



THE BROKEN PLATE 2020

The State of the
Nation's Food System



Ten vital signs documenting the health of our food system, how it impacts on our lives, and why we must change the food environment

CONTRIBUTORS

A massive thank you to all of our contributors, without whom Broken Plate would not be possible



THANK YOU

Huge thanks to Dr Jean Adams, Dr Kate Ellis, Nye Cominetti, Elena Salazar, Dr Thomas Burgoine, Debbie Bremner, Sonia Pombo, Zoe Davies, Caroline Hancock, Dr Carmelia Alae-Carew, and Ben Dare for their support and expert analysis.

With special thanks to Tim Lobstein for his input and advice on this year's report.



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WITH THANKS TO OUR FUNDERS



FOREWORD

BY LAURA SANDYS CBE, CHAIR OF THE FOOD FOUNDATION

When I founded the Food Foundation five years ago, our main objective was to challenge the UK food system to deliver accessible, fair, sustainable and healthy outcomes – particularly for the lowest income families. The current – but ongoing – impact of COVID-19 on the food system and society have further exacerbated and shone a spotlight on those issues that were already deeply concerning to us five years ago. Our original objectives are now more important than ever.

With the current climate conducive to change, and with many keen to use this moment to push for a better way of doing things, now is an opportune moment to innovate and legislate for better health in the UK. We at the Food Foundation believe that we need to address both the health implications of the food system and the growing food insecurity that many of our fellow citizens face day in and day out. Broken Plate is our flagship report and aims to inform the change that is needed to reverse the human and environmental impacts of a damaging food environment. We hope Broken Plate shows exactly why we must change the food system if we are to improve the nation's health.

Although much is often made of individual choice when it comes to food, governments and businesses continue to shape and edit our food environments, with our 'choices' often influenced by incomes, prices, promotions, advertising and what is easily available. I believe the apparent freedom we have to choose between healthy and unhealthy food is a myth and we must move to create opportunity for genuine choices. It was interesting for example to observe how a number of corporations continued to promote and advertise foods high in fat, salt and sugar during the pandemic, with many playing on notions of nostalgia and comfort to appeal to citizens¹.

Although COVID-19 has been a collective experience, its impact has not been felt equally, with the pandemic highlighting pre-existing health, socio-economic, and ethnic and racial inequalities. Since lockdown measures came into force on March 23rd, millions of households (many with children) have experienced food insecurity – a 250% increase on pre-pandemic levels as of May 2020². With the socio-economic determinants of health playing a major part in individuals' risk of chronic disease and obesity, the fact that those in the most deprived areas of the UK were twice as likely to die from COVID-19 as those in the least deprived areas should be a stark warning that social and economic inequalities have a very real impact on health outcomes³.

In the short-term, COVID-19 will most likely continue to exacerbate food insecurity. The likelihood of an imminent

economic recession should ring alarm bells. At the Food Foundation we will be examining the on-going impacts very carefully and focusing on the measures that are needed from government and business to replace sticky tape with systemic changes to address inequalities.

In addition to inequalities and food insecurity, the pandemic has also further highlighted the significant health impact of poor diets. Diet is currently the biggest risk factor for disease in England, accounting for 10.8% of the total disease burden⁴. There is also an emerging association between the risk of more severe outcomes from COVID-19 and nutrition-related chronic diseases. Diabetes is mentioned on 21% of COVID-19 death certificates, and 7.7% of patients critically ill in intensive care units with confirmed COVID-19 were categorised as morbidly obese compared to 2.9% of the general population⁵. We need now to focus on the role of diet and shape the food system around citizens' health, which would at a low cost have a significant impact on wider pressures across our health system.

So what does the future hold for the UK food system? COVID-19 has brought to the fore a number of long-standing issues that impact on the health of our nation. The recent launch of the government's obesity strategy was a promising and bold step in terms of reconfiguring our food environment, and framed very much around the link between COVID-19 and diet-related disease. Yet much more remains to be done. The strategy made no mention of the widening health inequalities we see across the UK, nor the association between poverty, hunger, and obesity. While part one of the National Food Strategy (NFS) did focus on recommendations to reduce food insecurity in light of COVID-19, we need urgent action, and it remains to be seen how and when the NFS recommendations will be implemented.

Yet with the pandemic having near enough entirely halted 'business as normal', this is perhaps a once-in-a-lifetime opportunity for change. COVID-19 has led to an increased awareness of health, highlighted the role of nutrition in supporting the immune system, and made many of us think more about where our food comes from – igniting calls to 'build back better'. Now is the time to act if we are to revamp our food system so that it delivers for the next generation.

Laura Sandys, CBE

What's the future for children born in 2020 if nothing changes?

● OVERWEIGHT ● OBESITY

AT AGE 5/RECEPTION: FORECAST 2025



AT AGE 11/YEAR 6: FORECAST 2031



AT AGE 21: FORECAST 2041



AT AGE 65: FORECAST 2085

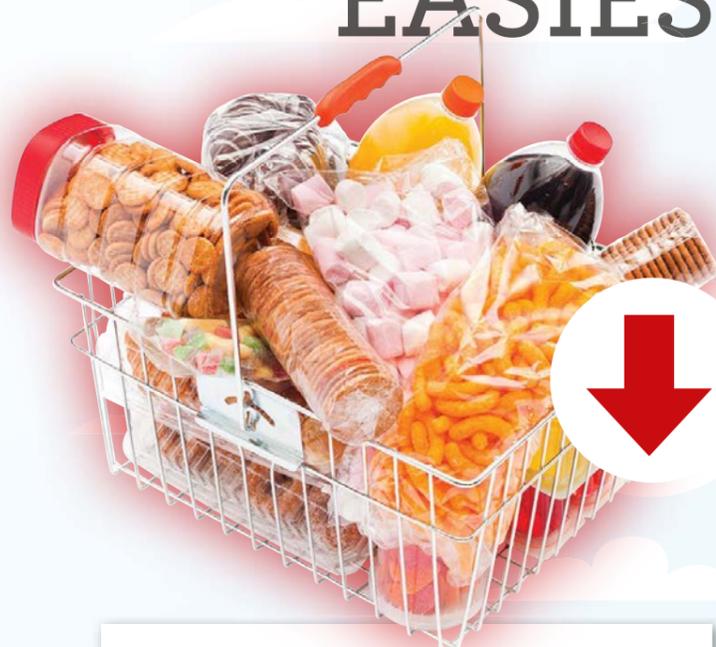


Note: Overweight is defined as a Body Mass Index (BMI) of 25 to 29.9 kg/m², with obesity a BMI of 30 kg/m² and above.

LET'S MAKE HEALTHIER FOOD THE EASIEST OPTION FOR EVERYONE

This year's report shows the following changes compared to Broken Plate 2019

● IMPROVEMENT ● NO CHANGE ● DETERIORATED



Our recommendations and focus areas for a healthier food environment



ADDRESS THE CURRENT IMBALANCE IN ADVERTISING

● **METRIC 1: ADVERTISING.** Advertise healthier foods and restrict advertising of foods high in fat, sugar and salt



MAKE HEALTHIER OPTIONS MORE AFFORDABLE

● **METRIC 3: THE AFFORDABILITY OF HEALTHY DIET.** Ensure that everyone can afford a healthy diet

● **METRIC 4: WAGES.** Pay people a fair wage

● **METRIC 5: FOOD PRICES.** Make healthier foods more affordable



MAKE HEALTHIER OPTIONS MORE ACCESSIBLE

● **METRIC 2: PLACES TO BUY FOOD.** Reduce the availability of fast food outlets

● **METRIC 6: PRODUCTS WITH TOO MUCH SUGAR.** Reduce the amount of sugar in children's cereals

● **METRIC 7: PRODUCTS WITH TOO LITTLE VEG.** Increase the amount of veg in ready meals



ACT SO THAT EVERYONE HAS A CHANCE OF A LONGER, HEALTHIER LIFE

● **METRIC 8: CHILDHOOD OBESITY.** Reduce the health inequalities between the most and least deprived areas

● **METRIC 9: CHILD GROWTH.** Ensure all children have access to a nutritious diet

● **METRIC 10: DIABETES.** Change the food environment to support life-long health

BROKEN PLATE'S TEN METRICS MEASURING THE HEALTH OF THE UK'S FOOD SYSTEM

Our ten metrics were selected to provide a holistic picture of the food system, encompassing the food environment, drivers of food choice and the impact of the current food system on our health and the environment.



THEME THE WORLD AROUND US

METRIC 1: ADVERTISING. Advertising and marketing mean that before we even decide what to eat, we're influenced by mass media.

People are constantly confronted with advertising for less healthy foods on social media, online and on TV⁸. Evidence shows this has a direct impact on how much we eat⁹. Campaigns like Veg Power and ITV's *Eat Them To Defeat Them* campaign have shown that advertising healthy foods can have a positive effect on consumption. We need to make it easier for people to make healthier choices by addressing the current imbalance in advertising

spend between healthy and less healthy foods.

METRIC 2: PLACES TO BUY FOOD. We're influenced by what's available in our local area.

Living in areas with lots of takeaway outlets is linked to the likelihood of being at a higher weight¹⁰. People are understandably more likely to eat food which is convenient and readily available, so we need to ensure that healthy food is included in this. It's not right that where people live affects their level of access to healthier food.

THEME THE AFFORDABILITY OF HEALTHY AND SUSTAINABLE FOOD

METRIC 3: AFFORDABILITY OF A HEALTHY DIET. When we decide what to buy, we're influenced by what we can afford.

Many people in the UK have insufficient incomes due to low or precarious wages, as well as high outgoing costs of housing and other essentials. This means that very little money is left over after bills are paid, with the food budget often the easiest one to cut. Skipping meals or opting for the cheapest options – which are often the least healthy – has to suffice.

METRIC 4: WAGES. Perhaps ironically, the people who work in the food industry are typically on very low wages.

One in seven people had jobs in the food industry before Covid-19¹¹ but this sector has one of the highest rates of low paid jobs. Given how important the food industry is for the UK's economy, the people working in it deserve reasonable pay.

THEME THE FOOD ON OFFER

METRIC 5: FOOD PRICES. What we decide to buy is often influenced by price.

Shoppers routinely say price is the most important factor driving their food choice¹². We need to ensure that people aren't incentivised to buy less healthy food because it is more affordable. We need to rebalance the relative cost of healthy and less healthy food.

businesses reformulated the foods which they sold, there would be less onus on individuals having to seek out information (and decipher it) to determine whether what they are buying is harming their health or not.

METRIC 6: PRODUCTS WITH TOO MUCH SUGAR. Our choices are influenced by the options available, not all of which are healthy.

Many products we routinely see on shelves are too high in fat, salt and sugar. If

METRIC 7: PRODUCTS WITH TOO LITTLE VEG. Many meal options available have a heavy impact on the environment as well as our health.

Eating less meat and more veg can help to lower greenhouse gas emissions as well as having health benefits in high income countries.

THEME THE IMPACT ON OUR HEALTH

METRIC 8: CHILDHOOD OBESITY. Levels of childhood obesity are greatest in those living in the most deprived areas.

Obesity in childhood can cause long term physical and mental health problems. We need to create food environments that reduce these health inequalities and give all children the best chance in life.

development. This is not a situation we should be seeing in the world's sixth largest economy.

METRIC 9: CHILD GROWTH. Whether children reach their full height potential is influenced by how deprived their community is.

Short stature can indicate chronically poor nutritional status and lead to inadequate

METRIC 10: DIABETES Adult health is also affected by our food environment, with complications from type 2 diabetes continuing to rise.

Complications arising from obesity and diet-related disease have a huge impact on an individual's quality of life and are a huge burden on our healthcare system. We need to change the food environment so that people don't reach the stage where they are suffering from these preventable complications of diet-related disease.

AT A GLANCE

The first Broken Plate report was published in 2019, with data mostly covering the period 2016 to 2017. It established the baseline of the health of the UK's food system and set out key recommendations to realign the food system so that it delivers improved

and more equitable health outcomes. This year we ran the same analysis, for the same ten metrics, monitoring whether the situation has improved or worsened since 2019's report.

WHAT'S CHANGED SINCE 2019'S REPORT?

● IMPROVEMENT ● NO CHANGE ● DETERIORATED



TRAJECTORY - PAGE 45 THE FUTURE HEALTH OF CHILDREN BORN IN 2020

Our trajectory looking at outcomes for children born in 2020 shows that by the time they're 65 years old, over half will experience diet-related disease which will be affecting their quality of life.

Overall, although there have been some positive changes to the food environment, many things are moving too slowly or not at all. The current status quo in the food environment has very real implications for millions of children and adults.



METRIC

01

Advertising: We need more advertising of healthy foods and to restrict advertising of foods high in fat, salt and sugar

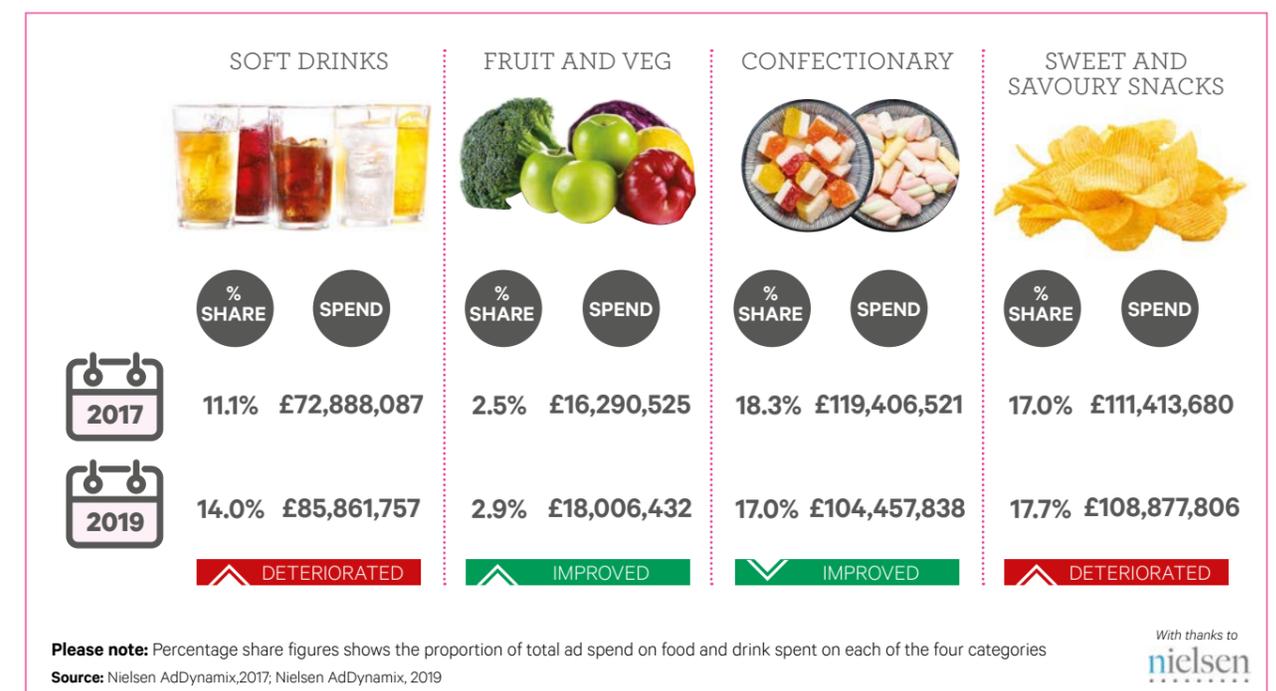
THEME

THE WORLD AROUND US

ADVERTISING



Advertising spend on fruit and vegetables has increased since 2017, but remains low, with just 2.9% of ad spend on food and drink going towards fruit and vegetables.



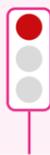
WHAT DID WE DO?

Using last year's methodology, we analysed data on advertising spend in the UK for food and soft drinks (Nielsen AdDynamix, 2019), covering advertising in cinema, direct mail, door drops, outdoor, press, radio and TV. We calculated the percentage of advertising spend on four different categories of food and drink – fruit and vegetables, confectionary, sweet and savoury snacks, and soft drinks – comparing ad spend in 2017 to spend in 2019.

HAS ANYTHING CHANGED?

Our analysis shows a rather mixed picture. Although there has been a small (but encouraging) increase in the amount spent on fruit and veg advertising since 2017, the overall percentage spend on fruit and veg remains negligible. While ad spend on confectionary shows a small decrease, the amount spent on soft drinks and sweet and savoury snacks has increased slightly.

Interestingly, since this analysis was last conducted, the UK's sugar tax has come into force, with the most recent evaluation report suggesting a 29% reduction in the sugar content of soft drinks as a result of reformulation by manufacturers following the levy¹³. Ad spend on soft drinks in our analysis appears to reflect this shift, with spend on full sugar carbonated (fizzy) drinks having decreased by 68% since 2017 while the amount spent on low sugar / sugar free carbonated (fizzy) drinks has increased by 65%. The increase in ad spend on vegetables also shows that change is possible, with initiatives such as Veg Power's *Eat Them To Defeat Them* campaign (which launched in 2019) working to increase the advertising and promotion of vegetables and already appearing to have had an effect.



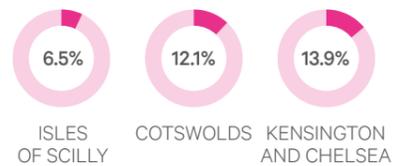
PLACES TO BUY FOOD

Forty five local authorities in England have seen more than a 5% increase in the proportion of food outlets that are fast food takeaways.

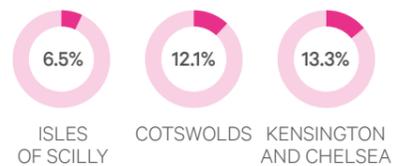


PROPORTION OF FOOD OUTLETS THAT ARE FAST FOOD TAKEAWAYS:

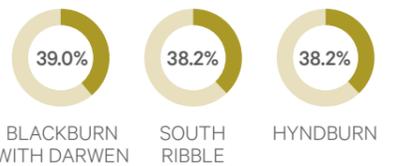
2019's three BEST performing areas



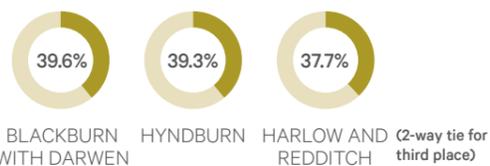
This year's three BEST performing areas



2019's three WORST performing areas



This year's three WORST performing areas



Local authorities with the largest percentage DECREASE of takeaway outlets

- SOUTH NORTHAMPTONSHIRE ▼6.4% (15.6 > 14.6)
- WINDSOR AND MAIDENHEAD ▼5.9% (18.7 > 17.6)
- MALDON ▼5.9% (20.5 > 19.3)

Local authorities with the largest percentage INCREASE of takeaway outlets

- RICHMONDSHIRE ▲14.1% (18.5 > 21.1)
- FOREST HEATH* ▲14.1% (24.2 > 27.6)
- WEST SOMERSET ▲12.9% (14.7 > 16.6)

*As of April 2019, Forest Heath local authority merged with two neighbouring local authorities to become West Suffolk Council. Figures shown are for the area of what was Forest Heath local authority in June 2019

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WHAT DID WE DO?

Working with the Food environment assessment tool (Feat) team from the University of Cambridge, and using the same methodology as last year's Broken Plate report, we extracted and analysed data on the location of food outlets from the Ordnance Survey's Points of Interest dataset for June 2019¹⁴. We then calculated takeaway food outlets as a proportion of all food outlets within local authorities in England.

HAS ANYTHING CHANGED?

On the whole, not much has changed. The average proportion of fast food outlets in English local authorities has remained consistent at 25%. The highest percentage of takeaways (40%) and the lowest percentage of takeaways (7%) in any local authority has also remained largely consistent. However, approximately 14% of local authorities have seen more than a 5% increase in the proportion of fast food outlets during the past 18 months, compared with just 1% that have seen more than a 5% decrease.

The relationship between the percentage of takeaway outlets and levels of deprivation in local authorities is still strong, with higher proportions seen in the most deprived local authorities.

"The relationship between the percentage of takeaway outlets and levels of deprivation in local authorities is still strong, with higher proportions seen in the most deprived local authorities."



AFFORDABILITY OF A HEALTHY DIET

The poorest 20% of UK households would need to spend 39% of their disposable income on food to meet Eatwell Guide costs. This compares to just 8% for the richest 20%.

WHAT DID WE DO?

We updated the analysis in last year's report, using data on household income from the Family Resources Survey 2017/18, to look at the affordability of the Eatwell Guide¹⁵. This is the government's official guidance on a healthy diet and includes those foods considered essential for a balanced and nutritious diet. The estimated cost of the Eatwell Guide (£5.99 per day) is based on optimisation modelling previously commissioned by Public Health England in 2016¹⁶, with the optimisation undertaken in order to minimise deviation from current dietary patterns. We then adjusted this cost based on a household's composition, as well as economies of scale that might affect the overall cost of food. The proportion of disposable income that would be used up by the recommended diet (after housing costs were removed) was then calculated, in line with previous methodology.¹⁷

HAS ANYTHING CHANGED?

There remains a huge difference in how affordable the government's recommended diet (the Eatwell Guide) is depending on how wealthy households are. For the majority of the population there has been no change in the proportion of disposable income (after housing costs) that would need to be spent to afford the Eatwell Guide. Where there has been a change, is among those in the poorest 10% of households, who would have to spend 76% of their disposable income to meet the government's recommended diet. This has risen by 2% – up from 74% – compared to the preceding year of analysis.

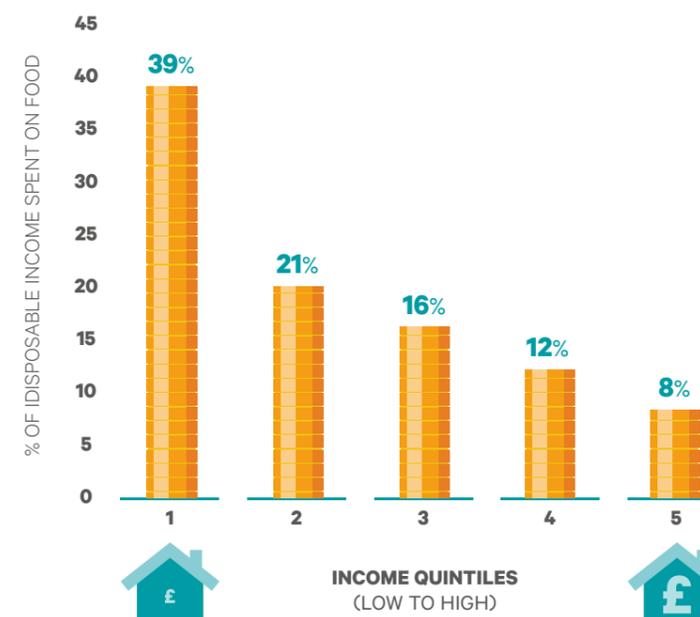
If UK households are split into income quintiles (fifths), the stark difference in how affordable a healthy diet is for those in the lowest income groups compared to the rest of the population can be seen clearly. The amount households have to spend on food as a proportion of disposable income increases steadily as household income decreases, before rising sharply for the poorest 20% of households.

“There remains a huge difference in how affordable the government's recommended diet is depending on how wealthy households are.”

The lowest income decile includes some people who have very little or no income. It is made up of a diverse group of people, with some earning precarious incomes, some between jobs, and some living off savings. While they may therefore not all be categorised as among the poorest 10% of households, it is not possible to further segregate this group by socioeconomic status. People who are homeless, sleeping rough or in institutional settings are not included in the Family Resources Survey.

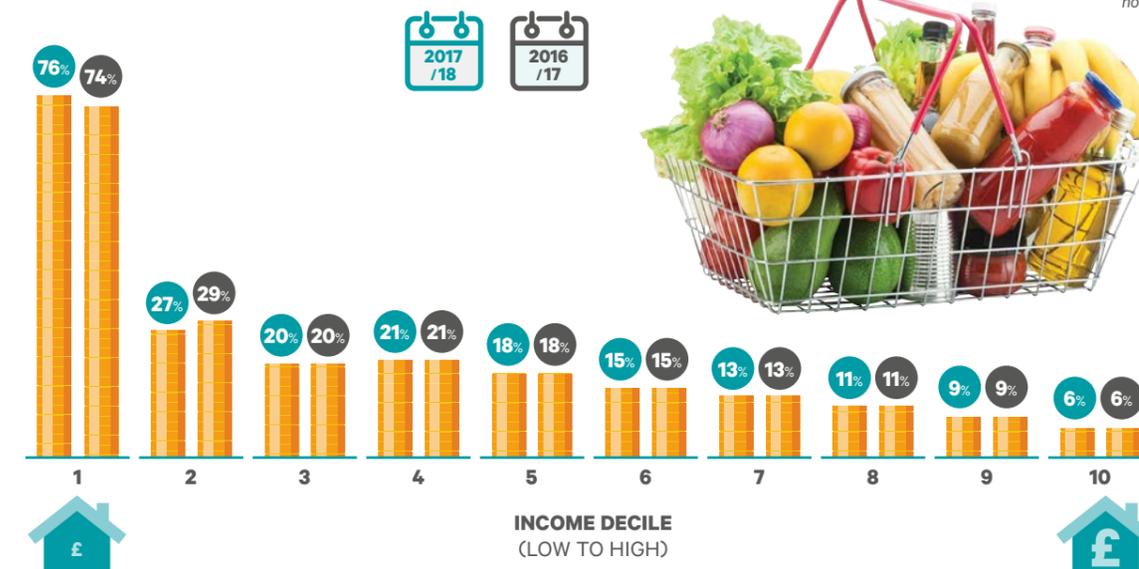


% of disposable income* used up if the cost of the Eatwell Guide was spent by all households, by income quintile, 2017-2018



*After housing costs

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



*After housing costs

Source: Secondary analysis of the Family Resources Survey, 2016/7 and 2017/18

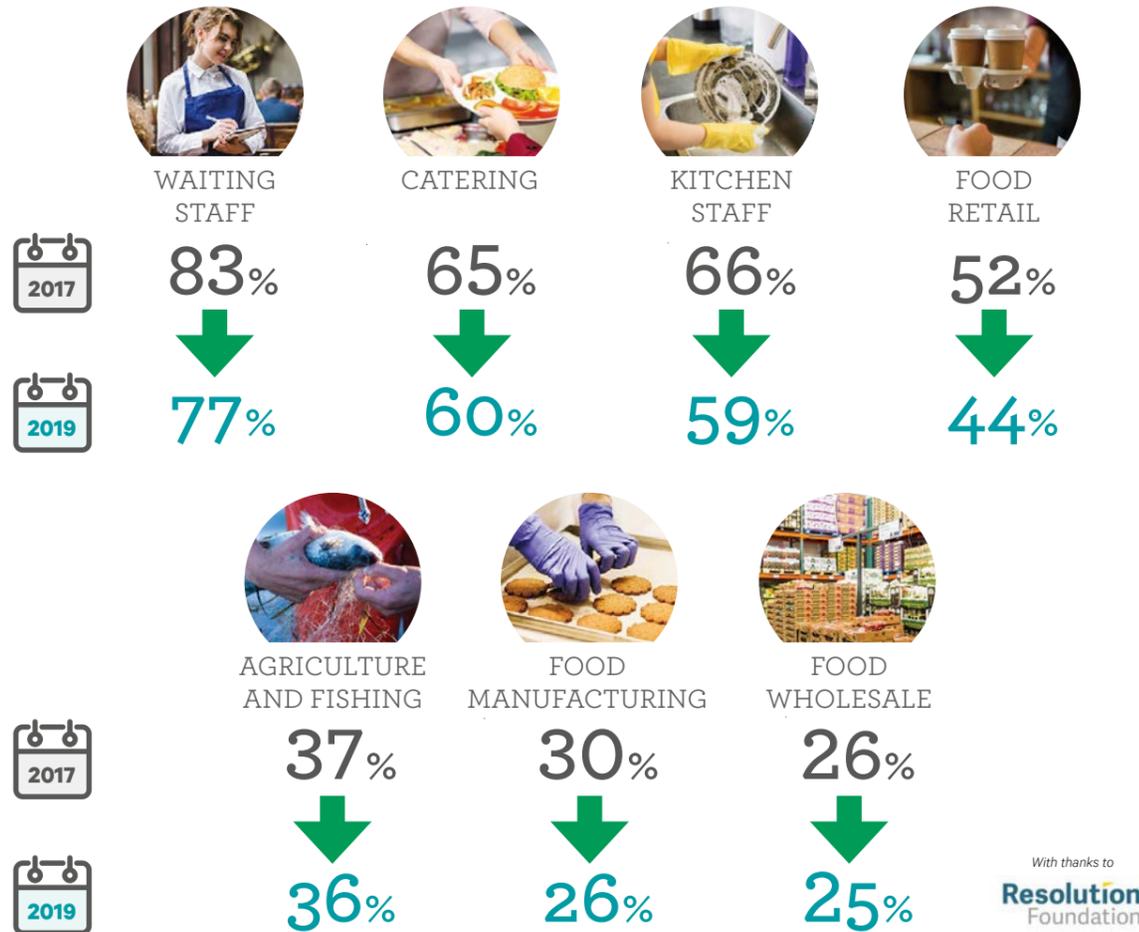


WAGES



16% of workers in the food sector earn the minimum wage compared to 7% of workers across the UK.

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



Please note: We have used the following codes to extract trend data from the ASHE database: Industry groups (SIC 2007 codes): **Agriculture and fishing:** 1 excl 1.7; **Food retail:** 47.2 excl 47.26, 47.11 and 47.81; **Food wholesale:** 46.3 excl 46.35 and 46.17; **Catering (bars and kitchens):** 56. Occupation groups (SOC 2010 codes): **Kitchen staff:** 54.34, 54.35, 92.72 **Waiters & waitresses:** 92.73. We have used 2017 data extracted this year, which means that for three categories there is a slight discrepancy between the percentages reported in this year's Broken Plate and last year's report.

Source: Office for National Statistics (2019). Annual Survey of Hours and Earnings, 1997-2019

The 2019/2020 real Living Wage rate is £9.30 across the UK and £10.75 in London¹⁹

WHAT DID WE DO?

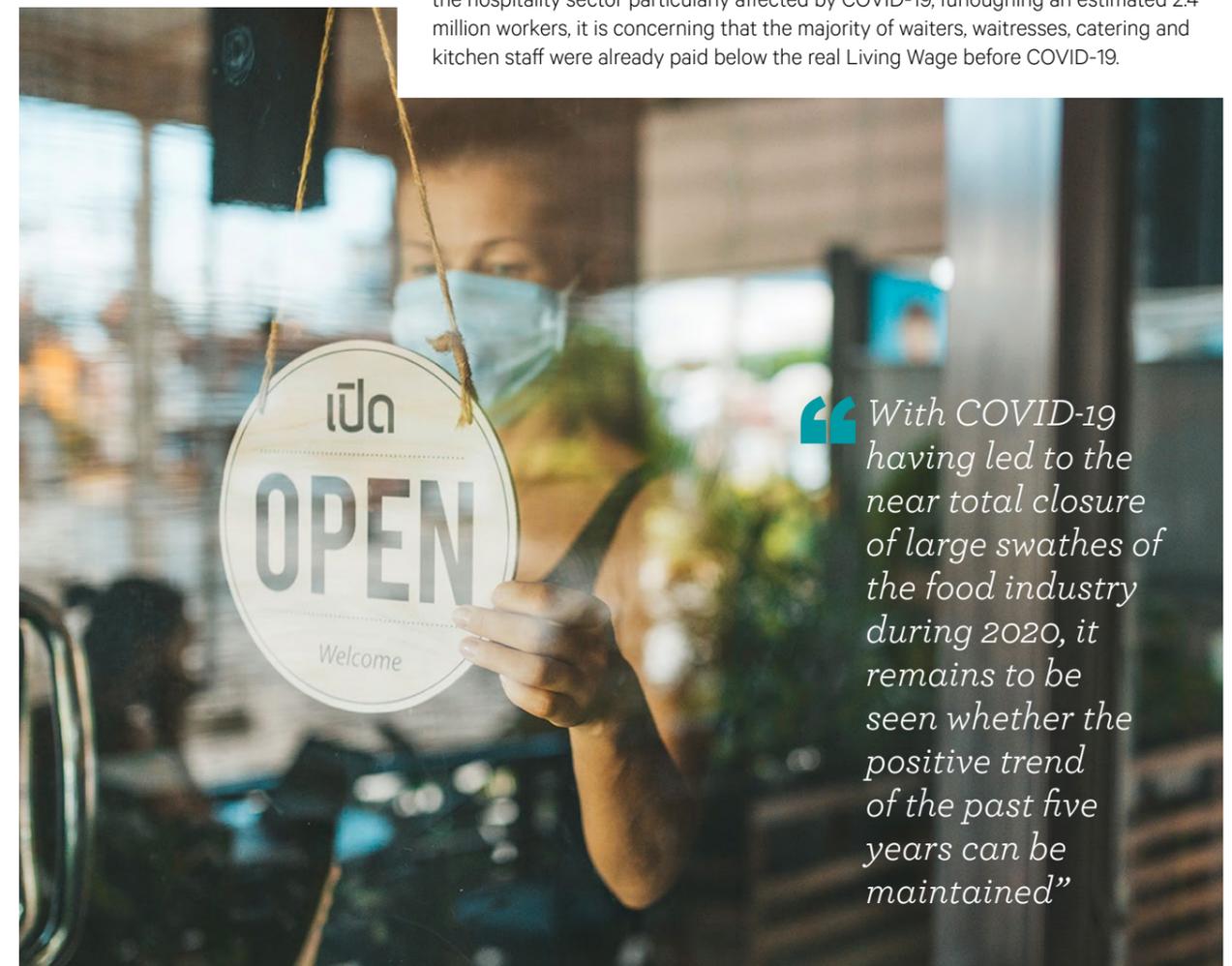
Using data from the Annual Survey of Hours and Earnings (ASHE) dataset¹⁸, the largest survey of employees in the UK, the Resolution Foundation analysed the pay of people in the UK's food industry. We looked at the general picture for the industry overall, as well as pay for different sectors, including agriculture and fishing, waiting staff, food retail, kitchen staff, catering, food manufacturing and food wholesale. We compared the data from 2019 to last year's Broken Plate report, which used the survey findings for 2017.

HAS ANYTHING CHANGED?

There has been a slow but steady improvement in wages for those working in the food industry over the past couple of years. Across all sectors the percentage of those defined as low paid (earning less than two thirds of the median UK income) decreased, dropping from 46% in 2017 to 39% in 2019.

The percentage of those paid at or below the real Living Wage, a voluntary wage rate that takes into account the cost of living and inflation, has also decreased across the sector. More companies ought to be encouraged to pay the real Living Wage, with the vast majority of waiting and kitchen staff still often earning below the real Living Wage. Across the food sector, 47% of employees earned below the real Living Wage in 2019.

However, the overall success of the sector in improving wages masks large differences at an industry level. While just 19% of those working in food manufacturing were low paid in 2019, this rose to 53% for those working in catering and 71% for waiting staff. Moreover, with COVID-19 and the UK's lockdown having led to the near total closure of large swathes of the food industry for 15 weeks during 2020, it remains to be seen whether the positive downward trend of the past five years can be maintained. With the hospitality sector particularly affected by COVID-19, furloughing an estimated 2.4 million workers, it is concerning that the majority of waiters, waitresses, catering and kitchen staff were already paid below the real Living Wage before COVID-19.



“With COVID-19 having led to the near total closure of large swathes of the food industry during 2020, it remains to be seen whether the positive trend of the past five years can be maintained”



FOOD PRICES



More healthy foods are three times as expensive as less healthy foods per calorie, with the cost of more healthy foods diverging from less healthy foods over the past four years.

WHAT DID WE DO?

The Centre for Diet and Activity Research (CEDAR) at the University of Cambridge built on their food price research first conducted in 2014,²⁰ and matched price data for the 82 food and drink items that have been continuously tracked by the Office of National Statistics's Consumer Price Index (CPI)²¹ between 2010–2020 to food and nutrient data from the UK Department of Health's National Diet and Nutrition Survey²².

Each item was then assigned to a food group and categorised as either 'more healthy' or 'less healthy' based on its composition using the nutrient profiling model developed by the Food Standards Agency. This year, we also assigned each food in the CPI basket to one of the five Eatwell Guide food groups, to better understand the relative cost of the different food categories.

CPI data do not capture all price reductions from promotions, nor can they reflect local differences in price, but using price per kilocalories is a helpful way to understand the relative prices of foods which make up diets rather than comparing individual products within specific food categories.

HAS ANYTHING CHANGED?

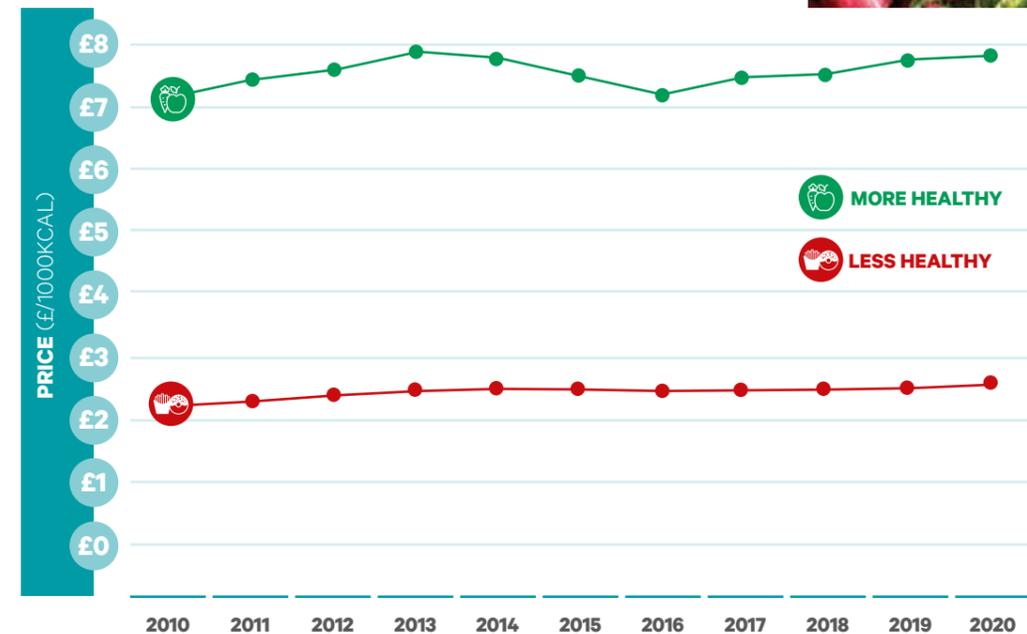
The price of healthier foods continues to remain much higher than less healthy foods. Using a binary more/less healthy categorisation according to the FSA's nutrient profiling model reveals striking differences, with more healthy foods three times more expensive than less healthy foods for the equivalent number of calories. The mean cost of more healthy foods in 2019 per 1000 kilocalories was £7.68, compared to £2.48 for less healthy foods. Although at the time of writing we have incomplete data for 2020, the upward trend in price for more healthy foods seen in the first quarter of this year is concerning one, with the mean price at its highest level since 2013.

Breaking the data down into the government's five Eatwell Guide food categories tells a similar story. While the mean price of fruit and vegetables is on an upward trend (£9.39 per 1000 kilocalories in 2019, up from £8.88 in 2017), the price of food and drinks high in salt, sugar and/or fat has remained fairly stable at a much lower price point. The mean price of foods in this category was £3.54 in 2019, compared to £3.42 in 2017.

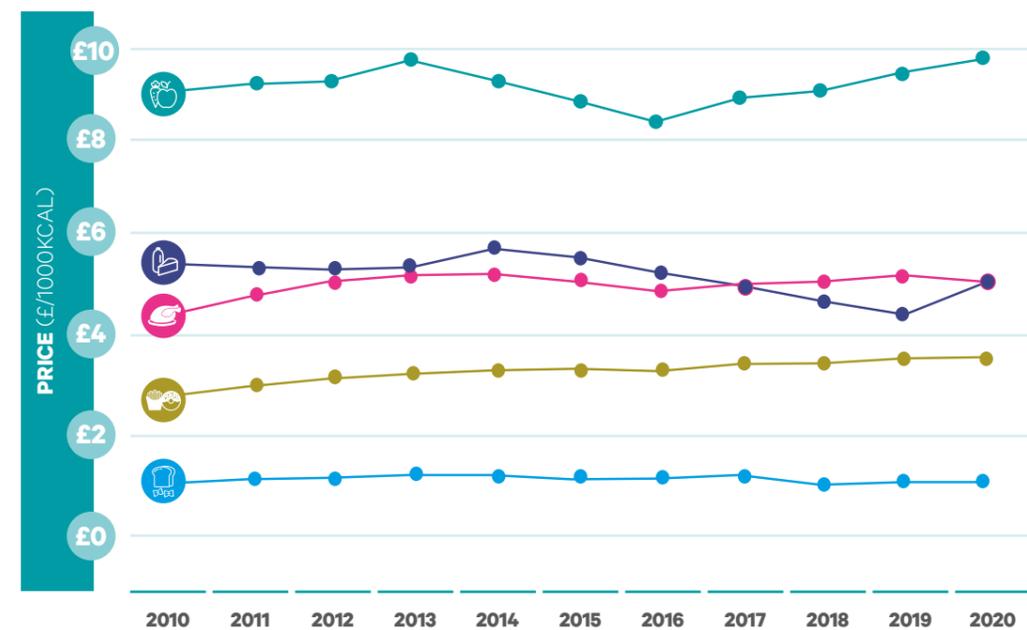
Food price is a major determinant of food choice, with price rises disproportionately affecting lower income groups. With COVID-19 continuing to impact on food supply chains globally, the upward trend already seen here for 2020 is a concerning one.



Mean price of foods per 1,000 calories by Food Standards Agency nutrient profiling score category



Mean price of foods per 1,000 calories by Eatwell Guide food group



Source: CEDAR analysis using CPI average retail food price indices data, 2010-2020 (ONS)

With thanks to CEDAR



PRODUCTS WITH TOO MUCH SUGAR



The situation has started to improve, with the proportion of children's cereals with a high sugar content decreasing by 12 percentage points between 2019 and 2020.

The proportion of breakfast cereal products with packaging that may appeal to children categorised as high in sugar and salt and low in fibre



Please note: High, Medium, Low colour coding based on the Department of Health and Social Care's Front of Pack traffic light labelling system. Source: Department of Health and Social Care. Guide to creating a front of pack (FoP) nutrition label for pre-packed products sold through retail outlets. 2016.



WHAT DID WE DO?

During January and February 2020, Action on Salt and Action on Sugar visited nine major supermarkets (Aldi, Asda, the Co-operative, Lidl, Marks and Spencer, Morrisons, Sainsbury's, Tesco, and Waitrose and Partners) to assess cereals with child-friendly packaging. This time 120 breakfast cereals qualified – 43 more than in Broken Plate 2019.

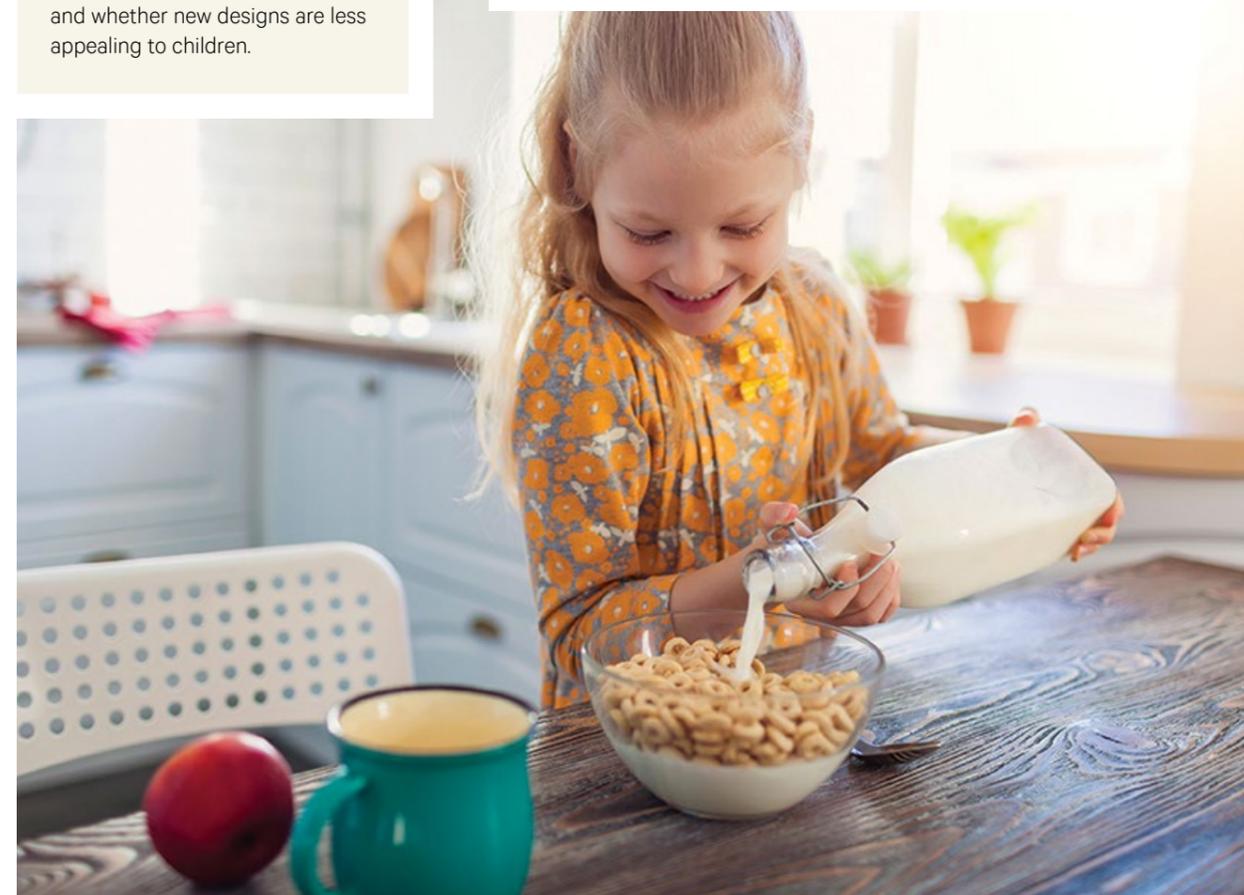
It is worth noting that these data were collected before the voluntary removal of cartoon characters from children's cereals by Asda, Aldi and Lidl. It is unknown if this would have impacted on the findings or not, but it will be interesting to see whether the removal of cartoon characters will change anything, and whether new designs are less appealing to children.

HAS ANYTHING CHANGED?

There have been some small improvements in making breakfast cereals with packaging that may appeal to children less unhealthy. The proportion of these cereals that are high in sugar, high in salt or low in fibre has decreased, which is an encouraging improvement. However, the average nutrient content of these cereals hasn't actually changed very much, with the average fibre content of children's cereals increasing by 6%, while the average salt and sugar content has decreased by 4% and 2% respectively since 2019.

There is therefore still a long way to go before they reach the appropriate and recommended nutrient levels. Using the FSA's traffic light labelling system, which categorises nutrients into high (red), medium (amber) and low (green), the majority would fail to obtain a green rating: only 9% for sugar, 41% for salt and 13% for fibre (using Action on Sugar's cut-offs for fibre).

“The proportion of children's cereals that are high in sugar, high in salt or low in fibre has decreased, which is an encouraging improvement.”





PRODUCTS WITH TOO LITTLE VEG

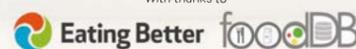


This year 24% of ready meals were vegetarian or plant-based – a 33% increase since 2018



*Please note: The proportion of ready meals that were meat free increased by 7 percentage points excluding Ocado ready meals, as they were not included in 2018's survey.

With thanks to



WHAT DID WE DO?

Working with the University of Oxford's foodDB team, Eating Better surveyed 2,404 ready meals in 11 UK supermarkets (including Tesco, Asda, Sainsbury's and Morrisons) during March 2020. The survey includes meals sold as a hot main dish, including both own-brand and branded meals, chilled and frozen options. The ingredient text for each ready meal was analysed to see which products contained meat or fish, or could be categorised as either vegetarian or plant-based (vegan). The results were then compared to Eating Better's 2018 report on ready meals.

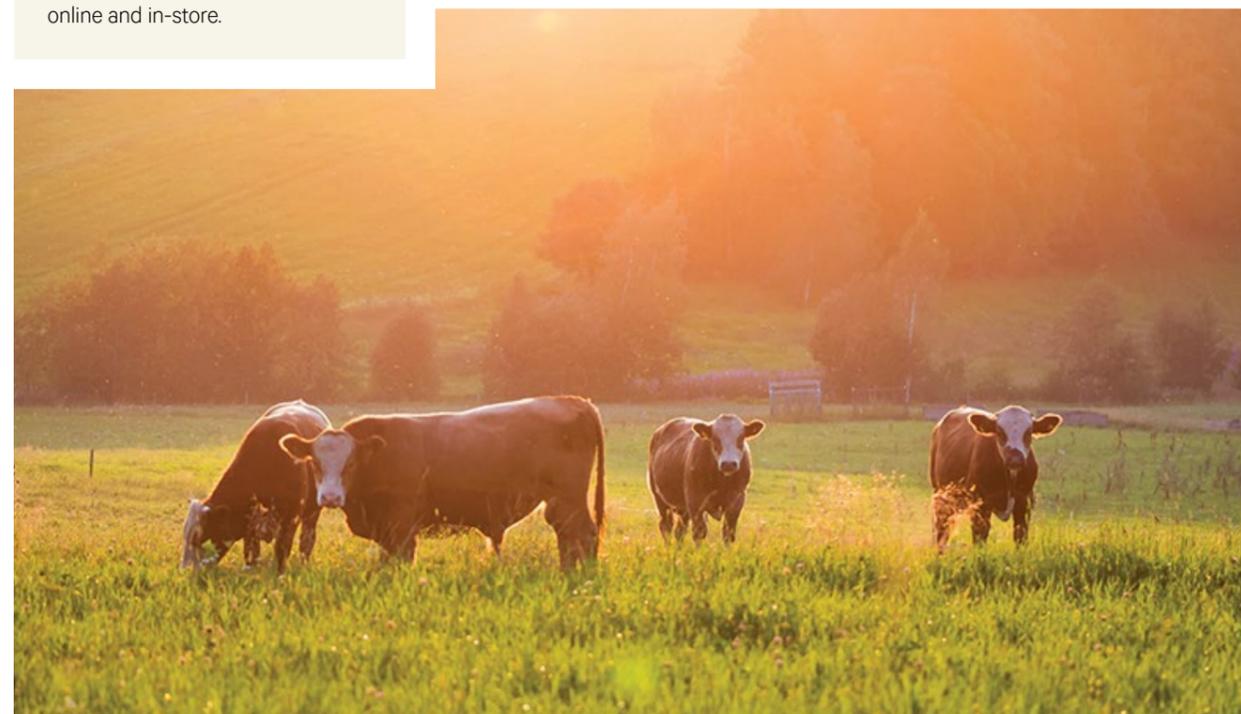
Although the total number of ready meals included in the survey increased between 2018 and 2020, this is not thought to have impacted on the survey's findings, as the proportion of meal types within different ranges remained relatively stable across data collected both online and in-store.

HAS ANYTHING CHANGED?

This year's survey included a much larger sample of ready meals (2,404 compared to 1,350), with the use of a real-time food and drink database complementing the data collected in-store. This year's survey shows that there has been a positive change in the proportion of meat-free options, with the proportion of ready meals that are meat free increasing by 33% in the space of just two years.

The livestock sector accounts for 35% of total cropland use and 14.5% of greenhouse gas (GHG) emissions globally^{23,24}. In the UK, just 0.75% of total agricultural land is used to grow veg²⁵, with vegetables having significantly lower GHG emissions compared to other foods²⁶. As a result, there are environmental benefits to eating less and better meat and more veg. Although this year's results show that meat-free options are becoming more available, there is still work to be done given that three quarters of ready meals were found to contain meat or fish. What's more, almost half (49.5%) of those ready meals with meat contained red or processed meat. As well as health organisations globally recommending a reduction of red and processed meat consumption in high income countries, there are also environmental implications to diets high in red meat. Cattle are responsible for 9% of global GHG emissions with 6% coming from beef production alone²⁷.

The increasing amount of public interest in plant-based diets and programmes such as Peas Please (which works to mainstream veg as part of new product development) may have helped to drive some of the changes seen here. However, going forward, ensuring that plant-based options meet health objectives as well as environmental ones will be important, as will making sure these products are accessible. Worryingly, this year's survey found that in four supermarkets plant-based ready meals were more expensive than meat, fish or vegetarian (dairy-based) alternatives.

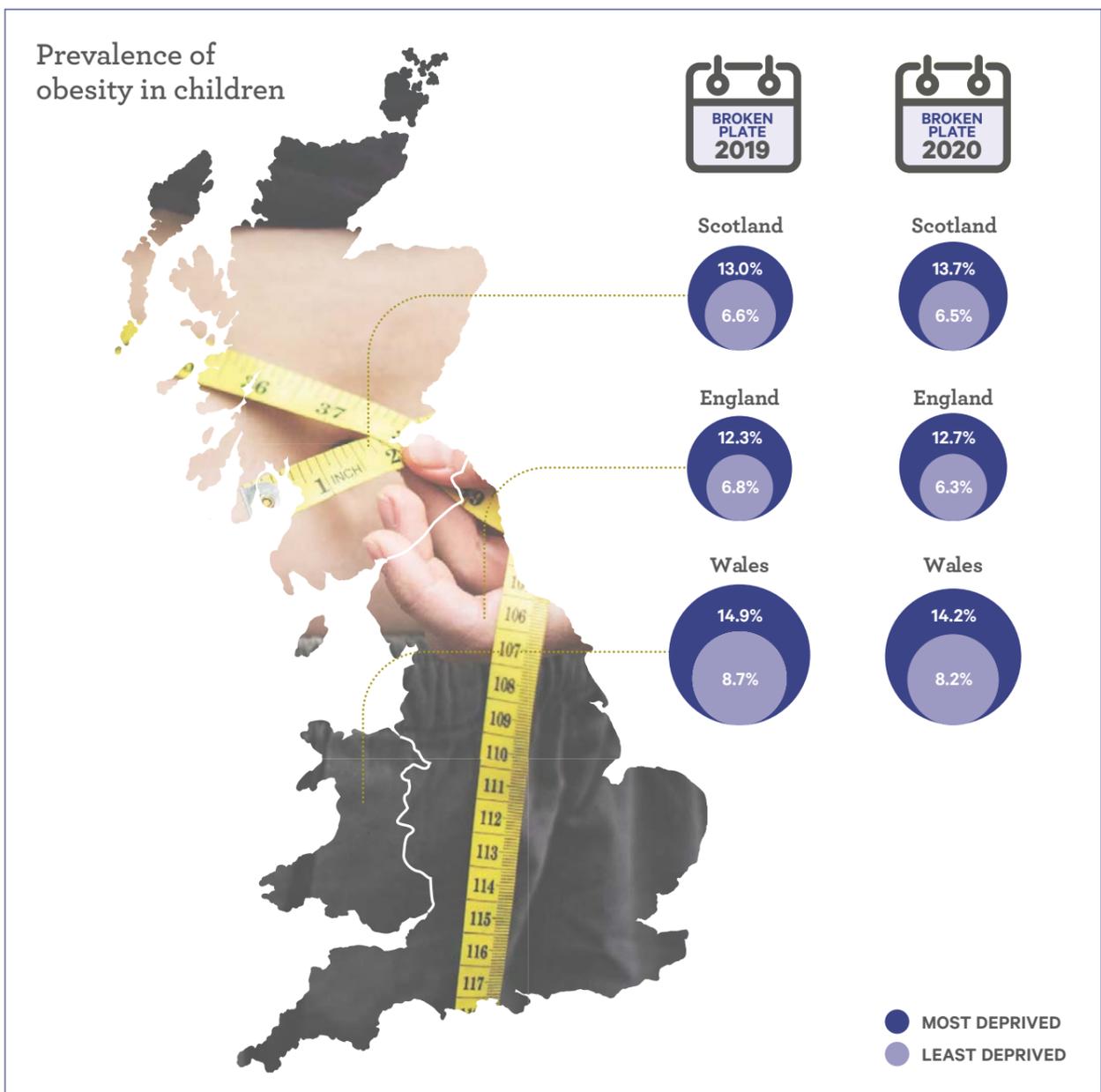




Children with obesity: Obesity among children continues to be greater amongst the most deprived communities compared to the least deprived and there has been little improvement in reducing these inequalities.

CHILDREN WITH OBESITY

Obesity among children continues to be greater amongst the most deprived communities compared to the least deprived



WHAT DID WE DO?

We gathered data collected by the various child measurement programmes across the three nations on child obesity in 4-5 year olds. Northern Ireland uses different definitions of obesity and we were therefore unable to compare it to the other three nations.

The most deprived quintile has been compared with the least deprived quintile.

Sources:

ENGLAND: National Child Measurement Programme 2017/18 and 2018/19.²⁸

Age group – Reception (4-6-year-olds).

SCOTLAND: Child Health Surveillance Programme 2017/18 and 2018/19.²⁹

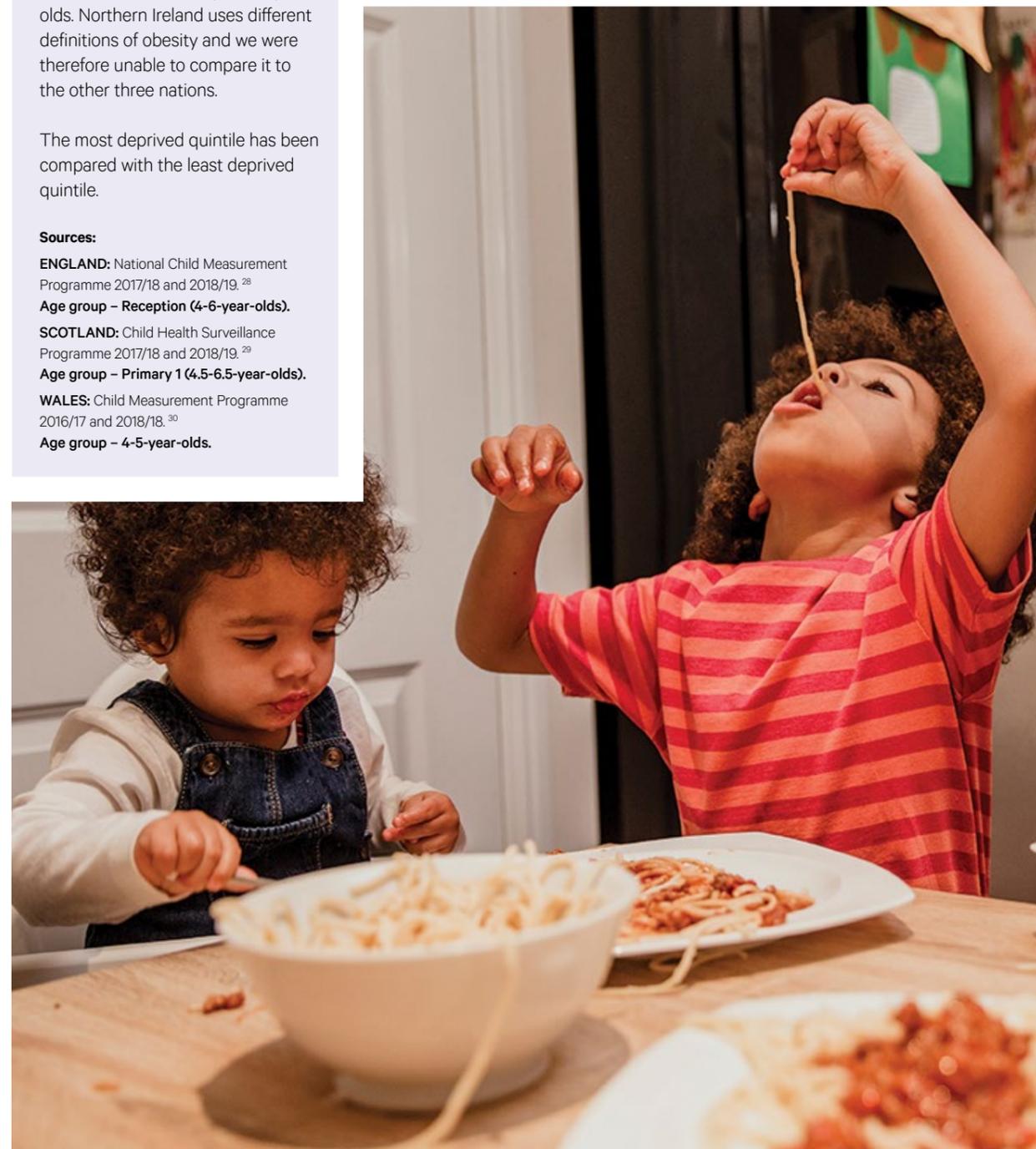
Age group – Primary 1 (4.5-6.5-year-olds).

WALES: Child Measurement Programme 2016/17 and 2018/18.³⁰

Age group – 4-5-year-olds.

HAS ANYTHING CHANGED?

Levels of childhood obesity continue to worsen in Scotland and England, with the inequalities between the most and least deprived children widening. However, in Wales not only has there been a decrease in obesity prevalence, but there has been a small reduction in the differences between the most and least deprived.

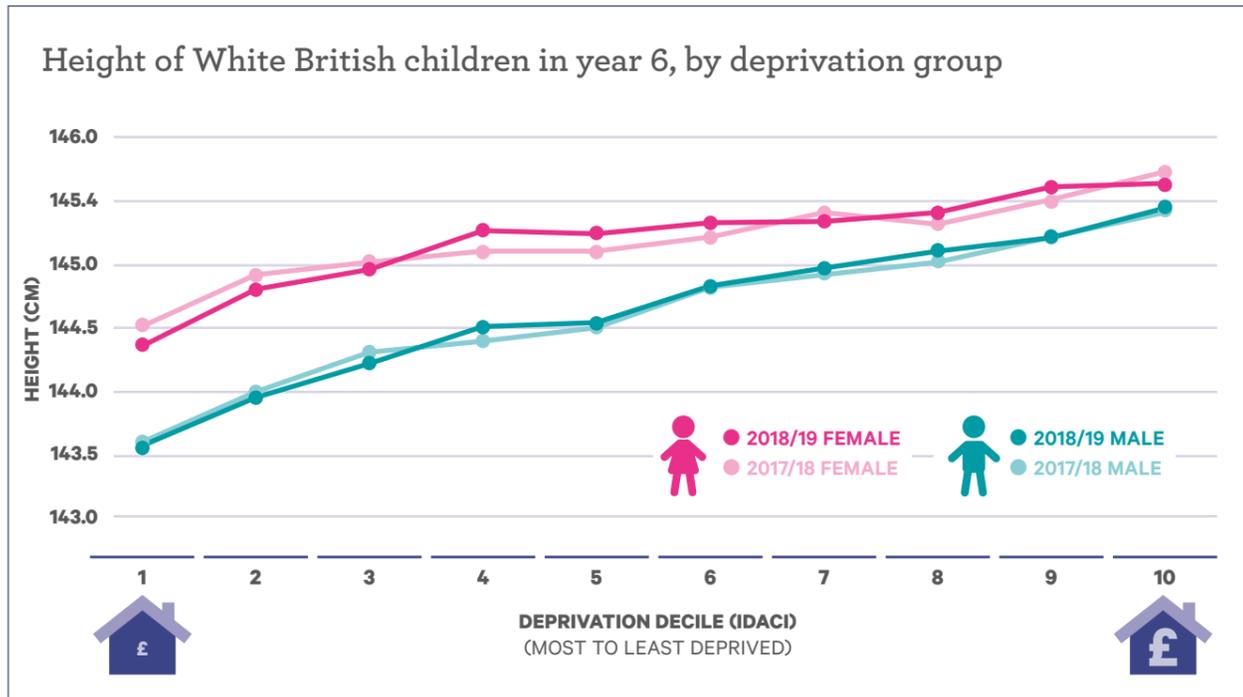




CHILD GROWTH



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



WHAT DID WE DO?

Working with Public Health England we used National Child Measurement Programme data²⁸ to calculate the average height of children in year 6 (aged 10–11 years) by deprivation (Income Deprivation Affecting Children Index – IDAC) group. The data were split by ethnicity as there are some natural differences by the time children reach puberty in average height across ethnic groups. We have compared 2018/19 data with 2017/18.

HAS ANYTHING CHANGED?

We would not expect this metric to change in a short time frame, so unsurprisingly there has been no change since the last Broken Plate report. Those in the most deprived groups were shorter than those least deprived groups in White British children and Asian children. The same pattern was not seen in children of Black ethnicities and further assessment of this is needed.

“Those in the most deprived groups were shorter than those in the least deprived groups in both White British and Asian British children.”

*With the exception of children of Black ethnicities.



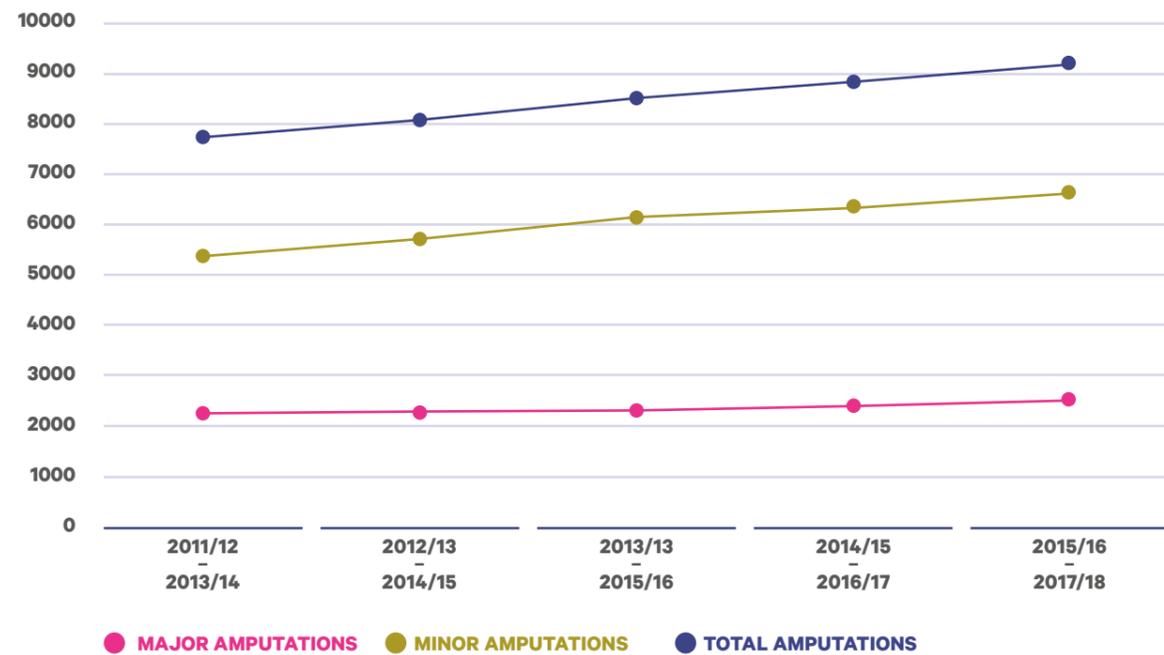


DIABETES



Diabetes-related amputations have increased by 18% in four years.

Average yearly number of diabetes-related amputations



WHAT DID WE DO?

We took data from Public Health England's Diabetes Foot Care Profiles³¹, which are based on data taken from Hospital Episode Statistics, the National Diabetes Audit, and the Quality and Outcomes Framework. These data are reported for 3-year periods, from which we took a yearly average. These data include both type 1 and type 2 diabetes, with type 2 diabetes strongly associated with obesity and deprivation and comprising the majority (90%) of diabetes cases in the UK³².

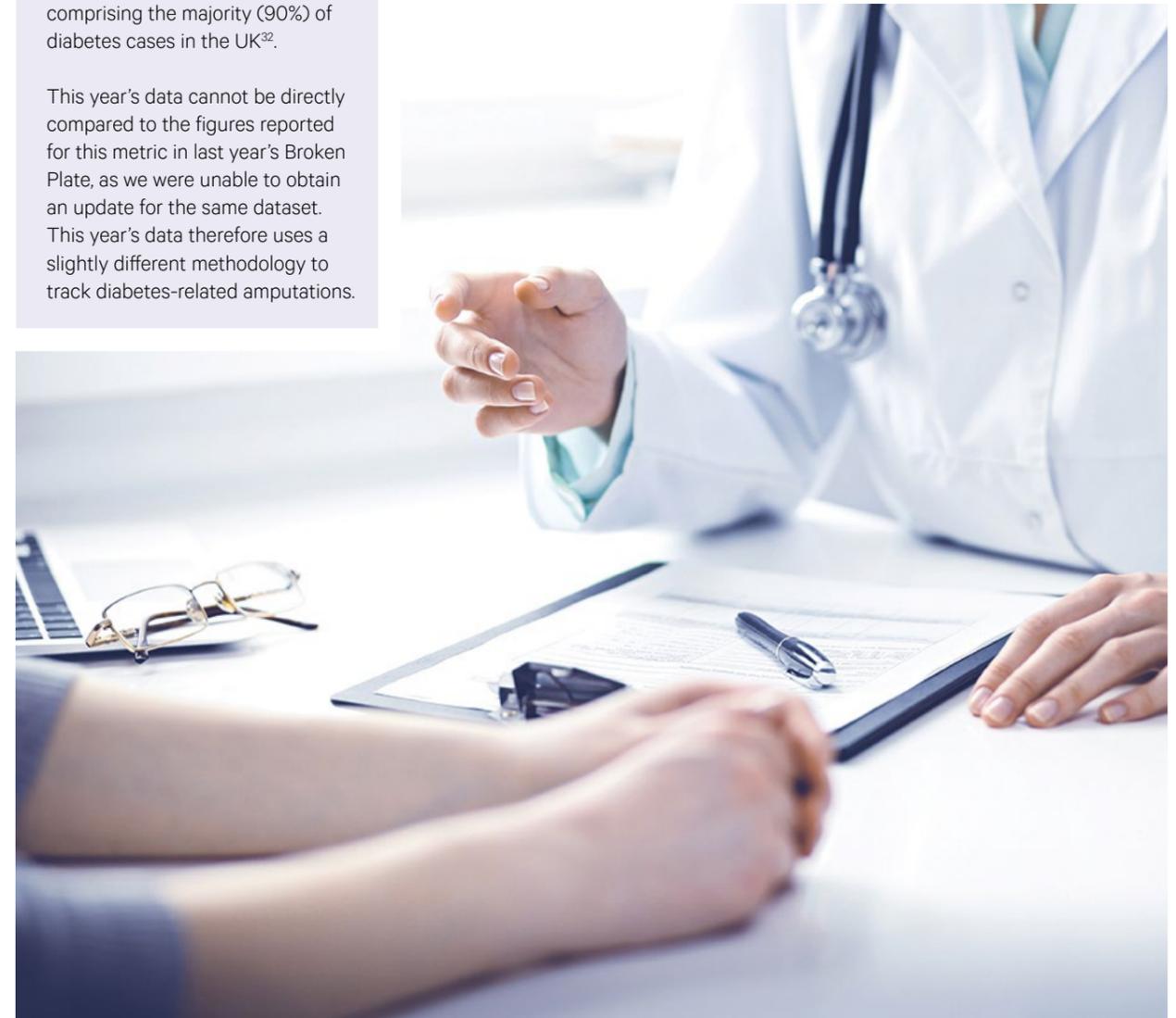
This year's data cannot be directly compared to the figures reported for this metric in last year's Broken Plate, as we were unable to obtain an update for the same dataset. This year's data therefore uses a slightly different methodology to track diabetes-related amputations.

HAS ANYTHING CHANGED?*

There were 9,155 diabetes-related amputations on average per year for the period 2015/16 to 2017/18. This has increased from 7,733 amputations for the period 2011/12 to 2013/14. Moreover, 27% of the amputations in 2015/16 to 2017/18 were major amputations (above the ankle).

Although England's population grew by 5.6% between 2011 and 2018³³, which will likely have impacted on the absolute numbers seen here, this is still an alarming increase in diabetes-related amputations.

“There were 9,155 diabetes-related amputations on average per year for the period 2015/16 to 2017/18.”



WHAT DOES THIS MEAN FOR THE NEXT GENERATION?

The statistics in last year's Broken Plate report illustrated that drastic action was required to transform our food system to deliver health, sustainability, and equity. Our analysis this year has shown that not only is positive change failing to be delivered at the pace required, but that for several of the metrics, the situation has deteriorated. Three metrics have shown improvement, with five non-movers, and two having worsened. These shocking statistics have real-life health implications for millions of people.

MODELLING THE HEALTH OF THIS YEAR'S BIRTH COHORT

We calculated the projected health implications of diets for children born in 2020. The trajectory was modelled using projected figures based on current trends, thus showing us what the rates of overweight, obesity and diet-related disease will be for these children if things continue as they are. These diseases are not exclusively related to overweight and obesity, but there is a strong association between high BMIs and being at an increased risk of several diet-related chronic diseases. It is also worth noting that some individuals will have multiple comorbidities, living with several of the conditions on the graph to the right at the same time.

TIME FOR CHANGE

This trajectory illustrates the fate of children born in 2020 if the government and businesses do not act now to ensure that everybody is able to secure nutritious food. Children born this year will be at a high risk of obesity and several diet-related chronic diseases throughout their lives. By 2085, nearly 1 in 5 people will have heart disease and more than 1 in 5 people will have type 2 diabetes if we do not change UK diets. As we know, the poorest people are disproportionately more likely to suffer from these conditions.

But this is preventable. Government and industry should heed these warning signs of a broken system, as illustrated by the metrics in this report, and act now so that everyone is able to benefit from healthy and sustainable diets. COVID-19 has highlighted the fragility both of our health and of the UK's food and health systems, but it has also created an unprecedented opportunity to change things for the better as society and businesses start to rebuild.

If action is not taken, and soon, the situation will continue to deteriorate.



Trajectory for children born in 2020

● Overweight ● Obesity ● Dead

AT AGE 5/RECEPTION: FORECAST 2025



AT AGE 11/YEAR 6: FORECAST 2031



AT AGE 21: FORECAST 2041



AT AGE 65: FORECAST 2085



AT AGE 65: IN DETAIL

AT AGE 65: DIABETES T1+T2



AT AGE 65: CARDIOVASCULAR DISEASE



AT AGE 65: CANCERS



AT AGE 65: OSTEOPOROSIS



AT AGE 65: TOOTH DECAY



● Dental decay
● People who've lost all teeth

Note: Overweight is defined as a Body Mass Index (BMI) of 25 to 29.9 kg/m², with obesity a BMI of 30 kg/m² and above.

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METHODS

Further detail and more information on the sources, data and methodologies used to calculate Broken Plate's metrics can be found in our Broken Plate technical report, available from the Food Foundation's website.



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