

An Initial Rapid Social Marketing Scoping Report

Happy and Healthy in Dudley



The National Social Marketing Centre is a strategic partnership between government and Consumer Focus



The content of this report represents an initial rapid scoping review, to assist ongoing discussion and consideration around a social marketing intervention being developed to improve Fruit and Vegetable consumption in Dudley. At this stage the view expressed are those of the authors and should not necessarily be taken to represent those of the National Social Marketing Centre. Comments, views and further input are welcomed.

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2. Background to the Learning Demonstration Sites

The National Social Marketing Centre (NSMC) was established in 2006, following an independent review responding to the Choosing Health White Paper. Chapter Two of Choosing Health was titled 'Health in a consumer society'. It set out the need for a new approach to the promotion of public health. The strategy proposed a review of the contribution that social marketing could make. In January 2005 an independent national review was commissioned to look at the potential for social marketing and to make recommendations for action. The subsequent independent review, 'It's our Health!' was published in June 2006. The review found that social marketing can significantly improve impact and effectiveness when applied systematically.

The NSMC has subsequently identified ten Demonstration Projects throughout the UK. The aim is to carry out systematic social marketing projects across a range of health interventions, including: breast feeding; alcohol; obesity; and smoking etc., to demonstrate how social marketing can be successfully applied in the UK. These will then be written up as Case Studies on the NSMC Website.

The Nutrition team at Dudley PCT approached the NSMC to discuss the potential of undertaking a demonstration site addressing food access to healthy food in Dudley. The initial hypothesis for this project was the belief that access to healthy food was a driver of consumption. Based on this hypothesis, the Nutrition team submitted a proposal to the Big Lottery Fund and secured funding of between £59,750 to undertake a project.

Social marketing starts by attempting to understand the consumer, in the case of fruit and vegetable consumption, for example, what the consumers' attitudes to diet, food shopping and fruit and vegetables are, and what moves and motivates them.

This report will attempt to further our understanding of the issues and the consumer. At the end of this report, the National Social Marketing Centre will work closely with Dudley PCT to translate the findings into a social marketing intervention.

The report is structured as follows:

- The issue in Dudley
- Learning from national research
- What we already know about fruit and vegetable consumption in Dudley
- Primary research looking at peoples knowledge, attitudes and behaviour in relation to fruit and vegetable consumption
- Pre-testing research to develop our interventions
- Outlining the next steps

3. The Issue in Dudley

Fruit and Vegetable Consumption in Dudley

One in four (25%) of the Dudley adult population reported consuming the Department of Health's recommendation of a minimum of five portions of fruit and vegetables every day (Dudley Health and Lifestyle Survey, 2004). This survey also showed that residents living in the most deprived areas were the least likely to consume five a day at 18%, compared with 31% of the population from the least deprived.

The impact of these low levels of fruit and vegetable consumption is underlined by that fact that research shows that higher consumption of fruit and vegetables is related to reducing the risk of many chronic diseases (Department of Health, 1994. Nutritional Aspects of Cardiovascular Disease; Department of Health, 1998. Nutritional Aspects of the Development of Cancer; World Health Organisation, 1990. Diet, Nutrition and the Prevention of Chronic Diseases). Eating five portions of fruit and vegetables every day could reduce the risk of deaths from heart disease, stroke and some cancers by up to 20%. (Department of Health, 2000. The NHS Plan).

Access to Fruit and Vegetables

Access to healthy, safe, affordable food is a fundamental human need however, research nationally (Social Exclusion Unit, Policy Action Team 13, 1999) and locally (Dudley Food Network, 2003) has shown that this need is not met in some areas. Food access can be identified as the factors that affect a person's ability to obtain food necessary for a healthy diet. These factors can include:

- Physical access (being able to reach the shops)
- Economic access (being able to afford to buy a range of healthy foods)
- Availability of foods (shops that can provide a range of healthy foods)
- Ability (skills and knowledge) to prepare healthy foods. (Stead M et al, 2004. British Food Journal 106, (4): 255-273; Lang T et al, 1999. Health Education Authority, London. Caraher M et al, 1999. British Food Journal, 101 (8): 590 – 609)

4. Background: Learning from National Research

The initial focus of this project was access to fruit and vegetables. The public health nutrition team at Dudley PCT undertook a review of some of the existing evidence in this area to gather insights to aid the development of the project. Some of the key points from the research pieces are summarised below, followed by a summary of learning.

Cummins S, Petticrew M, Higgins C, et al. Large scale food retailing as an intervention for diet and health: quasi-experimental evaluation of a natural experiment. J Epidemiology Community Health 2005; 59: 1035-1040

A natural experiment with large scale food retailing in a 'food retail deficit' area of Glasgow to assess the affect on fruit and vegetable consumption. An intervention community was matched to a control community. F & V consumption (as well as psychological health) was self reported before and after the provision of a new food hypermarket in the area.

There was no evidence of effect on f & v consumption on intervention group. Self reported health worsened and psychological health improved but this was not statistically significant. Therefore there was no evidence that locating new food retail in poorer areas improved food consumption patterns or reduced health inequalities by increasing food access and availability.

White M, Bunting J, Raybould S, et al. Do food deserts exist? A multi-level, geographical analysis of the relationship between retail food access, socio-economic position and dietary intake. Food Standards Agency 2004.

Study undertaken in Newcastle upon Tyne 2000-2002 to determine relationship between dietary intake and socio-economic factors at individual, household and neighbourhood levels by collecting data on food intake and retail access to a 'healthy' and affordable diet in 560 outlets.

Main findings:

- 77% shopped at large supermarkets and 14% at smaller 'discount' supermarkets
- 64% travelled by car; 16% on foot; 14% public transport and 5% taxi
- 18% reported difficulty carrying shopping home – 10 times more common in poorer households than better off households
- Average spend £26 per person per week, only £22 per person per week in poorer/ single parent households
- Higher intakes of f & v in women, older people, BME groups and those spending more on food

- 22 out of 560 shops (4%) sold all 33 items surveyed – multiple/ discount supermarkets
- The full range of ‘less healthy’ items was more available – in 50% of shops than the full range of ‘healthier’ items in 25% of shops
- Affluent areas – more general stores, supermarkets and delicatessens
- Deprived areas – more greengrocers, freezer centres and ethnic food stores
- Cheapest f & v – market stalls and greengrocers
- Cheapest pre-packed items – discount and multiple supermarkets
- Statistical analysis failed to show that price and availability in shops play a significant role in predicting the healthiness of consumers’ diets overall
- 83% of the sample using cars, public transport and taxis travelled outside their immediate vicinity to do their main food shopping
- 16% did their food shopping on foot. Only for this group that local retail provision may be an important determinant of diet. These individuals had a relatively poor diet
- However availability of fruit and vegetables and distance to the main food shop also predicted healthiness of diet – so those able to or prepared to walk further to shops selling a wide range of produce may eat more healthily
- Generally less healthy diets were associated with living in deprived areas and being poorer
- Overall the study was not able to demonstrate an independent relationship between healthy eating and factors relating to food retailing
- As with car users, walkers’ strongest predictors of ‘less healthy’ eating are knowledge, demographic factors – age, sex, ethnicity, children in household, and lifestyle behaviours – physical activity levels, alcohol consumption
- Study provides no evidence to support retail provision as a primary cause of consuming an ‘unhealthy’ diet, although poor retail provision may be a contributing factor in some circumstances such as if individuals are dependent on local food retail provision therefore to tackle food poverty then must tackle knowledge and skills as well as local retail access for those without a car

Cummins S and Macintyre S. “Food deserts” – evidence and assumption in health policy making. BMJ 2002;325:436-8

The authors have explored the use of and lack of empirical evidence on ‘food deserts’ to inform

public health policy – The Food Poverty (Eradication) Bill 2001. Three main studies are often used as evidence that food deserts exist – that people living in poor urban areas cannot access affordable, healthy food. The studies which were undertaken more than 10 years ago now are often cited, for example in a government publication by a policy working group – Low Income Project Team in 1995, the Acheson report on health inequalities in 1998 and the Social Exclusion Unit's report on neighbourhood renewal in 1998. These government reports stated that healthy foods cost more in deprived areas and therefore there is little opportunity for people to make healthy food choices and have highlighted approaches in addressing food access in deprived neighbourhoods.

However, there is little evidence to support these assertions. For example Acheson reports on Mooney's 1990 paper which was based on research in Hampstead, London. The research showed that healthy foods cost more than unhealthy foods in both affluent and deprived areas but that both healthy and unhealthy food baskets were cheaper in deprived areas. Piachaud's et al 1996 paper said that the type and size of shop can determine the price and availability of food and that small shops have a smaller range and are more expensive but it did not compare affluent and deprived areas. The authors do not debate that food deserts do not exist in the UK but points out that there are studies that show conflicting results but raises questions on how the evidence is interpreted and reproduced in health policy.

Wrigley N, Warm D and Margetts B. Deprivation, diet and food retail access: findings from the Leeds 'food deserts' study. Environment and Planning A 2003;35: 151-188

This study assessed the impact of a retail provision intervention on food consumption patterns in a deprived and retail poor area in Leeds. The aim was to establish the extent to which the nutritional quality of low income consumers' diet could be shown to be related to the quality of food retail access.

The area was characterised by poor retail access using the 500M walking distance criterion for defining a food desert as used by government departments – DETR. 70% of the survey households were beyond reasonable walking distance of 500M. A large scale retail (Tesco) was built on the old district shopping centre as part of a urban regeneration scheme in 2000. The study was designed to collect food consumption data before (Wave 1 summer 2000) and after (Wave 2 summer 2001) the completion of the store.

The conclusion was that a large scale food retail showed improvement for some of the population – those with the poorest diets, those who switched stores for their main shop and those who used limited range/budget stores previously. Fruit and vegetable consumption was used a proxy measure for a healthy diet.

However, increases in F & V intake were very small and people still consumed around 2 or fewer

portions per day. Large scale food retailing to address food access issues did not match the local retail strategies as indicated by PAT 13 consultation report of 1999.

Putting food access on the radar, how to target and prioritise communities at risk. Mike O'Neill. National Consumer Council July 2005.

The existence of food deserts is debated. Low income and socially excluded populations are more likely to suffer from food access issues resulting in poorer diets and poorer health. Food access is more than just physical food access but takes into account socio-economic and cultural factors affecting a person's ability to obtain a sufficient adequate food for a healthy diet. Inadequate food access is one factor leading to food poverty. This study explored tools available to help define adequate access and to identify areas most likely to experience food access issues.

Staffordshire City Council in collaboration with NCC and University of Birmingham examined a practical tool to draw together existing datasets to identify areas of greatest risk of experiencing inadequate food access using GIS. The information produced pinpointed the communities likely to suffer from food access issues. These issues were investigated further using focus groups as qualitative data.

- List of registered food premises was obtained using the FLARES database
- Additional data such as postcodes and location of stores were added
- The measure of accessibility of each shop was found by creating isochrones showing areas of up to 10 minutes maximum to walk to a shop. This measure was based on DfT's measure of access to bus services – of 800M – a distance over which a person of average ability can walk in 10 minutes where there is no gradient.
- These isochrones were combined with Census 2001 data to identify the population characteristics within each isochrone
- Census data were used such as areas of multiple deprivation, proportion of households without access to a car/van, proportion of lone pensioner households etc.
- Bus route data and population classed as unemployed datasets were also added.
- The GIS software located areas most likely to experience food access problems by:
 - Measuring the proportion of the population living within reasonable walking distance of an outlet likely to be selling a variety of foods
 - Evaluating the areas most likely to have food access issues according to socioeconomic factors

- Assessing physical factors affecting food access such as bus routes

Once the localities were identified focus groups were conducted to explore day to day reality of food shopping for nutritious foods.

Focus groups showed a preference of shopping at supermarkets as they usually offered more choice and competitive pricing. Local shops were used as top-ups and out of necessity rather than choice. Local shops were seen as offering less choice with the exception of confectionery, crisps and alcohol. The cost of a healthy shopping basket could be found to be 88% more expensive in a local store than in a supermarket. However, people generally in favour of independent specialist shops such as a butchers.

Conclusions are that addressing the impact of food access issues on diet and health is not just recognising physical access. Government policies including transport, planning, health etc can all be changed to support access to healthier foods. The food industry is also in a position to ensure that their practices support healthy food choices.

Stephoe A et al, Behavioural counselling to increase consumption of fruit and vegetables in low income adults randomised trial. BMJ 2005; 326: 855

The study compared brief nutrition counselling with behavioural dietary counselling in groups of low income adults. Participants from a primary care health centre were recruited by invitation. Low income households were defined as \leq £400 per week with 177 of the initial 271 participants in the low income category. 228 participants completing the 12 month follow up. Dietary intake data was collected using DINE, a food frequency questionnaire, blood pressure, weight, and biomarkers of fruit and vegetable intake i.e. beta carotene, alpha tocopherol and plasma ascorbic acid. Baseline f & v intake was at 3.6 portions per day for both assigned groups.

Each intervention was a 15 minute individual consultation. Brief nutrition counselling involved education about the importance of increasing f & v intake, emphasising biological health impacts whilst behavioural counselling was based on the stage of change model and therefore counselling was personalised based on participant's readiness/ motivation to change.

Results found that participants who received behavioural counselling increased by 1.5 portions per day whilst those who received nutrition education counselling increased by 0.9 portions per day. The number of people eating 5 a day increased by 42% and 27% in the behavioural counselling and nutrition education groups respectively.

Beta carotene and alpha tocopherol increased in both groups but beta carotene increased more in the behavioural group. There were no changes in ascorbic acid or urinary potassium excretion.

Brief individual counselling sustained long term changes and increases of f & v consumption corroborated by biomarkers but changes were greater with behavioural counselling.

Neighbourhood Renewal |Fund 'Eatwell in Sandwell' 2004-06: Successes, challenges, learning outcomes and opportunities. Final Evaluation Report, June 2006. Ital Associates: Laura Davis and Veronica Barry. Martin Caraher, City University.

The Eatwell NRF funded project 2004-06 aimed to enhance the availability of healthier foods in neighbourhood shops, improve knowledge on and preparation of healthier foods and to encourage healthier food choices.

There were two strands to the project: *Food Interest Groups* which were focus groups for sharing experiences and decision making between food businesses, residents, health professionals and community groups and *Shopwell* which looked at improving the amount and variety of fruit and vegetables and to create sustainable healthy neighbourhood retailing.

Ital Associates with input from the Centre for Health Management and Food Policy at City university were commissioned to evaluate and provide evaluation support for the project.

Shopwell:

- Two consultants delivered Shopwell and reported to the Sandwell Food Policy Team. They were Fresh Solutions and Business Management Consultants Ltd
- Identify, shortlist, assess and select shops
 - Shops were selected based on appearance, parking, flow of pedestrian and vehicular traffic, potential flow of pedestrian traffic, size of premises, general impression, potential, local competition and presence of a school.
 - Consultants identified those that had a realistic chance of developing a sustainable fresh produce section and achieving sales in the region of £500 per week.
 - 6 shops were identified, only 4 were involved as the other 2 shops underwent management handover during the project.
- Establish supply
 - A local wholesale fresh produce supplier was identified who was willing to work on the project offering frequent deliveries of good quality fresh produce. Incentives were provided to the supplier until shops reached a sustainable level of sales.
 - The supply to two shops continued as they met requirement of minimum order of £50 per delivery.
 - Other shops used local cash and carry.
- Training and support in fresh produce retailing and business management
 - BML developed and delivered a business skills training manual equivalent to NVQ 2-4. Training aimed to help each business understand how they could benefit financially and how the project would benefit the local community.
 - Training included: management training, fresh produce training – display techniques,

ordering process, merchandising – storage, handling and wastage etc

- Manual included merchandising, customer care, shop layout, display, and legality and quality issues.
- Training issue identified by consultants were that essentially the shopkeepers needed to be trained as greengrocers which proved to be more difficult than anticipated. Profit motive was not enough.
- Capital funding for physical shop improvements
 - £3000 per shop – prominent display, lighting, packaging, scales, signage, computer software for labelling, fax machines for ordering, publicity and promotional materials.
 - Money used as incentive to get shops on board and committed to 6 months involvement.
- Link into FIGs
 - For example joint working linking FIGs with shops through taster sessions.

Monitoring and evaluation –

Records of volumes and value of sale with purchases compared with baseline values in Apr 05 – Mar 06 were collated.

Results were based on two shops with fresh produce supplied by the wholesaler and one other which was supplied through various avenues. All three shops showed an increase in volume and value of sale over baseline particularly between the Oct – Dec period and doubling in value and volumes on average in the year. There were vast differences in results depending on seasonality.

Impact on sales and accessibility of healthy food choices –

All 4 shopkeepers involved agreed that sales were increased and some felt it had a positive impact on the overall sales of the shop. Customers reported a change in shopping habits and were positive about the shop's quality and price. Some customers stated that were eating more fruit and vegetables but others who already ate fresh produce habitually felt that they were not eating more but were taking the advantage of being able to shop locally.

The turnover in three participating shops was reported to have had healthy increases in sales and volumes but had not met targets set at the start of the intervention and some increases were not sufficient to sustain regular wholesale delivery.

A Healthy Diet – Accessible to all? Dudley Food Network, July 2003. Sally Jackson and Trish Bussell, Dudley Health Authority.

This piece of research was jointly funded by Dudley MBC and Dudley Health Authority in 2000-2002. The aim of the study was to explore the effects and levels of food deprivation in Dudley and

determine how to address problems relating to access to good quality, affordable, wholesome food. Participatory appraisal techniques were used to engage with different communities (10 different areas) across the Borough to gain information and as a way of public consultation.

The research demonstrated that people in Dudley had mixed and often confusing messages about what a healthy diet is although they were aware of factors affecting their food choices. In relation to reasons for not choosing a healthier diet this includes factors such as children's preferences 'pester power', taste, habits, affordability, food information e.g. food labels, media messages, education and cooking skills.

The research also identified issues around access to healthy foods and people in Dudley felt that attributes of local shops can affect access including choice, affordability, and quality. Other factors affecting access to healthy foods include concerns with waste, transport to shops, also the local shop's surrounding area including the number of takeaways and safety of the environment. People also felt that they would eat more healthier food if it was more convenient, change their diet if they had more money, the cost of food was more important than health, healthy foods cost more than other foods, local shops were more expensive than town centre shops or supermarkets and were concerned about waste and that school meals were unhealthy.

The local people also provided suggested solutions to some of the issues raised and wanted more info about healthy eating particularly around better education through schools, magazines, tasting sessions and food education in the community. Also some suggestions around improvements in food skills, more money to spend on food, free fruit and vegetables and general support within the community. In relation to local food shops suggestions included more variety, shopkeepers to respond to local needs, shops to sell healthier and fresher foods.

Summary of literature

While by no means an exhaustive audit of all existing literature. The scan of relevant publications highlighted some of the following issues that the learning demonstration site will build on:

- There is little clear evidence highlighting a link between improved food consumption and the location of food retail outlets in deprived areas.
- There is not a clear independent relationship between healthy eating and factors relating to food retailing.
- Analysis has failed to show that price and availability in shops plays a significant role in predicting fruit and vegetable consumption.
- Although the studies fail to produce evidence to define retail provision as the primary cause of low fruit and vegetable consumption, it may still be a contributing factor.

- When addressing food access issues, it must be considered that we must not purely focus on the 'physical' side of access, but also economic, availability and ability.

The review of existing national literature provided a solid foundation on which to develop the social marketing intervention. **One of the most important findings to emerge from this review was that 'access' must be considered in its broadest form.** We must not focus purely on supply-side fruit and vegetable initiatives, but also look at stimulating demand.

Following on from this review of existing literature, the project team explored existing information collected on fruit and vegetable consumption in Dudley.

5. Background: Local Knowledge

Using a range of different data mining techniques, the Public Health Nutrition team at Dudley PCT looked to map out existing knowledge of fruit and vegetable consumption in the area.

The project team undertook an initial segmentation of the area to select three estates to focus on within the borough. The rationale behind this decision was that resources were too limited to focus on Dudley as a whole; in addition, there are clear health inequalities in the region and therefore the team wished to focus on those most in need.

Throughout the scoping stage, the project team followed some of the segmentation principles outlined by Donovan et al¹ in their TARPARE segmentation prioritisation model:

- Total number of people in the segment
- The proportion of **At Risk** persons in the segment
- The **Persuasibility** of the target audience
- The **Accessibility** of the target audience
- Resources required to meet the needs of the target audience
- Equity considerations

The first stage of the segmentation was geographical, with the project team selecting three initial areas to focus on that were selected due; to high levels of deprivation, poor access to fruit and vegetables and low levels of fruit and vegetable consumption:

- Hawbush (Ward – Brierley Hill)
- Gads Green (Ward - St Thomas)
- Fatherless Barn (Ward - Hayley Green)

After further scoping of these areas, the plan was to select one area (using TARPARE techniques) to focus the intervention on and then within that area look to segment the target audience further using a variety of segmentation techniques.

Food retail mapping

After the three initial areas were identified, a list of registered food and drink outlets was obtained from Trading Standards/ Environmental Health locating the food retail outlets within each estate.

¹ TARPARE: A method for selecting target audiences for public health interventions. Donovan, Egger, Francas. Australian and New Zealand Journal of Public Health, 1999 VOL 23 NO.3

The shops were located on a map using mapping software (MapInfo). Small local food retail outlets which were within the 20% most deprived superoutput areas² nationally based on an Index of Multiple Deprivation 2004 and which were located away from other food shops were considered. Food outlets likely to sell a range of foods were selected, whereas other types of outlets such as newsagents and off licences were disregarded. Based on this initial scan of the retail environment in the three areas, the focus was on the following stores:

- M & A Stores, Hawbush (Ward – Brierley Hill)
- Best News, Gads Green (Ward - St Thomas)
- Saul's News, Fatherless Barn (Ward - Hayley Green)

Food for Health Advisors from Dudley PCT then visited the food retail outlets to explore the availability of fresh fruit and vegetables, taking into consideration the range and quality of the fresh produce.

M & A Stores sold a small range of fresh fruit and vegetables but the quality was found to be inadequate and shop owners stated that people just did not buy fresh fruit and vegetables. Best News sold a limited range of fresh fruit and vegetables whereas Saul's News did not sell any fresh fruit or vegetables.

Mapping the Population

Once the three areas and stores had been selected, it was decided that more information about the population groups was needed.

Members of staff from the Transport Planning Team at Dudley MBC used Accession software to create isochrones of 200m, 400m and 600m walking distance for each shop and identified the population based on Census 2001 data living within these areas.

Each food retail outlet within the 600m radius consisted of 900 – 1175 households with an average of 1056 households in each area and a total population ranging from 2159 – 2787 with an average of 2550 residents in each area.

Each area was then characterised by:

- Multiple deprivation being within the 10th decile of the most deprived areas nationally based on the Index of Multiple Deprivation 2004
- Just over a third of households without access to a car or van – higher than the national average of 27%

² Superoutput areas are small geographical units developed by the Office for National Statistics www.statistics.gov.uk after the Census 2001 to provide small area data collection and output. These units provide an improved basis for comparison as they are similar in population size and boundaries are less likely to change than electoral wards.

- Around half of the population had no formal qualifications – higher than the national average of 29%
- Around a fifth to quarter of the population stated that they had a limiting long term illness
-
- More than 4% unemployed – higher than the national average of 3.3%.
- About 10% of households inhabited by lone parent families – higher than the national average of 6.5%

Gads Green and Fatherless Barn had a greater proportion of older people - 10% of the population age 75 years or more, compared with 6% in Hawbush, which is lower than the national average of 7.5%. Gads Green had a higher proportion of the population from Black and Minority Ethnic group of 11.2% - higher than the national average of 9.1% whereas Hawbush and Fatherless Barn were predominantly of White ethnicity with 2.4% and 5.3% respectively. Many of the socio-economic factors and demographic factors stated above may contribute to the likelihood of the area to suffer from food access issues.

2001 Census						
	Gads Green Express (Gads Green)		Saul's News (Fatherless Barn)		M and A stores (Hawbush)	
Total Population in 600m catchments	2159		2787		2704	
Total number of households in catchment	900		1140		1094	
Population 0-15yrs on 2001 census	480	22% of total population	625	22% of total population	706	26% of total population
Households without access to a car	107	12% of total households	434	38% of total households	388	35% of total households
Lone parent households	89	10% of total households	98	9% of total households	183	17% of total households

NB: population given relates to age band 7-22yrs in 2008

The area surrounding M and A stores has the highest proportion of its population aged 0-15. Overall for Dudley at the 2001 Census 25% of households did not have access to a car or van. The 600m area surrounding Saul's News and M and A Stores have a higher proportion of households with no access to a car or van.

Using MOSAIC Data to Understand the Area

To further understand both who is living in the areas and their characteristics, MOSAIC categories were applied to the three areas. Fatherless Barn generally consisted of almost equal proportions of Rustbelt Resilience (23.1%), Industrial Grit (22.1%) and Older Right to Buy (20.8%)

and smaller proportion of New Town Materialism (11.3%). Almost half of the population of Hawbush were mainly categorised as Low Horizon (47.9%) and a just under a quarter New Town Materialism (22.5%) with smaller proportions of Ex-Industrial Legacy (13.5%) and Rustbelt Resilience (10.1%) and over a quarter of Gads Green's population were Ex-Industrial Legacy (29.9%) and under a quarter Low Horizons (23.9%) with smaller proportions attributed as Industrial Grit (11.5%) and Rustbelt Resilience (11.3%).

Although all of these descriptors may not necessarily be relevant to this particular project, they help to develop a picture of the 'type' of people who live in the areas and helped the project team to further their understanding of the customer groups.

Below are the summary descriptions for each category:

<p>'Low Horizons' Hawbush – 47.9% Gads Green – 23.9%</p>
<ul style="list-style-type: none"> ▪ Families with school age children ▪ Few formal qualifications ▪ High rates of unemployment, many stay at home looking after children ▪ Low incomes ▪ Jobs usually semi-skilled and routine ▪ Low level car ownership ▪ Not necessarily an area with acute social deprivation – there are active family and community support networks ▪ Dependent on Local Authority for transport and housing ▪ Budget carefully, enter competitions and respond to 'money off' promotions ▪ Buy a lot of oven ready, microwave meals and takeaways ▪ Little attention paid to healthy eating ▪ Substantial proportion of household expenditure spent on tobacco and alcohol ▪ Prices more important than quality and variety ▪ Responsive to direct marketing from catalogue mail order companies ▪ Life lived solely in the present and the idea of working towards a better future rarely occurs ▪ Generally, people are resigned to their destiny – one of survival and fleeting self-indulgent pleasures ▪ Areas marked with pessimism about life and future prospects
<p>'New Town Materialism' Hawbush – 22.5% Fatherless Barn – 11.3%</p>
<ul style="list-style-type: none"> ▪ Young families living on modern council estates, large proportion of population are single parents and children ▪ Poor qualifications ▪ High levels of unemployment ▪ Jobs mostly routine or semi-routine jobs ▪ Few BME groups ▪ Children make up a high proportion of the total population ▪ Local shops take the form of modern parades selling day to day convenience ▪ Many areas are poorly served by public transport ▪ Much money spent on confectionery, cheap fashion clothing, cinema and video entertainment ▪ Shop at value based supermarkets ▪ Convenience foods are popular

<ul style="list-style-type: none"> ▪ Prefer to order takeaways rather than cook at home ▪ Any sensitivity to healthy eating is slight ▪ See material wealth as a primary goal for personal development and for pleasure ▪ Optimistic people, have not suffered financial and social calamities but far from being wealthy, particularly if have children to support
<p>'Ex-industrial Legacy' Gads Green – 29.9% Hawbush – 13.5%</p>
<ul style="list-style-type: none"> ▪ Declining industrial areas ▪ Poor but stable elderly population in low rise council properties ▪ Large older population, many in retirement or towards end of working lives ▪ Despite continuing economic hardship these are not areas of social deprivation ▪ High proportions in poor health and not able to work due to sickness ▪ Considerable unemployment but some employment in skilled trade, routine and semi-routine jobs ▪ Low levels of life expectancy – this could be due to long histories of employment in dangerous occupations such as mining, ship-building and other heavy industries ▪ Difficult to reach shops which are typically in special neighbourhood centres often incorporating working man's club/pub ▪ Growing levels of car ownership but still have small buses connecting these estates to town and city centres ▪ Large proportion of income spent on alcohol, tobacco, furniture, videos, TVs, audio systems, entertainment outside home and foreign holidays ▪ Lead traditional working life but with low incomes but have less extreme poverty than other types ▪ Discount stores preferred but some do like branded groceries ▪ Car ownership low ▪ Prefer regular routines, averse to change ▪ Inherited working class values maintain a societal order
<p>'Rustbelt Resilience' Fatherless Barn – 23.1% Gads Green – 11.3% Hawbush – 10.1%</p>
<ul style="list-style-type: none"> ▪ Neighbourhoods built to serve small mining or steelworks industries ▪ Since 1930s these areas have become areas of high unemployment ▪ Quality of life improving rapidly ▪ Few ethnic groups ▪ Many teens, relatively few young adults – who tend to move elsewhere in search of improved opportunities ▪ Lone parents with dependent children, poorly educated, few formal qualifications ▪ Traditional brands dominate the selection of goods purchased from local convenience stores ▪ Good market for DIY products, satellite TV and consumption of alcohol ▪ Diet often unhealthy due to large intakes of salt and low consumption of fruit and vegetables ▪ Careful budgeting, search for low prices ▪ Frozen microwave ready meals are popular ▪ Little interest in healthy eating however traditional Sunday roast is still commonplace ▪ Most households will have one car ▪ TV viewing occupies lot of time and also DIY ▪ Seek basic consumption and leisure experiences ▪ Live unadventurous working class lives, rarely crave excitement or new experiences
<p>'Older Right to Buy' Fatherless Barn – 20.8%</p>
<ul style="list-style-type: none"> ▪ Older working age

- Low incomes
- Working in manufacturing industries
- In areas which have traditionally relied on a mixture of mining and large scale industrial plants
- Pleasant unpretentious places to live
- Minority groups are conspicuously absent
- Small-scale council-owned estates, may have exercised right to buy
- Most households contain families, all age groups are represented
- Budget carefully and use discount stores
- Most households have access to one car
- Watching TV is a major preoccupation
- Holidays are taken in the UK

'Industrial Grit'

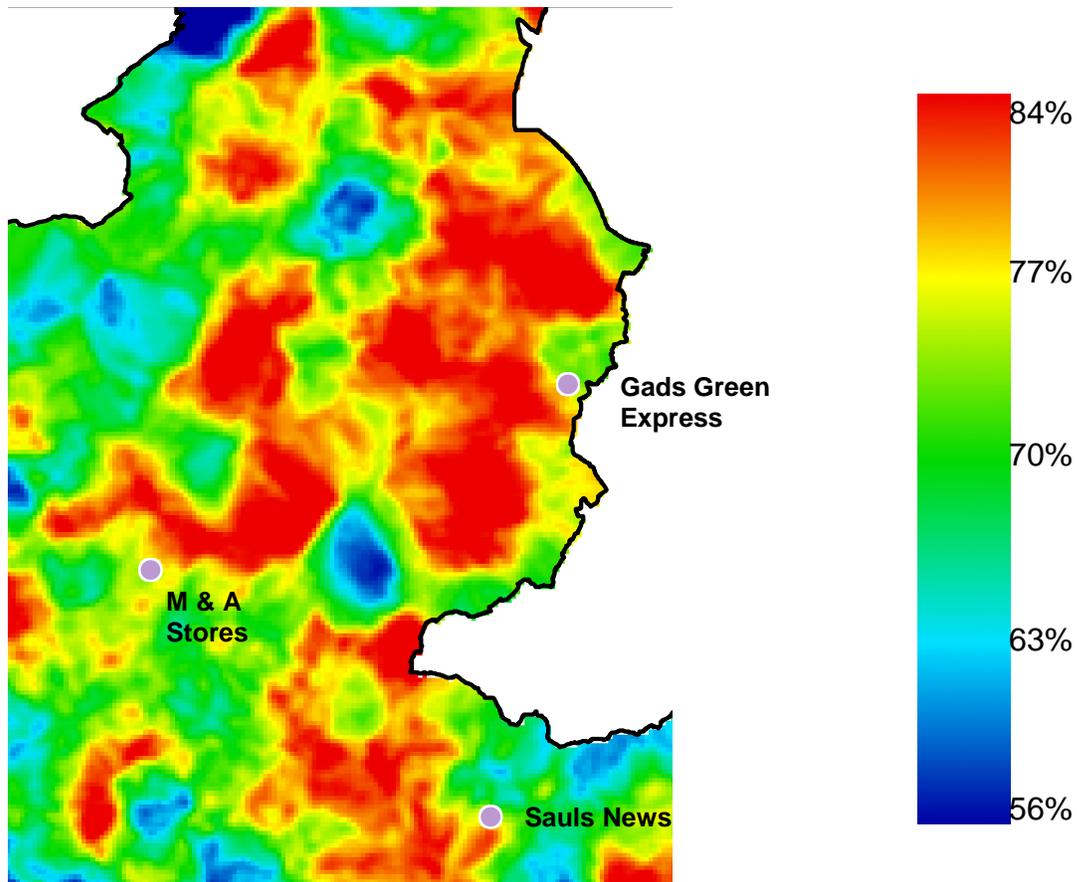
Fatherless Barn – 22.1%

Gads Green – 11.1%

- Full nest families
- Family focussed
- Modest incomes
- Many were not brought up in a culture where education was seen as a prerequisite for a successful career
- Early marriage, an industrial apprenticeship and a mortgage of an older but spacious house set the framework for their lifestyle.
- Often working locally in adequately paid factory jobs, whether as supervisors, skilled craftsmen or routine assembly operators
- Most households have at least one chills and a single car
- The area is marked by an absence of people from BME groups.
- Industrial areas
- Drinking and smoking
- Football matches
- TV watched regularly
- Self sufficient

Fruit and Vegetable Consumption in the Areas

The project team used the data from the Dudley Health Survey 2004 to estimate fruit and vegetable consumption for the walk zones surrounding these three areas. There is no significant difference between them nor are they significantly different to the Dudley average of any level of intake. The diagram below shows the proportion of people in Dudley not eating five portions of fruit and vegetables:



However, as illustrated in the table below, while there is little difference in percentages of those eating less than 5 a-day, there is a tendency for the values to be higher in these areas, with higher proportions eating less than 3 a-day.

Dudley Health Survey 2004				
	Gads Green Express	Saul's News	M and A stores	Other Areas in Dudley
< Five a day	80.6%	74.4%	74.2%	74.7%
< Three a day	52.7%	44.4%	51.3%	38.0%
One or less per day	17.3%	4.5%	11.8%	9.3%

Findings from the Dudley Health and Lifestyle Survey also provided some more background into the motivations behind fruit and vegetable consumption. Linking in with some of the findings from the national literature scan, the points below further confirm that driving factors behind fruit and vegetable consumption are both supply and demand related.

- “Among those respondents who eat less than five portions a day, by far the most common reason given for not eating the recommended amount is ‘I just don’t think about it’ (over a half, 53%, say this).”
- Only 2% suggested that they don’t eat enough fruit and vegetables because they can’t buy it from their local shop.

In addition to this – highlighting the importance of cost – it was also found that:

- “The more deprived the area; the more likely respondents are to say that they can’t afford more fruit and vegetables. While 3% of those living in the least deprived parts of Dudley give this as a reason for not eating the recommended portions, this proportion rises to 11% of residents in the most deprived areas.”

Although there is no current data on fruit and vegetable intake at neighbourhood level, the local survey did show that people living in the most deprived areas were least likely to consume the recommended 5 a day at 18% whilst 31% in the least deprived reported eating the daily 5 a day.

Young People’s Fruit and Vegetable Consumption

Interrogating the Census, MOSAIC, and Dudley Health and Lifestyle survey data yielded some valuable information about our target group; however, these sources were relatively limited when looking at the views of young people within the area.

A recent survey had been conducted with young people in the area: Health Behaviour Survey 2006. This provided useful background information about reported fruit and vegetable intake of school children in the area and offered more evidence that could be used to select which area this project would focus on.

	Caslon Primary School		Sledmere Primary School		Hawbush Primary School	
	Year 5	Year 6	Year 5	Year 6	Year 5	Year 6
Fruit						
Rarely or never	20%	26%	12%	7%	12%	21%
≤ 3 days a week	35%	52%	30%	42%	35%	47%
On most days	45%	22%	58%	51%	53%	32%
Salad						
Rarely or never	48%	48%	35%	35%	49%	39%
≤ 3 days a week	24%	39%	42%	37%	37%	44%
On most days	28%	13%	23%	28%	14%	17%
Vegetables						

Rarely or never	29%	27%	28%	17%	9%	32%
≤ 3 days a week	33%	55%	39%	43%	68%	53%
On most days	38%	18%	33%	40%	23%	16%
Portions of Fruit & Vegetables eaten yesterday						
≤ 1 per day	23%	64%	16%	21%	42%	47%
2-3 per day	18%	12%	33%	57%	33%	37%
<5 per day	59%	88%	67%	84%	86%	89%
≥ 5 per day	41%	12%	33%	16%	14%	11%
2008 data						
<5 per day	78%	70%	73%	68%	80%	92%

The chart below also shows the levels of children who are overweight and obese in year 6 at the three schools in the area.

	Caslon Primary School		Sledmere Primary School		Hawbush Primary School		Dudley	
	Reception	Yr 6	Reception	Yr 6	Reception	Yr 6	Reception	Yr 6
Overweight	27%	30%	25%	27%	27%	39%	25%	35%
Obese	14%	13%	12%	20%	5%	26%	11%	21%

The table below summarises the key findings from the Health Behaviour survey for each of the three areas:

<p>Fatherless Barn <i>Caslon Primary School</i></p> <ul style="list-style-type: none"> • There are approximately 220 Nursery to Year 6 pupils on the school role • Just over 25% of pupils are eligible for free school meals • In 2006/07 Reception had 27% of its pupils overweight and 14% obese and Year 6 had 30% of its pupils overweight and 13% obese.
<p>Gads Green <i>Sledmere Primary School</i></p> <ul style="list-style-type: none"> • There are approximately 448 Nursery to Year 6 pupils on the school role • Just over 35% of pupils are eligible for free school meals • In 2006/07 Reception had 25% of its pupils overweight and 12% obese and Year 6 had 27% of its pupils overweight and 20% obese.
<p>Hawbush <i>Hawbush Primary School</i></p> <ul style="list-style-type: none"> • There are approximately 296 Nursery to Year 6 pupils on the school role • 35% of pupils are eligible for free school meals • In 2006/07 Reception had 27% of its pupils overweight and 5% obese and Year 6 had 39% of its pupils overweight and 26% obese.

Summary of Local Knowledge

The review of local knowledge provided some valuable background information on the target group within the three areas. Using existing sources, the project team were able to start to develop a picture of the three areas, looking at demographic variables, MOSAIC types, estimates from the Dudley health survey in addition to findings from the Health Behaviour Survey.

Some of the key findings emerging from this were:

- All areas have a low fruit and vegetable intake compared to national averages

- Levels of obesity and overweight in children at school were high and fruit and vegetable consumption low
- The most common reason from not eating the recommended 5 a-day among those who eat less than five portions a-day, is 'I just don't think about it'. This indicates that purely a supply-side intervention may not be sufficient.
- Only two percent of the population of Dudley suggested that they didn't eat enough fruit and vegetables because they couldn't buy it from their local shop.
- Although there is no current accurate data on fruit and vegetable intake at neighbourhood level (all estimates provided are synthetic), the local survey did show that people living in the most deprived areas were least likely to consume the recommended 5 a day at 18% whilst 31% in the least deprived reported eating the daily 5 a day.

The Steering Group decided that there was a strong basis in the existing local quantitative data to proceed with the project. However, there was a lack of information about what motivated behaviour towards fruit and vegetable consumption in our target group. In addition, it was felt that more work needed to be done to better understand the customer group – their attitudes to food shopping, their views towards fruit and vegetables and other factors to get a wider view of their lives.

Therefore, it was decided that some qualitative work would be undertaken in the three areas to explore these issues and help gather insight and provide data for segmenting the target group.

6. Primary Qualitative Research

The steering group undertook primary research in the three areas to gain insight into the lives of residents, the main aims were:

- To explore residents' daily routine and understand their attitudes and perceptions of where eating fits;
- To investigate perceptions of fruit and vegetables;
- To look at the barriers to eating fruit and vegetables;
- To uncover opportunities to increase consumption.

Six focus groups were conducted by Alex Christopoulos and analysed with Becky Hitch, involving just under 60 residents within the following three areas:

- Fatherless Barn
- Gad's Green
- Hawbush

Three groups were conducted in December 2007 and three in February 2008. All groups were recorded and transcribed verbatim.

This section summarises the research conducted – for a more comprehensive summary of the findings, please refer to the standalone report: *Understanding attitudes and perceptions of fruit and vegetables in Dudley: A Qualitative study*.

Participants were asked various questions about their daily fruit and vegetable consumption and their responses were broken down into the following areas:

1. Routine
<ul style="list-style-type: none"> • Daily Routine • Where food fits in with daily routine • Breakfast behaviour • Snacking
2. Eating Games – influences on meals
<ul style="list-style-type: none"> • Pester Power – Children's influence over their meal • Parental guilt at a child's diet • Important that children 'eat something.' • Presence of treating • Giving children a choice over what they eat
3. Food Purchasing
<ul style="list-style-type: none"> • Frequency of shop • What types of food do people run out of? • Frequency of fruit and vegetable purchase • Method of transport for food shopping
4. Where do people shop?
<ul style="list-style-type: none"> • Views towards supermarkets • Views towards local Markets • Views towards farmers market and other options

<ul style="list-style-type: none"> Using a mix and match of shops for different things
5. Local shops and local markets
<ul style="list-style-type: none"> What do people buy locally? Views towards local shops Would people buy locally?
6. Why do people shop where they do?
<ul style="list-style-type: none"> Why people shop in Supermarkets Special offers Convenience Method of transport
7. Views towards Fruit and Vegetables
<ul style="list-style-type: none"> Views towards fruit and vegetables Children's views towards fruit and vegetables Perceived benefits and drawbacks of fruit and vegetables Should they eat more fruit and vegetables? Views towards different types of fruit and vegetables More foreign fruit and vegetables available nowadays Seasonal variations in fruit and vegetables
8. Views towards 5-a-day
<ul style="list-style-type: none"> Who eats five-a-day?
9. Barriers to fruit and vegetable consumption
<ul style="list-style-type: none"> Fruit and vegetables can go to waste Poor local access to fruit and vegetables It takes too much time to prepare fruit and vegetables Attractiveness of the competition Lack of skills and education Price of fruit and vegetables Changing family dynamics The impact of smoking and unhealthy behaviour Lack of freshness in fruit and vegetables The positives associated with 'health' are not always dependent on fruit and vegetable consumption Lack of habit or being 'that way inclined' Parents' behaviour impacting on their children.
10. Tactics to increase fruit and vegetable consumption
<ul style="list-style-type: none"> Improving the presentation and appearance Mixing with sweet foods Incorporating with other food Forcing and/or restricting choice Using encouragement Better placement of fruit Providing more variation and experimenting
11. The Role of School
<ul style="list-style-type: none"> Positive activity by schools Issues with the pressure schools exert on healthy eating Eating issues with Children
12. How to increase fruit and vegetable consumption
<ul style="list-style-type: none"> Partner organisations Specific interventions

The points below provide a summary of some of the insights gathered for each section:

1. Routine:

Daily routine was looked at in order to understand how this impacted on their fruit and vegetable consumption. Participants were asked about their food routine, in particular how they structured it around their children and lifestyle. There was a mixed response from participants, some saying they would sit down with their family for a meal and others considering this less important.

Mothers in particular tended to follow a similar routine each day involving; preparing breakfast for their children, transporting them to school, housework and cooking, then collecting their children from school. Those who had retired spoke of more free time in their days which gave rise to opportunities for longer time for preparing food, undertaking activities such as gardening and growing vegetables, and being able to go for more frequent shopping trips.

Shopping habits, breakfast and snacking were additional areas discussed with the participants and their answers varied. Some had a designated shopping day where they would complete food and any other shopping required which, in general, was on the same day every week. Other participants took a more flexible approach to shopping in their routines and would go shopping as and when the opportunity to shop arose. When participants were asked about their breakfast routine there was a mixed response, with a proportion of people saying they tended to skip this meal and placed a low level of significance on eating at this time. Lack of time and lack of appeal were both factors in not eating a daily breakfast. Many participants noted that they snacked on both healthy and unhealthy snacks throughout the day.

2. Eating Games – Influences on meals:

A common observation arising from the focus groups was that, in general, children have a high level of influence over what they eat through 'pester power' tactics. Corresponding with some of the stress that mothers reported in their daily routines, such as getting their children ready for school, pressure is also exerted at meal times. Some mothers felt that children criticise the food they cook and in some cases will refuse to eat a particular meal. In addition, some parents were anxious for their children to eat *something* and this desire to feed them manifested in them serving what their child wanted, rather than what might be good for them. Quarrels at meal times can lead parents to feel that getting their children to eat healthily is a 'battle'.

The stronger and more common views held by parents were that children would be more likely to pick the unhealthy option if given the choice.

If its biscuit or fruit, most child go for biscuits – Halesowen, 13/12/07

A consequence of the increased choice given to children is that it can result in parents having to cook a number of different meals to cater for different tastes.

Some participants felt that what you eat depends on what mood you are in – for example, many cited the desire for warm food in cold weather. Therefore, some felt it was not fair to get children to eat something that they may not be in the mood for and that meals should be determined by what you fancy rather than what you might need.

3. Food Purchasing:

Weekly shopping was the most common frequency for group participants. Most tended to pick up bits on bobs throughout the week; however these were mainly to supplement the one 'big' shop that they did. There was variation in the shopping habits of participants, with some shopping every day or two, and others (although rarely mentioned) shopping monthly. Reasons for frequency included the type of food required and the form of transport taken.

Frequency of shopping depended on a number of different factors. For some it was for convenience; where shopping fitted into their routines. However, for others it was more reactive and shopping was done when food ran out.

It's just when you run out of things – Halesowen, 13/12/07

Shopping frequency also depended on practical transportation issues. For example, those walking or using a bus might only be able to carry the food purchased by hand therefore might have to do regular frequent shops.

When asked what types of food participants ran out of, the response was generally staples of diet that were consumed frequently and by some, in large quantities, such as bread and milk. For others, it tended to be snack type foods such as crisps or chocolate.

Frequency of fruit and vegetable purchase ranged from buying fruit and vegetables daily, weekly, to very rarely at all. Whether someone eats fruit and vegetables regularly obviously affected their frequency of purchase, those who don't eat, tend not to buy at all. Frequent fruit and vegetable eaters tended to shop more frequently to replenish supplies that ran out. However, if due to financial, access or time constraints among others, some participants that ran out of fruit and vegetables had to wait until their next shop to purchase more. Some of those shoppers that tended to buy one shop per week reported that, on occasions, the fruit and vegetables they bought would go off and be wasted – the issue of waste is explored further in this report.

4. Where do people shop?

Almost all participants shopped regularly in supermarkets for their main food shop. Asda, Tesco, Aldi and Lidl were compared for their advantages and disadvantages. Asda was one of the supermarkets most commonly mentioned by participants. Low prices were one of the key reasons cited for shopping there. This could mean low prices in general, but also on particular lines of products such as fruit and vegetables

Some participants felt that the pack sizes supermarkets provide can be too large for single people and that there is not enough provision for people who want smaller portions.

Participants expressed positive and negative views about their local markets. In general, the groups felt that local markets were slowly shrinking and that there was less choice available nowadays. Part of the reason behind this was attributed to the growing dominance of supermarkets in the area.

5. Local shops and markets

The kind of product that participants bought from local shops tended to be those that they ran out of during the week, such as bread and milk. The general feeling was that shopping locally was reactive; to replace something that has ran out rather than a prepared and planned large shop

Participants were asked about their views towards local shops, whether they had issues with the cost of fruit and vegetables and if they would ultimately consider buying produce locally.

In general, participants felt that fruit and vegetables sold in local shops were expensive and of a poor quality. As highlighted previously, price is very important in the shopping experience and people are very attentive to what things costs.

6. Why do people shop where they do?

It was noted that in contrast to local shops and markets, participants viewed supermarkets as being:

- Cost effective
- Good for discounts on fruit and vegetables
- Convenient opening times
- Good presentation of products
- A wide selection of quality goods
- Stores are in convenient locations.

As seen with the presence of price and deals as reasons for using supermarkets, participants perceived 'bargains' as a strong motivator to choosing where to buy their food from. Some participants noted that they shop around to find the best offers, so they are not always loyal to particular stores, but bargain seeking.

You just shop round and find the cheapest one. – Brierley Hill, 06/02/08

7. Views towards fruit and vegetables

There was a mixed response to fruit and vegetables among the participants. Generally, the positive and negative views were balanced, with some participants stating that they 'love' or 'hate' fruit and vegetables. There were also differences in views towards the type of fruit and vegetable.

For example, some participants mentioned that they only liked potatoes or others only liking salad but not vegetables.

Most participants recognised the perceived benefits of eating fruit and vegetables stating that they were 'good for your health.' They were also aware that fresh fruit and vegetables have more advantages than frozen, tinned or microwaveable types and mostly expressed a dislike of the taste of these kinds of fruit and vegetables.

8. Views towards 5-a-day.

Recognition of 5-a-day was almost universal in the groups – most participants had heard of 5-a-day and had a perceived rough understanding of what it meant. Most participants felt the message was to eat 5 portions, although what constituted a portion was unclear. In addition, the mix of fruit and vegetables within the 5-a-day was uncertain – does it mean just 5 fruit?

There was variable achievement of the recommended 5-a-day among participants. In general they viewed 5-a-day as guidance rather than a dictate – so it was not a disaster if it was not achieved.

Yeah, it's a guide. Nobody knows really, I think it's just a guide of what you need to eat. – Gads Green, 06/02/08

Participants were asked to describe what kind of people they felt ate 5-a-day. When doing so, in general, participants described people who were different to them – people that were more affluent, health conscious or a different nationality.

9. Barriers to fruit and vegetable consumption

As highlighted previously, some participants felt that they should be eating more fruit and vegetables; however, intention alone was not necessarily sufficient for action. The focus groups explored what participants viewed as barriers to consuming more fruit and vegetables. The bullets below summarise some of the key findings from this section, however, it must be remembered that these factors do not operate in silo and many are interrelated.

- Fruit and vegetables can go to waste;
- There is poor local access to fruit and vegetables;
- It takes too much time to prepare of fruit and vegetables;
- The competition is more attractive;
- Changing family dynamics;
- Lack of skills and education in fruit and vegetable preparation;
- The impact of smoking making you feel generally 'unhealthy';
- Lack of freshness in fruit and vegetables;
- The price of fruit and vegetables is expensive;
- What some people perceive as 'healthy' (such as weight) is not always seen to be dependent on fruit and vegetable consumption;
- Consumption is not habitual;

- Children are influenced by their parents' behaviour.

10. Tactics to increase fruit and vegetable consumption

Those participants who wanted to increase their or their children's consumption of fruit and vegetables sometimes developed certain 'tactics' to help them. Many of these tactics were aimed at encouraging children's consumption; however, some were also used for adults and can be seen as basic principles that can be applied to different audiences. The list below summarises some of the basic tactics that have previously been applied.

- Improving the presentation and appearance;
- Forcing and/or restricting choice;
- Mixing with sweet foods;
- Incorporating with other food;
- Using encouragement;
- Better placement of fruit;
- Providing more variation and experimenting.

One of the most common tactics mentioned by participants was mixing fruit and vegetables into other meals. In some cases this meant disguising the fruit and vegetables and so that it was not, for example, vegetables that people were eating; but a stew. Many participants felt strongly that this tactic was an effective way to get people to try fruit and vegetables, even if they didn't think they would like them.

Some participants mentioned that they purified vegetables to encourage their consumption. They felt that if their children didn't see the 'bits' of vegetables in their meal then they would be more likely to give them a try.

Some participants tried to experiment with fruit and buy different kinds at different intervals. It was mentioned that this was a good way to get people to try new foods and also increased the chance of people finding new fruits that they may like. However, it is important to take into account that the impact of experimentation may be more food wasted, as observed earlier in the report.

11. The role of School

The research spoke to many parents who discussed their views on how school impacts on their children's fruit and vegetable consumption. Opinion was divided. In some cases, participants felt that the school was doing a good job in increasing consumption among their children; however others felt that there was too much pressure on children and this could have a detrimental impact. Some participants also questioned the tactics that schools used to get children to eat more fruit and vegetables.

Some parents felt that schools were doing a good job in encouraging children to eat more fruit and vegetables. This was explained by a perceived improvement in school dinners, more attention paid to packed lunches, free fruit for key stage 1 pupils and after school clubs.

Several parents felt that there had been an improvement in the quality of school meals, in particular believing that there were healthier options available. In addition, there was more restriction on some of the 'bad' foods such as chips, which could only be eaten every now and again.

12. How to increase fruit and vegetable consumption

The report has highlighted some of the reasons why participants don't eat fruit or vegetables and the barriers for them eating more than they currently do. An intervention aimed at increasing consumption must address or acknowledge these underlying factors to stand a better chance of success. This section looks at some of the more direct and practical suggestions that participants gave that might increase consumption. They have been grouped into:

- Different organisations that could be involved – such as supermarkets or schools;

As might be expected with their heavy reliance on supermarkets, some participants felt that they could play an important role in increasing fruit and vegetable consumption. In particular, some participants spoke positively about trials that supermarkets do on food types, such as displays that let participants try new foods.

Some parents felt that schools could play an important role in helping their children to eat more fruit and vegetables. Part of the suggested activities were rewarding children, better training for teachers, free fruit and restricting alternatives to fruit and vegetables. Another suggestion was that schools could better reward children for good behaviour and encourage them to eat more.

There was some debate about what role school should play in children's fruit and vegetable consumption. Some parents felt quite strongly that schools should be very involved in this area, whereas others saw it as the parents' responsibility.

A paradox emerged when exploring the role of school. Some parents felt that schools should be responsible for feeding children fruit and vegetables; however, as highlighted earlier, they did not like schools pressuring or forcing their children to undertake a behaviour against their will.

Some participants felt that health professionals such as doctors or dieticians could help them eat more fruit and vegetables. In general, doctors were seen as trusted and well respected, therefore some participants felt that information and advice from them might be well received.

Although participants did not expressly reference Weight Watchers as an organisation that could be involved in increasing fruit and vegetable consumption, several female participants were either current or previous members. As noted previously in this report, some participants fruit and

vegetable consumption with losing weight and diets – therefore, a partnership with Weight Watchers may be an appropriate route to achieve this.

There was much debate around who should be responsible for fruit and vegetable consumption. On one hand, participants felt that it was the Governments' responsibility and therefore they should try to encourage people through initiatives such as vouchers. However, on the other hand, some participants believed that it was their own responsibility.

- Specific initiatives that could be administered – such as a fruit and vegetable van or using tokens to incentive behaviour.
 - A mobile fruit and vegetable delivery service
 - Using tokens and/or incentives
 - Advertise the benefits of fruit and vegetables
 - Using television for Children
- More Local supply
- Reduce Costs of fruit and vegetables

Participants noted possible benefits in providing a mobile fruit and vegetable service, using tokens and incentives to encourage children and some felt that there should be better advertising to promote the 'benefits' of eating fruit and vegetables. Some participants felt that athletes might be a good way to promote fruit and vegetables because they fit into the healthy lifestyle that people associate with fruit and vegetables.

Summary of Primary Qualitative Research

The primary qualitative research enabled the project team to develop a more rounded understanding of those who lived in the three target areas. By looking at how people currently live their lives and where fruit and vegetables fit in, the team were in a better position to understand what kind of barriers people face and how an intervention might overcome this.

The research also highlighted the influence that the parent-child dynamic has on fruit and vegetable consumption. Due to the strength of 'pester power' emerging from the qualitative research – interventions need to help parents provide a desirable offer to children as well as stimulating pester demand from children for fruit and vegetable consumption.

The primary research also underlined the importance of a two-pronged approach to fruit and vegetable consumption – focussing on making it easier to buy fruit and vegetables (through availability, price, design of fruit and vegetables i.e. pre-cut) and increasing demand for them (increasing skills, confidence, getting children to pressure parents and reducing waste).

7. Stakeholder Research:

In addition to qualitative research with the target audience, the steering group also decided to gather the views of stakeholders in the three areas. Stakeholder interviews were conducted by Food for Health Advisors in Fatherless Barn, Gad's Green and Hawbush. The range of those spoken to included:

- Head Teacher s
- School Health Advisors
- Learning Link Worker/Family Workers
- Parent Governors
- Local Shop Retailers
- Supermarkets
- Local Churches
- Neighbourhood Managers
- Local Primary Care Staff e.g. Health Visitor, Practice Nurse, District Nurse

The interviews explored the views of professionals who worked in the neighbourhoods to gain an insight into their thoughts and ideas on fruit and vegetable consumption and how to increase this among local residents. The table below summarises the findings:

What do you think are the main issues in this area (health and non-health)?
<ul style="list-style-type: none"> • Areas were characterised by deprivation – high proportion of unemployed, low levels of educational attainment and poor health • A high proportion of smokers • Poor diets, lack of physical activity and obesity were also issues • General apathy, low aspiration and lack of motivation to take up healthier lifestyles or take an interest in their children's health or education were key themes • Anti-social behaviour particularly observed in Fatherless Barn estate and Hawbush • Substance misuse and vandalism (near the local shop, school and youth shelter) mentioned by several stakeholders in Hawbush • Both Gad's green and Hawbush stakeholders viewed alcohol as a possible issue • Racial discrimination and language/cultural barriers were mentioned by a few stakeholders from Gad's Green and Fatherless Barn estate. Fatherless Barn had a large Yemeni community in the area. • Local access to fresh/ healthy foods was also identified as problems in the areas.
What do you think fruit and vegetable consumption is like in the area? What % of adults do you think eat the recommended 5 a day? Why do you think people do not eat the recommended 5 a day?
<ul style="list-style-type: none"> • All stakeholders thought that fruit and vegetable consumption were very low with an estimation around 1-2 portions per day and some people none at all. • Stakeholders then went on to state that diets are largely dependent on junk food, processed convenience meals and that a fast food culture prevailed in these areas. • Some stakeholders said that priorities and money were spent on other items such as cigarettes and alcohol • Stakeholders in Gad's Green and Hawbush mentioned that the people who do eat fruit and vegetables were more likely to be older people.
Why do you think that fruit and vegetable consumption is at its current level in the area?

<p>(Probe: What are the barriers that people face?)</p> <ul style="list-style-type: none"> • Lack of knowledge/ awareness and lack of cooking skills • Convenience foods represent the diets of many • Access to healthy foods is a barriers particularly those who are older, housebound and without a car (although two stakeholders in Hawbush stated that access was not an issue as supermarkets are plentiful and that the high street is full of markets selling fresh fruit and vegetables) • Cost – a perception that healthy foods such as fruit and vegetables are more expensive • Lack of motivation – to buy it, prepare it, be healthy • Dislike the taste including children who are fussy eaters, children who have ‘pester power’ • To a lesser extent – the media/advertising, parenting skills/ family routine
<p>What do you think would help increase fruit and vegetable consumption in this area? What do you think are the solutions? (if you think there are solutions)</p> <ul style="list-style-type: none"> • Education – parents and children either through school curriculum, educational and cooking classes in school and in the community, educate at young age – sessions with antenatal groups and weaning sessions • Improve access – deliveries – but must match quality of supermarket fruit and vegetables and be at a competitive price • Support local food shops - more shops selling fresh fruit and vegetables, limit access to junk food or shops that sell junk food • Working with schools – breakfast clubs, allotments, school meals, tuck shops • National fruit and vegetable scheme in schools to be extended beyond Key Stage 1 • Advertising – further promotion of fruit and vegetables, promotional leaflets, adverts on MTV • Food vouchers – perhaps tie in with Healthy Start scheme • To a lesser extent children’s centres/ nurseries/ the food industry/ media and advertising and the local council were mentioned by a few stakeholders
<p>Who do you think is responsible for improving fruit and vegetable consumption?</p> <ul style="list-style-type: none"> • The majority thought that the NHS/ PCT/ Public Health/ healthcare professionals (Health Visitors, GPs etc) were responsible for improving fruit and vegetable consumption alongside the individuals themselves and this included parents and families • Schools were also seen as an area which should be responsible – particularly in education
<p>What are you/ your organisation doing to help improve fruit and vegetable consumption?</p> <p>The stakeholders generally thought that they were contributing to improving the diets of people in their community, for example – providing advice, signposting to local services and acting as role models. Schools were providing healthy tuckshops, running Get Cooking! sessions, achieving the Dudley Food for Health Award and teaching healthy eating in classes. The local shops felt that they were providing fruit and vegetables even though they were mainly frozen and tinned items.</p>
<p>What else could you/ your organisation do to help improve fruit and vegetable consumption/ healthy eating?</p> <p>The stakeholders also generally thought more could be done to improve the current intake of fruit and vegetable consumption.</p> <ul style="list-style-type: none"> • More cooking classes/ raise awareness – shop, cook and eat sessions, lunchbox workshops, tasting sessions • Working in partnership with other agencies – the Nutrition Team, Hawbush Community Gardens, the Asian community • The local shops mentioned that they would be happy to do deliveries and sell fresh fruit and vegetables as long as it yielded sufficient profit, and the local shop in Hawbush mentioned that they would be happy to join in with cooking demonstrations at the school and community centre • One healthcare professional mentioned that high chair loan scheme would help improve eating habits

8. Segmenting the Target Group

The segmentation process built on the different stages of research undertaken to better understand the customer group:

- Background: Learning from National Research
- Background: Local Knowledge
- Primary Qualitative Research
- Stakeholder Research:

The factors used to segment the audience are:

- Parents of young children 0-12
- Low proportion of fruit and vegetable intake
- Nervous about amount of fruit and vegetable wastage
- Low propensity to try new fruit and vegetables
- Low knowledge and skill-set for preparation of fruit and vegetables
- Attention paid toward those without access to cars
- Purchasing of fruit and vegetables tends to be once a week

The rationale behind this segmentation used some of the concepts outlined in the TARPARE segmentation technique outlined previously in this scoping report. The primary qualitative research uncovered the view among parents that, once poor behaviours towards fruit and vegetable intake were established among children, it was very difficult to change. Therefore, the segment that this project will focus on looks at parents of young children to try and target behaviours before they become habitual.

In addition, the qualitative research underlined that some parents were nervous of fruit and vegetables being wasted because children didn't eat them and the related impact on their finances. This also resulted in a lack of experimentation due to fear of waste. This group were also likely to have low vegetable preparation skills. These issues combined present some large barriers to increasing fruit and vegetable intake – therefore this group could be considered 'at risk', hence their inclusion in this project.

The parent-child relationship came out very strongly as an important factor influencing fruit and vegetable consumption among children, with 'pester power' appearing to be a strong influencer of intake.

Once the parameters of the segmentation were defined, the project team selected the area to implement the intervention. Looking at the existing data sources held for Dudley, the parameters considered were as follows:

1. Proportion of children under 16 (high)
2. Proportion of households with no car (high)
3. Proportion with low fruit and vegetable intake (high)

The table below shows how the three areas ranked on the variables:

Parameters	Gads Express Green (Gads Green)	Saul's News (Fatherless Barn)	M and A stores (Hawbush)
Percentage under 16	2=	2=	1
Percentage with no car	3	1	2
<3 a day	1	3	2
One or less per day	1	3	2
Total	7	9	7

Based on this intervention and stakeholder knowledge, the steering group decided to pick Hawbush.

9. Benchmark Criteria Summary

The table below summarises selected information taken from this scoping report and how it fits in with the Benchmark Criteria:

CUSTOMER ORIENTATION
<ul style="list-style-type: none"> - Qualitative research with target audience helped to draw a picture of peoples lives and where fruit and vegetables fitted in with their diet and lifestyle - This user research was supplemented by stakeholder interviews to get different perspectives on our target group. - Used existing datasets (such as MOSIAC) to map where people with different characteristics live - Review of some national initiatives uncovered how target group members have reacted to previous interventions
SEGMENTATION
<p>The project has gone through a staged segmentation approach:</p> <ol style="list-style-type: none"> 1. Started by looking at Dudley as a whole 2. Narrowed down the scope to three areas (Hawbush, Gads Green and Fatherless Barn). These were selected due to: perceived poor physical access to fruit and vegetables, deprived areas and low fruit and vegetable consumption. 3. Research with stakeholders and target group identified the role that parenting played in health eating. The following segment was selected: <ul style="list-style-type: none"> o Parents of young children 0-12 o Low proportion of fruit and vegetable intake o Nervous about amount of fruit and vegetable wastage o Low propensity to try new fruit and vegetables o Low knowledge and skill-set for preparation of fruit and vegetables o Attention paid toward those without access to cars 4. Once the segment was defined, the steering group selected 'Hawbush' due to: <ul style="list-style-type: none"> o Proportion of children under 16 (high) o Proportion of households with no car (high) o Proportion with low fruit and vegetable intake (high)
INSIGHT
<ul style="list-style-type: none"> - Echoing much national research, the parenting had a large impact on fruit and vegetable intake - There is an imbalance in power over meals - with children having too much choice and influence over what they eat - Parents are nervous about the wastage caused by fruit and vegetables that don't get eaten – this has an especially large impact in deprived communities and results in low levels of experimentation.
EXCHANGE
<p>Barriers to fruit and vegetable consumption:</p> <ul style="list-style-type: none"> - Fear of wastage - Local access to fruit and veg - Preparation time - Competition too attractive - Skills and education - Price of fruit and veg - The positives associated with 'health' are not always dependent on fruit and veg consumption i.e. can be thin and not eat fruit and veg - Difficult to change habits - Parents behaviour impacts on children - Taste - Fruit and vegetables aren't 'filling'

<ul style="list-style-type: none"> - Fruit and vegetables are boring - Uncertainty over the benefits of fruit and vegetable consumption <p>Benefits:</p> <ul style="list-style-type: none"> - Good for children's behaviour - Good for health (especially in old age) - 'Feel better' - Appearance – skin and hair - Vitamins and toxins - Digestion - Lose weight - Energy
<p>COMPETITION</p>
<p>Competition advantages of 'unhealthy' foods:</p> <ul style="list-style-type: none"> - Quicker to prepare - Prefer the taste - More filling - More peer pressure to eat (for children) - More available - Cheaper
<p>BEHAVIOUR</p>
<p>Have a number of different behaviours we are focussing</p> <ul style="list-style-type: none"> - Get parents to attend fruit and veg cooking workshops - Get children to attend fruit and veg cooking workshops - Get children to try fruit and vegetables in front of their parents and also try new fruit and veg - Sell x amount of fruit and veg at the stall – aim to get self reported increase in purchasing - Reported decrease in wastage of fruit and veg - Reported increase in frequency of fruit and veg purchase - Increase use of fruit and veg eating at home
<p>METHODS MIX</p>
<p>The sessions will need to motivate the people to actually use the fruit and veg stall</p> <p>Get kids to cook in front of each other – look at peers</p> <p>Get kids to see parents – copy their behaviour</p> <p>A mobile fruit and vegetable delivery service</p> <p>Using tokens and/or incentives</p> <p>Advertise the benefits of fruit and vegetables</p> <p>More local supply</p> <p>Reduce costs of fruit and vegetables</p> <p>Use different method of promotion – newsletter, posters, flyers</p>
<p>THEORY</p>
<p>To Complete</p>

10. Intervention Review

Based on findings from the review of National and Local knowledge, Primary Audience and stakeholder research and the segmentation of the audience, the project had a number of different intervention models to test out with the target audience.

Therefore, the project team developed plans for each of the interventions and then commissioned Dr Helen Lloyd at Isis Green to pre-test them with the target segments.

The research aims were to:

- Investigate current patterns of fruit and vegetable consumption
- Explore current food purchasing patterns
- Identify the competition and barriers to increasing fruit and vegetable consumption
- Explore attitudes regarding the proposed intervention plans as detailed below:
 - Mobile Shop
 - School fruit and vegetable stall
 - Get cooking linked initiative (inc. vouchers)
 - Supermarket scheme (inc. vouchers and transport service)
 - Increasing quantity and quality of fruit and vegetables in local shops

Nine interviews were conducted with individuals identified by a recruitment consultant employed by the PCT. All participants were female and were identified through local nursery and playgroup schemes. The group were aged between 27 and 42 years old, all were White British and residents of the Hawbush estate. All participants had children, the number of whom ranged from 2 –7 in each household. Four of the nine respondents were single parents, six respondents had children aged 5 years or younger and five reported not having access to a car. Three of the participants worked part-time, the other six were not employed.

For full descriptions and results from the research conducted please see the separate report '*Final scoping research for the Dudley food access project: Depth interviews with Hawbush residents.*'

1. Current patterns of fruit and vegetable consumption

- *Current patterns of fruit and vegetable consumption*
- *Limited range of fruit and vegetables consumed*
- *Fruit and vegetables: Frozen vs. tinned*
- *Typical dinners*

Summary - The families who ate less fruit and vegetables on a daily basis were also less likely to try new varieties, considered eating either fruit or vegetables as adequate (but not both), and consumed more frozen and tinned produce. They were also more likely to eat out, eat

carbohydrate rich diets and produce more food waste than their counterparts who ate more fresh fruit and vegetables. The reasons for these differences emerged when the barriers to increasing fruit and vegetables were investigated and are discussed in section 3.

2. Current patterns of fruit and vegetable purchasing

- *Current patterns of fruit and vegetable purchasing*
- *Frequency and location*
- *Mode of transport*
- *Perceptions and attitudes about the local shops*
- *Issues concerning the cost of fruit and vegetables*

Summary - Families were very similar in their shopping habits and patterns, transport systems used and perception of produce from local shops. Whilst transport issues were perceived as problematic for conducting mid week shopping trips for some respondents, the main factors influencing why some families were unable to replenish fruit and vegetables in between 'big shops' was financial. This was particularly true for large families.

3. Competition and barriers to increasing fruit and vegetable consumption

- *Family factors*
- *Economic factors*
- *Personal factors: knowledge, skills and self-efficacy*
- *Practical factors: Transport*

Summary - Among the families who ate less fruit and vegetables, the strongest barriers to increasing consumption were family and economic factors with personal and practical factors exerting a weaker influence. Respondents from families who ate sufficient amounts of fruit and vegetables also found that other family members provided competition to increasing their family's uptake of these foods by providing snack foods. The cost of fruit and vegetables was a somewhat weaker force in reducing the up take of fruit and vegetables among these families.

4. Intervention Models

- *Preferred intervention model: Mobile shop and fruit and vegetable stall*
- *Less favoured intervention models: 'Get cooking' and supermarket transport scheme*
- *Most ineffective intervention model: Increasing fresh produce in local shops*

Proposed intervention model: school linked mobile fruit and vegetable van

Function/delivery:

- **Look** – Participants felt the van and stall should be colourful and clearly distinguished from other vans
- **Stock** – The van must be big enough to stock a good range of fresh fruit and vegetables
- **Location** – The van would obviously stop at local schools, but it could also stop at health centres and car parks.

- Timing – Timing would be essential when visiting the Hawbush estate.
- Cost – Value for money would be key to the success of this initiative.
- Deliverables – Possible ‘tasting’ sessions could be implemented in local schools
- Partnerships – Partnerships might need to be developed with local council.
- Models of best practice – Yarmouth Primary care trust has recently developed a similar initiative and may be able to give useful advice and a model of practice.

Summary - The above findings clearly point towards a favoured intervention model based on a mobile shop and a school fruit and vegetable stall. Responses to questions about the suitability of these two models were the most enthusiastic and the longest. The reason for this is likely to be linked to perceptions about the potential for self-sustainability, thus they are the most viable and effective long-term approach to reduce the identified barriers to increasing fruit and vegetable consumption. There was also a sense to which respondents felt that these models would be providing a valuable community service.

Summary of key findings:

- 1) Half the families of those interviewed consumed less than the recommended daily intake of fruit and vegetables, which was typically 1-2 portions
- 2) Families that ate less than the recommended daily portions were larger than those who ate the recommended daily amount and tended to have more ‘fussy’ eaters in the family
- 3) Families that ate less than the required daily amount of fruit and vegetables also adopted an ‘either/or’ approach *i.e.* as long as one or the other was eaten this was perceived as sufficient
- 4) These families also tended to eat more take-away and carbohydrate dominant meals than those who regularly ate the recommended daily amount of fruit and vegetables
- 5) Respondents from families who ate the recommended daily intake of fruit and vegetables perceived that the benefits of eating this produce far outweighed the financial cost of them. However, respondents from families who typically ate less than the recommended amount of fruit and vegetables perceived them as a waste of money due to the amount they wasted each week
- 6) There were more barriers to increasing fruit and vegetable consumption in the group who ate less of this produce
- 7) These ranged from family and social factors to economic, practical and personal factors. The strongest for this group being family and economic factors
- 8) Respondents from the families who ate more fruit and vegetables only felt that there were economic and family factors preventing their increased consumption of this produce
- 9) All respondents felt that the mobile shop and school fruit and vegetable stall would be the interventions most suitable for reducing the barriers to increase fruit and vegetable

consumption in the residents of Hawbush

10) Combining these two models would be most effective in reducing the barriers to increasing fruit and vegetable consumption and would also be the most viable and cost effective

11) The most favoured intervention models were linked to perceptions of long-term suitability for change and a sense to which a community service was being provided

Pre-testing with Steering Group

The pre-testing with the audience clearly pointed the way forward for two different interventions:

- A mobile fruit and vegetable van; and
- A stall at local school

These intervention ideas were presented to the steering group and experts from fruit and vegetable industry to discuss the feasibility. After consideration, it was felt that there were issues with a fruit and vegetable van, specifically sustainability and cost implications. Therefore, **it was agreed that the project would proceed with a school-based intervention** – this was also deemed to be the intervention most likely to address some of the parenting issues arising from the research.

11. Next Steps Forward

The project team is now compiling a Project and Marketing Plan detailing how the intervention will run, this will focus on:

- The logistics of the intervention
- Financial planning
- Sustainability
- Evaluation

Evaluation

As highlighted in the review of existing local data sources, there is a paucity of existing robust data that can accurately assess fruit and vegetable consumption in Hawbush. Therefore, in order to understand that impact of this social marketing intervention, it is vital that evaluation mechanisms are put in place to measure impact.