inequalities in access to safe and healthy food in the Armagh and Dungannon areas of Northern Ireland.

One-hundred and fifty-three food retail outlets were identified from a list provided by Armagh City and District Council and Dungannon and South Tyrone Borough Council. Each shop was visited and the availability and price of 53 staple food items comprising the full food basket was assessed. Analysis looks at how availability and price vary with the type of retail outlet (classified as either 'multiple', 'independent', 'specialist' or 'discounter/freezer') and the socio-economic circumstances (classified as either 'highly deprived', 'deprived', 'affluent' or 'highly affluent') of the wards in which the shops are located.

The types of shops in an area depend on its socio-economic circumstances:

- Three of the four 'multiple' shops are located in more affluent areas
- 'Independent' shops are relatively more common in more deprived areas
- 'Specialist' shops are relatively more common in more affluent areas.

The availability of food items in the basket, and their cost, depend significantly on the type of shop:

- 'Multiple' shops stock the largest average number of food items (41 out of a possible 53) in the basket, and have the least expensive food basket (£39.81).

-
-
- 'Independent' shops stock the next largest average number of food items (32 out of a possible 53) in the food basket but have (along with 'specialist' shops) the most expensive food basket (£46.32).
 - 'Specialist' shops stock the smallest average number of food items (11 out of a possible 53) in the basket but have (along with 'Independent' shops) the most expensive food basket (£46.12).

Socio-economic variation in availability and price in the DffA Programme area is described below:

- Availability does not vary greatly with the socio-economic circumstances of the ward. Shops in highly deprived wards tend to stock slightly fewer items from the 'Fruit and Vegetables' food group and shops in both deprived and highly deprived wards tend to stock slightly more 'foods containing fat and foods containing sugar'.
- The total price of the food basket is greater in the more deprived areas; it is estimated that the food basket is 4% more expensive in highly deprived areas than it is in affluent areas.

The study illustrates how the geographical distribution of the different types of shops, and the variation in availability and price of food items in these shops, combine to determine how availability and price vary with socio-economic circumstances of an area. For example, although shops stocking a limited number of food items are more common in the more affluent areas, availability is enhanced by the fact that three of the four 'multiple' shops (which stock the greatest number of food items) are also in these areas.

Availability does not vary significantly with socio-economic circumstances of an area. However, the distribution of the different types of shops in the DffA programme area suggests that, to purchase a full food basket, people in more deprived areas have to visit

a larger number of shops than people in more affluent areas. This could contribute to reduced physical access to safe healthy food in more deprived areas.

The study also documents the higher cost of food in more deprived areas. A full basket of staple, typically consumed foods which are considered representative of the five major food groups costs £2.87 more in shops in more deprived areas than it costs in shops in more affluent areas.

The study highlights that 'availability' is only one component of 'physical access to safe healthy food and that 'price' is only one component of 'financial access'. Access involves a myriad of other factors such as transport, time, disposable income, choice & quality. Many of these factors are included in other aspects of the 'All-island learning from the DFfA Programme' research project, and this will provide a more comprehensive and valid description of physical and financial access.



1. INTRODUCTION

Food Poverty has been defined as “*the inability to afford or have reasonable access to food which provides a healthy diet*” (Feichtinger, 1996). Food poverty is multidimensional, referring not only to the lack of access to a nutritionally adequate diet but also to the related impacts on health, culture and social participation (Friel and Conlon, 2004). For some this may be the result of simply not being able to afford a balanced diet. Others may live in areas where there is limited availability of healthy affordable food. Others again may not have the knowledge or skills required to ensure a healthy diet.

Availability and costs of foods are two crucial factors which strongly influence the dietary choices of low income groups (Friel and Conlon, 2004; Friel et al. 2004; Coakley, 2001). People on low income strive to maintain mainstream dietary habits but financial constraints mean that the range of foods consumed is limited. In addition, the type of retail outlet accessible to individuals may determine the availability of the range of foodstuffs and the prices paid for food (Watson, 2001). Inaccessible geographical location of retail outlets may affect access to healthy foodstuffs, often because of inadequate transport (Department of Health, 1996; Watson, 2001). A number of studies conducted in the UK have reported that healthy food is more expensive and less readily available in poorer areas, compared with more affluent areas; that small ‘independent’ stores are generally more expensive than large ‘multiple’ stores, and in general that ‘healthy’ food and ‘healthy’ diets are more expensive than ‘unhealthy’ foods and ‘unhealthy’ diets when purchased from the same food retail outlets or from the same area (cited in Cummins and Mcintyre, 2002).

Food basket studies are a useful tool to determine the availability and price of a group of foods in a shopping basket across a range of stores in different regions. Information from food basket studies has been used in a wide range of programme and policy applications, including the development of educational material on nutrition and dietary guidelines, to promote access to healthy foods in rural and remote areas and to assess the adequacy of welfare food allowances (Nathoo and Shoveller, 2003).



This food basket study was carried out in late 2003 to explore the issues of availability and price of food in the Decent Food for All (DFfA) programme area. The Armagh and

Dungannon Health Action Zone (ADHAZ) established the DFfA programme to tackle food poverty in the ADHAZ area. Launched in 2003, the programme aims to address inequalities in access to locally available and affordable safe and healthy food, particularly for those on low incomes

This food basket study forms a component of the comprehensive research and evaluation programme, *All-island learning from the Decent Food for All Programme* which runs in parallel with DFfA, as a co-operation between ADHAZ and the Institute of Public Health in Ireland (IPH). Funding for the research is provided by the Food Safety Promotion Board. The overall aim of the research and evaluation element is to assess the effectiveness of DFfA in reducing food poverty within the twelve target wards in ADHAZ.

In order to arrive at sound recommendations for public health policy and practice, the findings from this pre-intervention food basket study must be analysed in conjunction with post – intervention food basket study findings and other elements of the ‘All-island learning from the DFfA Programme’ research project. While the food basket study focused on cost and availability of food, other data collections of the research project include comprehensive quantitative surveys of knowledge, attitudes, beliefs and behaviours and an ethnographic study of people’s attitudes and the meanings they attach to food. When interpreted in the context of this other data, a more comprehensive and valid understanding of the effectiveness of the DFfA programme in addressing food poverty in the ADHAZ area will emerge.



2. METHODS

Aims

The aims of the food basket survey are to:

- describe the geographical distribution of shops in the area; and
- assess the availability and price of a basket of common food items in local shops, which people on low incomes living in the area may use on a regular basis.

The food basket

Data was collected on 53 staple food items (Appendix 1). The food items were chosen because they were considered to be representative of typically consumed foods and includes a selection of foods from the five major food groups. The basket was based on foods chosen in similar studies carried out in the UK (Donkin et al. (1999), Cummins & McIntyre (2002) and Dowler et al. (2001)). The composition of the final basket was also informed by a pilot study and consultation with a dietician. It was considered important to use a basket that was representative, realistic and acceptable to the local population, which is why foods such as crisps, biscuits and cola were included.

Types of shops

A list of all retail outlets selling food in the DFfA programme area was supplied by Armagh City and District Council and Dungannon and South Tyrone Borough Council. In total, 152 shops were surveyed. Shops ranged from large 'multiple' supermarkets to smaller corner shops, and availability and price of foods varied with the retail outlet type. A classification of retail outlets selling food was developed based on a version developed by Cummins & McIntyre, (2002). This classification was then modified after consultation with local representatives in order to reflect local knowledge of food sources (Table 1).



Table 1: Classification of retail outlets (modification of the classification used in Cummins & Macintyre, 2002)

Type of Shop	Description
Multiple	Includes all major mainstream supermarkets such as Asda, Sainsbury's, Tesco, and Safeway
Discounter/ Freezer Store	Includes operators such as Aldi, Lidl and Iceland
Independent	Includes Spar & other franchise operators which are run by an independent trader, and independent grocers
Specialist shops	Butchers, fruit & vegetable stores, bakers, fishmongers, and delicatessen shops which do not fit into the above categories

Deprivation scores

In order to ascertain if the availability and price of food varied with the socio-economic circumstances of the location of the shop, the shops were assigned the deprivation score of their ward. The multiple score of the Noble Index of deprivation (2001) was employed; this score includes measures on income, employment, health deprivation and disability, education skills and training, geographical access to services, the social environment and housing. For this study the wards were classified into deprivation quartiles based on their deprivation score. The deprivation quartiles categories were labelled 'highly deprived', 'deprived', 'affluent' and 'highly affluent'. More detailed information on the construction of the categorisation in the Noble Index can be found on the Northern Ireland Statistics and Research Agency's website (www.nisra.gov.uk).

Data collection

Shop owners were sent a letter prior to data collection informing them about the project and the fieldwork visit (Appendix 3). Field workers visited 152 shops in the area and



carried out primary data collection of food prices and availability of the food basket items. During each fieldwork visit, availability (indicated by presence of food in the shop) and price (£ per unit) of food basket items were recorded. Food brands were also documented, although this was not possible for certain food items such as meat products, fruit and vegetables which are rarely branded.

Like many food basket studies, this study does not take into account 'own brand' food items. Data was not collected on 'own brand' food in order to facilitate the comparison of the retail outlets which stock 'own brand' food items and those that do not. 'Own brand' products are typically cheaper than market brand goods.

Statistical analysis

Different food items are available in different types of shops. Therefore, to compare prices across all the different types of shops, only food items that are stocked in all types of shops can be used. The 33 food items stocked in every type of shop are highlighted in Appendix 1; they form the basis of a 'reduced' food basket used for comparisons. Similarly, to compare prices in wards in different socio-economic circumstances, only food items that are stocked in at least one shop located in each deprivation quartile can be used. Only wholemeal pasta was eliminated for this reason.

A significance level of 0.05 is used for statistical analysis. Fisher's exact test is used to compare availability in different types of shops. Chi-squared (χ^2) tests are used to compare availability in wards in different socio-economic circumstances. ANOVA is first used to compare mean prices in different types of shops and in different wards. If statistically significant, post-hoc t-tests are then used to compare prices in 'highly deprived' and 'highly affluent' wards.



3. FINDINGS

Distribution of shops

Data on the number of stores of different types in each of the areas are presented in Table 3. Highly affluent areas have the least number of shops (n = 30). ‘Independent’ shops are the most common type of shop in all areas with a relatively higher percentage in more deprived areas. There are a higher percentage of ‘specialist’ shops in affluent areas. There is only one ‘multiple’ shop in the two deprived areas, compared with three in the two affluent areas.

Table 3: The distribution of shops in areas in different socio-economic circumstances

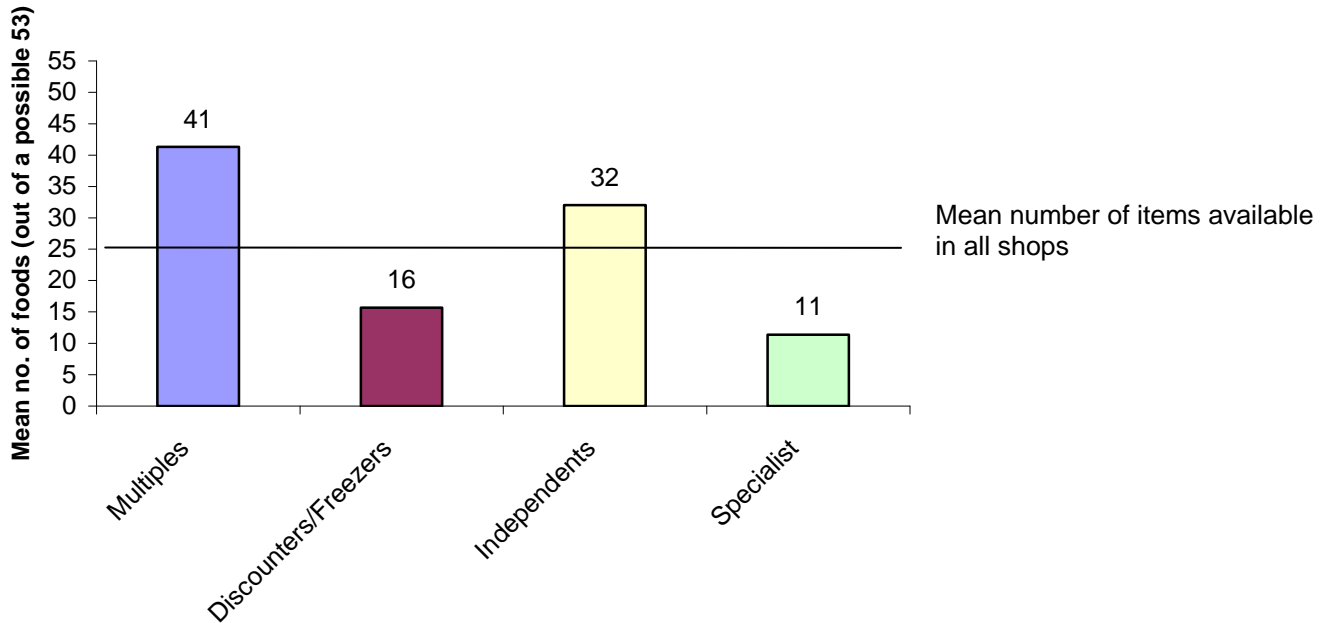
Shop type	Highly Deprived N=41		Deprived N=41		Affluent N=40		Highly Affluent N=30		Total N=152	
	N	%	N	%	N	%	N	%	N	%
<i>Multiple</i>	1	2%	0	0%	1	2%	2	6%	4	3%
<i>Discounter/freezer</i>	0	0%	1	2%	2	5%	0	0%	3	2%
<i>Independent</i>	27	66%	29	71%	22	55%	14	47%	92	60%
<i>Specialist</i>	13	32%	11	27%	15	38%	14	47%	53	35%
Total	41	100%	41	100%	40	100%	30	100%	152	100%

Availability of food items in different types of shops

Figure 2 presents the mean number of food items (out of a possible 53) available in the different types of shops. Overall availability is highest in ‘multiple’ shops followed by ‘independent’ shops with an average numbers of items stocked of 41 and 32 respectively, and lowest in ‘specialist’ and ‘discounter/freezer’ shops with average numbers of 11 and 16 respectively. Only one shop, an independent grocer, stocks almost all items (51 out of the possible 53).



Figure 2: Average number of food items stocked in different types of shops



Data on availability of food items in different food groups in the different types of shops are presented in Table 4. For each food group, 'multiple' shops stock the highest average number of food items. In contrast, 'specialist' shops stock the smallest average number of food items, for each food group except 'foods containing fat and foods containing sugar' which have the lowest availability in the 'discounter/freezer' shops.



Table 4: Average number (and range) of food items stocked in different types of shops

Food Groups (number of items in each)	All Shops N=152	Multiples N=4	Discounters/ Freezers N=3	Independent N=92	Specialist N=53
<i>Fruits & vegetables (8)</i>	4.5 (0-8)	<u>6.0</u> (5-7)	3.0 (1-4)	5.4 (0-8)	<u>2.8</u> (0-8)
<i>Bread, other cereals & potatoes (11)</i>	4.9 (0-10)	<u>8.3</u> (7-10)	2.7 (1-5)	6.6 (0-10)	<u>1.8</u> (0-9)
<i>Milk & dairy foods (7)</i>	3.3 (0-7)	<u>6.0</u> (5-7)	2.7 (2-4)	4.3 (0-7)	<u>1.3</u> (0-6)
<i>Meat, fish & alternatives (14)</i>	5.8 (0-13)	<u>10.3</u> (9-12)	5.0 (3-8)	7.2 (0-13)	<u>2.9</u> (0-11)
<i>Foods containing fat & foods containing sugar (10)</i>	5.2 (0-10)	<u>9.0</u> (9-9)	<u>1.7</u> (0-5)	6.9 (2-10)	2.1 (0-9)

Single Underline – Lowest availability. Double Underline – Highest availability

Availability of food items in areas in different socio-economic circumstances

The mean number of food items stocked by a shop does not vary significantly with the deprivation score of the location of the shop. Overall, slightly more food items are stocked by shops in the more deprived areas than shops in more affluent areas (Table 5). The lowest level of availability is found to be in the highly affluent wards and the highest level of availability in the 'deprived' wards.



Table 5: Average number (and range) of food items available in areas in different socio-economic circumstances

Highly Deprived N=41	Deprived N=41	Affluent N=40	Highly Affluent N=30
24.9 (1-49)	26.5 (3-51)	23.9 (3-49)	24.8 (1-49)

The availability of items in each food group does not vary significantly with the deprivation quartile of the shop, and is very similar across each of the different retail outlet types (Table 6). Shops in more deprived areas tend to stock slightly more 'foods containing fat and foods containing sugar' than shops in more affluent wards and shops in highly deprived areas tend to stock slightly fewer items from the 'fruit and vegetables' food group

Table 6: Average number (and range) of food items available in areas in different socio-economic circumstances

Food Groups (number of food items)	Highly Deprived N=41	Deprived N=41	Affluent N=40	Highly Affluent N=30
Fruit & Vegetables (8)	<u>4.2</u> (0-8)	4.6 (0-8)	<u>4.7</u> (1-8)	4.6 (0-8)
Bread, other cereals and other potatoes (11)	4.9 (0-10)	<u>5.3</u> (0-10)	<u>4.6</u> (0-10)	4.8 (0-10)
Milk and dairy foods (7)	3.3 (0-7)	<u>3.4</u> (0-7)	3.3 (0-7)	<u>3.1</u> (0-7)
Meat, fish & alternatives (14)	<u>5.4</u> (0-13)	<u>6.4</u> (0-13)	5.6 (0-13)	5.7 (0-13)
Foods containing fat and foods containing sugar (10)	5.4 (0-10)	<u>5.6</u> (0-10)	<u>4.8</u> (0-10)	4.9 (0-9)



Single Underline – Lowest Availability. Double Underline – Highest Availability

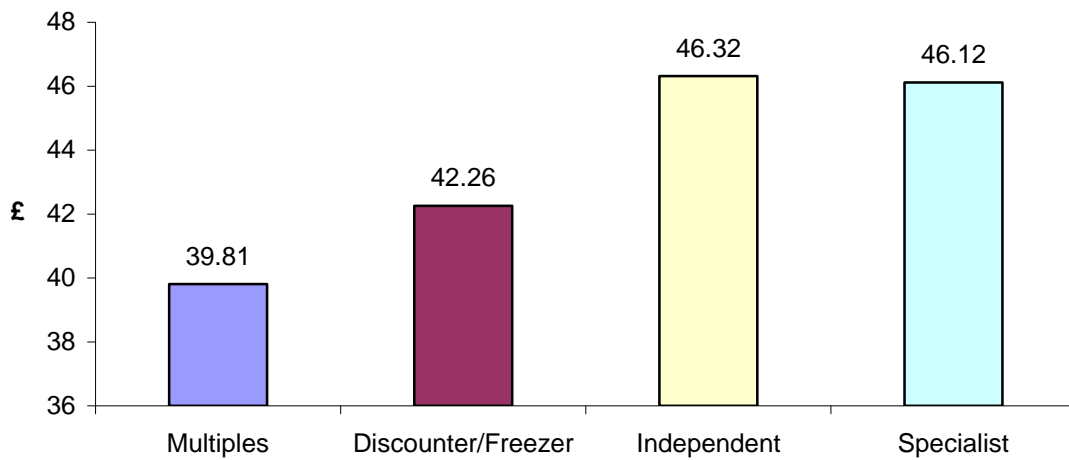


Price of food items in different types of shops

The price of the whole food basket varies significantly by shop type. Multiples were the cheapest type of shop with an average food basket (33 items only) costing £39.81, the cheapest of the four different shop types. In comparison 'independent' shops and 'specialist' shops are the most expensive as the food basket in these shops costed on average £46.32 and £46.12 respectively (Figure 3).



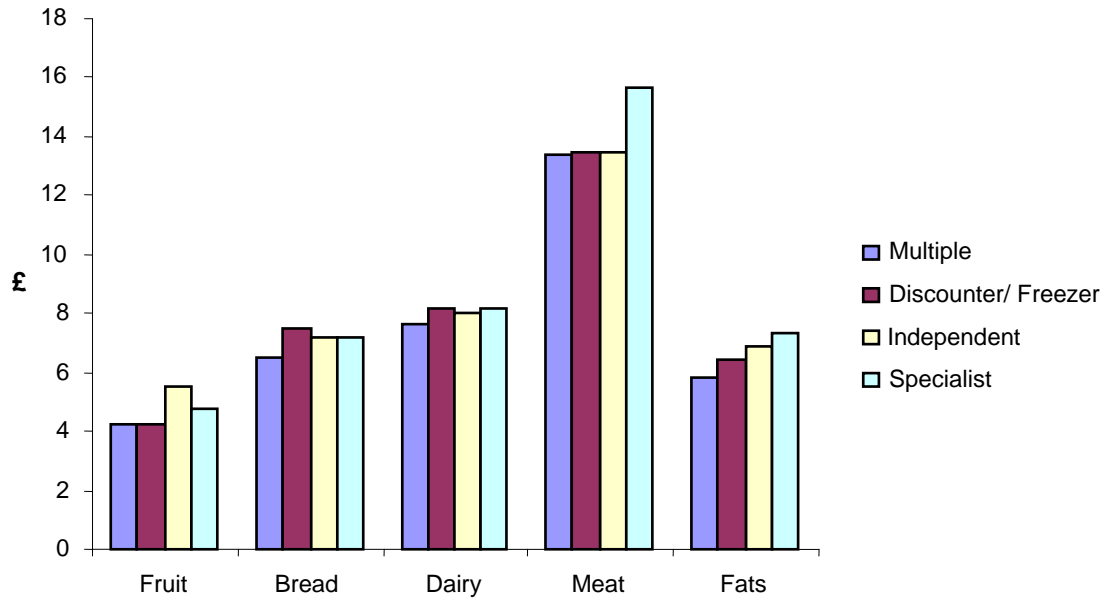
Figure 3: Total price of the (reduced) food basket (based on 33 items) in different types of shops



The price of food groups also varies by shop type (Figure 4). Again, for each food group, 'multiple' shops are the cheapest. For the other types of shops, there is no consistent pattern. For example, 'discounter/freezer' shops are most expensive for bread and milk, 'independent' shops are most expensive for fruit and vegetables, and 'specialist' shops are most expensive category for both meats and food containing fats and sugar (Figure 4).



Figure 4: Total price of food items in each food group in different types of shops

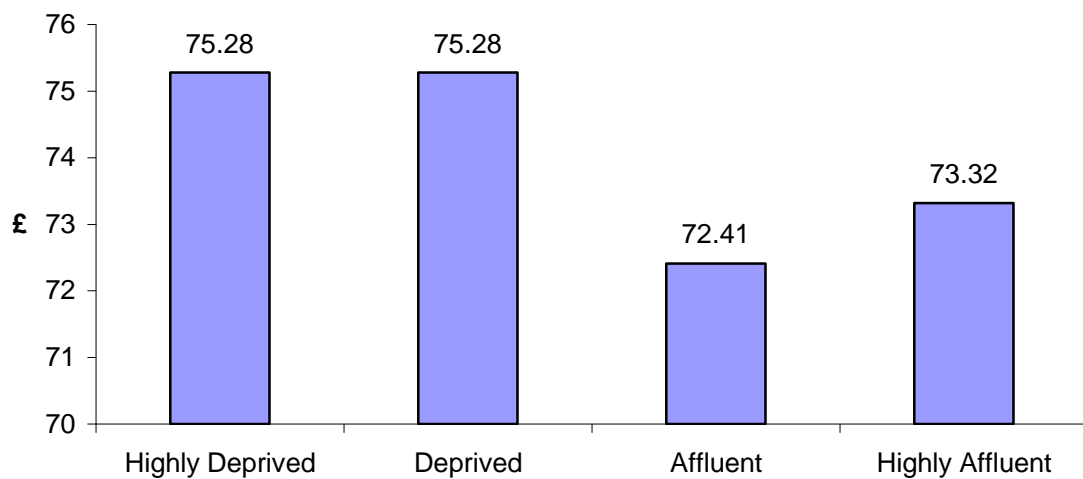


Price of food in areas in different socio-economic circumstances

The total price of the whole food basket is generally higher in the more deprived wards. It is £75.28 in the highly deprived and deprived areas, compared to £72.41 in affluent areas and £73.32 in highly affluent areas (Figure 5).



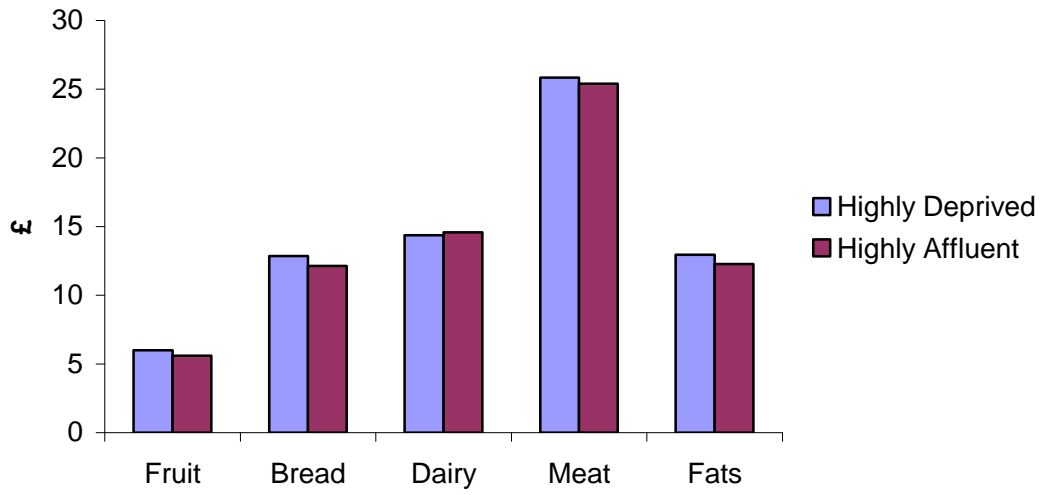
Figure 5: Total price of the full food basket (based on 53 items) in areas in different socio-economic circumstances



Looking at the food groups, the price of each food group does not vary greatly with the deprivation score of the area. If anything, Figure 6 shows that each food group is slightly more expensive in the highly deprived areas, (with the exception of dairy items) than in the highly affluent wards.



Figure 6: Price of food groups in shops from highly deprived and highly affluent wards



4. DISCUSSION

This study describes the significant variation in the availability and price of a full basket of 53 staple food items areas across the different types of shops in the DFfA programme area in 2003. The type of shops in a ward vary significantly with its deprivation score. More deprived wards have a higher percentage of 'independent' shops which include franchise operators such as Spar and independent traders, while more affluent wards have a higher percentage of 'specialist' shops such as butcher shops, fruit & vegetable stores, bakers, fishmongers and delicatessen shops. Three of the four 'multiple' shops such as the large supermarkets are in more affluent areas.

Availability of food items is highest in 'multiple' shops: they stock an average of 41 of the 53 items in the full basket. 'Multiples' are also the cheapest of the four different types of retail outlet: the average cost of the food basket (based on the reduced 33 item basket) is £39.81. This is perhaps not surprising given that 'multiple' shops have lower profit margins which enable them to have cheaper prices.

Availability is second highest in 'independent shops' stocking an average of 32 of the 53 items in the full basket. 'Independent' shops are also the most expensive with the 33 items in the reduced food basket costing on average of £46.32 - £6.51 more than in 'multiple' shops.

'Specialist' shops have the lowest availability, stocking an average of only 11 of the 53 items in the full basket. This is not surprising given that the category includes butchers, fruit and vegetable stores, fishmongers which would not be expected to stock all foods in the food basket. Along with 'independent' shops, 'specialist' shops are the most expensive with the reduced basket of 33 items costing £46.12.

There is very little difference in the availability of the food basket items in wards in different deprivation quartiles – if anything, on average there are slightly more items from the full food basket available in shops in the more deprived areas than in shops in more



affluent areas. Shops in highly deprived wards tend to stock slightly fewer items from the 'fruit and vegetables' food group and shops in both deprived and highly deprived wards tend to stock slightly more 'foods containing fat and foods containing sugar'. These findings are similar to that of Cummins and Macintyre (2002) which found that foods cheaper in poorer areas tended to be high fat, high sugar foods.

The reduced food basket, based on 33 items, costs £2.87 more in highly deprived areas compared with affluent areas. For each food group, the total cost of the items in that food group is slightly more expensive in the highly deprived wards than in the highly affluent wards (with the exception of dairy products).



5. CONCLUSIONS

The study illustrates how the geographical distribution of the different types of shops, and the variation in availability and price of food items in these shops, combine to determine how availability and price vary with socio-economic circumstances of an area. For example;

- Although shops stocking a limited number of food items are more common in the more affluent areas, availability is enhanced by the fact that three of the four 'multiples' shops (which stock the greatest number of food items) are also in these areas.
- Similarly, the fact that most of the 'multiple' shops (which have the cheapest food basket) are located in the more affluent areas, means the price of a food basket is greatly reduced.

Availability does not vary significantly with socio-economic circumstances of an area. However, the distribution of the different types of shops in the DFfA programme area suggests that, to purchase a full food basket, people in more deprived areas have to visit a larger number of shops than people in more affluent areas. This requires greater travel time and greater travel costs, both of which could contribute to reduced physical access to safe healthy food in more deprived areas.

The study also documents the higher cost of food in more deprived areas. A full basket of staple, typically consumed foods which are considered representative of the five major food groups costs £2.87 more in shops in more deprived areas than it costs in shops in more affluent areas. If people shopped locally, this amounts to £149.24 over the period of one year; placing already deprived families at an even further disadvantage in terms of their ability to afford a healthy diet.

The study highlights that 'availability' is only one component of 'physical access to safe healthy food', and that 'price' is only one component of 'financial access'. Access involves a myriad of other factors such as transport, time, disposable income, choice & quality.



Many of these factors are examined in other aspects of the DFfA evaluation. Therefore, in order to arrive at sound recommendations for public health policy and practice, the findings from this pre-intervention food basket study must be analysed in conjunction with post – intervention food basket study findings and other elements of the ‘All-island learning from the DFfA Programme’ research project.



REFERENCES

Coakley, A. (2001). "Healthy Eating: Food and Diet in Low Income Households" in *Administration*, Vol 49, No 3, pp87-103.

Cummins, S. & Macintyre, S. (1999). "The location of food stores in urban areas: a case study in Glasgow" in *British Food Journal*, Vol 101, No 7, pp545-553.

Cummins, S. & Macintyre, S. (2002). "A systematic study of an urban foodscape: The price and availability of food in Greater Glasgow" in *Urban Studies*, Vol 39 No. 11, pp2115-2130.

Department of Health (1996). "Low-income, Food, Nutrition and Health: Strategies for improvement". London: Her Majesty's Stationary Office

Donkin, A., Dowler, E., Stevenson, S. & Turner, S. (2000). "Mapping access to food in a deprived area: the development of availability and price indices" in *Journal of Public Health Nutrition*, Vol 3, No 1, pp31-38.

Dowler, E. (1998). "Food poverty and food policy" in *IDS Bulletin*, Vol 29, No 1, pp58-65.

Dowler, E., Blair, A., Rex, D., Donkin, A. & Grundy, C. (2001). "Measuring access to healthy food in Sandwell". Sandwell: the University of Warwick and Sandwell Health Authority.

Feichtinger, E. (1996). "Looking towards nutrients: towards a more holistic view of poverty and food" in *Poverty and Food in Welfare Societies*. Berlin.

Friel, S. & Conlon, C. (2004) *Food Poverty and Policy*. Combat Poverty Agency: Dublin.

Friel, S., Walsh, O. & McCarthy, D. (2004). *The Cost of Health Eating in Ireland*. Combat Poverty Agency.



Nathoo, T. & Shoveller, J. (2003). "Do healthy food baskets assess food security?" in *Chronic Diseases in Canada* Vol 24 No 2/3.

Measures of Deprivation in Northern Ireland. Social Disadvantage Research Centre, University of Oxford. July 2001 (NISRA Occasional Paper No. 18).

Radimer, K.L., Olson, C.M., et al (1992). "Understanding hunger and developing indicators to assess it in women and children" in *Journal of Nutrition Education*, Vol 24, pp36S-45S.

Watson, A. (2001). *Food poverty: Policy Options for the New Millennium*, London: Sustain.



APPENDICES

APPENDIX 1: FOOD BASKET ITEMS

The 33 food items stocked in every type of shop are highlighted in red.

Food Item	Unit	Brand
Apple	Each	
Bananas	Per lb	
Mandarin Oranges (nat. Juice)	312g	Valley Gold
Tinned Fruit (in syrup)	312g	Valley Gold
Pure Orange Juice (100%)	Per litre	Del Monte/ Just Juice
Frozen Peas	Per 2lb	Bird's Eye
Carrots (fresh)	Per lb	
Tomatoes	Per lb	
Lettuce	Each	
Potatoes (washed)	Per lb	Whites (not washed)
Frozen Chips	1.5kg	McCain's
Shredded Wheat	27 pack	Weetabix
Weetabix	24 pack	Weetabix
Cornflakes	500g	Kellogg's
Frosties	750g	Kellogg's
Full Milk	2 litre	Linwoods/Own Brand
Semi - skimmed milk	2 litres	Linwoods/Own brand
Yoghurt (non low fat)	175g	Muller fruit corner
Yoghurt (low fat, fruit)	125g	Spelga
Cottage cheese	125g	Spelga
Low Fat Cheddar Cheese	Per kg	Coleraine Light
Cheddar Cheese (full fat)	Per kg	Coleraine
Eggs (Medium)	Half dozen	
Butter	500g	Golden Cow
Margarine	500g	Flora Light/Golden Olive
Olive Oil	500ml	Carbonell
Vegetable Oil	2 litre	Crisp & Dry
Beef (mince)	Per lb	
Steak Mince (Lean)	Per lb	
Chicken Breast Fillets (Lean)	Per lb	
Bacon (Lean back)	Per 8 slices	Denny/Cookstown
Bacon (rashers)	6 slices	Denny/Cookstown
Hamburgers (frozen)	227g (4)	Bird's Eye
Sausages	1lb (8)	Denny/Cookstown
Frozen Cod (Breadcrumbs)	450g	Donegal Catch
Frozen Cod (Battered)	450g	Donegal Catch



Fish Fingers	Pack 10	Bird's Eye
Salmon (tinned)	213g	John West
Tuna (tinned, in brine)	213g	John West
Wholemeal bread	800g	Kingsmill
White bread (sliced)	800g	Linwoods/Sunblest
Pasta (wholemeal)	500g	Buitoni
Pasta (white)	500g	Buitoni
Food Item	Unit	Brand
Rice (brown)	375g	Uncle Ben's
Rice (white)	375g	Uncle Ben's
Baked Beans	415g	Heinz
Bottled water	2 litre	Ballygowan
Food Item	Unit	Brand
Coke	2 litre	Coca-cola
Mars Bar	Each	Masterfoods UK
Crisps	55g bag	Walkers
Sugar	Per kg	Tyte & Lyle/Silver Spoon
Digestives (chocolate)	400g	McVities
Jam	454g	Hartley's



APPENDIX 2: FOOD GROUPS

Fruit and vegetables

Apple
Banana
Mandarin oranges (nat. juice)
Pure Orange Juice (100%)
Frozen peas
Carrots (fresh)
Tomatoes
Lettuce

Bread, other cereal and potatoes

Potatoes
Shredded Wheat
Weetabix
Cornflakes
Frosties
Wholemeal bread
White bread (sliced)
Pasta (wholemeal)
Pasta (white)
Rice (brown)
Rice (white)

Milk and dairy foods

Full milk
Semi-skimmed milk
Yoghurt (non low fat)
Yoghurt (low fat, fruit)
Cottage Cheese
Low Fat Cheddar Cheese
Cheddar Cheese (full fat)

Meat, fish and alternatives

Beef (mince)
Steak Mince (lean)
Chicken Breast Fillets (lean)
Bacon (lean back)
Bacon (rashers)
Hamburgers (frozen)
Sausages
Frozen Cod (breadcrumbs)



Frozen Cod (battered)
Fish Fingers
Salmon (tinned)
Tuna (tinned, in brine)
Eggs
Baked Beans

Foods containing fat & foods and drinks containing sugar

Butter
Margarine
Olive Oil
Vegetable Oil
Mars bar
Crisps
Digestives (chocolate)
Jam
Sugar
Coke



APPENDIX 3: LETTER TO SHOP MANAGERS

Dear Sir/Madam,

The Armagh and Dungannon Health Action Zone in association with the Institute of Public Health in Ireland are currently undertaking a food basket study within the Dungannon and South Tyrone Borough Council and Armagh City and District Council areas.

The purpose of the study is to describe the geographical distribution of shops and determine the level of access to healthy affordable food in the Armagh and Dungannon area. The results from the study will be of enormous value in giving us a clearer understanding of a range of issues around access to healthy affordable food in the Armagh and Dungannon area.

We have appointed Social & Market Research (SMR) to conduct the survey on our behalf. I am therefore writing to ask for your help.

In the next couple of weeks a researcher will be visiting your premises to check the availability of 53 specific items of food. He/she will introduce himself/herself to you before undertaking the exercise and will also carry an ID card for the purposes of identification. Any information collected will be treated in the strictest confidence and will only be used for statistical purposes. No shop names will be identified in the survey report.

It is hoped that you will be willing to take part in the study, which is the first of its kind in Northern Ireland.

If you have any queries about the survey please feel free to contact me directly on

I thank you in anticipation of your co-operation.

Yours sincerely



APPENDIX 4: MEMBERSHIP OF THE FOOD POVERTY RESEARCH GROUP, INSTITUTE OF PUBLIC HEALTH IN IRELAND

Present members

Jane Wilde	Institute of Public Health in Ireland
Kevin P Balanda (chair)	Institute of Public Health in Ireland
Steve Barron	Institute of Public Health in Ireland
Emma Turkington	Armagh and Dungannon Health Action Zone
Paula Tally	Armagh and Dungannon Health Action Zone

Past members

Alison Crawford	Armagh and Dungannon Health Action Zone
Aodhann O' Donnell	Armagh and Dungannon Health Action Zone
Eleanor Gill	Armagh and Dungannon Health Action Zone
Lyndsey McCann	Armagh and Dungannon Health Action Zone
Michael Donaldson	Armagh and Dungannon Health Action Zone
Tracy Powell	Armagh and Dungannon Health Action Zone
Jennifer McBratney	Armagh and Dungannon Health Action Zone
Shirley Hawkes	Armagh and Dungannon Health Action Zone
Linda Norris	Armagh and Dungannon Health Action Zone
Tracy O' Neill	Armagh and Dungannon Health Action Zone
Yukiko Kobayashi	Institute of Public Health in Ireland
Niamh Shortt	Institute of Public Health in Ireland
Jorun Rugkåsa	Institute of Public Health in Ireland
Orla Walsh	Institute of Public Health in Ireland

