

Strictly embargoed until Friday 12<sup>th</sup> October 00.01



## **Can everyone access affordable, nutritious food?**

A picture of Britain's deprived food deserts.

A report by commissioned by

*Kellogg's*

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## METHODOLOGY

Kellogg's commissioned **The Social Market Foundation (SMF)** to carry out the analysis of trends in food affordability and availability across Great Britain for this report.

SMF is a registered charity and a company limited by guarantee. It is independent of any political party or group and is funded predominantly through sponsorship of research and public policy debates. The views expressed in SMF research are those of the authors and these do not necessarily reflect the views of the sponsors of the Foundation.

The research included analysis of household spending and income data in the ONS Living Costs and Food Survey and the Defra Food Survey, which the SMF used to examine variations in food prices and food affordability across Great Britain. To examine trends in food availability, the SMF examined data on business locations contained in the Interdepartmental Business Register, to assess the number of supermarkets and convenience

stores in different parts of Great Britain. This dataset was used to identify potential "food deserts" which contain a limited number of food stores. The SMF examined stores classified in the '47110' industry (SIC) classification: 'retail sale in non-specialised stores with food, beverages or tobacco predominating'. This covers supermarkets and convenience stores.

ONS Index of Multiple Deprivation data was used to identify food deserts in deprived areas – a particular concern given lower levels of car access and worse health outcomes in such areas.

To complement this analysis, the SMF commissioned Opinium to undertake an online survey of British households, to gather more insights into food affordability and availability, and to understand the extent to which these issues impact the behaviour of households – for example in terms of choice of diet. 2,005 adults were surveyed between 23rd and 25th May 2018.



## KEY FINDINGS

- 1. One in ten** deprived areas in the UK are food deserts
- 2. 1.2 million people** live in deprived food deserts with limited access to affordable, fresh food
- 3. 41 per cent of households** in Great Britain living in deprived food deserts lack access to a car. This compares with 23% for Britain as a whole
- 4. A quarter of people think that nutritious food is unaffordable in the UK.** For those with incomes of up to £10,000 and £10,001 to £20,000 this was higher, at 44% and 27%
- 5. One in eight people** say that 'not being near a supermarket offering healthy food at low prices' was a barrier to eating more healthily
- 6. Unaffordable food prices have led to one in ten households cutting back on their own food consumption** so that others in their family (such as children) can eat

## FOREWORD

When we say the words “food insecurity” there is a tendency to think of places far away. While we typically measure food security at the national scale and the United Kingdom is, at least for now a country of abundance, everyday food insecurity is on the rise in neighbourhoods across the United Kingdom. That is, in this still wealthy nation, there are people who are unable to acquire or consume an adequate quality or sufficient quantity of food made available in socially acceptable ways, or who have the regular uncertainty that they will be able to do so. Unlike other countries, the United Kingdom does not measure food insecurity, however some estimates suggest that just over one fifth of the UK population experiences some level of everyday food insecurity.

Some of this insecurity is linked to poverty. Research consistently reveals that those living in areas where incomes are the lowest are also more likely to suffer from diet related ill health.

Access to food involves spending power, but it is more than this. Access also involves being proximate to or being able to get to where food is available and then being able to return home with that food. This Kellogg's report highlights that those in lower income places are also very likely to be inadequately served by retail outlets offering food that is both affordable but also sufficiently close



to where they live. These areas are known as food deserts. For those living in a food desert this can mean having to dedicate a portion of an already stretched budget toward transportation costs in order to secure food. It can mean having to carry food a long distance, a struggle that many older people living in food deserts report experiencing. The consequence is that people living in these places are choosing food that is easier to carry such as ready meals, are purchasing what is more likely to be available locally such as low quality take-away food, or are eating less.

We are beginning to find ways to make healthy food affordable and accessible to people living in places underserved. Furthermore, we are already beginning to see the impact of these projects on the people who live in the places where projects are underway. These are projects that involve the communities themselves and are helping those within those places to see a future where good food is plentiful, affordable, and accessible. But there is still much to learn, which is why I welcome the work that Kellogg's is doing with communities through this intervention.

**Dr. Megan Blake**  
Expert on Food Security and Food Justice  
Sr. Lecturer in Human Geography,  
University of Sheffield

## INTRODUCTION

In some parts of Great Britain, accessing fresh, nutritious food can be very difficult, especially for those people on a tight budget. This is particularly worrying when lack of good food can have a significant impact on people's health.

Poor diet, and associated health outcomes, is likely to be a contributing factor to some of the widening health inequalities that exist in Britain today. The drivers of a poor diet are varied – ranging from a lack of knowledge of what a healthy diet is to economic factors such as food affordability and availability.

One particular type of food availability concern is 'food deserts' – areas which are poorly served by food stores, particularly those selling fresh, healthy products. In these areas, where food choice is more

limited than elsewhere, it may be particularly hard for households to buy healthy food conveniently, at a reasonable price. Food deserts may be especially challenging for those on low incomes, or vulnerable individuals such as those with a disability which limits their ability to travel.

Despite much discussion of food deserts in the media and among academics, there have been limited efforts to systematically quantify the scale of the problem across Great Britain.

This report by Kellogg's investigates the issue of access to affordable nutritious food across Britain. It looks at where 'food deserts' exist, with a specific focus on areas of deprivation, and the impact this has on the people living there.

## WHAT IS A FOOD DESERT?

The extent to which a food desert affects the people living there depends on a wide range of factors such as the characteristics of the individuals (incomes, access to a car, use of online groceries and disability status) and access to public transport.

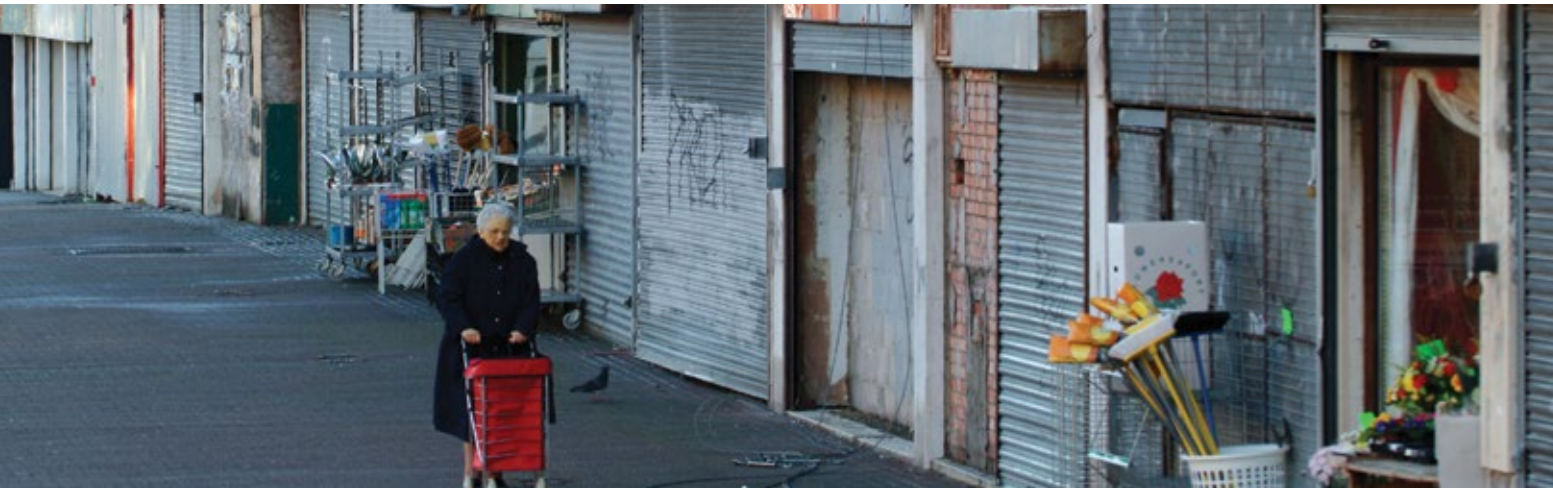
For the purpose of this report we use the following definitions:

- **Food desert** – an area containing two or fewer supermarkets/convenience stores.
- **Deprived food desert** – a food desert which is in the most deprived 25% of areas, according to the Index of Multiple Deprivation measures produced by government in England, Wales and Scotland.
- **"Normal" area** – an area containing between three and seven supermarkets/convenience stores (the modal range of such stores in Great Britain, across the geographies examined).



"Food deserts, the Minister of Public Health was told ... are those areas of cities where cheap, nutritious food is virtually unobtainable. Car-less residents, unable to reach out-of-town supermarkets, depend on the corner shop where prices are high, products are processed and fresh fruit and vegetables are poor or non-existent."

**The Independent, 11 June 1997**



## WHERE ARE BRITAIN'S DEPRIVED FOOD DESERTS?

**Shockingly, about one in ten (8%) deprived areas in Great Britain are food deserts. That means 1.2 million people in low income areas are estimated to be living in areas where many will struggle to access affordable and healthy food.**

There are clusters of deprived food deserts in the North West of England, South Wales, the West Midlands, along the coast of North East England and in London. In Scotland they exist mainly in and around the biggest cities of Edinburgh and Glasgow.

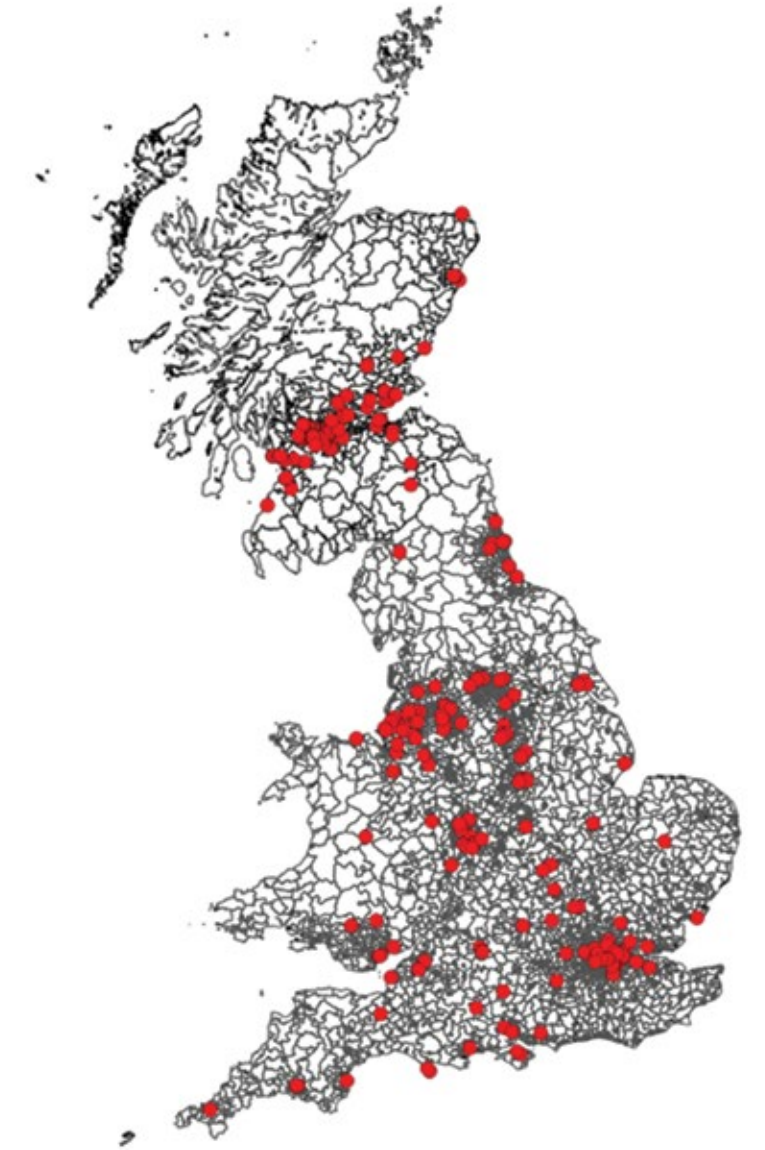
Deprived food deserts are very much a 'local level' problem however rather than nationwide or even a broad town or city problem. Examples of deprived food deserts include out of town housing estates with limited walking distance access to supermarkets as well as inner city areas which are mainly served by small and relatively expensive food stores rather than better value supermarkets.



## MAP OF DEPRIVED FOOD DESERTS

Using Inter-departmental Business Register (IDBR) data for 2017, we have been able to understand and map the distribution of supermarkets and convenience stores across Great Britain, across geographical areas containing a similar size of population – this is to gauge the “supermarket density” of an area. The government’s IDBR contains detailed information on the number and type of businesses within a particular area of Great Britain. This data is available at quite a granular level of geography; for England & Wales it is available for “middle layer super output areas”, which each contain about 5,000-15,000 individuals – 7,201 areas in total. For Scotland, the data are available for “intermediate zones” which each contain 2,500-6,000 people – 1,279 areas in total. Unfortunately, comparable data is not available for Northern Ireland.

We examine stores classified in the “47110” industry (SIC) classification: “retail sale in non-specialised stores with food, beverages or tobacco predominating”



Source: SMF analysis of IDBR data

## TEN MOST DEPRIVED FOOD DESERTS IN ENGLAND

	Areas*	Constituency
1	Marfleet, Greatfield (Kingston upon Hull)	Kingston upon Hull East
2	Hartcliffe (Bristol)	Bristol South
3	Hattersley, Mottram (Tameside)	Stalybridge and Hyde
4	Seaforth, Sefton (Liverpool)	Bootle
5	Withywood, Bishopsworth (Bristol)	Bristol South
6	Clubmore, Norris Green (Liverpool)	Liverpool, Walton
7	Greet, Sparkbrook (Birmingham)	Birmingham, Hall Green
8	Astmoor, Castlefields, Halton, Norton, Windmill Hill (Birmingham)	Halton
9	Everton, Vauxhall, Islington (Liverpool)	Liverpool, Walton
10	Kirby, Melling Mount, Simonswood (Knowsley)	Knowsley

## NINE MOST DEPRIVED FOOD DESERTS IN WALES

There are only nine “deprived food deserts” in Wales, as per the definition we use throughout the report (those in the bottom 25% on the ONS deprivation measure)

	Areas*	Constituency
1	St Mellons, Old St Mellons (Cardiff)	Cardiff South and Penarth
2	Rumney, Trowbridge (Cardiff)	Cardiff South and Penarth
3	Bishopool, Liswerry, Ringland (Newport)	Newport East
4	Rhosnesni, Caia Park (Wrexham)	Wrexham
5	Rhyl (Denbighshire)	Vale of Clwyd
6	Milford, Vaynor, Trehafren, Maesyrrhandir (Powys)	Montgomeryshire
7	Rhigos, Hirwaun, Penywaun, Cefn Rhigos, Penderyn, Llwydcoed (Rhondda Cynon Taf)	Cynon Valley
8	Parts of Rumney (Cardiff)	Cardiff South and Penarth
9	Brynmawr, Pontygof, Clydach Terrace (Blaenau Gwent)	Blaenau Gwent

\*Areas within the middle layer super output area identified as a deprived food desert

## TEN MOST DEPRIVED FOOD DESERTS IN SCOTLAND

	Intermediate Zones	Constituency
1	Dalmarnock (Glasgow)	Glasgow Central
2	Central Easterhouse (Glasgow)	Glasgow East
3	Wyndford (Glasgow)	Glasgow North
4	Drumchapel North (Glasgow)	Glasgow North West
5	Crookston South (Glasgow)	Glasgow South West
6	Methil West (Levenmouth)	Glenrothes
7	Drumchapel South (Glasgow)	Glasgow North West
8	Craigend and Ruchazie (Glasgow)	Glasgow North East
9	Glenwood South (Glasgow)	Glasgow South
10	Granton South and Wardieburn (Edinburgh)	Edinburgh North and Leith



# IMPACT OF LIVING IN A DEPRIVED FOOD DESERT

People living in deprived food deserts will be impacted in a number of ways. They will be poorly served by stores, particularly those selling fresh, healthy products – a particular issue for those

without access to a car. Choice of food store in an area is also likely to have a bearing on the prices that people pay for food.

## Lisa Cauchi

### A mum living in a food desert

Bringing up a family in a food desert in Salford meets many challenges but the biggest one of all is where to do your weekly food shop. Living with six of her eight children, Lisa Cauchi, has to think carefully about her shopping bill, what her family can afford to eat and where she's going to get the food from. This is a weekly challenge.

"I don't drive", Lisa states, "The nearest place is a corner shop where you can never guarantee they have everything you need – you are lucky if there is a lettuce a week. Within a 30 minute walk I can be at a frozen foods store and 30 minutes again one of the bigger supermarkets. I have to walk nearly an hour to have a choice of affordable fruit and vegetables."

Like many people in her area Lisa mainly shops in the smaller stores close to home but it does make it more expensive. When the kids are in school she will take a bus to neighbouring Eccles to shop in discount and affordable supermarkets, but it's still a complicated trip.

"There are supermarkets within a 30 minute walk but they are of a higher premium and therefore I will pay twice as much for fruit and vegetables so it is worth the bus ticket. There have been occasions where I have had no other option but to get a taxi, unfortunately that depletes the amount of food I can buy that week and we have to do without."

Lisa, a stay at home mum, who volunteers at the Life Centre charity in Salford, believes affordable food delivery would really boost her local community and the quality of the food people eat.

"There needs to be a system in place that supports people without access to a car. If you are elderly or you have small children, even a short walk is too long especially with shopping. A lot of people living in these communities don't have a car, a taxi is a meal."

## Access to Healthy Food

Our research found that one in eight (12%) of individuals stated that "not being near a supermarket offering healthy food at low prices" was a barrier to being able to eat more healthily. Some 7% said not having access to a car to travel to the supermarket was a barrier to eating healthily.

The proportion of survey respondents citing not being near the right kind of supermarket as a barrier to eating healthily was highest among those with the lowest incomes. Just under a fifth (18%) of those with a household income of £10,000 or less said this as a barrier to eating healthily.

## Car Ownership

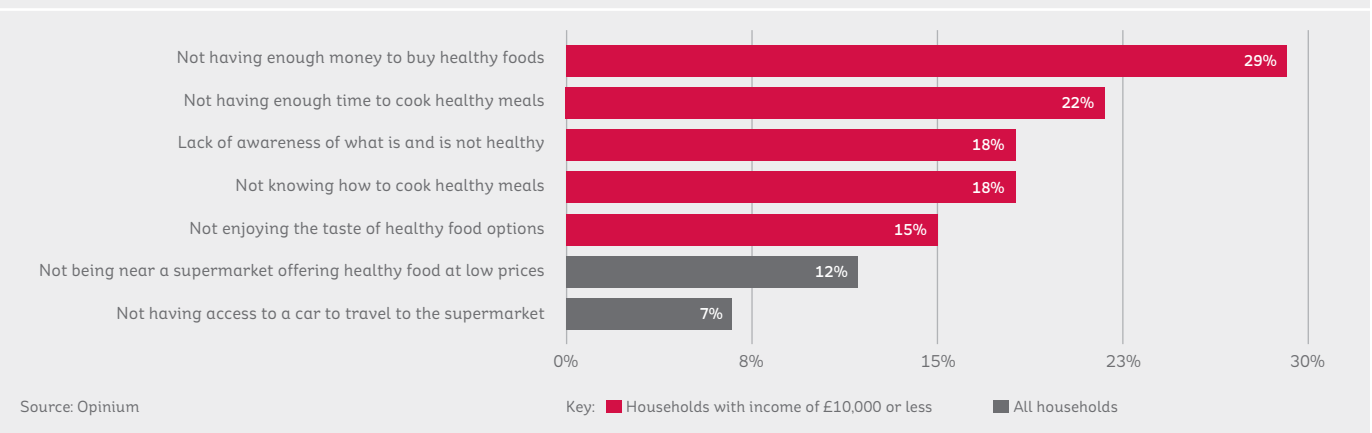
The link between deprivation and lower rates of car ownership means that the negative impacts of living in a food desert will be greater for these people. 41 per cent of households in Great Britain living in deprived food deserts lack access to a car. This compares with 23 per cent for Britain as a whole.

The rise of online grocery deliveries could limit the extent to which food deserts are a problem. The minimum order\* for online shopping delivery could be more than a weekly shopping budget for people on low incomes. In the survey conducted as part of this report, a third of those on lower incomes were more likely to say that online shopping was something they do not and would never use.

\*Morrison's minimum online shopping order is £40, source Morrisons.com. Tesco charges a minimum basket charge of £4 for all orders under £40, source Tesco.com. Sainsbury's has a minimum order of £25 for online shopping delivery, source Sainsburys.co.uk.

Figure 1

Which, if any, of the following do you think are the biggest barriers to being able to eat more healthily? Please select a maximum of three options.



## Food Affordability

A quarter of people think that nutritious food is unaffordable in the UK. For those with incomes of up to £10,000 and £10,001 to £20,000 this was higher at 44% and 27%. A lack of access to affordable food can lead people to change their behaviour in a number of ways. It can force people to buy less healthy food, shop at a cheaper store or cut back on consumption of food or other expenditure. In some cases people may even borrow money or use a Foodbank.

For individuals with a household income of £10,000 or less, about two fifths (39%) said groceries were a strain on finances, as did about a quarter (23%) of those with a household income of between £10,000 and £20,000.

A quarter of respondents felt that the high price tag of fresh foods had led them to purchase cheaper and less healthy food. This increases to 34% among

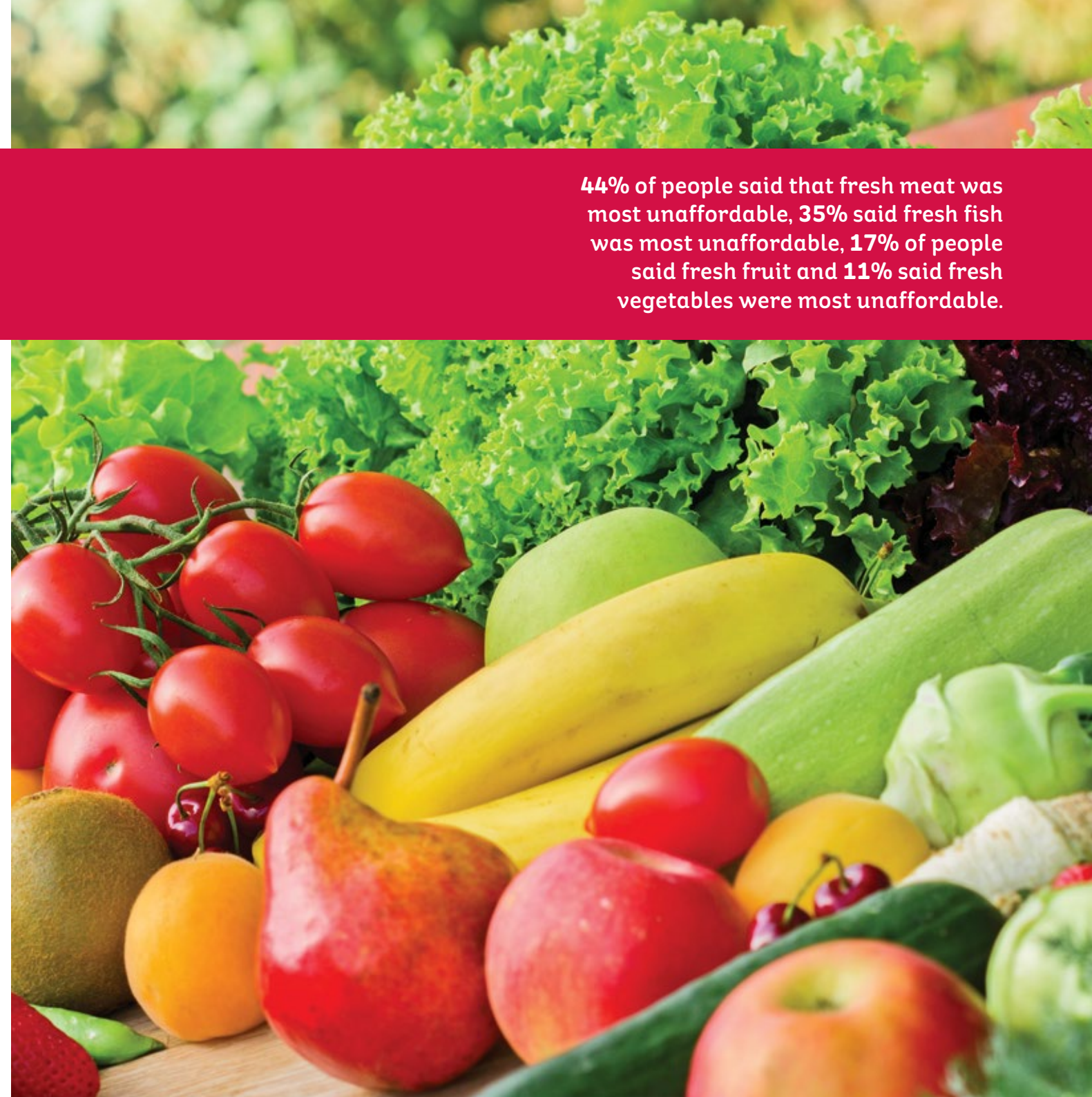
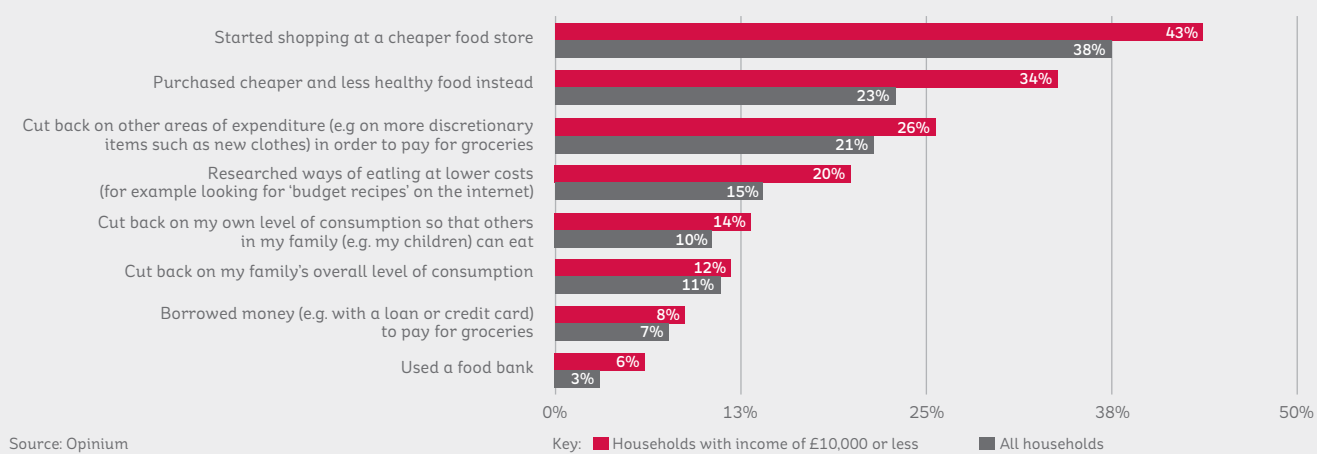
individuals with a household income of less than £10,000. One in ten said they have cut back on their own food consumption so that others in their family can eat rising to one in seven among those with a household income of less than £10,000.

When asked about the types of food products they found most unaffordable, households most frequently said fresh products, particularly fresh meat and fish.

While some of the regional price variations may reflect differences in consumer preferences, higher food prices may be “imposed” on some individuals living in an area. For example, an individual on a low income in a generally affluent area may find their purchases constrained by the choice of supermarkets in the area. They may wish to shop at a discount brand but not be able to if the area is dominated by more upmarket supermarkets.

**44%** of people said that fresh meat was most unaffordable, **35%** said fresh fish was most unaffordable, **17%** of people said fresh fruit and **11%** said fresh vegetables were most unaffordable.

**Figure 1** Have you ever done any of the following in response to high/unaffordable food prices?







**Nathan Atkinson**  
Co-founder of Sustainable Education:

Nathan was a Head Teacher at a primary school in Leeds when he first scribed 'hunger' on his to-do list. Working in a school that served the bottom two percent of deprivation nationally, provided Nathan and his team with a host of different issues and in 2014 he decided something had to be done to combat children living in food insecurity and food deserts.

"We had an October half term, and on the first day back the gas in the kitchen failed so we could only provide sandwiches. The behaviour in the children completely changed, when I asked why they said: 'We're hungry, we've had sandwiches and crisps in the holidays we usually have a hot meal on the first day back.' That was the first time it really struck me that these children didn't have access to healthy or fresh food at home."

The children's frank admissions urged Nathan to set up Fuel for Schools, in Leeds and Bradford, a programme that works with families to combat hunger. Helping them to source fresher, and more affordable food, as well as supporting with food education.

Nathan sought out simple solutions and opportunities to provide and repurpose healthy food in his area. He put a toaster in every classroom, and a universal offering of breakfast. He created a café in his school to invite the community in so they could feel respected and stigma-free while socialising and having something to eat.

The big change came when he realised that vast amounts of food were being wasted locally. He said: "My school was technically based in a food desert but ironically there was a 24/7 fresh food wholesaler in the same area. It's one of the biggest suppliers in Leeds. I went one day and came away with boxes and boxes of what they deemed 'waste' but was actually good quality fresh food. This turned into a pay as you feel market stall held at the school gate.

"We needed a programme to tackle the issue of food availability in the area." Nathan, said; "The lack of fresh food in many areas is another indicator of deprivation. These food deserts are often swamps saturated with expensive convenience stores and takeaways selling food at expensive prices – encouraging hunger and obesity to walk hand in hand.

"When you are seeking solutions in a food desert, you have to tackle hunger, fuel poverty, food insecurity, lack of access to transport but also reinforce the learning not only in children, but their parents, to seek out better, healthier choices. We have to break the skills gap when it comes to preparing meals."

Fuel for School has been running for three years in Leeds and Bradford, in the coming months the programme will be starting in London and Lincoln.

## CONCLUSION

It's a real concern that families and individuals who live in low income areas are already struggling to stretch their limited shopping budget but this becomes an even bigger challenge when geographical barriers mean you have to rely on a bus or taxi to do your food shopping which may not be financially viable.

And food deserts are likely to affect the most vulnerable groups in our society such as the elderly or disabled who can become isolated without access to a shop.

The localised nature of the issue of food deserts supports the case for local-level, rather than nationwide, policy interventions to tackle the problem.

We know from previous research that simply building supermarkets is not the answer. It's a blunt instrument that isn't proven to improve eating habits of residents. Improving transport links to shopping centres could help in some instances but it's not a factor in others.

It's a complex problem and will require organisations including local authorities and charities to work together to come up with solutions that work for specific communities. There isn't a one size fits all solution. We hope the food deserts map is the first step in getting these conversations going locally.

In the meantime, Kellogg's will work with food redistribution charity The Bread and Butter Thing to develop a pilot programme that addresses the issue of access to food in the deprived food deserts highlighted on our map. The charity will develop new projects in Greater Manchester – the city Kellogg's calls home in the UK – with its mobile pantry meets fruit and veg box scheme which will make everyday essentials more affordable for people in low income households.

As well as this, we will continue our longstanding programme of supporting school breakfast clubs across the UK with cash grants and cereal to ensure children in the most deprived communities start the day in the best way, with breakfast.

# Kellogg's Breakfasts for Better Days™

At Kellogg Company, we have a long history of investing in our communities. Our founder, W.K. Kellogg, was one of the great philanthropists of the 20th century, giving away virtually all of his wealth to set up the **W.K. Kellogg Foundation**. The **Foundation** owns about 22% of our total shares outstanding, making it **Kellogg** Company's **largest** share owner. More than a century later, his legacy of giving lives on with our global social responsibility strategy focusing on hunger relief, particularly breakfast.



## Our partners

### The Bread and Butter Thing



The Bread and Butter Thing (TBBT) is a charity that makes life more affordable for families on a low income. Its mission is to create a fair solution for people in poverty and its long-term aim is to address the premium that people in poverty pay for food, loans, energy and other everyday essentials simply because of their personal circumstances.

TBBT has developed a community-led membership model to provide access to low cost, nutritious food whereby families with very little disposable income are offered the provision of a deeply discounted food service to help their income go further.

Members receive a week's worth of fresh food and other essentials in return for a nominal membership fee. The everyday items have been sourced from surplus, sorted into bags of shopping ready to re-distribute at partner community centres.

TBBT is already serving 1,000 low income members a month across Manchester and has provided the equivalent of 150,000 meals in the past six months.

### FareShare



Kellogg's primary objective is to convert every kilo of grain we buy into food that we can sell. However, there are occasions when we have food that we cannot sell in the usual way. Kellogg's aims to give as much of this food as possible to a food redistribution charity like FareShare.

### School Breakfast Clubs

Since 1998, Kellogg's has provided 70 million breakfasts, trained 1,600 schools, and provided £3 million of investment so schools can provide the best start to the day for thousands of children.

The growth and success of these clubs is a testament to the benefits they bring including attendance, attainment, alleviating hunger and providing pre-school care.

We are proud of the role we've played and continue to play – by providing everything from cash grants to free bowls and food to enable more than 3,000 Breakfast Clubs to open their doors and feed children in the morning.

*Kellogg's* Breakfasts for  
**Better Days**<sup>™</sup>