

# Food and You 2 Survey: Scotland

## Wave 11 Key Findings

June 2026



## 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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## List of Figures

Figure 1: How often respondents eat different types of meat when it is pink or has pink juices .....	15
Figure 2: How respondents check whether reheated food is ready to eat.....	16
Figure 3: What respondents do with leftovers following a meal.....	18
Figure 4: What information respondents look for when buying food.....	22
Figure 5: How long after the use-by date respondents would consume different foods* .....	24
Figure 6: Type of food businesses respondents had eaten at or ordered food at nowadays .....	26
Figure 7: Factors considered when deciding where to eat out .....	28
Figure 8: Factors considered when ordering a takeaway .....	30
Figure 9: Confidence that producers, processors, manufacturers and retailers ensure food is safe to eat.....	32
Figure 10: Confidence out-of-home establishments ensure food is safe to eat.....	33
Figure 11: Concerns about food produced in the UK and from outside the UK.....	34
Figure 12: Changes to eating habits and food-related behaviours which respondents had made in the previous 12 months for <i>health reasons</i> .....	36
Figure 13: Changes to eating habits and food-related behaviours which respondents had made in the previous 12 months for <i>sustainability reasons</i> .....	38

## **Executive summary**

This report presents the key findings from the Food and You 2 Wave 11 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 11, Food Standards Scotland (FSS) collaborated with the FSA to enable 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 11 was conducted between 19 May and 7 August 2025. For Wave 11, a total of 1,555 adults (aged 16 years or over) from 1,091 households across Scotland completed the survey.

This report focuses on eating at home and food safety practices, food shopping and labelling, eating out and takeaways and food choices and other issues, such as confidence in food, food concerns, changes to eating habits and food-related behaviours and food allergies and intolerances.

## **Findings**

### **Eating at home**

#### **Cleaning**

72% of respondents reported that they always wash their hands before preparing or cooking food.

92% of respondents reported that they always wash their hands immediately after handling raw meat, poultry or fish.

#### **Chilling**

61% of respondents reported that their fridge temperature should be between 0-5 degrees Celsius.

54% of respondents who have a fridge reported that they monitored the temperature; either manually (46%) or via an internal temperature alarm (8%).

#### **Defrosting**

50% of respondents defrost meat or fish in the fridge and 37% reported leaving the meat or fish at room temperature to defrost.

#### **Cooking**

79% of respondents reported that they always cook food until it is steaming hot and cooked all the way through, but 20% reported that they do not always do this.

94% of respondents reported that they never eat chicken or turkey when the meat is pink or has pink juices. 5% of respondents reported eating chicken or turkey at least occasionally when it is pink or has pink juices.

68% of respondents reported that they would never eat beef burgers when the meat is pink or has pink juices but 31% of respondents reported eating beef burgers at least occasionally when the meat is pink or has pink juices.

86% of respondents reported that they would only reheat food once, 9% would reheat food twice, and 3% would reheat food more than twice.

65% 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 3% would eat leftovers after 5 days or longer.

### **Avoiding cross-contamination**

64% of respondents reported that they never wash raw chicken; however, 33% of respondents reported that they do this at least occasionally.

### **Food Shopping and labelling**

67% of respondents reported that they had ordered food or drink online through a restaurant, takeaway or café own website and 60% had ordered from an online ordering and delivery company (for example Just Eat, Deliveroo, Uber Eats).

33% of respondents had ordered food and drink via an online marketplace (for example Amazon, Gumtree, Etsy). The platforms used least by respondents were food sharing apps (for example Olio, Too Good To Go) (19%) and social media platforms (for example, Facebook, Instagram, Nextdoor) (8%).

Most respondents reported that they 'always' or 'most of the time' check the use-by date (85%) or best before date (80%) when they bought food. Respondents reported that they check the list of ingredients (50%), nutritional information (48%), country of origin (47%) and food assurance scheme logos (40%) about half the time or occasionally.

### **Use-by dates**

66% of respondents identified the use-by date as the information which shows that food is no longer safe to eat.

### **Eating out and takeaways**

90% of respondents reported eating out or ordering food from a restaurant and 87% from a café, coffee shop or sandwich shop. 80% ordered a takeaway directly from a takeaway shop or restaurant and 72% had eaten out or ordered food from a pub or bar.

## **Food Choices and Other Issues**

### **Confidence in food**

93% of respondents stated that they are very or fairly confident that the food they buy is safe to eat and 87% are very or fairly confident that the information on food labels (e.g. ingredients, nutritional information, country of origin) is accurate.

### **Food concerns**

34% of respondents reported that they were highly or somewhat concerned about food produced in the UK being safe and hygienic while 64% were highly or somewhat concerned about food outside the UK being safe and hygienic.

33% were highly or somewhat concerned about food produced in the UK being what it says it is, while 60% were highly or somewhat concerned about food from outside the UK being what it says it is.

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

48% of respondents said they had eaten less processed food in the previous 12 months for health reasons. 45% said they had eaten more fruit and/or vegetables and 45% said that they had eaten less sugar or food or drink high in sugar for health reasons.

35% of respondents said they had started minimising food waste for environmental reasons. 25% had started buying foods with minimal or no packaging and 25% had started buying locally produced food or food that is in season for environmental reasons.

### **Food allergies and intolerances**

23% 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 (73%) reported that they did not have a food allergy or intolerance.

18% of respondents who reported having a food hypersensitivity had been diagnosed by an NHS or private medical practitioner and 4% had been diagnosed by an alternative or complementary therapist. However, most (81%) had not received any diagnosis.

## **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 Rachael Shillitoe, Lucy Murray and Helen Heard. Special thanks also to Matt Jenkins and Robin Clifford in the FSA Statistics Team for putting together the data tables for Scotland 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 Consumer Research 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.

## Contents

1.	Introduction .....	9
1.1	Food Standards Scotland: role, remit, and responsibilities .....	9
1.2	Food and You 2 (Scotland) .....	9
1.3	Methodology and data .....	10
1.4	Interpreting the findings .....	10
2.	Eating at home and food safety practices .....	12
	Introduction .....	12
2.1	Cleaning.....	12
2.1.1	Handwashing in the home .....	12
2.2	Chilling .....	13
2.2.1	If and how respondents check fridge temperature .....	13
2.3	Defrosting.....	13
2.4	Cooking.....	14
2.4.1	Reheating .....	16
2.4.2	Leftovers .....	17
2.5	Avoiding cross-contamination .....	19
2.6	Deciding when food products are safe to cook or eat .....	19
3.	Food Shopping and Labelling .....	21
3.1	Online food and drink.....	21
3.2	What do respondents look for when buying food? .....	21
3.3	'Eat within' Information.....	23
3.4	Use-by and best-before dates.....	23
4.	Eating out and takeaways .....	25
	Introduction.....	25
	Eating out and ordering takeaway .....	26
4.1	Prevalence of eating out and ordering takeaway .....	26
4.2	Factors considered when eating out .....	27
4.3	Factors considered when ordering takeaway.....	29
5.	Food Choices and Other Issues.....	31
5.1	Confidence in Food.....	31
5.2	Food concerns .....	33
5.3	Food Choices.....	34
5.4	Changes to eating habits and food-related behaviours.....	35
5.5	Food allergies and intolerances .....	39
5.5.1	Prevalence and diagnosis of food allergies and intolerances .....	39

Appendix A: About Food and You 2 Wave 11 (Scotland).....	41
Background to the Food and You 2 Survey .....	41
Background to the Food and You 2 Survey Wave 11 (Scotland).....	41
Methodology .....	42
Technical terms and definitions .....	43

## 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, authentic and healthier food environment that Scotland can trust. We aim to use data and evidence to provide assurance and advice that inspires consumer confidence and improves public health.

Our vision is set out in the [FSS Strategy for 2026-2031](#) and includes three key objectives:

- Protect the people of Scotland from the risks of foodborne disease, poor diet and food crime
- Support the nation's economy by reducing the burden of these public health harms
- Provide assurance that enables the food industry to sustain the confidence of consumers and export markets in the high levels of safety and quality of the food they produce.

### 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, 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.

Wave 11 is the third wave of Food and You 2 that data has been collected from respondents in Scotland.

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, food shopping and labelling, eating out and takeaways, and food choices and other issues, such as confidence in food, food concerns, changes to eating habits and food-related behaviours, and food allergies and intolerances.

### 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 11. The fieldwork is conducted by Ipsos. Fieldwork for Wave 11 was conducted between 19 May and 7 August 2025.

For Wave 11, a total of 1,555 adults (aged 16 years or over) from 1,091 households across Scotland completed the survey. An overall response rate of 23% was achieved in Scotland. Sixty-two percent (62%) of respondents completed the survey online and 38% 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, [data tables for Food and You 2 Wave 11 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 data 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 old; children in the household aged under 6 years old; household size; level of food security<sup>1</sup>; annual household income; socio-economic classification ([NS-SEC](#))<sup>2</sup>; urban/rural; long-term health condition; food allergy or intolerance; ethnicity.

Some of the figures reported in the text do not add up to 100%. This is because either 'Don't know' or 'Not Stated' are excluded, or because of rounding or multiple responses being possible. All figures are available in the [Data Tables for Scotland](#).

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<sup>1</sup> 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 (USDA) to measure consumers' food security status. Further details of how the level of food security is measured are provided in Chapter 2 of the [FSA Food and You 2 Wave 10 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>2</sup> [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. [Additional information](#) 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 [food safety and hygiene in the home](#).

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 (72%) respondents reported that they always wash their hands before preparing or cooking food. A further 1 in 5 (21%) reported washing their hands most of the time, with 2% doing so about half the time, 3% occasionally and 1% never<sup>3</sup>.

Most respondents (92%) reported that they always wash their hands immediately after handling raw meat, poultry, or fish. Six per cent did so most of the time, with fewer than 2% who either did so about half the time, occasionally or never<sup>4</sup>.

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<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 = 911, all online respondents, who ever does some food preparation or cooking for their household.

<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 = 867, all online respondents, and those answering who ever does some food preparation or cooking for their household, excluding 'I don't cook meat, poultry or fish' and 'not stated'.

Less than half (49%) reported that they always wash their hands before eating, 28% reported doing this most of the time, 9% about half the time, 10% occasionally and 3% reported never washing their hands before eating.<sup>5</sup>

## 2.2 Chilling

FSS provides guidance 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, 61% of respondents reported that it should be between 0-5 degrees Celsius (°C), as recommended by FSS. Sixteen percent of respondents reported that the temperature should be above 5 degrees, 2% reported that the temperature should be below 0 degrees, and 18% did not know what temperature the inside of their fridge should be<sup>6</sup>.

Over half of respondents (54%) who have a fridge reported that they monitored the temperature<sup>7</sup> either manually (46%) or via an internal temperature alarm (8%). Of those who monitor the temperature of their fridge, 73% reported that they check the temperature of their fridge at least once a month<sup>8</sup>.

## 2.3 Defrosting

FSS recommends that food is defrosted in the fridge and not at room temperature to avoid food sitting at higher temperatures which can lead to bacterial growth.

Respondents were asked which method they typically use to defrost meat and fish<sup>9</sup>. Half of respondents (50%) reported that they defrost meat or fish in the fridge and

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<sup>5</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 = 958, all online respondents.

<sup>6</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 = 1552, all respondents.

<sup>7</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 = 1553, all respondents.

<sup>8</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 = 753, all respondents in households where someone checks the temperature of their fridge.

<sup>9</sup> Question: Typically, how do you defrost frozen meat or fish? Responses: place the meat or fish in water, leave the meat or fish at room temperature (e.g. on the worktop on a plate, in a container or in its packaging), leave the meat or fish in the fridge, defrost the meat or fish in the microwave oven, some other way, don't know. Base = 818, all online respondents who ever do some food preparation or cooking for their household, excluding those who never defrost meat or fish.

5% reported that they use a microwave. Around four in ten (37%) reported that they leave the meat or fish at room temperature and 6% leave the meat or fish in water.

## 2.4 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, [FSS recommends](#) 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.

Nearly 8 in 10 (79%) respondents reported that they always cook food until it is steaming hot and cooked all the way through, however 20% reported that they do not always do this<sup>10</sup>.

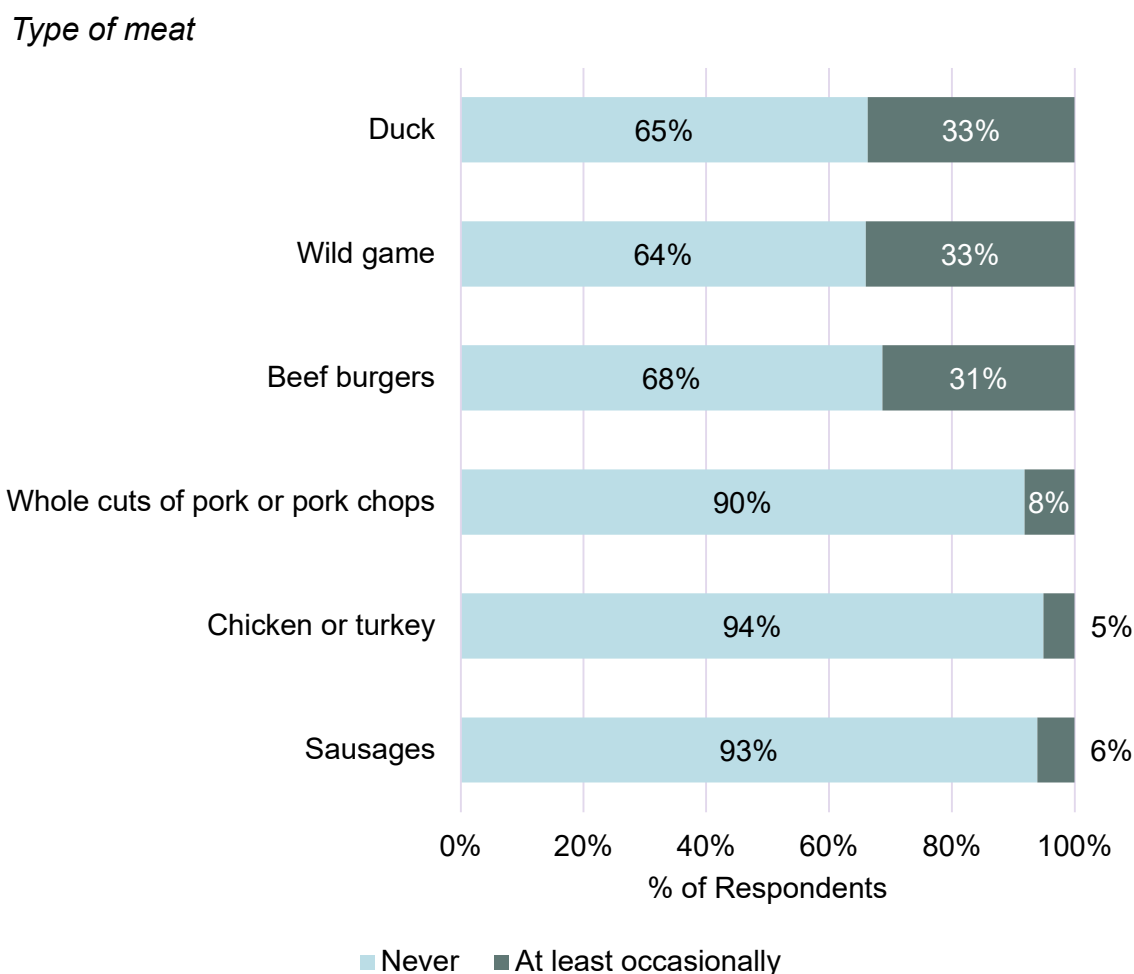
Respondents were asked to indicate how often they eat different types of meat when the meat is pink or has pink juices<sup>11</sup> (Figure 1).

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<sup>10</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 = 911, all online respondents who ever do some food preparation or cooking for their household.

<sup>11</sup> Question: How often, if at all, do you eat...a=chicken or turkey, b=duck, c=beefburgers, d=sausages, e=whole cuts of pork or pork chops, f=wild game (e.g. rabbit, boar, deer, pheasant or venison) ... 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 A = 868, B = 592, C = 841, D = 850, E = 790, F = 520, all online respondents who are not vegan, pescatarian or vegetarian, and who do eat A/B/C/D/E/F.

**Figure 1: How often respondents eat different types of meat when it is pink or has pink juices**



Source: Food and You 2 (Scotland) Wave 11

Around nine in ten respondents reported that they never eat sausages (93%), chicken or turkey (94%), or whole cuts of pork or pork chops (90%) when it is pink or has pink juices. Around two-thirds of respondents reported that they never eat duck (65%), beef burgers (68%) or wild game (64%) when it is pink or has pink juices; but around a third reported that they do eat these at least occasionally (33% of those eating duck, 31% of those eating beef burgers, and 33% of those eating wild game).

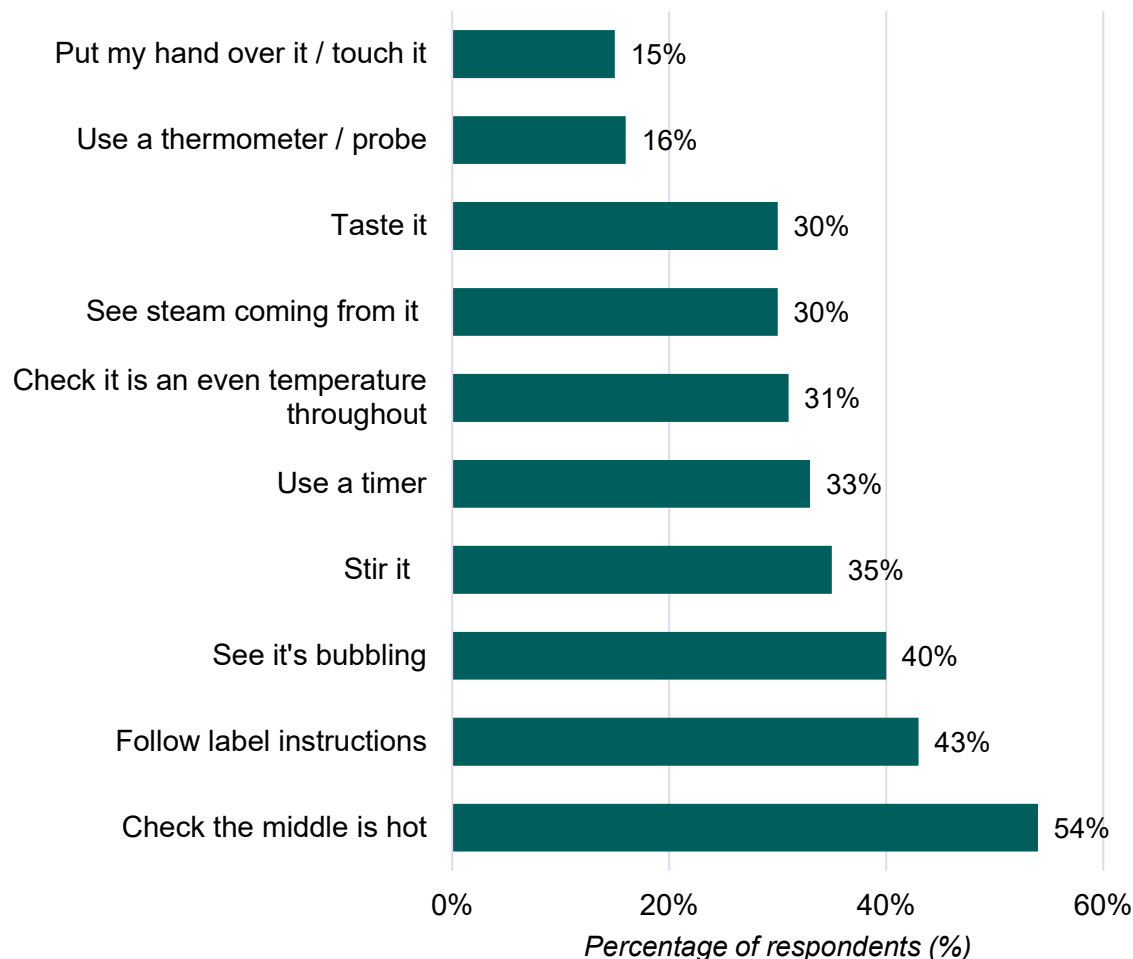
Respondents were asked how often they follow packaging instructions when preparing frozen fruit and vegetables<sup>12</sup>. Around a third (39%) reported that they always follow packaging instructions, 24% reported doing this most of the time and 11% reported that they never do this.

<sup>12</sup> Question: When preparing frozen vegetables or frozen fruit, how often do you follow instructions on the packaging? Responses: always, most of the time, about half the time, occasionally, never, I don't use frozen vegetables or frozen fruit, don't know. Base = 911, all online respondents who ever do some food preparation or cooking for their household.

### 2.4.1 Reheating

**Figure 2: How respondents check whether reheated food is ready to eat**

*Method used*



Source: Food and You 2 Wave 11 (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 (54%), and the least common methods were to put a hand over the food or touch the food (15%) or use a thermometer or probe (16%)<sup>13</sup> (Figure 2). Just 1% of respondents stated that they do not check that food is ready to eat when they reheat it.

[FSS recommends](#) that food is only reheated once. When respondents were asked how many times they would reheat food, the majority reported that they would only

<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 = 871, all online respondents who ever do some food preparation or cooking for their household, excluding 'I don't reheat food' and 'not stated'.

reheat food once (86%), 9% would reheat food twice, and 3% would reheat food more than twice<sup>14</sup>.

#### **2.4.2 Leftovers**

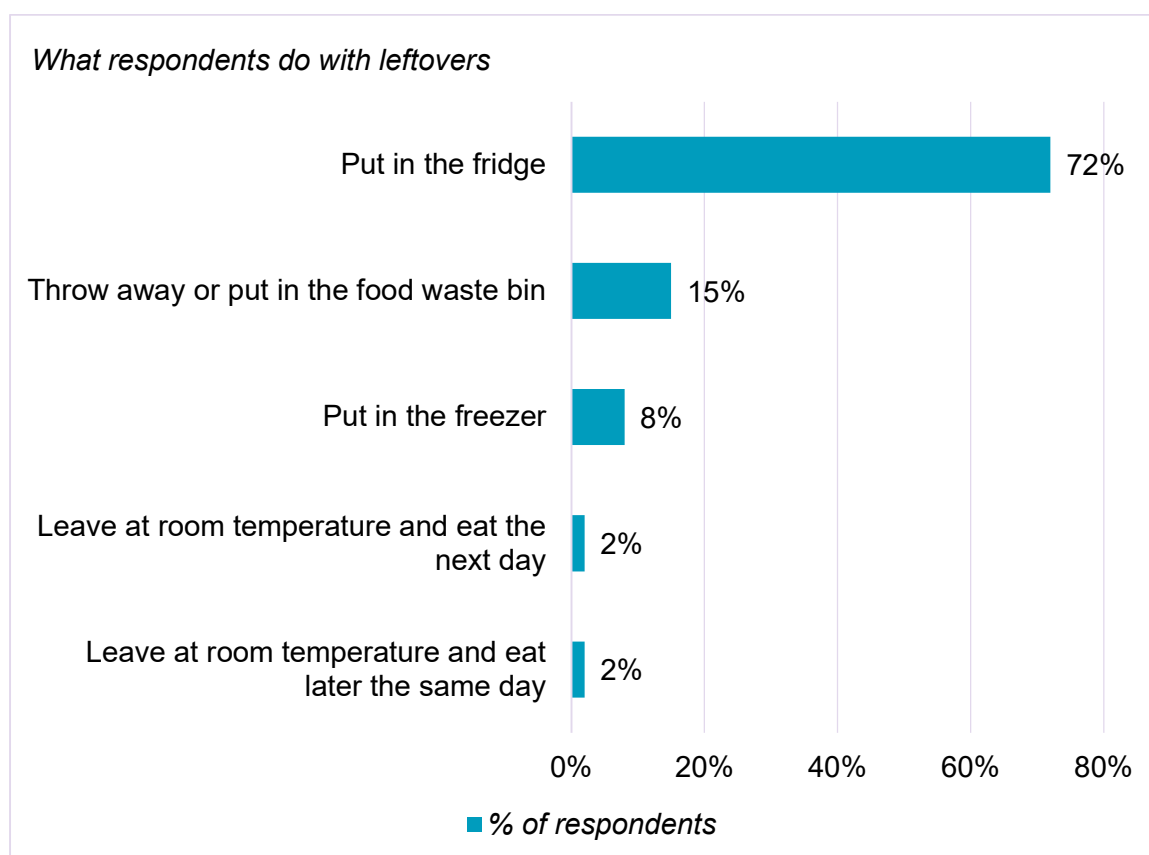
FSS recommends cooling leftover food as quickly as possible and then storing it in the fridge. [FSS also recommends eating leftovers within two days.](#)

Respondents were asked what they do with leftovers following a meal<sup>15</sup> (Figure 3). The majority of those who reported having leftovers (72%) stated that they would put them in the fridge, and 8% stored them in the freezer. A minority reported leaving them at room temperature to eat the same day (2%), or the next day (2%). Fifteen percent (15%) said they would throw the leftovers away or put them in the food waste bin.

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<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 = 871, all online respondents who reheat food using one of the methods in the previous question.

<sup>15</sup> Question: Generally, what do you do with any leftovers following a meal? Responses: I throw them away or put them in the food waste bin, I leave them at room temperature and eat them later the same day, I leave them at room temperature and eat them the next day, I put them in the fridge, I put them in the freezer. Base = 902, all online respondents excluding those who don't have leftovers.

**Figure 3: What respondents do with leftovers following a meal**

Source: Food and You 2 (Scotland) Wave 11

Respondents who reported that they put leftovers in the fridge or freezer were asked to indicate how soon after cooking they would typically put leftovers into the fridge or freezer<sup>16</sup>. Most respondents reported that they typically placed leftovers in the fridge or freezer within one hour (36%) or one to two hours of cooking (40%). Around a fifth of respondents (17%) put leftovers in the fridge or freezer after more than two hours, and 5% would put leftovers in the fridge or freezer straight away.

Respondents were asked how long they would keep leftovers in the fridge for. Around two-thirds (65%) reported that they would eat leftovers within 2 days, nearly a quarter (22%) reported that they would eat leftovers within three to five days and only 3% would eat leftovers after 5 days or longer<sup>17</sup>.

<sup>16</sup> Question: Typically, how soon after cooking do you put any leftovers in the fridge or freezer?

Responses: straight away, within 1 hour of cooking, 1-2 hours after cooking, more than 2 hours after cooking, don't know. Base = 733, all online respondents who leave leftovers in a fridge or freezer.

<sup>17</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 = 958, all online respondents.

## 2.5 Avoiding cross-contamination

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

The majority of respondents (64%) reported that they never wash raw chicken. However, a third (33%) reported that they wash raw chicken at least occasionally (this includes 18% 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>18</sup>).

Respondents were asked how they use chopping boards when they prepare raw meat and other foods<sup>19</sup>. Over half of respondents (57%) reported that they use different chopping boards for raw meat and other foods and 37% of respondents reported that they wash the chopping board between preparing raw meat and other foods. Only a small proportion of respondents turned the chopping board over between preparing raw meat and other foods (3%) or used the same chopping board without washing it (2%).

## 2.6 Deciding when food products are safe to cook or eat

Respondents were asked to indicate how they tell whether different foods are safe to eat or cook with. Respondents used a range of different methods depending on the type of food<sup>20</sup>.

For telling if fish (excluding shellfish) is safe to eat or cook, the most common method is checking the use-by date (73%), followed by how it smells (68%) and how it looks (51%) (Table 1). For raw meat, such as beef, lamb, pork and poultry, the

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<sup>18</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 = 1461, all respondents who ever do some food preparation or cooking for their household.

<sup>19</sup> Question: Typically, how do you use chopping boards when preparing a meal with raw meat? Responses: I use a different chopping board for raw meat and other foods, I wash the chopping board between preparing raw meat and other foods, I turn the chopping board over between preparing raw meat and other foods, I use the same chopping board for preparing raw meat and other foods (without washing the board). Base = 1314, all respondents who ever do some food preparation or cooking for their household, excluding those who don't use chopping boards or those who don't cook with raw meat.

<sup>20</sup> Question: How do you tell whether it is safe to eat or cook with...? a) raw meat like beef, lamb, pork or poultry, b) milk and yoghurt, c) cheese, d) eggs, e) fish (excluding shellfish), f) bagged salad. Responses: how it looks; how it smells; how it tastes; use-by date; best before date; b/c/f/) follow pack instructions e.g. with within 3 days of opening; d) it doesn't float in water. Base A=1432, B=1479, C=1485, D=1476, E=1275, F=1362, all respondents, excluding those who don't eat/cook...A/B/C/D/E/F.

most common method used by respondents is how it smells (81%), use-by date (70%) and how it looks (67%) (Table 1).

**Table 1: How respondents tell whether meat or fish is safe to eat or cook with**

<i>Type of food product</i>	How it looks	How it smells	How it tastes	Use-by date
Fish excluding shellfish	51%	68%	15%	73%
Raw meat e.g. beef, lamb, pork, poultry	67%	81%	16%	70%

Source: Food and You 2 Wave 11 Scotland

When it comes to telling if milk and yogurt are safe to eat or cook, the most common method is how it smells (78%), followed by the use-by date (60%) and how it looks (52%) (Table 2). For cheese, respondents relied on how it looks (71%) and how it smells (63%) with 52% using the use-by date. For eggs, the most common method used is checking the best before date (61%). Other methods for telling if eggs are safe to eat or cook included how it smells (37%), if it doesn't float in water (35%) and how it looks (25%). For bagged salad, respondents relied on how it looks (79%), followed by the use-by date (53%) and how it smells (45%).

**Table 2: How respondents tell whether eggs, dairy and salad are safe to eat or cook with**

<i>Type of food product</i>	How it looks	How it smells	How it tastes	Use-by date	Best before date	If it doesn't float in water	Following the instructions on the package
Bagged Salad	79%	45%	15%	53%			26%
Eggs	25%	37%	11%		61%	35%	
Cheese	71%	63%	28%	52%	26%		
Milk and yoghurt	52%	78%	33%	60%	30%		

Source: Food and You 2 Wave 11 Scotland

### 3. Food Shopping and Labelling

#### Introduction

Food Standards Scotland has policy responsibility for the general and nutrition related aspects of food labelling. This includes, the name of the food, date marking, allergens, certain aspects of country of origin labelling, along with energy and nutrient content.

This chapter provides an overview of ordering food and drink online, what respondents look for when they are shopping, following food labelling instructions and understanding and adherence to use-by and best-before dates.

#### 3.1 Online food and drink

Respondents were asked if they had ever ordered food or drink online<sup>21</sup>. Most respondents had ordered food or drink online through a restaurant's, café's or takeaway's own website (67%) and 60% had ordered through an online ordering or delivery company such as Just Eat, Deliveroo or Uber Eats. One in 3 respondents (33%) had ordered food through an online marketplace such as Amazon, Gumtree or Etsy. One in 5 respondents (19%) had ordered food through a food sharing app such as Olio or Too Good to Go and only 8% had ordered food online through social media such as Facebook, Instagram or Nextdoor.

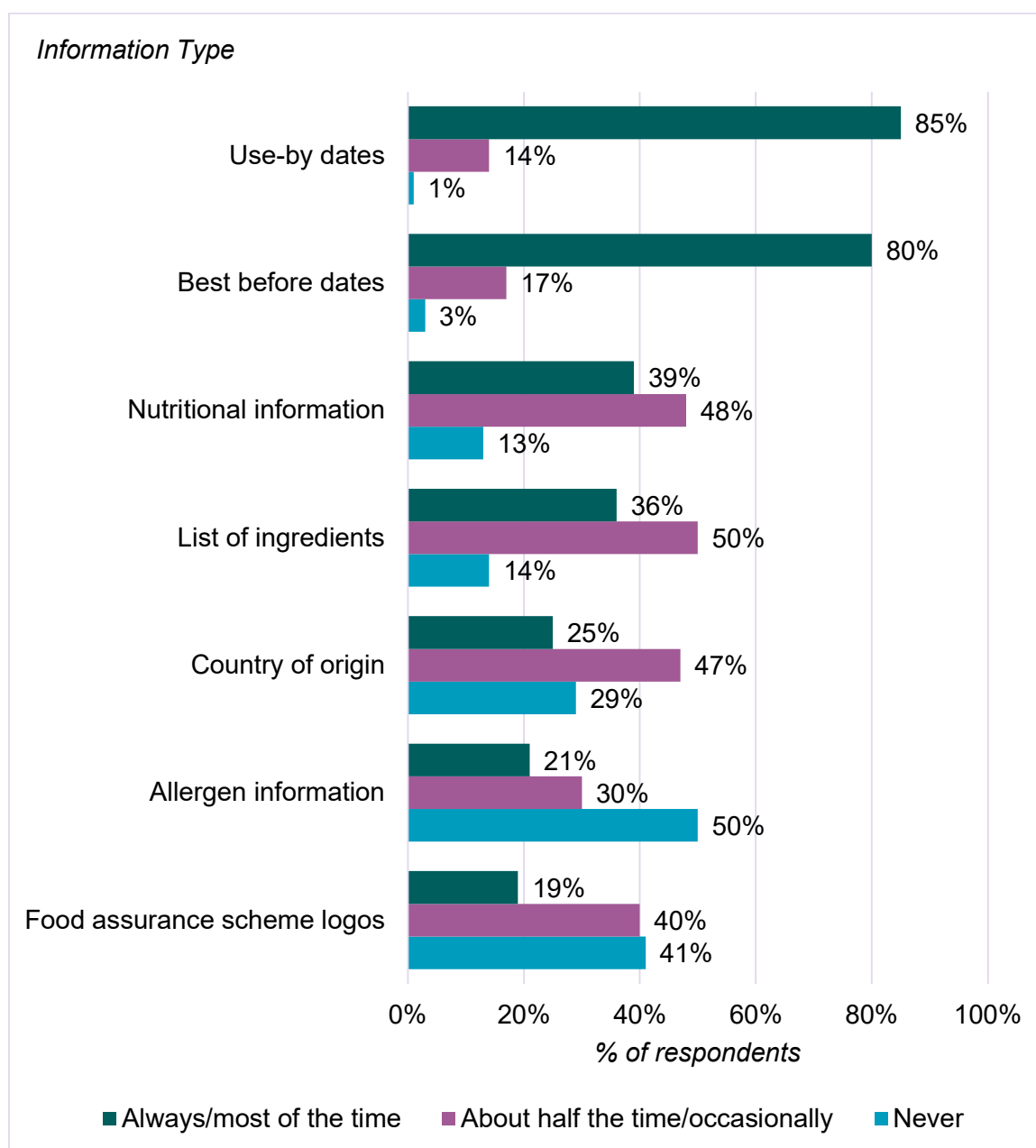
#### 3.2 What do respondents look for when buying food?

Respondents were asked to indicate what information they check when buying food<sup>22</sup> (Figure 4).

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<sup>21</sup> Question: Have you ever ordered food or drink online through...a) a restaurant's, café's or takeaways' own website (b) an online ordering and delivery company (e.g. Just Eat, Deliveroo or Uber Eats) (c) an online marketplace (e.g. Amazon, Gumtree, Etsy) (d) social media (e.g. Facebook, Instagram, Nextdoor) (e) a food sharing app (e.g. Olio or Too Good to Go). Responses: Yes, No. Base = 958, all online respondents.

<sup>22</sup> Question: When shopping for food, how often, if at all, do you check...a) use-by dates, b) best before dates, c) list of ingredients, d) allergen information, e) nutritional information, f) country of origin, g) food assurance scheme logos. Responses: always, most of the time, about half the time, occasionally, never, don't know. Base = 920, all online respondents who ever do food shopping.

**Figure 4: What information respondents look for when buying food**

Source: Food and You 2 (Scotland) Wave 11

Respondents were most likely to check use-by (85%) or best before dates (80%) with the majority of respondents doing this 'always' or 'most of the time' when they bought food. Around half of respondents reported checking the list of ingredients (50%), nutritional information (48%) and country of origin (47%) about half of the time or occasionally. Four in ten respondents (40%) reported checking food assurance logos about half of the time or occasionally. Allergen information was least often checked by respondents, with 50% reporting they never checked this. However, respondents who reported having an intolerance only (48%) were more

likely to check allergen information 'always' or 'most of the time' when food shopping compared to those without a food hypersensitivity (17%)<sup>23</sup>.

### 3.3 'Eat within' Information

Some foods have instructions on the label which advise that the food should be eaten within a few days of opening. Respondents were asked to indicate how often they follow this recommendation<sup>24</sup>. A quarter of respondents (25%) reported that they always follow the on-pack instructions. However, most respondents (66%) reported that they do not always (i.e., most of the time, about half the time or occasionally) follow the on-pack instructions and 7% reported that they never do this.

### 3.4 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. [FSS provides guidance](#) 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 (66%) correctly identified the use-by date as the information which shows that food is no longer safe to eat. However, 8% identified the best-before date as the date which shows food is no longer safe to eat<sup>25</sup>.

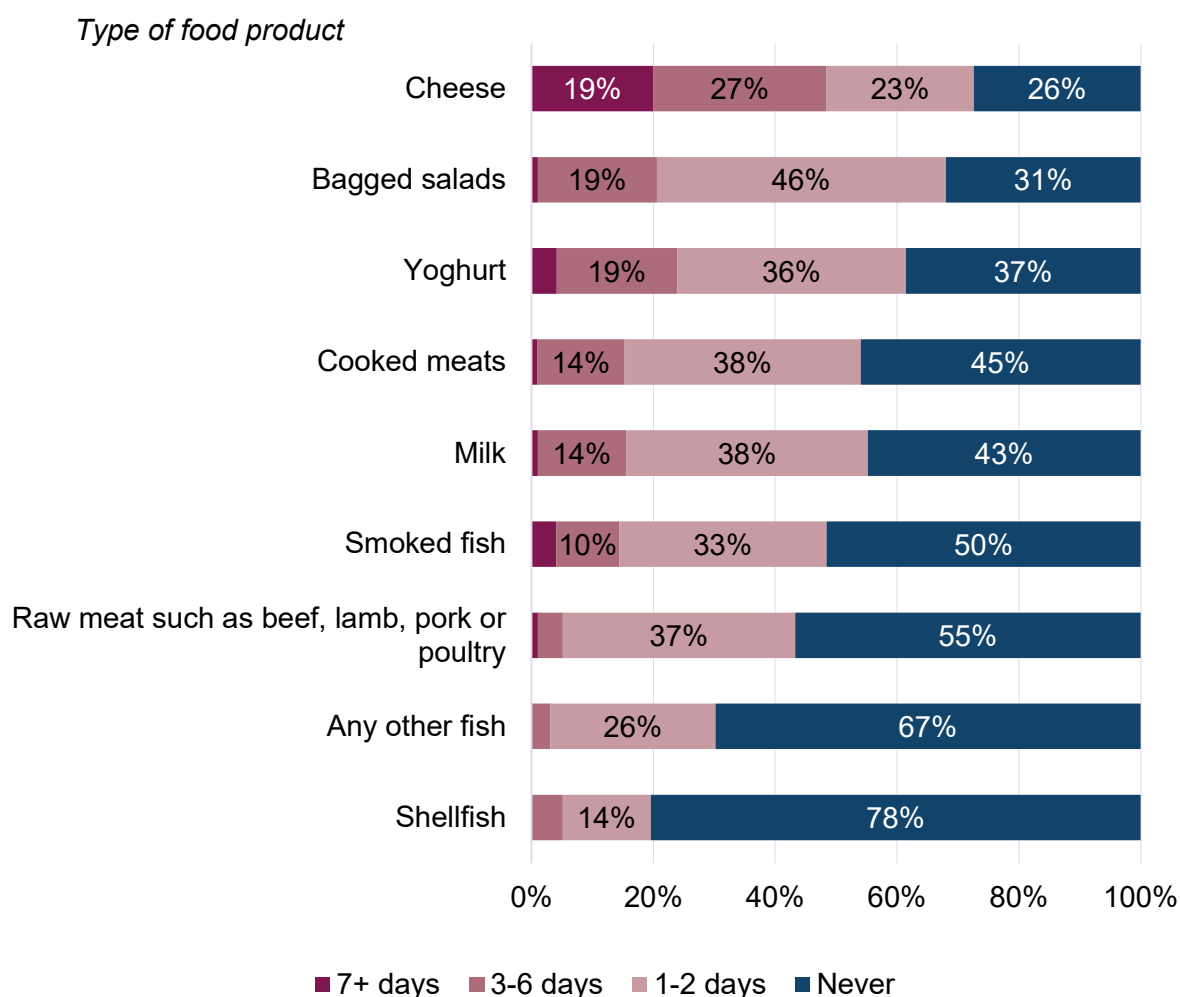
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<sup>23</sup> Intolerance only n = 103. Numbers of respondents with other food hypersensitivities including allergy only, coeliac disease only or multiple conditions are not included due to low numbers (less than n = 30).

<sup>24</sup> Question: Some foods have an instruction to eat the food within a few days of opening on the label (e.g. 'consume within 3 days of opening'). How often, if at all, do you follow instructions on food packaging which tell you how long food should be stored once opened? Responses: always, most of the time, about half of the time, occasionally, never, don't know. Base = 1461, all respondents who ever do some food preparation or cooking for their household.

<sup>25</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 = 958, all online respondents.

**Figure 5: How long after the use-by date respondents would consume different foods\***



Source: Food and You 2 Wave 11 (Scotland)

\*Note: Categories with less than 10% have not been given labels due to space. However, full details can be found in the Data Tables for Scotland.

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 (Figure 5). Most reported that they would not eat shellfish (78%) or other fish (excluding smoked fish) (67%) past the use-by date. Over half of respondents would not eat raw meat (61%) or smoked fish (50%) past the use-by date. Bagged salad (66%) and cheese (68%) were the foods respondents were most likely to report eating at any point after the use-by date. Around half would eat yoghurt (61%), milk (53%) and cooked meats (54%) at any

point after the use-by date. Nearly a fifth (19%) would eat cheese one week or more after the use-by date<sup>26</sup> (Figure 5)<sup>27</sup>.

## 4. 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 out of home food environment, 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.

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<sup>26</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=1404, B=1157, C=1400, D=1481, E=1458, F=1394, G=1011, H=1270, I=1430, all respondents who eat A/B/C/D/E/F/G/H/I. Please note: the figures shown do not add up to 100% as not all responses are shown.

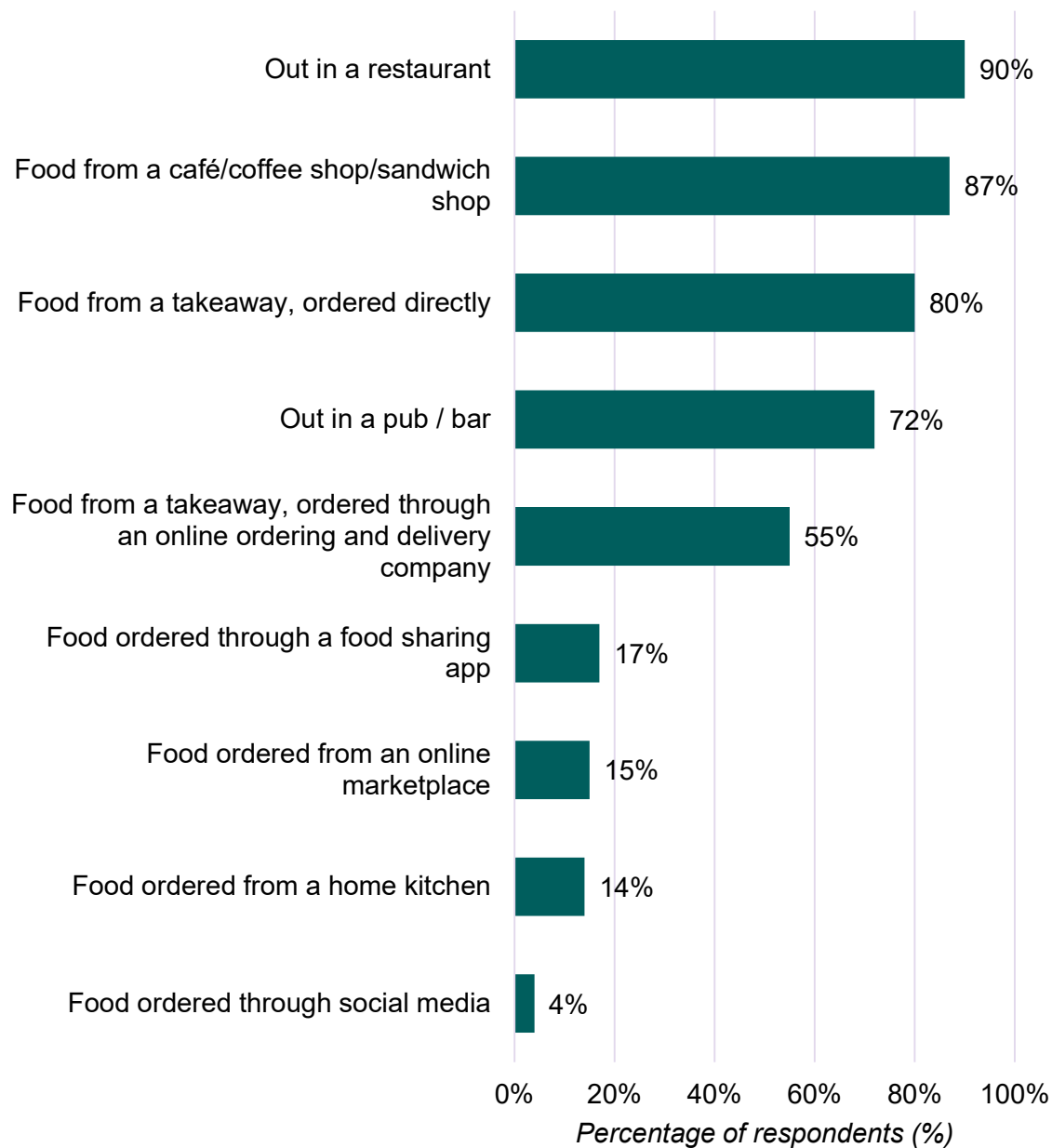
<sup>27</sup> Note that due to rounding, percentages may not add up to 100% or match with the text.

## Eating out and ordering takeaway

### 4.1 Prevalence of eating out and ordering takeaway

**Figure 6: Type of food businesses respondents had eaten at or ordered food at nowadays<sup>28</sup>**

*Nowadays, do you ever eat...*



Source: Food and You 2 Wave 11 (Scotland)

<sup>28</sup> Note that supermarkets and convenience stores were not included as separate options (other than under 'Takeaway - directly from a takeaway, shop or restaurant').

Respondents were asked, nowadays, if they ever eat food from a number of different outlets. Around nine out of 10 respondents eat out at a restaurant (90%) or eat food from a café/coffee shop/sandwich shop (87%). Four out of five respondents eat food from a takeaway ordered directly from a takeaway shop or restaurant (80%) and 72% eat out in a pub/bar. Over half of respondents ordered a takeaway through an online ordering or delivery company such as Just Eat, Deliveroo or Uber Eats (55%). Fewer than one in five respondents reported eating food ordered through a food-sharing app (e.g. Olivo or Too Good to Go) (17%), an online market place (e.g. Amazon, Gumtree, Etsy etc.) (15%), from a home kitchen (14%) or from social media (e.g. Facebook, Instagram, Nextdoor, etc.) (4%)<sup>29</sup> (Figure 6).

## 4.2 Factors considered when eating out

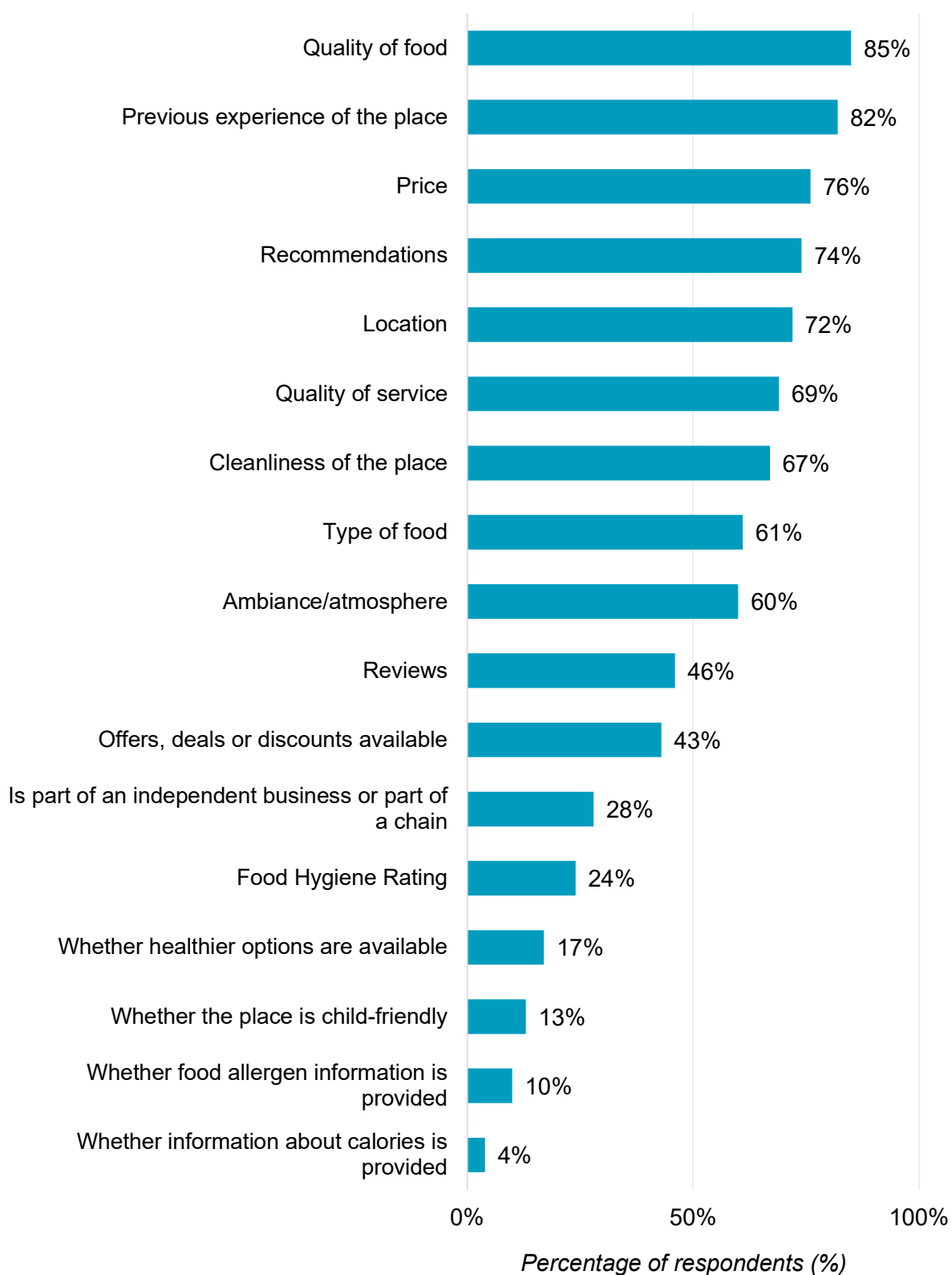
Respondents were asked which factors, from a given list, they generally considered when deciding where to eat out in restaurants, pubs, bars, cafés, coffee shops or sandwich shops.

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<sup>29</sup> Question: Nowadays, do you ever...? (Select all that apply) Responses: eat food from a café, coffee shop or sandwich shop, eat out in a pub/bar, eat food from a takeaway, ordered directly from a takeaway shop or restaurant, eat food from a takeaway, ordered through an online ordering and delivery company (e.g. Just Eat, Deliveroo, Uber Eats), eat out in a restaurant, eat food ordered from an online marketplace (e.g. Amazon, Gumtree, Etsy, etc.), eat food ordered through a food-sharing app (e.g. Olivo or Too Good to Go), Eat food ordered from social media (e.g. Facebook, Instagram, Nextdoor, etc.), eat food ordered from someone who makes it in a home kitchen. Base = 958, all online respondents. Please note, percentages shown do not add up to 100% as multiple responses could be selected.

**Figure 7: Factors considered when deciding where to eat out**

*Factors considered*



Source: Food and You 2 Wave 11 (Scotland)

Those who eat out were most likely to consider the quality of food (85%) and their previous experience of the place (82%) when deciding where to eat. Around a quarter (24%) considered the food hygiene rating when deciding where to eat out<sup>30</sup> (Figure 7).

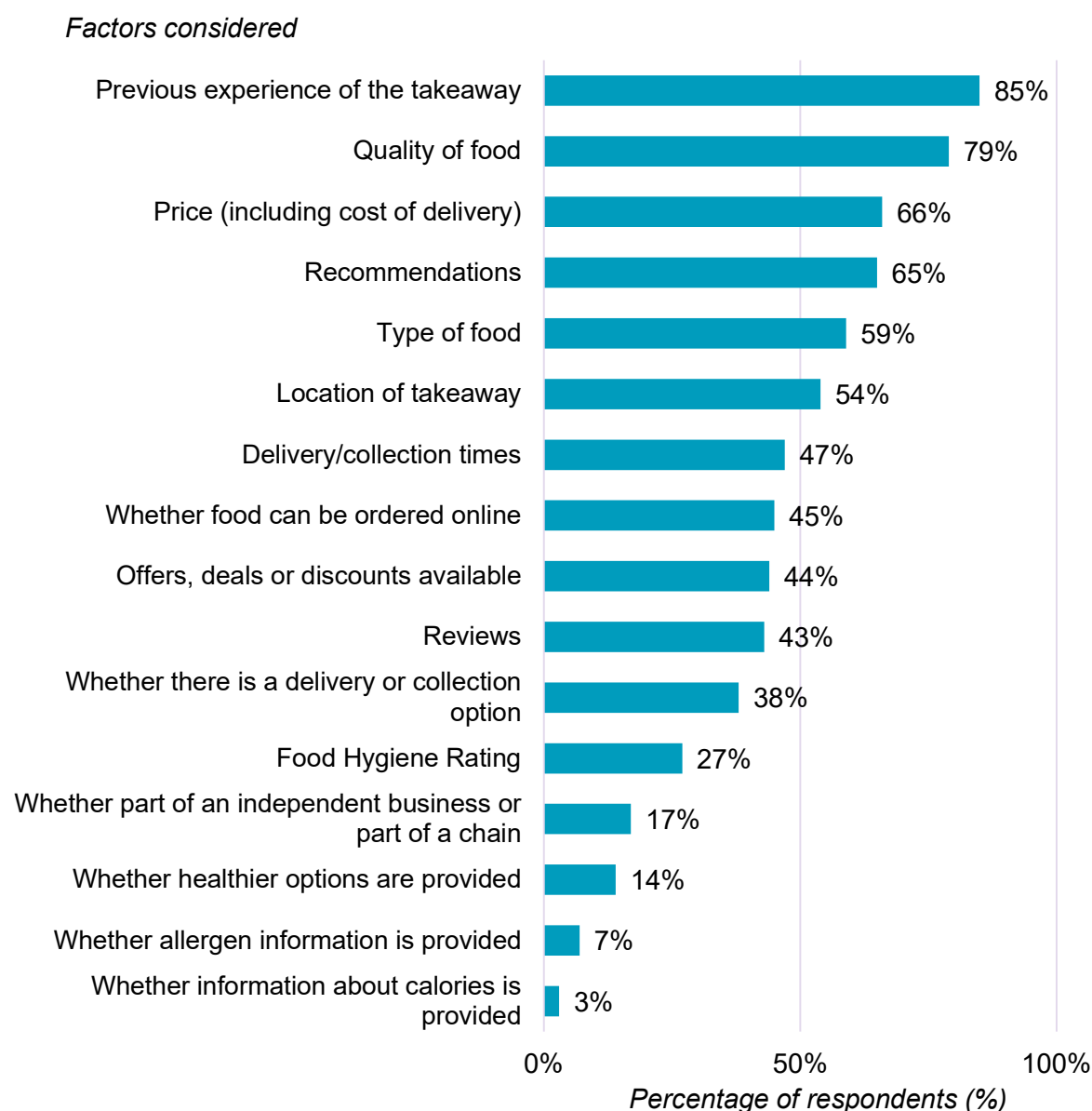
### **4.3 Factors considered when ordering takeaway**

Respondents were asked which factors, from a given list, they generally considered when deciding where to order a takeaway from<sup>31</sup>.

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<sup>30</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 discounts 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 = 924, all online respondents who eat out.

<sup>31</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 8: Factors considered when ordering a takeaway**

Source: Food and You 2 Wave 11 (Scotland)

Those who order takeaways were most likely to consider their previous experience of the takeaway (85%) and the quality of food (79%) when deciding where to order a takeaway from. Around a quarter (27%) of respondents considered the food hygiene rating when deciding where to order a takeaway from<sup>32</sup> (Figure 8).

<sup>32</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 discounts 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

## 5. Food Choices and Other Issues

FSS's role (set out in law) is to safeguard public health and protect the interests of consumers in Scotland in relation to food. This section provides an overview of consumer confidence in food, concerns about where food is produced, changes to eating habits and food-related behaviours and food allergies and intolerances.

### 5.1 Confidence in Food

There is a high level of confidence in food being safe to eat and that the information on food labels is accurate among respondents. Ninety-three percent (93%) of respondents stated that they are very or fairly confident that the food they buy is safe to eat and 87% are very or fairly confident that the information on food labels (e.g. ingredients, nutritional information, country of origin) is accurate<sup>33</sup>.

Over 3 in 4 respondents (76%) are very or fairly confident in the food supply chain. That is all the processes involved in bringing the food to people's tables<sup>34</sup>.

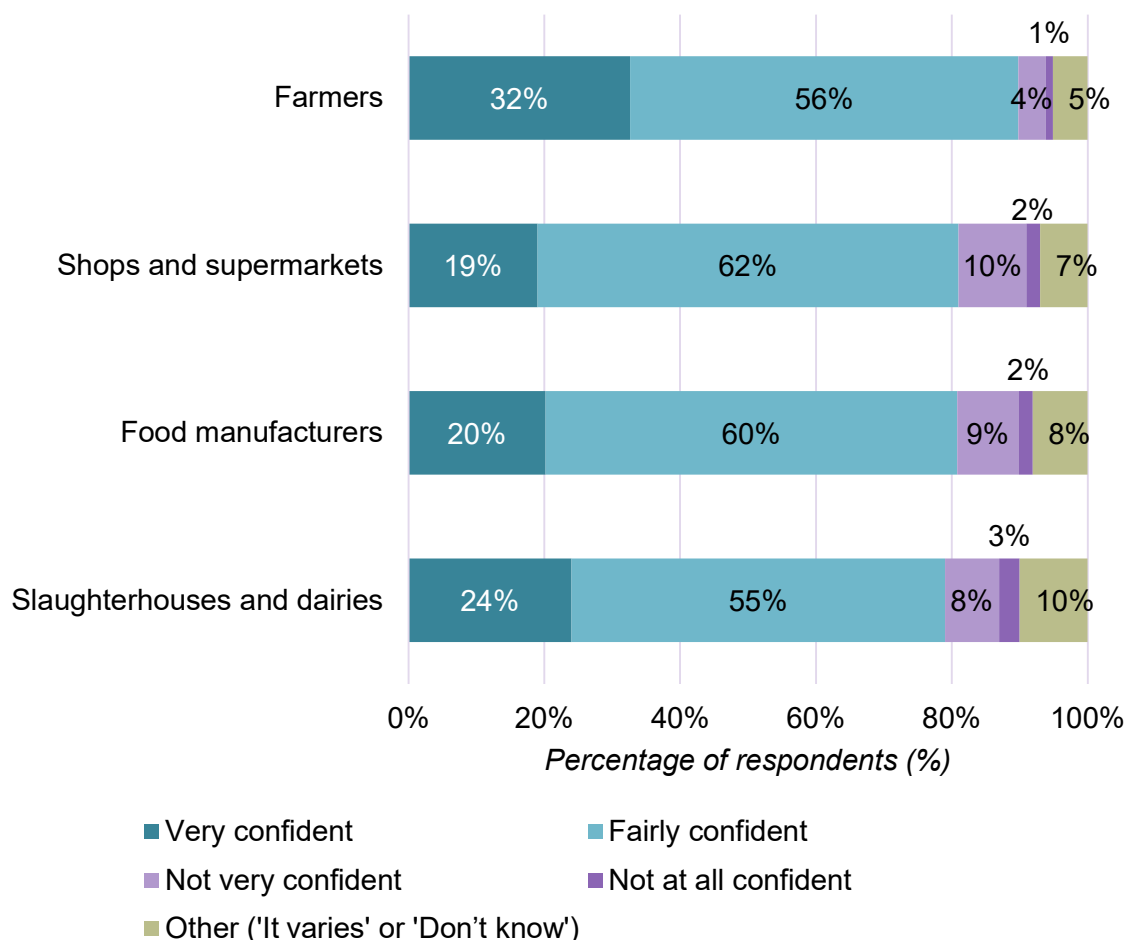
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business or part of a chain, whether healthier options are provided, whether allergen information is provided, whether information about calories is provided, none of these, don't know. Base = 823, all online respondents who order takeaways.

<sup>33</sup> Question: How confident are you that...(a) the food you buy is safe to eat (b) the information on food labels is accurate (e.g. ingredients, nutritional information, country of origin)? Responses: Very confident, confident, not very confident, not at all confident, it varies, don't know. Base = 1555.

<sup>34</sup> Question: How confident are you in the food supply chain? That is all the processes involved in bringing food to your table. Responses: Very confident, confident, not very confident, not at all confident, it varies, don't know. Base = 1555.

**Figure 9: Confidence that producers, processors, manufacturers and retailers ensure food is safe to eat**



Source: Food and You 2 (Scotland) Wave 11

Confidence in producers, processors, manufacturers and retailers in the UK ensuring that the food respondents buy is safe to eat is generally high (Figure 9). Confidence is particularly high in farmers in the UK with 88% of respondents being very or fairly confident that farmers ensure food is safe to eat. Around 8 in 10 respondents are very or fairly confident that slaughterhouses and dairies (79%), food manufacturers (80%) and shops and supermarkets (81%) in the UK ensure food is safe to eat<sup>35</sup>.

<sup>35</sup> Question: How confident are you that...(a) Farmers in the UK ensure the food you buy is safe to eat (b) slaughterhouses and dairies in the UK ensure the food you buy is safe to eat (c) food manufacturers (e.g. factories) ensure that food you buy is safe to eat (d) shops and supermarkets in the UK ensure the food you buy is safe to eat? Responses: Very confident, confident, not very confident, not at all confident, it varies, don't know. Base = 1555.

**Figure 10: Confidence out-of-home establishments ensure food is safe to eat**

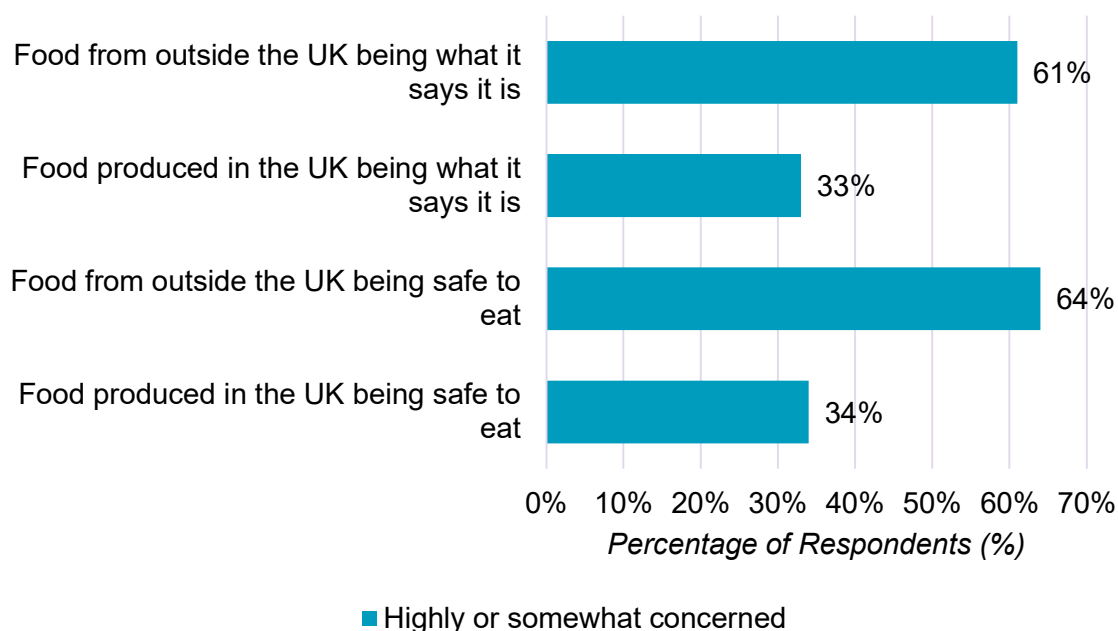
Source: Food and You 2 (Scotland) Wave 11

Respondents were asked about their levels of confidence in out-of-home establishments ensuring that food they buy is safe to eat (Figure 10). Over 4 out of 5 respondents (82%) are very or fairly confident that restaurants in the UK ensure food is safe. Nearly 3 out of 5 respondents (58%) are very or fairly confident in take-aways in the UK, while less than half (43%) are confident in online ordering and delivery services ensuring that food is safe to eat<sup>36</sup>.

## 5.2 Food concerns

Respondents were asked for their level of concern about food produced in the UK and food from outside the UK in terms of being safe and hygienic and being what it says it is. Concern about food from outside the UK was nearly double that of concern about food produced in the UK (Figure 11).

<sup>36</sup> Question: How confident are you that... (a) Restaurants in the UK (b) takeaways in the UK (c) online ordering and delivery companies e.g. Just Eat, Deliveroo or Uber Eats etc. ensure the food you buy is safe to eat? Responses: Very confident, confident, not very confident, not at all confident, it varies, don't know. Base = 1555.

**Figure 11: Concerns about food produced in the UK and from outside the UK**

Source: Food and You 2 (Scotland) Wave 11

One third of respondents (34%) reported that they were highly or somewhat concerned about food produced in the UK being safe and hygienic while 64% were highly or somewhat concerned about food outside the UK being safe and hygienic. Similarly, around one third (33%) were highly or somewhat concerned about food produced in the UK being what it says it is while 61% were highly or somewhat concerned about food from outside the UK being what it says it is<sup>37</sup>.

### 5.3 Food Choices

Respondents were asked what they consider to be most important when choosing which food to buy from a list of options<sup>38</sup>. The most frequently selected attribute was price/value for money (51%), followed by quality (41%), freshness (35%), and use-by

<sup>37</sup> Question: Thinking about food in the UK today, how concerned, if at all, do you feel about each of the following topics? (a) Food produced in the UK being safe and hygienic (b) food from outside the UK being safe and hygienic (c) food produced in the UK being what it says it is (d) food from outside the UK being what it says it is. Responses: Highly concerned, somewhat concerned, not very concerned, not at all concerned, don't know. Base N = 958. All online respondents.

<sup>38</sup> Question: What is most important to you when you are choosing which foods to buy? Responses: Price/value for money, quality, freshness, taste, appearance of food, healthiness, use-by date/how long it will keep for, country of origin, ingredients, that it is ethical or eco-friendly, farming methods for example, organic or free-range farming, how it is made or how it is produced, choice/availability/variety, buying what my household/ children want, trust in supplier, safety of product, convenience/how easy it is to cook or prepare, other, don't know. Base = 1555, all respondents.

dates and/or how long it will keep for (30%). Around two in ten selected taste (23%) and healthiness (19%).

Respondents were asked how frequently they check for information about the environmental impact and animal welfare of food when shopping<sup>39</sup>. While almost three in ten respondents (29%) reported that they check for information about animal welfare when purchasing food 'always' or 'most of the time', less than 1 in 5 respondents (17%) reported that they check for information about the environmental impact of food 'always' or 'most of the time'.

Respondents were asked, from a list of options, what they think contributes most to the environmental impact of food<sup>40</sup>. The factors thought to have most environmental impact were use of chemicals and pesticides (45%), food packaging (44%) and the transportation of food (42%). Food waste (31%) and land management and/or deforestation (25%) were also considered as contributors to the environmental impact of food. Less than 1 in 5 thought production of meat (18%) contributed most to the environmental impact of food.

When respondents were asked, from a list of options, what would indicate whether a product containing meat, eggs or dairy had been produced with high standards of animal welfare, the most common indicator selected was a free-range label (39%)<sup>41</sup>. Other commonly selected indicators of animal welfare standards were the Red Tractor logo (33%), information on packaging (31%), the RSPCA Assured logo (26%) and the Lion Egg logo (26%). Over one in ten (14%) reported that they do not know what would indicate whether a product containing meat, eggs or dairy had been produced with high standards of animal welfare.

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

FSS's vision as set out in the [FSS Strategy 2026 to 2031](#) is 'a safe, authentic and healthier food environment that Scotland can trust' which is 'consumer and health focused'.

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<sup>39</sup> Question: When purchasing food, how often do you do the following...(a) check for information on animal welfare (b) check for information on environmental impact. Responses: always, most of the time, about half the time, occasionally, never, don't know. Base = 1555, all online respondents.

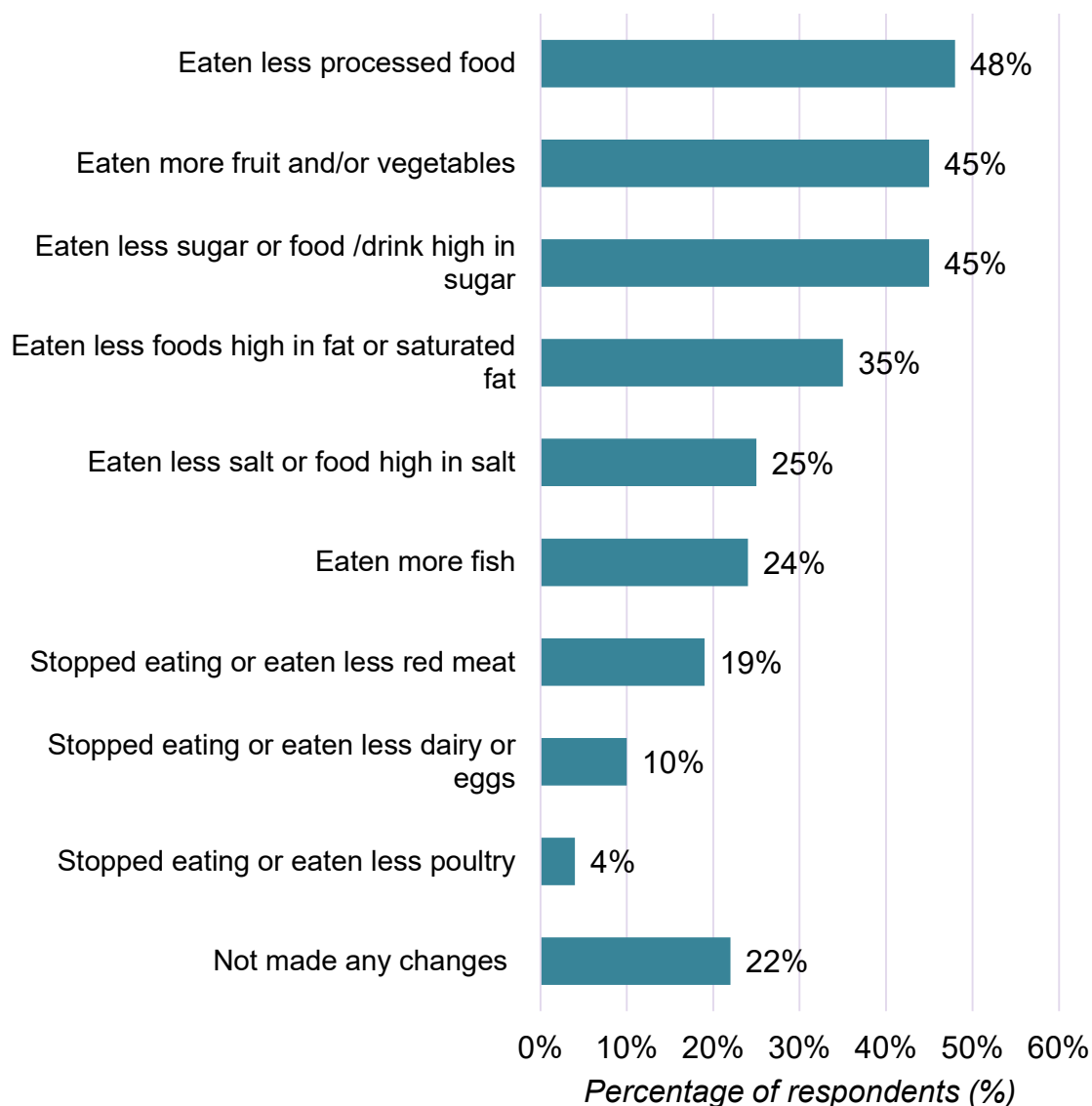
<sup>40</sup> Question: What do you think contributes to the environmental impact of food? Responses: food packaging, chemicals or pesticides, transportation of food, land management/deforestation, food waste, production of meat, the way in which crops are grown, food processing, consumer demand/trends, water usage, other, don't know. Base = 1555, all respondents.

<sup>41</sup> Question: What would indicate to you whether a product containing meat, eggs or dairy had been produced with high standards of animal welfare? Responses: free range label, information on packaging, country of origin, traceability of product, preferred store or brand, appearance of product, price of product, generic organic label, Red Tractor logo, RSPCA assured logo, Lion egg logo, Soil Association logo, Marine Stewardship (MSC) logo, other certification/logo [open text], other [open text], don't know. Base = 1555, all respondents.

Respondents were asked from a list of options which, if any, changes they had made in the previous 12 months for health reasons<sup>42</sup>.

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

*Changes made in the previous 12 months*



Source: Food and You 2 Wave 11 (Scotland)

<sup>42</sup> Question: Thinking about the food that you eat, which, if any, of the following changes have you made in the last 12 months for **health reasons**? Responses: Stopped eating or eaten less red meat, stopped eating or eaten less poultry, eaten more fish, stopped eating or eaten less dairy (e.g. milk, cheese, butter) or eggs, eaten less processed food, eaten more fruit and/or vegetables, eaten less foods high in fat or saturated fat, eaten less sugar or food/drink high in sugar, eaten less salt or food high in salt, I have made other changes (please specify), I have not made any changes to the food I eat for health reasons in the last 12 months, don't Know. Base = 958, all online respondents.

Nearly three-quarters of the population in Wave 11 (73%) had made at least one change for health reasons in the past 12 months. The most common changes made for health reasons reported by respondents were eating less processed food (48%), eating more fruit and/or vegetables (45%) and eating less sugar or food/drink high in sugar (45%). Around 1 in 5 (22%) respondents reported they had not made any changes to the food they eat in the last 12 months for health reasons<sup>43</sup> (Figure 12).

Respondents were asked from a list of options which, if any, changes they had made in the previous 12 months for sustainability reasons<sup>44</sup>.

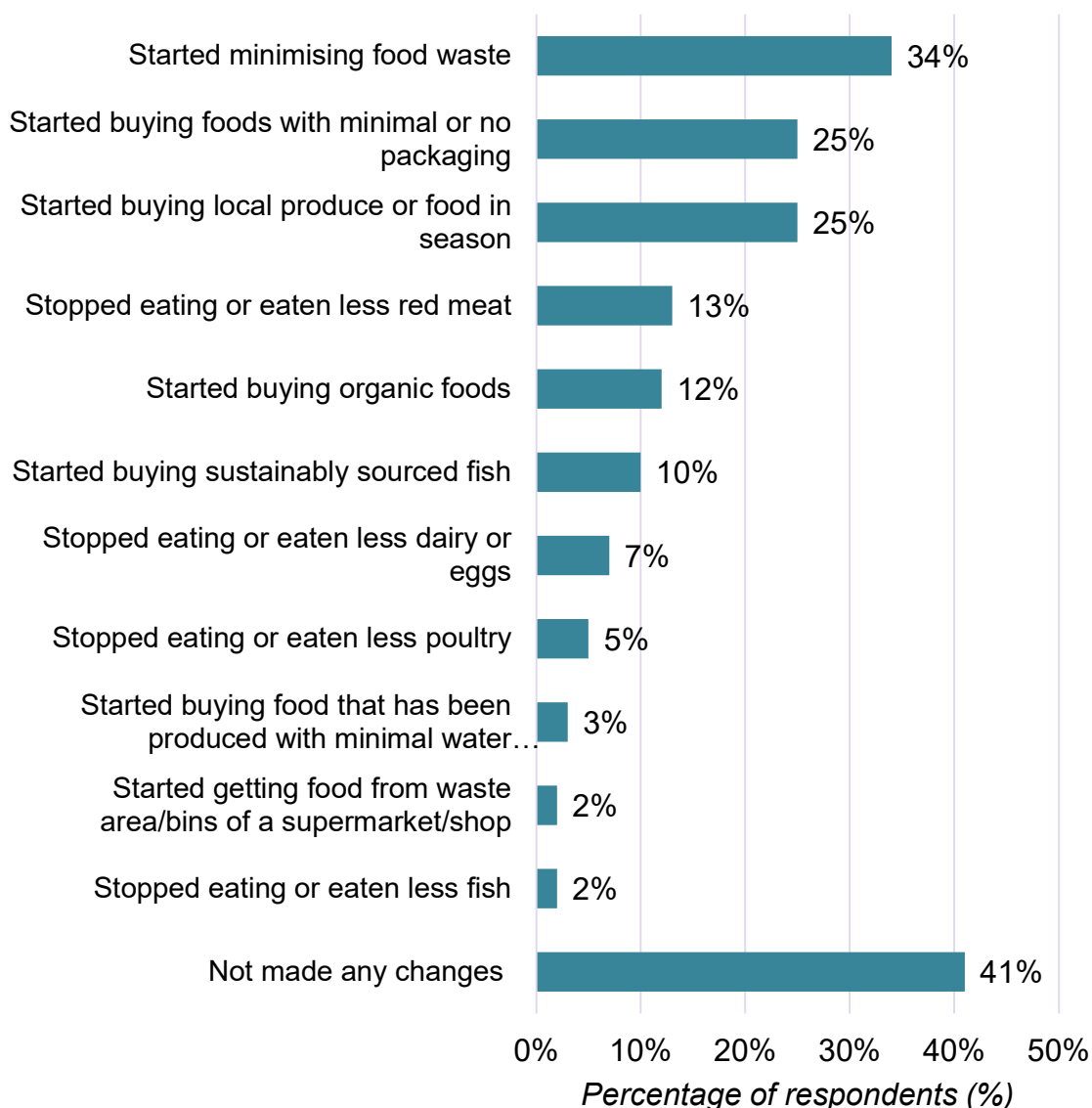
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<sup>43</sup> Options 'Don't know' and 'I have made other changes' have been excluded, therefore the percentage reporting having made at least one change and the percentage that have not made any changes for health reasons do not total 100%.

<sup>44</sup> Question: Thinking about the food that you eat, which, if any, of the following changes have you made in the last 12 months for **sustainability reasons**? Responses: Stopped or eaten less meat, stopped or eaten less poultry, stopped or eaten less fish, stopped or eaten less dairy (e.g. milk, cheese, butter) or eggs, started minimising food waste, 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, started getting food from the waste area or bins of a supermarket or shop (i.e. freeganism), I have made other changes (please specify), I have not made any changes to the food I eat for sustainability reasons in the last 12 months, don't know. Base = 958, all online respondents.

**Figure 13: Changes to eating habits and food-related behaviours which respondents had made in the previous 12 months for *sustainability reasons***

*Changes made in the previous 12 months*



Source: Food and You 2 Wave 11 (Scotland)

Around half of the population in Wave 11 (53%) had made at least one change for sustainability reasons in the past 12 months. The most common changes made for environmental reasons reported by respondents were starting to minimise food waste (34%). A quarter of respondents also started buying foods with minimal or no packaging (25%) or locally produced food or food that is in season (25%). More than 2 out of 5 respondents had not made any changes to what they eat for sustainability reasons (41%)<sup>45</sup>.

<sup>45</sup> Options 'Don't know' and 'I have made other changes' are excluded which means that the percentage who made at least one change and the percentage that have not made any changes for sustainability reasons do not total 100%.

## 5.5 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>46</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 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 allergies or intolerances<sup>47</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.

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

Around a quarter (23%) of respondents reported that they suffer from a bad or unpleasant physical reaction after consuming certain foods or avoid certain foods

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<sup>46</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 allergies and intolerances'.

<sup>47</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>48</sup>. The type of food allergy or intolerance among respondents is not reported due to low numbers of respondents who reported these<sup>49</sup>.

Most respondents (73%) reported that they did not have a food allergy or intolerance, although around a quarter reported suffering from a bad or unpleasant physical reaction after consuming foods, or avoiding certain food because of the reaction they might cause (23%).

Respondents who reported having a bad or unpleasant reaction were asked how they had found out about their condition. Just under 1 in 5 (18%) of respondents who had a food allergy or intolerance had been diagnosed by an NHS or private medical practitioner and 4% had been diagnosed by an alternative or complementary therapist. However, most respondents (81%) had not received any diagnosis<sup>50</sup>.

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<sup>48</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 = 1555, all respondents.

<sup>49</sup> N = 355.

<sup>50</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 = 350, 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.

## Appendix A: About Food and You 2 Wave 11 (Scotland)

### Background to the Food and You 2 Survey

The Food Standards Agency (FSA) has been running its flagship survey [Food and You 2](#) 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>51</sup>.

Since Wave 6, FSA have published a separate trend 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 [Food and You 2 covering England, Wales and Northern Ireland](#).

### Background to the Food and You 2 Survey Wave 11 (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 for the first time. 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. Wave 11 is the third wave that data for Scotland has been produced.

The findings in this report are based on the Scotland-only dataset of the Food and You 2 Survey Wave 11. 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. Data from England, Wales and Northern Ireland Waves 1-10 is also currently available via the [UK Data Service](#). Wave 11 data for England, Wales, and Northern Ireland and for Wave 11 Scotland will be deposited with the UK Data Service in due course.

This report focuses on eating at home and food safety practices, food shopping and labelling, eating out and takeaways and food choices and other issues, such as confidence in food, food concerns, changes to eating habits and food-related behaviours and food allergies and intolerances.

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<sup>51</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 11. The fieldwork is conducted by Ipsos. Fieldwork for Wave 11 was conducted between 19 May and 7 August 2025.

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>52</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, and 1,000 in Scotland), with up to two adults in each household invited to take part as mentioned above.

For Wave 11 in Scotland, a total of 1,555 adults (aged 16 years or over) from 1,091 households across Scotland completed the survey. An overall response rate of 23% was achieved in Scotland. Sixty-two percent (62%) of respondents completed the survey online and 38% completed the postal version of the survey.

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<sup>52</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 11 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 levels of food security is measured are provided in [Chapter 2 of the FSA Food and You 2 Wave 10 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.

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. [Additional information](#) is provided by the Office for National Statistics on what is included in each classification.