Understanding Food in the Context of Poverty, Economic Insecurity and Social Exclusion

A report for the Food Standards Agency in Northern Ireland

> Final version April 2015



Contents

Project summary iii **Executive Summary** V 1 Setting the scene 1 1.1 Introduction 1 How this report is organised 1.2 1 1.3 Aims of the research 2 3 1.4 Methodology 1.5 The urgency of the challenge 4 2 What is food poverty? 6 2.1 Food poverty: constraints; constrained choices; and impacts 6 2.2 Usage and definition 8 2.3 Constraints 12 2.4 Constrained choices 19 2.5 20 **Impacts** 3 Measuring food poverty 25 3.1 Introduction 25 3.2 Potential measures 26 3.3 Discussion 30 4 Food poverty in Northern Ireland 31 4.1 Constraints 32 4.2 Constrained choices 38 4.3 **Impacts** 41 4.4 43 Potential measures 5 Next steps - Developing actions 47 5.1 47 Introduction 5.2 Analytical reflections 48 5.3 Initial suggestions for action 51 5.4 **Action Planning Process** 53 5.5 Closing remarks 54 Annex A - Research aims 55 Annex B - Detailed methodology 57 Annex C - Literature review bibliography 64 Annex D - Footnote references 68 Suggested citation: King, G., Lee-Woolf, C., Kivinen, E., Hrabovszki, G., Fell, D. (Brook Lyndhurst). 2015. Understanding Food in the Context of Poverty, Economic Insecurity and Social Exclusion. Brook Lyndhurst for the Food Standards Agency in Northern Ireland.

© Crown Copyright 2015

This report has been produced by Brook Lyndhurst Ltd under/as part of a contract placed by the Food Standards Agency in Northern Ireland (the Agency). The views expressed herein are not necessarily those of the Agency. Brook Lyndhurst warrants that all reasonable skill and care has been used in preparing this report. Notwithstanding this warranty, Brook Lyndhurst shall not be under any liability for loss of profit, business, revenues or any special indirect or consequential damage of any nature whatsoever or loss of anticipated saving or for any increased costs sustained by the client or his or her servants or agents arising in any way whether directly or indirectly as a result of reliance on this report or of any error or defect in this report.

Project summary

This report, commissioned by the Food Standards Agency in Northern Ireland, explores how issues of poverty, economic hardship and social exclusion in Northern Ireland relate to food.

Evidence was sourced from a rapid evidence assessment, as well as supplementary interviews conducted with a range of relevant stakeholders and experts. Two workshops were held with policy makers and practitioners in Belfast to test the emerging conclusions and to explore potential future actions.

Overall, this exploration reasserted that situations of poverty and economic hardship can often lead to people being 'constrained' from achieving an adequate and nutritious diet. Social exclusion was found to be both a cause, and a potential impact of, inadequate diets. The research supports the idea that 'food poverty' is an appropriate term to be used to describe situations where opportunities to consume healthy food are severely constrained.

Precise measurement of food poverty is not yet possible. In the absence of an official definition there is no official data. Possible indicators of food poverty in Northern Ireland are being developed, but there is not yet an authoritative and widely credible measure; and it may be some years before time series data can show whether circumstances are improving or deteriorating.

There is evidence to suggest that many of the identified key drivers of food poverty – including low or falling incomes; high or rising food prices; and declining cooking skills – are leading to deteriorating outcomes for people in Northern Ireland. As well as investigating the causes of food poverty, the report presents evidence of poor nutrition, poor diet, obesity and hunger in Northern Ireland. For instance:

- Northern Ireland has the lowest purchases of fruit and vegetables of all UK regions
- More than 6 in 10 adults in Northern Ireland are overweight or obese.
- A survey found that 7% of respondents in Northern Ireland experienced a day in the last fortnight when they did not have a substantial meal due to lack of money

It is also clear that food poverty is not the outcome of straightforward causes. It is, rather, the outcome of complex interactions and feedbacks

between multiple factors. It is a systemic outcome, which in turn requires a systemic response.

A process of working on a shortlist of actions with a small group of stakeholders is recommended: a learning, adaptive approach is best suited to tackling systemic problems. Preliminary work conducted as part of this research tested this approach and quickly identified a range of potential actions that could be taken (including mapping and coordinating existing activities, and promoting use of a food poverty indicator).

The existence of food poverty in developed nations is shocking, and though the issue is complex - there is a strong consensus amongst a wide group of stakeholders that urgent action is required. It is hoped that this report will help to kick-start this action in Northern Ireland.

Executive Summary

This report presents the results of research commissioned by the Food Standards Agency in Northern Ireland (FSA in NI) and undertaken by Brook Lyndhurst to:

- provide an up-to-date and robust evidence base on food issues related to poverty, economic hardship and social exclusion (that is, the issue of 'food poverty');
- set out some potential next steps for the FSA in NI to address the issues of food in the context of poverty, economic insecurity and social exclusion in Northern Ireland.

The FSA in NI co-chairs the All-Island Food Poverty Network and intends that the results from this research will support the development of an Action Plan to tackle food poverty in Northern Ireland.

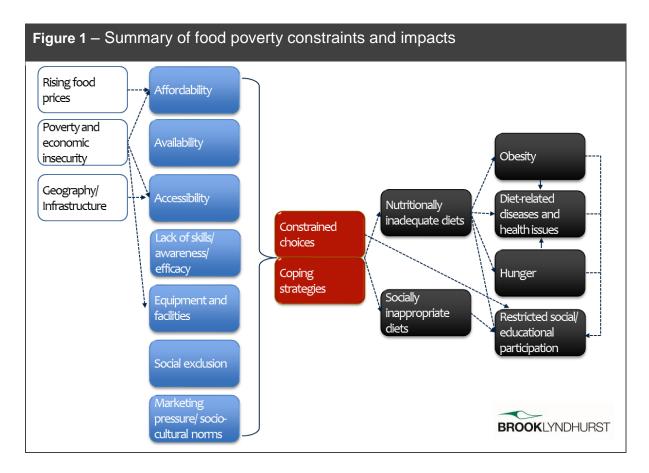
The research was conducted in three main phases: a formal review of recent, relevant literature; a programme of interviews with experts and stakeholders; and a pair of interactive workshops with policy makers and practitioners.

What is food poverty?

Alternative terminology was considered as part of this study. As the term 'food poverty' has come into wide usage in recent years, it was considered to be the most appropriate to bring together the complex set of related causes, processes and impacts explored in this report.

There is no official definition of the term 'food poverty'. The evidence explored in this study led to an approach to viewing food poverty based on three components: constraints (or causes); constrained choices (or the 'lived experience'); and impacts. These components are displayed in Figure 1. As a working definition of food poverty, this approach suggests that: where constraints are such that it is not possible for individuals or households to consume a nutritionally adequate diet, they could be considered to be in food poverty.

The diagram also highlights the fact that food poverty is not a result of simple causes, but is part of a system with complex relationships and feedbacks. Food poverty is best thought of as a systemic issue i.e. an outcome of how the system as a whole functions.



Measuring food poverty

The results of the literature assessment, and discussions with expert and stakeholder interviewees, strongly suggested that having a credible and widely-acknowledged way of measuring food poverty would help:

- to highlight the significance of the issue, and thereby raise its profile, secure attention and harness resources;
- to provide a basis for assessing the success (or otherwise) of initiatives seeking to address food poverty.

Three measures are available or under development in Northern Ireland:

- Institute of Public Health Measures households 'at risk' of food poverty using household food spending data collected from the Living Costs and Food Survey
- safefood et al The percentage of household income and budget required for an adequately healthy and nutritious weekly food basket.
- **Department of Health et al** Deprivation measures questions were included in the Northern Ireland Health Survey 2013/14

One of these measures will need to be taken forward as a definitive measure of food poverty in Northern Ireland, in order for the issue to be consolidated and widely understood.

Food poverty in Northern Ireland

Constraints

There is evidence that, since the recession in the late 2000s, more and more people are struggling to afford to buy food. Poverty and economic insecurity may lead people to be 'constrained' from achieving an adequate and nutritious diet. Northern Ireland has a relatively high level of deprivation compared to other UK nations, and it has a lower Gross Disposable Household Income. Rising food prices and increases in the broader cost of living have compounded this situation, and meant that the affordability of food is a key constraint.

Affordability of food is not the only issue making it difficult for people to achieve a healthy diet. There may also be issues accessing nutritious foods. Items such as fresh fruit and vegetables may not be available in local shops, and 23% of households in Northern Ireland do not have access to a vehicle.

Declining cooking skills, lack of suitable equipment, and pressure to abide by particular social rules are further potential constraining factors. Social exclusion (e.g. lack of supportive networks of family and friends) was also found to be both a potential cause (as well as a potential impact) of food poverty.

Constrained choices

People in poverty or suffering economic hardship are not necessarily going hungry, and lower income households tend to spend a higher proportion of income on food than higher income households. To make this money go further, many are buying cheaper and less nutritious foods that satisfy immediate needs. Northern Ireland has the lowest combined total purchase of fruit and vegetables of all UK regions.

Buying satisfying foods is just one of a range of (often complex) strategies to cope with constrained food choices, which can also include: skilful shopping; sophisticated meal planning; high frequency shopping; and making best use of special offers. Buying and eating less food, too, may be seen as a coping strategy.

Impacts

Consistent purchasing of foods with lower nutritional (but higher calorific) content may stave off hunger, but may lead to other health issues. More than 6 in 10 adults in Northern Ireland are overweight or obese. Due to the constrained choices experienced and the nutritionally poor diets that result, obesity tends to be more prevalent amongst the most deprived

groups. Lower income groups are also more likely to have vitamin and mineral deficiencies.

Hunger is also an issue, and the 2013/14 Northern Ireland Health Survey revealed that - over the previous 12 months:

- 7% of respondents experienced a day in the last fortnight when they did not have a substantial meal due to lack of money;
- 6% of the population had cut food portions or skipped meals due to lack of money;
- 4% had gone hungry because there was not enough money to buy food.

Recommended Actions

The authors suggest that attempting a comprehensive approach to food poverty is misguided: the issue is too complex.

The authors argue that would be preferable to adopt an adaptive, learning approach, beginning with a small number of actions delivered by a small number of committed agencies. Successes will breed confidence and attract the support of other agencies, so that momentum can be built over time. They recommend a process as follows:

- Longlisting a longlist of possible short-term actions should be assembled (through workshops and/or appropriate consultation and engagement)
- Shortlisting a transparent and systematic process of shortlisting should be conducted, using a method to rank the longlisted actions. The highest ranking actions (e.g. high impact, low resource, easy to implement, most consistent with vision, etc) should be the prioritised actions.
- Action-development the details for shortlisting each action (in terms of costs, responsibilities, locations, timing, method of monitoring etc) should be unpacked and considered. Once actions are considered in more detail, some may no longer appear as highly ranked as originally thought. For this reason, we recommend that the provisional shortlist should comprise some six to eight actions; and a final shortlist should comprise between four and six.
- Links the shortlisted actions will need to be brought together and links identified. This will help to ensure collaborative working amongst all relevant bodies and 'one agenda' rather than conflicting individual initiatives.

It is envisaged that the horizon for these initiatives will be somewhere between 12 and 24 months; an Action Plan should be published and publicised with this in mind.

Workshops conducted as part of this study invited participants to identify a small number of actions to tackle food poverty that they thought could be achieved relatively quickly and with tangible results. The actions included:

- Developing and promoting effective indicators
- Undertaking comprehensive policy and programme mapping
- Promoting and enhancing community food initiatives or life skills development
- Including tackling food poverty within ongoing local government reform

The authors recommend that these workshops are seen as a trial or starting point for a different approach, rather than as an attempt to prepare a comprehensive list of actions.

Workshop participants (and stakeholders that were interviewed) concurred with a growing public consensus that food poverty is a deplorable situation requiring urgent action. While no policy-maker, researcher or activist has deliberately sought to bring the present situation about, the fact that it appears to be worsening suggests that the need for action is ever more acute. There are nevertheless opportunities for action; and it is firmly hoped that the material in this report helps the many individuals and organisations in Northern Ireland that are passionate about tackling the problem to do just that.

ii.

Setting the scene 1

Introduction 1.1

In Northern Ireland, as elsewhere in the United Kingdom, concern about food poverty has risen markedly in recent years¹. Although there have been programmes and projects in Northern Ireland trying to address food poverty, the case for more co-ordinated, stronger and more effective action is now pressing.

The All-Island Food Poverty Network – a network established specifically to meet this challenge – has been given the responsibility of developing an Action Plan to tackle food poverty. The Food Standards Agency in Northern Ireland, which co-chairs the Network, commissioned Brook Lyndhurst to undertake the research required to inform and support the development of an Action Plan.

This report presents the results of that research exercise.

1.2 How this report is organised

The report has been structured into two main parts: Chapters 2 and 3, which are concerned with food poverty in general; and Chapters 4 and 5, which focus on Northern Irelandi.

The remainder of this introductory chapter:

- explains the aims of the research;
- summarises the methods used during the research; and
- concludes with a brief reminder of why both this research and an Action Plan are so urgently needed.

The report then proceeds as follows:

- Chapter 2: What is food poverty? sets out and explores a definition of food poverty and considers its causes and impacts
- Chapter 3: Measuring food poverty discusses the challenges of trying to measure food poverty
- Chapter 4: Food poverty in Northern Ireland using the definition introduced in Chapter 2, this chapter provides the substantive evidence base on food poverty in Northern Ireland

Although the All-Island Food Poverty Network is concerned with the whole island of Ireland, the Food Standards Agency's remit is restricted to Northern Ireland; so the terms of reference for this study were similarly aligned.

 Chapter 5: Next steps – Developing actions – draws out key considerations from the research, introduces initial propositions for action and sets out recommended processes for completing an Action Plan.

1.3 Aims of the research

The Food Standards Agency in Northern Ireland (FSA in NI)ⁱⁱ has a remit for nutrition and dietary health in Northern Ireland. This fits under its strategic objectives of:

- ensuring consumers have the information and understanding to make informed choices about where and what they eat;
- ensuring that food producers and caterers give priority to consumer interests in relation to food

The term 'food poverty' is referred to within the "Framework for Preventing and Addressing Overweight and Obesity in Northern Ireland 2012-2022 - A Fitter Future for All" in which the FSA in NI assumes co-responsibility for:

- the short-term objective of developing a co-ordinated approach to address food poverty
- the medium-term objective of ensuring local support, resources and facilities are available to those experiencing food poverty;
- the long-term objective of a greater proportion of adults eating a healthy diet (as measured by the indicator: % of adults experiencing food poverty).

More recently, the All-Island Food Poverty Network has been set up to develop a co-ordinated approach to address food poverty in order to inform and influence practice and policy.

Against this background, the FSA in NI commissioned this research project to support the development of an Action Plan by:

- providing an up-to-date and robust evidence base on food issues related to poverty, economic hardship and social exclusion ('food poverty');
- setting out some potential next steps for the FSA in NI to address the issues of food in the context of poverty, economic insecurity and social exclusion in Northern Ireland.

_

ii https://www.food.gov.uk/northern-ireland

Most specifically, the research objectives were to find evidence covering:

- how food issues relate to poverty, economic hardship and social exclusion (including factors that lead to nutritionally inadequate or less socially acceptable diets);
- the Northern Ireland context;
- definitions of food poverty;
- measurement and indicators

These research aims and objectives are set out in full in Annex A.

How food issues relate to poverty and economic hardship is discussed in Chapters 2 and 4 (particularly in sections 2.3.1 and 4.1.1 where the constraining impact that these factors can have on *affording* adequate diets is covered). Social exclusion is often deeply intertwined with issues of poverty and economic hardship. This is reflected in the evidence and as a 'standalone' factor there is limited evidence of its relationship with food issues. Social exclusion (or social isolation) is nevertheless identified as a potential constraint to achieving nutritious diets (section 2.3.6). The report also recognises that hunger, obesity and other health-related issues may make the impacts of poverty and social exclusion more acute.

With regards to measurement and indicators, it is worth noting that between the time of the research being commissioned and the start of the research, considerable work was conducted by other agencies that related to the measurement of food poverty in Northern Ireland (see Chapter 3). As such, this aspect of the research necessarily moved away from having a key focus on recommending new measures (as initially envisaged) towards an assessment of existing measures.

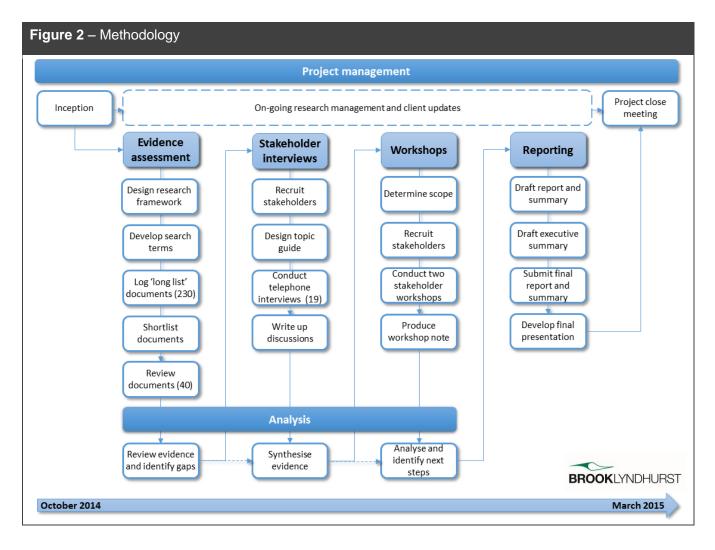
1.4 Methodology

Team

The research was undertaken by Brook Lyndhurst, an independent research consultancy specialising in sustainable development and behavioural insight. The Brook Lyndhurst project team also drew on the expertise of external advisor Professor Jim Kitchen of Sustainable NI, and worked closely with the project manager from the Standards and Dietary Health team within the FSA in NI.

Methodology

The research was delivered in three main phases: a formal review of recent, relevant literature; a programme of interviews with experts and stakeholders; and a pair of interactive workshops with policy-makers and practitioners. The research tasks under each phase are summarised in Figure 1 and described in full in Annex B.



Findings from the formal evidence assessment are presented mainly in Chapters 2 and 4 and are fully referenced. Findings from the interviews and workshops principally inform Chapters 4 and 5. Where appropriate, quotations are provided.

The research and this report also draw directly on Brook Lyndhurst's experience and this is especially the case in Chapter 5. Where appropriate, the report is explicit about where we have drawn on our own insight.

The urgency of the challenge 1.5

Poverty, and its impact on the ability to purchase food, has always existed throughout Great Britain and Northern Ireland. There is evidence that more and more people are struggling to afford to buy food. The 2013/14 Northern Ireland Health Survey³ revealed that - over the previous 12 months - 6% of the population had cut food portions or skipped meals due to lack of money, while 4% had gone hungry because there was not enough money to buy food. Over that 12 month period, around 1% of the

Northern Ireland adult population had gone an entire day without eating due to financial constraints.

At the same time, there is evidence that many people in poverty or suffering economic hardship are still buying food, but are buying cheaper and less nutritious foods. Consistent purchasing of foods with lower nutritional (but higher calorific) content may stave off hunger, but may lead to other health issues.

Affordability of food is not the only issue making it difficult for people to achieve a healthy diet. There may be issues accessing nutritious foods, and items such as fresh fruit and vegetables may not be available in local shops.

Many of these issues have been bracketed under the term 'food poverty'. This term has no official definition and few attempts have been made either to measure food poverty or to describe its causes, components and consequences⁴. This document explores these issues, considering both definition and measurement, and looks at the way forward for Northern Ireland.

2 What is food poverty?

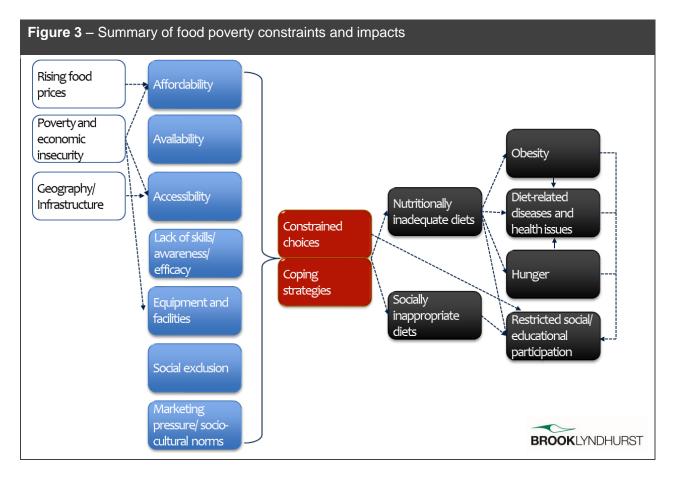
2.1 Food poverty: constraints; constrained choices; and impacts

A number of definitions of food poverty were reviewed as part of this study; Section 2.2 presents the findings from that review. Our analysis of those findings established that food poverty comprises three distinct components:

- **Constraints** factors, most notably financial factors, which act to constrain individual and/or household choices:
- **Choices** the choices that are open to individuals and households as a result of those constraints, and the strategies they adopt to cope with those constrained choices;
- **Impacts** the consequences of those constrained choices.

These components – shown in the diagram (Figure 2) below, and developed using findings from the evidence assessment – comprise a working definition of food poverty <u>and</u> provide a framework that can be used to explore and understand food poverty.

The white boxes on the far left represent a few key drivers behind the constraints; and the blue boxes to the left of centre represent the key constraints identified in the literature and interviews. The right hand side shows the main impacts experienced by those in food poverty. The boxes in the middle ('constrained choices' and 'coping strategies') represent the *experience* of procuring and consuming food within – or despite - the situational constraints faced.



As a tentative working definition of food poverty, this diagram suggests that where constraints are such that it is effectively **not possible** for individuals or households to consume a nutritionally adequate diet, they could be considered to be in food poverty. On the flip side, it implies that where an individual or household has a nutritionally inadequate diet despite the fact they *could* consume a nutritionally adequate diet, they would not be classed as being in food poverty.

Figure 2 makes these issues accessible, but it also presents a simplified image of food poverty. In two respects this simplification can be misleading. First, although the boxes are the same size, the factors are not all of the same importance. In particular, the research suggests that poverty and economic insecurity are key drivers of food poverty in Northern Ireland. The diagram implies that it is possible for someone in financial poverty (or economic insecurity) to not be in food poverty (e.g. if they are in a position to acquire and prepare a range of healthy foods). In reality, people on low incomes are far more likely to face multiple constraints and to experience them more severely than higher income groups. Similarly, the diagram implies it is possible for someone on a high income to be in food poverty if they too faced constraining factors that prevented consumption of a healthy diet (e.g. if they lacked a means of accessing healthy foods, or if healthy foods simply were not available to

them), though this scenario is unlikely to be regularly borne out in Northern Ireland.

The precise importance of individual factors is difficult to establish, most notably because of the second limitation of the diagram – namely, that food poverty is not a straightforward linear sequence of issues, as the diagram suggests. Rather, food poverty is the outcome of a complex interplay between factors, with feedback effects that are different for different groups and individuals and which evolve over time.

The diagram hints at this, with social exclusion as a constraint to achieving nutritious diets and reduced social participation as a potential impact. Hunger, obesity and other health-related issues may make the impacts of poverty and social exclusion more acute. Another example might be that lower social participation and/or health issues could limit employment opportunities and therefore perpetuate or worsen economic hardship. Nevertheless, a diagram that attempted to capture fully the various connections would have lines from every box to every other box and would be impenetrable and unusable.

With these two limitations in mind, the diagram nevertheless provides a means of navigating the complex and inter-related issues of contemporary food poverty and this report uses the diagram for just such a purpose in both this chapter (which retains a general focus, with much of the information relating to the UK) and in Chapter 4 (where the attention is more specifically upon Northern Ireland).

Chapter 2 looks first at the terminology around food poverty (section 2.2). The remainder of the chapter follows the component of the diagram set out in Figure 2) In section 2.3 the report deals with 'Constraints'; in section 2.4, with 'Choices'; and, in the final sub-section, with 'Impacts'.

2.2 Usage and definition

2.2.1. Usage and appropriateness

The research team found that there was some disagreement between interviewees around the appropriateness of the term 'food poverty' to describe the network of issues linking food and poverty, economic hardship and social exclusion. A summary of the key points raised by interviewees is provided in Table 1 below.

Table 1 – Using the term 'food poverty' – arguments for and against (drawn from the stakeholder interviews)

Points for	Further detail		
Growing in use (e.g. politics, media)	Use of the term 'food poverty' has increased in recent years, both in the media and in political debate ⁵ . Due to its relatively accepted usage, many interviewed felt that the term 'food poverty' had acquired political currency and therefore become a useful term for communication and advocacy of particular food-related issues.		
Lack of better term	A number of other terms, referring to similar issues, emerged in the literature (including food security ⁶ ; food deserts ⁷ ; and food equity ⁸). Interviewees		
Poverty is an emotive word and prompts action	A couple of interviewees noted that the emotive nature of the word 'poverty' was could be a useful asset with regards to advocacy and political agendas.		
Points against	Further detail		
Food poverty is just an example of how 'poverty' affects people	A few interviewees felt that the issue of food poverty was another example of how poverty (in general) affects people's lives rather than a distinct topic, and was therefore not deserving of a separate term.		
Stigma attached to the word 'poverty' means it cannot be used in all situations	For interviewees working with vulnerable people, the inclusion of the word 'poverty' was not helpful in their spheres of work due to potential stigma around its use.		
Suggests a lack of food, whereas the issue is far more complex	Food poverty discussions often include a consideration of both lack of food (or hunger) and other health issues (e.g. obesity) that can be attributed to constrained dietary choices (see Section 2.6). Jones et al refer to this latter issue as 'hidden hunger' due to the micronutrient deficiencies sometimes experienced by people in these situations ⁹		

Largely due to the growing use of the term, the research team have employed the term 'food poverty' throughout the report. The team did debate potential use of the term 'food and nutrition security' as an alternative. This term adds emphasis to the issue of nutrition being limited (i.e. it is not necessarily about a lack of food); while 'security' reflects that the situation can be dynamic rather than static. Using 'security' instead of 'poverty' may also remove some of the stigma around the term, though it can imply issues around supply. On balance, it was felt that the advantages surrounding the growing resonance of the term food poverty (reflected, for example, in the name of the All-Island Food Poverty Network) far exceeded the disadvantages around attempting to introduce a new term.

A minority of stakeholders in the interviews and workshops indicated a preference for a focus on 'hunger' - with hunger seen as a more important

and immediate issue than tackling 'food poverty' in the round. It was the view of the research team that it remained appropriate for both hunger and obesity to be tackled under the same remit. While hunger is one potential outcome of being in food poverty (and can be seen as an indicator of 'extreme' food poverty); both hunger and obesity can arise as a result of choices being severely constrained.

2.2.2. Defining food poverty

Numerous attempts have been made to define food poverty¹⁰, but there is not one established definition in the UK. The Evidence Review for the All-Party Parliamentary Inquiry into Hunger in the United Kingdom¹¹ included the following definition¹².

> Food poverty can be defined as the inability to afford, or to have access to, foods which make up a healthy diet.

This statement in the Evidence Review goes on to describe some of the other conditions that might lead to food poverty¹³:

> Those experiencing food poverty may have limited money for food after paying for other household expenses; live in areas where food choice is restricted by local availability and lack of transport to large supermarkets; or be lacking in the knowledge, skills or cooking equipment necessary to prepare healthy meals.

The Evidence Review also includes this summary of food poverty from a submission by Professors Tim Lang and Martin Caraher:

> A worse diet, worse access, worse health, higher percentage of income on food, and less choice from a restricted range of foods.

The All-Island Food Poverty Network is currently using a definition of food poverty based on a definition put forward by Friel and Conlon¹⁴:

> The inability to have an adequate and nutritious diet due to issues of access to and affordability of food, with related impacts on health, culture and social participation.

Following a review of several definitions and descriptions of food poverty, the research team found that most definitions are comprised of a combination of key components. These components (along with an added component – 'constrained choices') are set out in a framework for defining food poverty designed by the research team (see Figure 3, and Table 2).

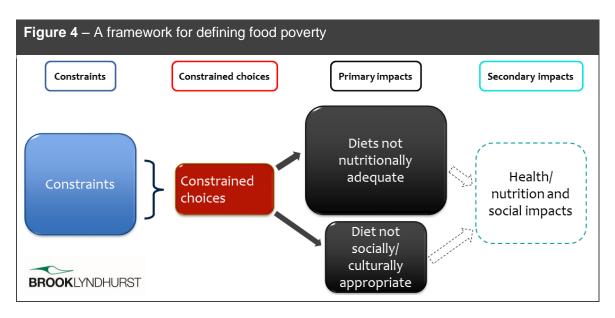


Table 2 - Components of food poverty definitions (based on insights from the research team) Component **Further discussion** Constraints There are things that prevent individuals or households from accessing a necessary range of foods. These 'constraints' typically include the affordability, accessibility and availability of food. Aspects such as lack of knowledge, skills or equipment are also included as constraints in some definitions. Constrained Although not included in any definitions reviewed, several interviewees in this choices project described the processes, choices and prioritisations that occurred when choices were severely constrained. Even when facing the same constraints, food poverty impacts may vary from household to household due to strategies (or lack thereof) around purchasing and consumption of food. These - often highly developed - 'coping strategies' are very much a part of the lived experience of food poverty for many households. Primary The primary impact of the constraints experienced is that the food purchased and impacts consumed fails to provide individuals with nutritious, healthy or 'adequate' diets. A few - more recent - definitions include a parallel impact: that the constraints have led to diets that are not socially or culturally acceptable. Secondary In some definitions and descriptions, further impacts are included e.g. the link impacts between consuming diets with limited nutrition (or participating in less socially acceptable acquisition, preparation and consumption of food) and detrimental health impacts and/or reduced cultural and social participation. Though this link is well established these 'secondary impacts' are represented with less emphasis in the 'definition framework' in Figure 3, as the inclusion of issues such as obesity or social participation within a definition may lead to confusion and over-complication. Instead, these secondary impacts could be seen as common 'outcomes' of people being in food poverty.

This framework attempts to show that the presence of mediating factors can put households at risk of being in food poverty, by constraining the

 $^{^{\}mathrm{iii}}$ NB what is meant by 'necessary' is described in the 'Primary impacts' row.

choices they have to adopt a healthy, nutritionally balanced, and socially acceptable diet. The framework – which deliberately mirrors the diagram set out in Chapter 2 and 4 (Figures 2 and 4) - also shows that an inability to manage or overcome constrained choices can lead to a series of impacts associated with food poverty (i.e. inadequate diets nutritionally, socially and culturally). These may, in turn, also go on to cause negative outcomes for health, nutrition and wellbeing (represented as secondary impacts in the Figure 3).

2.3 Constraints

2.3.1. Affordability

Affordability refers to financial access to food: the ability to pay for a nutritionally adequate diet.

Poverty and economic insecurity

Issues relating to the affordability of food are key drivers of food poverty; with a range of inter-related economic pressures contributing to the poorest households being unable to afford adequate diets.

Research has highlighted that people suffering from sustained poverty, many with complex support needs, have often been reliant on food assistance for extended periods of time. Lone parents, migrants uncertain of welfare entitlements and those with disabilities or addiction problems are identified as examples of groups whose problems with affording food can be longstanding¹⁵.

The literature suggests that the profile of people at higher risk of being in food poverty is similar¹⁶ to those at higher risk of being in poverty. Given the significance of income and affordability in food poverty, this is perhaps not a great surprise. Low income can also cause or compound issues such as accessibility (section 2.3.2) or lack of equipment (2.3.5). Food poverty has been found to be a more prevalent issue for groups such as:

- Jobseekers¹⁷
- Long term sick¹⁸
- Disabled people¹⁹
- Households with children²⁰
- Lone parents²¹
- Homeless people²²
- Members of the Traveller community²³
- Retirees²⁴
- Renters²⁵

- Single people²⁶
- Households with a family head with lower educational qualifications/time spent in education²⁷

Debt among the poorest households acts as another factor that can divert income away from the food budget. Between 2006 and 2011, one in five of those needing to use Trussell Trust food banks reported debt as the main reason for their hunger²⁸. Interest payments (particularly from pay-day lenders or other credit providers), can take up a significant portion of people's incomes²⁹.

Whilst food poverty may previously have been associated with vulnerable groups and those out of work, in the aftermath of the late 2000s recession, wage decreases (in real terms) have meant that more working households are less able to afford an adequate diet. The ONS calculates that UK workers have experienced a 7.6% fall in real wages during the past six years³⁰, with half of all those in poverty now coming from a working family. Many workers are taking on poorly paid jobs and zero-hours contracts. Dowler and Conner³¹ identify this growing group – those with insecure employment or low wages – as the 'new poor'.

A recent squeeze on benefits has also had a considerable impact. The failure of benefits to keep pace with inflation has cut the disposable incomes of many of the poorest households throughout the UK. Such income pressure limits the funds available to buy food on a week-by-week basis while also contributing significantly to what has been described as 'the long-term erosion of poorer households' financial buffer'³².

Affordability of food for a healthy diet can also be strongly undermined by sudden changes in income, for example as a result of job loss or changes in benefit payments. Recent research has suggested that food bank use was predominantly in response to an 'acute' income crisis caused by a specific event or wider life shock, rather than long-term low income³³.

Analysis by the Trussell Trust in three English locations found sudden changes in benefit payments to be causes of hunger³⁴. These included:

- Delays and errors in the processing and payment of benefits:
 Approximately one-third of food bank users in the study reported claiming a benefit which had not yet been approved;
- Benefit sanctions: 20-30% of food bank users in the study said that their household's benefits had recently been stopped or reduced because of a sanction;
- Removal of Employment and Support Allowance (ESA);
- Implementation of the 'bedroom tax';

Introduction of benefit caps

Other causes for sudden changes in income leading to food poverty can include changes in family circumstances, ill health, or taking on caring responsibilities. Job loss or an unexpected reduction in working hours is a particular problem for those with little experience or knowledge of the benefits system and their potential entitlements.

Rising food prices

Food prices in the UK dropped by around 25% between 1980 and 2007³⁵, suggesting a long-term downward trend. This pattern has been disrupted with food prices rising in real terms by 12% between 2007 and 2013³⁶.

The problem posed by rising food prices for the poorest households is significant. Prices for fish, fruit and vegetables and meat rose by more than 30% in absolute terms between 2007 and 2013³⁷. In 2013, UK households in the lowest income decile spent 22% more on food than they did in 2007, yet purchased 6.7% less food³⁸.

Increase in the broader 'cost of living'

The direct impact of increases in food prices has been compounded by rising housing and energy costs over a sustained period. In the UK since 2003, food (46.4% rise), fuel (154%) and housing costs (36%) have all increased at a greater rate than earnings (27.9%), putting significant pressure on the budgets of the poorest households³⁹.

There is evidence to suggest that these increases in wider living costs are forcing many households to make choices between heating their homes and spending money on food. A National Childbirth Trust survey of parents with children under the age of three found that 66% said that rising energy costs meant they had been under pressure to cut back on other essentials, rising to 77% among single parents. The vast majority (85%) of those under financial pressure said they had considered cutting back on food to pay for energy bills⁴⁰. The very poorest are not able to afford to heat or eat, with some food banks now offering 'Kettle boxes'41 for those who cannot even afford to heat an oven or hob to cook meals.

There are few signs of these problems being resolved in the immediate future; at the end of 2013 the 'Big Six' energy suppliers all increased their prices by between 4% and 11%. It is estimated that the poorest fifth of households in the UK spent 11% of their income on energy bills in 2012 compared to 8% in 2002⁴².

2.3.2. Availability

Availability refers to the physical presence of healthy food in a local area.

This is therefore conceptually distinct from 'accessibility' (section 2.3.3) which comprises transport and mobility issues. In reality, as healthy food is widely available in the Northern Ireland and the rest of the UK, the definition of a 'local' area becomes important. For those without cars, this local area may be less extensive, for example. Consideration of availability of healthy food as a constraint in the UK therefore overlaps with accessibility considerations.

For many – in the absence of a local greengrocer - the main provider of affordable healthy food is the supermarket. In a 2004 study by White et al in Newcastle upon Tyne, good quality fresh fruit and vegetables were consistently only available at multiple supermarkets and department stores⁴³. Smaller stores may have limited availability of fresh produce and tend to stock more processed, unhealthy foods⁴⁴. Participants in an English study by Lambie-Mumford⁴⁵ suggested that where fresh foods were available in smaller stores, the produce was often of a lower quality (e.g. did not appear to be fresh). Prices charged for healthy food have also been found to be higher in small convenience shops than in large supermarkets⁴⁶ as operating margins are such that they cannot compete on price⁴⁷.

The White et al study tested availability using three lists: 'fresh fruit and vegetables', 'healthy' and 'less healthy'. The study found that convenience stores were more likely to sell the full range of 'less healthy' items than the full range of 'healthy' items. Carbonated drinks, chocolate, and crisps were widely available in convenience stores, while fresh fruit and vegetables were not⁴⁸.

2.3.3. Accessibility

Accessibility encompasses physical access to food: the ability to visit food outlets selling healthy food and return the produce to the household.

The literature reviewed for this study highlights the idea that difficulties physically accessing and transporting the range of foods necessary for a healthy diet can be a factor contributing to inadequate diets.

Section 2.3.2 above highlights the significance of supermarkets as a means of accessing healthy foods such as fresh fruit and vegetables. The development of out of town supermarkets and rates of closure of local

shops in the late 1990s and early 2000s made access to affordable, healthy food more difficult for those without access to a car⁴⁹. This trend has reversed somewhat with the emergence of 'metro' and 'local' supermarkets in urban centres, though there are undoubtedly areas that remain less well served than others. Smaller, urban supermarkets also may not offer the same range of products as their larger counterparts.

For many, trips to the supermarket are limited by car ownership or poor provision of public transport. There is only a limited distance that most people are able to carry food shopping home. Use of taxis for shopping, while a considerably more common practice for those on lower incomes ⁵⁰, may still be prohibitively expensive for many. For these reasons, many people on lower incomes shop locally (and more regularly)⁵¹, using small retailers that offer a limited range of foods and fewer fresh fruits and vegetables (see section 2.3.3).

It is not just distance and car ownership that affect accessibility:

- Shopping with young children presents challenges, particularly if public transport is used. Elderly and disabled people may also face difficulties getting to the shops⁵².
- People with children often face difficulties affording childcare and therefore the time to shop and cook effectively⁵³. Time may also be limited for those with one or more part time jobs⁵⁴.
- At a more local level, infrastructure factors such as the number of stairs and distance to the nearest bus stop can add difficulty and time to journeys⁵⁵.

Often, less healthy foods are more readily accessible: within walking distance of lower income homes. There are also high numbers of fast food outlets in areas of high deprivation⁵⁶, particularly in urban areas⁵⁷.

2.3.4. Lack of skills, awareness and efficacy

Factors such as a lack of skills and/or knowledge can impede the purchase, preparation and consumption of healthy food.

Cooking skills (such as being able to prepare meals with fresh ingredients, as opposed to heating 'ready meals') can^{iv} be a factor when it comes to maintaining a healthy diet. It is widely acknowledged that skills have declined across the population, though confidence in the ability to cook is greater in people from higher social class backgrounds⁵⁸.

The UK low income diet and nutrition survey asked about respondents' cooking skills, but found few significant differences in nutrient intakes by level of reported cooking skills (Nelson et al 2007)

Low awareness of healthy eating and nutrition and lack of efficacy (belief in the ability to achieve a particular outcome) related to the preparation and cooking of healthy food are also factors that influence diets and food consumption. Knowledge of food and nutrition appears to have a big influence on dietary choices^v. In the White et al study in Newcastle upon Tyne⁵⁹, higher dietary knowledge was found to be the best predictor of healthy eating (measured by all dietary indices).

Several studies have shown that dietary knowledge is strongly correlated with education⁶⁰ level and higher socio-economic status⁶¹. Lower educational achievement, for example, has been shown to be a risk factor for eating less fruit and vegetables⁶² and lower nutrient intake⁶³.

2.3.5. Lack of equipment and facilities

Lacking the facilities to store, prepare and cook particular foods can constrain choices and contribute to less healthy diets.

It has been suggested that this is aligned with socio-economic status, with people from disadvantaged backgrounds more likely to have inadequate cooking facilities⁶⁴.

2.3.6. Social exclusion

Participation in social networks can increase the chances of healthy food being available to an individual or household. Social exclusion acts to undermine this.

Social exclusion and its relationship with food issues was one of the key areas of interest in the study, but while social exclusion can exist in situations where those excluded are not in economic poverty or financial insecurity; more often the causes (and indeed, effects) are deeply intertwined. For this reason, very little literature was found on social exclusion as a standalone issue.

Similarly, causes of social exclusion (e.g. unemployment or low incomes; poor housing; health issues; family breakdown) also often contribute, both singly and in combination, to food poverty⁶⁵.

Having a limited social network can also directly affect an individual's risk of being in food poverty⁶⁶. Eating alone has been linked with poorer diets,

McCartney 2008 finds knowledge of healthy eating to be one of the top five perceived barriers to healthy eating.

while the presence of support networks of family and friends can help alleviate food poverty. For example, it may be possible to send children to a relative's house for meals in school holidays⁶⁷ to ease the pressure on food budgets.

2.3.7. Marketing pressure and socio-cultural norms

The advertising of unhealthy food, coupled with inadequate nutrition information, can be a factor that influences nutritionally-poor dietary choices.

Advertising and marketing pressure influence choices⁶⁸. 'Buy one get one free' (BOGOF) and similar volume-focused promotions may contribute to this pressure. Food advertising that targets children can also add pressure on low-income households to buy (more expensive) brand name goods⁶⁹.

It is well established that 'social norms' (people's perception of how others would view their behaviour⁷⁰) influence behaviour⁷¹. Buying branded products because others do, might be one manifestation of this phenomenon.

There are also established diets in households, regions and countries that are seen as normal⁷². Healthy food may actually be inexpensive but not 'culturally' appropriate. Maillot et al⁷³ point out that many proposed food solutions are often not socially and culturally acceptable. For example, home-cooked lentil soup and rice and beans have been proposed as suitable staple diets for the US poor, despite not fitting with current consumption standards⁷⁴. On the other hand, one of the interviewees in this study pointed out that – due to advertising and shifting norms - many now see it as 'acceptable' to regularly eat large bags of crisps and consume multiple fizzy drinks in a day.

Those facing food poverty may therefore have expectations that meals they consume fall within social and cultural norms, as opposed to eating food that is seen as unusual in their particular socio-cultural context. In any case, the repertoire of potential meal solutions may not extend beyond meals that are considered 'normal'.

Section 2.5.2 looks at less socially-appropriate diets as an impact of food poverty. This can also be a constraint. There may be people who are not, for example, willing to take on less acceptable methods of acquisition despite the potential for more (healthy) food.

2.4 Constrained choices

2.4.1. Constrained choices

People on lower incomes spend less money (in absolute terms) - but a higher percentage - of their income on food⁷⁵. For instance, the poorest 10% of households in the UK spent 23.8% of their income on food in 2012, while the richest 10% spent only 4.2%⁷⁶. Despite this, all of the factors above (section 2.3) combine to limit the food options available to people to some extent. As the diagram (Figure 2) implies, when these options are so constrained for an individual or household that it is not possible for them to achieve a nutritionally adequate (and socially acceptable) diet, then they could be considered to be experiencing 'food poverty'.

Aspects such as 'choice', 'attitudes', 'tastes' or 'priorities' were deliberately excluded from the list of constraints discussed in section 2.3. Some studies have shown links between particular dietary attitudes in particular social groups and lower dietary and nutrient intake patterns⁷⁷. For example, some parents appear to be less interested in providing children with a healthy diet (or else, the expressed preferences of the children are adhered to more regularly)⁷⁸. Clearly these are all influential in dietary selection, but it is our view that 'choice^{vi}' should not be part of the constraints that lead to food poverty: a person can choose a poor diet, but they cannot choose to be in food poverty.

Even within the constraints faced, it is certainly the case that food is prioritised differently by different people. Some households have developed advanced 'coping strategies' to make sure that household members are fed without budgets being blown (see section 2.4.2).

For some households, more pressing issues can understandably limit the attention paid to the role of food (e.g. coping with disability, mental health issues, or stress; and fear of eviction, crime or violence⁷⁹). For others, addictions such as smoking, alcohol or drugs may contribute to the limiting of household food budgets⁸⁰.

2.4.2. Coping strategies

The coping strategies outlined below are all about coping with low income. The evidence did uncover some limited coping strategies related to accessibility (e.g. taking taxis or shopping without children present – section 2.4.2) but little was found regarding other constraints.

vi Choice may not exist at all in some cases, such as for some recipients of food bank parcels

To make use of a limited budget, low income households often rely on strategic and complex shopping and budgeting practices to ensure that households are fed⁸¹. Such strategies include, but are by no means limited to:

- Making more effort to shop around for the best prices
- Purchasing foods that satisfy hunger
- Buying the same foods each week to avoid wastage if things were not liked⁸²

Skipping meals or reducing the amount eaten is another coping strategy⁸³. This is often deployed by parents to cope with financial constraints, and in order to prioritise children's meals⁸⁴. It has been suggested that people without children have more ability to control their personal food choices⁸⁵.

2.5 Impacts

2.5.1. Nutritionally inadequate diets

Diets contain more processed food, sugars and salt than diets a few decades ago, and public campaigns such as '5-a-day' have tried to encourage healthier eating.

While the diets of the general population could improve, strong differences have been noted between the diets of lower income groups and higher income groups. People on lower incomes tend to consume less fruit and vegetables and more foods and drinks high in fat and sugar, compared with people on higher incomes, resulting in lower nutrient intakes⁸⁶. Table 3 sets out foods that lower income people in the UK are more or less likely to eat than the general population.

Table 3 – Foods that lower income people in the UK are more or less likely to eat than the general population (Source: Nelson et al 2007)

More likely to eat	Less likely to eat	
Beef, veal, lamb and pork and dishes	Vegetables	
Fat spreads and oils	Wholemeal bread	
Non-diet carbonated soft drinks		
Pizza ^{vII}		
Processed meats ^{VIII}		
Table sugar ^{ix}		
Whole milk ^x		

These kinds of differences are also reflected in the diets of children, as in Table 4.

Table 4 – Foods which children from lower income families in the UK are more or less likely to eat than children in the general population^{xi} (Source: Weichselbaum and Buttriss 2014⁸⁷)

More likely to eat	Less likely to eat	
Beef, veal, lamb and pork dishes	Diet carbonated soft drinks	
Fat spreads and oils	Fruit and fruit juice (boys only)	
Non-diet carbonated soft drinks	Semi-skimmed and skimmed milk	
Pizza	Vegetables	
Processed meats	Wholemeal bread	
Whole milk		

The Low Income Diet and Nutrition Survey, commissioned by the Food Standards Agency found that lower income groups had lower intakes of dietary fibre and diets poor in iron, folate and vitamin D⁸⁸. A study by the Centre for Economics and Business Research (CEBR) for Kellogg's, looking at ONS family spending data, found that lower income households have lower intakes of vitamins A and C, as well as iron and fibre⁸⁹.

vii Except males aged 19-64 years

viii Children and adults aged 19-64 years

All sex and age groups except women aged 65 years and over

Children and adults aged 19-64 years

LIDNS report (low-income families) compared with 1997 NDNS report (general population). In each of the examples in the left-hand column boys in the LIDNS report had higher consumption than boys in the NDNS report, and girls in the LIDNS report had higher consumption than girls in the NDNS report. The same is true in the right-hand column except that consumption was lower in both cases (except where noted).

Obesity

Although it may be an apparent paradox, obesity is more likely in individuals that are food insecure. Due to squeezed incomes, healthy and varied diets are unaffordable and cheaper foods that are palatable, energy dense and higher in fat and sugar, are purchased instead. Evidence from across the USA, Europe and Australia shows that women with the poorest economic, social and educational resources are at greatest risk of obesity⁹⁰. The risk of obesity in the UK is 40% higher for benefits recipients (both male and female)⁹¹.

The UK Low Income Diet and Nutrition Survey (LIDNS)⁹² looked at the nutrition-related health of the bottom 15% of the UK population in terms of material deprivation, and ran between 2003 and 2005, The survey found that 62% of men and 63% of women on low incomes were overweight or obese⁹³. Measures of central obesity were found to be considerably higher among people on low incomes, compared with the general population. For example, 34% of men (aged 19-64) and 44% of women (aged 19-64) on low incomes had a 'raised waist circumference^{xii.} The equivalent figures for this measure were 29% of men and 26% of women amongst the general population.

Key reasons for this increased risk of obesity amongst lower income groups are covered in detail in sections 2.2 and 2.3, and are centred on the issue of affordability (section 2.3.1)^{xiii}. Although these patterns are complex and often circular, there may also be different cultural norms around weight, health and diet in some social networks (cf. Christakis and Fowler's study of social networks that found obesity appeared to spread through social ties⁹⁴.

Hunger

As set out in section 2.4.2, skipping meals or reducing the intake of foods may be one way of coping. The failure of minimum wages and benefits to sufficiently cover household expenditure can even result in there being no food budget at all⁹⁵. Definitive data regarding the numbers affected by hunger appears to be lacking, however.

Other diet-related health issues

Malnutrition and complications caused by poor nutrient intake may arise from skipping meals and/or going hungry. Poor nutrition in children can increase the risk of stunting, inadequate cognitive stimulation, iodine

A 'raised' waist circumference is defined as above 102 cm (40 inches) for men and above 88 cm (35 inches) for women

Section 2.4 above also suggests links between low income and lower car ownership (section 2.2.2); lower awareness of healthy diets (section 2.2.4); lack of equipment (section 2.2.5); and social exclusion (section 2.2.6).

deficiency and iron deficiency anaemia⁹⁶. Obesity has well-established links with diseases such as heart disease, type II diabetes, some cancers, hypertension, stroke and heart failure⁹⁷. Poor diet is related to 30% of life-years lost in early death and disability and it has been estimated that approximately 70,000 deaths could be avoided annually across the UK if the public consumed healthy diets⁹⁸.

Improved diet has been linked to better concentration levels⁹⁹, school attendance rates and academic achievement¹⁰⁰. However, the evidence is not clear cut, with some sources suggesting that evidence of the impact of diet on learning is limited¹⁰¹.

2.5.2. Socially inappropriate diets

The idea that some diets were less socially or culturally appropriate than others was raised in the literature reviewed for this project and amongst interviewees. This means that — within a particular social network — there may be a perception of judgement as to what kinds of diet should be eaten and how these should be acquired. In some social networks it may, for example, be seen as odd to prepare a large lentil casserole that could last a week (despite potentially providing a nutritious and affordable meal solution).

There are three key ways in which socially less appropriate diet can manifest themselves:

- Acquisition acquiring food that is not safe (e.g. not fresh) may cause illness or disease; and acquiring food through 'less (socially) acceptable' means (e.g. through food banks) can cause anxiety or embarrassment¹⁰²;
- Variety diets may be monotonous¹⁰³, often driven by an inability to experiment with (healthier) alternatives a child might not eat¹⁰⁴. This is noted as a 'coping strategy' in section 2.4.2. but if sustained, could lead to boredom or psychological stress.
- Type of food eating less preferred foods, less acceptable foods or even foods that evoke feelings of shame (e.g. because a provider feels judged by a guest or family member) can cause psychological stress¹⁰⁵, as could eating foods that ignore cultural requirements and social norms¹⁰⁶. Similar issues around food acceptability and norms are also discussed in section 2.3.7.

Acquisition methods may therefore be subject to varying social acceptability¹⁰⁷. Coates et al suggest a mix of coping strategies that emerged from their analysis of international studies: they found that less

socially acceptable strategies were the last resort and might therefore indicate 'severe' food insecurity or food poverty¹⁰⁸:

- borrowing;
- accepting food from others;
- reducing consumption;
- redistributing consumption;
- · divesting of savings or assets; and
- scavenging/stealing

Participation in the act of shopping (e.g. travelling together on a mobility bus) is socially important for some elderly people. Participating in the same experiences as peers (and bumping into friends and neighbours at the shops) can form an important element of socialising and avoiding social exclusion¹⁰⁹.

Historically, food and eating have been central to social situations and acts such as eating out at restaurants or inviting family and friends for food remain integral social events for many. A lack of resources might limit a person's ability to participate in these kinds of situations¹¹⁰ and may therefore contribute to social exclusion.

3 Measuring food poverty

3.1 Introduction

As explained in the Introduction to this report, it was intended at the time the research was commissioned that the study would include a review of potential ways of measuring food poverty. The intention was to support FSA in NI in making decisions about whether food poverty could or should be measured; and, if so, what form that measurement could or should take.

In the event, the research quickly revealed that three possible indicators of food poverty in Northern Ireland were already under development.

Given this outcome, the report now addresses the question of measurement as follows:

- In this section (section 3.2, below), we draw on the rapid evidence review and the interviews to set out a range of ways in which food poverty could potentially be measured and highlight the possible advantages and disadvantages of each. In keeping with the overall focus of Section 2, the focus here is upon the general issues rather than Northern Ireland in particular.
- This section also includes (section 3.3) a brief discussion on the information presented in section 3.2, largely to inform commentary provided later in the report.
- Section 4 is focused on Northern Ireland; and in section 4.4 the report presents information about the three measures found during the course of the research, already under development in Northern Ireland.
- The issue of measuring food poverty was also an important issue discussed during the workshops. The discussions are summarised in Section 5 of the report.
- Section 5 also includes the consultants' recommendations for moving forward, in light of the general discussion in Section 3, the specific measures set out in Section 4 and the workshop discussions referred to in Section 5.

3.2 Potential measures

The rapid evidence review and interview process, along with researcher brainstorming and analysis, highlighted several ways that food poverty could be measured. These include:

Table 5	- Potential measures of food poverty				
Method	Description	Advantages	Disadvantages		
Proxy count	Numbers of people receiving emergency food packages from food banks are counted and used as a proxy indicator for people in food poverty. Other potential proxy measures might include 111 number of people receiving: free school meals; meals on wheels; government benefits; National Minimum Wage.	 The Trussell Trust - the UK's largest food bank network - keeps records of food bank attendees Food bank figures have been widely reported and have already gained political resonance 	 Some people may not have access to emergency food sources due to their geographic location There is no regulation of food banks so it is possible that double counting takes place The exact number of food aid organisations and services (including food banks) is not known – many religious establishments offer food support to vulnerable individuals, for example Some deprived households may not be aware of nearby food banks¹¹², may be ashamed of attending, or may falsely believe that they would not meet criteria¹¹³ Varied levels of deprivation from amongst users not captured 		

Survey	Participants are asked survey questions based on perceptions and experiences of household members. Particular responses to one or more questions (possibly in combination) would essentially mean that the household self-identifies as being in food poverty. Questions could investigate, for example: anxiety about being able to obtain enough food; experiences of running out of food; and adults skipping meals ¹¹⁴	 Relatively straightforward Allows for complex realities (i.e. these ask about experiences without first assuming that financial limitations are the cause) 	 Responses may be inaccurate due to embarrassment, or difficulty in participant recall People in poor households do not necessarily see themselves as poor¹¹⁵ People in food poverty may be fearful of giving honest answers (e.g. the case of mothers who fear that their children could be taken into care)¹¹⁶ Cost of researching with a large sample
Percentage of income (like fuel poverty)	A calculation is done to work out what proportion of income is spent on food, and a threshold created. Spending over the threshold level represents being in food poverty.	Parallel to fuel poverty calculationEasily understood	 Any cut off point will be arbitrary, meaning that people will fall either side of the line despite having similar income Food poverty may be more complex than fuel poverty^{xiv}
Food basket (minimum nutritional intake)	Nutritional intake requirements are calculated, and the cost of a food basket meeting these requirements is computed. (Either an ability to afford this basket, or the percentage of income required to purchase the basket are used as indicators of a household being in food poverty.**v)	 Health targets incorporated within the basket This concept is already used in some economic comparisons work 	 There are suggestions that a physiological minimum cannot be defined. Minimum standards may be probability statements of the likelihood of avoiding deficiency or achieving health, rather than objectively defined. Definitions of minimum standards are usually set by professional panels and may not account for the lived experience of low income households¹¹⁷ Minimum nutritional intake baskets may not take into account national and regional norms and cultures, and foods may not resonate with the general population

With fuel poverty *how* a household is heated is less significant than it being heated; with food poverty it does matter *how* you eat. Heating also takes places exclusively in home and is usually subject to just one bill, whereas food expenditure is less anchored and more complex As with 'Food basket (minimum nutritional intake)'

Food basket (consensus approach) as a basis for material deprivation approach	A food basket is devised through asking survey respondents (and/or focus group participants) to define essential needs. Respondents are then presented with this predefined list of items, and asked whether they lack any of these (involuntarily). Those lacking a certain number, or certain combinations of items, might be considered to be in food poverty.	 Overcomes potential barriers around the socio-cultural acceptability of foods consumed. Public opinion rather than the selections of experts or researchers is used. This is valuable as it both reflects public understanding, and also removes responsibility for product choices from the research team¹¹⁸. Recognise that food in the general public's mind is more than just nutrient intake. Unlike the minimum nutritional intake approach, this method does not imply that people must consume these commodities, only that people should be able to do so¹¹⁹. 	 Indicators are based on foods and meals rather than nutrients, so baskets (or the ability may not achieve nutritional adequacy Requires updating regularly as tastes (and costs) change Suggestion that sometimes respondents report to being unable to afford 'necessary' items despite owning 'luxury' items¹²⁰ Identification of the poverty threshold – the point/responses which best distinguish the poor from the non-poor – is based on statistical procedures. Within these procedures, some choices do have to be made by the researchers. Basket prices may be determined from average or supermarket prices which do not reflect the shopping habits of key portions of the population
Food basket (consensus approach) as a basis for a 'percentage of income' measure	As above, a food basket is devised through asking survey respondents (and/or focus group participants) to define essential needs. This basket then may be shaped to reflect nutritional balance and/or cultural appropriateness. The cost of this basket is calculated, and the percentage of income required to purchase this basket each month is calculated. If above a particular threshold, households are considered to be in food poverty.	• As box above	As box above – except that the issues regarding non-necessity spending are overcome by taking a simpler approach to affordability

Household consumption surveys	Surveys of household expenditure are analysed and the cost and nutritional adequacy evaluated. (Either an ability to afford this basket, or the percentage of income required to purchase the basket are used as indicators of a household being in food poverty. xvi)	 May not require further work as surveys of this nature already exist (e.g. the annual Family Food module of the Living Costs and Food survey examines nutrient intake and dietary quality) Possible to determine the nutritional content of diets Possible to compare food spending with non-food spending patterns 	 No obvious way of determining how a population in 'food poverty' would be distinguished from the data Looking at expenditure is not the same as looking at food consumption: foods that are wasted or spoiled are still included, for example. If data is collected at the household-level then no information is available on individual intake
Segmentatio n questions	A segmentation questionnaire and model is devised and the population is segmented according to shared characteristics, derived from answers to survey questions. One or more segments may be defined as being in food poverty (though others might 'occasionally' be in food poverty, or be 'at risk' of being in food poverty, depending on the model selected)	 Depending on the model selected, it might be possible to distinguish between, for example groups at different levels of risk of being in food poverty; or between those for whom financial issues are dominant and those who are constrained by other factors. If asked of the whole population, shifts between segments can act as useful indicators of change It is possible to devise a calculator which allocates individuals to a particular segment off the back of a small number of ('magic'xvii') questions 	 This would require a separate research project to scope, design, create and test the model. The 'magic' questions would then have to be asked again of the target population. It would not necessarily provide a 'clean' food poverty number, given that more than one segment might be considered to be in food poverty, and boundaries may be blurred.
Medical and biomarker indicators	Precise measurement of micronutrient deficiencies in a sample population.	 Provides accurate health data, and could be compared with other influences to find correlations The annual UK National Diet and Nutrition Survey involves blood and urine samples (as well as an interview and a four-day dietary diary) so results may be available for use 	 Does not provide a food poverty measure directly Results can be affected by factors other than diet Measurements are not available for all nutrients High economic cost of data collection

The 'percentage income' approach has the advantage that complicated debates around what the 'ability to afford' actually is (given complex patterns of non-food spending).

Typically it is possible to 'calculate' the segment of any individual or household based on a subset of questions included in the original questionnaire. These are referred to as 'magic' questions and the number of these can range from a small number (e.g. five) to a large number (e.g. the Defra environmental segmentation model requires 17 questions to be asked).

3.3 Discussion

The implications from the literature review, and from the discussions with expert and stakeholder interviewees, were that a credible and widely-acknowledged way of measuring food poverty would be a positive step forward. The key reasons for this are:

- to highlight the significance of the issue, and thereby raise its profile, secure attention and harness resources;
- to provide a basis for assessing the success (or otherwise) of initiatives seeking to address food poverty.

However, it was also widely acknowledged, that an objectively 'correct' indicator does not exist. Some interviewees suggested that disputes between different schools of thought have so far acted as a brake upon progress towards the development of a suitable indicator (in the UK as a whole, as well as in Northern Ireland). The absence of an indicator means, for example, that it is difficult to make assertions about the depth or extent of food poverty that can be substantiated.

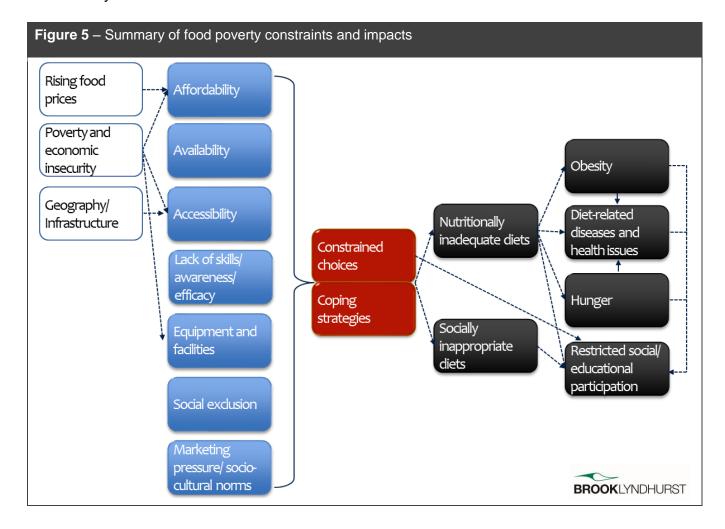
It was suggested by some that the issue of food poverty was now sufficiently pressing that compromise was necessary, and that some sort of indicator should be 'officially' adopted. Others were of the view that a 'dashboard' of indicators might provide a better solution.

The majority of further comment from interviewees was focused on the situation in Northern Ireland, to which we turn in Section 4.4.

4 Food poverty in Northern Ireland

This chapter is the first of two that are specifically focused on the situation in Northern Ireland. Here, evidence around the causes and impacts of food poverty are set out in a Northern Ireland context. Chapter 5 then looks at what might be done about this situation and suggests steps required to tackle food poverty in Northern Ireland.

This chapter uses the framework set out in Chapter 2, but the evidence focuses exclusively upon Northern Ireland – drawing either from relevant literature or from the information provided by interviewed stakeholders based in Northern Ireland. We did not have the opportunity to speak directly with families experiencing food poverty in Northern Ireland; but all quotes in this chapter are specifically drawn from a subsample of stakeholders who work in Northern Ireland and who have been directly involved with food poverty 'on the ground', through research and/or community action.



4.1 Constraints

4.1.1. Affordability

Poverty and economic insecurity

There is a relatively high level of deprivation in Northern Ireland. Gross Disposable Household Income is lower in Northern Ireland than other UK nations¹²¹, and the proportion of working adults that are unemployed is higher than in England, Scotland or Wales¹²².

As in the UK, it is likely that many in Northern Ireland¹²³ will find debt repayments affecting their budgeting (and therefore food budgets). Issues regarding falling wages and increased job insecurity also apply. Indeed, Northern Ireland was the only UK region to experience a drop in wages in nominal terms between 2013 and 2014, as well as experiencing a decrease of the median 'real wage' (adjusted for inflation) of employees by 3.1%¹²⁴.

"It's not just the groups you would traditionally associate with food poverty, for example homeless people or rough sleepers. It's anybody that's vulnerable or disadvantaged. It's people who have disabilities; lone parents; low income families. But also maybe destitute foreign nationals; people waiting for their benefits to come through; [or] 'at risk' young people."

Stakeholder interviewee (NGO #1)

It is notable that welfare reforms – including universal credit, the spare room subsidy and the benefit cap – have not yet been implemented in Northern Ireland. There may yet be more financial pressure to come for some of the poorest people in Northern Ireland when this new wave of reforms comes into force.

Rising food prices

Food prices are generally comparable with other parts of the UK¹²⁵, though no independent data has been identified detailing recent price trends. In 2012, the annual food bill of an average household in Northern Ireland was joint-highest with London at £3,201 (with a UK average of £2,940). This was despite average gross household incomes in Northern Ireland being 36.6% lower than in the capital¹²⁶.

Increase in the broader 'cost of living'

Even though food prices are higher, the average price of *most* goods and services is generally lower in Northern Ireland than in other regions in the UK¹²⁷. Disposable income is generally lower, however, with £82 left per

week after bills and essentials, compared with an average of £149 per week in Great Britain¹²⁸.

Several interviewees in this study pointed out that most items in household budgets are not flexible (e.g. rent, utility bills) and this leads to other components (e.g. food and heating) being squeezed.

> "A lot of people are finding it difficult. They have that choice between heat or eat... and they're making cuts on their food bills...Their whole family nutrition is suffering as a consequence."

> > Stakeholder interviewee (NGO #1)

The 'heat vs. eat' dilemma has a different character in Northern Ireland compared to the UK as a whole. The high cost of home heating oil is especially significant (notwithstanding the fall in oil prices at the end of 2014 and early 2015). The majority (68%) of Northern Ireland consumers rely on heating oil to heat their homes (rising to 82% in rural areas 129). By means of comparison, around 4% of homes in England, Scotland and Wales are heated by heating oil 130. Between 2009 and 2012, the average price of home heating oil increased by around 90% 131, and most oil heating systems in Northern Ireland use the least efficient non-condensing boiler, which adds further to costs¹³². Gas prices too have risen, and between 2009 and 2013 gas bills in the Greater Belfast area rose by 38%¹³³.

4.1.2. **Availability**

Furey et al looked at the availability of healthy food items across four study areas in Northern Ireland (Ballymena, Coleraine, Londonderry and Strabane). The study found that fresh green vegetables and fresh meats as well as wholemeal bread were the items least likelyxviii to be available in symbol group stores, but were almost universally available in 'multiples' (e.g. supermarkets). The price of a 'basket' of shopping was also found to be lower at supermarkets than at symbol stores. This aligns with the conclusions from English studies in section 2.3.3. It is worth noting that the Furey et al research is dated 2002, and no more recent research into this issue was uncovered during this review.

One stakeholder interviewee also suggested that the ready availability of fast food and takeaways identified in section 2.3.3 is true for some areas of Northern Ireland:

xviii From a list of 26 items that comprised a 'low-cost, healthy diet'.

"What we find is that in certain areas there's a very high distribution of fast food outlets. It can work out much cheaper sometimes to buy a takeaway meal. Or, [at least] the perception is that it's cheaper than buying food and preparing from scratch at home."

Stakeholder interviewee (NGO #2)

4.1.3. Accessibility

As in the rest of the UK, the 1990s and early 2000s saw supermarket developments on the periphery of towns in Northern Ireland, and the subsequent displacement of smaller retailers in town centres. This led to concerns regarding the emergence of food deserts in Northern Ireland¹³⁴. Mirroring the pattern in the rest of the UK (section 2.3.2), some of this concern has been allayed more recently by the rise of smaller supermarkets in urban areas¹³⁵, though 'mini-supermarkets' are less frequently used by shoppers in Northern Ireland compared with those in England and Wales¹³⁶.

Over 90% of people in Northern Ireland report shopping at large supermarkets¹³⁷, but it is still apparent that the benefits of shopping regularly in large supermarkets at cheaper prices are not available to all¹³⁸. Some people usually have little or no choice in where to shop¹³⁹. Interviewees suggested that access to supermarkets (typically found in or near urban settlements) may be particularly difficult for many residents in rural areas of Northern Ireland, for example.

"We're hearing a lot about places such as Strabane in the West of Northern Ireland and also on the North Coast. There's quite a lot of rural areas there and it's difficult for people in those areas to access all of the services that are available in the cities."

Stakeholder interviewee (NGO #1)

This situation is aggravated by a commonly-held perception that public transport is inadequate in certain areas of Northern Ireland, with limited or infrequent services.

"The western half of the Province of Northern Ireland compares really unfavourably with respect to transport links. So that's going to be an issue regarding accessing food stores."

Stakeholder interviewee (Academic #1)

In 2011, 22.7% of households in Northern Ireland did not have access to a vehicle 140. While this figure compares favourably with England and

Wales¹⁴¹, it may still suggest that a sizeable minority of the population may have difficulties accessing supermarkets. As in section 2.3.2 factors such as having to look after young children, or being elderly, can also restrict people's ability to access supermarkets.

Partly due to these factors, a couple of interviewees in this study reported that 'symbol'xix stores are more widely used in Northern Ireland than elsewhere in the UK. People in Northern Ireland are also far more likely than respondents in England, Wales or Scotland to report shopping for food in a garage forecourt¹⁴²:

"We [in Northern Ireland] have greater reliance on corner stores, convenience stores, independent stores, and garage forecourts. I guess that links neatly with the 'rurality' of the region as well."

Stakeholder interviewee (Academic #1)

Use of symbol stores is associated with more regular trips to the shops ¹⁴³, but also with accessing a more limited range of foods (e.g. fewer fresh fruits and vegetables; see Section 2.3.3).

"...if they have to carry shopping back, [the location of supermarkets] becomes an issue, particularly if you've got younger children or if you're elderly. People like that then tend to fall back on shopping every day in the local garage or smaller shop. And prices are more expensive there, and there's not maybe the same selection of fresh fruit and veg. You're more restricted in the choices you can make."

Stakeholder interviewee (Government/Local Authority #1)

4.1.4. Lack of skills, awareness and efficacy

It was widely acknowledged amongst stakeholder interviewees that cooking skills had declined in Northern Ireland over the last 50 years.

"...there's a real skills shortage around cooking food. A lot of [people] wouldn't have had any experience of cooking home-cooked foods when they were growing up, and when they have children of their own they've never learned how to do it."

Stakeholder interviewee (NGO #2)

A 'symbol' retailer is an independent retailer that is a member of a larger organisation known as a symbol group. A well-known example of a symbol group is SPAR.

The general decline in cooking skills potentially has more negative consequences for low income households. As a result, improvement of cooking skills was generally identified as an area where advances could make an impact on diet and nutrition:

> "Increased skills are going to be absolutely essential in helping people understand how they can make ingredients go further and their food budgets go further."

> > Stakeholder interviewee (NGO #3)

"Low income families are very good at managing on a budget, but the broader skills around food [are generally an area that could be improved]... knowing what constitutes a healthy diet, knowing how to substitute something for something else, and the whole thing of storing and cooking food"

Stakeholder interviewee (NGO #4)

Some stakeholder interviewees in this project were keen to stress that cooking and preparation skills had declined across the population as a whole, not just amongst people on low incomes. Indeed, it was noted that many people on low incomes have excellent culinary skills. Furthermore, the idea that there should be interventions to 'teach' skills was met with some unease by some interviewees and workshop participants as it was seen as patronising:

> "Sometimes when you're targeting interventions like cooking clubs and things like that it makes me cringe a little bit. It's like [saying] 'people are inadequate"

> > Stakeholder interviewee (Academic #2)

A qualitative study by safefood 144 across the island of Ireland found that some people on low incomes admitted that they lacked the skills to do more than 'heat food up', and even expressed no real desire to learn cooking skills. This finding was put down to the perceived benefits of convenience foods: their ready availability; and long-storage possibilities. This study also reported a commonly-held view amongst lower income participants of food as something to meet immediate appetite and energy levels, while cooking was seen as a hassle or chore 145.

Focus groups held with people from disadvantaged areas in Northern Ireland and the Republic of Ireland also showed low dietary knowledge and misconceived definitions of healthy eating to be key barriers to healthy eating¹⁴⁶.

4.1.5. Lack of equipment and facilities

Attendees at the workshops held as part of this study flagged that some methods of cooking or storing food may not be accessible to some people in Northern Ireland due to the lack of facilities (e.g. freezers, microwaves)¹⁴⁷. The ability to afford to run kitchen equipment (e.g. the electricity required to power an oven) was also noted as a potential barrier.

For some groups, the perception is the lack of access to cooking and food storage facilities can mean reliance on voluntary sector amenities e.g. shelters and day centres. However, a survey for the FSA in NI found that the nearly all homeless respondents (mostly housed in temporary accommodation) had access to kitchen facilities, including an oven and a freezer¹⁴⁸.

4.1.6. Social exclusion

The *safe*food qualitative study, involving households across the island of Ireland, found that the act of eating alone has been found to influence food attitudes, and often leads to detrimental effects on diet such as skipping meals or eating less healthily¹⁴⁹. The study also highlighted the role that family networks can play in helping to alleviate food poverty through shared resources¹⁵⁰.

As noted in section 2.3.6, social exclusion and food poverty are likely to share many of the same root causes.

4.1.7. Marketing pressure and socio-cultural norms

A couple of stakeholder interviewees expressed views that retailers and marketing were contributing to the difficulties experienced by those facing food poverty:

"Food offers are often on the confectionery stuff, so things like chocolates and sweets. In the south of Ireland there are more offers on fruits and vegetables and this isn't really replicated in the Northern Ireland market."

Stakeholder interviewee (NGO #1)

"There's the promotion of food generally through the media but also in the shops. The high fat, high sugar content food is sold much more cheaply than fresh produce."

Stakeholder interviewee (NGO #2)

A few interviewees suggested that many in Northern Ireland consider a 'proper' meal to include meat and potatoes, with the "Sunday Dinner" particularly important¹⁵¹. The National Diet and Nutrition Survey confirmed that red meat consumption is higher than the UK average in Northern Ireland¹⁵².

"We know that here in Northern Ireland consumers would be prepared to pay a bit more for meat...and going to a decent butchers rather than necessarily going to the supermarket."

Stakeholder interviewee (NGO #3)

Rugkåsa et al highlight clear distinctions in rural Northern Ireland around 'good' and 'bad' food, 'local' and 'foreign' food, 'proper' and 'junk' food¹⁵³. Their analysis suggests that there may be strong links between the meanings attached to food; and gender, family and local identity.

The acceptability of where food is purchased or acquired from can also be subject to shifting norms. One interviewee suggested that things like using coupons and shopping in lower cost supermarkets may previously have been less socially acceptable than they are now:

"It is clear as daylight that the stigma [around being thrifty] has pretty much disappeared... Once upon a time shopping in Lidl might have been something you didn't boast about, whereas now being smart and finding the good deals is something to be proud about."

Stakeholder interviewee (NGO #3)

Another interviewee pointed out that, despite the increased availability of food banks in Northern Ireland, this was not an option that everyone was comfortable taking:

"There's a stigma attached to going down to your local food bank or going to the drop-in centre... Sometimes that's difficult for people to do."

Stakeholder interviewee (NGO #1)

4.2 Constrained choices

4.2.1. Constrained choices

It is highly likely that spending on food in Northern Ireland reflects the patterns in the UK data, with lower income households spending a higher proportion of income on food, on average, than higher income households. Despite this, and due to the factors set out in sections 4.1 and 2.2, many

in Northern Ireland will find that their food options are constrained to the point where they are not able to obtain a healthy diet.

"These public health messages about fresh fruit and vegetables and how essential they are for children's wellbeing – they're not lost on people. But it's being able to afford them that's the problem."

Stakeholder interviewee (Academic #2)

Within these constraints, there is often some scope for food to be prioritised. Some techniques or ('coping strategies') to make the food budget work for the family are set out in sections 2.3.2 and 4.2.2.

For some households, attitudes and priorities may not be aligned with healthy eating messages¹⁵⁴:

"We would know that healthy food isn't a top priority. For women it's making the money stretch, value for money, and – really – buying the food that is sufficient for the family to get their meals. Healthy food would be considered a luxury. Fresh fruit would be considered a luxury."

Stakeholder interviewee (NGO #2)

"There's an intergenerational aspect here as well. If a parent remembers that they were not able to have treat items when they were growing up...[and] now they are relatively cheap. They feel that they don't want to deprive their children".

Stakeholder interviewee (NGO #4)

It must also be acknowledged that food is not always a front of mind issue for many households:

"People on very low income, they often have other stresses in their lives and food does take a back seat. They might be dealing with violence, drugs, other aspects in life. Food does come further down on the wish list."

Stakeholder interviewee (NGO #4)

4.2.2. Coping strategies

A considerable amount of research has been done with low income consumers in Northern Ireland, investigating the 'coping strategies' they deploy in order to feed members of the household on a limited budget¹⁵⁵. A few of these strategies are set out in the table below:

Table 6 — Coping strategies reported by stakeholder interviewees and/or in research based in Northern Ireland		
Strategy	Supporting quotes from stakeholders	
Buying cheap but satisfying food	"When you're on a very low income it's much more appealing to go to the Iceland to purchase cheaper food because it's filling. And that would be the main priority for our women - that their children feel full up after they've eat [sic]." (NGO #2)	
Following a shopping routine that requires detailed knowledge of local shops and the prices of different food items in them ¹⁵⁶	"I was meeting people that could tell you the price history on a packet of four blueberry muffins. They could tell you over the period of two or three months what the price fluctuations had been and people are getting very very savvy about knowing when a 'special offer' isn't a special offer. They're really watching these things" (NGO #3)	
Meal planning/buying food that will stretch	"What we saw in the people we interviewed were changing patterns of eating, where soups and stews and things would have been made thatcould maybe last two days. They also — out of necessity — had to downgrade the quality of the food as well." (Academic #2)	

Other strategies noted by interviewees (and supported in the literature reviewed for this project) include:

- Shopping without children present¹⁵⁷
- Shopping more frequently 158
- Keeping a running total of spending whilst shopping¹⁵⁹
- Attempting to incorporate special offers and discounts into shopping¹⁶⁰
- Doing larger shops after receipt of benefits to buy products in bulk and stock up on long-life and/or frozen products¹⁶¹

Buying and eating less food can also be seen as a coping strategy¹⁶² as it means that family members are still getting fed within existing food budgets. The Northern Ireland Poverty and Social Exclusion survey in 2012¹⁶³ found that 29% of people have 'sometimes' or 'often' skimped on food so that others in the household would have enough to eat. The Northern Ireland Health Survey 2013/14¹⁶⁴ found that 6% cut food portions or skipped meals because there wasn't enough money for food.

Clearly, if this pattern is sustained, it may lead to hunger and other nutritional consequences for some (see section 4.3.1).

4.3 **Impacts**

4.3.1. Nutritionally inadequate diets

Northern Ireland has the lowest combined total purchases of fruit and vegetables (excluding potatoes) of all UK regions, at 3.5 portions per person per day¹⁶⁵. Indeed, consumption of fruit and vegetables is lower across all age/sex groups in Northern Ireland than in the rest of the UK¹⁶⁶. The Northern Ireland National Diet and Nutrition Survey (NINDNS) found that only 4% of boys and girls (aged 11-18), and 18% of adults, met the "5a-day" recommendation 167. The NINDNS also found mean intakes of saturated fat exceeded recommendations in all age groups (though these were similar to UK intakes)¹⁶⁸.

While these dietary issues are not limited to lower income groups, the NINDNS did show that adults and children in lower income groups had lower fruit and vegetable consumption than the higher income groups 169. Some lower income age groups also were found to have lower intakes of certain vitamins and minerals (iron, vitamin C, vitamin D and folate) than their higher income counterparts 170. Consumption of Northern Ireland 'marker foods' (fizzy drinks and squashes; chips and fried foods; and meat products) tended to be higher in lower income groups^{xx}.

Obesity

The Northern Ireland Health Survey 2012/13 showed that 62% of adults measured in Northern Ireland were overweight or obese¹⁷¹. Due to the constrained choices experienced and the nutritionally poor diets that result, obesity tends to be more prevalent amongst the most deprived groups in Northern Ireland. Those in the most deprived areas (31%) were more likely to be in one of the obese categories than those in the least deprived areas (21%)¹⁷².

> "Among lower social classes there is a higher number of individuals who are classed as overweight or obese. Delving into that research shows that it's around quality of food. And for a lot of qualitative research with individuals who are experiencing food poverty the food budget is the most flexible part of the household budget, and it's easy for them to fill up on calories and to keep

All of these are 'marker' foods, and of public health interest. The only exception to this trend was in 'confectionery' which was not consumed more in lower income groups.

the family satisfied to do that cheaply and allow that food budget to be flexible."

Stakeholder interviewee (NGO #4)

Vulnerable groups in general are at a higher risk of obesity. The percentage of young children (aged 4-5) that are overweight or obese is increasing in Northern Ireland¹⁷³, and those with long-standing illness, disability or infirmity have considerably higher rates of obesity than those without¹⁷⁴.

Hunger

In addition the Northern Ireland Health Survey 2013/14¹⁷⁵ found that of respondents aged 16 or over:

- 7% experienced a day in the last fortnight when they did not have a substantial meal due to lack of money
- 3% sometimes (or often) did not have enough to eat
- 12% reported having enough to eat, but not always the kinds of food they wanted
- 4% reported being hungry because they couldn't afford enough food

The 2012/13 Northern Ireland Poverty and Social Exclusion Survey provides further evidence of this:

- 7% of households were unable to afford fresh fruit and vegetables every day.
- 2% of households (over 14,000) could not afford two meals a day.

4.3.2. Socially inappropriate diets

Limited evidence was found regarding the concept that people in Northern Ireland were acquiring or consuming less socially appropriate diets as a result of financial (and other) constraints. The rising use of food banks ¹⁷⁷ may comprise a less socially appropriate mechanism of acquiring food, as – for some - might the consumption of cheaper non-branded foods.

The issue of skipping meals or reducing portions (section 4.3.1) may also be regarded as 'inappropriate diet', though these behaviours are more often private than social.

4.4 Potential measures

As mentioned in Chapter 1, considerable work has taken place in Northern Ireland working towards the creation of an indicator that will measure and track food poverty. This signifies the importance of this particular strand of work in understanding and addressing the issue of food poverty. Three particular pieces of work were brought to the attention of the research team:

Table 7 — Food poverty measures currently developed or under development in Northern Ireland		
Organisation(s)	Description	Further detail
The Institute of Public Health (IPH)	IPH measures households 'at risk' of food poverty using household food spending data collected from the Living Costs and Food Survey.	IPH have developed a food poverty indicator that looks at measuring a household's financial risk of food poverty using household spending data from the Northern Ireland Living Costs and Food Survey 2009. For this indicator, a household is at "financial risk of food poverty" if it appears to have inadequate financial resources to purchase an acceptable diet for its members. To develop this indicator IPH examined whether or not a household's equivalised food and non-food spending was below a certain threshold. IPH included non-food spending in the development of the indicator as this allows better understanding of the entire household budget. Ignoring non-food spending may underestimate the financial burden on many households with inadequate food spending, and/or ignore the financial burden on many households with adequate food spending. The approach is based on the one used to measure national poverty rates (i.e. a household is classified as being at risk of poverty if its equivalised household income is below the 60% poverty line). Using the "60% food poverty line" households can be defined as having inadequate food spending if the amount it spends per person on food items is less than 60% of the Northern Ireland median. The "60% non-food poverty line" can be used in a similar way (if the amount a household spends per person on non-food items is less than 60% of the national median). In Northern Ireland in 2009, 14.8% of households had inadequate food spending and 23.4% of households had inadequate non-food spending. These two measures were combined to classify a household's financial risk of food poverty into one of four levels of risk, with results as follows (for 2009): Severe financial risk of food poverty (both food and non-food spending is inadequate): 7.0% Moderate financial risk of food poverty (only non-food spending is inadequate): 16.4% No financial risk of food poverty (only non-food spending is inadequate): 16.4% No financial risk of food poverty (only non-food spending is inadequate): 16.4%

safefood, FSA in NI,
Consumer
Council NI and
Vincentian
Partnership
for Social
Justice
(VPSJ)

This consortium is looking at the percentage of household income and budget required for an adequately healthy and nutritious weekly food basket. This basket, at a bare minimum, would meet any individual's or household's physical, psychological and social needs.

The work seeks to estimate the cost of a food basket for two household types: a pensioner living alone; and two parents, two children (ages 3 and 10 years). This cost is estimated using the Minimum Standard of Essential Living Approach established by VPSJ in the Republic of Ireland.

The items included in the food basket are based on the outcomes of focus groups held with demographically representative consumer panels across three locations in Northern Ireland – Belfast, Derry and Enniskillen. In a series of meetings, the group members arrived at a negotiated consensus about menus for the week (breakfast, lunch, dinner and snacks) and the items needed in the basket to facilitate these.

A nutritionist was then consulted to ensure the consensus meets certain criteria e.g. food is nutritionally balanced. Any amendments are checked again with the consumer panels and finalised before being costed (using Tesco as a pricing base due to prominence in the Northern Ireland retail food market).

Knowing the cost of a minimum essential food basket for Northern Ireland will allow the establishment of a basic standard for food costs. Knowing how much the basket costs - and how much income is required to afford it - could also form the basis of a food poverty measure. In addition, this work could assist and inform considerations such as the adequacy of the minimum wage; potential impacts of welfare reform; and the development of health and social policy. Data will be published in April/May 2015.

Deprivation measures questions were included in the Northern Ireland Health Survey 2013/14.

A report by Carney and Maître in 2012 led to the development and use of a Food Poverty Indicator for the Republic of Ireland, based on three questions 178.

These three questions (taken directly from the annual EU SILC survey 179) are:

- Does your household eat meals with meat, chicken, fish (or vegetarian equivalent) every second day?
- 2. Does your household have a roast joint (or its equivalent) once a week?
- 3. During the last fortnight was there ever a day (i.e. from getting up to going to bed) when you did not have a substantial meal due to lack of money?

Any inability to afford one of the three food experiences set out deems the respondent to be in food poverty. These 'deprivation measures' are therefore (theoretically) comparable across EU countries, since the same questions are asked in annual surveys. However, this study found no directly comparable data.

Inclusion of the same questions in the Northern Ireland Health Survey in 2013 allows comparison with the data from the Republic of Ireland. A first set of data was published in early 2015.

The Northern Ireland Health Survey had several additional questions related to food poverty. Clearly if these were asked each year and statistics were tracked, these (either individually or collectively) could form an alternative measure of food poverty. Lines of questioning included:

- Whether respondents had enough of the kinds of food they wanted to eat
- Whether respondents were skipping meals or reducing the size of portions due to affordability
- Whether participants had gone hungry due to affordability

There are pros and cons associated with each of these approaches:

- IPH 'households at risk' this measure has the benefit of being statistically robust and of allowing examination of different socio-economic groups. It is also similar in structure to the more general definition of poverty (60% of the median), suggesting it will have resonance with those familiar with that definition. On the other hand, it is dependent on a large survey which is no longer running and which, given its cost, is unlikely to be re-commissioned in the near future.
- safefood et al 'food basket' this approach has the advantage of being consistent with the approach taken in the Republic of Ireland and of being grounded in a citizen-led perspective of what constitutes an acceptable diet. However, it is based on the

requirements of only two household types and depends on the price of food in a single retailer. Furthermore, it is not in itself a measure of food poverty: further work would be required to establish how many people could or could not afford the food basket. One very neat solution for the short-term might be to calculate the proportion of income required to afford the 'food basket', and calculate a threshold above which a household could be considered to be in food poverty (i.e. providing a similar measure to that of fuel poverty).

• **DHSSPS et al 'deprivation measures'** – this has the advantage of being comparable with results for the Republic of Ireland (and, potentially, other European countries) and of being based on a large annual survey. The questions used do not necessarily relate directly to food poverty. The most recent Northern Ireland Health Survey asked new questions that might be considered to relate more directly to food poverty, but results are not available at the time of writing.

While this ongoing work represents important strides forward for measuring food poverty in Northern Ireland, a measure to be adopted in the longer term might reflect more of the complexities around food poverty (i.e. it is not just about the ability to afford particular foods). For example, it may make sense to consider the issue of measurement in the context of the overall framing of food poverty presented in this report i.e. the diagram presented in Figure 2. Since food poverty is a broad phenomenon, with a complex mix of causes, processes and effects, a potential solution may be to assemble indicators for each element of the diagram. Presented as a dashboard, this could provide a more rounded view of the situation.

5 Next steps – Developing actions

5.1 Introduction

The preceding sections of this report have set out a broad and robust evidence base on food poverty in Northern Ireland. As explained at the beginning of the report, it is intended that this evidence base provides a platform from which the FSA in Northern Ireland can support the All-Island Food Poverty Network to develop an Action Plan.

The scope of this research did not include a review of current policies, programmes and projects in Northern Ireland that may be influencing (either negatively or positively) food poverty. The development of an Action Plan on food poverty would clearly need to take account of these aspects of the situation in Northern Ireland.

The research programme did include two workshops which were attended by a range of key organisations and individuals intimately involved in the policies, programmes and projects concerned with food poverty. The workshops were focused upon developing possible actions to tackle food poverty in Northern Ireland.

The workshops served a triple purpose:

- they provided the research team with useful evidence either to challenge or corroborate the evidence gathered from other sources during the research;
- they acted as a cost-effective alternative to a review of the policy/programme/project landscape (since most participants were very familiar with that landscape);
- they acted as an illustration of, or test bed for, the kind of action planning that is required as a next step

With that in mind, this concluding section of the report:

- offers a concise set of overarching analytical reflections from the research team that serve to frame our propositions for how the next steps could best be taken;
- introduces, summarises and explains the key actions that emerged from the workshops;
- draws upon the workshops to propose a process by which the All-Island Food Poverty Network might most effectively develop its Action Plan;

• offers some concluding remarks.

5.2 Analytical reflections

5.2.1. Food poverty is complex, not linear

As indicated in Chapter 2 of this report, food poverty is not the outcome of a linear process in which initial causes lead directly to predictable outcomes. It is, like the food system and the economy as a whole, a complex web of component parts which are interlinked. The inter-linkages mean that there are complex feedback effects and no single factor can be thought of as the 'start' or individual 'cause' of anything else.

This poses a very particular challenge since - as some interviewees and workshop participants argued - this complexity implies that food poverty is a systemic issue i.e. an outcome of how the economic system as a whole functions.

This view tended to identify low (and/or insecure) incomes, together with high and/or rising food prices, as the predominant causes of food poverty; and to explain both phenomena as outcomes of the way in which liberalised labour markets and global commodity markets operate.

This approach to the economy – it was argued – also tends to place the emphasis on individual action to combat the negative consequences of the system's behaviour and thus to prioritise initiatives such as improving cooking or financial management skills. As we saw in section 4.1, some workshop participants found these kinds of interventions to be somewhat condescending – and the evidence review highlighting the sophisticated coping strategies deployed by many who are suffering from food poverty tends to reinforce this sense of discomfort.

Nevertheless it is beyond the scope of this particular study to establish whether 'capitalism' is to blame; and it is certainly beyond the remit of the various agencies and organisations currently participating in the All-Island Food Poverty Network.

An appreciation of the systemic nature of food poverty is essential: no-one should expect to be able to tackle food poverty in Northern Ireland simply by focusing resources on a single factor. Neither should anyone expect to be able to easily measure the sequence of effects arising from an intervention in one place.

5.2.2. Complex problems and distributed responsibility

Food poverty is not alone in having this complexity: obesity¹⁸⁰ and climate change¹⁸¹ too have been identified as being 'wicked problems' (to which no 'correct' solution exists)¹⁸². Indeed, there is a growing literature suggesting that as society and its challenges have become more complex¹⁸³, policy responses must adapt accordingly¹⁸⁴.

One particularly important feature of these complex problems is the distribution of responsibility for solving them. Since the factors involved in complex problems are often highly dispersed, it is frequently the case that different agencies, departments and organisations (the structure and responsibilities for which were often drawn up many years previously) find themselves involved in tackling the problem in question.

This appears to be the case for food poverty in Northern Ireland. To date, strategies and programmes have involved large numbers of organisations and departments; each bearing some responsibility for tackling the problem. Herein lies one possible explanation for the lack of urgency or progress to date: although all the parties to the various initiatives (particularly since the 2007 report¹⁸⁵) have been well-meaning and well-intentioned, the distributed nature of responsibility means that for any given organisation, food poverty represents only a relatively small issue. As a result, it is perhaps given less priority than might otherwise be the case.

5.2.3. A new approach?

One possible way forward, which Brook Lyndhurst has observed appearing in a number of settings in recent years, was proposed to participants in the workshops convened as part of this study. It was received positively and appeared to work well.

Rather than attempt to be comprehensive, participants in the workshops were invited only to identify a small number of possible actions. They were also invited to identify only actions which they thought could be achieved relatively quickly and with tangible results.

The thinking is that, if early objectives are achieved – that is, if a small number of initial actions are successful – this has the effect of boosting confidence among initial partners and of signalling success to others, thereby encouraging the participation of additional partners in due course. This is turn begins to provide the platform for developing and then instigating more ambitious programmes and projects. The approach is more evolutionary and adaptive, in keeping with the characteristics of the 'complex system' within which we are trying to operate.

(Conversely, if the early actions prove not to have been successful, it is easier to change tack in the light of lessons learned - another key feature of this adaptive approach.)

Brook Lyndhurst is aware that a similar approach is being adopted to address public health issues generally in both London and New York; and we strongly recommend it as the way forward for Northern Ireland.

5.2.4. Framing the Action Plan

Given this approach to action planning, our analysis leads us to recommend three further ways in which the action planning process should be framed:

- **Key factors** the diagram we have devised and then used to organise Chapters 2 and 4 in this report provides a mechanism for characterising potential actions. In our view, it would be inappropriate simply to focus on - say - 'outcomes': this would be tantamount to a sticking-plaster approach that ignores the drivers of the problem. Equally, to focus on drivers without tackling outcomes would be to ignore the very real suffering that many in Northern Ireland are having to endure. A comprehensive approach would seek to ensure that all the boxes in the diagram are considered.
- **Short term actions** if our proposed approach is adopted, it will not be possible to address all the boxes in the diagram in the short term. What will be important is to ensure that prioritised actions do not (either directly or indirectly) worsen the situation somewhere else in the system. This will not necessarily be straightforward: the example of food banks is a good illustration. Food banks are clearly a means of reducing the impacts of food poverty – but, as some argue, food banks may have the effect of reducing pressure elsewhere in the system to address the root causes of food poverty.
- The basis for action making choices about options for early action ought, to have clarity about the basis for action. That is to say, transparency about the political or economic or ethical justification for a proposed action should make it more straightforward to identify how the action fits within the system as a whole. If, as was broadly agreed in the workshops, any short term interventions should head in the direction of helping to transform the system as a whole, then this should be part of the argument that helps to prioritise one action over an alternative.

5.3 Initial suggestions for action

The approach outlined above was adopted in the workshops held in Belfast in January 2015. Workshop participants were invited to:

- brainstorm a long list of possible interventions that could help tackle food poverty in Northern Ireland
- identify (and justify) a shortlist (in each workshop) of four actions that they would prioritise for early implementation
- explore (in smaller groups) the practical details of putting the shortlisted actions into effect

It is important to bear in mind that workshop participants had limited time in which to complete this exercise; and not all of the detailed findings and recommendations in this report were available to them. The prioritised actions were, nevertheless, highly illuminating:

Possible action 1: Promote Indicators

- There are potential indicators and measures under development in Northern Ireland [see section 4.4]
- Possible launch of an indicator on 21st April 2015. It would be a focused event with key people present. [NB at this stage participants did not have a particular indicator in mind, only that launching one would be a valuable action].
- Personal stories would be told so as to make it more 'real' to the audience and the public: data alone would be dry.
- A media plan should not be reactive only, but information should be drip fed to media across the year. Need to engage politicians/political parties.

Possible action 2: Policy and programme mapping

- Mapping needs to be done on both policy and practitioner levels
- Food Poverty Network to take responsibility, though led by one organisation within the network.
- Funding needs to be identified.
- Plan required for the maintenance and updating of the map. It needs to be an 'active' tool
- Map to include tools and resources and also plans for evaluation and effectiveness.

Possible action 3: Community food initiatives

 The new local 'super councils' might have more of a health and wellbeing remit. They have to have a community plan by April 2016. They could set an outcome e.g. no one goes hungry. Poverty could be something that underpins community plans. Plans should come from the community though.

- Could tie in to statutory partners e.g. schools.
- One barrier would be the lack of resources, but this would be solved if the issue were higher up the agenda (e.g. indicator had been launched).
- Would make sense if this followed on from the mapping.
- Could be learning to cook, grow vegetables, shop efficiently and healthily.
- Ensure co-ordination and strengthening of community action approaches

Possible action 4: Local government reform

- The new 11 councils are mandated to create a new plan by April 2016. The consultation for this has been recently released.
- Council officers are able to engage in this kind of process. Local people are not. Need to ensure that the process is effectively coproduced so training could be provided to improve engagement. "Put the 'community' in community planning". Could investigate an 'open Town Hall' model as used in the USA, which enables engagement through technology.
- Use existing community structures and groups to engage people within the community planning process.
- Both poverty and food poverty could be central to community structures.
- Need to know the extent of food poverty first. This will help to challenge those that deny the scale of food poverty and push the issue further up the agenda.

Possible action 5: Life skills

- Food is a relatively 'safe' topic to discuss as it has a social aspect. It can therefore be used as an 'entry point' and engagement around food can allow signposting to other things (e.g. education, finance). Food banks have already been used as a stepping stone in this manner.
- This could enable something that is initially an, 'emergency response' to become a long-term solution. "From 'food bank' to 'life mutual".
- Ensure sharing examples of good practice from existing programmes.

Possible action 6: Co-ordinating existing activities

- Scope out what is already happening. Use a 'helicopter approach' to see who is doing what. Might be the case that some services already being delivered are no longer required.
- Do not want to lose person-to-person support services. These should come from trusted organisations, such as those in the advice sector (not statutory bodies).
- Fuel poverty has been addressed and used a lot of person-toperson support. Are there comparisons to be made with food poverty (e.g. equivalent of making homes more efficient)?
- The co-ordination should be the role of the local council.

These actions may or may not be the ideal options from the point of view of the All-Island Food Poverty Network. The longlisting process was relatively brief, and did not formally assess whether, for example, all the boxes of our definition had been covered. The process of shortlisting was similarly brief and the workshop facilitator (in order to complete the exercise in time) curtailed some important arguments between participants that, with more time, might have reached slightly different conclusions.

'Fleshing out' the actions was necessarily partial and conducted on the basis of knowledge in the room, rather than a more robust assessment.

Nevertheless, the actions listed above have considerable resonance with the findings from the broader research conducted as part of this study; and given the enthusiasm among workshop participants for both the process of and the outcomes from the workshops, we recommend that the process be replicated on a more systemic basis, in order to produce a formal Action Plan.

5.4 Action Planning Process

The steps we recommend are as follows:

Longlisting – either through a more extensive programme of workshops; or through a more structured exercise by the All-Island Food Poverty Network members; and/or through some sort of on-line research, a long list of possible short term actions should be assembled. (We avoid allocating responsibility for actions in this section, presuming that the Network itself is best placed to make such decisions.)

Shortlisting – a systematic approach to shortlisting should be conducted. Each longlisted option should be assessed against a transparent list of decision-making factors, such as: ease of implementation; likely effect on food poverty; scale of resources required; ease with which an organisation can take responsibility; consistency with longer-term transformation and so forth. The decision-making framework should be agreed by the All-Island Food Poverty Network and details for all longlisted actions should be entered into the framework. The highest ranking actions (high impact, low resource, easy to implement, most consistent with vision, etc) should be the prioritised actions.

Action-development – the details for each action (in terms of costs, responsibilities, locations, timing, method of monitoring etc) will need to be unpacked and considered. It is likely that some actions, having been considered in more detail, will no longer appear as highly ranked as originally thought. For this reason, we recommend that the provisional shortlist should comprise some six to eight actions; and a final shortlist should comprise between four and six.

Links – the shortlisted actions will need to be brought together and links identified. This will help to ensure collaborative working amongst all relevant bodies and 'one agenda' rather than conflicting individual initiatives.

We envisage that the horizon for these initiatives will be somewhere between 12 and 24 months; the Network will therefore need to publish (and publicise) its Action Plan with this in mind. Most especially, this means that the Action Plan will be a 'living document', so that the evolution of the next wave of actions can be incorporated in due course.

Closing remarks 5.5

That food poverty exists at all in an advanced western society is not merely shocking, it is shameful. No policy-maker, researcher or activist has deliberately sought to bring the present situation about. No-one argues in favour of food poverty.

Reducing food poverty is no easy task, as the evidence and arguments in this report have shown.

There are opportunities for action; and it is firmly hoped that the material in this report helps the many individuals and organisations in Northern Ireland that are passionate about tackling the problem to do just that.

Annex A – Research aims

The All-Island Food Poverty Network, which FSA in NI co-chairs, was set up to inform and influence practice and policy on food poverty in a co-ordinated way. Aware of a critical situation with respect to food poverty in Northern Ireland, the Network is considering the development of an Action Plan to tackle the issue in both the short and longer term.

Commissioned by the Standards and Dietary Health Team in FSA in NI, this research aimed to support the potential development of an Action Plan by:

- providing an up-to-date and robust evidence base on food issues related to poverty, economic hardship and social exclusion ('food poverty');
- 2. setting out some potential next steps for the FSA in NI to address food poverty in Northern Ireland.

In order to provide an updated and critical body of evidence on 'food poverty', four key themes were explored by the research:

- Food poverty How does food (and consumption of food) relate to issues of poverty, economic insecurity and social exclusion? Including:
 - To what extent do people in economic hardship prioritise food; and if so, how?
 - To what extent is the diet of people in economic hardship nutritionally adequate and socially acceptable?
 - What related factors (besides poverty, economic insecurity and social exclusion) lead to diets that are nutritionally inadequate and/or socially unacceptable?
- 2. **Northern Ireland** Is there anything about the Northern Ireland context that makes these issues more prevalent or distinctive?
- **3. Defining food poverty** Is 'food poverty' an appropriate term to use when describing the issues identified with food in relation to poverty, economic insecurity and social exclusion? How can this term (and/or other relevant terms) be described or defined?
- **4. Measurement and indicators** Can 'food poverty' (or other relevant terms) be measured in this context; and if so, how? What are the advantages and disadvantages of using measures such as

indicators as ways of assessing social issues related to poverty, economic insecurity and social exclusion; and how might these lessons be applied to 'food poverty' (or other relevant term)?

Evidence assembled and reviewed under these themes was then used to develop recommendations for the FSA in NI to consider with regard to addressing food poverty in Northern Ireland.

Annex B – Detailed methodology

Introduction

A multi-method approach, comprising three main elements, was designed to achieve the objectives set out in Annex A:

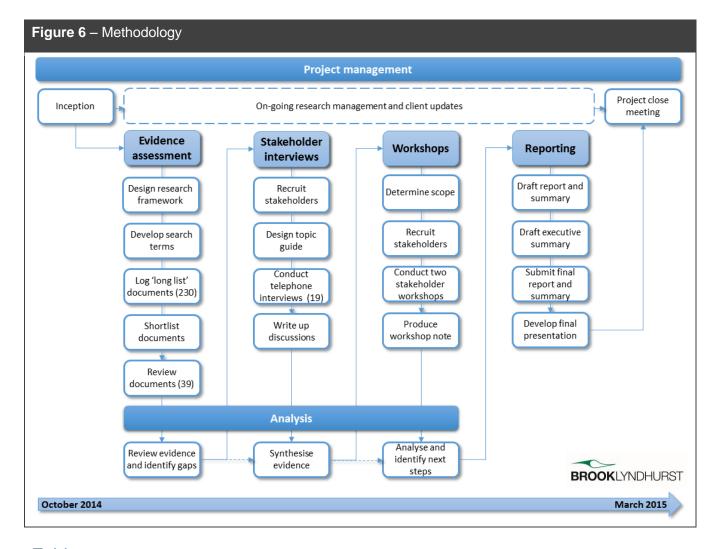
- 1. a rapid review of published research to provide a robust evidence base on food poverty;
- 2. expert and stakeholder interviews to provide additional insights on issues associated with food poverty, giving particular consideration to the Northern Ireland context; and,
- 3. deliberative workshops with stakeholders in Northern Ireland, to consider next steps to address food poverty in the context of evidence presented by the review.

This approach was delivered in five phases of research (an evidence assessment; stakeholder interviews; workshops; analysis; reporting), with an overarching programme of project management.

Each phase of the research is illustrated in Figure 5, while the main elements of the approach (i.e. evidence assessment, stakeholder interviews and deliberative workshops) are described in turn below.

The research was conducted between October 2014 and March 2015, by independent research consultancy, Brook Lyndhurst. The research team worked closely with the FSA in NI throughout the study, to help ensure the work was fit-for-purpose.

They also drew on the expertise of a project advisor – Professor Jim Kitchen of Sustainable NI. His role included sharing Northern Ireland specific insights relevant to the research questions; helping to identify key experts and stakeholders; and reviewing draft outputs.



Evidence assessment

The first phase of the project involved a desk review of existing literature. The phase aimed to provide a robust, up-to-date evidence base on 'food poverty', in relation to the research questions set out in Annex A.

This phase consisted of several steps, as follows:

- Design of a research framework The research questions were discussed and finalised, in conjunction with the FSA. These questions were then used to structure a research framework for the research team to use when logging, prioritising and reviewing evidence collected during this phase. The document took the form of an Excel spreadsheet, in which the details of each identified document were recorded. The framework provided a systematic record of the evidence found and how it informed the research questions.
- **Development of search terms** A list of search terms was generated to employ in scoping out relevant literature, to ensure the

review covered all potentially relevant angles (as well as forming part of a traceable record of the research process). The terms were identified during a brainstorm attended by the research team and presented in a document that showed their connection with each research question (an example for one sub-question is shown in Table 8). This document was shared with the FSA prior to beginning the search.

Table 8 – Search terms – example sub-question		
Research question	Sub-question & objectives	Keywords
RQ1 - How does food (and consumption of food) relate to issues of poverty, economic insecurity and social exclusion?	To what extent do people in economic hardship prioritise food; and, if so, how? [Is it different in Northern Ireland?]	[food, diet(ary), sustenance, nourishment, nutrition(al)] [social, economic, cultural] & [exclusion, poverty, insecurity, hardship] [choice; prioritisation/priorities; constraints; ability; willingness] [challenges; debate; discourse] [Northern Ireland, island of Ireland, Ireland]

- **Scoping** The purpose of this task was to identify and log a 'long list' of evidence on food poverty, using the list of search terms. A number of documents were initially drawn from the invitation to tender document (ITT), supplied by the FSA in NI. Using online sites such as Google, Google Scholar and ScienceDirect, further relevant documents were identified and recorded in the review framework. Information recorded included:
 - Search terms used
 - Source of document
 - o Title
 - Author
 - Date of publication
 - Country of research
 - Journal
 - Weblink
 - Abstract (or summary)
 - Relevance (general)
 - Relevance to each research question

A total of 230 documents were logged during this process. Additionally, each document was scored according to its relevance to each research question and its methodological robustness.

- **Shortlisting documents** The next step was to choose a selection of documents from the scoping exercise, to take forward for full review. The scores for each document were used to identify a shortlist of 39 documents, in conjunction with a cross-referencing exercise to ensure the shortlisted documents covered all of the research questions as far as possible. The 39 documents selected through this process can be found listed in Annex C.
- **Document review** The shortlisted documents were then read in full, and information they provided in relation to each research question was recorded in the review framework. This information fed through into the analysis process, in which the evidence was reviewed to identify key findings and gaps in evidence associated with each research question.
- **Additional sources** Finally, some additional online research was conducted, largely to provide statistics to build and support the evidence base. Furthermore, a number of additional documents were recommended by interviewees during the interview process (see below), and a several of these were also reviewed by the research team. The Government's All Party Parliamentary Inquiry into Hunger was also published after the evidence assessment phase, and was referenced by interviewees, so efforts were made to incorporate evidence retrospectively from this document into the review. Additional sources, which did not form part of the main review process, are referenced in full in Annex D.

Stakeholder interviews

The interviews had a dual purpose that was to: supplement the written evidence gathered through the evidence assessment, filling identified gaps where possible; and secondly to provide evidence regarding the Northern Ireland context.

The interview process comprised four steps as follows:

- **Interviewee recruitment** A long list of 80 potential interviewees was drawn up using recommendations from the project advisor; the FSA in NI; and the evidence assessment. This was reduced to a shortlist of 30 prospective interviewees, through further discussions with the advisor and the FSA in NI, who collectively represented a range of different perspectives and organisations.
- **Design topic guide –** A discussion guide was developed to steer the interviews through a series of key themes associated with the

research questions. The guide was semi-structured, to allow flexibility when interviewing stakeholders with different knowledge and experience. The draft document was shared with the FSA in NI and the project advisor before a final version was created prior to the start of the interview process.

- Conduct telephone interviews A total of 19 interviews were conducted by telephone (see Table 9). The interviews lasted around 30-40 minutes and were conducted in confidence (i.e. feedback provided was not attributed to individuals or organisations without permission being granted by interviewees).
- Write up discussions Key discussion points and any relevant quotes from each interview were summarised in individual interview write-ups^{xxi}. Material captured in the write-ups was then fed into the overarching analysis process, to review and synthesise evidence from the interviews and the evidence review against the research questions.

As noted in the introduction to Chapter 4 of the report, quotes in this document were only taken from interviewees who have had direct contact with people (likely to be) in food poverty – either through research or community action.

Table 9 – List of stakeholder and expert interviewees		
Name	Organisation (and primary country of work)	
Adele Graham	Public Health Agency (NI)	
Bertrand Maître	Economic & Social Research Institute (ROI)	
Colette Rogers	Public Health Agency (NI)	
Declan Donnelly	Ballymoney Borough Council (NI)	
Eileen Wilson	Footprints Women's Centre (NI)	
Gary McFarlane	Public Health Alliance and Chartered Institute of Environmental Health (ROI/NI)	
Grace Kelly	Queen's University Belfast (NI)	
Helen Barnard	Joseph Rowntree Foundation (UK)	
Ian McClure	Department of Health Social Services and Public Safety (NI)	
Kevin Balanda	Institute of Public Health (ROI/NI)	
Liz Dowler	University of Warwick (UK)	
Marian Faughnan	safefood (ROI/NI)	
Martin Caraher	City University, London (UK)	
Meabh Austin	FareShare Belfast (NI)	
Philippa McKeown-Brown	Consumer Council (NI)	
Sharron Carlin	Department for Social Development (NI)	
Sinéad Furey	Ulster University (NI)	
Sinéad Keenan	Healthy Food for All (ROI/NI)	
Tim Lang	City University, London (UK)	

Workshops

The main purpose of the workshops was to engage stakeholders with the findings of the evidence review and to demonstrate the value of collaborative action when planning to address issues highlighted by the review. These aims were achieved in four steps:

- Determine scope It was necessary to consider the scope of the workshops, in light of the findings from the evidence review and stakeholder interview process. The research team designed a proposition for the workshops (in terms of proposed attendees, content and structure), which was discussed and agreed with the FSA in NI.
- Recruit stakeholders It was decided that the first workshop would comprise members of the All-Island Food Poverty Network

and the other would comprise a selection of stakeholders with an interest and experience working on issues associated with food poverty in Northern Ireland. These stakeholders included representatives from government, local authorities, academia and the third sector. There was some continuity with the interview phase as seven interviewees (all of whom worked – at least partially – in Northern Ireland) also attended a workshop. In all, 23 stakeholders were recruited to attend the two workshops.

- Conduct two stakeholder workshops The two workshops were held at the FSA in NI offices in Belfast on 15th January, 2015. Each workshop lasted for two hours and followed the same four-part structure:
 - 1. Introductions Introductions and background
 - 2. Workshop I Longlisting and shortlisting of potential actions to address food poverty
 - 3. Group Session Scoping and developing shortlisted actions
 - 4. Workshop II Further discussion of actions and close
- Produce workshop note Finally, a note summarising key discussion points and suggested actions identified during the sessions was produced and circulated to workshop attendees for further comment. Key insights generated during the workshops are combined and summarised in section 5.3 of the main report.

Annex C – Literature review bibliography

This Annex gives references for the 39 documents that were fully reviewed as part of the evidence assessment phase.

Advice NI (2013) Turning the Tide: The growth of Food Banks in Northern Ireland. Advice NI Social Policy Report.

Bloemberg, B. and Kromhout, D. (1991) Nutritional surveys: ongoing activities in Europe. Proceedings of the Nutrition Society 50:681-685.

Bradshaw, J. and Finch, N. (2003) Overlaps in dimensions of poverty. Journal of Social Policy 32(4): 513-525.

Burns, C., Kristjansson, B., Harris, G., Armstrong, R., Cummins, S., Black, A. and Lawrence, M. (2010) Community level interventions to improve food security in developed countries. Cochrane Database of Systematic Reviews 12.

Burns, C. (2004) A review of the literature describing the link between poverty, food insecurity and obesity with specific reference to Australia. Physical Activity Unit, Food Insecurity Program, Victorian Health Promotion Foundation.

Carney, C. and Maître, B. (2012) Constructing a Food Poverty Indicator for Ireland. Department of Social Protection.

Castetbon, K., Mejean, C., Deschamps, V., Oleko, A., Darmon, N. and Hercberg, S. (2011) Dietary behaviour and nutritional status in underprivileged people using food aid (ABENA study, 2004-2005). Journal of Human Nutrition and Dietetics 24: 560-571.

Centre for Economics and Business Research (CEBR) (2013) Hard to Swallow – The Facts about Food Poverty. Centre for Economics and Business Research.

Coates, J., Frongillo, E.A., Rogers, B.L., Webb, P., Wilde, P.E. and Houser, R. (2006) Commonalities in the experience of household food

- insecurity across cultures: what are measures missing? Journal of Nutrition 136(5): 14385-14485.
- de Haen, H., Klasen, S. and Qaim, M. (2011) What do we really know? Metrics for food insecurity and undernutrition. Food Policy 36(6): 760-769.
- Dibben, C., Sims, A., Noble, M., Hill, A., Goldacre, M., Surrender, R., Goodman, N., Lloyd, M., Wright, G. and Smith, G. (2001) Health poverty index scoping project.
- Dibsdall, L. A., Lambert. N., Bobbin, R. F. and Frewer, L. J. (2002) Lowincome consumers' attitudes and behaviour towards access, availability and motivation to eat fruit and vegetables. Public Health Nutrition: 6(2): 159-168.
- Dowler, E. (2003) Food and Poverty: Insights from the 'North'. Development Policy Review 21(5-6): 569-580.
- Dowler, E. (2008) Food and health inequalitites: The challenge for sustaining just consumption. Local Environment: The International Journal of Justice and Sustainability 13(8): 759-772.
- Drewnowski, A. and Specter S. E. (2004) Poverty and obesity: the role of energy density and energy costs. American Journal of Clinical Nutrition 79(1): 6-16.
- Friel, S. and Conlon, C. (2004) Food Poverty and Policy. Combat Poverty Agency, Crosscare and the Society of St. Vincent de Paul.
- Friel, S., Harrington, J., Thunhurst, C., Kirby, A. and McElroy, B. (undated) Summary Report: Standard of Healthy Living on the Island of Ireland. Safefood.
- Furey, S. (2014) Food Poverty in Northern Ireland (presentation). University of Ulster.
- Furey, S., Farley, H. and Strugnell, C. (2002) An investigation into the availability and economic accessibility of food items in rural and urban areas of Northern Ireland. International Journal of Consumer Studies 26(4): 313-321.

- Furey, S., Strugnell, C. and McIlveen, H. (2001) An investigation of the potential existence of "food deserts" in rural and urban areas of Northern Ireland. Agriculture and Human Values 18(4): 447-457.
- Global Food Security Index (undated)
 http://foodsecurityindex.eiu.com/Home/Methodology [Accessed 16 February 2015]
- Hickey, C. and Downey, D. (2003) Hungry for Change: Social exclusion, food poverty and homelessness in Dublin. Focus Ireland.
- Hillyard, P., Kelly, G., McLaughlin, E., Patsios, D. and Tomlinson, M. (2003) Bare necessities: Poverty and social exclusion in Northern Ireland. Democratic Dialogue report 16.
- Hitchman, C., Christie, I., Harrison, M. and Lang, T. (2002) Inconvenience food The struggle to eat well on a low income. Demos.
- Jones, A.D., Ngure, F.M., Pelto, G. and Young, S.L. (2013) What are we assessing when we measure food security? A compendium and review of current metrics. American Society for Nutrition Advances in Nutrition 4: 481-505.
- Kearney, J., McCartney, D., McCarthy, S., Burke, S., Knox, B. and Barton, M. (2008) Food and nutrient intake and attitudes among disadvantaged groups on the Island of Ireland Summary Report. Safefood.
- Lambie-Mumford, H. (2012) Regeneration and food poverty in the United Kingdom: Learning from the New Deal for Communities programme. Oxford University Press and Community Development Journal.
- Maillot, M., Darmon, N. and Drewnowski, A. (2010) Are the lowest-cost healthful food plans culturally and socially acceptable? Public Health Nutrition 13(8): 1178-1185.
- Maslen, C., Raffle, A., Marriott, S. and Smith, N. (2013) Food Poverty What does the evidence tell us? Bristol City Council.
- McCartney, D. (2008) Poverty, diet and health behaviours. A quantitative and qualitative study among young urbanised women. Dublin Institute of Technology; Doctoral thesis volume I (of II).

- Nelson, M., Erens, B., Bates, B., Church, S. and Boshier, T. (2007) Low income diet and nutrition survey - Summary of key findings. Food Standards Agency.
- Niemietz, K. (2013) Constructing a new measure of poverty for the UK. Thesis for King's College, London.
- Pangaribowo, E.H., Gerber, N. and Torero, M. (2013) Food and nutrition security indicators: a review. ZEF Working Paper Series 108.
- Purdy, J., McFarlane, G., Harvey, H., Rugkasa, J. and Willis, K. (2007) Food Poverty: Fact or Fiction? Public Health Alliance.
- Rugkåsa, J., Balanda, K.P. and Walsh, O. (2006) Food culture in rural Northern Ireland: Results from an exploratory ethnographic study undertaken in the 'Decent Food for All (DFfA)' study areas. Institute of Public Health in Ireland.
- Safefood (2011) Food on a low income Four households tell their story.
- Tarasuk, V. (2001) Household food insecurity with hunger is associated with women's food intakes, health and household circumstances. Journal of Nutrition 131(10): 2670-2676.
- Webb, P., Coates, J., Frongillo, E., Rogers, B.L., Swindale, A. and Bilinsky, P. (2006) Measuring household food insecurity: Why it's so important and yet so difficult to do. Journal of Nutrition 136(5): 14045-14085.
- White, M., Bunting, J., Williams, L., Raybould, S., Adamson, A. and Mathers, J. (2004) Do 'food deserts' exist? A multi-level, geographical analysis of the relationship between retail food access, socioeconomic position and dietary intake. Report to the Food Standards Agency.

Annex D – Footnote references

The following endnotes are referenced in the main document above. Some references are abbreviated as these documents were part of the evidence assessment phase, and full references for these are available in Annex C. Any additional sources of information are fully referenced below.

See: Cooper, N., Purcell, S. and Jackson, R. (2014) Below the Breadline: The Relentless Rise of Food Poverty in Britain. http://www.trusselltrust.org/resources/documents/foodbank/6323_Belowthe_Breadline_web.pdf [Accessed 23 March 2015] And: Advice NI (2013) Turning the Tide: The Growth of Food Banks in Northern Ireland. http://www.adviceni.net/file/76/download?token=zDqxll4U [Accessed 23 March 2015]

² DHSSPSNI (2012) A fitter future for all. Framework for Preventing and Addressing Overweight and Obesity in Northern Ireland 2012-2022. Available from: http://www.dhsspsni.gov.uk/framework-preventing-addressing-overweight-obesity-ni-2012-2022.pdf [Accessed 10 March 2015]

³ Northern Ireland Health Survey 2013/14. Please note that these are preliminary results and have not yet been officially verified. They may therefore be subject to change.

⁴ A notable exception is Carney and Maître 2012, which sets out a measurement of food poverty for the Republic of Ireland.

⁵ Dowler 2003

⁶ Pangaribowo et al 2013; Jones et al 2013; Lambie-Mumford 2012

⁷ Furey et al 2001

⁸ White et al 2004

⁹ Jones et al 2013

¹⁰ Purdy et al 2007 references several including: Riches 1997; Leather 1997; and Anderson 1990

All-Party Parliamentary Group on Hunger and Food Poverty (2014) An Evidence Review for the All-Party Parliamentary Inquiry into Hunger in the United Kingdom.

https://foodpovertyinquiry.files.wordpress.com/2014/12/food-poverty-appg-evidence-review-final.pdf [Accessed 10 March 2015]

¹² From: Department of Health (2005) Choosing a better diet: a food and health action plan.

http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_4105709.pdf [Accessed 11 March 2005]

¹³ Provided in written evidence from the Public Health Nutrition Team, Central London Community Healthcare NHS Trust.

¹⁴ Friel and Conlon 2004

All-Party Parliamentary Group on Hunger and Food Poverty (2014) Feeding Britain. A strategy for zero hunger in England, Wales,

Scotland and Northern Ireland.

https://foodpovertyinquiry.files.wordpress.com/2014/12/food-poverty-feeding-britain-final.pdf [Accessed 10 March 2015]

- ¹⁶ Carney and Maitre 2002 found that self-employed and farmers reported substantially lower rates of food poverty in comparison to the rate of AROP (at risk of poverty).
- ¹⁷ Burns 2004, Dibsdall et al 2002
- ¹⁸ Dibsdall et al 2002; Advice NI 2013
- ¹⁹ Carney and Maitre 2012; Safefood 2011
- ²⁰ Levendahl and Oliveira 1999 in Drenowski and Specter 2004; Safefood 2011
- ²¹ Nelson et al 2007; Hitchman et al 2002; CEBR 2013; Safefood 2011
- Wiecha et al. 1991 in Friel and Conlon 2004; Hickey and Downey 2003; Adnice NI 2013; Safefood 2011
- ²³ McNamara 1995 in Friel and Conlon 2004
- ²⁴ CEBR 2013
- ²⁵ Carney and Maitre 2012
- ²⁶ Carney and Maitre 2012; Safefood 2011; Nelson et al 2007
- ²⁷ Carney and Maitre 2012; Andrews et al 2000 in Drenowski and Specter 2004
- ²⁸ All-Party Parliamentary Group on Hunger and Food Poverty (2014) Feeding Britain. A strategy for zero hunger in England, Wales, Scotland and Northern Ireland.
 - https://foodpovertyinquiry.files.wordpress.com/2014/12/food-poverty-feeding-britain-final.pdf [Accessed 10 March 2015]
- ²⁹ *Ibid.*
- ³⁰ Wales, P, and Taylor C. (2014) Economic review, April 2014. London: Office for National Statistics.
 - http://www.ons.gov.uk/ons/dcp171766_358477.pdf [Accessed 10 March 2015]
- Dowler, E, and O'Connor, D. (2012) Rights based approaches to addressing food poverty and food insecurity in Ireland and UK. Social Science & Medicine, Vol.74 (No.1). pp. 44-51. ISSN 1873-5347.
- All-Party Parliamentary Group on Hunger and Food Poverty (2014) Feeding Britain. A strategy for zero hunger in England, Wales, Scotland and Northern Ireland.
 - https://foodpovertyinquiry.files.wordpress.com/2014/12/food-poverty-feeding-britain-final.pdf [Accessed 10 March 2015]
- Perry, J., Williams, M., Sefton, T. and Haddad, M. (2014) Emergency Use Only. Understanding and reducing the use of food banks in the UK. http://www.trusselltrust.org/resources/documents/Press/Foodbank-Report.pdf [Accessed 10 March 2015]
- 34 Ibid
- ³⁵ Department for Environment, Food and Rural Affairs (Defra) (2013) Food Statistics Pocketbook.
 - https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/315418/foodpocketbook-2013update-29may14.pdf [Accessed 10 March 2015]

³⁶ Ibid.

³⁷ Ibid.

Department for Environment, Food and Rural Affairs (Defra) (2013) Family Food 2013.

https://www.gov.uk/government/uploads/system/uploads/attachment_d ata/file/385694/familyfood-2013report-11dec14.pdf [Accessed 10 March 2015]

³⁹ All-Party Parliamentary Group on Hunger and Food Poverty (2014) Feeding Britain. A strategy for zero hunger in England, Wales, Scotland and Northern Ireland.

https://foodpovertyinquiry.files.wordpress.com/2014/12/food-poverty-feeding-britain-final.pdf [Accessed 10 March 2015]

- Survation (2014) Early Parenthood. Prepared on behalf of the National Childbirth Trust: http://survation.com/wp-content/uploads/2014/04/Early-Parenthood-Survey-Report.pdf [Accessed 10 March 2015]
- See, for example: Butler, P. (2014) Food bank issues parcels for those too poor to heat dinner.
 http://www.theguardian.com/society/2014/jan/20/food-bank-kettle-
- boxes-trussell-trust [Accessed 10 March 2015]
 Joseph Rowntree Foundation (JRF) (2014) Reducing poverty in the UK: A Collection of evidence reviews.

http://www.jrf.org.uk/sites/files/jrf/Reducing-poverty-reviews-

FULL 0.pdf [Accessed 10 March 2015]

43 White et al 2004

- 44 Lambie-Mumford 2012
- ⁴⁵ Lambie-Mumford 2012
- ⁴⁶ Monsivais et al 2012 in Maslen et al 2013
- ⁴⁷ Dowler 2003
- ⁴⁸ White et al 2004
- ⁴⁹ Watson 2001 in Friel and Conlon 2004
- ⁵⁰ White et al 2004
- ⁵¹ Friel and Conlon 2004;
- ⁵² Hitchman et al 2002
- ⁵³ McCartney 2008; Hitchman et al 2002
- ⁵⁴ Hitchman et al 2002
- ⁵⁵ Hitchman et al 2002
- ⁵⁶ Macdonald et al. 2007, Fraser et al 2010, and Fleischhacker et al 2011 (all found in Maslen et al 2013)
- ⁵⁷ Hitchman et al 2002
- ⁵⁸ Lang et al 1999 in Maslen 2013
- ⁵⁹ White et al 2004
- 60 Harrington 2009 in Maslen 2013
- ⁶¹ White 2004; McCartney 2008
- ⁶² Kearney et al 2008; Barker et al 2008 in Maslen 2013
- 63 Nelson et al 2007
- ⁶⁴ Evans and Dowler 1999 in Maslen 2013
- ⁶⁵ Dowler and Tansey 2003; Donkin et al 2008 (both in Maslen 2013); Purdy et al 2007; Hickey and Downey 2003
- ⁶⁶ Tarasuk 2001

⁶⁷ Tarasuk 2011

⁶⁸ Hayne et al 2004 in Maslen 2013; Kearney et al 2008

⁶⁹ National Food Alliance 1997 in Friel and Conlon 2004

- Description borrowed from: Darnton, A. and Horne, J. (2013) Influencing behaviours: moving beyond the individual. Report for the Scottish Government. http://www.scotland.gov.uk/Resource/0042/00423436.pdf [Accessed 11 March 2015]
- Note: The state of the state
- 72 Rugkåsa et al 2006
- ⁷³ Maillot et al 2010
- ⁷⁴ Maillot et al 2010
- ⁷⁵ Furey et al 2002; Hitchman et al 2002; Dowler 2003; Friel and Conlon 2004; White et al 2004; CEBR 2013; Defra 2012 in Maslen et al 2013.
- ⁷⁶ CEBR 2013. According to government expenditure statistics, the 20% of households on the lowest income spent 16.5% of equivalised income on food, compared with 11.4% by the average household: Department for Environment, Food and Rural Affairs (Defra) (2013) Family Food 2013. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/385694/familyfood-2013report-11dec14.pdf [Accessed 10 March 2015]
- ⁷⁷ E.g. Hearty 2007 in McCartney 2008
- ⁷⁸ Kearney et al 2008
- ⁷⁹ Kearney et al 2008; Rugkasa et al 2006; McCartney 2008; Safefood 2011
- ⁸⁰ Hitchman et al 2002
- ⁸¹ Hitchman et al 2002
- ⁸² Safefood 2011; Vincentian Partnership for Social Justice 2002 in Friel and Conlon 2004; Furey et al 2002; Hitchman et al 2002
- ⁸³ CEBR 2013
- ⁸⁴ Daly and Leonard 2002 in Friel and Conlon 2004; Messer 2002 in Drenowski and Specter 2004; Rugkåsa et al 2006; Safefood 2011
- ⁸⁵ Friel and Conlon 2004; Safefood 2011
- Nelson and Leather 1997; Roux et al. 2000; Moloney 2001; Friel 2003 (all in Friel and Conlon 2004); Hickey and Downey 2003; Dowler 2003; Basiotis and Lino 2002 in Drenowski and Specter 2004; Rugkåsa et al 2006; Kearney et al 2008;; CEBR 2013
- Weichselbaum, E and Buttriss, J (2014) Diet, nutrition and schoolchildren: An update. British Nutrition Foundation Nutrition Bulletin, 39, pp9–73. https://de6737653adb62f087ec-9aad7dc4fc61aadaa5ed1a599916badc.ssl.cf3.rackcdn.com/2014/01/Diet-nutrition-and-school-children_An-update.pdf [Accessed 3 February 2015]
- 88 Nelson et al 2007
- ⁸⁹ CEBR 2013

⁹⁰ Burns et al 2004

⁹¹ Burns et al 2004

Further information available from: http://www.noo.org.uk/data_sources/Nutrition/LIDNS [Accessed 26 March 2015]

93 Nelson et al 2007

- Ohristakis, N., and Fowler, P. (2007) The Spread of Obesity in a Large Social Network over 32 years. The New England Journal of Medicine, 357. pp370-379
- ⁹⁵ All-Party Parliamentary Group on Hunger and Food Poverty (2014) Feeding Britain. A strategy for zero hunger in England, Wales, Scotland and Northern Ireland. https://foodpovertyinguiry.files.wordpress.com/2014/12/food-poverty-

feeding-britain-final.pdf [Accessed 10 March 2015]

96 Walker et al 2007 in Maslen 2013

⁹⁷ DHSSPSNI (2012) A fitter future for all. Framework for Preventing and Addressing Overweight and Obesity in Northern Ireland 2012-2022. Available from: http://www.dhsspsni.gov.uk/framework-preventing-addressing-overweight-obesity-ni-2012-2022.pdf [Accessed 10 March 2015]

98 Department of Health 2005 in Maslen 2013

⁹⁹ Shemilt, I., Harvey, I., Shepstone, L., Swift, L., Reading, R., Mugford, M., Belderson, P., Norris, N., Thoburn, J. and Robinson, J. (2004) A national evaluation of school breakfast clubs: Evidence from a cluster randomised controlled trial and an observational analysis. Child: Care, Health and Development, 30 (5), pp413-427.

Belot, M. and James, J (2009) Healthy school meals and Educational Outcomes http://cess-wb.nuff.ox.ac.uk/downloads/schoolmeals.pdf [Accessed 11 March 2015]

Ells, L., Hillier, F., Shucksmith, J., Crawley, H., Harbige, L., Shield, J., Wiggins, A, and Summerbell, C. (2008) A systematic review of the effect of dietary exposure that could be achieved through normal dietary intake on learning and performance of school-aged children of relevance to UK schools.

http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0026468/ [Accessed 11 March 2015]

- 102 Coates et al 2006
- 103 Coates et al 2006; Burns 2004; Friel and Conlon 2004
- ¹⁰⁴ Furey et al 2002
- 105 Coates et al 2006
- ¹⁰⁶ Maillot 2010
- 107 Coates et al 2006
- ¹⁰⁸ Coates et al 2006
- ¹⁰⁹ Hitchman et al 2002
- ¹¹⁰ Safefood 2011
- Suggestions adapted from written submissions received for the London Assembly's Health and Environment Committee investigation into Food Poverty Responses (received as of 14 December 2012). Available

from: http://www.london.gov.uk/sites/default/files/Food%20povertv%20-%20organisational%20responses.pdf [Accessed 11 March 2015]

- Lambie-Mumford, H., Crossley, D., Jensen, E., Verbeke, M., and Dowler, E (2014) Household Food Security in the UK: A Review of Food Aid.
 - https://www.gov.uk/government/uploads/system/uploads/attachment_d ata/file/283071/household-food-security-uk-140219.pdf [Accessed 11 March 2015]
- ¹¹³ Canadian research Loopstra and Tarasuk (2012) The Relationship between Food Banks and Household Food Insecurity among Low-Income Toronto Families. Canadian Public Policy 38(4).pp. 497-514.
- ¹¹⁴ University of Sheffield, Department of Geography written submission received for the London Assembly's Health and Environment Committee investigation into Food Poverty Responses. http://www.london.gov.uk/sites/default/files/Food%20poverty%20-%20organisational%20responses.pdf [Accessed 11 March 2015]
- ¹¹⁵ Hillyard et al 2003
- ¹¹⁶ Burns et al 2004
- ¹¹⁷ Dowler 2003
- ¹¹⁸ Hillyard et al 2003
- ¹¹⁹ Dowler 2003
- ¹²⁰ McKay 2004; Myck 2005 (both in Niemietz 2013)
- ¹²¹ Office for National Statistics (undated) Compendium of UK Statistics. http://www.ons.gov.uk/ons/guide-method/compendiums/compendiumof-uk-statistics/economy/index.html [Accessed 11 March 2015] ¹²² *Ibid.*
- ¹²³ See, for example: Advice NI (2014) Debt Action NI: Annual Report 2013/14. http://www.debtactionni.net/sites/default/files/resources/Debt%20Action%20NI%20final%20r eport_1.pdf [Accessed 11 March 2015]
- Harper, B (2015). What ASHE tells us about real wages in Northern Ireland. http://www.nicva.org/article/what-ashe-tells-us-about-realwages-northern-ireland [Accessed 11 March 2015]
- ¹²⁵ CEBR 2013
- ¹²⁶ CEBR 2013
- ¹²⁷ Office for National Statistics (undated) UK Relative Regional Consumer Price levels for Goods and Services for 2010.
 - http://www.ons.gov.uk/ons/rel/cpi/regional-consumer-pricelevels/2010/uk-relative-regional-consumer-price-levels-for-goods-andservices-for-2010.pdf [Accessed 11 March 2015]
- 128 Centre for Economics and Business Research (CEBR) (2015) Asda Income Tracker, December 2014.
 - http://your.asda.com/system/dragonfly/production/2015/01/26/10_10_5 7 749 v2 ASDA income tracker January 2015.pdf [Accessed 11 March 2015]
- ¹²⁹ The Consumer Council (undated) Domestic Heating Oil and Fuel. http://www.niassembly.gov.uk/globalassets/documents/social-dev/fuelpoverty/heatingoil_fuel-poverty.pdf [Accessed 11 March 2015]

¹³⁰ Baker, W (2011) Off-gas consumers. Consumer Focus.

http://www.consumerfocus.org.uk/files/2011/10/Off-gas-consumers.pdf

- The Consumer Council (undated) Domestic Heating Oil and Fuel.

 http://www.niassembly.gov.uk/globalassets/documents/social-dev/fuel-poverty/heatingoil_fuel-poverty.pdf [Accessed 11 March 2015]
- The Consumer Council (2013) Comparative Domestic Cost of Gas v Oil Report.
 - http://www.consumercouncil.org.uk/filestore/documents/CCNI Gas v Oil Cost Comparison Final Brief May 2013.pdf [Accessed 11 March 2015]
- ¹³³ *Ibid.*
- ¹³⁴ Furey et al 2001
- ¹³⁵ Purdy et al 2007
- FSA (2013) Exploring food attitudes and behaviours in Northern Ireland: Findings from the Food and You Survey. Food Standards Agency. http://www.food.gov.uk/sites/default/files/multimedia/pdfs/food-and-you.pdf [Accessed 25 March 2015]
- ¹³⁷ Ibid.
- ¹³⁸ Purdy et al 2007
- 139 Furey et al 2002
- NISRA (2012) Census 2011: Key Statistics for Northern Ireland. http://www.nisra.gov.uk/Census/key_stats_bulletin_2011.pdf [Accessed 26 February 2015]
- In 2011 in England and Wales 25.6% did not have access to a car or van: http://www.ons.gov.uk/ons/rel/census/2011-census/key-statistics-for-local-authorities-in-england-and-wales/stb-2011-census-key-statistics-for-england-and-wales.html#tab---Car-or-van-availability [Accessed 11 March 2015 though only if link is cut and pasted]
- ¹⁴² FSA (2013) Exploring food attitudes and behaviours in Northern Ireland: Findings from the Food and You Survey. Food Standards Agency. http://www.food.gov.uk/sites/default/files/multimedia/pdfs/food-and-you.pdf [Accessed 25 March 2015]
- ¹⁴³ Furey 2014
- 144 Safefood 2011
- 145 Safefood 2011
- ¹⁴⁶ Kearney et al 2008
- ¹⁴⁷ This is also noted in Safefood 2011
- Deloitte (2006) Research into food poverty and homelessness in Northern Ireland. Report for the Food Standards Agency. http://tna.europarchive.org/20120530191353/http://www.food.gov.uk/multimedia/pdfs/homelessnifood.pdf [Accessed 11 March 2015]
- Safefood 2011
- 150 Safefood 2011
- 151 Rugkåsa et al 2006
- National Diet and Nutrition Survey Rolling Programme (NDNS RP) Results from Years 1-4 (combined) for Northern Ireland (2008/09-2011/12) http://www.food.gov.uk/sites/default/files/ndns-ni-exec-summary.pdf [Accessed 11 March 2015]
- Rugkåsa et al 2006

¹⁵⁴ This is also reported in Safefood 2011

¹⁵⁵ See, for example: Safefood 2011

And: The Consumer Council (2013) Hard to Stomach: The impact of rising food costs for Northern Ireland consumers.

http://www.consumercouncil.org.uk/filestore/documents/Hard_to_Stomach1.pdf [Accessed 11 March 2015]

- The Consumer Council (2013) Hard to Stomach: The impact of rising food costs for Northern Ireland consumers.

 http://www.consumercouncil.org.uk/filestore/documents/Hard_to_Stomach1.pdf [Accessed 11 March 2015]
- ¹⁵⁷ Safefood 2011
- ¹⁵⁸ Furey et al 2001
- 159 Safefood 2011
- 160 Safefood 2011
- ¹⁶¹ Safefood 2011 (though this is less true of older people who tend to cook 'from fresh')
- The Consumer Council (2013) Hard to Stomach: The impact of rising food costs for Northern Ireland consumers.

 http://www.consumercouncil.org.uk/filestore/documents/Hard_to_Stomach1.pdf [Accessed 11 March 2015]
- Poverty and Social Exclusion (PSE) Survey:

 http://www.poverty.ac.uk/pse-research/northern-ireland-faring-badly
 [Accessed 11 March 2015]
- Northern Ireland Health Survey 2013/14. Please note that these are preliminary results and have not yet been officially verified. They may therefore be subject to change.
- Department for Énvironment, Food and Rural Affairs (Defra) (2013)
 Food Statistics Pocketbook.
 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/315418/foodpocketbook-2013update-29may14.pdf [Accessed 10 March 2015]
- National Diet and Nutrition Survey Rolling Programme (NDNS RP) Results from Years 1-4 (combined) for Northern Ireland (2008/09-2011/12) http://www.food.gov.uk/sites/default/files/ndns-ni-exec-summary.pdf [Accessed 11 March 2015]
- ¹⁶⁷ *Ibid.*
- ¹⁶⁸ *Ibid.*
- ¹⁶⁹ *Ibid.*
- ¹⁷⁰ *Ibid.*
- DHSSPSNI (2014) Health Survey Northern Ireland 2012/13.
 http://www.dhsspsni.gov.uk/health_survey_northern_ireland_2012-13.docx [Accessed 11 March 2015]
- ¹⁷² *Ibid.*
- DHSSPSNI (2012) A fitter future for all. Framework for Preventing and Addressing Overweight and Obesity in Northern Ireland 2012-2022. Available from: http://www.dhsspsni.gov.uk/framework-preventing-addressing-overweight-obesity-ni-2012-2022.pdf [Accessed 10 March 2015]
- ¹⁷⁴ *Ibid.*

176 Reported in Furey 2014

¹⁷⁷ Furey 2014

¹⁷⁸ Carney and Maitre 2012

¹⁷⁹ More information available from: http://www.eui.eu/Research/Library/ResearchGuides/Economics/Statist ics/DataPortal/EU-SILC.aspx [Accessed 11 March 2015]

- ¹⁸⁰ Finegood, D., Merth, T., and Rutter, H. (2012) Implications of the Foresight Obesity System Map for Solutions to Childhood Obesity. http://onlinelibrary.wiley.com/doi/10.1038/oby.2009.426/full [Accessed 26 March 2015]
- ¹⁸¹ Levein, K., Cashore, B., Bernstein, S., Auld, G. (2012). Overcoming the tragedy of super wicked problems: constraining our future selves to ameliorate global climate change. Policy Sciences 45(2), pp 123-152.

182 See Conglin, J (2005) Wicked problems and Social Complexity. http://cognexus.org/wpf/wickedproblems.pdf

¹⁸³ *Ibid.*

- ¹⁸⁴ Head, B. (2008) Wicked Problems in Public Policy. Public Policy 3(2). pp 101-118.
- ¹⁸⁵ Purdy et al 2007

¹⁷⁵ Northern Ireland Health Survey 2013/14. Please note that these are preliminary results and have not yet been officially verified. They may therefore be subject to change.