

Chapter 1: The nation's plate, our diet and food choices today

This chapter sets the scene for our analysis of food standards by exploring what we currently eat in the UK and how this is changing over time.

At a glance:

In this chapter, we look at:

- the impact of the pandemic on our eating and purchasing preferences
- the affordability of food and how this affects people's ability to eat healthily
- the wider societal attitudes and concerns shaping our food choices

Introduction

There are good reasons to look closely at what food is finding its way onto the nation's plate. What we eat, where we buy it, how much we spend on it, and what we worry about when doing so reflects our priorities and preoccupations – which, in turn, helps to define what we really value in our food.

This chapter sets the scene for our analysis of food standards by exploring what we currently eat in the UK and how this is changing over time. We also take a timely look at the affordability of our food, charting how the current economic environment – and other societal trends – are affecting our food choices. We begin by considering the effect of diet on long-term health, which underpins government dietary recommendations across the four nations [5].

Food and our health

In the UK, smoking and a poor diet are the leading causes of avoidable ill-health. [Unhealthy diets account for 13% of all deaths in the UK](#). Most of this is because a poor diet causes obesity, high blood pressure, high blood cholesterol and type 2 diabetes, all of which can lead to cardiovascular disease. What we eat can also increase our risk of some cancers, especially bowel cancer, which is linked to eating too much red or processed meat. [Obesity is linked to 13 different cancers](#), including post-menopausal breast cancer and bowel cancer.

The causes of obesity are complex. Some people are at higher risk because of their genes, and some people may gain too much weight because they are inactive. However, a diet which contains a lot of foods that are high in fat or free sugars, or is low in fibre with few fruits and vegetables, is strongly associated with an increased risk of excess weight gain. Since obesity is also a risk factor for cardiovascular disease and cancer, measuring the prevalence of obesity in a population gives a useful snapshot of the health impact of what we eat.

Latest figures show around a quarter of UK adults, or approximately 15 million people, have a [body mass index \(BMI\)](#) that indicates they are obese. In England, obesity rates have risen steadily for at least 50 years. The most recent figures from the [Health Survey for England in 2019](#) found that 28% of adults (27% of men, 29% women) were living with obesity – [approximately four times higher than in 1980 \(6% men, 9% women\)](#). [Wales](#) and [Northern Ireland](#) have also experienced increases while in [Scotland](#) rates of adult obesity increased between 2003 and 2008 but subsequently remained relatively stable, at least up to the start of the pandemic.

Preliminary evidence suggests that there has been an increase in average weight over the last two years, which is likely to be due to the marked changes in our lifestyles over this period, with many of us becoming less physically active and changing the way we eat during the pandemic.

Among children, the situation is particularly concerning as more are classified as having obesity than ever before, increasing their lifelong risk of obesity and related poor health. The latest data from [England](#) shows that obesity now affects one in four children aged 10–11 years, with clear evidence of a recent spike since pre-pandemic. In [Northern Ireland](#), the prevalence of childhood obesity appeared to have stabilised at around 18% and in [Wales](#), latest figures show a prevalence of 12.6% among four and five year olds. Data is not yet available to assess whether this has changed during the pandemic.

In [Scotland](#), in the school year 2020/21, 29.5% of the five and six year olds measured were at risk of overweight or obesity, representing a 6.8 percentage point increase since 2019/20. This data also found the increase was greater among children living in the most deprived areas (8.4 percentage points) compared to those in the least deprived areas of Scotland (3.6 percentage points).

Of particular concern across the whole of the UK is the [clear association between higher rates of obesity and more deprived parts of the country](#). There is also worrying evidence that the gap in obesity prevalence between the most and least deprived areas in the UK is widening.

What are we eating today?

The most authoritative guide to what we are eating today is the [National Diet and Nutrition Survey \(NDNS\)](#), which has been collecting detailed information on the food and nutrient intake of the UK population since 2008. The latest findings are set out below.

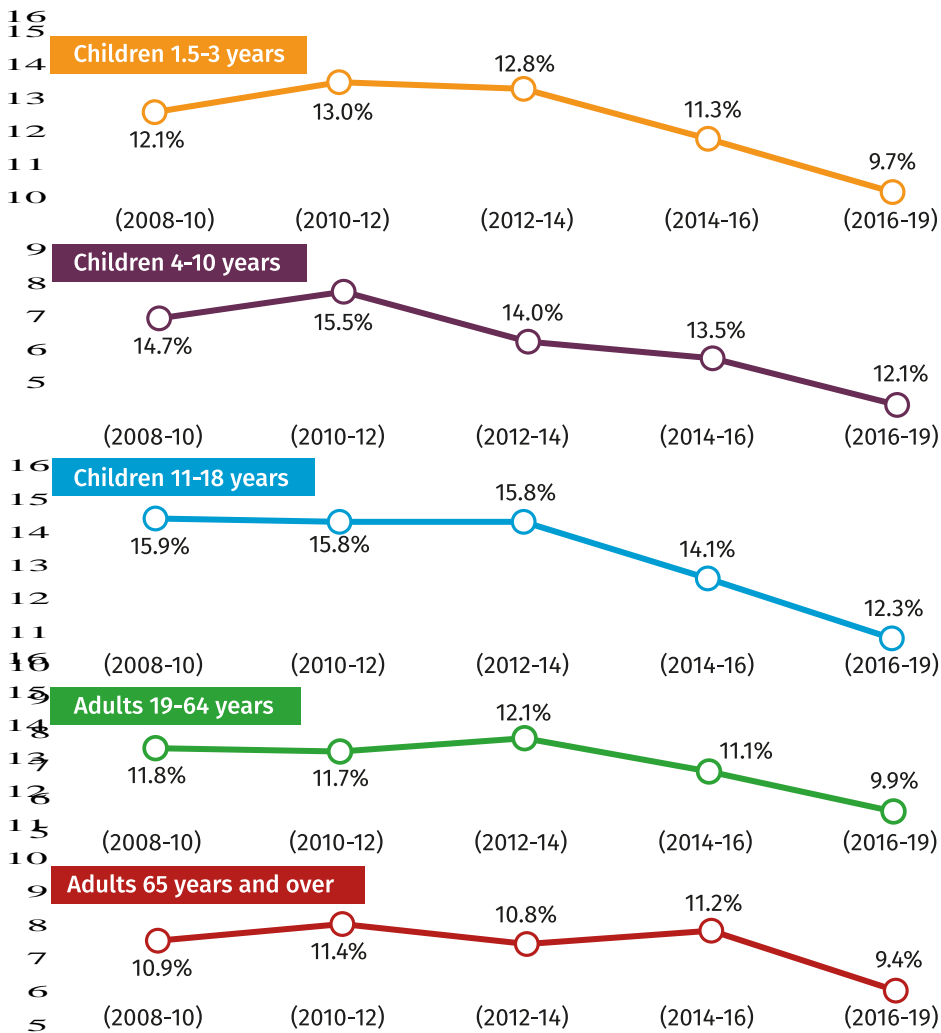
Please note that due to changes in data collection during the pandemic the 2020 figures are not directly comparable to the historic data. For this reason, we have included references to the overall trends from 2008 to 2019 and kept the 2020 data separate.

Free sugars

Despite a decline in intake of free sugars in both adults and children between 2008 and 2019 consumption remains high (figures 2 and 3). According to the 2020 data, free sugars intake (as a proportion of total energy intake) is highest in children aged 11 to 18 years, though average consumption across all age groups exceeds the recommended maximum level of 5%.

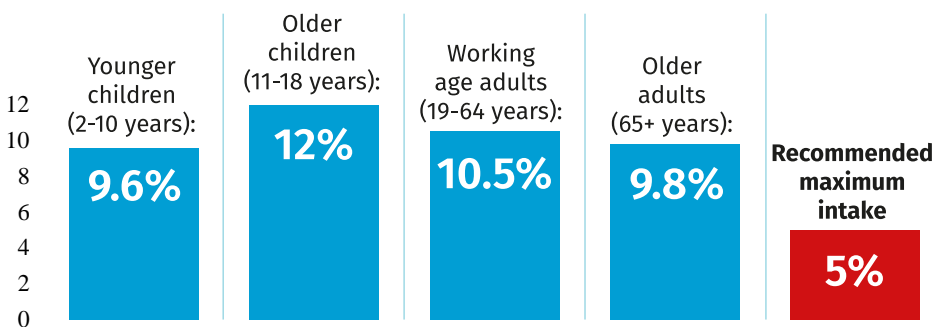
Daily free sugars intake has fallen but still remains high

Figure 2: Daily free sugars intake as a percentage of total energy in adults and children



Source: Public Health England [NDNS: results from years 9 to 11 \(2016 to 2017 and 2018 to 2019\)](#)

Figure 3: Average consumption of free sugars as a proportion of daily total energy (2020)



Source: Public Health England [NDNS: Diet and physical activity - a follow-up study during COVID-19](#)

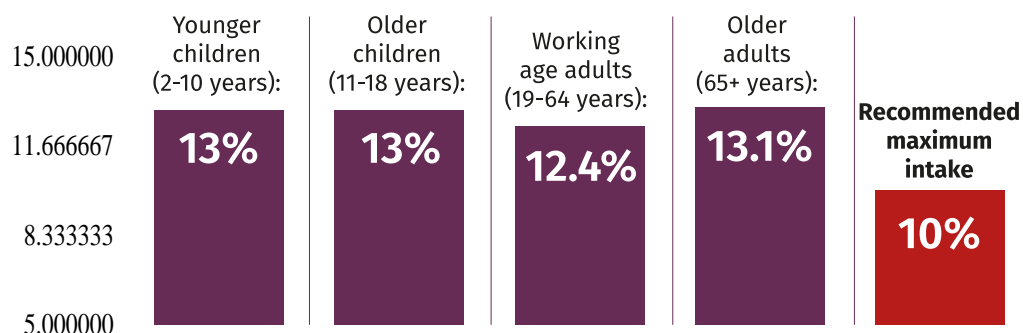
Saturated fat

The average person's intake of saturated fat as a percentage of total energy intake saw no change between 2008 and 2019. Across all age groups, consumption continues to exceed the

16 —
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dietary recommendation that saturated fat should make up no more than 10% of daily total energy intake. Consumption of saturated fat (as a proportion of total energy intake) is highest in women aged 65 years and over, accounting for 13.9% of their total energy intake in 2020.

Figure 4 Average daily saturated fat consumption as a proportion of daily total energy (2020)



Source: Public Health England [NDNS: Diet and physical activity - a follow-up study during COVID-19](#)

Salt

Latest data taken from salt levels in urine shows that average intake is higher than the recommended intake of 6g per day for adults in all parts of the UK. The trend data we have suggests that this is broadly stable over time across the four home nations, except for in Scotland where there was a decline in salt intake between 2006 and 2014.

Figure 5: Average estimated daily salt intake across the UK for adults aged 19-64 years



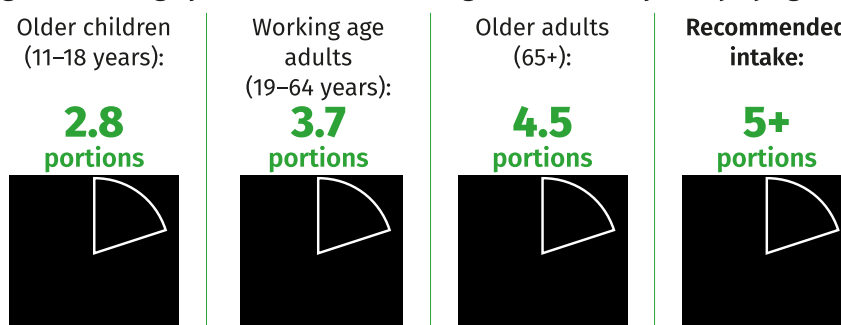
Source: Salt intake is estimated through urine samples collected as part of the National Diet and Nutrition Survey rolling programme. Data are collected and reported separately for [England](#) (2018/2019), [Wales](#) (2009/10-2012/13), [Scotland](#) (2014) and [Northern Ireland](#) (2015).

Fruit and vegetables

Most people in the UK eat fewer than the recommended five portions of fruits and vegetables a day, with children aged 11-18 years eating the fewest. Between 2008 and 2019 there was an increase in women aged 19-64 years meeting the recommended intake for fruit and vegetables, but no change for other groups. [Previous analysis](#) has shown that higher income households tend to have a higher intake of fruit and vegetables.

Figure 6: Average portions of fruit and vegetables eaten per day by age (2020)

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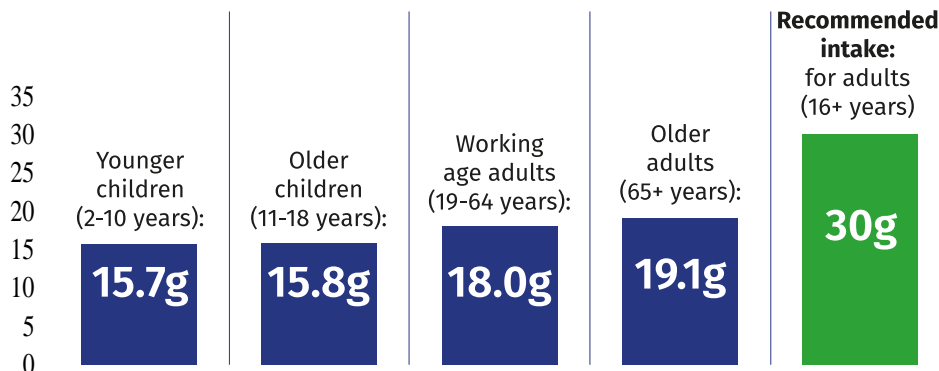
Source: Public Health England **NDNS: Diet and physical activity – a follow-up study during COVID-19**

Source: Public Health England [NDNS: Diet and physical activity - a follow-up study during COVID-19](#)

Fibre

Fibre intake remains below dietary recommendations across all age groups. There was little change in fibre intake between 2008 and 2019. While a quarter of children from two to ten years old are meeting the recommended intake, just 4% of older children aged from 11 to 18 are doing so. The [recommended amount](#) is 30g for adults and varies for children depending on age.

Figure 7: Average amount of fibre consumed per day (2020)



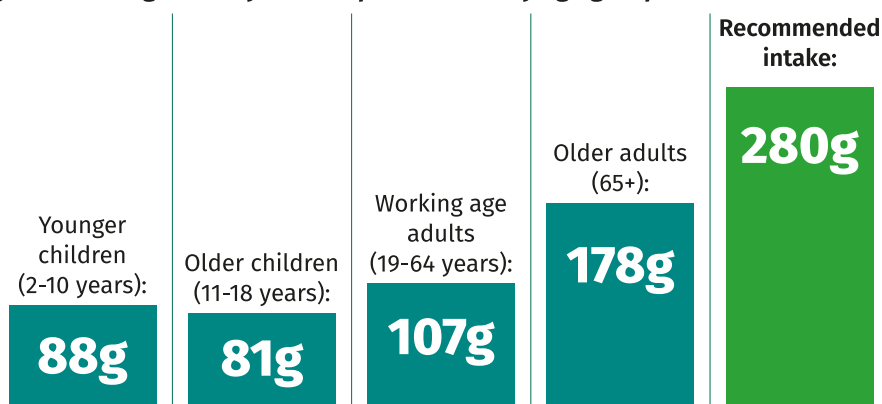
Source: Public Health England [NDNS: Diet and physical activity - a follow-up study during COVID-19](#)

Fish

The amount of fish we are eating remains static and significantly below recommended guidelines of at least two portions of fish a week, one of which should be oily fish. Mean daily consumption of oily fish was also below the recommended one portion a week across all age groups. Average consumption of all types of fish has changed very little between 2008 and 2019.

Figure 8: Average weekly consumption of fish by age group (2020)

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Source: Public Health England [NDNS: Diet and physical activity – a follow-up study during COVID-19](#)

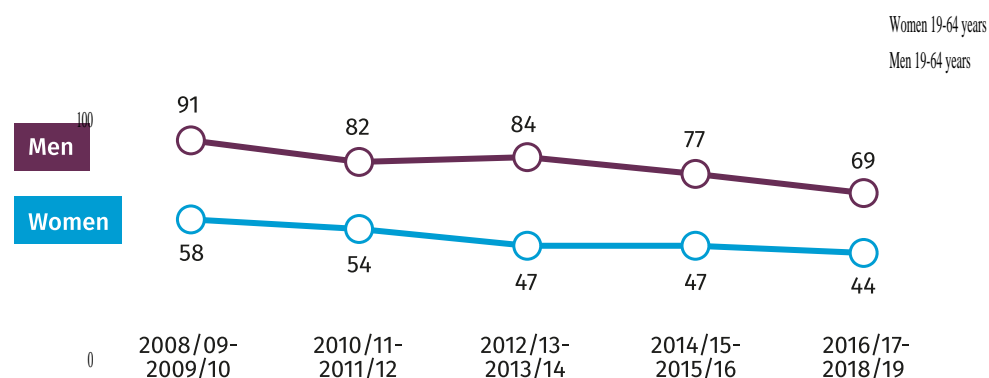
Source: Public Health England [NDNS: Diet and physical activity - a follow-up study during COVID-19](#)

Meat

2019 largely driven by a reduction in red and processed meat consumption (figures 9 and 10). Latest figures from 2020 indicate the average adult now eats below the recommended maximum of 70g a day of red and processed meat – though there is a big gender difference, with men aged 19-64 years (68g) consuming nearly twice as much, on average, as females of the same age (38g).

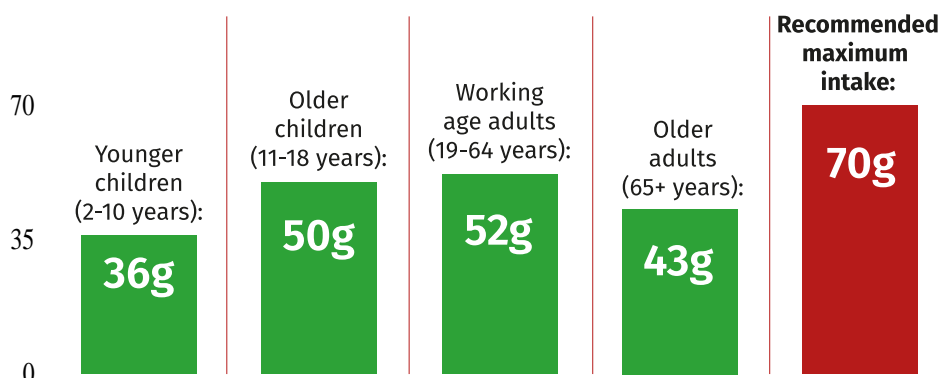
Both men and women are now eating less red and processed meat

Figure 9: Average daily consumption of red and processed meat in working age adults (grams per day)



Source: [Public Health England NDNS: results from years 9 to 11 \(2016 to 2017 and 2018 to 2019\)](#)

Figure 10 Average daily consumption (grams per day) of red and processed meat by age group (2020)



Source: Public Health England [NDNS: Diet and physical activity - a follow-up study during COVID-19](#)

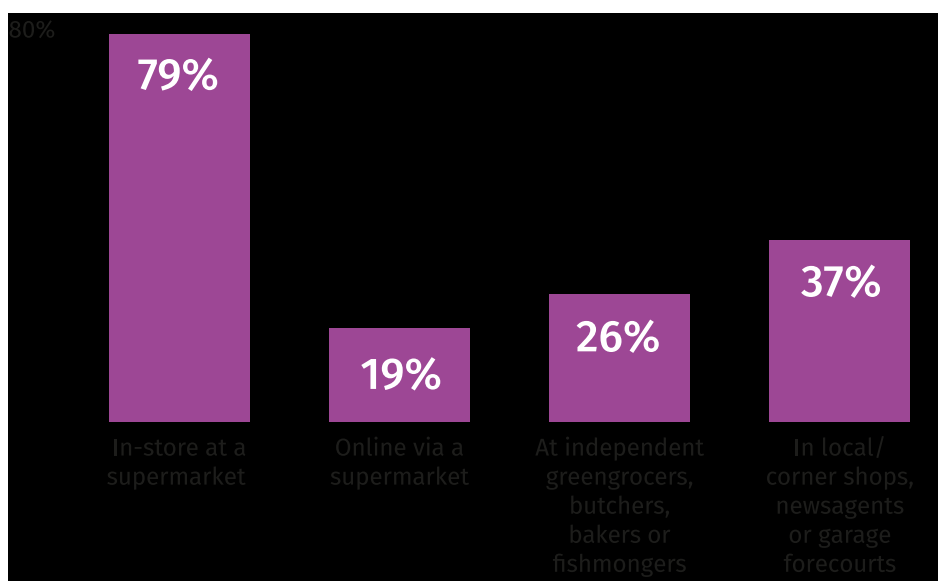
Where are we buying food?

Our diets are also influenced by how and where we get our food. While most people regularly shop for food in supermarkets, the FSA's Food and You 2 survey shows that over a third of people in England, Wales and Northern Ireland regularly buy food in local corner shops, newsagents or garage forecourts. These shops tend to be more expensive, have a more limited range of products, and supply less fresh food. Analysis shows that households with marginal, low or very low food security, are more likely to buy food from these types of outlets at least once a week, compared to those with high food security.

Most people shop for food in a supermarket at least once a week

Figure 11: % of respondents in England, Wales and Northern Ireland who shop about once a week or more

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Source: Food Standards Agency **Food and You 2: Wave 3**

Source: Food Standards Agency: [Food and You 2 Wave 3](#)

The FSA and FSS's [The UK Public's Interests, Needs and Concerns Around Food research](#) meanwhile shows that 22% of people in the UK order from a takeaway and a further 23% order via a food delivery service (for example, Deliveroo, Just Eat, Uber Eats) at least once a week, whilst one in five (20%) eat out in restaurants, pubs or cafes at least once a week. Younger adults, and higher income households are more likely to eat out or order takeaways.

What is influencing our food choices?

What is on people's minds when they buy food for themselves and their families? In early 2022, the FSA and FSS's [The UK Public's Interests, Needs and Concerns Around Food](#) surveyed more than 6,000 people to reveal what shapes our behaviour and preferences today. Here are some of the key findings:

The price of food

When thinking about the future of food in the UK over the next three years, consumers were most concerned about the price of food (76% were quite or extremely concerned). More than two thirds (68%) said they were worried about the cost of healthy food in particular and more than half (53%) said they felt "priced out" of

buying healthy food.

Health concerns

Over four in ten UK consumers claimed they often selected food because of its specific health properties, and nearly half (49%) said they avoid buying foods that contain added ingredients such as trans fats, palm oil, preservatives or E numbers.

Changing eating habits

Many consumers reported that they are adopting a 'flexitarian' diet – that is, eating mostly plant-based foods while eating meat and other animal products only occasionally. In the UK, 25% of the public described themselves as “still eating but cutting down on meat, dairy and animal products”. A further 5% already identify as vegetarian, 3% say they are pescatarian and 2% vegan [7].

Ethical and environmental awareness

Many consumers are making food choices based on ethical and environmental concerns, with 64% saying they care deeply about the treatment of animals in the food chain, and 67% reporting that they are trying to reduce or avoid food products that create plastic waste. Similar proportions expressed concerns related to the amount of packaging waste or plastic packaging in the food chain (65%), high levels of food waste (64%), and food poverty and inequality (64%).

The impact of the pandemic

Eight out of ten people in England, Wales and Northern Ireland have made changes to their eating habits in the last 12 months.

Source: FSA - [Food and You 2: Wave 3](#)

In 2021, 75% of people in Scotland say they know they have to make significant changes to what they eat to be more healthy, and 23% of adults said their diet had worsened since the pandemic.

Source: FSS - [Food in Scotland Customer Tracker: Wave 12](#)

COVID-19 certainly made an impression on the nation's eating habits. From lockdown to 'Eat Out to Help Out', the pandemic caused sudden changes in what we eat and how we shop. It is less clear, however, whether longer-term changes in consumer behaviour have occurred.

A number of studies have looked at the impact of the pandemic on our diets. These include the regular [Food and You 2](#) and [Food in Scotland](#) surveys, a monthly [COVID-19 Tracker](#) established in April 2020, a dedicated [Food in a Pandemic](#) study conducted in November 2020 and [qualitative research](#) conducted in England, Wales and Northern Ireland in June and July 2020. FSS also recently published a new [Situation Report](#) which provided an overview of changes to food shopping and eating behaviours in Scotland in 2020 as a result of the pandemic.

The main observations are set out below.

Observation 1: The financial pressures of the pandemic made healthy eating tougher for some consumers.

The [FSA's Food in a Pandemic study](#) found that those who were vulnerable to household food insecurity were also more likely to find it harder to maintain a healthy diet during the pandemic: 51% of those with children eligible for free school meals reported that it was a struggle to eat healthily compared with 37% of those with

children who were not.

The [2020 NDNS survey](#) also showed that people from households with lower financial or food security reported consuming fewer fruits and vegetables, less fish, and more sugar-sweetened soft drinks than those who were more financially or food secure [8].

The [FSS Food in Scotland survey](#) found that just under 23% of adults in Scotland had worried about affording food in the past year, with those with children more likely to do so (36%). Around one in seven adults (14%), and nearly one in four (24%) of those with children, said they had skipped meals as a result [9].

Observation 2: The pandemic appears to have had a mixed impact on the nutritional quality of our diets.

[Consumer research](#) commissioned by FSS found that in Scotland cooking from scratch increased briefly after the first lockdown. However, there was also a greater increase in the use of 'assisted cooking' (such as cooking sauces and kits), particularly for evening meals, which lasted throughout 2020.

The [FSA's Food in a Pandemic study](#), meanwhile, found that a third (32%) of people reported eating more healthy main meals at the time of the study (November 2020) compared to before the pandemic (9% reported eating less), with the majority of these saying they had more free time and were cooking more at home¹⁰.

However, a survey of parents in Scotland (included in the [FSS Situation Report](#)), found that 34% thought their diet had become less healthy as a result of the COVID-19 pandemic, while 17% felt that their child's diet was now less healthy [11].

Observation 3: The pandemic encouraged people to eat more unhealthy snacks and treats during lockdown.

The FSA's Food in a Pandemic research shows a similar proportion of people (33%) from roughly the same groups that reported healthier eating in main meals, also indicated that they were eating more unhealthy snacks. In contrast, 18% reported that they were eating fewer unhealthy snacks.

Similarly, [FSS data](#) found that in Scotland snacking at home increased by nearly a third (31%), particularly during the day. There was also a 31% increase in the value of the takeaway and delivery sector at the peak of the pandemic in Scotland.

Observation 4: Many consumers shopped online more for groceries, while some consumers also shopped more locally.

The [2020 NDNS survey](#) suggests that around two-thirds (68%) of UK consumers went to grocery shops less often than before the pandemic and about a third (34%) reported doing more grocery shopping online.

[Data commissioned by FSS](#) also shows an increase in online grocery shopping in Scotland, with 64% more groceries bought online compared to 2019.

The [FSA's Food in a Pandemic research](#), meanwhile, found that over a quarter of consumers (28%) reported purchasing more locally produced food, and a similar proportion (29%) reported buying food from smaller grocery shops. This shift to buying local was higher among the more affluent consumers, those from ethnic minority groups and those with children [12].

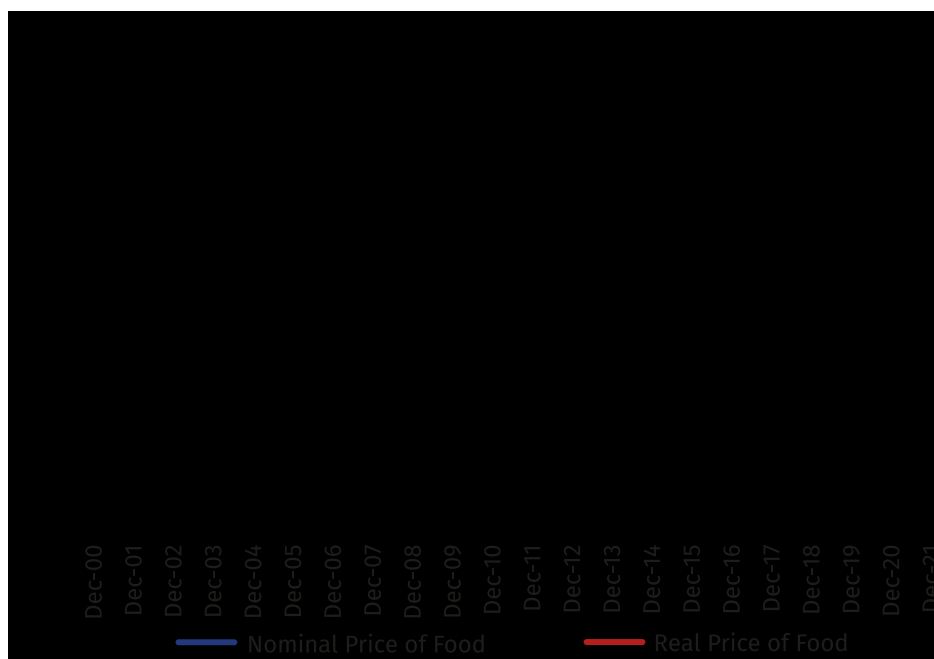
The affordability of our food

[Official ONS data](#) (figure 12) shows that food prices rose by 4.5% between December 2020 and December 2021. This represents the greatest annual increase in the price of food from one December to the next since 2010, and the annual rise has since increased to 6.7% from April 2021 to April 2022. There have also been sharp rises in petrol and energy prices, which are increasing household bills and squeezing family budgets.

UK households spent an average of £72.45 a week on food, accounting for 8.2% of household expenditure. This is equivalent to around £30 per person per week. When adjusted for inflation, we were spending 5.8% more on food in real terms in 2021 than we did over the previous five years on average, though this will vary between households.

Figure 12: How the price of food has changed over time (2009 to 2021)

Figure 12: How the price of food has changed over time (2000-21)



Source: Office for National Statistics (2022) [Consumer price inflation time series](#)

Source: Office for National Statistics (2022) [Consumer price inflation time series](#)

How to interpret the graph

The graph is presented as an index which allows us to compare how nominal and real food prices have changed since the year 2000, which is given a baseline value of 100 for each. For example, we can see from the index that the nominal price of food was 110 in 2005 meaning that nominal prices were around 10% higher on average in 2005 than they were in 2000.

Household food insecurity and consumer concerns

While pressure on living standards affects all households to varying degrees, it poses the greatest concern for those most vulnerable to household food insecurity as [lower income households tend to spend a greater proportion of their budget on food](#).

Official figures from the Department for Work and Pensions (DWP) [Family Resources Survey](#) show that a total of 7% of UK households – roughly two million households – were described as food insecure in 2020/21, with 3% reporting low food security and 3% very low food security.

Although this was a slight decrease from the 8% of households being food insecure in the previous year, the combined food and energy price rises in recent months mean these figures are likely to rise again.

A fair share? The UK's household food insecurity hotspots

Figure 13: Household food insecurity in the UK by region (2020 to 2021)

A fair share? The UK's household food insecurity hotspots

Figure 13: Household food security in the UK by region (2020-21)



Source: DWP Family Resources Survey: financial year ending 2021

Source: [DWP Family Resources Survey: financial year ending 2021](#)

The [FSA's tracking data](#) (figure 14) to the end March 2022 shows that consumer worries about food affordability (for them personally or their household) have fluctuated since April 2020, with around a third of consumers feeling worried about food affordability in March 2022. Although not directly comparable, [latest figures](#) for FSS (figure 15) show that over one-fifth of consumers were worried about food affordability in September 2021 [13].

The approaching storm: concerns about food prices began to rise towards the end of 2021

Figure 14: Proportion of consumers worried about food affordability in England, Wales and Northern Ireland

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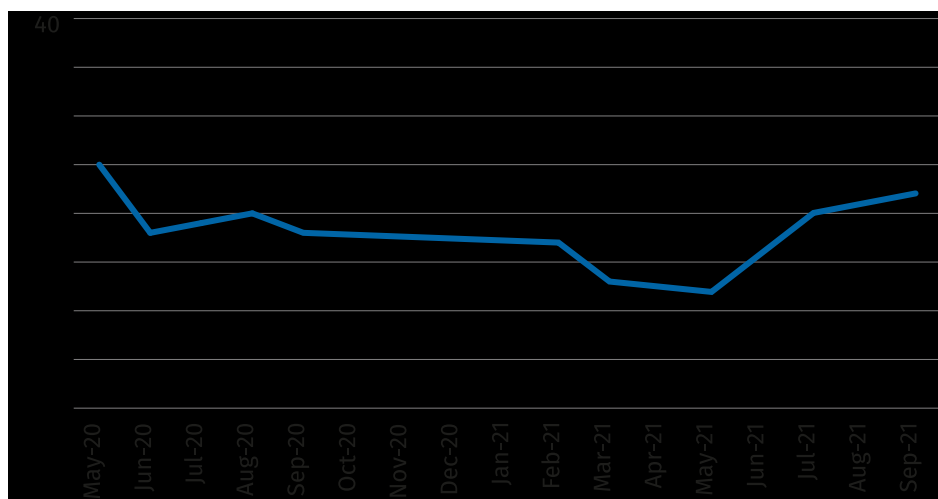


Source: [FSA COVID-19 Consumer Tracker](#)

Source: [FSA COVID-19 Consumer tracker](#)

Figure 15: Proportion of consumers worried about food affordability in Scotland

Figure 15: Proportion of consumers worried about food affordability in Scotland



Source: [FSS COVID-19 Consumer Tracker](#)

Source: [FSS COVID-19 Consumer Tracker](#)

According to research carried out in early 2022, this financial strain is already manifesting itself in people's intended food choices. Many consumers are having to make tough decisions about how to balance cost and convenience alongside their wider values and concerns about issues such as the basic quality, nutritional value, and environmental impacts of their food.

The FSA and FSS's [UK Public's Interests, Needs and Concerns Around Food research](#) provides an indication of how this is likely to affect people's diet, with one in four people now feeling that the only foods realistically available to them are heavily processed. This figure climbs to around one in two among groups with low food security.

The public's priorities for the future

How can public confidence in food standards be maintained during such a challenging period? The FSA and FSS's [The UK Public's Interests, Needs and Concerns Around Food research](#) shows that consumers are clear about what steps they want to be taken to improve the availability of safe, nutritious food.

Priority 1: Ensure equitable access to healthy, safe and affordable foods

Exactly half (50%) of people reported that "access to healthy food products at affordable prices" is important to them while 41% said that "access to low-priced food that is not over-processed and meets good quality standards" is important. Almost half (48%) say they want the FSA and FSS to work with their partners to ensure greater choice of basic low-priced foods which are of good quality as a key priority. More than a third (36%) would like clear guidance on how to make healthier choices on a budget.

Priority 2: Maintain or strengthen food safety and hygiene standards

Consumers want reassurances that food safety and hygiene standards will be upheld after the UK's departure from the EU and built into future trade deals. Enforcing clearer labelling of food ingredients and allergens is also a key priority for 43% of consumers.

Priority 3: Act on additives and processed foods

Nearly half (47%) of the public want the FSA and FSS to take action to reduce things added in the food process such as E numbers and preservatives. Over four in ten UK consumers claim they often select food because of its specific health properties, and nearly half (49%) say they avoid buying foods that contain added ingredients such as trans fats, palm oil, preservatives or E numbers.

Priority 4: Ensure locally-produced food is accessible to all

Over half of consumers (59%) trusted local (smaller) food producers to have higher quality standards than big businesses. However, high quality, locally-produced food was also viewed as expensive and out of reach of many households. More than four in ten people said they therefore wanted the FSA and FSS to work with government departments, local authorities, producers, manufacturers or retailers to "ensure access to affordable, locally-produced foods" as a priority.

Priority 5: Take further action on food waste and environmental sustainability

There is strong public interest in environmental issues within food systems, with consumers expressing concerns about globalised supply chains, sustainability, and animal welfare issues. Just under half of consumers (46%) want the FSA and FSS to work with

government departments, local authorities, producers, manufacturers or retailers to set standards to minimise food waste in the supply chain – while 57% said that ensuring high standards of animal welfare, including for imported foods, should be a key priority.

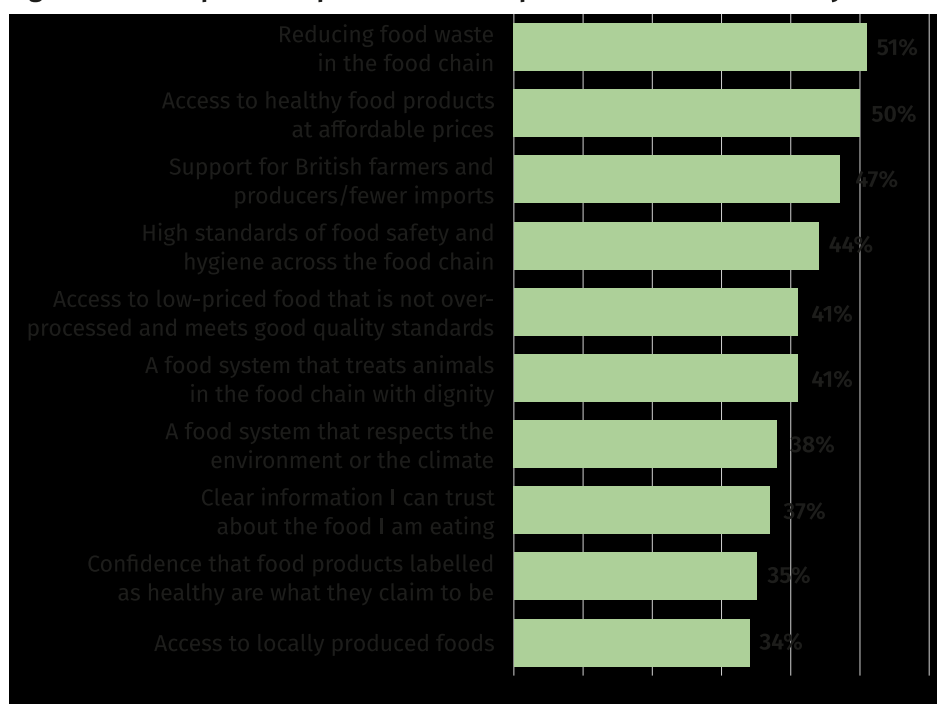
Priority 6: Make it easier for consumers to make good food choices

Finally, consumers expressed frustration during interviews and focus groups about how difficult it can be to “get to the truth” when it comes to food choices. Three in five (61%) say that they often feel that foods labelled as ‘healthier options’ are unhealthy in other ways. Over a third would like more clarity on fat, salt and sugar content (38%), and simple, consistent health information labelling (37%). Many also expressed difficulties in understanding the long-term environmental impact of food and would again like to see clearer information to guide their choices.

Consumers want access to healthy, affordable food that is kinder to the planet

Figure 16: The top 10 food priorities for the public over the next three years

Figure 16: The top 10 food priorities for the public over the next three years



Respondents were asked the following question: “Thinking about the next three years, which of these issues, if any, do you see as important to you for the future of food?”

Source: Bright Harbour, Esposito Research & Strategy, And Good for FSA and FSS [The UK Public’s Interests, Needs and Concerns Around Food](#).

Food price definitions

An item’s **nominal price** is the amount of money you spend to buy that item.

An item’s **real price** is the amount of money you spend to buy that item, adjusted for the fact that the prices of other goods and services change over time. Real prices help us to understand whether something is getting more or less expensive over time compared to other goods and

services.