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Author(s): Elizabeth A. Dowler, Moya Kneafsey, Hannah Lambie, Alex Inman and Rosemary Collier

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Thinking about ‘food security’: engaging with UK consumers

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Elizabeth A. Dowler,
Department of Sociology
University of Warwick,
Coventry, CV4 7AL, UK

Moya Kneafsey,
Department of Geography, Environment and Disaster Management,
Coventry University, CV1 5FB, UK

Hannah Lambie
Applied Research Centre in Sustainable Regeneration,
Futures Institute,
Coventry University Technology Park,
CV1 2TL, UK

Alex Inman
Independent Consultant,
Launceston,
Cornwall, PL15 9SL, UK

Rosemary Collier
Crop Research Centre,
School of Life Sciences
University of Warwick,
CV4 7AL, UK

Corresponding author:

Elizabeth Dowler, Department of Sociology, University of Warwick, Coventry CV4 7AL
UK e.dowler@warwick.ac.uk
Fax no: 0044 (0)2476 523497

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Abstract

‘Food security’ has recently gained policy salience in the UK and internationally. Definitions vary, but the term is generally used by policy makers to imply sustained access by all consumers to sufficient food that is affordable, safe, nutritious and appropriate for an active and healthy life. Recent attention partly reflects anxiety over possible resource and environmental instabilities within the food system and the effects of economic recession.

Food prices are often used to signal potential food insecurity; prices have risen recently in Britain as elsewhere, along with increased fuel costs and significant financial and job insecurities. All of these factors are likely to have differential effects on food management in households living in different social and economic circumstances. Recent research using a mixed methods approach explored some of these complexities by engaging with UK consumers to examine people's reactions to increasing food prices, and their views on responsibility for 'food security'. Well aware of increased food costs, most could identify key commodities, and many cited increased oil and input prices as causes; some made links to the larger financial crisis. Few knew the term 'food security'; though most initially interpreted it as food safety and quality, the idea that affordable, healthy food should be available and accessible for all was widely recognised. Many saw this as increasingly difficult for themselves and others in current circumstances and, while acknowledging commercial realities, look to government primarily to secure nutrition and food security for all.

Keywords

food security UK, nutrition security, consumer perceptions, food price

Introduction

Reliable access to and regular consumption of healthy food is recognized as an essential social determinant of health, and public health policy has a long history of involvement in assuring its continuity for the general population. The contemporary food system broadly ensures provision of food of consistent quality and relative cheapness for ever increasing populations through technological, scientific and management advances, although substantial numbers are still too poor to obtain, grow or rear enough food to avoid hunger and malnutrition (FAO, 2009). Nevertheless, growing challenges to the environmental and social sustainability and concentration of power are emerging (Roberts, 2008; Godfray et al, 2010), and, in its quest for driving down costs to consumers, the food system is accused of failing to support nutritional health and wellbeing (Patel, 2007; Lang et al, 2009). Despite movements towards new ways of engaging with the food system, partly out of reaction to these problems (Maye et al, 2007; Kneafsey et al, 2008), few among the general public in Europe are fully aware of expert anxieties, nor the concomitant re-emergence of ideas about 'food security' at

international, national and household levels. This paper draws on recent mixed method research in the UK, employing a 1,000 sample online quantitative questionnaire and 15 deliberative qualitative workshops in urban and rural areas of the West Midlands and South West. We first briefly outline the context of rising food prices and emerging discourses on ‘food security’, before exploring the general public’s reactions to the former, and understanding of the latter, and responsibility for its maintenance.

The background to the research was the recent vulnerabilities of the international food system to short-term shocks as well as to longer term challenges. For the former, the global food price spike of 2007-8 triggered considerable anxiety internationally about civil unrest, and provoked re-emergence of concern over the security of food supply and access, at global and national levels. The reasons why prices rose as fast and as suddenly as they did and remained volatile since, have been much debated (e.g. Evans, 2008; von Braun, 2008; Global Foods Market Group, no date), and probably include systemic factors such as rising oil costs (with significant impact on industrialized farming); droughts in grain producing nations reducing world stockpiles; possibly increased use of crops for biofuel; possibly growing international demand for meat; and almost certainly the collapse of the sub-prime market and thus increased commodity speculation in financial markets (de Schutter, 2010). As a result, the United Nations convened a High Level Task Force in 2008 to coordinate analysis and response (HLTF, 2008) and international meetings and reports (e.g. FAO, 2009) have been echoed at national levels (for instance, in the UK, The Strategy Unit, 2008; Ambler Edwards et al, 2009.) Longer term concerns about food system sustainability have focussed on the current and future impacts of climate change, the end of affordable fossil fuel-based energy and global population growth. A major collaborative international report presenting radical, agro-ecological approaches (IAASTD, 2008), has been followed in the UK by the recent Foresight Report, also international in scope, which is rather more focused on technological solutions (Foresight, 2011). In all of these, the seeming intractability of continuing food inequality and malnutrition are also discussed.

Since the UK food system is based primarily on industrialised agriculture and internationally traded foodstuffs, it is vulnerable to the same forces producing shocks as elsewhere, with similar results. In particular, the price of basic UK food commodities and products rose sharply in 2007, and, although the supermarkets kept prices as low as they could – indeed, several compete on low price – the year-on year decline in relative food price seen since the

late 1990s has not returned. Despite some fluctuations and periods of stability, broadly speaking the price of many foods remained higher in mid 2010 than pre-2007. (For instance, eggs were 46% higher, butter 43%, cheese 27%, milk 26%, beef 23%, bread 22% and poultry 17%, although the relative prices of fruit and vegetables declined slightly [Defra, 2010]). Considerable concern has been expressed in the media and by the voluntary sector over the consequences for people in general, and lower income households in particular, since energy costs were also rising and wages and state benefits were not increasing commensurately. Charitable foodbanks report rising usage (e.g. Trussell Trust website)¹ by those needing emergency food help.

Food Security

A renewed discourse of ‘food security’ has emerged, internationally and in the UK, though not without contestation (Patel, 2009; MacMillan and Dowler, 2011); such a notion has a long history and reach (see, for example, Maxwell, 1996). Space precludes elaborate account here (see Maxwell, 2001; Shaw, 2007 among many) but note that early formulation during the 1974 World Food Council in response to production crises and price spikes was rapidly construed as also critical in reducing international hunger and malnutrition. Subsequently, ideas about access (economic and spatial) as well as appropriateness of food, were introduced, with an emphasis on accessing enough food to live an active, healthy life (FAO, 1996). Critical paradigm shifts in approach have been from global to national, household and individual focus; from a perspective on food as primary need to one where livelihood security is seen as key; and from objective to subjective indicators as legitimate sources of causal analysis and policy response (Maxwell, 1996; 2001). Until recently, however, with the exception of the US which has long used household food security indicators to identify households in need of food welfare intervention (Nord et al, 2010), most rich countries governments regarded ‘food security’ as a concern confined to the global south. Certainly within the UK, household food security played no part in policy formulation until the last few years, although the concept was been used, for instance, by a poverty ngo in Scotland to engage local level practitioners and household members in discussions over problematics of the food system (Killeen, 2000). However, food price instabilities and concern over food system social and environmental sustainability have meant ‘food security’ has become

¹ <http://www.trusselltrust.org/foodbank-projects>

legitimate policy focus in the UK (MacMillan and Dowler, 2011), and the definition adopted by Defra (the Department for Environment, Food and Rural Affairs) in 2006 drew on FAO (1996) as: “Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life” (Defra, 2006, p81). The essential mechanisms for ensuring all have access to food in the UK remain: operation of efficient markets in retail and employment, appropriate consumer choice, and a social welfare system which is meant to enable those lacking employment to be able to purchase food. There are echoes in contemporary public health policy in England, which under ‘Change4life’ (Department of Health, 2010) employs a social marketing approach to changing food behaviour, in partnership with the private sector. In practice, neither Defra nor the Department of Health has, nor ever has had, responsibility for ensuring households have sufficient income available for food purchase to fulfil their food and nutrition security needs (although the latter housed the Welfare Food Scheme and now manages ‘Healthy Start’, a food benefit targeted at low income mothers of young children) (Dowler, 2002). In fact, during 2010 there was growing evidence that increasing numbers of households in the UK were unlikely to be able to afford enough safe, nutritious food to meet current guidelines for healthy living (e.g. Dowler, 2010) because they had insufficient ‘economic access’ to be food secure. ‘Consumer choice’ has long been criticized as an effective mechanism for ensuring appropriate food purchase and intake, particularly for those on lower incomes and/or living in areas of multiple deprivation where spatial and economic access to sufficient affordable food for a healthy life can be very difficult (Dowler et al, 2007; Lang et al, 2009, among many).

While ‘food security’ has gained an increasingly significant profile in both academic and policy circles, its connection to public health and what has come to be termed ‘nutrition security’ has been less evident. WHO argues, in its 2000 Plan for Action over food and diet for Europe, that nutrition security in the 21st century depends on production which meets dietary needs, more equal access to appropriate food and control of misleading promotional messages (Robertson et al, 2004), yet few of these elements is evident in agriculture, food or health policies in the UK or in many other European countries. Furthermore, little research has been done into what the general public, whether constructed as economic agents (consumers or shoppers), or as recipients of health promotional activities to encourage or enable eating behaviours closer to recommended practice, think about ‘food security’. This then was the purpose of the present research, undertaken during 2009-2010, against the

background of rising food prices and general concerns over food system sustainability, as well as rising levels of obesity.

Investigating consumers' views: aims and methods

The overall aim was to assess UK consumers' understanding of, and reactions to, changing food prices and food security, and their expectations of government and other actors in the food system. The empirical research, commissioned by Defra, was carried out between July 2009 and July 2010, and used a sequential mixed-methodological approach, involving an on-line quantitative survey and a series of qualitative, deliberative workshops, with consumers who self-identified as 'primary shoppers'. The aim of the quantitative phase was to identify trends in consumer behaviour in relation to food price increases, and preliminary views of food security in relation to broad socio-economic and demographic differentials. The qualitative phase built on the understanding gained, to explore in-depth thinking about, and responses to, rising food prices, and to engage with people's understanding of and reactions to, notions of 'food security'.

An on-line survey method was used in order to obtain reasonable response rates; face-to-face interviewing was ruled out because of time and costs (Braunsberger et al, 2007). A stratified, random sample of the NOP-GfK² Consumer Panel was recruited; this Panel is itself randomly recruited on an on-going basis, to take part in consumer research. The panel includes adults aged 18 years and over from all key socio-economic cohorts, including low income groups; people are asked to identify which of 10 income bands their household occupied; 8% of the total panel population households earn below £7,000 p.a. and 13% between £7,000-£14,000 p.a. The sample for the study was proportionally stratified (using quotas) to be representative of the 18+ primary food purchaser population across several socio-demographic variables, specifically: gender, age, household income, car ownership, household size and geographical location. The unit of analysis was the individual respondent, but the questionnaire, designed by the authors and administered via GfK NOP, obtained data on household purchasing and decision making. It was administered through a secure website, contained 41 questions (including some open-ended answers), and took around 25 minutes to complete. Data collection and analysis were carried out in full accordance with the Data Protection Act and

² <http://www.gfknop.com/>

the Market Research Society's Code of Conduct to guarantee respondent confidentiality; the questionnaire received approval both from Defra Survey Control Unit and the relevant University ethical committee.

Just over 1,000 questionnaires were completed (no refusals); there were slightly more in the lower income groups than in the total panel (23% between £7,000-£14,000 p.a.). Rapid cross-tabulation analysis of the questionnaire results informed the design of the qualitative research phase, which was a series of deliberative workshops with participants recruited in terms of key demographic, life stage, and household criteria thought likely to influence attitudes and behaviours towards components of 'food security' (access, affordability and availability). The sampling strategy was therefore organised firstly, around household income, having dependent children, single households or by location, all factors which the survey had confirmed as relevant to experiencing food insecurity, including those who had recently experienced income change through job loss. Secondly, to satisfy Defra's needs, some workshops were recruited around characteristics Defra had identified in earlier work which segmented populations in terms of views, values and intentions towards environmental problems (Defra, 2008). Where possible, women only, and 'all-white' groups, were avoided.

In total, 15 workshops were run by the authors with main food shoppers, in urban and rural locations in the West and East Midlands and the South West; they involved simple group activities and facilitated discussions. All discussions were taped and videoed (for checking purposes only); tapes were transcribed and explored using thematic analysis.

Survey and workshop results

Table 1 gives the breakdown of the online survey sample [TABLE 1 NEAR HERE] in terms of socio-demographic characteristics; these are broadly characteristic of the UK population, although the sample has more low income consumers, with about a fifth having no car access. For about a quarter, household income had decreased in the previous two years, and around a half said their income had remained about the same. When asked about food expenditure, 12% said they spent under £100/ month, 31% spent £100-£200; 38% spent £201-£400; 13% spent over £400. Although these data represent quick expenditure estimates, the results are reasonably typical of UK spending patterns (in 2009, the lowest decile spent just over

£100/month, and the top decile about £340 a month, on food [ONS, 2010]); spending on food may have of necessity fallen since 2009, as the cost of other household essentials rose.

Food prices: access and affordability

Perhaps unsurprisingly, 90% of consumers in the online survey had noticed food prices rising over the previous two years, 50% saying they had ‘increased a lot’, and, in common with all workshop participants, said most noticeable price increases were for bread, dairy and meat, whichever income bracket or social group they came from. In the on-line survey, 37% said they were finding it more difficult to afford the variety of food they wanted to buy, a proportion which varied by income group: it was 50% for households with income below £14,000 and only 20% for those with income >£41,000³. Indeed, about a fifth of on-line respondents considered the cost of food to be a serious source of stress for themselves and their families; this proportion doubled if respondents were from the lowest income group and/or households with children. Of those noting increasing food prices, 57% had had to make savings on other household items or activities to manage their expenditures; this proportion again varied by income group and presence of children (for instance, only 36% had cut other expenditure to buy food if their income exceeded £48,000). People had cut back in buying clothes and holidays, and nearly three quarters of those making savings were eating out of the home less (see fig 1) FIG 1 NEAR HERE. Almost a third said they had reduced heating or electricity consumption to meet food bills, a proportion which rose to 40% in lower income groups ($p=0.016$). People had adjusted buying habits in various ways: they tried to bulk buy, hunted for bargains or supermarket ‘own brands’ and nearly two thirds mentioned throwing less food away; all such strategies were more likely to be mentioned by lower income households. Nearly a fifth of respondents with children said they (adults) regularly went without food to ensure their children received enough to eat.

Similar comments were made by workshop participants. Several people drew on personal stories of living on restricted incomes, either long term or because of loss of a job, giving detailed accounts of the range of strategies. All spent time looking for bargains, supermarket ‘own brands’ and special offers; some had switched to using discount chains or local markets. People explained strategies for throwing less away (freezing leftovers and portions from bulk

³ all differences cited are statistically significant to at least the 5% level (i.e. $P<0.05$), 95% confidence limits +/- 2% to 3%.

cooking) and reducing meat consumption; many emphasised cooking from ingredients rather than buying ready-made, more expensive, products. For some, feeding themselves and their family was a continual struggle, which they found difficult to articulate even if they were in a reasonably sympathetic group. Those in more rural areas noted additional problems of physical access, and their dependence on cars (their own or friends') to reach shops at a distance. Even those on higher incomes mentioned reducing other expenditure to maintain their food budget, but people on lower incomes clearly had little room for manoeuvre; many were already budgeting very carefully with little other expenditure they could reduce to buy food.

There was considerable discussion of the trade-off people had to make between price and quality: although certain foodstuffs might be cheap, they were seen as low in healthiness, taste and other elements of quality, and to represent poor value for money. Some referred to widespread availability of particular very cheap commodities (examples given were alcohol and chicken) acting as 'loss leaders' to draw shoppers in to supermarkets where value for money was not guaranteed, and parents often regretted the widespread advertising for unhealthy food which added to difficulties of giving their children healthy foods. Many argued that if incomes were to fall further, people would eat even more cheap, unhealthy and lower quality food. In each workshop there were a few participants who grew some food, partly as a way of saving money, partly for enjoyment and trust in the provenance. Indeed, workshop discussions revealed that, whilst price was an inevitable priority for most, it was not to the exclusion of other considerations, in particular food quality in terms of health and nutrition.

Own household food security?

In the online survey, respondents were invited to respond to Defra's definition of food security in terms of their own experiences of being able to obtain enough affordable, safe and nutritious food to adequately feed their households during the previous two years. Only 55% of respondents said they felt able to feed their household adequately all of the time (47% of low income vs 70% higher income respondents), and almost a third of those in low income households or with children said the cost of food was becoming a serious source of stress; almost half the low income householders found it difficult to afford the variety of food they wanted. A fifth felt that finding affordable food within easy reach of their home was an

increasing problem (31% of low income); car ownership only marginally improved the perceived availability of affordable food. There was considerable variation in respondents' confidence in their future household food security, although many thought their food purchasing strategies would soon change, with about half thinking they would spend a higher proportion of income on food, and would be buying different foods to cope with consistent higher food prices (see Fig 2) FIG 2 NEAR HERE.

Why the increase in food prices?

People were asked in both survey and workshops their opinions on why food prices had risen. In the survey, about half the respondent considered they had a good understanding of why, particularly older shoppers, but only a fifth specified reasons when invited to add them. The written responses mainly referred to increased prices for oil/fuel and related costs of transport, or the 'global economic recession': *'The economic crisis which has been fuelled by the credit based financial society that we were encouraged to live in'* (survey respondent), along with mention of 'greed' (applied to supermarkets, politicians, bankers, businessmen) and financial speculation. Similar comments emerged in more nuanced form in the workshops, where supermarket need for shareholder profit was often cited as cause of rising prices in response to system cost increases. Reductions in food production due to climate change and drought received rather less mention, although some were aware of increased costs throughout the food system (production, wages, livestock feed) and the impact of biofuel production. A few survey respondents outlined reasons which mirror official reports:

'In the UK, the weakness of the £ against the euro. Worldwide, and also UK: rise in oil prices, growing affluence of middle classes in e.g. China and India, some poor harvests.' (survey respondent)

A small proportion of survey respondents and many workshop participants thought 'the government' was behind increased food prices, sometimes through policies such as cutting subsidies or the Common Agricultural Policy, and sometimes because of unresolved issues around food imports versus UK self sufficiency, even though people also recognised that government had, in practice, little control over food prices. Nevertheless, when asked specifically about who should be responsible for food affordability, 80% of survey respondents and the majority of workshop participants thought this primarily lay with

government, who they saw as needing to ensure people have access to a wide choice of affordable nutritious food at all times.

Perceptions of 'food security' and responsibility

The actual term 'food security' had very little resonance with the majority of research participants; few workshop participants and only 30% of on-line respondents recollected having heard the term or contributed a definition when invited to do so. The majority of those who did, and most workshop participants, associated the term 'food security' with food safety, hygiene standards and quality control: '*where food is safe to eat*' was a very common response. 'Food safety' itself meant a wide range of things to different people: not genetically modified or irradiated; containing few chemicals or pesticides; not too much salt or calories; free from bacteria or contamination. That food was clearly and trustworthily labelled and tamper-proofed was also often mentioned. Nevertheless, some participants in both research phases conceptualised 'food security' in terms other than as 'food safety'. For example, nearly 20% of survey respondents who gave an answer conceived of it as ensuring sufficient supply to feed global or national populations, and about 6% mentioned household food access. When presented with Defra's definition of food security (see above) of 'availability, accessibility, affordability', workshop participants seemed comfortable with the ideas and were well able to discuss food accessibility and affordability in relation to their households and practices. Food availability was usually seen in terms of what was present in shops, rather than as matters of supply and production, which had little resonance for most participants beyond the biofuels debate. More detailed exploration of views is in Kneafsey et al (forthcoming).

During the workshops, people were asked to locate responsibility for ensuring 'food security' through a simple ranking exercise; every time, and despite considerable discussion, the majority saw 'government' as having most responsibility for ensuring food security. This was particularly the case for 'access' and 'affordability for all', although a few higher income participants thought responsibility for the latter lay with 'people and communities' (that is, people should be able to manage their own household budgets). The complexity of the issues was acknowledged, and limits to what government could actually do were recognised, given private sector centrality in growing, processing, trading and retailing food. Retailers were seen as having some responsibility for ensuring the affordability of food, though, as

mentioned, there was a degree of cynicism as to retailers' motivations and potential commitment to such a public good as 'food security'. Participants were keen on farmers and producers having responsibility for ensuring the availability and quality of food, but none made the connection with government roles in regulating production standards, animal welfare, or food safety. Few ranked 'people and communities' as having responsibility, though some felt consumers could be playing a more active role; the main feeling expressed was of consistent side-lining in terms of power and responsibility, with consumers in fact having very little voice or capacity to effect change.

The attribution of roles and responsibilities within the food system were fairly consistent across different workshops, and thus across all income groups (apart from the exception mentioned) and Defra environmental segmentation groups.

Discussion and conclusions

One key mechanism by which current problems in the food system has been indicated is price: the UK general trend in food prices is upwards, despite the fluctuations described earlier, which marks an end to decades of falling food costs, generally rising incomes and a decreasing proportion of income spent on food even by the lowest income quintile. In the economic climate of 2009-10, as all these trends reversed, 'food security', at national if not household level, re-emerged in policy language if not popular discourse. Of course, food is essentially a private consumption good, public provision in institutions such as schools or hospitals notwithstanding, and notions of 'consumer choice' underpin contemporary UK policy in both public health and food. Thus, engagement with ordinary people to enable their thinking and desires in relation to policy to be taken into account is critical to successful implementation. The research presented here was initiated by the UK Government Department charged with food policy and security (Defra) to discover how people were reacting to increasing food prices and ideas about food security; strikingly, although the work was not structured in these terms, in both the quantitative and qualitative phases notions of 'health' were widely used as a frame to discuss food, food prices and food security. Many respondents in the quantitative phase, and almost all in the qualitative phase, acknowledged the difficulties increasing food prices were placing on their family budgets; they could clearly articulate consequent changes in behavioural practices, and were anxious about likely

outcomes for health and wellbeing. For some, food stress and elements of real food insecurity were already being experienced, especially by those on low incomes, and several expressed considerable uncertainties as to how they would manage in the future as resources got tighter still. The implications for health and wellbeing (Tarasuk, 2001) through not having enough money for appropriate food were clearly recognised by people themselves.

By contrast, while people were well aware of increased food prices and could discuss reasons quite cogently, few were familiar with the term ‘food security’, despite its policy and increasing media salience. When pressed, many initially discussed it in terms of ‘safety’ and ‘labelling’; this is not as surprising as it might at first seem. ‘Safety’ is a legitimate meaning of ‘security’ in other contexts, and the safety of food – that it not be contaminated and be conducive to health – has been a clear consumer concern in the UK as elsewhere in Europe for some time (see Lang et al, 2009; Morgan et al, 2006; Kjaernes et al, 2007, among many). Further, ‘labelling’ makes sense from a consumer perspective: most people purchase most of their food, usually from supermarkets, interrogating labels to a greater or lesser extent, and labels are thus key to ‘food security’ where this is taken to mean the consistency, safety and reliability of food being purchased. Despite people’s suspicions, usually voiced unprompted, about how reliable labelling actually was, their sense of food security clearly came from knowing food was genuine (it was what it claimed to be) and from label legitimacy (that labels were accurate and trustworthy). In addition, most workshop participants showed good understanding of supermarket strategies in terms of stocking, presentation and pricing, and, in workshops where there were participants with relevant professional experience such catering or farming, quite sophisticated discussion of problems and policies in relation to wider issues of availability and food supply as well as access, were generated.

Once presented with Defra’s definition of ‘food security’ in terms of availability, access and affordability for all, most of those surveyed or in the workshops engaged with the component ideas fairly vigorously, and in some groups could demonstrate grasp of the complexities. There was little evidence that respondents were unaware of problems facing the food system, particularly as experienced through rising food prices, or that they were not able to understand the component parts. Rather, it is that people are simply not familiar with the terminology ‘food security’. Indeed, when subsequently asked towards the end of the online survey whether they themselves experienced food security, and in the workshops the extent to which the UK enjoys a state of food security, drawing the Defra definition in both instances,

most were clear that ‘full food security’ had not been achieved, particularly the element of affordability for all.

The issue of responsibility was also critical: there was strong support for government oversight and leadership for all elements of ‘food security’, particularly over ‘access’ and ‘affordability’. Despite some scepticism that it had capacity, willingness or power to take on the role, the majority of respondents in both phases saw it as government responsibility to ensure that basic food needed for health was affordable for all, with many in the workshops calling for government to intervene in supermarket pricing and profit. That government should be ‘in charge’ of food circumstances makes sense of people finding it hard to imagine a future where the food system could be very different – even that prices would continue to rise, let alone that some commodities become unaffordable or unobtainable. Government is seen in this way because of its practical responsibility for national and local retail and food distribution infrastructure, and its moral responsibility for ensuring that the whole population has physical and economic access to food for health.

To the extent that the market remains the means of delivering nutritional health, people will perforce continue to position themselves as ‘economic consumers’ – people who have to buy food at the price they can find in local shops; they thus partially locate responsibility for achieving nutritional security with those who have the power to influence food prices (as well as incomes, outwith the focus of this research). Whilst many recognised supermarkets’ role in setting food prices, they looked to government to exert moral authority over supermarkets, who were seen to be driven by the profit motive rather than care for consumers. Furthermore, considerable research, beyond the scope of this paper but to which some of the authors have contributed (Kneafsey et al, 2008; Dowler et al, 2010), suggests people increasingly seek to express different relationships to food, producers, and the food system beyond the merely economic. Choosing food is both a daily act, embedded in unconscious practice, and a longer term more deliberative process, which contributes to expression of identity, culture and care, and is clearly relational in terms of practice and thinking (Beardsworth and Keil, 1997; Kjaernes et al, 2007; Kneafsey et al, 2008). Nevertheless, while those in this study, as elsewhere, see ‘health’ in wider terms than absence of disease, and food as contributor to health being that which is nourishing, contributing to happiness and general wellbeing (rather than the correct balance of nutrients and components), they also saw sufficiency of income as key to enabling full expression of food security. This was true even for those committed to

own production and creative sourcing through allotments, vegetable box schemes and the like. Public health policy in the UK is exploring new ways to engage with consumers, including interventions in the ‘choice architecture’ which directs behaviours towards healthier options, otherwise known as ‘nudging’ (Rayner, 2011). Effectiveness of such population level activities is under debate (e.g. Marteau et al, 2011) and a recent House of Lords Science and Technology Committee Report (2011) concluded that the evidence supports a range of interventions, including regulation, as necessary to bring about behavioural change. Clearly, the capacity of ‘nudge’ approaches to ensure the affordability of healthy food is also extremely questionable. Food security at individual and household level cannot be left to the market and state welfare (Dowler, 2002; Lang et al, 2009); furthermore, mechanisms have to be found which ensure the voices of those living in food insecurity are heard, not least in challenging notions that ‘food and nutrition security’ can be achieved by informed consumer choice alone.

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Table 1: Online survey respondents: socio-demographic characteristics of achieved sample in relation to Panel population

	18+ primary purchaser population	Achieved sample profile		18+ primary purchaser population	Achieved sample profile
Gender			Car Ownership		
Female	66%	64%	Yes	72%	80%
Male	34%	36%	No	28%	20%
Age			Number of People in H/H		
18-24	9%	9%	1	26%	27%
25-34	16%	16%	2	33%	34%
35-44	20%	21%	3	18%	18%
45-54	17%	18%	4	15%	15%
55-64	16%	16%	5+	8%	6%
65+	22%	20%			
H/H Income			Region		
Up to £14,000	33%	30%	England	83%	83%
£14,001 - £28,000	23%	25%	Scotland	9%	9%
£28,001 - £48,000	29%	30%	Wales	5%	5%
£48,001+	15%	15%	N. Ireland	3%	3%

Figure 1 survey responses: reactions to rising food prices

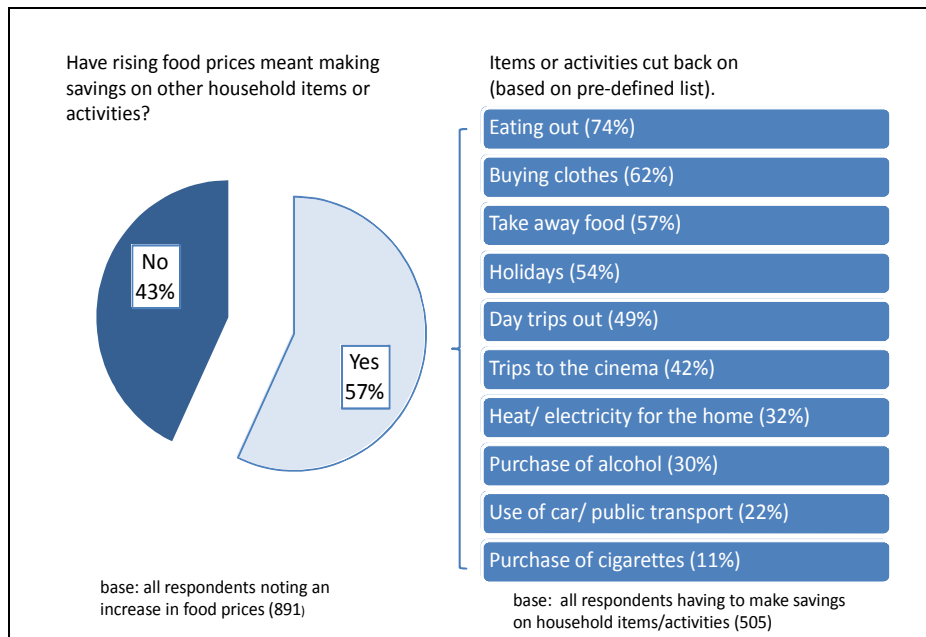


Figure 2 Survey responses: thinking about future food purchasing

How likely is each of the following to happen?	Using a scale of 1 to 5					DK/ na %
	1 %	2 %	3 %	4 %	5 %	
I will be buying different types / cuts of meat to save money	10	10	21	27	21	11
Meat will be an expensive luxury item which I will only buy for special occasions	14	21	22	21	12	11
My household will be eating less variety of food	17	24	25	19	10	5
Food will take up a significantly greater share of my household expenditure	4	9	28	33	21	4

Base: all respondents (1014)