



THE BROKEN PLATE

Ten vital signs revealing the health of our food system,
its impact on our lives and the remedies we must pursue

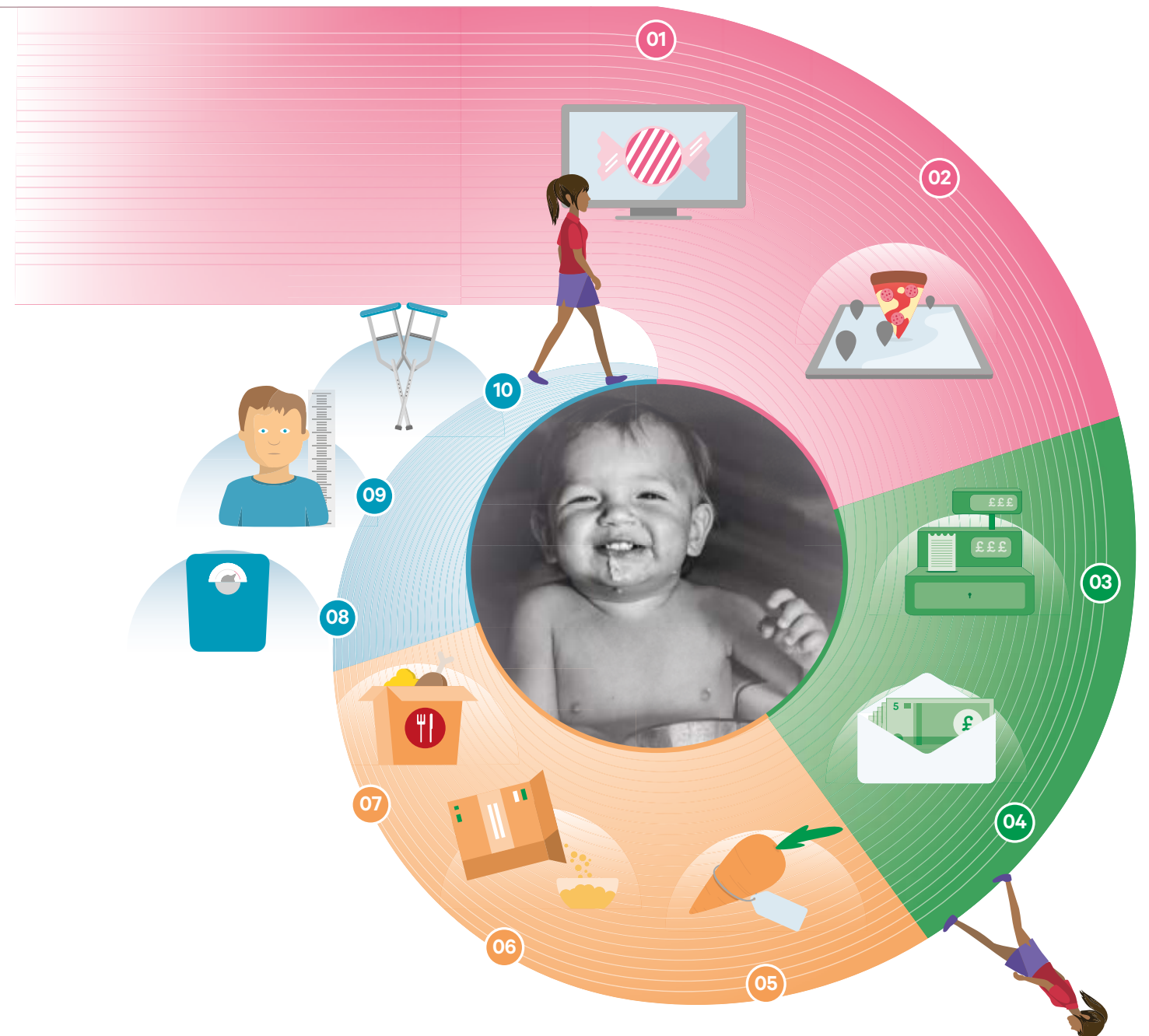


Report snapshot



- 01** **46%** of food and drink advertising goes on confectionary, sweet and savoury snacks and soft drinks; while only **2.5%** goes on fruit and vegetables
Before we even decide what to eat, we're influenced by mass media
With commentary from Hugh Fearnley-Whittingstall
- 02** **One in four** places to buy food are fast food outlets – the lowest is **7%** and the highest is **39%**
We're influenced by what's available in our local area
With commentary from Sadiq Khan
- 03** The poorest **10%** of UK households would need to spend **74%** of their disposable income on food to meet the Eatwell Guide costs. This is compared to only **6%** in the richest **10%**
When we decide what to buy, we're influenced by what we can afford.
With commentary from Kathleen Kerridge
- 04** **17.6%** of employees of the food industry earn the minimum wage, compared to **7%** of workers across the UK
Ironically the people who work in the food industry are typically on very low wages
With commentary from Lord David Willetts

- 05** Unhealthy foods are **three times** cheaper than healthy food
What we decide to buy is influenced by price
With commentary from Jamie Oliver
- 06** **Half of breakfast cereals** marketed to children are high in sugar and for these cereals a single portion would make up a third of a child's daily allowance
Our choices are also influenced by the options available
With commentary from Prof Graham MacGregor
- 07** Only **14%** of ready meals have no meat
Many of the meal options available have a heavy impact on the environment
With commentary from Tony Juniper CBE.
- 08** Obesity among children aged five is **2.2 times** greater amongst the most deprived communities compared to the least deprived
Not surprisingly this impacts on our health, especially if you're struggling for money.
With commentary from Prof Sir Michael Marmot
- 09** Children in deprived communities are more than **1cm shorter** on average than children in wealthy communities by the time they reach age 11
With commentary from Shirley Cramer CBE
- 10** In the last eight years the number of diabetes-related amputations has risen by **25%**
With commentary from Tom Watson MP





Thank you



This report has a wide range of contributors who are credited throughout. We are hugely grateful for their collaboration with the Food Foundation on this report. The following organisations have contributed:



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Foreword by Food Foundation Trustees

We established the Food Foundation in order to examine the UK food system and to unpick some of the underlying policy reasons for its failure to deliver the necessary public goods. The statistics are not encouraging...

- **10%** of five-year-olds are obese
- **20%** of 11-year-olds are obese
- **3.1 million** people are registered with diabetes, up from **2.4 million** in 2010
- There were **9,000** amputations due to diabetes last year, up from **7,227** in 2010.

In any other area of public life these figures would have caused a national scandal. However, over the last 20 years, public policy has withdrawn from the food sector. These shocking statistics should demand policy makers re-engage with the food system and address these life-changing (and potentially life threatening) outcomes.

The health implications are compounded by the significant and growing number of children facing food poverty. Food insecurity has gone unacknowledged until very recently. In the fifth biggest economy in the world, how can children

face hunger? Not keeping our eye on food-related public policy has caused the numbers of people facing food poverty to soar.

- **10%** of children are estimated to be living in households facing severe food insecurity
- **16%** of adults report skipping meals because of lack of money
- **3.7 million** children are living in households for whom a healthy diet is unaffordable.

We are therefore very proud to be publishing our first annual ‘State of the Nation’s Food Health’ report, The Broken Plate. This will map the key metrics on the ‘health’ of our food system annually, with recommendations for how these should drive action from industry, the Government and the third sector. Ensuring that the next generation is healthy and capable of securing good nutritious food is crucial to any society. The Broken Plate establishes the UK’s current baseline. Its stark figures show how much action will be required in order to realign the system with the outcomes which we all value – our health and wellbeing.

We look forward to working with policy makers, industry and the public to ensure that each year we can measure improvements – we all have a lot to do!

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Our key findings and action recommendations

Overview

In the last 70 years the food system in Britain has evolved into a highly efficient, hi-tech, profitable and interconnected web of companies which does a remarkable job of bringing tasty food onto our plates at very low prices. It has become highly adapted to the demands made by our market economy: greater and greater efficiency leading to increasing consolidation in both retail and fast food, driving high volume on relatively low margins.

But the outcomes of this system are wreaking havoc on our health and on our planet. The Broken Plate is the Food Foundation's annual "State of the Nation's Food Health" reporting on 10 key metrics (or vital signs) by which the health outcomes of the food system can be measured. We have a special focus on children and the impact of their current diets on their health trajectory. These vital signs will be published every year to assess progress or deterioration.

We hope that like us, you will help monitor these key indicators and work with us to deliver a food system that our society and our planet deserve. We all know that there is not one silver bullet, but this health disaster needs a range of policies and measures taken by government, industry and society, and these are what we will be advocating for in 2019.

Are we really free to make healthy choices?

Our starting point, building on the Food Foundation's first report Force-Fed, challenges the notion that we are all free to choose a healthy diet if we want it. Our evidence shows that unhealthy options are widely available, attractive and affordable; and people's choices are restricted and manipulated.

- Food and drink advertising is disproportionately focused on unhealthy foods (page 12).
- **One in four** of all food vendors sell primarily unhealthy fast food (more than a third in some poorer neighbourhoods) (pages 14-15).
- Options available to us in two key categories (breakfast cereals and ready meals) are skewed in favour of less healthy options, which carry a higher carbon footprint (pages 24-25 and 26-27).

The discrepancies in cost between healthy and unhealthy food are stark and affect what people living in poverty can afford.

- Unhealthy foods are **three times cheaper** than healthy foods, calorie for calorie (page 22).
- The Government's recommended diet would require the poorest **10%** of households to spend three quarters of their disposable income on food in order to afford it (page 16).
- Many of the people working in the food system are themselves struggling to put food on the table due to low wages within the food sector compared to other sectors of the economy (page 18). Moreover, people working for food companies top the list of those seeking payday loans.

The short- and long-term health consequences are profound

- Childhood obesity rates are **double** among poorer children (Page 30), and children in poorer areas don't grow as well (page 32).
- In later life the consequences are devastating. Amputations due to diabetes complications have gone up by **25%** in the last eight years (page 34).

What must be done

The Government has started to take this challenge seriously.

- It has introduced the sugary drinks levy which has helped to drive vast quantities of sugar out of our drinks.
- It has set targets for reductions in sugar for a number of other food product categories, though progress is patchy.
- It is proposing to tighten the rules on junk food advertising and promotion (and Sadiq Kahn's commentary on page 15 shows that the Greater London Authority has already taken action) as well as improving labelling.

These are all vitally important steps but are in danger of being too little too late. Moreover, in spite of an ambition to reduce inequality in rates of childhood obesity, there is no target to drive action and very little provision for households on a low income who can't buy their way out of the problem.

On the following page, we outline our recommendations for the Government.





These four clusters of action tackle the current situation:

1 Fix the price fix

- Put in place a range of fiscal and incentive measures which tip the balance of costs in favour of healthy food including further expanding the sugar tax
- Re-design VAT on food to favour healthier and more sustainable choices
- Stop price promotions on unhealthy food
- Ensure that retailers (and fast food chains) commit to make healthier products always cheaper than unhealthy products within specific food and drink categories

2 Address affordability

- Use the Government's costing of the Eatwell Guide as the reference point for welfare payments by legally enshrining the cost of healthy living in social security legislation
- Expand and develop incentives such as Healthy Start and the School Fruit and Vegetable Scheme to help tackle the affordability problem for those on a low income. These schemes could be expanded along with free school meals and new schemes could be introduced, drawing on international experience
- All major food businesses should move to pay the Real Living Wage

3 Swap the sparkle

- Stop all forms of marketing of unhealthy food to children and instead channel this creative energy into healthy foods. This can be achieved by tightening the current regulations on advertising (digital and broadcast) but also expanding these to cover sports sponsorship, marketing on packaging and in store and the banning of unlicensed characters on unhealthy foods
- Include public funding for marketing of fruit and vegetables within the scope of the new agriculture policy

4 Ration the junk

- Use the new calorie labelling scheme for food eaten out of the home to develop a healthy rating scheme to link with the existing hygiene rating. This should in turn, be linked to business rates to incentivise the shift to healthier menus prioritising the most deprived neighbourhoods
- Ensure that all major food and drink categories in retail settings have at least 50% of their products falling within healthy thresholds (e.g. no red traffic lights, at least one of your five a day etc). The same should apply to menus for food on the go and food eaten out

At the same time we need action to incentivise new ways of doing business within the food system by:

5 Harnessing the power of public procurement

- Ensure that publicly procured food sets the standard for healthy and sustainable diets
- Food eaten in schools, hospitals, care homes, prisons and the military not only represent a huge volume but a huge opportunity to show what good food is
- Delivering meals which are in line with the Eatwell Guide should be mandatory for all publicly procured food even if this costs more. These changes would help to drive system wide change

6 Innovating with investors

- Use policy measures to stimulate investors to see the materiality of shifting their finance into businesses which have a better scorecard on supporting healthy and sustainable diets. They have a critical role in helping to reshape the food industry
- Support new and healthy business models including creating new markets for surplus fresh produce which is currently wasted or given away; increasing investment in R&D; cold chain, sustainable packaging which could reduce price points for fresh produce, or harnessing technology to link producers and consumers with shorter, less carbon intensive supply chains for fresh fruit and vegetables



Step up and show leadership

Ultimately, we need systemic change which reorients the entire business model driving the food system, employing everything from farming subsidies, business rates, licensing rules, taxes and marketing restrictions. This can only be realistically achieved by a bold vision from the Government, and cross-departmental policies and programmes which create new incentives for the private sector.

While government policy has a critical role to play in creating a level playing field in what is a very competitive sector of industry, we are also in desperate need of business leadership. For too long, businesses have hidden behind

the notion that they are simply meeting customer demand, and have overlooked the critical role which they play in shaping that demand. We show in a case study (page 29) that a supermarket chain in the Netherlands has unilaterally decided to de-list all products which are marketed for children within their store, immediately removing a large number of the healthier products. This is the sort of leadership we need in the UK.

We're in need of radical change. We will track the vital signs in this report every year to see whether that change is indeed being delivered.

Advertising



46% of food and drink advertising goes on confectionary, sweet and savoury snacks and soft drinks; while only 2.5% goes on fruit and vegetables

Annual food and drink advertising spend in the UK

Soft drinks
£72,888,087



11%



Confectionary
£119,406,521



18%



Fruits and vegetables
£16,290,525



2.5%



Sweet and savoury snacks
£111,413,680



17%



Advertising media type: Cinema, Direct Mail, Door Drops, Outdoor, Press, Radio, TV (January 2017 – Dec 2017)
Data kindly supplied by Neilsen AdDynamix

DATA EXPLANATION BY CAT KISSICK

How we got the data

The Food Foundation analysed data on advertising spend in the UK during 2017 for food and soft drinks (Nielsen AdDynamix, 2018), covering advertising in cinema, direct mail, door drops, outdoor, press, radio and TV. We calculated the percentage advertising spend on fruit and vegetables, confectionary, sweet and savoury snacks and soft drinks. Our analysis indicates that the amount of money spent on fruit and vegetable advertising is negligible, compared with that spent on unhealthy foods such as biscuits, cakes, crisps and sugary drinks.

In 2017, over £300 million worth of advertising was spent on unhealthy food products, compared to £16 million spent on fruit and vegetables in the UK. Soft drinks alone make up 11% of the food and (non-alcoholic) drink advertising spend, equating to £72 million. Evidence suggests that food environments influence dietary choices, preferences and eating behaviours (Cairns et al., 2013). With unprecedented levels of childhood obesity in the UK, there is an urgent need to rebalance food and drink advertising by increasing the promotion of fruit and vegetables and placing advertising restrictions on unhealthy products.

Advertising spend on fruit and vegetables is partly so low because producers have very small margins, leaving little finance available for investment. Low margins are driven by the fact that almost all vegetables are sold through supermarkets, which operate in an extremely competitive environment. Furthermore, there are very few brands of vegetables, so any single producer group investing in advertising will be benefiting the whole market and not just their share.

Advertisement of foods high in fat, salt and/or sugar (HFSS) is currently restricted both online and on television on channels and in time slots which are dedicated to children. There are, however, lots of loopholes, and children's exposure to advertising of junk foods and their associated brands remains high (Whalen et al., 2017).

The Government is considering extending the current ban on TV of HFSS advertising to include all programmes on air before 9pm (and considering measures for digital advertising). Additionally, the Mayor of London has introduced advertising restrictions across Transport for London's network to reduce exposure to advertisements for HFSS foods and non-alcoholic drinks (see page 15). And in parallel we have worked with others to launch the Veg Power advertising fund for vegetables (see page 21), which will use the power of advertising to inspire greater consumption of vegetables, launching its first campaign in partnership with ITV in 2019.

Data kindly supplied by Neilsen AdDynamix



Commentary by **Hugh Fearnley - Whittingstall**

Hugh Fearnley-Whittingstall is an award-winning writer, broadcaster and campaigner, widely known for his uncompromising commitment to sustainable and ethically produced food. He has earned a huge following through his River cottage TV series and books, as well as for Britain's Fat Fight (BBC1) and environmental campaigns such as Hugh's Fish Fight, and Hugh's War on Waste, which brought about changes in law at a European level.

What we're eating in the UK is killing us. Almost two thirds of adults in England are overweight or obese, and obesity sharply increases the risk of ill health and early death. And with 80% of children and 95% of adults and teenagers not eating enough vegetables, it's no wonder that we're on track for half of all children to be obese or overweight by 2020.

We are not to blame as individuals for these horrendous statistics. A big part of the problem is that we're bombarded with adverts for unhealthy products that are high in fat, salt and sugar. The advertising used to pitch junk food and snacks at us is highly effective – hardly surprising when you consider it's the result of £300 million worth of investment from food companies in the UK. Those companies – and our Government – really should be thinking about the detrimental effect of their products on public health.

The good news is that there's something we can do about the problem. Currently, only 2.5% of advertising spend is going on fruit and vegetables. It's time to shout loud about how great these fresh foods are, and how important it is for families to buy, cook and eat more of them every day. We can use the power of marketing, and social media, to

aggressively (why not?) sell healthy foods. Fruit and vegetables are not 'owned' by massive global brands, so anyone is free to sing their praises (see the Veg Power case study on page 21). This means everyone who wants to support this initiative can get involved, whether corporately, or personally.

At the same time we must continue to urge the Government to restrict advertising of unhealthy food. So far they've been slow to act. But there are indications that the sea change we so urgently need might at last be coming. The Mayor of London's ban on junk food advertising across the TFL network will undoubtedly have an impact on the health of the city. But that's just one city. And the recent Childhood Obesity Strategy's proposal to prohibit junk food advertising on television before the 9pm watershed suggests the Government might at last be ready to put the health of our kids above the profits of the big food companies. *Those proposals need to become actions, without delay.*

It's within our reach to change the system for the better: let's all play our part in rebalancing food advertising, to give everyone a better chance of appreciating fruit and vegetables – and living longer, healthier lives.

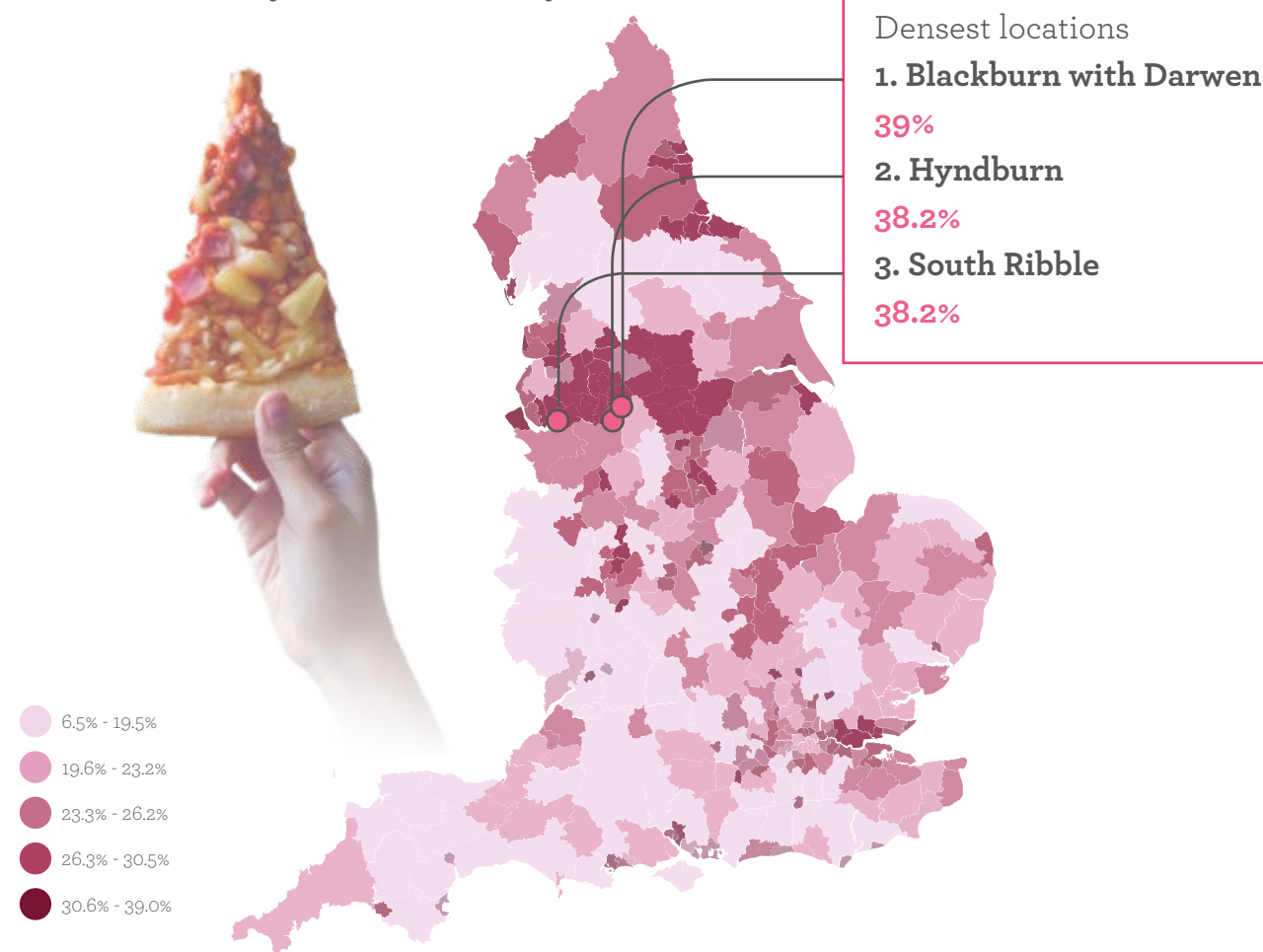
“ The good news is that there's something we can do about the problem. Currently, only 2.5% of advertising spend is going on fruit and vegetables. It's time to shout loud about how great these fresh foods are. ”

Places to buy food



One in four places to buy food are fast food outlets

Fast food outlets as a proportion of all food outlets by local authority



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DATA EXPLANATION BY DR TOM BURGOINE

We used the Ordnance Survey's Points of Interest (POI) dataset, for June 2018 (Ordnance survey, 2018a).

The dataset contains information from over 170 suppliers, and is one of the most complete sources of food outlet locations available in England (Burgoine and Harrison, 2013). We extracted data on the locations of cafes, convenience stores, restaurants, supermarkets, specialty and takeaway ('fast-food') outlets (Ordnance survey, 2018b). We combined POI classes 'fast food and takeaway outlets', 'fast food delivery services', 'fish and chip shops' and 'bakeries' as takeaways (Food environment assessment tool, Feat, www.feat-tool.org.uk, 2018). We calculated takeaway food outlets as a proportion of all food outlets (%) within local authorities. Local authority deprivation scores were from the Index of Multiple Deprivation 2015 (Department for Communities and Local Government, 2015).

The average takeaway food outlet proportion in a local authority is 25.1%. This is about a 4% increase in takeaway proportion since June 2014. The map shows variation in this proportion across local authorities in England, ranging from 7% (Isles of Scilly) to 39% (Blackburn with Darwen).

On average, there is a trend for more deprived local authorities to have a greater proportion of takeaway food outlets. If we rank all 326 local authorities by deprivation score from least to most deprived, an increase of 20 places is linked to a 0.7% greater proportion of takeaway food outlets. Compared to the fifth least deprived local authorities, which have an average proportion of 20%, the fifth most deprived local authorities have an average proportion of 31%.

There is evidence linking greater exposure to takeaway food outlets, to the likelihood of being overweight and obese (Burgoine et al., 2014, 2018). Greater exposure to takeaway food outlets in more deprived areas may be contributing to observed socioeconomic health inequalities.

Planners in English local authorities are increasingly implementing planning regulations that limit growth in the takeaway food sector, for example including exclusion zones around schools, and restrictions on the amount of retail frontage dedicated to takeaway food (Cavill N and Rutter H, 2014). There is often a focus on areas of perceived need, such as in areas where current takeaway food access is plentiful or where obesity levels are high. These areas are often more deprived, which may help to address inequalities.



Commentary by Sadiq Khan

Sadiq Khan has been Mayor of London since 2016. Over the last several years, he has made it part of his mission to reduce childhood obesity and promote healthy eating across the capital.

Food has a major impact on the health, happiness and prosperity of us all. That's why I want every Londoner to have access to healthy, affordable food – regardless of where they live, their personal circumstances or income. Yet this is far from the case at the moment.

London has one of the highest childhood obesity rates in Europe, with almost 40% of children aged 10 and 11 overweight or obese. This is not only unfairly harming the future life chances of many young Londoners but placing pressure on our already strained health service.

It's also a social justice issue. The evidence shows that it's children from poorer areas of our city who are disproportionately affected, with young people in Barking and Dagenham almost twice as likely to be overweight or obese as those from Richmond.

In a city as wealthy and prosperous as ours, it can't be right that where you live – or how much your family earns – can have such a significant impact on your access to healthy, nutritious food.

Doing nothing is not an option – we must make it easier for people to make healthier food choices.

As part of our London Food Strategy, we're working to improve London's food environment. This includes restricting new takeaways from opening within 400 meters of any school. We're also working with partners through the Healthier Catering Commitment to help existing takeaways make their menu healthier. We're supporting local councils to improve their retail offer through Good Food Retail Plans. And we're banning junk food advertising across the entire Transport for London network to help address London's childhood obesity epidemic.

I'm confident that these policies – and the many others we're implementing in London – can make a real difference. But we will never be able to fix everything about our food system from City Hall. If we are to ensure that everyone can access healthy, affordable food, we need to see bold action from local communities, the food sector and all levels of government.

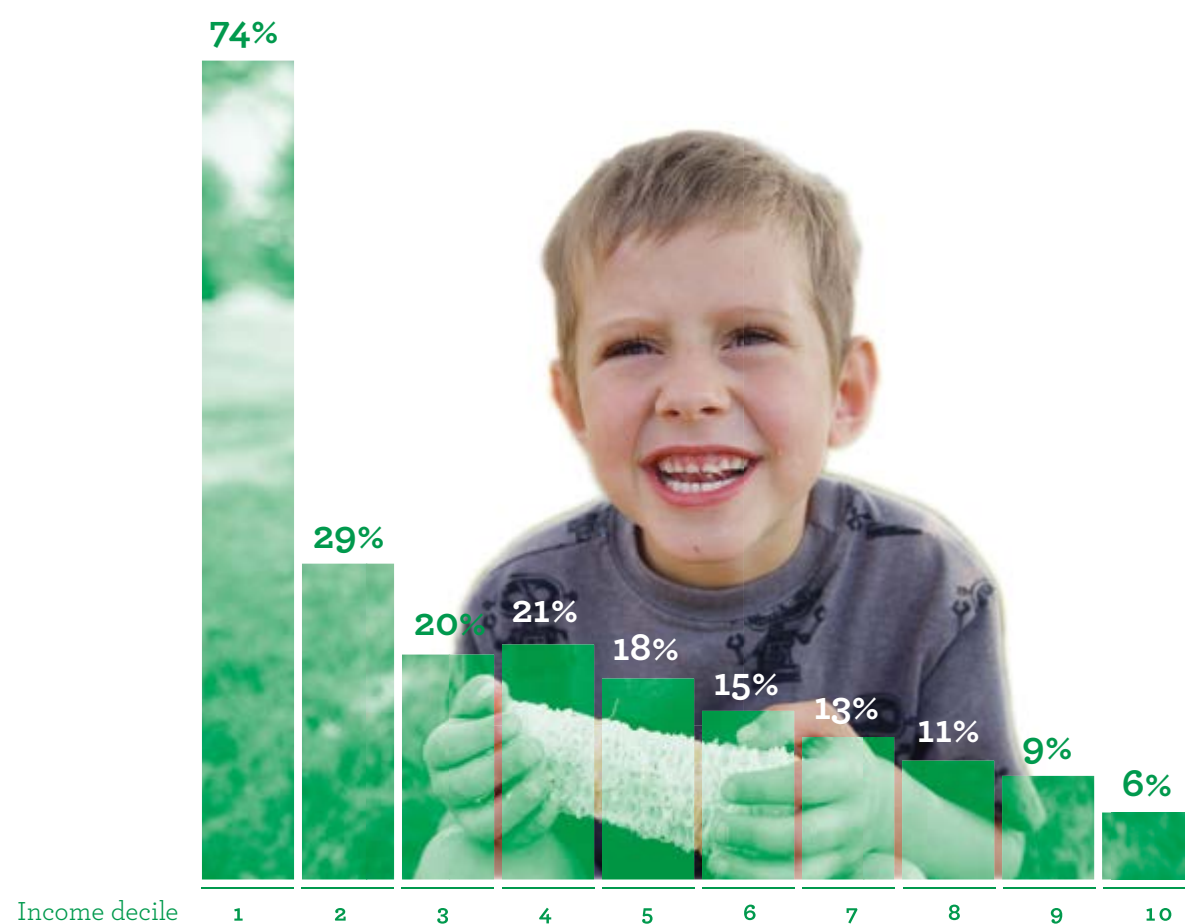
“ In a city as wealthy and prosperous as ours, it can't be right that where you live – or how much your family earns – can have such a significant impact on your access to healthy, nutritious food.

Affordability of a healthy diet



The poorest 10% of UK households would need to spend 74% of their disposable income on food to meet the Eatwell Guide costs. This compares to only 6% in the richest 10%

Proportion of disposable income* used up if the Eatwell Guide Cost was spent by all households, by income decile



* After housing costs

DATA EXPLANATION BY JENNY SUTHERLAND

We used data on household income from the Family Resources Survey 2016/17 (Department for Work and Pensions, 2018) to look at the affordability of Public Health England's Eatwell Guide, the Government's official guidance on a healthy diet (Public Health England, 2018). Previous research has shown for an adult to follow the Eatwell Guide, it would cost them an estimated £41.93 per week (Scarborough et al., 2016). We adjusted this cost based on a household's composition, as well as economies of scale that might affect the overall cost¹. The proportion of disposable income (after housing costs were removed) that would be used up by a healthy diet was then calculated.

These findings highlight the challenges low-income households across the UK face in affording the Government's recommendations for a healthy diet. The poorest 20% of UK households would need to spend an estimated 42% of their after-housing income on food in order to eat the Government's recommended diet, compared to just 8% for the richest 20% of households. The picture is very similar across each of the four UK nations.

The results of this research echo those from previous studies in the UK and internationally. One recent study looked at the affordability of a "socially acceptable diet" as defined by the Joseph Rowntree Foundation as part of establishing their Minimum Income Standard. They found that the proportion of families spending less than the amount needed to reach that diet has risen from 41% to 52% between 2005 and 2013 (O'Connell et al., 2018). This problem is not confined to workless households. Research from the Living Wage Foundation found that 37% of working parents who earn less than the living wage have regularly skipped meals due to a lack of resources (Living Wage Foundation, 2018).

We think the Government should be actively tracking the affordability of a healthy diet by including analysis like ours in its annual Family Food Survey report. We also think the Government should be gathering annual data on household food insecurity using the approach recommended by the United Nations. This is important because it captures people's lived experience of food insecurity, and allows them to track whether policy measures are making a difference. Unless we can see the problem by gathering and presenting the data, we can't solve it.

¹ Using the McClements equivalence scale



Commentary by Kathleen Kerridge

Kathleen Kerridge is a freelance writer and campaigner for food equality. She lives in Southsea with her husband, children, and dog.

Buying food for the poorest 10% of households is a challenge: healthy food can feel unattainable, an impossibility. After I had made sure the rent and bills were paid, what I had left had to stretch to near-impossible lengths. I would count it an achievement if I managed to fill the cupboards – with anything at all. I searched for foods that would give me the 'most bang for my buck'. That meant cheap food and starchy carbs.

Across mainland Europe, cheap foods are healthy choices. It's sensible that a kilo of tomatoes should be cheaper than a kilo of sausages. In the UK, however, the opposite is true.

To eat a healthy diet, the poorest 10% of households need to spend three-quarters of their disposable income to meet the Eatwell Guide costs. In comparison, those in the top 10% need only spend 6%.

For me, struggling to feed my children after I had paid everything

was stressful. It was soul destroying to have to walk past the vibrant greens and bright reds of the fresh vegetables, heading for the marked-down bread and reduced-stickered foods. Vegetables were out of my price-range. They added to a meal, but wouldn't fill bellies and sustain us all for very long. Per pound in money, the yield of vegetables and 'good food' wasn't financially feasible.

Things become basic, on a basic income, with basic questions:

Will it fill a stomach? Can I afford to buy it? Will the kids eat it?

There can be no risks, there can be no waste, and above all, no hunger.

I would like to see the UK take note of the European model. I think with food education and more affordable fresh produce, we could turn the tide for the poorest households and see us all eating 'well'.

“ Things become basic, on a basic income, with basic questions: Will it fill a stomach? Can I afford to buy it? Will the kids eat it? ”

Wages



17.6% of employees of the food industry earn the minimum wage, compared to 7% of workers across the UK

Percentage of employees in the UK paid below the real Living Wage by industry

Agriculture & fishing



36%



Waiters



83%



Food retail



62%



Kitchen staff



81%



Chart shows employees earning less than the Living Wage rate in their industry as promoted by the Living Wage Foundation. In April 2017, the London Living Wage rate was £9.75 and the UK Living Wage rate was £8.45

DATA EXPLANATION BY STEPHEN CLARKE

Using data from the Annual Survey of Hours and Earnings (ASHE), the largest survey of employees in the UK, we analysed the pay of people in the UK food industry. The data shows that across the whole of the food industry, which includes food manufacturing, wholesaling, retailing, catering and agriculture, 1.4 million employees (46.5% of the total) are low-paid, earning less than two-thirds of typical hourly earnings. Furthermore, 520,000 people (17.6% of the total) are paid the minimum wage. To put this in perspective approximately 18.1% of employees in the UK are low-paid and 7% are paid the minimum wage.

The prevalence of low-pay varies across different parts of the food industry. We estimate that catering (bars, restaurants) has the highest proportion of low-paid workers (59.6%) while food manufacturing has the lowest proportion (24.8%). The most poorly paid occupations in the food industry are waiters (79.1% of whom are low-paid) and kitchen staff (76.2%). Low-pay is incredibly prevalent in such roles where between a quarter and a third of staff are paid just the legal minimum.

Although the food industry has a higher-rate of low-pay than many other parts of the economy, the situation has improved over the past few years, particularly as a result of the introduction and increased generosity of the National Living Wage (NLW) (the minimum wage for those 25 and over), and rises in the minimum wage. In 2012 over half (56.3%) of employees in the food industry were low-paid, today this figure is 46.5%. The sharpest falls in the prevalence of low-pay have happened in the food wholesaling industry and amongst cashiers and kitchen staff. With further rises in the NLW planned in the years ahead we can expect more progress, but to significantly reduce the prevalence of low-pay in the sector more is needed. More firms should be encouraged to pay the 'real living wage' of £9.00 and £10.55 in London. At the moment over half of people working in the food industry are paid less than the real living wage compared to around a fifth for the UK as a whole. Firms should also be encouraged to invest more in staff and automation, increasing skills, productivity and raising wages.



Commentary by
Lord David Willetts

The Rt Hon Lord David Willetts is Executive Chair of the Resolution Foundation.

We have made big strides in combatting low pay in the UK in recent years. The share of employees paid below two-thirds of the typical hourly wage has fallen from 22% in 2013 to 18% in 2017. Rises in the minimum wage, particularly the new National Living Wage (NLW) for people 25 and over, have driven this decrease, with voluntary initiatives such as the 'real living wage' and a tighter labour market lending a hand. Although more progress needs to be made, we can take heart from this success.

However, one area of the economy where low-pay is still the norm is the food industry. Almost half of all employees in the food and agriculture sector are low-paid, with almost one in five people in the sector earning the legal minimum. More needs to be done to make sure that the people who pick, cook and serve the food we eat are paid a decent wage. Change is possible: other advanced economies, particularly many in Northern Europe, combine lower rates of low pay and low unemployment. Productivity, and so wages, are higher in hospitality, food processing and agriculture in the majority of Western European countries.

Boosting wages across the food industry will require concerted action from government, businesses and consumers. Government can boost productivity by promoting innovation by co-investing with business in agri-tech. Government can also do more to ensure that changes to the world of work, particularly the rise of more flexible forms of employment, benefits workers as well as firms. Businesses need to take a more proactive approach to staff development, boosting productivity and paying higher wages. Finally, consumers need to be aware that sometimes food is 'good value' or 'affordable' because of low wages or low prices paid to suppliers. In some cases this may need to change.

Having witnessed the first sustained decline in low-pay in this country since the 1970s, which has also been felt in the food industry, we can take heart that change is possible. To ensure more rapid progress in future, though, we must do more.

“ Almost half of all employees in the food and agriculture sector are low-paid, with almost one in five people in the sector earning the legal minimum. ”

Amsterdam

KEY ENABLERS OF THE AMSTERDAM HEALTHY WEIGHT PROGRAMME

- 1. STRONG VERTICAL LEADERSHIP
- 2. COLLABORATIVE, CROSS-DEPARTMENTAL APPROACH
- 3. STRATEGIC USE OF POWER AND INFLUENCE
- 4. CLEAR PARAMETERS AND EXPECTATIONS
- 5. AN ACADEMICALLY RIGOROUS BASIS FOR ACTION
- 6. CULTURE OF REVIEWING, MONITORING AND REFLECTIVE ACTION
- 7. CREATIVE APPROACH TO ADDRESSING BARRIERS



A ‘whole-systems’ approach is often highlighted as key to creating an environment that makes it easy for individuals to make healthy choices at every opportunity. We can learn from successful initiatives internationally, including the Amsterdam Healthy Weight Programme. The programme was launched in 2013 in response to substantially higher rates of childhood overweight and obesity compared to the Netherlands national average, with certain groups such as low-income children and those from migrant and minority ethnic backgrounds particularly affected.

The programme’s whole-system approach ensures consistent messages are delivered by politicians, local authorities, schools, medical professionals, planning bodies, sports organisations, communities, charities and the business sector to ensure all the complex and multifactorial determinants of childhood obesity are covered. Areas with the highest childhood obesity rates have been targeted with specific programmes for high risk schools, ethnic groups, neighbourhoods and parents. Monitoring is frequent (children have their height and weight measured 13 times between the ages of zero and four

years) (Obesity Action Scotland, 2017) and there is a focus on both obesity prevention and care as well as support for those who are already overweight (The Centre for Social Justice, 2017). Activities have included public drinking fountains, a ban on marketing unhealthy foods at sports facilities, training 300 health ambassadors in different neighbourhoods, healthy playgrounds, partnerships with food businesses and specific treatment for obese children (Amsterdam Healthy Weight Programme, 2017).

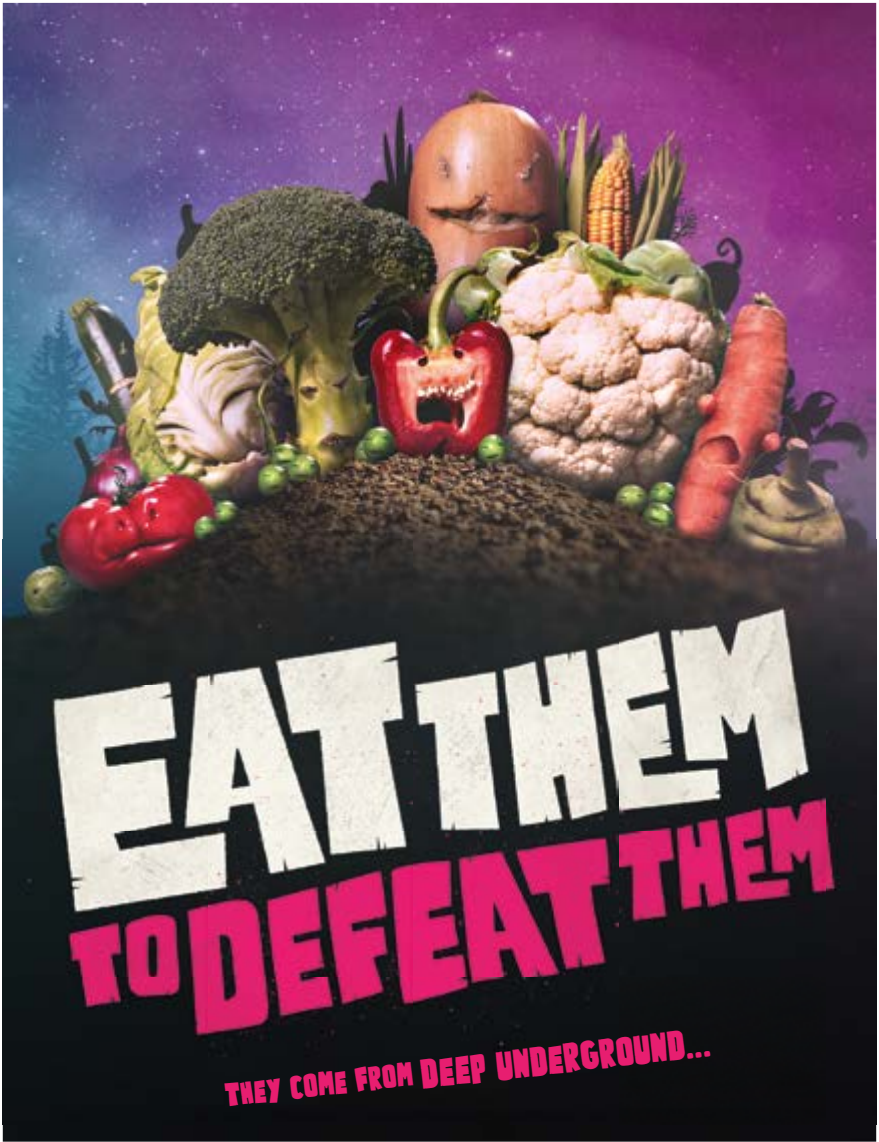
Although there are no evaluations directly linking Amsterdam’s Healthy Weight Programme to changes to childhood obesity, the prevalence of overweight children in Amsterdam dropped from 21% in 2012 to 18.5% in 2015, with the biggest decrease among children with a low socioeconomic status (Amsterdam Healthy Weight Programme, 2017). Recent reviews of the programme emphasise how factors that have been important to the programme’s success can be replicated elsewhere: strong political leadership and a shared responsibility through cross-party, cross-departmental and cross-sector collaboration (Hawkes et al., 2017; The Centre for Social Justice, 2017).

Veg Power

VEG POWER PARTNERED WITH ITV TO CREATE A BOLD NEW CREATIVE CAMPAIGN TO INSPIRE CHILDREN TO EAT MORE VEG

The low level of advertising spend on vegetables was a key problem highlighted by the national Peas Please initiative coordinated by the Food Foundation, Nourish Scotland, Food Sense Wales and WWF. Peas Please aims to drive up vegetable consumption in the UK by inspiring businesses and public authorities working right across the food system to take action to make it easier for everyone to eat veg. But we know that demand needs to keep pace with supply if real change is going to happen, and so at the first Veg Summit in October 2017 we launched a competition for ad agencies to develop a veg advert aimed at children. The shortlist was judged by the legendary ad man Sir John Hegarty and TV presenter and food campaigner Hugh Fearnley-Whittingstall. The winning advert was displayed in over 5,000 locations around the country and features on the BBC documentary Britain’s Fat Fight.

Together with Peas Please, John and Hugh constructed a plan to develop an advertising fund for vegetables called Veg Power, and we set a target to raise £100,000 and get a proof of concept stage underway, under the guidance of an informal steering group. We received contributions from a wide



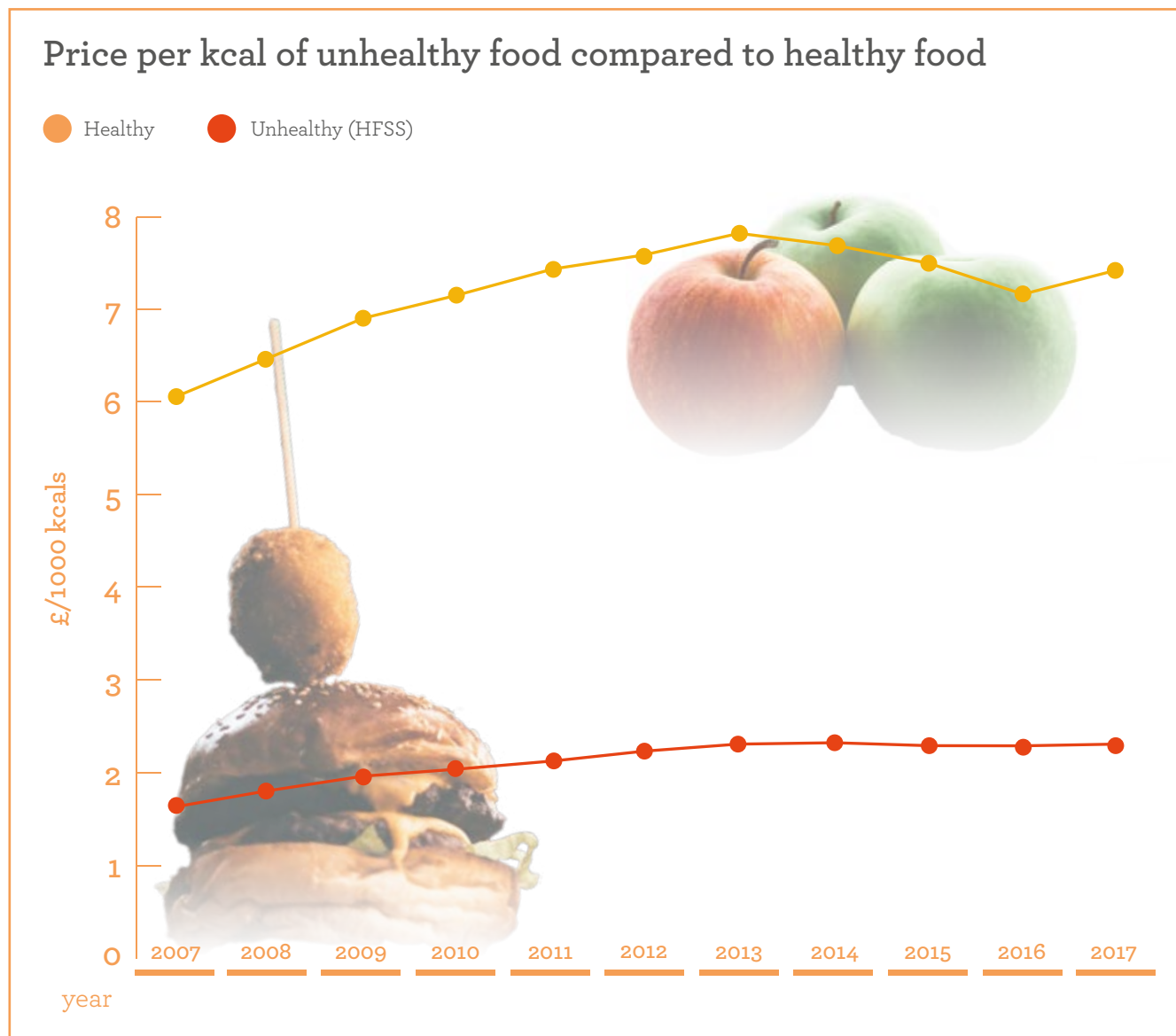
range of donors including Tesco, Birds Eye, Sodexo, the National Farmers Union and a large number of public donations through a crowdfund reaching more than 10 million people on social media. Having successfully reached our target, we were asked by ITV to partner with them to run a national campaign to inspire children to eat veg. The ITV campaign called #EatThemToDefeatThem began on

January 25th 2019 and will make use of £2 million of donated media space on ITV, backed by a unique alliance of all the major supermarkets and Birds Eye. It is an entirely fresh approach to inspiring veg consumption which makes eating veg fun, and makes no reference to the health benefits. This is an unprecedented opportunity for advertising veg, and for testing the potential power of advertising for inspiring children to eat their greens!

Food prices



Unhealthy foods are three times cheaper than healthy foods



DATA EXPLANATION BY CAT KISSICK

Building directly on the work conducted by CEDAR at Cambridge University we matched price data for 94 foods and drinks tracked by the UK Consumer Price Index (CPI) to food and nutrient data from the UK Department of Health's National Diet and Nutrition Survey, producing a graph for the period 2007–2017. Each item was assigned to a food group and categorised as either 'healthy' or 'high in fat, salt and/or sugar (HFSS)' using the nutrient profiling model developed by the Food Standards Agency (Jones et al., 2014). The CPI data does not capture all price reductions from promotions, though we know that unhealthy foods tend to be promoted more than healthy foods (Which?, 2016). Using price per kilocalories is a helpful way to understand the relative prices of foods which make up whole diets, rather than comparing individual products within specific food categories (Monsivais, McLain and Drewnowski, 2010; Drewnowski, 2011;).

For the last 10 years, the mean price of healthy food has consistently been greater than the mean price of HFSS food, peaking at £7.80/1,000kcal for healthy, and £2.43/1,000kcal for HFSS in 2013. Between 2007 and 2013 the price differential between healthy and HFSS food grew. While this difference declined somewhat in the subsequent three years, it is now rising again. The recent levy on sugary drinks may start to affect this which would be welcome news, and the Government's current proposals to consider restriction on the promotion of HFSS foods could also positively affect relative prices.

Despite a steady increase in price for HFSS foods, the price difference between healthy and HFSS foods is bad news for the health of the UK population. The negative impact will be greatest for those from lower socio-economic backgrounds, where price is a stronger driver of food choice, but for whom convenience is also important. The figures suggest that for those with limited budgets the current food system incentivises the purchase of HFSS food, exacerbating social inequalities in health.



Commentary by
Jamie Oliver

Jamie Oliver is a chef and campaigner. During a 20-year television and publishing career he has inspired millions of people to enjoy cooking from scratch and eating fresh, delicious food. Jamie has committed his business to work towards the goal of halving the rate of childhood obesity by 2030.

Cheap as chips: What's the price tag on healthy eating?

You're hungry, fancy a snack and are on a tight budget – what do you choose: a punnet of raspberries for £3 or two chocolate bars for £1? Yeah, I know, that's not a fair question, is it? And that's the point – the price of our food can push us to eat and drink unhealthy options.

It's not a fair playing field. Public Health England has found that higher-sugar food and drink items are more likely to be promoted, and are more heavily promoted. And right now, Year Six kids in England from deprived backgrounds are twice as likely to be obese compared to their better-off peers.

We need to talk about why health comes with a price tag. We can change this crazy situation!

For the last 10 years, the cost of healthy products has been consistently higher than less healthy ones. New research shows that on average unhealthy products are three times cheaper, calorie for calorie.

Walk into any UK supermarket and you'll see all the price reductions – 'buy one, get one free', or 'two for one' – on unhealthy food. When was the last time you saw those sorts of promotions on affordable healthy family meals?

But it doesn't have to be this way. These promotions are organised by supermarkets and paid for by manufacturers. It's a tactic to influence what we buy. And it works. But why can't we use these powerful tactics to create a level playing field, and give healthy food a bigger voice?

Last summer, the Government committed to halving childhood obesity by 2030. To make that happen, we need to look closely at precisely why poorer kids are twice as likely to have obesity. To me, the most imperative part of the solution is to make healthy convenient food more widely available and much more affordable. We need to listen to organisations like the Food Foundation campaigning for change. The health of your child shouldn't depend on how much money you've got in your pocket.

“ We need to look closely at precisely why poorer kids are twice as likely to be obese. The health of your child shouldn't depend on how much money you've got in your pocket.

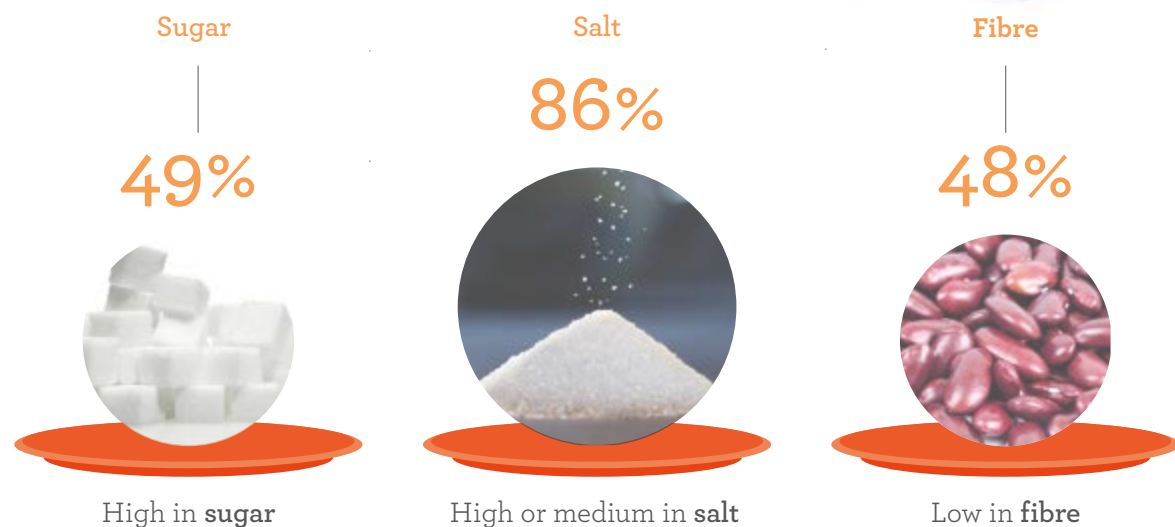
Products with too much sugar

Cereals



Half of breakfast cereals marketed to children are high in sugar, and for these cereals a single serving would make up a third of a child's daily sugar allowance

Breakfast cereal products with packaging that may appeal to children...



Sources

Scoring system for sugar:

> 22.5g sugars per 100g received red label
< 5g sugars per 100g received green label

Scoring system for salt:

>1.5g salt per 100g received red label
≤ 0.3g salt per 100g received green label

Scoring system created for fibre:

< 5g fibre per 100g received red light
≥ 10g fibre per 100g received green light

Coloured labels based on the criteria from the Department of Health colour-coded nutrition labelling system: https://www.food.gov.uk/sites/default/files/media/document/fop-guidance_0.pdf
Department of Health for salt and sugar criteria: https://www.food.gov.uk/sites/default/files/media/document/fop-guidance_0.pdf

DATA EXPLANATION BY KAWTHER HASHEM

We present here the results of a survey on breakfast cereal products with packaging that may appeal to children conducted in November 2018 by Action on Sugar and Action on Salt. All major supermarkets were visited: Aldi, Asda, the Co-op, Lidl, Marks & Spencer, Morrisons, Tesco, Sainsbury's and Waitrose. A total of 77 products met the inclusion criteria.

38 out of 77 products received a red label, 37 received an amber label and only two received a green for sugar per 100g. The recommended serving size ranged from 30 to 45g. 84% of products state a typical serving is 30g.

For the products high in sugar a single serving would make up over a third of a child's daily allowance (19g). 65 products (84%) contain more than one teaspoon of sugar per serving. Of these, 25 products (32%) contain more than two teaspoons of sugar per serving, which is over 40% of a child's (aged four to six years) daily allowance.

For salt, one out of 77 received a red label, 65 received an amber label and 11 received a green label for salt per 100g – i.e. the majority of cereals had enough salt to provide about 3% or more of a child's daily allowance in a serving.

We created a scoring system for fibre:

- ≥ 10g fibre per 100g received green light
- ≥ 5g and < 10g fibre per 100g received amber light
- < 5g fibre per 100g received red light

Five out of 77 products received green light. 35 products received amber light and 37 products received red light for fibre per 100g. This means that only 8% of cereals had 3.3g or more of fibre in a portion (which is only 17% of what a child (aged 5-11 years) needs each day).

The recommended fibre intake for a child aged 5-11 years is 20g per day. We are told breakfast cereals are a primary source of fibre. However, worryingly 75 products (97%) contained 20% or less of the recommended daily requirement of fibre per serving and only one product provided more than 30% of recommended daily requirement of fibre.

We found only two products with packaging that may appeal to children have green front of pack labels for sugar and salt.



Commentary by Prof Graham MacGregor

Graham MacGregor is a Professor of Cardiovascular Medicine at the Wolfson Institute of Preventive Medicine (Barts and The London) and Honorary Consultant Physician at Queen Mary, University of London. He has published more than 500 refereed scientific articles on various aspects of blood pressure, cardiovascular medicine and nutrition and public health.

The Global Burden of Disease shows that the consumption of products high in fat, salt and/or sugar are by far the biggest cause of premature death and disability (IHME, 2017). In the UK, two thirds of calories consumed by families come from highly processed packaged foods, which are likely to be high in fat, salt and/or sugar (HFSS) and low in fibre, fruit and vegetables. The diets of UK children are particularly worrying, where 47% of primary school children's calories come from HFSS foods, 85% of secondary school children are not eating enough fruit and vegetables, more than 90% are not eating enough fibre. All are eating too much salt and sugar. (Food Foundation, 2016; PHE, 2018).

At the same time the UK has one of the highest overweight and obesity rates among developed countries. The UK currently spends about £6.1 billion a year on the medical costs of conditions related to obesity and overweight (PHE, 2017) and more than £14 billion in treatment of Type 2 diabetes (Cost of Diabetes, 2019). Neither of these two figures include the social cost, which is estimated at £47 billion (McKinsey Global Institute, 2014).

Our high salt intake raises blood pressure. Raised blood pressure is the single biggest risk factor for cardiovascular disease, including stroke and heart disease, which are the leading causes of death and disability in the UK. Most of the salt

in the UK diet (75%) comes from salt added by the food industry to processed food or food eaten out of the home. As a result, many people do not realise they are eating too much salt and remain unaware of the effects it is having on their blood pressure and health. Our high sugar intake is contributing to increasing risk of overweight and obesity, Type 2 diabetes and tooth decay.

There are thousands and thousands of packaged processed products on supermarket shelves that can be improved. One of our leading calls to government has been to put in place a robust reformulation programme to get food and drink companies to gradually improve the nutritional profile, by reducing salt, sugar and saturated fat content in their products.

Children's breakfast cereals are often promoted as a healthy and easy breakfast option, but as you can see from the data, there is plenty of space for improvement. Not just changing the nutritional profile of these products but also making high fibre, low salt and sugar breakfast cereals more appealing to children, by removing all the children-friendly cartoon characters from unhealthy products and putting them on more nutritionally balanced products. This is a challenge that the food industry must meet over the next few years.

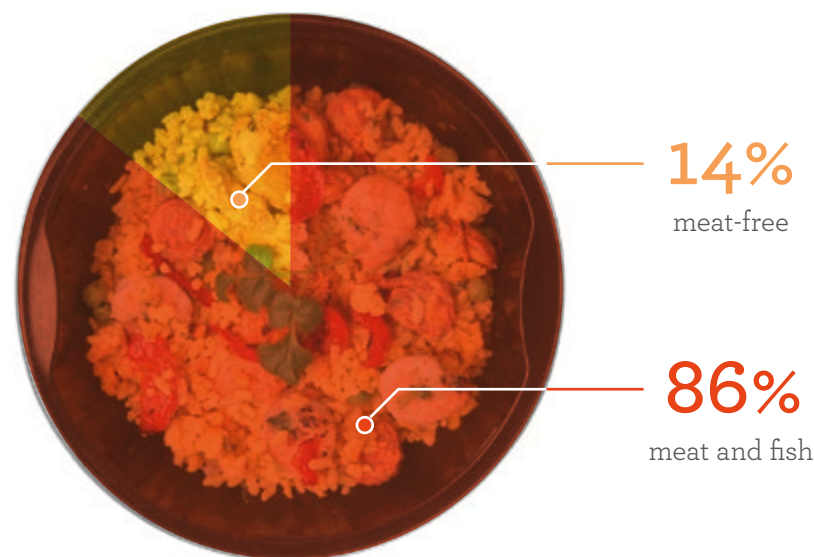
Products with too little veg

Ready meals

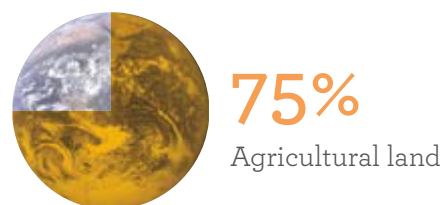


Only 14% of ready meals have no meat

In a survey of 1,350 ready meals on offer in the UK...



Globally, meat production accounts for...



DATA EXPLANATION

BY SIMON BILLING

Nine out of ten of us in the UK eat ready meals from supermarkets and a third of us eat them at least on a weekly basis (Mintel, 2017).

Eating Better surveyed 1,350 ready meals (April-May 2018, all those available online and in large store visits) in ten supermarkets: Aldi, Asda, the Co-op, Iceland, Lidl, Marks & Spencer, Morrisons, Sainsbury's, Tesco and Waitrose. We included both own-brand and branded meals, chilled and frozen options, which were all designed to be eaten as a hot main meal.

We wanted to find out how far supermarkets are providing options for those wanting to eat less meat and dairy foods, and whether the meat sourced is produced to higher welfare standards. The production, distribution and consumption of food generates some 30% of global greenhouse gas emissions, uses 70% of our global water supply, and is a key source of damaging pollutants in soils, air and waterways. Agricultural production takes up to 40% of the earth's surface and as such is the main cause of habitat destruction and associated biodiversity loss. The rearing of farm animals accounts for about 15% of all global greenhouse gas emissions (i.e. half of food related emissions) and utilises about three quarters of all agricultural land.

We found that meat is still the main ingredient in 75% of ready meals surveyed, with chicken featuring in half of these meals. Only 14% of the ready meals were vegetarian or vegan with the best choice in Waitrose and worst choices in Asda, Morrisons, Lidl, Iceland and Aldi. Ninety percent of the vegetarian ready meals were cheese-based and on average higher in calories, saturated fats and salt than the meat-based options. We found that some, but not all supermarkets were selling vegetarian and vegan ranges at a premium over their full range, on average 14% more. Eight out of ten of the meals labelled within healthy ranges contained meat, often red and processed. The World Cancer Research Fund advise eating 'no more than moderate amounts of red meat' and eating 'little, if any, processed meat'.

We're asking supermarkets to increase the number of plant-based and healthier vegetarian ready meals. We want to see these options priced comparatively to meat, and price promotions and support in-store and online to encourage people to try these options. On the meat ingredients we want to see labelling of the source of meat, and commitment to UK sourcing and higher animal welfare standards. We're encouraging the public and their families to try swapping meat for vegetarian and vegan ready meals, or better still, to prepare your own.



Commentary by
Tony Juniper

Tony Juniper CBE is a campaigner, writer, sustainability adviser and a well-known British environmentalist. He is now the Executive Director of Advocacy & Campaigns at WWF. For more than 30 years he has worked for change toward a more sustainable society at local, national and international levels. Tony speaks and writes widely on conservation and sustainability themes and has authored many books, including the multi-award winning bestseller 'What has Nature ever done for us?' published in 2013.

The most significant single factor now impacting our planet's web of life is the manner in which humankind feeds itself. The WWF living planet report published last year revealed the shocking fact of how vertebrate populations have declined on average by 60% since 1970. Two thirds of this rapid and drastic decline has been caused by our food system. On top of the profound impacts on wildlife populations, our food system is also responsible for about a third of greenhouse gas emissions. The conclusion that must be drawn from these and other findings is at one level quite simple: we must stop eating like this.

One key question relates to demand for protein. The impact of animal protein-based diets on land, freshwater and climate is on average much greater than that of plant-based diets. For example, in tropical regions the cultivation of soya to supply animal feed in meat and dairy supply chains drives the conversion of natural habitat. This is one major factor contributing to continuing tropical deforestation over an area the size of England annually – 150,000km². The impact of our Western diet, rich in animal products, is so great that one leading study estimated that if the world's

two billion biggest consumers cut their meat and dairy consumption by 40% then we would free up an area of land twice the size of India. On top of the impacts on ecosystems and the climate, the current high consumption of livestock-derived foods also runs against health advice, with many consumers eating far more meat and dairy products than is good for them.

That only 14% of ready meals offer a meat-free option is extremely concerning. An increasing number of consumers are looking to change their diets to benefit their health and the planet's, and manufacturers and retailers are evidently behind the curve of shifting demand. Considering what we now know about the pressures on our planet, and indeed some troubling public health trends, it is vital that retailers and food companies take responsibility for their offerings. We must also encourage policymakers to help agriculture restore the environment, whether through ambitious environmental policies and the switching of farm subsidies, or via the management of global supply chains, so that consumers in one part of the world don't contribute to ecological devastation elsewhere.

“ Consumers are looking to change their diets to benefit their health and the planet's, and manufacturers and retailers are evidently behind the curve of shifting demand.

USA



In the USA, a collaboration between the US Department of Agriculture’s (USDA) National Institute of Food and Agriculture (NIFA) and their Food and Nutrition Service led to the introduction of the Food Insecurity Nutrition Incentive (FINI) grant programme in 2014. FINI makes it easier for low income households to buy more fruit and vegetables using incentives targeted at participants of the Supplemental Nutrition Assistance Program (SNAP) – a federal programme providing food-purchasing assistance for low-income households across the US.

FINI does this by providing grants on a competitive basis to projects that help SNAP participants afford more fruit and vegetables through cash incentives that increase their purchasing power at a number of locations:

SNAP shoppers using their food benefits at participating farmer’s markets are given additional vouchers to spend on fruit and vegetables. In its first year, SNAP shoppers were offered incentives at almost one in eight of every farmer’s markets in the US.

Healthcare providers, community health workers and community nutritionists

at select sites can prescribe fruit and vegetables to SNAP participants. In all Safeway locations in Washington, shoppers who buy over \$10 of fruit and vegetables using their SNAP food benefits receive a coupon for \$5 off their next purchase.

Recent evaluations of the programme providing insights from grantees and stakeholders have reported positive results (Farmers Market Coalition, 2017; Gretchen Swanson Center for Nutrition, 2018). In its first year, FINI-supported programmes at farmer’s markets led to an estimated 16-32 million additional servings of fruit and vegetables for SNAP households and \$14.3 million in economic activity for participating communities. A number of surveys of participating SNAP shoppers found that incentives were popular with high redemption rates. Grantees reported their projects often served as an entry point to farmer’s markets for families that wouldn’t previously have visited, providing opportunities to try new fruits and vegetables. Between 74% and 94% of participants reported an increase in either their consumption or purchase of fruits and vegetables, and improved health outcomes such as weight loss and

chronic disease management were cited as common (Farmers Market Coalition, 2017; Gretchen Swanson Center for Nutrition, 2018).

The UK Government’s Healthy Start programme, which provides vouchers for healthy foods such as fruits and vegetables and milk for low income women with children could be strengthened and modernised, by increasing the value of the vouchers. This is particularly important for improving the programme’s uptake, which as of January 2018 was only at 66% (First Steps Nutrition Trust, 2018). The Alexandra Rose Charity provides additional vouchers for fruit and vegetables to those receiving Healthy Start vouchers in certain geographical areas and have a model which could be scaled up. Access to healthy school meals could also be improved through extending the provision of free school meals (for children over 8 years), which would provide significant financial and nutritional benefit to households who fall above the current free school meal eligibility but nonetheless struggle to provide healthy food for their children.

Dutch retail chain Marqt



The supermarket chain Marqt, which operates 16 stores in Amsterdam, Rotterdam, Den Haag and Haarlem has become the first supermarket chain in the Netherlands to ban marketing of unhealthy products to children. All sweets, biscuits, drinks and cereals with packaging, for example children’s characters, aimed at children, have been removed from their stores. It is the first food retailer to fully comply with the ambitions of the ‘Stop Marketing to Children Alliance’, a collaboration between scientists and social, consumer and health organisations which wants to protect children from the marketing of

foods that have a negative effect on their health. It wants retailers to stop selling products aimed at children that fall outside of the Schijf van Vijf (the healthy eating guidelines) of the Netherlands Nutrition Center.

Marqt CEO Joost Leeftang told us: “Marqt helps consumers choose products that are produced with respect for people, animals and environment and this includes helping customers make healthier choices. Tempting children to choose unhealthy products doesn’t fit with how we want to help our customers.

Childhood obesity



Obesity among children aged five is 2.2 times greater amongst the most deprived communities compared to the least deprived

Prevalence of obesity

- Most deprived
- Least deprived

England data compares top and bottom deciles. All other nations show top and bottom quintiles.

Sources

England – National Child Measurement Programme 2017/18 (NHS Digital, 2018) – Age group – 4-5y

Scotland – Child Health Surveillance Programme 2016/17 (Information Services Division, 2017) – Age group – Primary 1 (4-5-6.5y)

Wales – Child Measurement Programme 2016/17 (Public Health Wales NHS Trust, 2018b) – Age group – 4-5y

Northern Ireland – Northern Ireland Health and Social Care Inequalities Monitoring System 2015/16 (Child Health System) (Information Analysis Directorate, 2018) – Age group – Primary 1 (4-5y)



DATA EXPLANATION

BY JENNY SUTHERLAND

Public Health England's National Child Measurement Programme (NCMP) measures the height and weight of Reception and Year Six children attending state-maintained primary schools in England (NHS Digital, 2018). Scotland's Child Health Surveillance Programme also provides BMI data on Primary One children in Scotland (Information Services Division, 2017). BMI data on children living in Wales came from the Child Measurement Programme in Wales (2016/17) which uses information collected by school nursing services who measure the heights and weights of all reception class children (Public Health Wales NHS Trust, 2018). In Northern Ireland, childhood BMI is measured through the Child Health System as part of the Health and Social Care Inequalities Monitoring System (Information Analysis Directorate, 2018).

The data show that one in five children in England leave primary school obese. Children from all backgrounds are at risk but children living in the most deprived areas in England are over twice as likely to be obese than those in the least deprived areas. This gap is consistent across all four nations and is increasing in all except Northern Ireland. Despite consistent attempts to reduce overweight and obesity in the UK, it continues to fuel a rise in diabetes, heart disease and some cancers. Obesity doesn't only impact physical health; obese children are more likely to suffer from emotional, psychological and social problems, including bullying, depression, anxiety, educational failure and social isolation (Centre for Disease Control and Prevention, 2016).



Commentary by
Prof Sir Michael Marmot

Sir Michael Marmot is Professor of Epidemiology at University College London, and Immediate Past President of the World Medical Association. He is the author of 'The Health Gap: The Challenge of an Unequal World', among other titles, and has been awarded honorary doctorates from 18 universities.

People with higher socioeconomic position in society have a greater array of life chances and more opportunities to lead a flourishing life. They also have better health. The two are linked: the more favoured people are, socially and economically, the better their health. This link between social conditions and health is not a footnote to the 'real' concerns with health – health care and unhealthy behaviours – it should become the main focus.

Health inequalities that could be avoided by reasonable means are unfair. Putting them right is a matter of social justice.

Knowing the nature and size of the problem and understanding what works to make a difference must be at the heart of taking action to achieve a fairer distribution of health. In the UK we are extremely fortunate to have an abundance of data on childhood obesity. Every child in state school in England is measured twice in their first and last years of primary school and the data tell a shocking story. Inequalities in obesity are increasing. The rise in obesity in children from privileged backgrounds has stopped, but obesity is still on the increase in children from more deprived backgrounds. This increase

in childhood obesity bodes poorly for the future. The Governments across our four UK nations have said they want to reduce social inequalities in childhood obesity. To do this they have to put action on social determinants of health in central place.

This report points to the fact that action needs to take place in all areas of policy which help to create the food environment around us, from planning our high streets, to food marketing, to fiscal measures. These policies don't currently do enough to make the healthy choice the least costly in time and effort and the most attractive. And if you have little money, you can't buy your way out of the problem by living in a neighbourhood with lower concentration of fast food, or choosing snacks which are healthy when on the go. Moreover, you're likely to have a million other daily worries which trump any concerns you have about healthy eating.

Childhood obesity has such devastating long-term consequences for children it's high time we started to design a range of policies which specifically help to tackle the profound differences in obesity between rich and poor children.

“Health inequalities that could be avoided by reasonable means are unfair. Putting them right is a matter of social justice.”

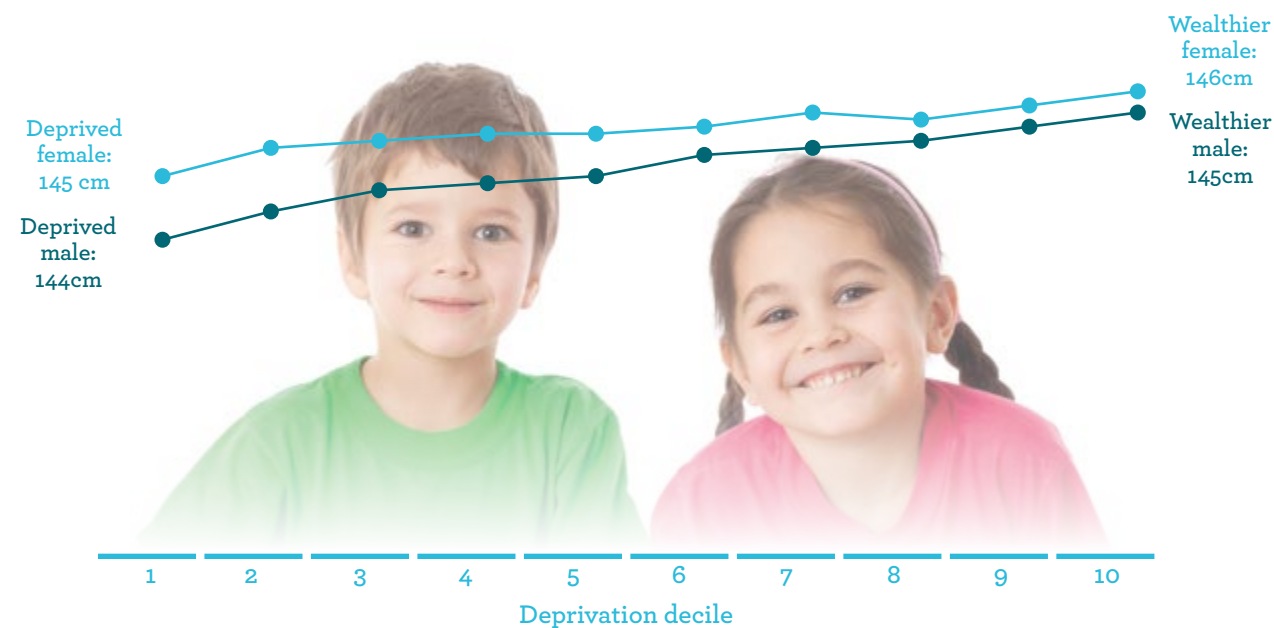
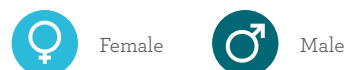
Child growth



Children in deprived communities are more than 1cm shorter on average than children in wealthy communities by the time they reach age 11

*with the exception of children of black ethnicity (see table notes below)

Height of white children in Year Six by deprivation



Sources

Data courtesy of Public Health England. NHS Digital (2018) Data for White British children from NCMP 2017/18

DATA EXPLANATION BY JENNY SUTHERLAND

We used data on the height of 641,057 Year Six children from the National Child Measurement Programme (NCMP), an annual surveillance programme that measures the height and weight of children attending state-maintained primary schools in England (NHS Digital, 2018). Data on children of white British ethnicity was taken from the 2017/18 NCMP and data from children from non-white ethnic groups was taken during the NCMP years 2014-15 to 2017/18 (NHS Digital, 2018).

In order to take into account changes in height by age, even within the school year, height was examined using standardised Z-scores, which compare a child's height to a reference population (Public Health England, 2016). Deprivation was measured using the 2015 Income Deprivation Affecting Children Index (IDACI) which measures the proportion of children under the age of 16 living in low-income households. The measure of deprivation was based on the 2011 Lower Super Output Area the child was a resident of (Communities and Local Government, 2011).

These data suggest that for 10-11-year-old children in white British and Asian ethnic groups, height decreases with every increase in area-level deprivation. Children living in the most deprived areas were, on average, over 1cm taller than those living in the least, with the greatest difference in white British boys. The same relationship doesn't seem to be apparent for children of black ethnicity, although further assessment of height in black children is needed. Previous research using the same NCMP data from 2008/9 to 2012/13 found similar differences (Hancock, Bettiol and Smith, 2016), although other recent studies of British children suggest that though still apparent, socioeconomic inequalities in height might be narrowing, as those from lower socioeconomic groups are getting taller (Bann et al., 2018).

We don't really know how these disparities in height might impact children across their lifespan and there are several different factors that can impact height, which cannot be controlled for here. However, shorter stature at a population level can be an indicator of worse nutritional status and environmental conditions. Therefore, child height should continue to be routinely monitored and disparities in environmental risk factors that may prevent children from growing to their full potential addressed.



Commentary by
Shirley Cramer CBE

Shirley Cramer is Chief Executive of the Royal Society for Public Health. She sits on the Food, Farming and Countryside Commission to provide a public health voice on the importance and effects of the food industry and farming on health.

Tracking the development of your children can be an exhilarating journey, marking their first steps, first words and of course their steady growth. We love to capture these important steps for posterity, both visually and also on paper – many of us have had wall charts regularly checking how tall our children had grown over a specific period and marking the upward trajectory.

Of course our genes play a role in our height, but only rarely do we think about the role of the environment and nutrition. I believe that in Britain today we should not expect to see factors related to food or living conditions having an effect on a child's height – surely that belongs in Victorian England? But the evidence now shows that children living in the most deprived areas are on average more than 1cm shorter than children in wealthier communities by the time they are 11-years-old. This finding from the National Child Measurement Programme is disturbing because it is another bleak indicator of the way

deprivation and social inequalities have a major impact on a child's health, wellbeing and their growth potential.

We know that this differential in height, in Year Six, in poorer communities, is preventable and yet we continue to see growing health inequalities. We need to take urgent action to reverse this trend by ensuring that every child across the country has access to nutritious and tasty food, that parents are able to afford good, healthy, ingredients and that we rapidly improve food environments for all families. It is surely a matter of social justice that every child has the opportunity to reach their growth potential, wherever they live.

“ In Britain today we should not expect to see factors related to food or living conditions having an effect on a child's height – surely that belongs in Victorian England? ”

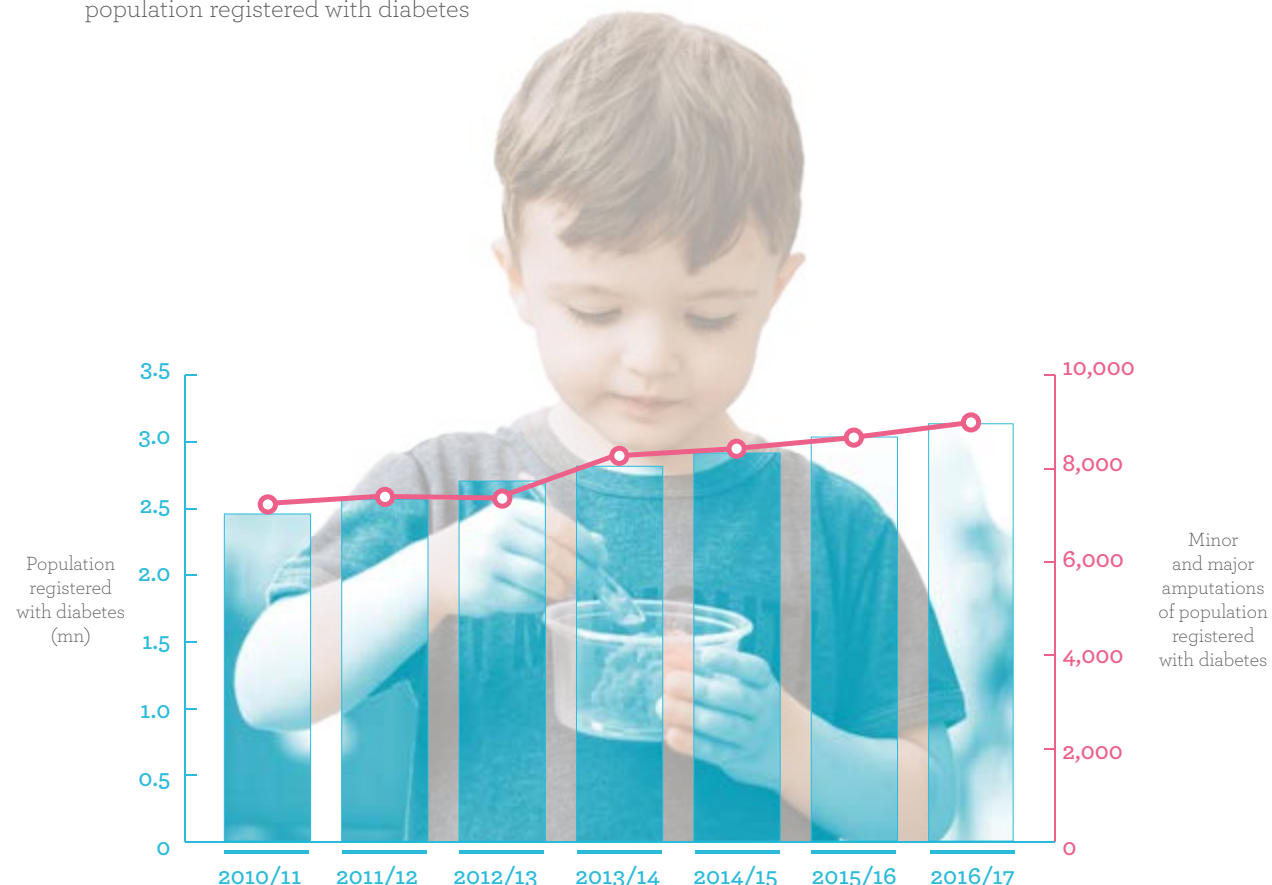
Type 2 diabetes



In the last eight years the number of diabetes-related amputations has risen by 25%

Population registered with diabetes with minor and major amputations in England

○ Minor and major amputations of population registered with diabetes



DATA EXPLANATION BY ANNA TAYLOR

There are approximately 3.1 million people who have been diagnosed with diabetes in England and a further 573,000 in Scotland, Wales and Northern Ireland (2016/17). Ninety percent of these people have Type 2 diabetes. An estimated 6,836 children and young adults (under 25 years) in England and Wales have Type 2 diabetes (Diabetes UK, 2018). A further one million people across the UK are estimated to have Type 2 diabetes but have not been diagnosed (Diabetes UK, 2017).

A further 12.3 million people are at increased risk of Type 2 diabetes. The prevalence of diabetes is nearly three times higher than the prevalence of all cancers combined. The NHS spends 10% of its budget on diabetes each year – a staggering £10 billion. This is equivalent to a third of the value of the food and drink manufacturing industry (£29.5 billion) to the UK economy (Department for Environment Food & Rural Affairs, 2018).

The biggest risk factor for Type 2 diabetes is obesity, which accounts for 80-85% of the overall risk of developing the condition. Nearly two thirds of adults in the UK are overweight or obese, and as a result we have rapidly rising rates of Type 2 diabetes (Diabetes UK, 2016).

Lower limb amputations are a major complication resulting from diabetes. High levels of blood sugar can damage blood vessels which affects the blood flow to the legs and feet and can lead to unhealed ulcers or foot infections which require amputation. An estimated £1 in every £140 of NHS spending goes towards foot care for people with diabetes. Currently about 9,000 amputations are taking place every year in England alone.



Commentary by
Tom Watson MP

Tom Watson is MP for West Bromwich East and Deputy Leader of the Labour Party.

It should be seen as a national scandal that so many of our citizens are having their limbs amputated because of what is, in nine out of ten cases, an entirely preventable disease.

When I speak to doctors I can see how demoralising it is for them to be performing these kind of surgeries. Each foot, or toe or whole limb amputation is a tragedy, particularly as we are seeing it happen to younger and younger people.

When I was first diagnosed with Type 2 diabetes and prescribed metformin, I went in to a kind of denial. I felt a sense of shame and just buried my head in the sand.

When I finally lifted my head and learned that my condition was potentially reversible I felt like I'd been given a new lease of life. Cutting all refined sugar out of my diet, lowering my carbs, eating real food and not processed food and doing more exercise allowed me to put my condition into remission.

That's why I'm now determined to let others know that Type 2 diabetes can be reversible, I want to be a champion of 'remission for all'.

This amputations data, and in fact this whole report, should be a wake-up call to politicians, policy makers and the public. Obesity and Type 2 diabetes are at crisis levels, but it's entirely avoidable and for some it is reversible.

Defeating Type 2 diabetes is going to take goliath-size ambition. We need reformulation to remove excess sugar from our food chain, a serious think about the food available on our high street, we need reforms to advertising and we need to raise awareness among families and particularly children of the dangers of excess sugar, obesity and diabetes.

The scale of the challenge is huge, but we can't afford to come up short.

“Nine out of ten cases of Type 2 diabetes are entirely preventable. When I speak to doctors I can see how demoralising it is for them to be performing these kind of surgeries.”

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Designed by:

infoqr8



Food Foundation

*The Raincloud Victoria
76 Vincent Square
Westminster
London
SW1P 2PD*

*+44(0)20 3086 9953
www.foodfoundation.org.uk
@Food_Foundation*

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