

# Food and You 2 Survey: Scotland

**Wave 8 Key Findings** 

**Update 2 December 2025** 



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# **About Food Standards Scotland**

At Food Standards Scotland we have a unique role, working independently of Ministers and industry to provide advice which is impartial, and based on robust science and data.

Our remit covers all aspects of the food chain which can impact on public health – aiming to protect consumers from food safety risks and promote healthy eating.

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# **Executive summary**

This report presents the key findings from the Food and You 2 Wave 8 survey carried out in Scotland. The Food Standards Agency (FSA) has been running the survey in England, Wales and Northern Ireland since 2020. In Wave 8, Food Standards Scotland (FSS) collaborated with the FSA to enable, for the first time, a sample of consumers in Scotland to be included in the survey. Food and You 2 measures consumers' self-reported knowledge, attitudes and behaviours related to food safety and other food issues amongst adults across the UK.

Fieldwork for Food and You 2 Wave 8 was conducted between 12 October 2023 and 8 January 2024. A total of 1,377 adults (aged 16 years or over) from 954 households across Scotland completed the survey.

This report focuses on eating at home and food safety practices, eating out and ordering takeaways, concerns about food, food allergies and intolerances, sustainable diets and meat alternatives and genetic technologies.

# **Findings**

#### Eating at home

# Cleaning

71% of respondents reported that they always wash their hands before preparing or cooking food.

88% of respondents reported that they always wash their hands immediately after handling raw meat, poultry or fish.

#### Chilling

62% of respondents reported that their fridge temperature should be between 0-5 degrees Celsius.

55% of respondents who have a fridge reported that they monitored the temperature; either manually (47%) or via an internal temperature alarm (8%).

#### Cooking

81% of respondents reported that they always cook food until it is steaming hot and cooked all the way through, and 18% reported that they do not always do this.

91% of respondents reported that they never eat chicken or turkey when it is pink or has pink juices. 7% of respondents reported eating chicken or turkey at least occasionally when it is pink or has pink juices.

82% of respondents reported that they would only reheat food once, 9% would reheat food twice, and 5% would reheat food more than twice.

69% of respondents reported that they would eat leftovers from the fridge within 2 days. 22% of respondents reported that they would eat leftovers within three to five days and only 2% would eat leftovers after 5 days or longer.

### **Avoiding cross-contamination**

60% of respondents reported that they never wash raw chicken; however, 36% of respondents reported that they do this at least occasionally.

69% of respondents reported storing raw meat and poultry at the bottom of the fridge.

#### **Use-by dates**

67% of respondents identified the use-by date as the information which shows that food is no longer safe to eat.

70% of respondents reported that they always check use-by dates before they cook or prepare food.

# Eating out and takeaways

61% of respondents had eaten out in a restaurant and 60% from a café, coffee shop or sandwich shop (either to eat in or take out) in the previous four weeks. Around half had ordered a takeaway directly from a takeaway shop or restaurant (52%) and 33% had eaten out in a pub or bar.

Respondents were least likely to eat out or buy food to take out for breakfast, with 50% never doing this, compared to 48% who did. The majority of respondents eat out or buy food to take out for lunch or dinner with 85% and 89% reporting doing so respectively.

#### Concerns about food and food allergies and intolerances

#### Concerns about food

Respondents were asked to indicate if they had concerns about several food-related issues, from a list of options. The most common concern was food prices (71%). Other common concerns were the quality of food (65%), food waste (62%) and the amount of sugar in food (58%).

#### Food allergies and intolerances

24% of respondents reported that they suffer from a bad or unpleasant physical reaction after consuming certain foods or avoid certain foods because of the bad or unpleasant physical reaction they might cause. Most (74%) reported that they did not have a food allergy or intolerance.

23% of respondents who reported having a food hypersensitivity had been diagnosed by an NHS or private medical practitioner and 5% had been diagnosed by

an alternative or complementary therapist. However, most (72%) had not received any diagnosis.

#### Sustainable diets

Respondents were asked if they had made any changes to their eating habits or food related behaviours in the past twelve months. The most common changes reported were that they had eaten less processed food (43%) and started minimising food waste (37%).

## Meat alternatives and genetic technologies

26% of respondents reported that they currently eat meat alternatives, 18% reported that they used to eat meat alternatives but no longer do, and 49% reported that they had never eaten meat alternatives.

Respondents reported greater levels of awareness and knowledge of genetically modified (GM) food than gene-edited or genome-edited food (GE) and least knowledge of precision bred (PB) food. For instance, 91% had heard of GM food, 59% had heard of GE food and 32% had heard of PB food.

# **Acknowledgements**

First and foremost, our thanks go to all the respondents who gave up their time to take part in the survey.

We would like to thank the team at Ipsos who collected the data and made a significant contribution to the project.

We would like to thank colleagues at FSA, particularly Helen Heard, Charlotte Parnell, Lucy Murray and Beth Armstrong. Special thanks also to Robin Clifford, Matt Jenkins and the FSA Statistics Team and Ipsos who played a key role in preparing the data cleaning and analysis, and who prepared the linked Technical Reports.

Within FSS, thanks to the Food and You 2 (Scotland) User Group for their valuable support and guidance.

Finally, many thanks to everyone at FSS involved in writing, checking of data, reviewing and revising the report.

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#### 1. Introduction

### 1.1 Food Standards Scotland: role, remit, and responsibilities

Food Standards Scotland (FSS) is a non-ministerial government department working to protect public health and consumers' wider interests in relation to food in Scotland.

Our vision is for a safe, healthy and sustainable food environment that benefits and protects the health and well-being of everyone in Scotland. We aim to use data and evidence to provide assurance and advice that inspires consumer confidence and improved public health.

Our vision is set out in the <u>strategic plan 2021 – 2026</u> and includes that:

- Food is safe and authentic
- Consumers have healthier diets
- Responsible food businesses are enabled to thrive
- Consumers are empowered to make positive choices about food
- FSS is trusted and influential

### 1.2 Food and You 2 (Scotland)

The Food Standards Agency (FSA) has been running its official statistic survey Food and You 2 covering consumers in England, Wales and Northern Ireland since 2020. The research is conducted biannually using a primarily online methodology. It covers topics such as food safety in the home, food shopping, eating out, food security, concerns about food, and trust in the FSA and food supply chain.

For the first time, a sample of consumers in Scotland was included in Wave 8 of the Food and You 2 survey. The reason was to gather more extensive and robust consumer data for Scotland, particularly around food hygiene and safety practices, to complement the existing FSS survey, the Food in Scotland Tracker Survey, and to have a comparable data source with the rest of the UK.

The inclusion of a sample of consumers in Scotland in future waves of Food and You 2 will be reviewed on an annual basis.

For FSS, the Food and You 2 survey will help inform policy decisions by measuring consumers' self-reported knowledge, attitudes and behaviours related to food safety and other food issues in Scotland.

This report focuses on eating at home and food safety practices, eating out and ordering takeaways, concerns about food, food allergies and intolerances, sustainable diets and meat alternatives and genetic technologies.

#### 1.3 Methodology and data

The Food and You 2 survey is commissioned by the Food Standards Agency (FSA) with Food Standards Scotland (FSS) funding the option for a sample of consumers in Scotland for Wave 8. The fieldwork is conducted by Ipsos. Fieldwork for Wave 8 was conducted between 12th October 2023 to 8th January 2024.

For Wave 8 in Scotland a total of 1,377 adults (aged 16 years or over) from 954 households across Scotland completed the survey. An overall response rate of 24.8% was achieved in Scotland. Sixty-eight per cent (68.4%) of respondents completed the survey online and 31.6% completed the postal version of the survey.

Full details of the survey background and methodology are available in Appendix A of this report and in the accompanying Food and You 2: Technical Report.

In addition, technical report tables for Food and You 2 Wave 8 in Scotland are available.

## 1.4 Interpreting the findings

An analysis of differences between socio-demographic and other subgroups is provided for some key variables. To highlight the key differences between socio-demographic and other sub-groups, variations in responses are typically reported only where the absolute difference is 10 percentage points or larger and is statistically significant at the 5% level (p<0.05). However, some differences between socio-demographic and other sub-groups are included where the difference is less than 10 percentage points, when the finding is notable or judged to be of interest. These differences are indicated with a double asterisk (\*\*). Variations where the base size of the category group is low (e.g. less than 50) are not included unless they are judged to be of specific interest.

In some cases, it was not possible to include the data of all sub-groups, however such analyses are available in the Scotland technical report tables.

Key information is provided for each reported question in the footnotes, including:

- Question wording (question) and response options (response).
- Number of respondents presented with each question and description of the respondents who answered the question (Base = N).
- 'Please note:' indicates important points to consider when interpreting the results.

Socio-demographic and other sub-groups considered include: gender; age; children in the household aged under 16 years; children in the household aged under 6 years

old; household size; level of food security<sup>1</sup>; annual household income; socio-economic classification (<u>NS-SEC</u>)<sup>2</sup>; urban/rural; long-term health condition; food allergy or intolerance; ethnicity.

¹ Food security is defined as: "Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life." World Food Summit, 1996. The Food and You 2 survey uses the US Adult Food Security Survey Model developed by the United States Department of Agriculture (USA) to measure consumers' food security status. Further details of how level of food security is measured are provided in Chapter 3 of the FSA Food and You 2 Wave 8 Key Findings for England, Wales and Northern Ireland. Please note that in Scotland, 'food insecurity' is generally the preferred term used for the same concept. For instance, the Scottish Health Survey measures food insecurity which is an indicator for the poverty and human rights outcomes in Scotland's National Performance Framework.

<sup>&</sup>lt;sup>2</sup> <u>NS-SEC</u> (The National Statistics Socio-economic classification) is a classification system which provides an indication of socio-economic position based on occupation and employment status. NS-SEC is based on several variables including: occupation; employment status; whether an employer, self-employed or employee; whether a supervisor; and the number of employees at a workplace. <u>Additional information</u> is provided by the Office for National Statistics on what is included in each classification.

# 2. Eating at home and food safety practices

#### Introduction

FSS is responsible for protecting the public in Scotland from foodborne disease. This involves working with farmers, food producers and processors, and the retail and hospitality sectors to ensure that the food people buy is safe. FSS gives best practice guidance and recommendations to consumers on <u>food safety and hygiene in the home</u>.

Since people are responsible for the safe preparation and storage of food in their home, Food and You 2 asks respondents about their food-related behaviours in the home. Consumers are asked questions on topics such as whether specific foods are eaten, and knowledge and reported behaviour in relation to five important aspects of food safety: cleaning, cooking, chilling, avoiding cross-contamination and use-by dates. Food and You 2 also asks respondents how frequently they prepare or consume certain types of food.

This chapter provides an overview of respondent knowledge, attitudes and behaviours relating to food safety, and other food-related behaviours.

# 2.1 Cleaning

FSS provides guidance on handwashing to effectively remove bacteria on hands.

### 2.1.1 Handwashing in the home

Around 7 in 10 (71%) respondents reported that they always wash their hands before preparing or cooking food, and 29% of respondents reported that they do not always (i.e., most of the time or less often or never) do this<sup>3</sup>.

Most respondents (88%) reported that they always wash their hands immediately after handling raw meat, poultry, or fish, and 6% reported that they do not always (i.e., most of the time or less often or never) do this<sup>4</sup>.

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<sup>&</sup>lt;sup>3</sup> Question: When you are at home, how often, if at all, do you wash your hands before starting to prepare or cook food? Responses: always, most of the time, about half of the time, occasionally, never, I don't cook, don't know. Base = 1066, all online respondents, and those answering the 'Eating at Home' postal questionnaire who ever do some food preparation or cooking for their household.

<sup>&</sup>lt;sup>4</sup> Question: When you are at home, how often, if at all, do you wash your hands immediately after handling raw meat, poultry or fish? Responses: always, most of the time, about half of the time, occasionally, never, I don't cook meat, poultry or fish, don't know. Base = 1066, all online respondents, and those answering the 'Eating at Home' postal questionnaire who ever do some food preparation or cooking for their household, excluding 'I don't cook meat, poultry or fish' and 'not stated'.

Less than half (42%) reported that they always wash their hands before eating, 53% reported doing this sometimes<sup>5</sup> and 4% reported never washing their hands before eating.<sup>6</sup>

### 2.1.2 Handwashing when eating out

Respondents were asked how often, if at all, they washed their hands or used hand sanitising gel or wipes before eating when they ate outside of their home. A third (33%) reported that they always washed their hands or used hand sanitising gel or wipes when they ate outside of their home, 58% did this sometimes and 8% never did this<sup>7</sup>.

### 2.2 Chilling

<u>FSS provides guidance</u> on how to chill food properly to help stop harmful bacteria growing.

#### 2.2.1 If and how respondents check fridge temperature

When asked what temperature the inside of a fridge should be, 62% of respondents reported that it should be between 0-5 degrees Celsius (°C), as recommended by FSS. Sixteen percent of respondents (16%) reported that the temperature should be above 5 degrees, 3% reported that the temperature should be below 0 degrees, and 17% did not know what temperature the inside of their fridge should be<sup>8</sup>.

Whether respondents knew the correct temperature of the inside of a fridge varied between different categories of people in the following ways:

 Age: Respondents in the middle age ranges were more likely to know the correct temperature of a fridge than those in either younger or older age groups. For instance, 72% of those aged 35-44 years were able to identify the correct temperature compared to 53% of those aged 16-24 years and 59% of those aged 65-74 years.

<sup>6</sup> Question: When you are at home, how often, if at all, do you wash your hands before eating? Responses: always, most of the time, about half of the time, occasionally, never, I don't cook, don't know. Base = 1129, all online respondents, and those answering the 'Eating at Home' postal questionnaire.

<sup>&</sup>lt;sup>5</sup> 'Sometimes' includes responses to 'Most of the time' (33%) 'About half the time' (8%) and 'Occasionally' (12%)

<sup>&</sup>lt;sup>7</sup> Question: When eating outside of the home, how often, if at all, do you wash your hands, or use hand sanitising gel or wipes before eating? Responses: always, most of the time, about half of the time, occasionally, never, don't know. Base = 1190, all online respondents, and those answering the 'Eating at Home' postal questionnaire.

<sup>&</sup>lt;sup>8</sup> Question: What do you think the temperature inside your fridge should be? Responses: less than 0 degrees C (less than 32 degrees F), between 0 and 5 degrees C (32 to 41 degrees F), more than 5 but less than 8 degrees C (42 to 46 degrees F), 8 to 10 degrees C (47 to 50 degrees F), more than 10 degrees C (over 50 degrees F), other, don't know. Base = 1129, all online respondents and all those who completed the `Eating at Home' postal questionnaire, excluding those who don't have a fridge.

- Socio-economic classification (NS-SEC): Full-time students (42%) were less likely to know the correct temperature than those in some other occupational groups (for instance, 69% of those in semi-routine and routine occupations).
- Urban/rural: Respondents living in an urban area (59%) were less likely to know the correct temperature than those living in a rural area (69%).

Over half of respondents (55%) who have a fridge reported that they monitored the temperature<sup>9</sup> either manually (47%) or via an internal temperature alarm (8%). Of those who monitor the temperature of their fridge, 76% reported that they check the temperature of their fridge at least once a month<sup>10</sup>.

# 2.3 Cooking

FSS advises that cooking food at the right temperature and for the correct length of time will ensure that any harmful bacteria are killed. When cooking pork, poultry, and minced meat products <u>FSS recommends</u> using a meat thermometer to check that these meats have reached 75°C. If a thermometer is not available, the recommendation is to check that the meat is steaming hot and cooked all the way through, that none of the meat is pink and that any juices run clear.

Around 8 in 10 (81%) respondents reported that they always cook food until it is steaming hot and cooked all the way through, however 18% reported that they do not always do this<sup>11</sup>.

Respondents were asked to indicate how often they eat chicken or turkey when the meat is pink or has pink juices. Around nine in ten (91%) reported that they never eat chicken or turkey when it is pink or has pink juices. However, 7% reported eating chicken or turkey at least occasionally when it is pink or has pink juices<sup>12</sup>.

<sup>&</sup>lt;sup>9</sup> Question: Do you, or anyone else in your household, ever check your fridge temperature? Responses: yes, no, I don't need to - it has an alarm if it is too hot or cold, don't know. Base = 1129, all online respondents and all those who completed the `Eating at Home' postal questionnaire, excluding those who don't have a fridge.

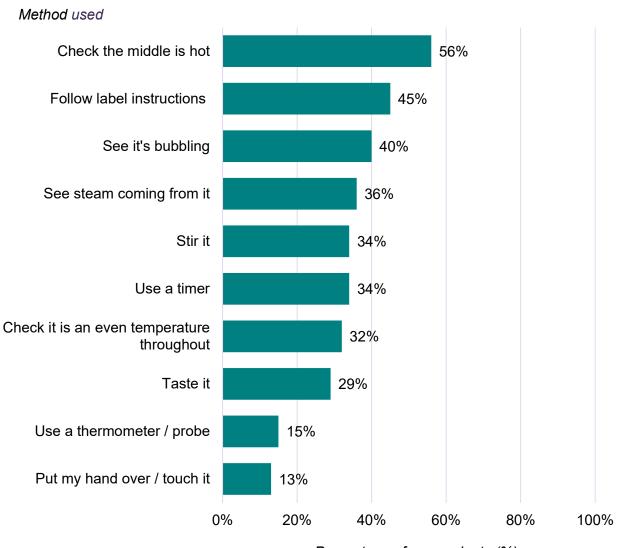
<sup>&</sup>lt;sup>10</sup> Question: How often, if at all, do you or someone else in your household check the temperature of the fridge? Responses: at least daily, 2-3 times a week, once a week, less than once a week but more than once a month, once a month, four times a year, 1-2 times a year, never/less often, don't know. Base = 552, all online respondent and all those who completed the `Eating at Home' questionnaire where someone in household checks fridge temperature.

<sup>&</sup>lt;sup>11</sup> Question: How often, if at all, do you cook food until it is steaming hot and cooked all the way through? Responses: always, most of the time, about half of the time, occasionally, never, don't know. Base = 1066, all online respondents and all those who completed the `Eating at Home' postal questionnaire who ever do some food preparation or cooking for their household.

<sup>&</sup>lt;sup>12</sup> Question: How often, if at all, do you eat chicken or turkey when the meat is pink or has pink or red juices? Responses: always, most of the time, about half of the time, occasionally, never, don't know. Base = 1018, all online respondents, and those answering the 'Eating at Home' postal questionnaire, who are not vegan, pescatarian or vegetarian, and who do eat chicken/turkey.

#### 2.3.1 Reheating

Figure 1: How respondents check whether reheated food is ready to eat



Percentage of respondents (%)

Source: Food and You 2 Wave 8 (Scotland)

Respondents were asked how they check food is ready to eat when they reheat it. The most common method was to check the middle is hot (56%), and the least common methods were to put a hand over the food or touch the food (13%) or use a thermometer or probe (15%)<sup>13</sup> (Figure 1). Only 1% stated that they do not check that food is ready to eat when they reheat it.

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<sup>&</sup>lt;sup>13</sup> Question: When reheating food, how do you know when it is ready to eat? (Select all that apply). Responses: I check the middle is hot, I follow the instructions on the label, I can see its bubbling, I use a timer to ensure it has been cooked for a certain amount of time, I check it's an even temperature throughout, I can see steam coming from it, I taste it, I stir it, I put my hand over it/touch it, I use a thermometer/probe, None of the above, I don't check. Base = 1005, all online respondents and all those who completed the `Eating at Home' questionnaire who ever do some food preparation or cooking for their household, excluding `I don't reheat food' and `not stated'.

<u>FSS recommends</u> that food is only reheated once. When respondents were asked how many times they would reheat food, the majority reported that they would only reheat food once (82%), 9% would reheat food twice, and 5% would reheat food more than twice<sup>14</sup>.

#### 2.3.2 Leftovers

Respondents were asked how long they would keep leftovers in the fridge for. Around two-thirds (69%) reported that they would eat leftovers within 2 days, over a fifth (22%) reported that they would eat leftovers within three to five days and only 2% would eat leftovers after 5 days or longer<sup>15</sup>.

#### 2.4 Avoiding cross-contamination

<u>FSS provides guidelines</u> on how to avoid cross-contamination which includes a recommendation that people do not wash raw meat. Washing raw meat can spread harmful bacteria onto your hands, chopping board, utensil, and worktops.

Three out of five respondents (60%) reported that they never wash raw chicken. However, over a third (36%) reported that they wash raw chicken at least occasionally (this includes 21% who reported that they always wash raw chicken, and a further 15% who sometimes (most of the time, about half the time or occasionally) wash raw chicken<sup>16</sup>.

#### 2.4.1 How and where respondents store raw meat and poultry in the fridge

<u>FSS recommends</u> that refrigerated raw meat and poultry is kept covered, separate from ready-to-eat foods and stored at the bottom of the fridge to avoid cross-contamination.

<sup>&</sup>lt;sup>14</sup> Question: How many times would you consider reheating food after it was cooked for the first time? Responses: Not at all, Once, Twice, More than twice, Don't know. Base = 1014, all online respondents and those who completed the `Eating at Home' postal questionnaire who reheat food using one of the methods in the previous question.

<sup>&</sup>lt;sup>15</sup> Question: When is the latest you would consume any leftovers stored in the fridge? Responses: The same day, Within 1-2 days, Within 3-5 days, More than 5 days later, It varies too much, Don't know. Base = 1129, all online respondents and those answering the 'Eating at Home' postal questionnaire.

<sup>&</sup>lt;sup>16</sup> Question: How often, if at all, do you do the following? Wash raw chicken. Responses: Always, Most of the time, About half of the time, Occasionally, Never, Don't know. Base = 1064, all online respondents who ever do some food preparation or cooking for their household, and all those who completed the `Eating at Home' postal paper questionnaire, excluding 'I don't cook'.

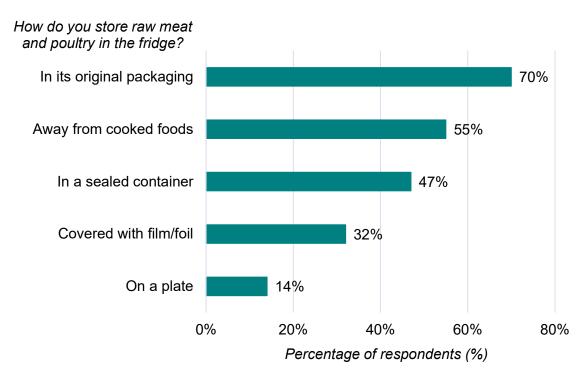


Figure 2: How respondents store raw meat and poultry in the fridge

Source: Food and You 2 Wave 8 (Scotland)

Respondents were asked to indicate, from a range of responses, how they store meat and poultry in the fridge. Respondents were most likely to report storing raw meat and poultry in its original packaging (70%) or away from cooked foods (55%). Nearly half of respondents reported storing raw meat and poultry in a sealed container (47%) and 32% reported storing raw meat and poultry covered with film/foil. Over one in ten (14%) reported that they keep the product on a plate<sup>17</sup> (Figure 2).

Around two-thirds (69%) of respondents reported storing raw meat and poultry at the bottom of the fridge, as <u>recommended by FSS</u>. Around one in five (18%) reported storing raw meat and poultry wherever there is space in the fridge, 11% of reported storing raw meat and poultry in the middle of the fridge, and 5% at the top of the fridge<sup>18</sup>.

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<sup>&</sup>lt;sup>17</sup> Question: How do you store raw meat and poultry in the fridge? Please select all the apply. Responses: Away from cooked foods, Covered with film/foil, In a sealed container, In its original packaging, On a plate. Base = 1021, all online respondents, and those answering the `Eating at Home' postal questionnaire except those who don't buy/store meat/poultry, don't store raw meat/poultry in the fridge, do not have a fridge or don't know

Question: Where in the fridge do you store raw meat and poultry? Responses: Wherever there is space, At the top of the fridge, In the middle of the fridge, At the bottom of the fridge. Base = 1013, all online respondents and those who completed the `Eating at Home' paper questionnaire, who store raw meat/poultry in the fridge except those who don't buy/store meat/poultry, don't have a fridge or don't know

#### 2.5 Use-by and best before dates

Respondents were asked about their understanding of the different types of date labels and instructions on food packaging, as storing food for too long or at the wrong temperature can cause food poisoning. Use-by dates are used to ensure the safety of products and best-before dates are used to ensure quality. <u>FSS provides guidance</u> on using use-by dates and best-before dates.

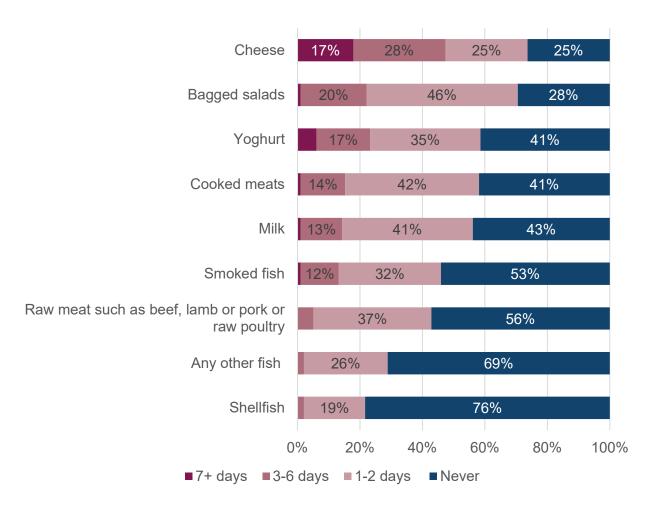
Respondents were asked to indicate which date shows that food is no longer safe to eat. Around two-thirds (67%) correctly identified the use-by date as the information which shows that food is no longer safe to eat. However, some identified the best-before date (12%) as the date which shows food is no longer safe to eat<sup>19</sup>.

Over two-thirds (70%) of respondents reported that they always check use-by dates before they cook or prepare food. Over a quarter of respondents (28%) reported checking use-by most of the time or less often, and just 1% reported never checking use-by dates<sup>20</sup>.

<sup>&</sup>lt;sup>19</sup> Question: Which of these shows when food is no longer safe to eat? Responses: use-by date, best-before date, sell by date, display until date, all of these, it depends, none of these, don't know. Base = 1129, all online respondents, and those answering the `Eating at Home' postal questionnaire

<sup>&</sup>lt;sup>20</sup> Question: How often, if at all, do you check use-by dates when you are about to cook or prepare food? Responses: always, most of the time, about half of the time, occasionally, never, it varies too much to say, don't know. Base= 1066, all online respondents and all those who completed the `Eating at Home' postal questionnaire who ever do some food preparation or cooking for their household

Figure 3: How long after the use-by date respondents would consume different foods\*



Source: Food and You 2 Wave 8 (Scotland)

\*Figure 3 has been updated from an earlier version of the report dated 5 February 2025

Respondents who eat certain foods were asked when, if at all, is the latest that they would eat the type of food after the use-by date. Most reported that they would not eat shellfish (76%) or other fish (excluding smoked fish) (69%) past the use-by date. Around half of respondents would not eat raw meat (56%) or smoked fish (53%) past the use-by date. Bagged salad (67%) and cheese (70%) were the foods respondents were most likely to report eating at any point after the use-by date. Around six in ten would eat yoghurt (58%), milk (55%) and cooked meats (57%) at any point after the use-by date. Nearly a fifth (17%) would eat cheese one week or more after the use-by date<sup>21</sup> (Figure 3).

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<sup>&</sup>lt;sup>21</sup> Question: When, if at all, is the latest you would eat or drink the following items after their use-by date? a= cooked meats, b=smoked fish, c=bagged salads, d=cheese, e=milk, f= raw meat such as beef/pork/lamb/raw poultry, g=shellfish, h=any other fish, i=yoghurt. Responses: 1-2 days after the use-by date, 3-4 days after the use-by date, 5- 6 days after the use-by date, 1-2 weeks after the use-by date, more than 2 weeks after the use-by date, I don't eat/drink this after its use-by date, don't know/I don't ever check the use-by date of this. Base A= 1003, B=840, C=1030, D=1074, E=1057, F= 994, G=715, H=901, I=1016, all online respondents and those who completed the `Eating at Home'

# 3. Eating out and takeaways

#### Introduction

FSS aims to improve the diet of the population in Scotland, with the vision of a food environment where healthy options are accessible to all.

FSS monitors and publishes data on the <u>out of home food environment</u>, which includes food and drink purchased and consumed outside the home. Eating out of home extends beyond a sit down meal, and more commonly includes eating 'on the go', takeaways and home delivered food. The out of home environment makes a significant contribution to diets and calories consumed in Scotland, with the food and drink available often high in calories, fat, salt and sugar.

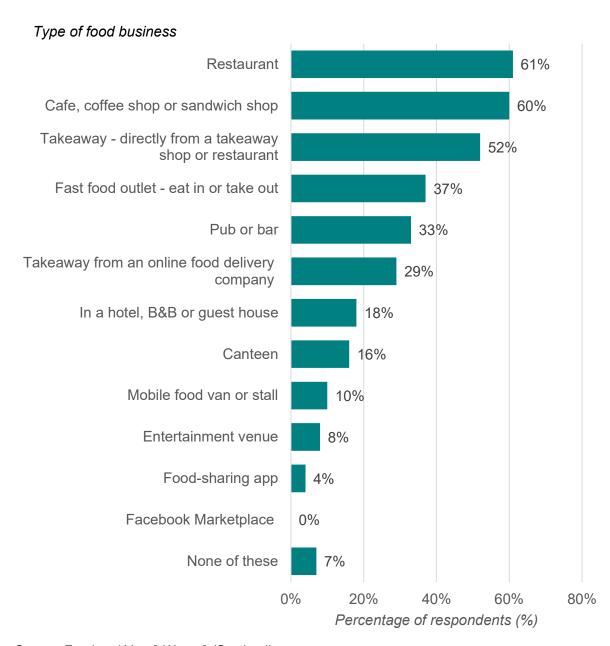
This chapter provides an overview of respondents' eating out and takeaway ordering habits and the factors that are considered when deciding where to eat out or order a takeaway from.

postal questionnaire, who eat A/B/C/D/F/F/G/H/I. Please note: the figures shown do not add up to 100% as not all responses are shown.

### Eating out and ordering takeaway

# 3.1 Prevalence of eating out and ordering takeaway

Figure 4: Type of food businesses respondents had eaten at or ordered food from in the previous four weeks



Source: Food and You 2 Wave 8 (Scotland)

Respondents were asked where they had eaten out or ordered food from in the previous four weeks<sup>22</sup>. Around three in five had eaten out in a restaurant (61%) or from a café, coffee shop or sandwich shop (either to eat in or take out) (60%).

<sup>&</sup>lt;sup>22</sup> The questionnaire does not ask about food consumed between main meals (e.g. snacks) and therefore these findings do not represent a complete picture of food likely to be consumed by respondents.

Around half had ordered a takeaway directly from a takeaway shop or restaurant (52%) and 33% had eaten out in a pub or bar. Over a third of had eaten food from a fast-food outlet (either to eat in or take out) (37%) or ordered a takeaway via an online food ordering company (for example, Just Eat, Deliveroo, Uber Eats) (29%). Less than one in ten (7%) respondents had not eaten food from any of the listed food businesses in the previous four weeks<sup>23</sup> (Figure 4).

Whether respondents had eaten food from a takeaway (ordered directly or from an online food delivery company) in the previous four weeks varied between different categories of people in the following ways:

- Age: Younger respondents were more likely to have eaten food from a takeaway (ordered directly or from an online food delivery company) in the previous four weeks compared to older respondents. For instance, 84% of 25-34 year olds had eaten food from a takeaway in the previous four weeks compared to 41% of respondents aged 65-74 years.
- Household size: Respondents who lived in larger households were more likely to have eaten food from a takeaway than those who lived in smaller households. For example, 76% of respondents in 4-person households had eaten from a takeaway compared to 55% of respondents living alone.
- Children under 6 years in the household: Respondents who had children aged under 6 years old in the household (79%) were more likely to have eaten food from a takeaway than respondents who did not have children aged under 6 in the household (59%).
- Annual household income: Respondents with a higher household income
  were more likely to have eaten food from a takeaway in the previous four
  weeks compared to respondents with a lower income. For instance, 71% of
  respondents with an income between £64,000 and £95,999 had eaten food
  from a takeaway compared to 53% of those with an income of less than
  £19,000.
- Urban/rural: Respondents living in an urban area (66%) were more likely to have eaten food from a takeaway than those living in a rural area (51%).

<sup>23</sup> Question: In the last 4 weeks, have you eaten food... ? (Select all the apply) Responses: Ordered a

prepared food or meals), None of these. Base = 1190, all online respondents and those answering the Eating Out postal questionnaire. Please note, percentages shown do not add up to 100% as multiple responses could be selected

takeaway directly from a takeaway shop or restaurant, From a café, coffee shop or sandwich shop (either to eat in or take out), Ordered a takeaway from an online food delivery company (e.g. Just Eat, Deliveroo, Uber Eats), From a fast food outlet (either to eat in or take out), In a restaurant, In a pub/bar, From a canteen (e.g. at work, school, university, or hospital), From a mobile food van or stall, In a hotel, B&B or guesthouse, From an entertainment venue (e.g. cinema, bowling alley, sports club), From a food-sharing app (e.g. Olio or Too Good To Go), From Facebook Marketplace (e.g. pre-

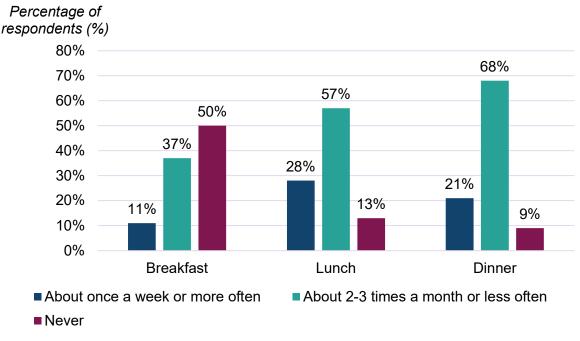
• Food security: Respondents with very low food security (73%) were more likely to have eaten food from a takeaway than those with high food security (58%).

Whether respondents had eaten food from a café, coffee shop or sandwich shop (either to eat in or to take out) in the previous four weeks varied between different categories of people in the following ways:

- Age: Younger respondents were more likely to have eaten food from a café, coffee shop or sandwich shop than the oldest age group (75 years or over).
   For instance, 69% of 16-24 year olds had eaten food from a café, coffee shop or sandwich shop compared to 50% of those aged 75 years or older.
- Annual household income: Respondents with a higher household income
  were more likely to have eaten food from a café, coffee shop or sandwich
  shop compared to respondents with a lower income. For instance, 68% of
  respondents with an income between £64,000 and £95,999 had eaten food
  from a café, coffee shop or sandwich shop compared to 54% of those with an
  income of less than £19,000.
- Socio-economic classification (NS-SEC): Full-time students (74%) were more likely to have eaten food from a café, coffee shop or sandwich shop in the than those in some other occupational groups (for instance, 46% of semi-routine and routine occupations).
- Food security: Respondents with high food security (65%) were more likely to have eaten food from café, coffee shop or sandwich shop than those with low food security (50%).

#### 3.2 Eating out and takeaways by mealtime

Figure 5: Frequency of eating out or buying food to takeout by mealtime



Source: Food and You 2 Wave 8 (Scotland)

Respondents were asked how often they ate out or bought food to take out for breakfast, lunch, and dinner<sup>24</sup> (Figure 5).

Respondents were least likely to eat out or buy food to take out for breakfast, with 50% of respondents never doing this, compared to 48% who did (11% eat out or buy a takeaway about once a week or more often, and 37% about 2-3 times a month or less often).

Eating out or buying food to take out for lunch was commonplace among respondents with 85% reporting doing this (57% do this 2-3 times a month or less often and 28% doing this about once a week or more often) compared to 13% who never eat out or buy a takeaway for lunch.

Also commonplace was eating out or buying food to take out for dinner with 89% doing this (68% doing this 2-3 times a month or less often and 21% doing this about once a week or more often) compared to 9% who never did this.

<sup>24</sup> Question: At the moment, how often, if at all, do you eat out or buy food to take out for...? A) Breakfast, B) Lunch, C) Dinner. Responses: Several times a week, About once a week, About 2-3

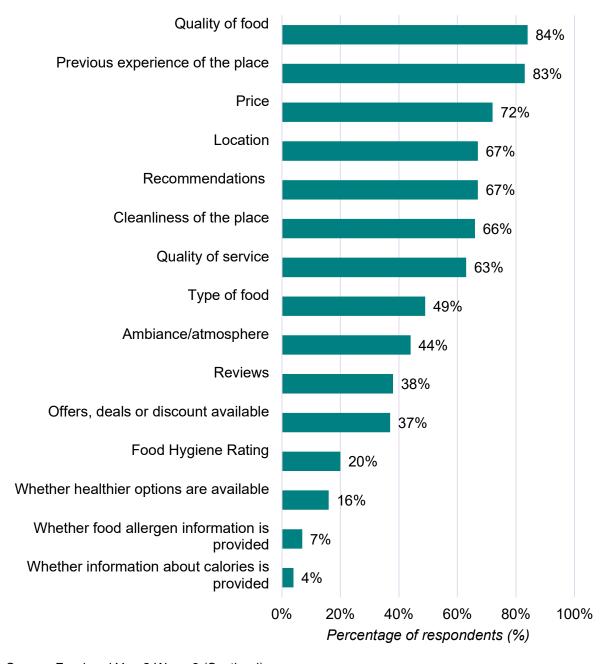
times a month, About once a month, Less than once a month, Never, Can't remember. Base = 942, all online respondents and those answering the Eating Out postal questionnaire.

#### 3.3 Factors considered when eating out

Respondents were asked which factors, from a given list, they generally considered when deciding where to eat out in restaurants, pubs, bars, cafés, coffee shops or sandwich shops.

Figure 6: Factors considered when deciding to eat out

Factors considered



Source: Food and You 2 Wave 8 (Scotland)

Update December 2025: 'Whether information about calories is provided' has been updated to correct an error in previous version of the report.

Those who eat out were most likely to consider the quality of food (84%) and their previous experience of the place (83%) when deciding where to eat. A fifth (20%) considered the food hygiene rating when deciding where to eat out<sup>25</sup> (Figure 6).

#### 3.4 Factors considered when ordering takeaway

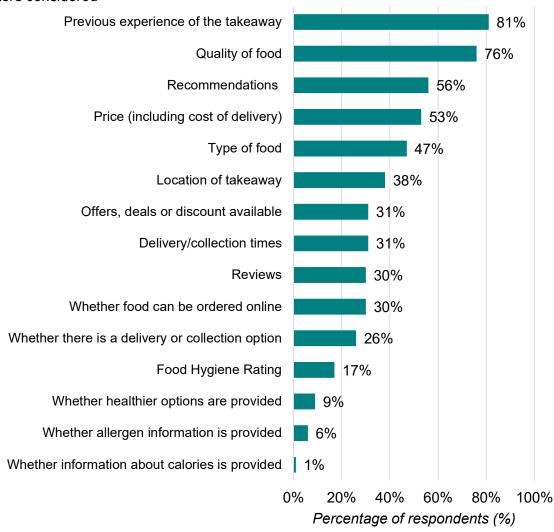
Respondents were asked which factors, from a given list, they generally considered when deciding where to order a takeaway from<sup>26</sup>.

<sup>&</sup>lt;sup>25</sup> Question: Generally, when you eat out, what do you consider when deciding where to go? Please think about eating out in restaurants, pubs/bars, and cafés/coffee shops/sandwich shops? Responses: Quality of food, My previous experience of the place, Price, Location, Recommendations from family or friends, Cleanliness of the place, Quality of service, Type of food (e. g. cuisine or vegetarian/vegan options), Ambiance/atmosphere, Food Hygiene Rating, Offers, deals or discount available, Reviews, e. g. on TripAdvisor, Google or social media, or in newspapers and magazines, Whether it is an independent business or part of a chain, Whether healthier options are available, Whether the place is child-friendly, Whether allergen information is provided, Whether information about calories is provided, None of these, Don't know. Base = 912, all online respondents who eat out.

<sup>&</sup>lt;sup>26</sup> Including takeaway ordered directly from a takeaway shop or restaurant or via an online food delivery company. Source: Food and You 2 Wave 8 (Scotland)

Figure 7: Factors considered when ordering a takeaway

Factors considered



Source: Food and You 2 Wave 8 (Scotland)

Those who order takeaways were most likely to consider their previous experience of the takeaway (81%) and the quality of food (76%) when deciding where to order a takeaway from. Around a fifth (17%) respondents considered the food hygiene rating when deciding where to order a takeaway from<sup>27</sup> (Figure 7).

<sup>&</sup>lt;sup>27</sup> Question: Generally, when ordering food from takeaways (either directly from a takeaway shop or restaurant or from an online food delivery company like Just Eat, Uber Eats or Deliveroo) what do you consider when deciding where to order from? Responses: My previous experience of the takeaway, Quality of food, Price (including cost of delivery), Type of food (for example cuisine or vegetarian/vegan options), Recommendations from family or friends, Food Hygiene Rating, Location of takeaway, Whether there is a delivery or collection option, Offers, deals or discount available, Delivery/ collection times, Whether food can be ordered online for example through a website or app, Reviews for example on TripAdvisor, Google, social media, or in newspapers and magazines, Whether it is an independent business or part of a chain, Whether healthier options are provided, Whether allergen information is provided, Whether information about calories is provided, None of these, Don't know. Base = 816, all online respondents who order takeaways.

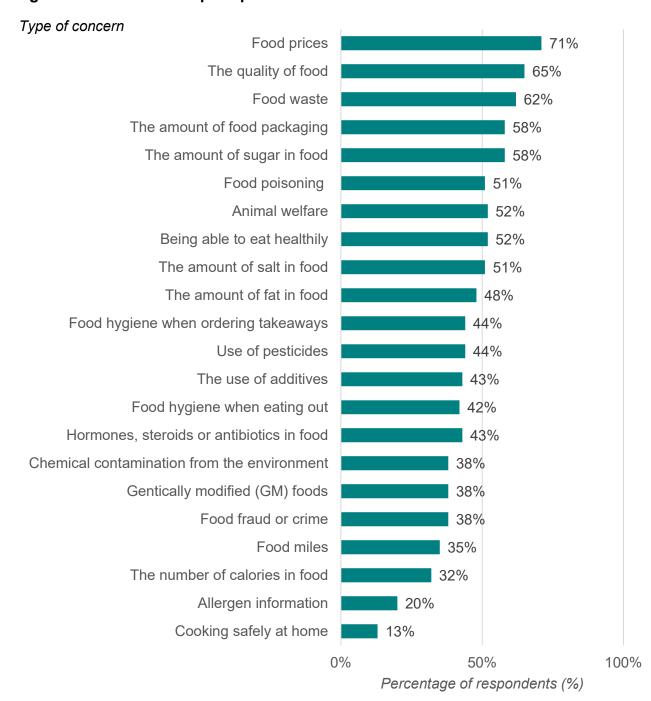
# 4. Concerns about food and food allergies and intolerances

#### 4.1 Concerns about food

FSS's role (<u>set out in law</u>) is to safeguard public health and protect the interests of consumers in Scotland in relation to food. This section provides an overview of respondents' concerns about food.

#### **Common concerns**

Figure 8: Most common prompted food-related concerns



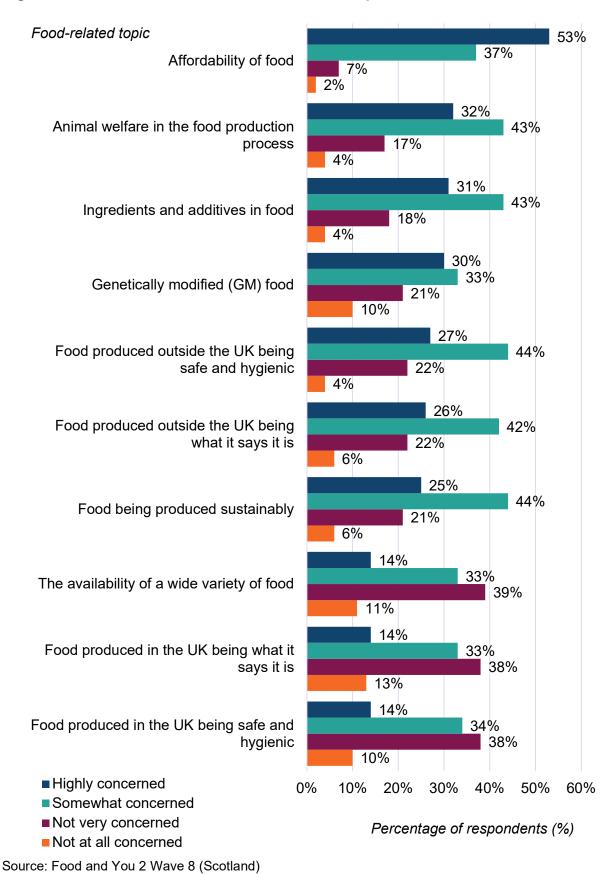
Source: Food and You 2 Wave 8 (Scotland)

Respondents were asked to indicate if they had concerns about several food-related issues, from a list of options. The most common concern was food prices (71%). Other common concerns were the quality of food (65%), food waste (62%), and the amount of food packaging  $(58\%)^{28}$  (Figure 8).

<sup>-</sup>

<sup>&</sup>lt;sup>28</sup> Question: Do you have concerns about any of the following? Responses: the amount of sugar in food, food waste, animal welfare, hormones, steroids or antibiotics in food, the amount of salt in food, the amount of fat in food, food poisoning, food hygiene when eating out, food hygiene when ordering takeaways, the use of pesticides, food fraud or crime, the use of additives (for example, preservatives and colouring), food prices, genetically modified (GM) foods, chemical contamination from the environment, food miles, the number of calories in food, food allergen information, cooking safely at home, the quality of food, the amount of food packaging, being able to eat healthily, none of these, don't know. Base = 942, all online respondents.

Figure 9: Level of concern about food-related topics



Respondents were asked to indicate the extent to which they were concerned about a number of specific food-related issues and were most likely to report a high level of concern about the affordability of food (53%). Other issues respondents were highly concerned about included animal welfare in the production process (32%), and ingredients and additives in food<sup>29</sup> (31%) (Figure 9).

The reported level of concern about the affordability of food varied between different categories of people in the following ways:

- Age: Respondents in younger age groups were more likely to report being highly concerned about the affordability of food than those in older age groups (for example, 64% of those aged between 25-34 years compared to 36% of those aged 75 years and over).
- Annual household income: Respondents with a lower income were more likely to report that they were highly concerned about the affordability of food compared to households with higher income (for example, 61% of those with an income below £19,000 compared to 49% of those with an income of between £64,000 and £95,999).
- Socio-economic classification (NS-SEC): Respondents in some socioeconomic groups were more likely to report that they were highly concerned about the affordability of food than other groups (for example, 65% of full-time students compared to 50% of those in managerial, administrative and professional occupations).
- Urban/Rural: Respondents in urban areas (56%) were more likely to report that they were highly concerned about the affordability of food compared to those in rural areas (46%).
- Food security: Respondents with lower food security were more likely to report being concerned about the affordability of food. For instance, 80% of those with very low food security reported being concerned about the affordability of food compared to 44% of those with high food security.

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respondents.

<sup>&</sup>lt;sup>29</sup> Question: Thinking about food in the UK [question wording variation in Northern Ireland: the UK and Ireland] today, how concerned, if at all, do you feel about each of the following topics? a) affordability of food b) food produced in [in England and Wales: the UK; [in Northern Ireland: the UK and Ireland] being safe and hygienic c) food from outside [in England and Wales: the UK; in Northern Ireland: the UK and Ireland] being safe and hygienic d) food produced in [in England and Wales: the UK; in Northern Ireland: the UK and Ireland] being what it says it is e) food from outside [in England and Wales: the UK; in Northern Ireland: the UK and Ireland] being what it says it is f) food being produced sustainably g) the availability of a wide variety of food h) animal welfare in the food production process i) ingredients and additives in food j) genetically modified (GM) food. Base = 1377, all

#### 4.2 Food allergies and intolerances

Some people experience an adverse physical reaction which occurs as a result of consuming a particular food. This might be the result of a food allergy, food intolerance or Coeliac disease<sup>30</sup>.

A **food allergy** occurs when the immune system (the body's defence) mistakes the proteins in food as a threat. Symptoms of a food allergy can vary from mild symptoms to very serious symptoms, and can include itching, hives, vomiting, swollen eyes and airways, or anaphylaxis which can be life threatening.

**Food intolerance** is difficulty in digesting specific foods which causes unpleasant reactions such as stomach pain, bloating, diarrhoea, skin rashes or itching. Food intolerance is not an immune condition and is not life threatening.

**Coeliac disease** is an autoimmune condition caused by gluten, a protein found in wheat, barley and rye and products using these as ingredients. The immune system attacks the small intestine which damages the gut and reduces the ability to absorb nutrients. Symptoms of coeliac disease can include diarrhoea, abdominal pain and bloating.

By law, food businesses in Scotland and across the UK must inform customers if they use any of 14 food substances causing allergens or intolerances<sup>31</sup> in the food and drink they provide.

Food businesses can also voluntarily provide information about the unintentional presence of these 14 allergens which may occur during the production process, for example when several products are made on the same premises. This is called precautionary allergen labelling (PAL) and includes labels such as 'may contain x' or 'not suitable for consumers with a x allergy'. PAL information can be provided verbally or in writing but should only be provided where there is an unavoidable risk of allergen cross-contact that cannot be sufficiently controlled through risk management actions.

#### 4.2.1 Prevalence and diagnosis of food allergies and intolerances

Around a quarter (24%) of respondents reported that they suffer from a bad or unpleasant physical reaction after consuming certain foods or avoid certain foods

<sup>&</sup>lt;sup>30</sup> 'Food hypersensitivity' is an umbrella term adopted by the FSA and refers to a bad or unpleasant physical reaction which occurs as a result of consuming a particular food. This can include a food allergy, food intolerance and coeliac disease. FSS have not adopted 'Food hypersensitivity' as a reference term, instead using 'food allergens and intolerances'.

<sup>&</sup>lt;sup>31</sup> Allergens: celery, cereals containing gluten (such as barley and oats), crustaceans (such as prawns, crabs and lobsters), eggs, fish, lupin, milk, molluscs (such as mussels and oysters), mustard, peanuts, sesame, soybeans, sulphur dioxide and sulphites and tree nuts (such as almonds, hazelnuts, walnuts, Brazil nuts, cashews, pecans, pistachios and macadamia nuts).

because of the bad or unpleasant physical reaction they might cause<sup>32</sup>. The type of food allergy or intolerance among respondents is not reported due to low base numbers (n=224).

Most respondents (74%) reported that they did not have a food allergy or intolerance.

Females were more likely to report that they a bad or unpleasant reaction to food (29%) than males (19%).

Respondents who reported having a bad or unpleasant reaction were asked how they had found out about their condition. Around a quarter (23%) of respondents who had a food allergy or intolerance had been diagnosed by an NHS or private medical practitioner and 5% had been diagnosed by an alternative or complementary therapist. However, most respondents (72%) had not received any diagnosis<sup>33</sup>.

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<sup>&</sup>lt;sup>32</sup> Question: Do you suffer from a bad or unpleasant physical reaction after consuming certain foods, or avoid certain foods because of the bad or unpleasant physical reaction they might cause? Responses: Yes, No, Don't know, Prefer not to say. Base = 1377, all respondents.

<sup>&</sup>lt;sup>33</sup> Question: How did you find out about your problem with these foods? Responses: I have been diagnosed by an NHS or private medical practitioner (for example GP, dietician, allergy specialist in a hospital or clinic), I have been diagnosed by an alternative or complementary therapist (for example homeopath, reflexologist, online or walk-in allergy testing service), I have noticed that this food causes me problems, but I have not been formally diagnosed with a specific condition, Other. Base = 320, all respondents who suffer from a bad or unpleasant physical reaction after consuming certain foods, or avoid certain foods because of the bad or unpleasant physical reaction they might cause.

#### 5. Sustainable diets

#### Introduction

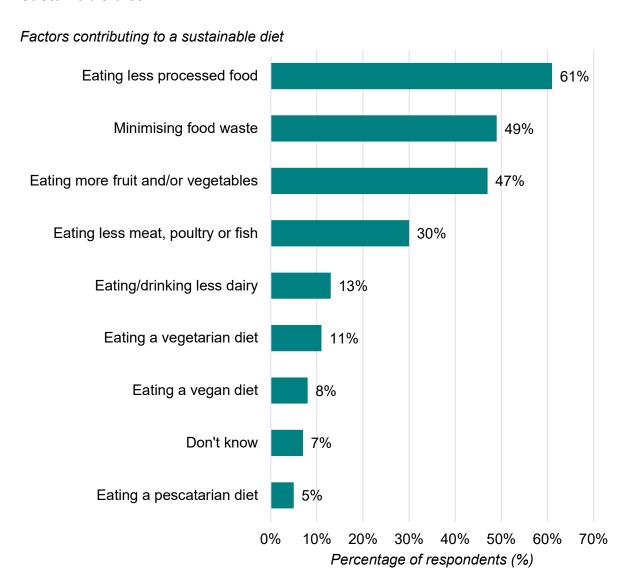
FSS's vision as set out in the <u>2021 to 2026 strategy</u> is of a 'safe, healthy and sustainable food environment' in Scotland which 'empowers consumers to make safe, healthy, and sustainable choices'.

This chapter provides an overview of respondents knowledge, attitudes and behaviours relating to sustainable diets.

# 5.1 Perceptions of factors which contribute to a sustainable diet and shopping choices

# 5.1.1 Perceptions of what contributes to a sustainable diet

Figure 10: Factors which respondents thought contribute most to a sustainable diet



Source: Food and You 2 Wave 8 (Scotland)

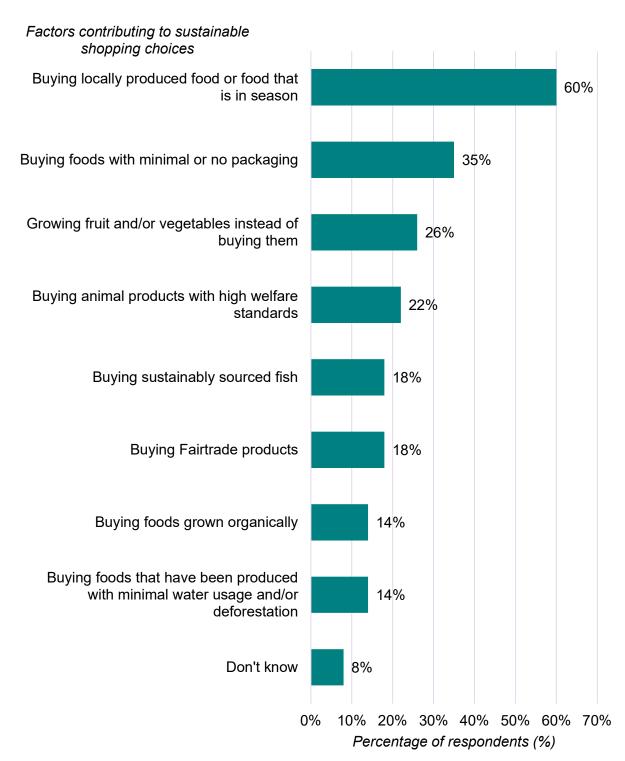
Respondents were asked, from a list of options, what they thought contributes most to someone having a sustainable diet. Three out of five (61%) thought that eating less processed food contributed most to someone having a sustainable diet and 49% thought that minimising food waste did. Nearly half thought that eating more fruit and/or vegetables (47%), and 30% thought that eating less meat, poultry, or fish contributed most to a sustainable diet. Fewer respondents thought that eating a vegetarian (11%) or vegan (8%) diet or consuming less dairy (13%) contributed most to a sustainable diet. Almost one in ten (7%) respondents reported that they did not know what contributed most to someone having a sustainable diet (Figure 10)<sup>34</sup>.

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<sup>&</sup>lt;sup>34</sup> Question: Which of the following do you think contributes most to someone having a sustainable diet? Responses: Eating a vegetarian diet, Eating a pescatarian diet, Eating a vegan diet, Eating less meat or poultry or fish, Eating/drinking less dairy, Eating less processed food, Eating more fruit and/or vegetables, Minimising food waste, None of these, Don't know. Base = 1129, all online respondents, and those answering the `Eating at Home' postal questionnaire

### 5.1.2 Perceptions of what contributes to sustainable shopping choices

Figure 11: What respondents thought contributes most to sustainable shopping choices



Source: Food and You 2 Wave 8 (Scotland)

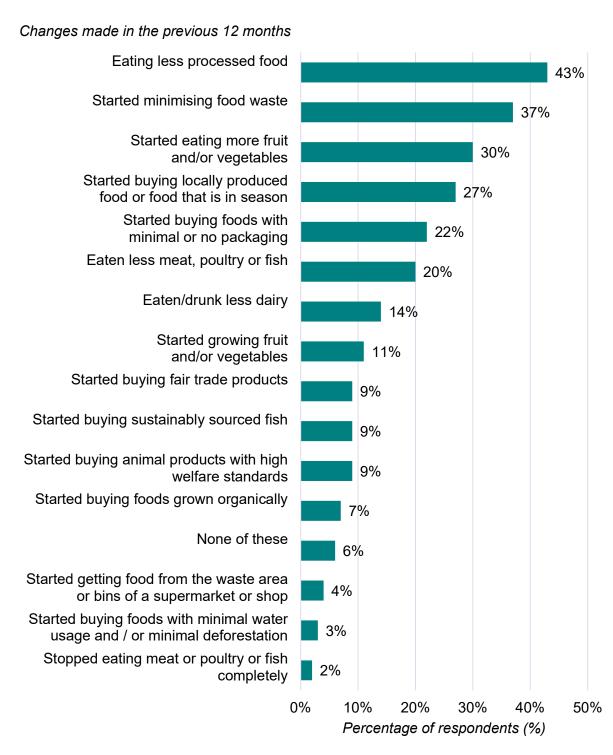
Respondents were asked, from a list of options, what they thought contributed most to someone making sustainable food shopping choices. Six in ten (60%) thought that buying locally produced food or food that is in season contributed most. Around a third of respondents thought that buying foods with minimal or no packaging (35%) contributed most to someone making sustainable food shopping choices. Around a quarter of respondents reported that growing fruit and/or vegetables instead of buying them (26%) and buying animal products with high welfare standards (22%) contributed most. Just under one in five respondents reported that buying sustainably sourced fish (18%), Fairtrade products (18%), buying food grown organically (14%) and buying foods that have been produced with minimal water usage and/or deforestation (14%) contributed most. Almost one in ten (8%) respondents reported that they did not know what contributed most to someone making sustainable food shopping choices (Figure 11)<sup>35</sup>.

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<sup>&</sup>lt;sup>35</sup> Question: Which of the following do you think contributes most to someone making sustainable food shopping choices? Responses: Buying animal products with high welfare standards, Buying fair trade products, Buying locally produced food or food that is in season, Buying foods with minimal or no packaging, Buying foods that have been produced with minimal water usage and/or minimal deforestation, Buying foods grown organically, Buying sustainably sourced fish, Growing fruit and/or vegetables instead of buying them, None of these, Don't know. Base = 1129, all online respondents, and those answering the `Eating at Home' postal questionnaire.

## 5.2 Changes to eating habits and food-related behaviours

Figure 12: Changes to eating habits and food-related behaviours which respondents had made in the previous 12 months



Source: Food and You 2 Wave 8 (Scotland)

Respondents were asked from a list of options which, if any, changes they had made in the previous 12 months. The most common changes reported by respondents were that they had eaten less processed food (43%) and started minimising food

waste (37%). Almost a third of respondents reported that they had started eating more fruit and vegetables (30%) and 27% reported that they had started buying locally produced food or food that is in season. Around one in five respondents had started buying food with minimal or no packaging (22%) and/or had eaten less meat, poultry, or fish (20%) in the previous 12 months. Only 6% of respondents reported that they had not made any of the listed changes in the previous 12 months (Figure 12)<sup>36</sup>.

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<sup>&</sup>lt;sup>36</sup> Question Which, if any, of the following changes have you made in the last 12 months? Responses: Stopped eating meat or poultry or fish completely, Eaten less meat or poultry or fish, Eaten/drunk less dairy, Eaten less processed food, Started eating more fruit and/or vegetables, Started minimising food waste, Started growing fruit and/or vegetables, Started buying animal products with high welfare standards, Started buying fair trade products, Started buying locally produced food or food that is in season, Started buying foods with minimal or no packaging, Started buying foods that have been produced with minimal water usage and / or minimal deforestation, Started buying foods grown organically, Started buying sustainably sourced fish, Other, None of these, Don't know. Base = 1129, all online respondents, and those answering the `Eating at Home' postal questionnaire

## 6. Meat alternatives and genetic technologies

### Introduction

<u>FSS oversees the regulation of technologies</u> such as cell-cultivated products (e.g. lab-grown meat), genetically modified organisms (GMO) and gene edited (GE) organisms in Scotland. In England, gene edited foods are referred to as <u>Precision Bred (PB)</u> foods.

This chapter provides an overview of respondents knowledge, attitudes and behaviours relating to meat alternatives, lab-grown meat and genetic technologies.

### 6.1 Meat alternatives

Meat alternatives are meat-free products that may be eaten instead of meat, such as seitan or vegetarian sausages and burgers (for example, Quorn, Linda McCartney, or Beyond Meat products).

Respondents were asked if they had ever eaten meat alternatives. 44% reported that they had eaten meat alternatives (26% currently eat meat alternatives and 18% reported that they used to eat meat alternatives but no longer do). Nearly half (49%) reported that they had never eaten meat alternatives<sup>37</sup>.

Whether respondents had eaten meat alternatives or not varied between different categories of people in the following ways:

- Age: Younger people were more likely to have eaten meat alternatives than older people. For example, 58% of respondents aged 25-34 years old had eaten meat alternatives compared to 42% of respondents aged 55-64 years old.
- Annual household income: Respondents with higher household income were more likely to have eaten meat alternatives then those with lower household income. For example, 57% of respondents whose annual household income was between £64,000 and £95,999 reported having eaten meat alternatives while 36% of those on less than £19,000 had done so.

### 6.2 Willingness to try lab-grown meat

Cell-cultivated products are foods made from animal or plant cells grown in a controlled production setting (e.g. a lab) without using traditional agricultural practices, animal rearing or slaughter. Cell-cultivated products made from animal cells are sometimes known as cell-cultivated meat or lab-grown meat.

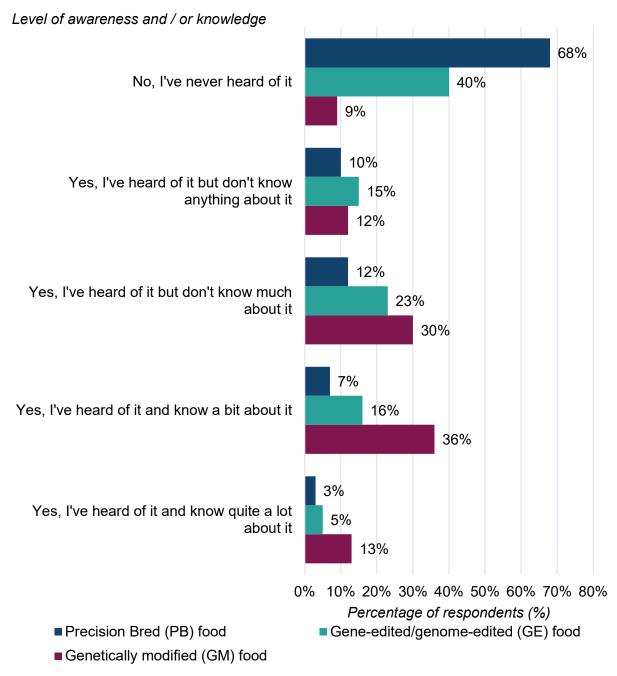
<sup>&</sup>lt;sup>37</sup> Question: Have you ever eaten meat alternatives? Responses: Yes, I currently eat meat alternatives; Yes, I used to eat meat alternatives but I don't know; No, I have never eaten meat alternatives; I have never heard of meat alternatives; Don't know. Base = 1192, all online respondents, and those answering the `Eating at Home' postal questionnaire

Respondents were asked if they would like to try including lab-grown meat in their diet if it became available in this country. Almost three in ten (28%) respondents reported that they would like to try lab-grown meat (i.e., 8% would definitely like to try; 20% probably would try) and six in ten (60%) would not (i.e., 21% would probably not like to try, 39% would definitely not like to try). However, 12% of respondents reported that they didn't know whether they would like to try including lab-grown meat in their diet<sup>38</sup>. Men (38%) were more likely report that they would like to try lab-grown meat in their diet compared to women (19%).

<sup>&</sup>lt;sup>38</sup> Question: Would you like to try including lab-grown meat in your diet, if it became available in this country? Responses: I definitely would like to try this, I probably would like to try this, I probably would not like to try this, I definitely would not like to try this, Don't know. Base = 942, all online respondents.

# 6.3 Awareness and knowledge of genetically modified (GM), gene-edited (GE) and precision bred (PB) foods<sup>39</sup>

Figure 13: Awareness and knowledge of genetically modified (GM), geneedited/genome edited (GE) and precision bred (PB) foods.



Source: Food and You 2 Wave 8 (Scotland)

Respondents were asked if they had ever heard of genetically modified (GM) food, gene-edited or genome-edited (GE) food or precision bred (PB) food. They reported

<sup>&</sup>lt;sup>39</sup> Gene edited/genome edited (GE) and Precision bred (PB) are alternative terms for the same technology. PB is the term adopted by adopted in England in relation to the <u>Precision Breeding Act 2023</u>.

greater awareness and knowledge of GM food than GE or PB food. For example, 91% of respondents had heard of GM food, 59% had heard of GE food and 32% had heard of PB food. Conversely, only 9% of respondents had never heard of GM food while 40% of respondents had never heard of GE food and 68% had never heard of PB food (Figure 13)<sup>40</sup>.

<sup>-</sup>

<sup>&</sup>lt;sup>40</sup> Question: Have you ever heard of...A/B/C? A) Genetically modified (GM) food? B) Gene-edited or genome-edited food? C) Precision bred food? Responses: Yes, I've heard of it and know quite a lot about it; Yes, I've heard of it and know a bit about it; Yes, I've heard of it but don't know much about it; Yes, I've heard of it but don't know anything about it; No, I've never heard of it. Base = 1129, all respondents.

# Appendix A: About Food and You 2 Wave 8 (Scotland)

## Background to the Food and You 2 Survey

The Food Standards Agency (FSA) has been running its flagship survey <u>Food and You 2</u> covering consumers in England, Wales and Northern Ireland since 2020.

The Food and You 2 survey replaced the biennial Food and You survey (2010-2018), biannual Public Attitudes Tracker (2010-2019) and annual Food Hygiene Rating Scheme (FHRS) Consumer Attitudes Tracker (2014-2019). The Food and You survey has been an Official Statistic since 2014. Due to the difference in methodology between the Public Attitudes Tracker, FHRS Consumer Attitudes Tracker and Food and You survey (2010- 2018) it is not possible to compare the data collected in Food and You 2 (2020 onward) with these earlier data<sup>41</sup>.

Since Wave 6, FSA have published a separate trends report for England, Wales and Northern Ireland on an annual basis, which comments on changes over time.

FSA has produced a number of reports on <u>Food and You 2 covering England</u>, <u>Wales</u> and Northern Ireland.

### **Background to the Food and You 2 Survey Wave 8 (Scotland)**

In the Food and You 2 Survey Wave 8, a sample of consumers in Scotland was included alongside consumers in England, Wales and Northern Ireland. The reason was to gather more extensive and robust consumer data for Scotland, particularly around food hygiene and safety practices, to complement the existing <u>FSS survey</u>, the Food in Scotland Tracker Survey, and to have a comparable data source with the rest of the UK.

The inclusion of a sample of consumers in Scotland in future waves of Food and You 2 will be reviewed on an annual basis.

The findings in this report are based on the Scotland-only dataset of the Food and You 2 Survey Wave 8. It is hoped that, in future, the data for England, Wales, Northern Ireland and Scotland will be available in one dataset, allowing for comparisons between countries, where required.

This report focuses on eating at home and food safety practices, eating out and ordering takeaways, concerns about food, food allergies and intolerances, sustainable diets and meat alternatives and genetic technologies. Other topics covered in the survey will be reported at a later date in further publications.

<sup>&</sup>lt;sup>41</sup> This is because the methodology changed from face-to-face interviews to push-to-web self-completion of the questionnaire.

### Methodology

The Food and You 2 survey is commissioned by the Food Standards Agency (FSA) with Food Standards Scotland (FSS) funding the option for a sample of consumers in Scotland for Wave 8. The fieldwork is conducted by Ipsos. Fieldwork for Wave 8 was conducted between 12th October 2023 to 8th January 2024.

Food and You 2 is a sequential mixed-mode 'push-to-web' survey (summary of method below). Push-to-web helps to reduce the response bias that otherwise occurs with online-only surveys. This method is accepted for government surveys and national statistics, including the 2021 Census and 2019/2020 Community Life Survey.

A random sample of addresses (selected from the Royal Mail's Postcode Address File) received a letter inviting up to two adults (aged 16 or over) in the household to complete the online survey. A first reminder letter was sent to households that had not responded to the initial invitation. A postal version of the survey accompanied the second reminder letter for those who did not have access to the internet or preferred to complete a postal version of the survey. A third and final reminder was sent to households if the survey had not been completed. Respondents were given a gift voucher for completing the survey.

The sample of main and reserve addresses<sup>42</sup> was stratified by local authority to ensure that the issued sample was spread proportionately across the local authorities.

Due to the length and complexity of the online questionnaire it was not possible to include all questions in the postal version of the questionnaire. The postal version of the questionnaire needed to be shorter and less complex to encourage a high response rate. To make the postal version of the questionnaire shorter and less complex, two versions were produced. The two versions are referred to as the 'Eating Out' and 'Eating at Home' postal questionnaires. See the Technical Report for further details.

All data collected by Food and You 2 are self-reported. The data are the respondents own reported attitudes, knowledge and behaviour relating to food safety and food issues.

The minimum target sample size for the Food and You 2 survey is 6,000 households (2,000 in England, 1,000 in Wales, 1,000 in Northern Ireland, 1000 in Scotland), with up to two adults in each household invited to take part as mentioned above.

For Wave 8 in Scotland a total of 1,377 adults (aged 16 years or over) from 954 households across Scotland completed the survey. An overall response rate of 24.8% was achieved in Scotland. Sixty-eight per cent (68.4%) of respondents completed the survey online and 31.6% completed the postal version of the survey.

<sup>&</sup>lt;sup>42</sup> A reserve sample of addresses was created to use if the target number of respondents was not achieved from the main sample of addresses.

Weighting was applied to ensure the data are as close as possible to being representative of the socio-demographic and sub-groups in the population, as is usual practice in government surveys. The weighting applied to the Food and You 2 data helps to compensate for variations in within-household individual selection, for response bias, and for the fact that some questions were only asked in one of the postal surveys. Further details about weighting approach used and the weights applied to the Food and You 2: Wave 8 data are available in the Technical Report. The data have been checked and verified by members of the Ipsos research team and members of the FSA Statistics branch. Further details about checks of the data are available in the Technical Report. Descriptive analysis and statistical tests have been performed by the FSA Statistics branch. R (statistical software) was used by the FSA Statistics branch to calculate the descriptive analysis and statistical tests (t-tests).

The p-values that test for statistical significance are based on t-tests comparing the weighted proportions for a given response within that socio-demographic and subgroup breakdown. An adjustment has been made for the effective sample size after weighting, but no correction is made for multiple comparisons.

Reported differences between socio-demographic and sub-groups typically have a minimum difference of 10 percentage points between groups and are statistically significant at the 5% level (p<0.05). However, some differences between respondent groups are included where the difference is fewer than 10 percentage points when the finding is notable or of interest. Percentage calculations are based only on respondents who provided a response. Reported values and calculations are based on weighted totals.

#### Technical terms and definitions

Statistical significance is indicated at the 5% level (p<0.05). This means that where a significant difference is reported, there is reasonable confidence that the reported difference is reflective of a real difference at the population level.

Food security means that all people always have access to enough food for a healthy and active lifestyle (World Food Summit, 1996). The United States Department of Agriculture (USDA) has created a series of questions which indicate a respondent's level of food security. Food and You 2 incorporates the 10 item U.S. Adult Food Security Survey Module and uses a 12 month time reference period. Respondents are referred to as being food secure if they are classified as having high food security (no reported indications of food-access problems or limitations), or marginal food security (one or two reported indications—typically of anxiety over food sufficiency or shortage of food in the house. Little or no indication of changes in diets or food intake). Respondents are referred to as being food insecure if they are classified as having low food security (reports of reduced quality, variety, or desirability of diet. Little or no indication of reduced food intake) or very low food security (reports of multiple indications of disrupted eating patterns and reduced food intake). Further details of how level of food security is measured are provided in Chapter 3 of the FSA Food and You 2 Wave 8 Key Findings for England, Wales and Northern Ireland.

Please note that in Scotland, <u>'food insecurity'</u> is generally the preferred term used for the same concept. For instance, the <u>Scottish Health Survey</u> measures food insecurity which is an indicator for the poverty and human rights outcomes in Scotland's National Performance Framework.

NS-SEC (The National Statistics Socio-economic classification) is a classification system which provides an indication of socio-economic position based on occupation and employment status. NS-SEC is based on several variables including: occupation; employment status; whether an employer, self-employed or employee; whether a supervisor; and the number of employees at a workplace. <u>Additional information</u> is provided by the Office for National Statistics on what is included in each classification.