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Life in a 'Food Desert'

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Summary. This paper forms part of the 'Food Deserts in British Cities' project. It reports on the findings of a series of focus groups conducted with residents in the Seacroft 'food desert' (in Leeds) in the period prior to a major improvement in their food retail accessibility. The paper explores individual food shopping behaviour, consumption patterns and attitudes towards a healthy diet and, in so doing, begins to develop an understanding of how different demographic groups adapt to living within a 'food desert'. The focus is on the perceived economic and physical constraints of residents in the area, but interwoven with this are other considerations such as motivation to consider health, family responsibilities and individual smoking status.

1. Introduction

It was only with the publication of the report of the Low Income Project Team (Department of Health, 1996) that the dietary circumstances of those living in deprived areas of British cities with poor access to retail provision of healthy affordable food attracted policy debate in the UK. Such areas became known as 'food deserts' and, as Wrigley (2002) outlines in the introduction to this collection of papers, became an increasingly important component of the social exclusion and health inequalities debates during the late 1990s. In this paper, which forms part of an initial report on the progress of the ESRC/Sainsbury 'Food Deserts in British Cities' project, we leave to Clarke *et al.* (2002) the question of how most appropriately 'food deserts', if they exist, might be identified, and to the preceding paper by Wrigley *et al.* (2002) the issue of whether a non-health-care intervention (specifically a retail provision intervention) can have an effect on the diets of residents living in 'food deserts'. Rather, we aim to develop a deeper understanding of the qualitative nature of 'life in a food desert' using the insights which can be obtained from focus group research methods. Specifically, we concentrate upon the pre-intervention period of the Seacroft study described by Wrigley *et al.* (2002) and attempt to 'triangulate' the findings of that paper developed, as they were, from food-consumption diary and questionnaire information with qualitative insights from a series of focus group interviews with residents of the area conducted in the autumn of 2000 prior to the opening of the Tesco superstore.

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2. The Disadvantaged Consumer

We position our discussion of the qualitative insights from the focus groups within two interlinked literatures—that which initially developed in the UK during the 1980s and early 1990s around the notion of the 'disadvantaged consumer' (see Westlake, 1993; and earlier statements by Davies and Champion, 1980; Bowlby, 1985; Guy, 1987; RTPI, 1988) and that which developed in the late 1990s focused on 'food deserts' and which is reviewed in the introduction by Wrigley (2002). The consensus of those literatures is that 'disadvantaged consumers' experience constrained food choice as a function of low income and restricted mobility, particularly in those areas where food retail access progressively worsened in range and quality terms during the 1980s and 1990s as a result of the effects of out-of-centre superstore development. According to the RTPI (1988) 'disadvantaged consumers' are most likely to be low-income families, those without access to a car and/or resident in areas of poor public transport provision, those (usually women) constrained by caring responsibilities, the elderly, the disabled and, in some cases, ethnic minorities—the implication being that any exploration of the experiences of such consumers must consider simultaneously both their economic and physical access constraints.

As many other papers both in this collection and elsewhere make clear, these economic and physical access constraints of disadvantaged consumers are inextricably linked. Piachaud and Webb, for example, observed that

> We can define consumers with restricted choice as those with low incomes and low mobility. If people have low incomes, it is more important for them to have access to good value food, and if they have low mobility then they need to be able to buy food from shops nearby. But it is often the most accessible shops which are most expensive, and the shops which have low prices are more difficult to get to (Piachaud and Webb, 1996, p. 14).

Likewise, but in more quantitative terms, the report of the *Independent Inquiry into Inequalities in Health* (Acheson, 1998) noted that 68 per cent of households in the predominantly low-income social renting housing sector in the early 1990s had no access to a car compared with just 19 per cent in the owner-occupied housing sector, yet the ability to travel by car on shopping trips had become increasingly vital during the 1980s and 1990s as major food retail developments increasingly focused upon the car-borne consumer. Indeed, the Office of National Statistics (2001) reports that, by the end of the 1990s, 77 per cent of main food shopping trips in the UK were performed by car with just 8 per cent by public transport and 13 per cent by foot—leaving car-less low-income households increasingly disadvantaged in relative terms in respect of physical access to retail provision. Similarly, studies of lone-parent households in the 1990s (Dowler and Calvert, 1995a, 1995b; Dowler, 1997) drew attention to how low income (two-thirds of such households required income support) went hand-in-hand with poorer levels of mobility (levels of car access amongst such households were 40 per cent below the national average) and, in turn, impacted the diets and nutrition of those households.

But it is not these quantitative dimensions of the interlinkages of economic and physical access on which we concentrate in this paper. Rather, we follow in the tradition of previous research on these issues by Piachaud and Webb (1996) and Speak and Graham (1999, 2000) and provide qualitative insights into the economic and physical access constraints perceived and experienced by disadvantaged consumers in an area of compound social exclusion and poor food retail access. In particular, we extract from our focus groups insights into some of the complex coping mechanisms that the often car-less residents of such areas are forced to employ to budget for and access food, and the particular problems of those more acutely disadvantaged by virtue of age, disability or family composition (young children/lone parents, etc.).

Figure 1. Typical smaller food retail outlets in the study area.

3. The Research Area

As noted in Wrigley *et al*. (2002), our study area is made up of four contiguous postcode areas in the wards of Seacroft and Whinmoor, approximately 6 km north-east of Leeds city centre. The area is divided by the main arterial ring road (A6120) that splits it into two unequal parts. The larger western region is known as Seacroft—a highly deprived local authority housing estate. The eastern side is further divided by the A64 (York Road) with Whinmoor to the north and Stanks/Swarcliffe to the south. These areas also mainly consist of deprived local authority housing estates, but there is a smattering of private housing particularly on the northern edge of the Whinmoor boundary. In the 1991 Census, approximately 38 000 people lived within the 2 wards of Seacroft and Whinmoor.

In the pre-intervention period, with the exception of an Asda superstore on the southern fringe of the study area and a small Netto discount store, there were very few food retail outlets in the area and those that existed sold a highly restricted range of fresh or frozen fruit and vegetables: typically, just fresh potatoes and onions and a few packets of frozen peas or mixed vegetables. Most of these retail outlets were a combination of newsagent/off-licence and grocery store that sold tinned and packaged food. From the outside, the majority of these shops appeared boarded up with solid sheets of metal bolted to the windows and doors, giving an austere derelict appearance (see Figure 1). Inside, however, Asian families operated the stores and they were often well stocked with tinned and packaged food and other household goods.

A detailed observation of the study area and the immediate vicinity revealed only 5 'green retailers' (those retail outlets selling a wide range of fresh fruit and vegetables) located within the study area and another 'green retailer' within 500 metres of the study area boundary. These stores comprised 3 greengrocers (although all 3 sold other items alongside their fresh produce), the Netto discount store and the Asda superstore. Figure 2 shows the distribution of these 'green retailers' located disproportionately in the southern part of the Seacroft estate. Residents in both the northern region of the Seacroft estate and in the Swarcliffe/Stanks estates had no local 'green retailers'.

In the pre-intervention period, the nearest superstore for the majority of residents in the study area was Asda at Killingbeck. This store is situated within a retail park (Guy, 1998) just off the busy A64 road to the south of the Seacroft estate. It is not within walking distance for most residents on the estate but is conveniently situated for local buses that operate between Seacroft and the city centre. The nearest large cluster of retail outlets in the pre-intervention period (including several independent food shops, a small Tesco and a Kwik Save) was located at Cross Gates. This

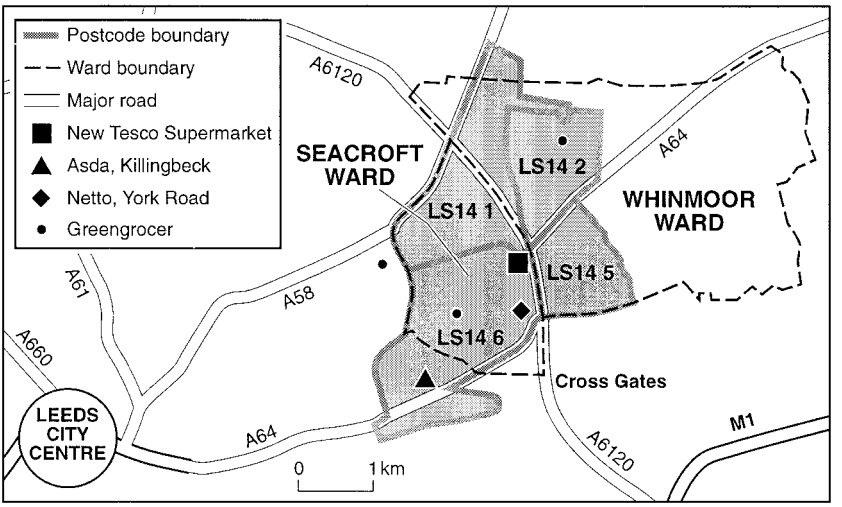

Figure 2. The distribution of 'green retailers' in the study area.

busy shopping centre is more than 500 metres from the study area and not within walking distance for most residents, but again is conveniently situated for bus services that operate around the A6120 (ring road).

4. Methodology

4.1 The Use of Focus Groups

A focus group may be defined as a carefully planned discussion designed to obtain perceptions on a defined area of interest in a permissive, non-threatening environment. It is conducted with approximately seven to ten people by a skilled interviewer. "Group members influence each other by responding to ideas and comments in the discussion" (Krueger, 1998; cited in Hennik and Diamond, 1999, p. 114). The purpose of such a group is to explore a range of perspectives relating to a particular issue and to obtain detailed qualitative data in a context in which demonstrable advantages of qualitative research over quantitative methods are known to exist. In particular, such groups are used in

> situations in which there is little pre-existing knowledge, the issues are sensitive or complex, and the maximum opportunity for exploration and inductive hypothesis generation is desired (Bowling, 1997, p. 312).

Focus group work methods have been employed increasingly since the 1920s when they were originally developed to allow market researchers to gather accurate information regarding product preferences (Robinson, 1999) and were seen as an alternative to other methods of interviewing (Hennik and Diamond, 1999). The use of focus groups is now widespread and they are used extensively within urban and regional research (Bedford and Burgess, 2001; Burgess *et al.*, 1988a, 1988b; Crang, 2001; Goss, 1996; Jackson and Holbrook, 1995; Kneale, 2001) and also, in the context of this paper, in the fields of public health (see, for example, Kennelly and Bowling, 2001; Raynes *et al.*, 2000) and nutrition (for example, Anderson *et al.*, 1994a, Brug *et al.*, 1995).

There are now many standard accounts of how and when to undertake focus groups, their planning and how to analyse the information they provide (for examples, see Basch, 1987; Bowling, 1997; Hennik and Diamond, 1999; Kitzinger, 1994; Krueger, 1998; Morgan, 1998). In general, the first step in planning any focus group work involves defining the research objectives, iden-

tifying the areas to be investigated and constructing detailed research questions which will form the *focus* of the group discussion (Hennik and Diamond, 1999). In turn, this helps to identify who the participants of the focus groups should be. Composition of the groups needs to be carefully considered and must be appropriately balanced in socio-demographic terms—disproportionate representation of certain groups may lead to feelings of social constraints and inhibit discussion (Bowling, 1997). As with the focus groups reported in this paper, single-sex groups in similar age ranges are often selected in order to try and make the groups as permissive and relaxed as possible. In the context of social and health research in local community groups, opportunistic sampling is widely regarded as an acceptable form of participant selection (Bowling, 1997).

In terms of the number of participants in each group, whilst there are no fixed guidelines it is generally acknowledged that no more than about 10 people should be involved, as larger groups may lead to problems with handling of the discussions and subsequent analysis of the material generated. In addition to the participants, the group will also include an experienced investigator who will use the research questions to stimulate and guide discussion, but also to make sure that all participants have an equal and fair chance of expressing their views. It must be remembered that focus groups should not be seen as a formal 'group interview' but as a non-directive interview technique that encourages discussion between participants. The length of time any focus group lasts will depend on the extent of the research questions but also on the subsequent discussion generated between participants; however, 2 hours is often seen as the upper limit.

To facilitate analysis of the information obtained from focus groups, they are usually tape-recorded and sometimes video-recorded in order for transcripts of the discussion to be made. The method of analysis will largely depend on the aims of the research objectives but also on the time, skills and resources available (Hennik and Diamond, 1999). However, generally, as in this paper, content analysis will often be employed to identify and categorise key themes and concepts (Greenhalgh and Taylor, 1997). Methods to ensure the reliability and validity of findings of focus groups have also been developed (Appleton, 1995; Bowling, 1997; Mays and Pope, 1995), principally through the interpretation of the transcripts by more than one person and triangulation with other data sources (Mays and Pope, 1995). These robustness techniques are employed in this study.

The advantages of focus groups are numerous and have been reported extensively (see, for example, Bedford and Burgess, 2001; Bowling, 1997; Hennik and Diamond, 1999; Krueger, 1998; Morgan, 1998; Robinson, 1999; Sim, 1998). They are seen to include the use of group dynamics to identify the most important topics and issues perceived by the focus group participants. This is particularly important given that the relatively unstructured approach of the method allows issues that arise to be probed and clarified and ensures that those participants with poor reading or writing skills are not discriminated against. Underpinning this is the value in pursuing systematically the kinds of research question that cannot easily be addressed by experimental methods (Green and Britten, 1998).

However, focus groups are not without their disadvantages and these must be taken into consideration not only in their planning and utilisation but also in the analysis and subsequent dissemination of their results. They can be time-consuming, difficult to arrange and analyse, and provide opportunities for interviewer bias to intervene. Furthermore, within-group conflicts may arise between personalities and the role of a strong group leader to ensure smooth running of the focus group is essential (Kitzinger, 1994).

4.2 The Structure of the Focus Groups in the Seacroft Study

A series of five focus groups with residents living in or around the Seacroft/Whinmoor

Table 1. Focus group characteristics

Focus group characteristics	Location
Mothers with younger children	Northern part of Seacroft estate Recruited from a mother and toddler group
Mothers with younger children	Southern part of Seacroft estate Recruited from an exercise class
Mothers with school-aged children	Swarcliffe Recruited from a community college
Elderly participants (no mobility constraints)	Whinmoor Recruited from a local day centre
Elderly participants (mobility constraints)	Whinmoor Recruited from a local day centre

housing estates was organised and conducted in autumn 2000 prior to the opening of the Tesco superstore (i.e. in the pre-intervention period). The aims of the focus groups were to examine the factors affecting food shopping and purchasing patterns, the factors affecting food consumption patterns and the issue of healthy eating for residents living in and around what was viewed as a quintessential 'food desert'.

The participants of the focus groups were an opportunistic sample of local residents chosen from pre-existing community groups. The participants were almost exclusively female, reflecting the gender division of those primarily responsible for shopping and cooking in households in the area (see the quantitative survey results in Appendix 1 of Wrigley *et al.*, 2002). The community groups were selected in order to reflect the demographic and geographical mix of women living in the study area with age, residential sub-area and mobility constraints being felt to be important variables that might possibly influence food consumption and shopping patterns. In total, 5 focus groups of 6–10 participants with the characteristics outlined in Table 1 were undertaken.

Selecting the focus group participants in an opportunistic manner enabled us to have cohesive groups who knew each other and were therefore able to speak freely and discuss their points of view openly. However, participant selection in this manner implies that our groups were not 'representative' of the population in any strict sense. Nevertheless, they were drawn from a range of sub-areas and included participants of varying ages, backgrounds and shopping experiences. In addition, allowing participants to explore issues of importance to them, in their own vocabulary and generating their own questions and their own priorities, provided an important 'triangulation' for the findings of the associated quantitative food-consumption diary and household questionnaire surveys.

Focus groups 1 and 2. These groups comprised mothers with younger children, one from the northern and the other from the southern part of Seacroft housing estate. These mothers were attending a 'mother and toddler' group and an exercise class respectively and everyone present volunteered to take part in the focus group ($n = 7$ and $n = 5$). The participants in these groups were aged 18–38 years (most were in their 20s), just under half of them were lone parents and only 2 people were currently in part-time paid employment.

Focus group 3. This group comprised mothers with older school-aged children ($n = 10$). They were selected from a GCSE examination class at the local community college in Swarcliffe, of which everyone present volunteered to participate in the focus group. The women were aged between 26 and 40 years (most were in their mid 30s) and many were in paid employment.

Focus groups 4 and 5. The remaining two groups were conducted at a local day centre in the Whinmoor local authority housing estate and comprised women over 65 years old with and without mobility problems (plus 2 men who expressed a wish for their own shopping behaviour to be represented). All the elderly participants lived alone. The day centre manager selected volunteers from the day visitors who were perceived as: having no mobility constraints (Group 4, $n = 7$); and having mobility constraints (Group 5, $n = 6$). Of those with mobility constraints, two were wheelchair users, one had a walking stick and another was diabetic.

All the focus groups were tape-recorded (with the participants' consent) and transcribed *verbatim*. Names have been changed to protect the anonymity of the participants. The group transcripts were analysed using a descriptive comparative approach. In the first instance, chunks of information were identified that reflected similar issues; these were coded by attaching key words to segments of the text to reflect issues and common themes. The codes were then compared and clustered to form a category, which was similarly labelled. Finally, the codes were compared across focus groups.

The focus group research reported in this paper concentrates on the following research questions:

—What factors affected food shopping and purchasing patterns in the pre-intervention period?
—What factors affected food consumption patterns in the pre-intervention period?
—Was healthy eating an issue?

5. Economic Access to Food

This section presents the views of the different focus groups concerning economic access to food and explores specifically issues relating to cost, quality and store usage.

The experience of economic barriers to reasonably priced healthy food varied according to the demographic composition of the groups. The two focus groups that comprised mothers with younger children had very different shopping and buying patterns from the two groups that comprised elderly women (65 years and over), while the experience of women with older school-aged children lay somewhere between the two. In general, mothers with younger children were overwhelmingly preoccupied with cost. They shopped in the cheaper stores, bought cheaper varieties of food and were heavily restricted by financial constraints. The other age-groups, in contrast, were less concerned with cost *per se*. For instance, the women with older school-aged children, although conscious of cost, maintained that they took into account the quality of the food—often buying slightly more expensive types of food rather than the cheapest foods. The older age-groups did not perceive cost as an issue (often buying pre-cooked meals that were easy to prepare and easy to eat). Instead, they were constrained by personal mobility and the ability to carry food shopping home.

5.1 Women with Younger Children

When asked about where they shopped and why they shopped there, the mothers of younger children mainly shopped at either Asda, Netto or at a local budget freezer store called Jack Fulton. These stores were perceived to be the cheapest. Often the mothers would buy food at the Jack Fulton Freezer Centre on a certain day of the week and then buy their remaining shopping at Asda on another day. This made the most of the freezer centre's daily special offers and the convenience of having a wider range of food under one roof at Asda. Only one person purchased fruit and vegetables from Leeds central city market, because it was seen as cheaper than the supermarkets: however, this was viewed as an oddity.

Most of the women had specific reasons for choosing the stores they shopped at, which revolved around saving money. Jack Fulton was perceived as very cheap and had lots of special offers, while Asda had the 'Farm Stores' (now 'Smartprice') own value brand. Netto was perceived as very cheap

and had a limited range of goods available and so it restricted consumption (and thus saved money). In addition, the location of the Jack Fulton and Netto was such that most women could walk there and back and so save money on bus/taxi fares.

> Places like Jack Fulton's sell frozen food but then it'll have like crisps and stuff like that so you'll get a six pack of Wotsits and it's only exactly what you're gonna get in Asda—it's not like the cheapy horrible crisps—and it can be like 30, 40 pence cheaper than what you're gonna pay at the supermarkets. So obviously I just go look round there, see what I can get, cheaper brand names, before I go to Asda.

It was evident that even among these participants with a low income there was a financial gradient. Those women with partners had more money to spend on food and so preferred Asda and Jack Fulton, whereas those women who were lone parents, none of whom was in paid employment, were concerned with trying to balance their limited budget with family responsibilities and preferred to shop in Jack Fulton and Netto.

Across each group, the limited financial resources were further stretched by the fact that many of the women smoked a packet of cigarettes per day (costing approximately £30 per week). To compensate for this, several of the women skipped meals and would often have coffee and a cigarette for lunch rather than a meal. Notably, one 19-year old called 'Caz' (not her real name) and who lived with her 3-year old daughter, was not in paid employment and received '50-odd pounds a week' in benefit payments. She smoked heavily and so £30 of her income was spent on cigarettes, approximately £15–20 on food (mainly from Netto) and the rest on bills and other items. On a good week, she may have the 'odd couple of quid leftover to buy sweets for the kid'. The difficulties associated with trying to survive on such limited resources were evident when discussing her shopping patterns.

> Caz: There is a lot of stuff in Asda that is cheap but I prefer going to Netto's because I know it is a bit cheaper, and I ain't gonna fork out on a lot of stuff. I've only got 50-odd pounds a week and I've got a house to keep. I am on me own [with her daughter]. I find it easier to go up there and walk back and all that stuff, so don't have to pay taxi fares.
>
> I mean if I had a certain amount of money each week to go do a proper shop in a different supermarket then, I probably would but I haven't, so I can't … At Netto's I can do a full shop for like 15, 20 quid, so I won't go to Asda with 20 quid cos I know I won't get half as much as what I would up there.
>
> Jane: I only go to like Asda and Tesco's because I'm with somebody, and we can afford to.
>
> Jill: That's probably the same in my case, I mean if I were on me own I probably would shop at Netto's all the time. But because I'm with somebody and that person works, then obviously, do you know what I mean, I could afford to get a little bit better things sometimes and go to another shop and like have more choice. But if I were on me own, which I used to be, well yes, I would go to a cheaper shop, basically, cos its quantity.

When asked what influenced the foods they bought, mothers with younger children were more influenced by financial constraints, special offers and what the family would eat, as well as convenient foods to cook. Without doubt, money was the main controlling factor set within the broader constraints of what each family member would eat.

> Lee: What I know the kids'll eat.
>
> Jill: Special offers or the money.
>
> Jane: Yeah, yeah.
>
> Anne: Special offers.

Caz: Special offers, definitely, cos theres summat going cheaper than what it normally is I'll pick it up.

Anne: I like it if it's a buy one get one free.

As money dictated what they would buy, they preferred to buy cheaper foods such as frozen beef burgers and sausages rather than more expensive pieces of fresh meat. Potatoes were also very popular, especially frozen chips. Several mothers complained that their children were 'fussy eaters' and that if they bought anything different they would not eat it, so it was viewed as a waste of money (and energy). Consequently, the women tended to buy the same types of food every week. The main exception to this was to buy whatever Jack Fulton had on offer that day or week.

> [Referring to Jack Fulton] My kids like the variety of special offers as well. They'll get different crisps each week cos it just depends what's on offer. I think I'd tend to buy same thing over and over again if I went to one supermarket each week and I only stayed there.

When asked about what types of food they ate, very few of the participants mentioned pasta or rice, and meals seemed to consist of a processed meat product with potatoes and vegetables. Foods such as pies, beef burgers, sausages, pizzas, baked beans and chips were staples. One mother had made a conscious decision not to give her children chips every day and so had tried to introduce stews and corned beef hash as a cheap healthy alternative, while others were less motivated and seem content to give the children what they wanted. A few women with toddlers bought bananas and yoghurts but those with slightly older children (primary school age) seemed to have stopped doing so.

5.2 Women with Older School-aged Children

The group of women with older school-aged children appeared to be in some form of 'transition'. In the past, they had shopped at Jack Fulton and Netto, but now most preferred to shop at either Asda or Tesco stores, enjoying the convenience of having a wider range of food under one roof and what they perceived to be better-quality foods. Financial considerations were still important but they now had the opportunity to purchase healthier and higher-quality foods. Several Tesco and Asda shoppers claimed to economise by purchasing the supermarkets own-branded goods in an attempt to keep cost down but at the same time purchase good-quality food. In contrast to the other focus groups, these participants discussed fluctuations in the amount of money available for food (which in turn influenced their food consumption and shopping patterns) and references were made to 'good' and 'bad' times as well as to whether or not they were in paid employment.

Diana: I like branded goods, but I know if I can't afford the branded ones, like coffee, Asda's own might not be quite as good but it's alright, you'll survive. It's cheaper. That's why I do that.

Val: Same as anywhere, Tesco's own stuff, that's nice enough.

Denise: That's why you work, isn't it? So you can get the better things?

Many of the participants claimed that shopping at budget stores was a 'false economy' because they either bought tins of food that were not eaten or doubled up on their shopping because the range of food was not adequate. This was in marked contrast to the mothers with younger children who frequently shopped at a budget store one day of the week and a superstore the next day in order (they claimed) to save money.

Jo: Do any of you ever go to Lidl, places like that?

Anne: No, not really cheap supermarkets.

Diane: I found that it's a false economy, 'cos you end up buying loads of tinned food that you're never re-

ally going to eat anyway, and it's not the stuff that you really want.

Anne: I tried it, but you spend all your shopping money there and then have nothing. There's not much choice, is there? There's not everything there that you need, so you tend to go there, and you think 'Oh, might as well get this'. Then you sort of like double shopping then.

Lynn: I got tins of spaghetti from Netto's, for the children, I thought 'I'll go there and save some money', only nine pence but they went, 'Can't eat this!'.

As well as not providing a financial benefit, budget stores were also criticised for their perceived lack of quality. The issue of 'quality' was hotly debated within the group with several participants claiming that budget stores were unable to offer high-quality food, especially Jack Fulton freezer stores. One person (whose husband was an area manager for Lidl) disputed this and felt that stores such as Lidl and Netto did provide good-quality food and that it was due to ignorance that people thought otherwise. In general, participants felt that budget stores were neither economical nor able to provide good-quality food.

I do like quality, though, I mean it's things like beef burgers. You might be able to go in Jack Fulton's and get 15 for 50 pence because that'll do us twice. But I would rather have 4 for a pound and know that they were 100 per cent beef, and read the ingredients and know what was in them. So quality's important.

As quality was perceived to be important, then slightly more expensive food choices were made that reflected a healthier eating style. For example, although processed meat with potatoes/chips and vegetables were still popular, this group of participants also claimed regularly to eat pasta and rice dishes. Of the five focus groups, only these participants claimed to eat such foods which, as well as being relatively healthy, were also perceived to be cheap and easy to prepare and cook. Several of the mothers felt that convenience was also important, especially as they were in paid employment and older children often had activities in the early evening to attend.

A big bag of rice—it doesn't cost anything, and it goes forever and pasta, and that. We didn't used to cook pasta at one time, but now, we eat lots.

When you've got kids and you've got to work, and you've got that many things to do, you need something quick. It takes hours to prepare a decent meal, a healthy decent, home-cooked meal.

A wide range of factors influenced the food consumption patterns of these participants including: financial considerations; healthy eating considerations; quality issues; and convenience (both in terms of shopping patterns and ease of food preparation). However, it was evident from the focus group discussions that the emphasis placed upon these factors varied not only between individuals but also according to fluctuating individual circumstances.

Karen: It depends on money a lot of the time, if you've had times in your life where you haven't been able to afford to eat properly, then healthy doesn't matter, if you can just eat, then you eat. You just want to stop that hunger, so you eat. But then if you get more affluent or you get better off, then you start eating healthier. You're concerned about this more.

Mags: I think if you're sensible, though, even when there's not a lot of money … you can eat healthily!

Jo: Yes.

Mags: You can. 'Cos I know we've got hardly any money at the moment,

but fruit and and veg is quite cheap.

5.3 Elderly Participants

Almost all the participants bought their main food shopping from nearby supermarkets (either by relying on other people to shop for them or doing it themselves) and the cost of food within these stores was not perceived to be a problem. Budget stores, such as Jack Fulton or Netto's, were not generally used. The convenience of having everything under one roof was seen as more important than the cost of the food within these stores. The choice of supermarket depended upon the person who did the main food shopping. If the person did his/her own main food shopping, then Tesco at Cross Gates was the most popular store. If someone else either shopped on their behalf or took the person shopping by car, then often that third party would choose the supermarket (often Asda at Killingbeck).

Referring to supermarkets in general, participants said

Ed: It's a lot easier when you get it all in one shop and you don't have to get a bag full of stuff and then go round [to other shops].

Doris: I mean, you've got your greengrocers, you've got everything that you need.

Facilitator: What about cost? Is cost important?

Ellie: No.

Doris: Not really.

Molly: Well, yes, yes, more or less.

Irene: No, I just go shopping.

In general, the participants in the older-aged focus groups were not so concerned with the cost of food in a particular store but, rather, how they could get to and back from the food shops (and even how they would walk around the store itself). Those participants that were mobile overwhelmingly preferred the Cross Gates shopping district because of the wide variety of independent and nationally owned stores located on a well-served bus route. The small Tesco grocery store was especially popular because it provided the convenience of having everything under one roof but was not so big as to cause discomfort walking around. It was very common for participants to combine food shopping with having a coffee/tea or doing some other errand.

> Sometimes, I'm sort of sat and I'm thinking 'Oh, I've got nowt to do. Oh, … I'll go shopping'. So I put my coat on and I go down to Cross Gates, and do me shopping and come home. And probably have a coffee while I'm out. Because in Cross Gates you see, you've got the Asda, you've got the Tesco's and the Boots … Wilco's. All the shops.

When asked about influences on what food they purchased, most participants felt they could buy whatever they liked to eat. Money was a weaker determinant. Indeed, the majority of participants were more concerned with convenience, particularly buying foods that were easy to cook and to eat. All of these participants lived alone and pre-cooked fresh and frozen single-portion meals with one or two vegetables were the most popular options. They also spoke about healthy eating and would make a conscious effort to eat fresh fruit for breakfast, particularly bananas or grapefruits, and grill rather than fry foods.

6. Physical Access to Food

This section presents the views of the different focus groups concerning their physical access to food and explores specifically issues relating to mobility constraints, transport and coping mechanisms.

In the pre-intervention period, physical accessibility to food shops was an underlying issue for the residents of Seacroft/Whinmoor. The nearest large superstore (Asda, Killingbeck) was not within walking distance for most people and, as noted above, there were

very few local shops. The nearest cluster of shops that was accessible by car or bus was located at Cross Gates, a high street centre including a small Tesco, Kwik Save, Boots and Woolworth's as well as a wide range of local independent shops. Of course not everyone living within a 'food desert' experiences a similar level of physical accessibility to grocery shops. Those members of the community who have unlimited access to a car or van (predominantly male) may not appreciate the difficulties experienced by other residents. As lack of car ownership is experienced disproportionately amongst lone parents, the elderly, women and the unemployed, it is these people who must develop strategies to cope with trying to buy reasonably priced healthy food.

Reported shopping habits reflected issues of physical accessibility. Focus group participants could be divided into three groups: those with unlimited access to a car (one person); those with limited access to a car—participants who relied upon partners or family to take them food shopping at weekly/fortnightly intervals or do the food shopping on their behalf; and, those with no access to a car—participants could either walk, hire a taxi or take public transport to their chosen retail outlet.

6.1 Elderly Participants

Accessibility was an important issue for both focus groups of elderly participants, regardless of their levels of personal mobility. In fact, both groups experienced 'mobility constraints' such as difficulty in walking long distances and inability to carry heavy grocery shopping bags As noted above, most of the participants relied upon someone else either to undertake their main food shopping on their behalf or to transport them to a supermarket. Very few participants in the focus groups had to do their main food shopping alone. Nevertheless, physical access was cited as the most important reason for choosing their preferred food shop(s), particularly in relation to secondary food shopping (or 'top-up' shopping). The lack of local 'green retailers' in the area meant that almost every participant would have to travel by bus to have access to a wider range of fresh fruit or vegetables. Therefore access was always discussed in terms of their personal mobility (i.e. ability to walk), which in turn affected their ability to catch a bus to and from the local shops (usually Cross Gates shopping centre). Car ownership was not perceived as an issue and nobody mentioned owning a vehicle in the past. This age-group also seemed reluctant to hire a taxi.[1]

The lack of local 'green retailers' in the area meant that elderly participants were heavily reliant on bus (mainly public) transport as walking long distances to and from the shops was not an option. The most frequently cited physical access issues concerned personal mobility in relation to the location of bus stops, the inaccessible design of buses and the attitude of public transport staff. Participants complained that bus drivers, conscious of their tight schedule, got impatient with elderly passengers getting on and off the bus. The cumulative effects of these difficulties meant that very few participants felt confident enough to travel by bus to local shops, thus making them reliant on either the few remaining shops in Seacroft or, as was more often the case, on other people either to take them shopping or to do their shopping for them.

> The access to a lot of these buses is very, very difficult, you know. Especially for the likes of Molly and I. We can't walk very well. Sometimes their drivers are so impatient, they've got a schedule to keep, they want you running off as quick as possible, you know … Very, very hard. That's one of the reasons why I prefer my family to do it, you know. I think it must be at least five years since I was in Leeds.

> Only trouble is that if you live at Seacroft where I do, you've got to carry it all home! So you don't go all that often, do you?

> They take me, because I don't get out, with having a wheelchair, so they take me.

> They have a car, and every time they put my wheelchair in the car, and they take me to the place.

The Asda free-bus drivers were viewed as helpful and several participants spoke of the driver's kindness in carrying their shopping to their front door. However, even travelling on this bus was not possible if you walked with the aid of a stick or frame and the complicated timetable made it difficult to interpret.

> Well they carry the bag to your door you see, the driver gets out and puts your shopping on your door.

> Well I used to get that one [the free Asda bus], but, since I had my hip done, I couldn't carry two bags and a stick, so I had to stop.

6.2 Women with Younger Children/Older School-aged Children

Women with younger/older children did not perceive physical accessibility to be an issue, despite the lack of local shops. There were no comments on the obvious advantages of owning a car, nor were there any audible signs of frustration about restricted access to the household car or van, where there was one. It appeared that having their own transport was not a matter of concern and the routine of travelling either by foot, public transport or taxi to food shops was accepted without question.

Participants with limited access to a car seemed content either to undertake their main food shopping at a time convenient to a third party with access to a car (normally a partner), or to walk, hire a taxi or catch a bus to and from their main food shop. Those who waited for a convenient time to use the household car developed peculiar shopping strategies, where the main food shopping was done in the evening or at the weekend at their partner's convenience, despite most of the women being at home all day.

> Facilitator: So those with a household car, would you use your car to go shopping?
>
> Liz: Yes.
>
> Facilitator: Do you wait for your partners to take you?
>
> Liz: Yes (Laughs)
>
> Julie: At weekend, yes. At the weekend.
>
> Liz: Together.
>
> Tina: Yes, yes.

Those women with no access to a car or van would normally walk, hire a taxi or catch a bus to their main food shop. Many would walk or possibly catch a bus to the shop and then hire a taxi back home.

> I actually walk there and get a taxi back, depends on where I'm going. And if it's warm I like to either get a bus there or walk there. But a taxi back because I've got bags and don't want to carry them all.

The acceptance of lack of access to a car, particularly by the younger women, was surprising. Indeed, it exemplified the relative social deprivation and deep cultural differences faced by these women in an era when over 14 million women in the UK now hold a full driving licence: around 59 per cent of women (Office for National Statistics, 2001). Perhaps one could argue that accessibility is a relative concept and those that live among people who all have poor physical access to food shops (and possibly other services) learn to adapt to their own circumstances to such an extent that they are unaware of the problem. Coping strategies that relied upon other individuals with access to a car for their main shop were in place, while for secondary ('top-up') food shopping participants were content to walk or take public transport to the shops, or not shop at all. Even those individuals who knew no one with access to a car and therefore were unable to travel with a third party coped by either undertaking many small shopping trips themselves or relying upon others to do this

for them. Each participant had developed their own coping strategy that enabled them to purchase food and their perception was that as long as they were fit enough to walk either to/from the shops or to/from the bus stop then physical access was not normally considered a problem. However, longer shopping trips to Leeds city centre or other parts of the city were rarely, if ever, attempted.

It must also be remembered that many of the focus group participants lived near their extended family. For instance, a single mother or lone pensioner without a household car often had family nearby that did have access to transport. These family connections were an integral part of daily life and eased the burden of physical accessibility issues. The working-class culture in Seacroft meant that most participants knew someone that could, if needed, drive them to the food shops. The issue of extended family within a working-class setting may be perceived as being a norm and an accepted form of coping strategy for food shopping. This is made clearer if one examines those participants, especially pensioners, that did not have such family. They felt more vulnerable, slightly resentful, that they had no grown-up children nearby and shopping for food became more of an issue.

> The thing is, when you're ill, you can't, you know, you can't get out [to shop for food]. And that is when it gets difficult. When you're feeling really off colour, you know.

> Well, I've got a good niece that does all my shopping because I can't carry the baskets around … I can't walk very well. She comes every night, you know, or during the day, and she goes out and does the shopping for me. And I haven't carried a basket for months and months and months. I wouldn't be able to stay at home, you know. I wouldn't be able to stay at home on my own, but she always comes. Every day. She's very good.

7. Discussion

This study contributes to the existing literature on 'food deserts' by providing qualitative insight into economic and physical access constraints in the Seacroft study area. It follows in the tradition of previous research on these matters by Piachaud and Webb (1996) and Speak and Graham (1999, 2000), as well as specific work on economic constraints by Anderson *et al.* (1994b), Brug *et al.* (1995), Cox *et al.* (1998) and Wandel (1995), and forms part of the wider triangulation of data collection and analysis undertaken by the 'Food Deserts in British Cities' project. The focus group work reported helps to deepen our understanding of the very different priorities: price/cost, distance, physical mobility, motivation to consider health, family responsibilities and individual smoking status which feature within the food consumption experiences of our 'food desert' respondents.

The findings of this Seacroft research help both to reinforce previously reported results and to suggest new dimensions for study. In particular, the emphasis placed on issues of economic access was not uniform across the household groups. Mothers with younger children were more influenced by 'cost' in terms of where they shopped, what they purchased and what they consumed than other household groups, and this influence deepened in accordance with worsening social circumstances. For instance, those receiving benefits and especially lone mothers were preoccupied by the financial cost of food—the cheaper the better. This was further exacerbated by the fact that many of these women smoked heavily, leaving them desperately trying to buy the cheapest food at budget stores in order to make their money go further.

The issue of the use of budget stores and the factors that are associated with individuals' use of such stores has been considered in the preceding paper which reports analysis of the food-consumption diary and questionnaire survey (Wrigley *et al.*, 2002). The findings outlined in that paper are similar to

those of Dowler and Calvert (1995a, 1995b) whose study of lone parents revealed that respondents who bought in budget stores or whose consumption habits were significantly influenced by their children had, in general, much less healthy dietary patterns. The effect of smoking on shopping patterns and food consumption, however, needs further discussion within the context of the 'food desert' debates Whilst smoking is widely regarded as a marker of deprivation, smoking prevalence is highest among white lone mothers living on a low income (Graham, 1993). It can be argued, therefore, that economic access constraints are more important in white, deprived neighbourhoods such as Seacroft rather than in deprived multiracial communities.

In contrast, economic access constraints were perceived to be less of a problem among the older participants, particularly the elderly, in our focus groups (contrary to the findings of Hare *et al*., 2001). Elderly participants focused their concerns on physical access constraints in food shopping—despite the fact that many of them were able to obtain a weekly/fortnightly lift to a supermarket or to have someone shop on their behalf (see also Wylie *et al.*, 1999). The ability to undertake their own 'top-up' shopping was clearly vital to the self-esteem of these participants. However, the lack of local grocery stores in the study area during the pre-intervention period meant that most had to catch a bus to Cross Gates for food shopping. Hence personal mobility in the form of being able to walk to and from the bus stop, get on/off the bus itself and carry shopping bags became an important issue.

As with the elderly participants, the mothers with younger and older school-aged children frequently knew someone who could, if needed, give them a lift to the supermarket. Importantly, at no point did any member of these groups voice dissatisfaction with not having a car. If their partner had access to a car, then this might be used for the main food shop, but those with no access to a car at all were generally happy to 'make do'. As a result, we suggest that the lack of access to a car differentially observed in 'food deserts', whilst important at a macro level in compounding the problems of poor physical access suffered by the residents of those areas, needs a more nuanced analysis at the individual-consumer/household level. Our focus group participants suggest that it is the nature of what we have termed 'coping strategies' which is critical. Here, we note links to previous research by Caraher *et al.* (1998), Ellaway and Macintyre (2000), Robinson *et al.* (2001) and particularly Bostock (2001) who in a study of low-income mothers, examined the coping mechanism of walking—finding it to be perceived as an inexpensive form of transport which enabled meagre budgets to be controlled, but one which resulted in frequent trips of short duration which caused considerable stress, particularly for mothers with young children. Clearly, the nature of 'coping strategies' in 'food deserts', where opportunities to buy food are limited, is a complex subject which requires much more extensive research—research which we are undertaking in the context of the associated food-consumption diary and household questionnaire surveys.

When comparing the importance of healthy eating between the demographic groups, it was evident that older participants were more concerned with eating a 'proper meal', including potatoes, meat and a vegetable (McKie, 1999). In contrast, the mothers of younger children were less concerned with healthy eating. Indeed, and as Dowler and Calvert (1995a, 1995b) and others have also observed, some of the mothers in our focus groups were clearly prepared to compromise their own diets in order to ensure that their children had enough to eat, or would go without food due to lack of money. This issue—cutting down on what is eaten or the skipping of meals because of budgetary constraints (Lang *et al.*, 1984; Cade, 1992; Maxwell, 1996; Wynn, 1987)—relates to what is more widely described as 'food security' and is an issue which we have explored in greater detail elsewhere in the Seacroft study (Margetts *et al.*, 2002).

Whilst children and the cost of food may

be major influences on what is eaten, this is underpinned by the cultural and social beliefs and aspirations of respondents and their families. Research has shown that foods associated with healthy eating, such as fruits and vegetables, will only be consumed provided that their consumption fits with those beliefs (Barker *et al.*, 1995; Forsyth *et al.*, 1994; Furst *et al.*, 1996; Prevost *et al.*, 1997). Within the context of this study, this is particularly emphasised by older people and their desire to consume a 'proper' meal. However, there was some indication from our focus groups that mothers of older school-aged children were beginning to adopt increasingly healthy eating practices and that their food consumption priorities had changed with age. Some mothers found that, contrary to what they previously believed, they were able to afford and enjoy a healthy and varied diet. It is unclear why reported patterns of eating might change in this way and it cannot be assumed that it was because these residents of our 'food desert' had more disposable income or access to a wider range of stores. But it is clear that these participants in our focus groups appeared to be genuinely interested in obtaining good quality food at a reasonable price and in creating a healthy diet for themselves and their families. Perhaps this was only possible when their children reached a certain age where they become less fussy about what they ate, or maybe it was because these women were more likely to be in stable relationships. Our findings in this regard support work by Dowler and Calvert (1995a) who also noted an age and children effect on the diets of lone parents on low incomes. However, it must be acknowledged that many of the mother's with older children in our focus groups were attending a community college and so may have been disposed towards 'self-improvement' including healthier eating and lifestyle.

In summary, and not unsurprisingly given previous research findings in this field, the way in which respondents of varying ages approached food shopping, what they bought and their coping strategies differed greatly. Younger women, especially those with low incomes, were more concerned about cost rather than the quality of the food bought. This often led to foods being bought exclusively in budget stores, which may have imposed important constraints on what was available to purchase. Older women in our focus groups tended to be less worried about the cost of food and to be more enthusiastic regarding buying foods that would be perceived as healthier. For the elderly, the main issues related to physical access constraints in their food shopping.

The focus group research outlined in this paper concentrates, of course, upon the pre-intervention period in the wider Seacroft study. The task ahead is to use a second wave of focus groups to enrich the questionnaire and food-consumption diary based study of dietary change in the post-intervention period. That is to say, to understand in qualitative terms how life in a 'food desert', specifically it's physical and economic access constraints, has been changed by the opening of the Tesco superstore in the heart of the 'food desert'.

Note

1. The pre-intervention questionnaire data (Wrigley *et al.*, 2002) showed that only 6 per cent of respondents aged 65 years and over hired a taxi on their return journey from the main shopping trip compared with 28 per cent of respondents aged 17–34 years.

References

ACHESON, D. (1998) *Independent Inquiry into Inequalities in Health*. London: The Stationery Office.

ANDERSON, A., LEAN, M., FOSTER, A. and MARSHALL, D. (1994a) Ripe for change: fruit and vegetables in Scotland—current patterns and potential for change, *Health Bulletin*, 52, pp. 51–64.

ANDERSON, A., MACINTYRE, S. and WEST, P. (1994b) Dietary patterns among adolescents in the West of Scotland, *British Journal of Nutrition*, 71, pp. 111–122.

APPLETON, J. (1995) Analysing qualitative interview data: addressing issues of validity and reliability, *Journal of Advanced Nursing*, 22, pp. 993–997.

BARKER, M., THOMPSON, K. and MCCLEAN, S. (1995) Attitudinal dimensions of food choice and nutrient intake, *British Journal of Nutrition*, 74, pp. 649–659.

BASCH, C. (1987) Focus group interviews: an under-utilised research technique for improving theory and practice in health education, *Health Education Quarterly*, 14, pp. 411–418.

BEDFORD, T. and BURGESS, J. (2001) The focus group experience, in: M. LIMB and C. DWYER (Eds) *Qualitative Methodologies for Geographers: Issues and Debates*, pp. 121–135. Arnold: London.

BOSTOCK, L. (2001) Pathways of disadvantage? Walking as a mode of transport among low-income mothers, *Health and Social Care in the Community*, 9, pp. 11–18.

BOWLBY, S. (1985) Don't forget the old and the carless, *Town and Country Planning*, 54, pp. 219–221.

BOWLING, A. (Ed.) (1997) *Research Methods in Health*. Buckingham: Open University Press.

BRUG, J., DEBIE, S., ASSEMA, P. VAN and WEIJTS, W. (1995) Psychosocial determinants of fruit and vegetable consumption among adults: results of focus group interviews, *Food Quality and Preference*, 6, pp. 99–107.

BURGESS, J., LIMB, M. and HARRISON, C. (1988a) Exploring environmental values through the medium of small groups: 1 theory and practice, *Environment and Planning A*, 20, pp. 309–326

BURGESS, J., LIMB, M. and HARRISON, C. (1988b) Exploring environmental values through the medium of small groups: 2 illustrations of a group at work, *Environment and Planning A*, 20, pp. 475–476.

CADE, J. (1992) Diet of adults living in houses in multiple occupation, *European Journal of Clinical Nutrition*, 46, pp. 795–801.

CARAHER, M., DIXON, P., LANG, T. and CARR-HILL, R. (1998) Access to healthy foods: part I. Barriers to accessing healthy foods: differentials by gender, social class, income and mode of transport, *Health Education Journal*, 57, pp. 191–201.

CLARKE, G., EYRE, H. and GUY, C. (2002) Deriving indicators of access to food retail provision in British cities: studies of Cardiff, Leeds and Bradford, *Urban Studies*, 39, pp. 2041–2060.

COX, D., ANDERSON, A., LEAN and M., MELA, D.(1998) UK consumer attitudes, beliefs and barriers to increasing fruit and vegetable consumption, *Public Health Nutrition*, 1, pp. 61–68.

CRANG, M. (2001) Field work: making sense of group interviews', in: M. LIMB and C. DWYER (Eds) *Qualitative Methodologies for Geographers: Issues and Debates*, pp. 215–233. Arnold: London.

DAVIES, R. and CHAMPION, A. (1980) *Social inequality in shopping opportunities, how the private sector can respond*. Cheshunt: Tesco Stores Ltd.

DEPARTMENT OF HEALTH (1996) *Low Income, Food, Nutrition and Health: Strategies for Improvement*. A Report from the Low Income Project Team to the Nutrition Task Force. London: Department of Health.

DOWLER, E. (1997) Budgeting for food on a low income in the UK: the case of lone-parent families, *Food Policy*, 22(5), pp. 405–417.

DOWLER, E. and CALVERT, C. (1995a) *Nutrition and Diet in Lone-parent Families in London*. A Report from Family and Parenthood, Policy and Practice, London.

DOWLER, E. and CALVERT, C. (1995b) Looking for 'fresh' food: diet and lone parents, *Proceedings of the Nutrition Society*, 54, pp. 759–769.

ELLAWAY, A. and MACINTYRE, S. (2000) Shopping for food in socially contrasting localities, *British Food Journal*, 102, pp. 52–59.

FORSYTH, A., MACINTYRE, S. and ANDERSON, A. (1994) Diets for disease? Intraurban variation in reported food consumption in Glasgow, *Appetite*, 22, pp. 259–274.

FURST, T., CONNORS, M., BISOGNI, C. *ET AL.* (1996) Food choice: a conceptual model of the process, *Appetite*, 26, pp. 247–266.

GOSS, J. (1996) Focus groups as alternative research practice, *Area*, 28, pp. 115–123.

GRAHAM, H. (1993) *When Life's a Drag: Women, Smoking and Disadvantage*. London: Department of Health.

GREEN, J. and BRITTEN, N. (1998) Qualitative research and evidence based medicine, *British Medical Journal*, 316, pp. 1230–1232.

GREENHALGH, T. and TAYLOR, R. (1997) How to read a paper: papers that go beyond numbers (qualitative research), *British Medical Journal*, 315, pp. 740–743.

GUY, C. M. (1987) Accessibility to multiple-owned grocery stores in Cardiff: a description and evaluation of recent changes, *Planning, Practice and Research*, 1, pp. 9–15.

GUY, C. M. (1998) High Street retailing in off-centre retail parks: a review of the effectiveness of land use planning policies, *Town Planning Review*, 69, pp. 291–313.

HARE, C., KIRK, D. and LANG, T. (2001) The food shopping experience of older consumers in Scotland: critical incidents, *International Journal of Retail & Distribution Management*, 29(1), pp. 25–40.

HENNIK, M. and DIAMOND, I. (1999) Using focus groups in social research, in: A. MERMON and R. BULL (Ed.) *Handbook of the Psychology of Interviewing*, pp. 113–141. Chichester: John Wiley and Sons Ltd.

JACKSON, P. and HOLBROOK, B. (1995) Multiple meanings: shopping and the cultural politics of

identity, *Environment and Planning A*, 27, pp. 1913–1930.

KEARNEY, M., GIBNEY, M. J., MARTINEZ, J. A. *ET AL.* (1997) Perceived need to alter eating habits among representative samples of adults from all member states of the European Union, *European Journal of Clinical Nutrition*, l51(S2), pp. S30–S35.

KEMPSON, E. (1996) *Life on a Low Income*. York: York Publishing Services.

KENNELLY, C. and BOWLING, A. (2001) Suffering in deference: a focus group study of older cardiac patients' preferences for treatment and perceptions of risk, *Quality in Health Care*, 10 S1, pp. i23–i28.

KITZINGER, J. (1994) The methodology of focus groups: the importance of interaction between research participants, *Sociology of Health and Illness*, 16, pp. 103–121.

KNEALE, J. (2001) Working with groups, in: M. LIMB and C. DWYER (Eds) *Qualitative Methodologies for Geographers: Issues and Debates*, pp. 136–152. London: Arnold.

KRUEGER, R. (1998) *Focus Groups: A Practical Guide for Applied Research*. London: Sage.

LANG, T., ANDREWS, H., BEADLE, C. and HANNON, E. (1984) *Jam tomorrow: a report of the first findings of a pilot study of the food circumstances, attitudes and consumption of 1,000 people on low incomes in the North of England*. Food Policy Unit, Manchester Polytechnic.

MARGETTS, B., WARM, D., WRIGLEY, N. and JACKSON, A. (2002) *Hunger and food insecurity in the UK: is there a problem?* Paper submitted to *British Medical Journal*.

MAXWELL, D. (1996) Measuring food insecurity: the frequencies and severity of 'coping strategies', *Food Policy*, 21, pp. 291–303.

MAYS, N. and POPE, C. (1995) Qualitative research: rigour and qualitative research, *British Medical Journal*, 311, pp. 109–112.

MCKIE, L. (1999) Older people and food: independence, locality and diet, *British Food Journal*, 101(7), pp. 528–536.

MORGAN, D. (1998) *Focus Groups and Qualitative Research*. London: Sage.

MORI (2000) *Transport Preferences among Out of Town Shoppers: Summary Report*. Research study conducted for British Council for Out of Town Retailing, Maidenhead.

OFFICE FOR NATIONAL STATISTICS (2001) *Social Trends 31*. London: HMSO.

PIACHAUD, D. and WEBB, J. (1996) *The price of food: missing out on mass consumption*. STICERD, London School of Economics and Political Science, London.

PREVOST, A. WHICHELOW, M. and COX B. (1997) Longitudinal dietary changes between 1984–5 and 1991–2 in British adults: association with socio-demographic, lifestyle and health factors, *British Journal of Nutrition*, 78, pp. 873–888.

RAYNES, N., LEACH, J., RAWLINGS, B. and BRYSON, R. (2000) Using focus groups to seek the views of patients dying from cancer about the care they receive, *Health Expectations*, 3, pp. 169–175.

ROBINSON, N. (1999) The use of focus group methodology—with selected examples from sexual health research, *Journal of Advanced Nursing*, 29, pp. 905–913.

ROBINSON, N., CARAHER, M. and LANG, T. (2001) Access to shops: the views of low-income shoppers, *Health Education Journal*, 59, pp. 121–136.

RTPI (THE ROYAL TOWN PLANNING INSTITUTE) (1988) *Planning for Shopping in the 21st Century: The Report of the Retail Planning Working Party*. London: RTPI.

SIM, J. (1998) Collecting and analysing qualitative data: issues raised by the focus group, *Journal of Advanced Nursing*, 28, pp. 345–352.

SOCIAL EXCLUSION UNIT (2001) *National Strategy for Neighbourhood Renewal: Policy Action Team Audit*. London: The Cabinet Office.

SPEAK, S. and GRAHAM, S. (1999) Services not included: private service restructuring, neighbourhoods and social marginalisation, *Environment and Planning A*, 31, pp. 1985–2001.

SPEAK, S. and GRAHAM, S. (2000) *Services Not Included: Social Implications of Private Sector Restructuring in Marginalised Neighbourhoods*. Bristol: The Policy Press.

WANDEL, M. (1995) Dietary intake of fruits and vegetables in Norway: influence of life phase and socio-economic factors, *International Journal of Food Science & Nutrition*, 46, pp. 291–301.

WESTLAKE, T. (1993) The disadvantaged consumer, in: R. BROMLEY and C. THOMAS (Eds) *Retail Change: Contemporary Issues*, pp. 172–191. London: UCL Press.

WRIGLEY, N. (2002) Food deserts in British cities: policy context and research priorities, *Urban Studies*; 39, pp. 2029–2040.

WRIGLEY, N., WARM, D., MARGETTS, B. and WHELAN, A. (2002) Assessing the impact of improved retail access on diet in a 'food desert': a preliminary report, *Urban Studies*; 39, pp. 2061–2082.

WYLIE, C. COPEMAN, J. and KIRK, S. (1999) Health and social factors affecting the food choice and nutritional intake of elderly people with restricted mobility, *Journal of Human Nutrition & Dietetics*, 12, pp. 375–380.

WYNN, A. (1987) Inequalities in nutrition, *Nutrition & Health*, 5, pp. 79–94.