

Food and You 2: Wave 4 Key findings

Area of research interest: [Food and You 2](#)

Planned completion: 1 August 2022

Project status: Completed

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Conducted by: Ipsos and the Food Standards Agency

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Executive Summary for Food and You 2 Wave 4

Results available: Results available

Area of research interest: [Food and You 2](#)

Research topics: [Social science](#)

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Overview of Food and You 2

The survey measures self-reported consumers' knowledge, attitudes and behaviours related to food safety and other food issues amongst adults in England, Wales, and Northern Ireland.

Fieldwork for Food and You 2: Wave 4 was conducted between 18th October 2021 and 10th January 2022. A total of 5,796 adults from 4,026 households across England, Wales, and Northern Ireland completed the 'push-to-web' survey (see Annex A for more information about the methodology).

The modules presented in this report include 'Food you can trust', 'Concerns about food', 'Food security', 'Eating out and takeaways', 'Food allergies, intolerances and other hypersensitivities', 'Eating at home', 'Food shopping: sustainability and environmental impact' and 'Sustainable diets, meat alternatives and genetic technologies'.

Summary of key findings

Food you can trust

Confidence in food safety and authenticity

- most respondents (92%) reported that they were confident that the food they buy is safe to eat
- more than 8 in 10 (86%) respondents were confident that the information on food labels is accurate.

Confidence in the food supply chain

- around three quarters of respondents (76%) reported that they had confidence in the food supply chain
- respondents were more likely to report confidence in farmers (88%) and shops and supermarkets (85%) than in takeaways (61%), and food delivery services (45%)

Awareness, trust and confidence in the FSA

- most respondents (92%) had heard of the FSA
- around three quarters (77%) of respondents who had at least some knowledge of the FSA reported that they trusted the FSA to make sure 'food is safe and what it says it is'
- over 8 in 10 (85%) respondents reported that they were confident that the FSA (or the government agency responsible for food safety) can be relied upon to protect the public from food-related risks (such as food poisoning or allergic reactions from food), 80% were confident that the FSA is committed to communicating openly with the public about food-related risks, and 83% were confident that the FSA takes appropriate action if a food-related risk is identified

Concerns about food

- most respondents (86%) had no concerns about the food they eat, and only 14% of respondents reported that they had a concern
- respondents with a concern were asked to briefly explain what their concerns were about the food they eat. The most common concerns related to food production methods (31%) and to environmental and ethical concerns (23%)
- respondents were asked to indicate if they had concerns about a number of food-related issues, from a list of options. The most common concerns related to food waste (63%), the amount of sugar in food (59%) and animal welfare (56%)

Food security

- across England, Wales, and Northern Ireland, 82% of respondents were classified as food secure (70% high, 12% marginal) and 18% of respondents were classified as food insecure (10% low, 7% very low)
- food security levels were comparable across England, Wales, and Northern Ireland

Eating out and takeaways

- around half of respondents had eaten food in a restaurant (53%), from a café, coffee shop or sandwich shop (either to eat in or to take out) (52%) or ordered a takeaway directly from a takeaway shop or restaurant (50%) in the previous 4 weeks
- over a third of respondents had eaten food from a fast-food outlet (either to eat in or take out) (38%) or ordered a takeaway from an online food delivery company (for example, Just

Eat, Deliveroo, Uber Eats) (35%). Around 1 in 10 (9%) respondents had not eaten at any food from any of the listed food businesses in the previous 4 weeks

- most respondents (89%) reported that they had heard of the FHRS. Over half (59%) of respondents reported that they had heard of the FHRS and had at least a bit of knowledge about it

Food allergies, intolerances and other hypersensitivities

- most respondents (76%) reported that they did not have a food hypersensitivity. Just over 1 in 10 (12%) respondents reported that they had a food intolerance, 4% reported having a food allergy, and 1% reported having coeliac disease
- of the respondents who reported having a food allergy, the most common foods reported as causing a reaction were peanuts (26%) and fruit (24%)
- of the respondents who reported having a food intolerance, the most common foods reported as causing a reaction were cow's milk and products made with cow's milk (41%) and cereals containing gluten (19%)

Eating at home

Use-by dates

- over two thirds (69%) of respondents identified the use-by date as the information which shows that food is no longer safe to eat
- around two-thirds (67%) of respondents reported that they always check use-by dates before they cook or prepare food
- most respondents reported that they had not eaten shellfish (90%), other fish (82%), smoked fish (76%) or raw meat (71%) past the use-by date in the previous month

Avoiding cross-contamination

- over half of respondents (56%) reported that they never wash raw chicken, whilst 40% of respondents wash raw chicken at least occasionally.

Food shopping: sustainability and environmental impact

- almost a third (30%) of respondents reported buying food which has a low environmental impact always or most of the time. Half of respondents thought that eating less processed food (50%) and 47% thought that minimising food waste contributed most to someone having a sustainable diet
- most (59%) respondents thought that buying locally produced food or food that is in season contributed most to someone making sustainable food shopping choices. However, almost 1 in 10 (9%) respondents reported that they did not know what contributed most to sustainable food shopping choices.

Sustainable diets, meat alternatives and genetic technologies

- the most common changes respondents reported making in the previous 12 months were eating less processed food (40%) and starting to minimise food waste (40%)
- around a third (32%) of respondents reported that they currently eat meat alternatives, 21% of respondents reported that they used to eat meat alternatives but no longer do and 39% of respondents reported that they had never eaten meat alternatives
- respondents reported greater awareness and knowledge of genetically modified (GM) food (9% had never heard of GM food) than gene-edited or genome-edited food (GE) (42% had

never heard of GE food).

Acknowledgements

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

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Introduction: Food and You 2 Wave 4

Introduction

The Food Standards Agency: role, remit and responsibilities

The Food Standards Agency (FSA) is a non-ministerial government department working to protect public health and consumers' wider interests in relation to food in England, Wales, and Northern Ireland([footnote](#)). The FSA's overarching mission is 'food you can trust'. The FSA's vision as set out in the [2022-2027 strategy](#) is a food system in which:

- Food is safe
- Food is what it says it is
- Food is healthier and more sustainable

Food and You 2 is designed to monitor the FSA's progress against this vision and inform policy decisions by measuring self-reported consumers' knowledge, attitudes and behaviours related to food safety and other food issues in England, Wales, and Northern Ireland on a regular basis.

Food and You 2

In 2019 Ipsos was commissioned by the FSA to develop and run a biannual survey, 'Food and You 2', carried out primarily online.

Food and You 2 replaced the FSA's face-to-face Food and You survey (2010-2018)([footnote](#)), Public Attitudes Tracker (2010-2019) and Food Hygiene Rating Scheme (FHRS) - Consumer Attitudes Tracker (2014-2019). Due to differences in the question content, presentation and mode of response, direct comparisons should not be made between these earlier surveys and Food and You 2. More information about the history and methodology can be found in Annex A.

Food and You 2: Wave 4

Food and You 2: Wave 4 data were collected between 18th October 2021 and 10th January 2022. A total of 5,796 adults from 4,026 households across England, Wales, and Northern Ireland completed the survey (an overall response rate of 28.5%).

Food and You 2: Wave 4 data were collected during a period of political and economic change and uncertainty following the UK's exit from the EU and the COVID-19 pandemic. This context is likely to have had an impact on the level of food security, concerns and food-related behaviours reported in Food and You 2([footnote](#)).

Food and You 2 is a modular survey, with 'core' modules included every wave, 'rotated' modules repeated annually or biennially, and 'exclusive' modules asked on a one-off basis. The modules presented in this report include: 'Food you can trust' (core); 'Concerns about food' (core); 'Food security' (core); 'Eating out and takeaways' (rotated); 'Food allergies, intolerances and other hypersensitivities' (rotated); 'Eating at home' (rotated); 'Food shopping: sustainability and environmental impact' (rotated); and, 'Sustainable diets, meat alternatives and genetic technologies' (rotated).

This report presents key findings from the Food and You 2: Wave 4 survey. Not all questions asked in the Wave 4 survey are included in the report. The full results are available in the accompanying [full data set and tables](#).

Interpreting the findings

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 (**).

In some cases, it was not possible to include the data of all sub-groups, however such analyses are available in the [full data set and 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.

Future publication plans

Modules expected to be reported in the Food and You 2: Wave 5 Key Findings report include, 'Food you can trust' (core), 'Concerns about food' (core), 'Food security' (core), 'Food shopping', (rotated) and 'Eating at home' (rotated). However, findings included in the Food and You 2: Key Findings reports will be responsive to new and emerging issues and observations which are novel or of interest. A series of secondary reports will explore key modules in more detail.

Chapter 1: Food you can trust

Introduction

The FSA's overarching mission is 'food you can trust'. The FSA's vision is a food system in which:

- food is safe
- food is what it says it is
- food is healthier and more sustainable

This chapter provides an overview of respondents' awareness of and trust in the FSA, as well as their confidence in food safety and the accuracy of information provided on food labels^(footnote).

Confidence in food safety and authenticity

Most respondents reported confidence (for example, were very confident or fairly confident) in food safety and authenticity; 92% of respondents reported that they were confident that the food they buy is safe to eat, and 86% of respondents were confident that the information on food labels is accurate^(footnote).

Confidence in food safety varied between different categories of people in the following ways:

- NS-SEC^(footnote) respondents in some occupational groups (for example, 94% of those in intermediate occupations) were more likely to be confident that the food they buy is safe to eat than respondents who were long term unemployed and/or had never worked (77%).

Confidence in the accuracy of information on food labels varied between different categories of people in the following ways:

- annual household income: respondents with an income over £96,000 (96%) were more likely to report confidence in the accuracy of food labels compared to those with an income of less than £95,999 (for example, 84% of those with an income of £19,000-£31,999).
- NS-SEC: respondents in occupational groups (for example, 88% of those in managerial, administrative and professional occupations) were more likely to report being confident that the information on food labels is accurate, compared to respondents who were long term unemployed and/or had never worked (74%).

Confidence in the food supply chain

Around three quarters of respondents (76%) reported that they had confidence (for example, very confident or fairly confident) in the food supply chain^(footnote).

Confidence in the food supply chain varied between different categories of people in the following ways:

- age group: respondents aged 65-74 years (83%) were more likely to report confidence in the food supply chain compared to younger adults (for example, 70% of those aged 35-44 years)
- NS-SEC: respondents in occupational groups (for example, 78% of those in intermediate occupations) were more likely to report confidence in the food supply chain than those who were long term unemployed and/or had never worked (64%)
- food security: respondents with a high (78%) level of food security were more likely to report confidence in the food supply chain than respondents with very low (68%) food security
- ethnic group: white respondents (77%) were more likely to report confidence in the food supply chain than Asian or British Asian (68%) respondents**
- food hypersensitivity: respondents who did not have a food hypersensitivity (77%) were more likely to report confidence in the food supply chain compared to respondents with a food intolerance (69%).

Figure 1: Confidence that food supply chain actors ensure food is safe to eat

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Food actor	Consumers confident in food actor (%)
Farmers	88

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Source: Food and You 2: Wave 4

Respondents were asked to indicate how confident they were that key actors involved in the food supply chain ensure that the food they buy is safe to eat. Respondents were more likely to report confidence (i.e. very confident or fairly confident) in farmers (88%), and shops and supermarkets (85%) than in takeaways (61%), and food delivery services for example, Just Eat, Deliveroo, Uber Eats (45%) (Figure 1)([footnote](#)).

Awareness, trust and confidence in the FSA

Most respondents (92%) had heard of the FSA (FSA), (England) Public Health England (PHE), (England) Department for Environment, Food and Rural Affairs (DEFRA), (England) Environment Agency, (England and Wales) Health and Safety Executive (HSE), (Wales) Public Health Wales (PHW), (Wales) Natural Resources Wales, (NI) Public Health Agency (PHA), (NI) Department of Agriculture, Environment and Rural Affairs (DAERA), (NI) Health and Safety Executive Northern Ireland (HSENI), (NI) Safefood. Base= 3745, all online respondents. Please note: All consumers taking part in the survey had received an invitation to take part in the survey from Ipsos which mentioned the FSA. An absence of response indicates the organisation had not been heard of by the respondent or a non-response. (footnote).

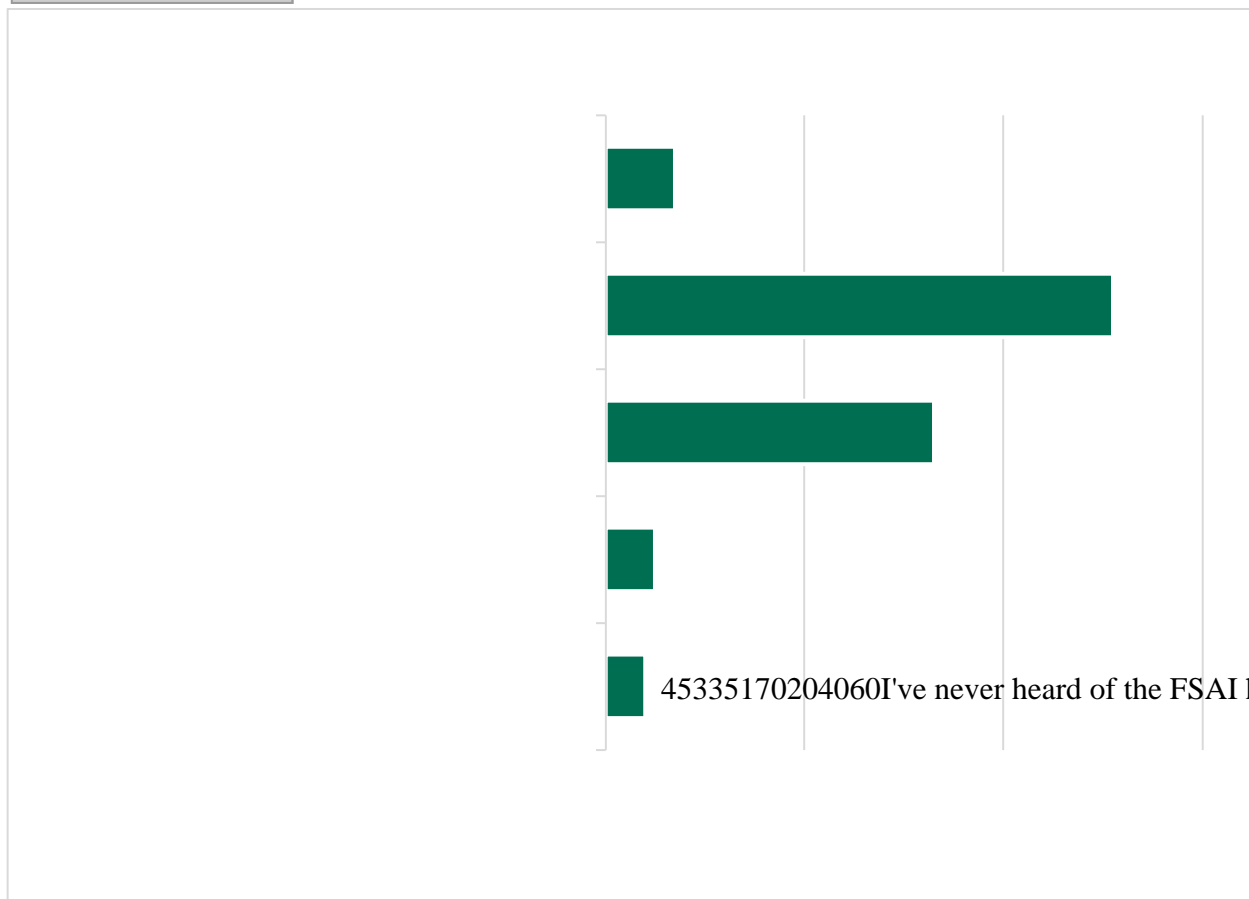
Awareness of the FSA varied between different categories of people in the following ways:

- age group: older respondents were more likely to have heard of the FSA than younger respondents. For example, 96% of those aged 65-74 years had heard of the FSA, compared to 81% of those aged 16-24 years
- NS-SEC: respondents in some occupational groups (for example, 96% of those in intermediate occupations) were more likely to have heard of the FSA compared to those who were long term unemployed and/or had never worked (70%) and full-time students (80%)
- food security: respondents with a high (95%) level of food security were more likely to have heard of the FSA than respondents with low (85%) food security
- ethnic group: white respondents (94%) were more likely to have heard of the FSA compared to Asian or British Asian (82%) respondents.
- responsibility for cooking: respondents who were responsible for cooking (93%) were more likely to have heard of the FSA than those who do not cook (77%)
responsibility for food shopping: respondents who were responsible for food shopping (94%) were more likely to have heard of the FSA than those who never shop for food (74%).

Figure 2: Knowledge about the Food Standards Agency

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Level of knowledge	Percentage of respondents (%)
I've never heard of the FSA	4
I hadn't heard of the FSA until I was contacted to take part in this survey	5
I've heard of the FSA but know nothing about it	33
I know a little about the FSA and what it does	51
I know a lot about the FSA and what it does	7

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Source: Food and You 2: Wave 4

A majority of respondents reported at least some knowledge of the FSA; 7% reported that they knew a lot about the FSA and what it does, and 51% reported that they knew a little about the

FSA and what it does. Around 4 in 10 (42%) respondents reported that they had no knowledge of the FSA; 33% had heard of the FSA but knew nothing about it, 5% had not heard of the FSA before being contacted to take part in Food and You 2, and 4% had not heard of the FSA (Figure 2) FSA? Response: I know a lot about the FSA and what it does, I know a little about the FSA and what it does, I've heard of the FSA but know nothing about it, I hadn't heard of the FSA until I was contacted to take part in this survey, I've never heard of the FSA. Base= 5796, all respondents. Please note: All consumers taking part in the survey had received an invitation to take part in the survey which mentioned the FSA. [\(footnote\)](#).

Knowledge of the FSA varied between different categories of people in the following ways:

- age group: respondents aged between 45 and 64 years (for example, 69% of those aged 45-54 years) were more likely to report knowledge of the FSA compared to younger respondents (50% of those aged 16-24 years; 54% of those aged 25-34) or the oldest respondents (41% of those aged 75 years and over)
- NS-SEC: respondents in managerial, administrative, and professional occupations (63%) were more likely to report knowledge of the FSA than those who were in lower supervisory and technical occupations (53%), long term unemployed and/or never worked (45%) or full-time students (46%)
- country: respondents in Wales (68%) were more likely to report knowledge of the FSA than those in England (57%). Six in ten (60%) respondents in Northern Ireland reported knowledge of the FSA
- food hypersensitivity: respondents with an allergy (70%) were more likely to report knowledge of the FSA compared to respondents with a food intolerance (56%) or those who did not have a food hypersensitivity (58%)
- responsibility for cooking: respondents who were responsible for cooking (60%) were more likely to report knowledge of the FSA compared to respondents who do not cook (34%)
- responsibility for shopping: respondents who were responsible for shopping (60%) were more likely to report knowledge of the FSA compared to respondents who never shop (35%).

Respondents who had at least some knowledge of the FSA were asked how much they trusted the FSA to do its job, that is to make sure food is safe and what it says it is; 77% of these respondents reported that they trusted the FSA to do this FSA and what it does. Please note: 'I trust it a lot' and 'I trust it' referred to as trust. [\(footnote\)](#).

Over 8 in 10 (85%) respondents reported that they were confident that the FSA (or the government agency responsible for food safety) can be relied upon to protect the public from food-related risks (such as food poisoning or allergic reactions from food), 80% were confident that the FSA is committed to communicating openly with the public about food-related risks, and 83% were confident that the FSA takes appropriate action if a food-related risk is identified FSA were asked about 'the government agency responsible for food safety', those with at least some knowledge of the FSA were asked about the FSA. [\(footnote\)](#).

Chapter 2: Concerns about food

Introduction

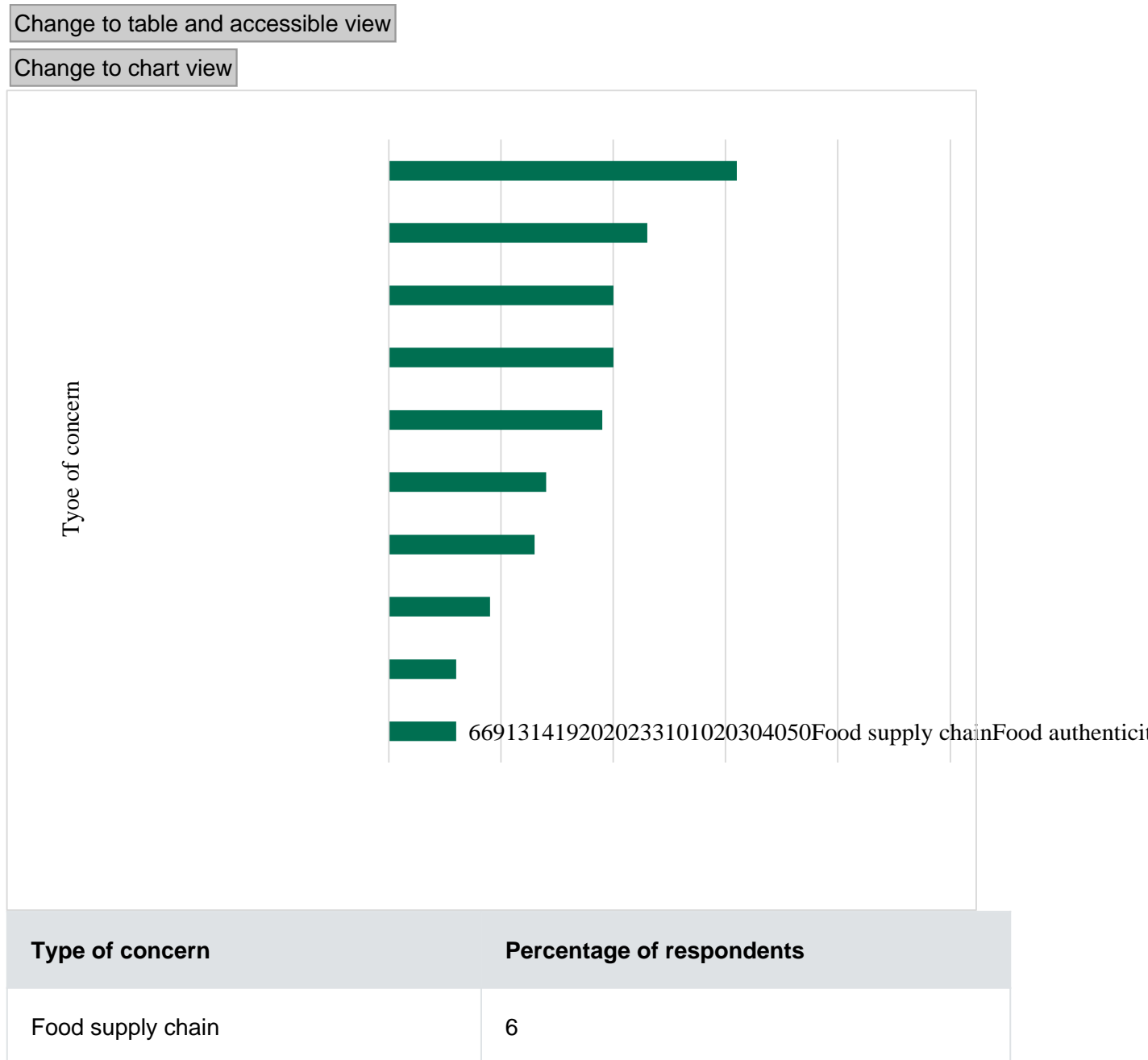
The FSA's role, set out in law, is to safeguard public health and protect the interests of consumers in relation to food. The FSA uses the Food and You 2 survey to monitor consumer concerns about food issues, such as food safety, nutrition, and environmental issues. This

chapter provides an overview of respondents' concerns about food.

Common concerns

Respondents were asked to report whether they had any concerns about the food they eat. Most respondents (86%) had no concerns about the food they eat, and 14% of respondents reported that they had a concern^(footnote).

Figure 3: Ten most commonly spontaneously expressed food-related concerns



Type of concern	Percentage of respondents
Food authenticity	6
Food labelling	9
Food provenance	13
Food contamination	14
Food quality	19
Nutrition & health	20
Food safety & hygiene	20
Environmental & ethical	23
Food production methods	31

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Source: Food and You 2: Wave 4

Respondents who reported having a concern were asked to briefly explain what their concerns were about the food they eat. The most common area of concern related to food production methods (31%), which included the use of additives (such as preservatives and colouring) in food products (14%), the use of pesticides / fertiliser to grow food (12%) and how food has been produced / processed (6%) (Figure 3).

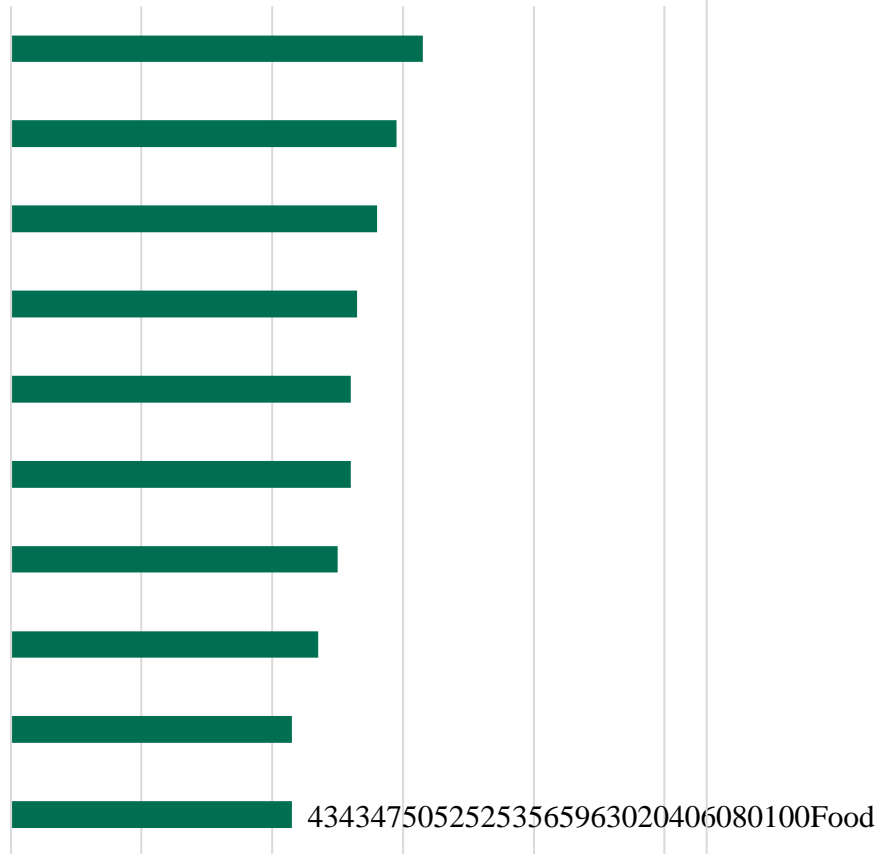
The second most common concern related to environmental and ethical concerns, which included animal welfare / treatment of animals (including transportation) (12%), food miles (for example, the distance that food travels) (5%) and the impact of producing / eating meat on the environment (5%) (Figure 3)([footnote](#)).

Figure 4: Ten most common prompted food-related concerns

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Type of concern



Type of concern	Percentage of respondents
Food hygiene when eating out	43
Food hygiene when ordering takeaways	43
Food poisoning	47
Hormones, steroids, antibiotics in food	50
The amount of salt in food	52
The amount of fat in food	52
Food prices	53

Type of concern	Percentage of respondents
Animal welfare	56
The amount of sugar in food	59
Food waste	63

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[Image .csv](#)

Source: Food and You 2: Wave

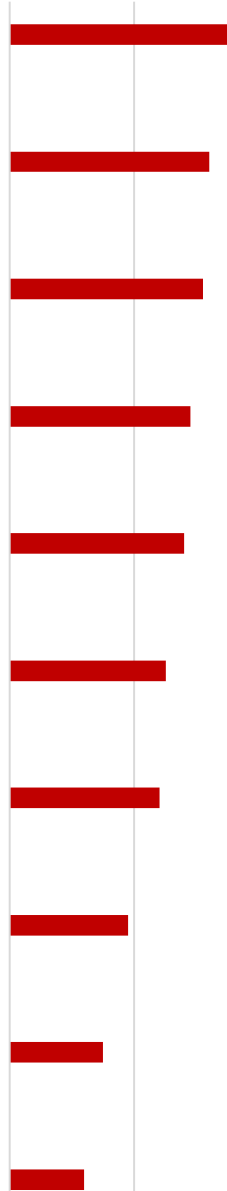
Respondents were asked to indicate if they had concerns about a number of food-related issues, from a list of options. The most common concerns related to food waste (63%), the amount of sugar in food (59%) and animal welfare (56%). Around half of respondents were concerned about food prices (53%), the amount of fat in food (52%), the amount of salt in food (52%) and hormones, steroids and/or antibiotics in food (50%) (Figure 4)([footnote](#)).

Figure 5: Level of concern about food-related topics

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Food-related topic



79738442343735341825162019141640383751354844444841

- Highly concerned
- Somewhat concerned
- Not very concerned
- Not concerned at all

Food-related topic	Not concerned at all	Not very concerned	Somewhat concerned	Highly concerned
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The availability of a wide variety of food	7	37	40	12
Food produced in the UK being what it says it is	9	35	38	15
Food produced in the UK being safe and hygienic	7	34	37	19
Ingredients and additives in food	3	18	51	24
Genetically modified (GM) food	8	25	35	25
Food being produced sustainably	4	16	48	28
Food from outside the UK				
being what it says it is"	4	20	44	29
Food from outside the UK being safe and hygienic	2	19	44	31
Affordability of food	3	14	48	32
Animal welfare in the food production process	4	16	41	35

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Source Food and You 2 Wave 4

Respondents were asked to indicate the extent to which they were concerned about a number of specific food-related issues. Respondents were most likely to report a high level of concern about animal welfare in the food production process (35%). Around 3 in 10 respondents reported a high

level of concern about the affordability of food (32%) and food from outside the UK being safe and hygienic (31%) (Figure 5)([footnote](#)).

Chapter 3: Food Security

Introduction

“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.

Food and You 2 uses the [U.S. Adult Food Security Survey Module](#) developed by the United States Department of Agriculture (USDA) to measure consumers' food security.

More information on how food security is measured and how classifications are assigned and defined can be found in Annex A and the [USDA Food Security website](#).

Food security

Across England, Wales, and Northern Ireland, 82% of respondents were classified as food secure (70% high, 12% marginal) and 18% of respondents were classified as food insecure (10% low, 7% very low)([footnote](#)).

Figure 6: Food security in England, Wales and Northern Ireland

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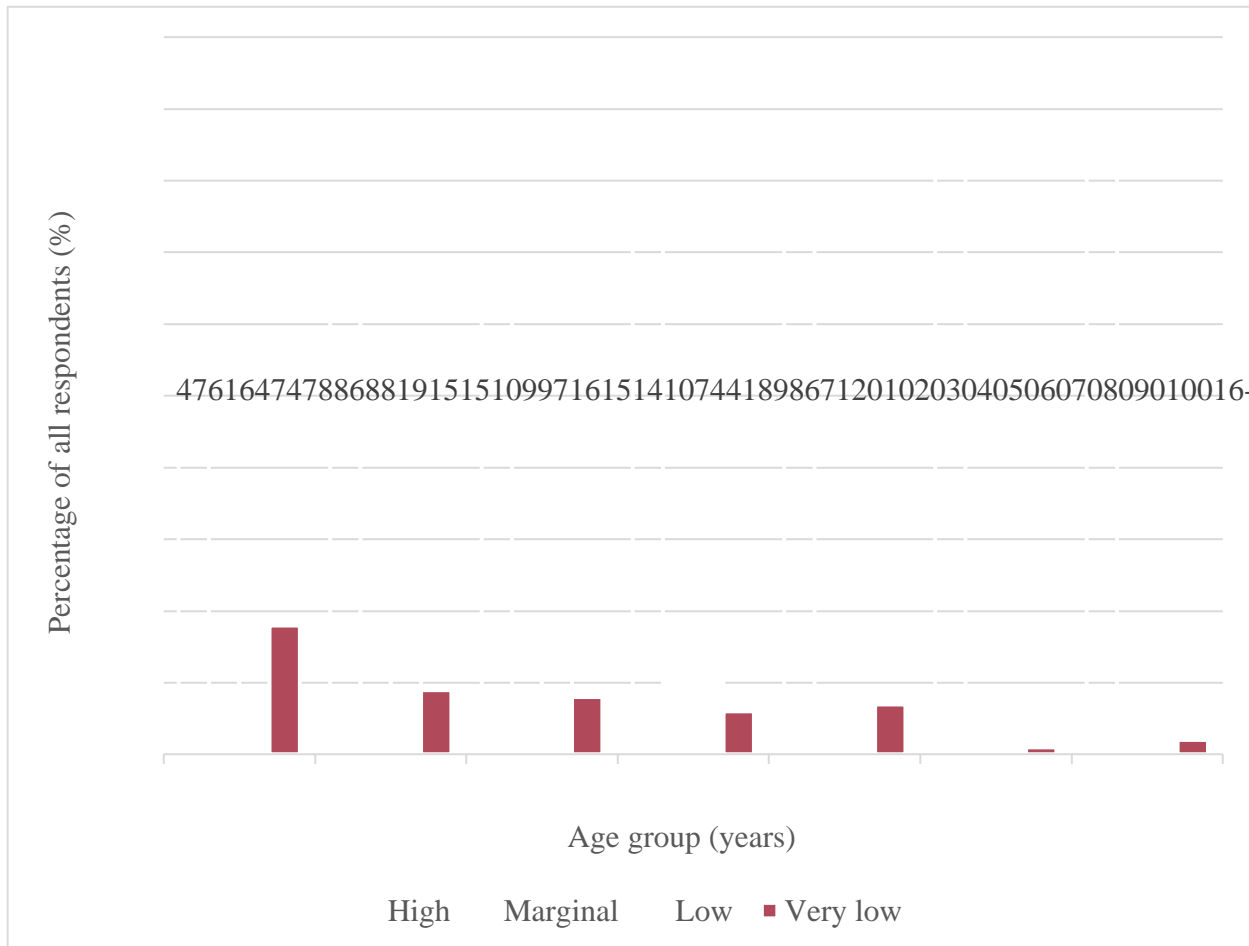
Source: Food and You 2: Wave 4

Food security levels were comparable across England, Wales, and Northern Ireland**. Around 8 in 10 respondents were food secure (for example, had high or marginal food security) in England (82%), Wales (83%) and Northern Ireland (82%). Approximately 1 in 6 respondents were food insecure (for example, had low or very low food security) in England (18%), Wales (17%) and Northern Ireland (18%) (Figure 6).

Figure 7: Food security by age group

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Age group	High	Marginal	Low	Very low
16-24	47	19	16	18
25-34	61	15	15	9
35-44	64	15	14	8
45-54	74	10	10	6
55-64	78	9	7	7
65-74	86	9	4	1
75+	88	7	4	2

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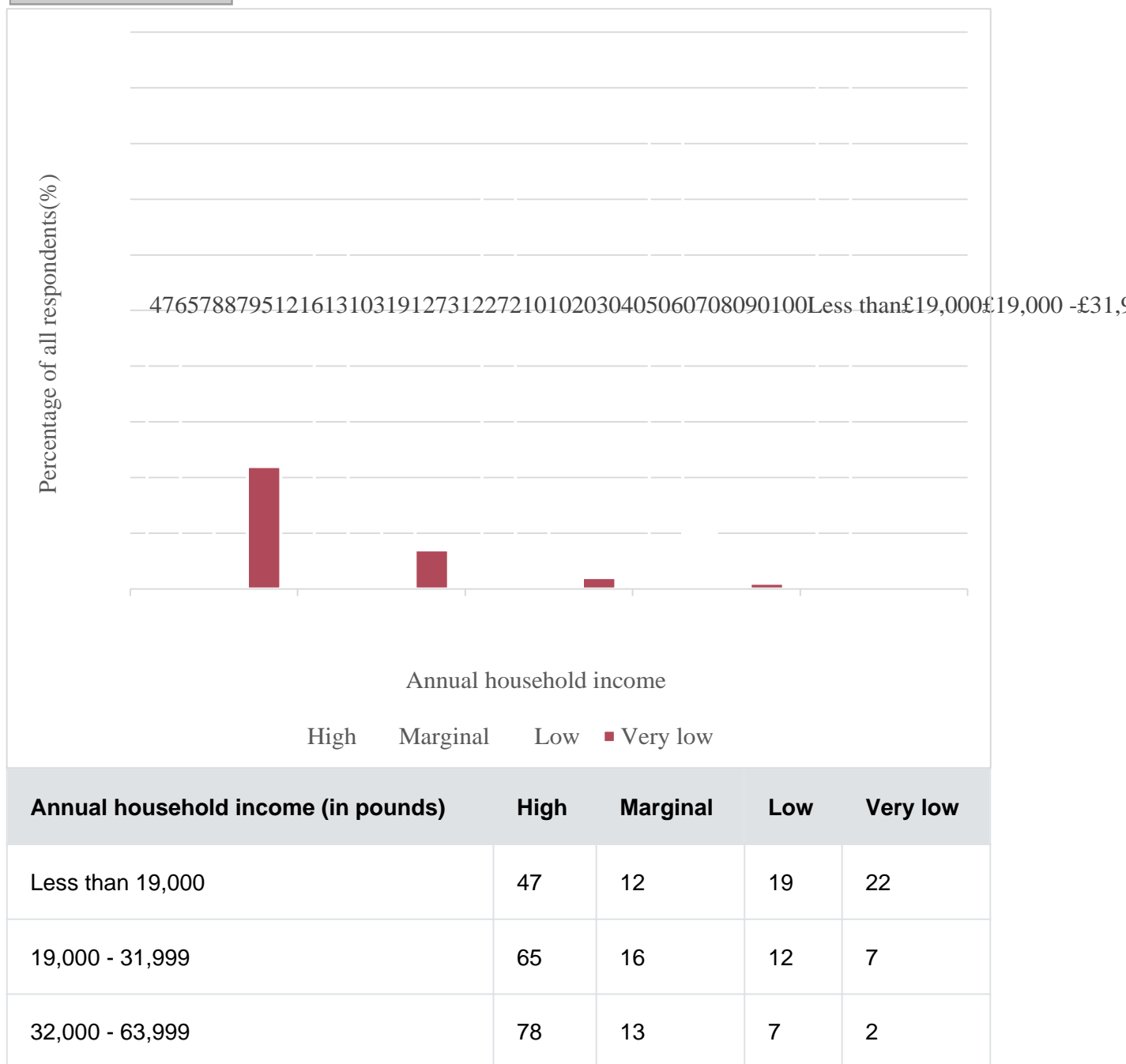
Source: Food and You 2: Wave 4

Food security varied by age group with older adults being more likely to report that they were food secure and less likely to report that they were food insecure than younger adults. For example, 34% (16% low, 18% very low security) of respondents aged 16-24 years were food insecure compared to 5% of those aged 75 years and over (Figure 7).

Figure 8: Food security by annual household income

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Annual household income (in pounds)	High	Marginal	Low	Very low
64,000 - 95,999	87	10	3	1
More than 96,000	95	3	1	

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Source: Food and You 2: Wave 4

Food security was associated with household income. Respondents with a higher income were more likely to report food security than those with a lower income. For example, 95% of respondents with an income over £96,000 reported high food security, compared to 47% of those with an income below £19,000 (Figure 8). Four in ten (40%) of those with an annual household income of less than £19,000 reported low or very low food security.

The reported level of food security also varied between different categories of people in the following ways:

- household size: smaller households (for example, 86% of single person households) were more likely to report that they were food secure compared to households with more than 5 people (72%)
- children under 16 in household: 85% of households without children under 16 years reported that they were food secure compared to 75% of households with children under 16 years
- NS-SEC: food security was more likely to be reported by respondents in most occupational groups (for example, 88% of those in managerial, administrative and professional occupations) compared to those who were in semi-routine and routine occupations (73%), and full-time students (71%). Those who were long term unemployed and/or had never worked (44%) were least likely to be food secure
- ethnic group: white respondents (85%) were more likely to report being food secure compared to Asian or British Asian (66%) respondents
- long term health condition: respondents who did not have a long-term health condition (88%) were more likely to report being food secure compared to those who had a long-term health condition (73%).

Food bank use

Respondents were asked if they or anyone else in their household had received a free parcel of food from a food bank or other emergency food provider in the last 12 months. Most respondents (93%) reported that they had not used a food bank or other emergency food provider in the last 12 months, with 4% of respondents reporting that they had [\(footnote\)](#).

Respondents who had received a food parcel from a food bank or other provider were asked to indicate how often they had received this in the last 12 months. Of these respondents, around a third (34%) had received a food parcel on only one occasion in the last 12 months, 51% had received a food parcel on more than one occasion but less often than every month, and 8% had received a food parcel every month or more often [\(footnote\)](#).

School meals, meal clubs and Healthy Start vouchers

Respondents with children aged 7-15 years in their household were asked whether these children receive free school meals. Most respondents (80%) with a child(ren) aged 7-15 years in their household reported that the child(ren) do not receive free school meals. Approximately one in five (19%) respondents reported that the child or children receive free school meals([footnote](#)).

Respondents with children aged 7-15 years in their household were asked whether the child(ren) had attended a school club where a meal was provided in the last 12 months. Most respondents (74%) reported that the child(ren) in their household had not attended one of these clubs in the last 12 months. 1 in 7 (15%) respondents reported that the child(ren) in their household had attended a breakfast club before school; 8% reported that the child(ren) had attended an after-school club where they received a meal, and 6% reported that the child(ren) had attended a lunch and activity club held during the school holidays([footnote](#)).

Respondents who had children aged 0-4 years in their household or who were pregnant were asked whether they receive Healthy Start vouchers. Most respondents (88%) reported that they do not receive Healthy Start vouchers, with 6% of respondents reporting that they do([footnote](#)).

Chapter 4: Eating out and takeaways

Introduction

[The Food Hygiene Rating Scheme \(FHRS\)](#) helps people make informed choices about where to eat out or shop for food by giving clear information about the businesses' hygiene standards. Ratings are typically given to places where food is supplied, sold or consumed, including restaurants, pubs, cafés, takeaways, food vans and stalls.

The FSA runs the scheme in partnership with local authorities in England, Wales and Northern Ireland. A food safety officer from the local authority inspects a business to check that it follows food hygiene law so that the food is safe to eat. Businesses are given a rating from 0 to 5. A rating of 5 indicates that hygiene standards are very good and a rating of 0 indicates that urgent improvement is required.

Food businesses are provided with a sticker which shows their FHRS rating. In England businesses are encouraged to display their FHRS rating, however in Wales and Northern Ireland food businesses are legally required to display their FHRS rating. FHRS ratings were introduced in November 2013 in Wales and October 2016 in Northern Ireland. [FHRS ratings](#) are also available on the FSA website.

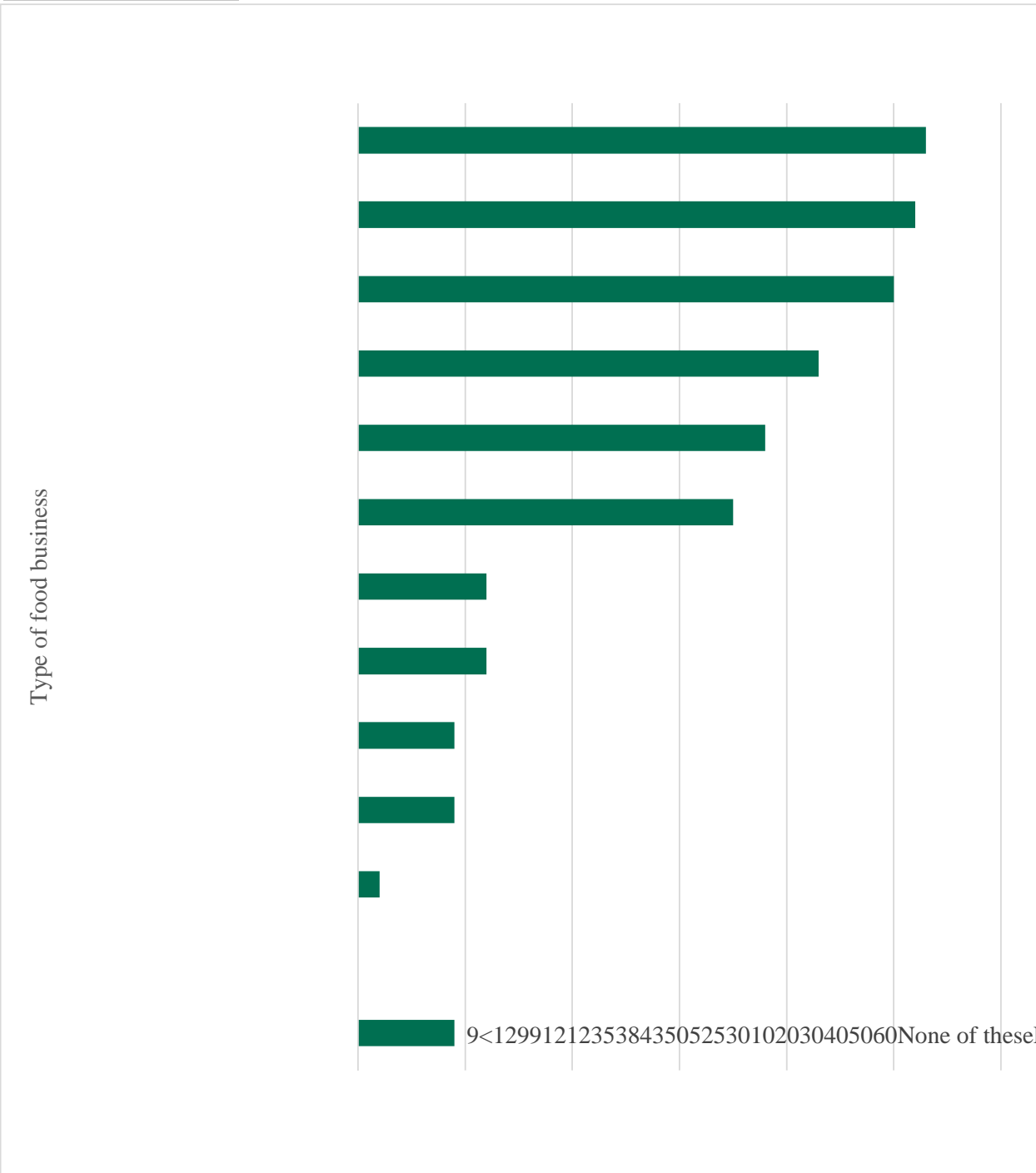
This chapter provides an overview of respondents' eating out and takeaway ordering habits, the factors that are considered when deciding where to order a takeaway from, and recognition and use of the FHRS.

Prevalence of eating out and ordering takeaways

Figure 9: Type of food business respondents had eaten at or ordered food from in the previous 4 weeks

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Type of food business	Percentage of respondents
None of these	9
Facebook Marketplace	0

Type of food business	Percentage of respondents
Food-sharing app	2
Food van or stall	9
Entertainment venue	9
Hotel / B&B / Guesthouse	12
Canteen	12
Takeaway - via online delivery company	35
Fast food outlet - eat out or takeaway	38
Pub or bar	43
Takeaway - directly from takeaway or restaurant	50
Café, coffee or sandwich shop	52
Restaurant	53

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Source: Food & You 2: Wave 4

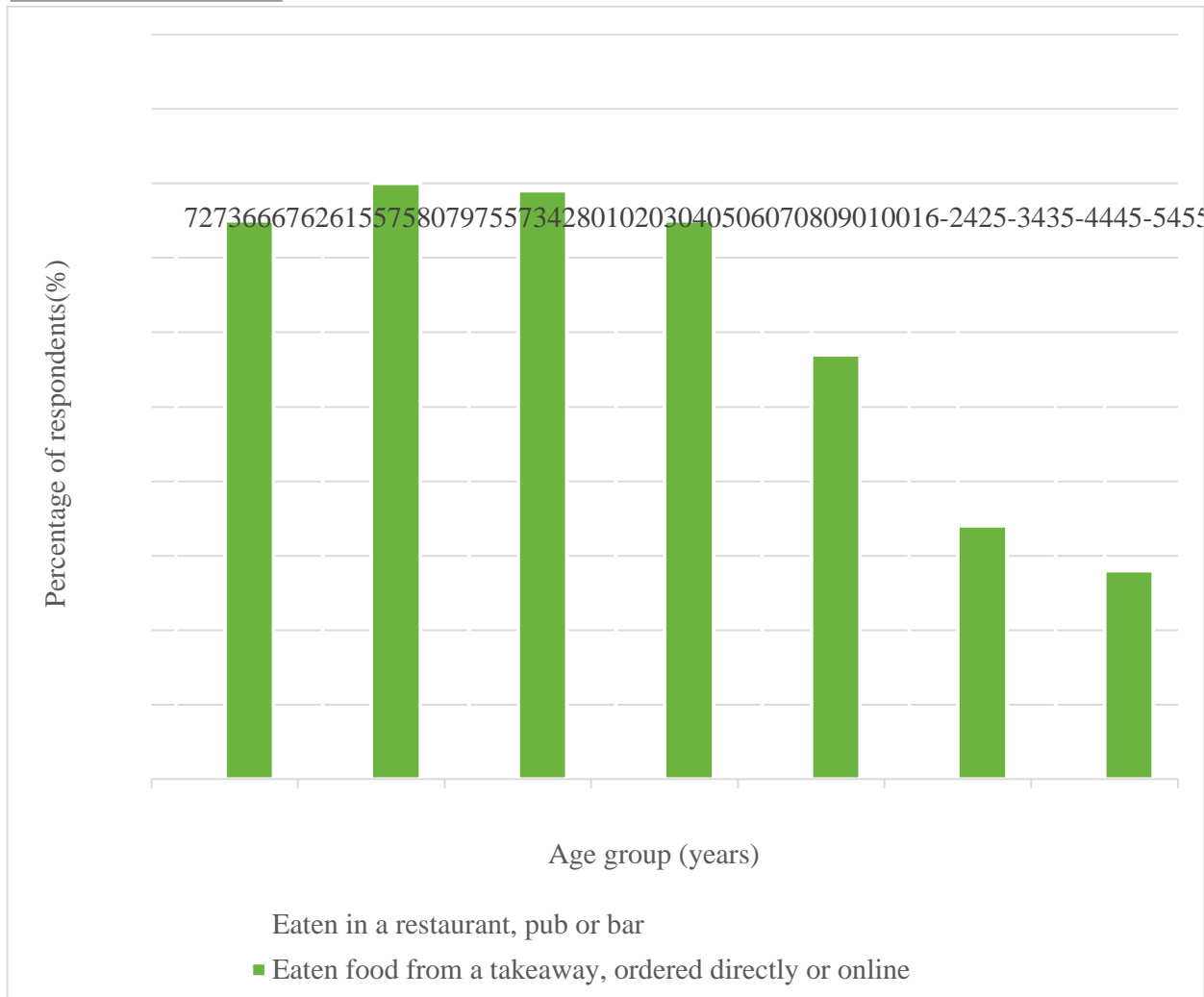
Respondents were asked where they had eaten out or ordered food from in the previous 4 weeks. Around half had eaten out in a restaurant (53%), from a café, coffee shop or sandwich shop (either to eat in or take out) (52%) or ordered a takeaway directly from a takeaway shop or restaurant (50%) and 43% had eaten out in a pub or bar. Over a third of respondents had eaten food from a fast-food outlet (either to eat in or take out) (38%) or ordered a takeaway from an online food delivery company (for example, Just Eat, Deliveroo, Uber Eats) (35%). Around 1 in 10 (9%) respondents had not eaten food from any of the listed food businesses in the previous 4 weeks (Figure 9)([footnote](#)).

Figure 10: Prevalence of eating out in a restaurant, pub or bar, or from a takeaway by age group in the previous 4

weeks

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Age group	Eaten in a restaurant, pub or bar	Eaten food from a takeaway, ordered directly or online
16-24	72	75
25-34	73	80
35-44	66	79
45-54	67	75
55-64	62	57

Age group	Eaten in a restaurant, pub or bar	Eaten food from a takeaway, ordered directly or online
65-74	61	34
75+	55	28

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Source: Food and You 2: Wave 4

Younger respondents were more likely to have eaten out in a restaurant, pub or bar, or from a takeaway (ordered directly or online) in the previous 4 weeks compared to older respondents. For example, 73% of respondents aged 25-34 years had eaten out in a restaurant, pub or bar compared to 55% of those aged 75 years or over. Similarly, 80% of respondents aged 25-34 years had eaten food from a takeaway (ordered directly or online) compared to 28% of those aged 75 years or over (Figure 10).

Figure 11: Prevalence of eating out in a restaurant, pub or bar, or from a takeaway by annual household income in the previous 4 weeks

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Annual household income (in pounds)	Eaten food out in a restaurant, pub or bar	Eaten food from a takeaway, ordered directly or online
Less than 19,000	53	55
19,000 - 31,999	63	65
32,000 - 63,999	76	68
64,000 - 95,999	80	76
More than 96,000	86	84

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Source: Food and You 2: Wave 4

Respondents with a higher household income were more likely to have eaten out in a restaurant, pub or bar, or have eaten food from a takeaway (ordered directly or online) in the previous 4 weeks compared to respondents with a lower income. For example, 86% of respondents with an income of £96,000 or over had eaten out in a restaurant, pub or bar compared to 53% of those with an income of £19,000 or below. Similarly, 84% of respondents with an income of £96,000 or over had eaten food from a takeaway (ordered directly or online) compared to 55% of those with

an income of £19,000 or below (Figure 11).

The prevalence of eating out in a restaurant, pub or bar or eating food from a takeaway (ordered directly or online) in the previous 4 weeks also varied between different types of people in the following ways:

- 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, 80% of respondents living in 4-person households had eaten food from a takeaway compared to 40% of respondents living alone
- children under 16 years in household: respondents who had children in the household (77%) were more likely to have eaten food from a takeaway than those who did not have children aged 16 years or under in the household (59%). However, the prevalence of eating out in a restaurant, pub or bar did not differ between those with (66%) or without (66%) children aged 16 years or under in the household**
- NS-SEC: full-time students and those in some occupational groups were more likely to have eaten out in a restaurant, pub or bar or have eaten food from a takeaway compared to those in other occupational groups or those who were long term unemployed and/or had never worked. For example, 74% of full-time students and 69% of those in intermediate occupations had eaten food from a takeaway compared to 60% of those in semi-routine and routine occupations and 53% of those who were long term unemployed and/or had never worked. Similarly, 75% of full-time students and 73% of those in managerial, administrative, and professional occupations had eaten out in a restaurant, pub or bar compared to 47% of those in semi-routine and routine occupations and 31% of those who were long term unemployed and/or had never worked
- urban/rural: respondents who lived in an urban area (66%) were more likely to have eaten food from a takeaway than those who lived in a rural area (54%). However, the prevalence of eating out in a restaurant, pub or bar did not differ between those who lived in urban (66%) or rural (66%) areas**
- food security: respondents with high (71%) or marginal (64%) food security were more likely to have eaten out in a restaurant, pub or bar than those with low (48%) or very low (48%) food security. However, the prevalence eating food from a takeaway did not differ greatly between those with different levels of food security (for example, 66% of those with very low food security compared to 62% of those with high food security)
- ethnic group: white respondents (67%) were more likely to have eaten out in a restaurant, pub or bar compared to Asian or British Asian respondents (54%), however Asian or British Asian respondents (73%) were more likely to have eaten food from a takeaway compared to white respondents (62%)
- long term health condition: respondents with no long-term health condition (71%) were more likely to have eaten out in a restaurant, pub or bar compared to respondents who had a long-term health condition (58%), however the prevalence of eating food from a takeaway did not differ greatly between those with (58%) or without (66%) a long-term health condition**.

Eating out and takeaways by mealtime

Figure 12: Frequency of eating out or buying food to takeout mealtime

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Frequency rating	Breakfast	Lunch	Dinner
About once a week or more often	9	23	24
About 2-3 times a month or less often	34	52	59
Never	55	23	16

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Source: Food & You 2: Wave 4

Respondents were asked how often they ate out or bought food to take out for breakfast, lunch, and dinner. Respondents were least likely to eat out or buy food to take out for breakfast, with 55% of respondents never doing this. Around half of respondents (52%) reported that they ate out or bought takeout food for lunch 2-3 times a month or less often. Respondents were most likely to eat out or buy food to take out for dinner, with 59% doing this 2-3 times a month or less often and 24% doing this about once a week or more often (Figure 12)([footnote](#)).

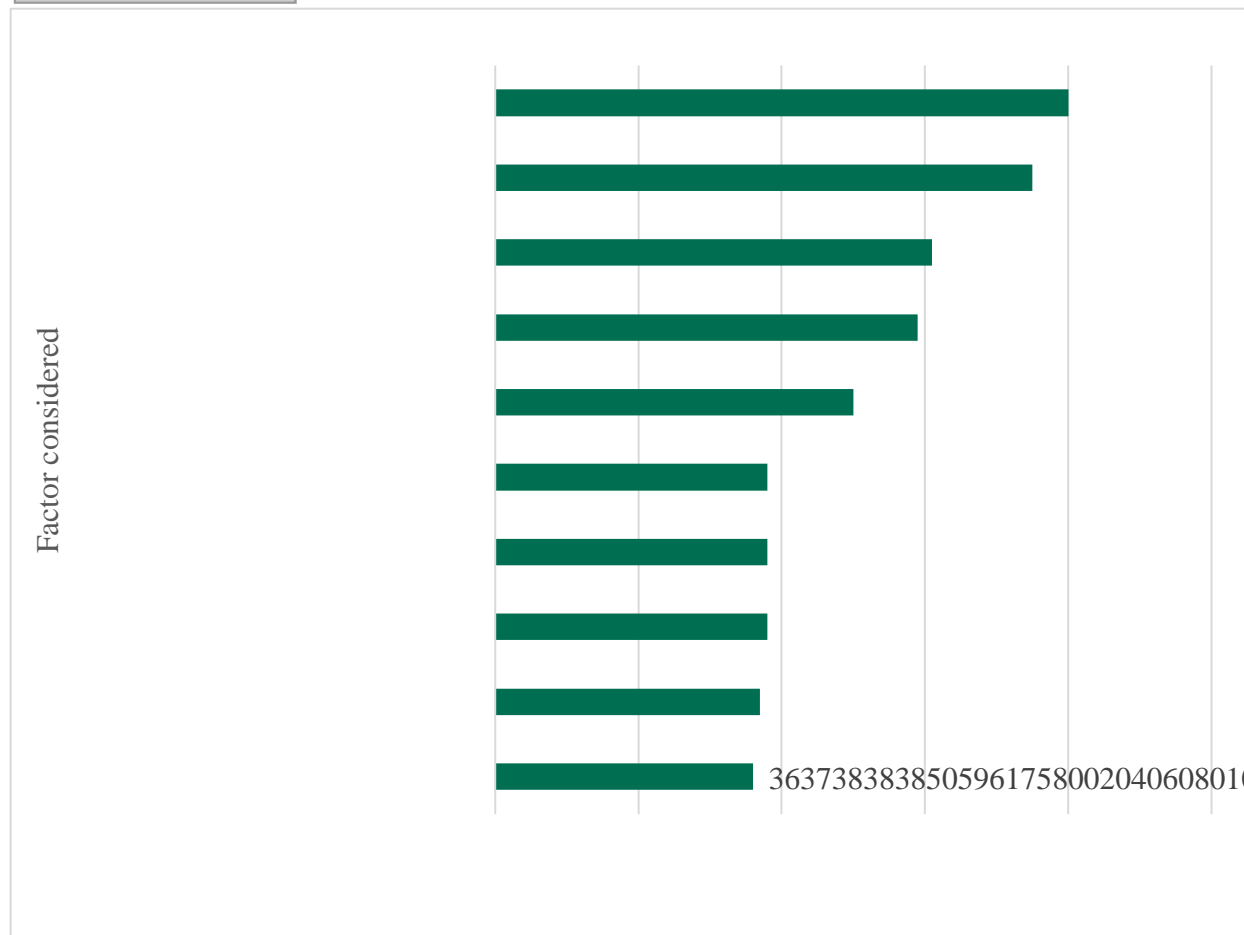
Factors considered when ordering a takeaway

Respondents were asked which factors, from a given list, they generally considered when deciding where to order a takeaway from([footnote](#)).

Figure 13: Factors considered when ordering a takeaway

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Factors considered	Percentage of respondents
Calorie information provided	2
Allergen information provided	5
Healthier options provided	8
Independent business or chain	11
Reviews	29
Delivery or collection option	32

Factors considered	Percentage of respondents
Whether food can be ordered online	36
Location of takeaway	37
Offers, deals, discounts	38
Delivery or collection times	38
Food hygiene rating	38
Recommendation	50
Type of food	59
Price	61
Quality of food	75
Experience of the takeaway	80

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Source: Food & You 2: Wave 4

Of those who had ordered food from a takeaway, the factors most commonly considered when deciding where to place an order were the respondents' previous experience of the takeaway (80%) and the quality of food (75%). Around 4 in 10 (38%) respondents considered the food hygiene rating when deciding where to order a takeaway from (Figure 13)([footnote](#)).

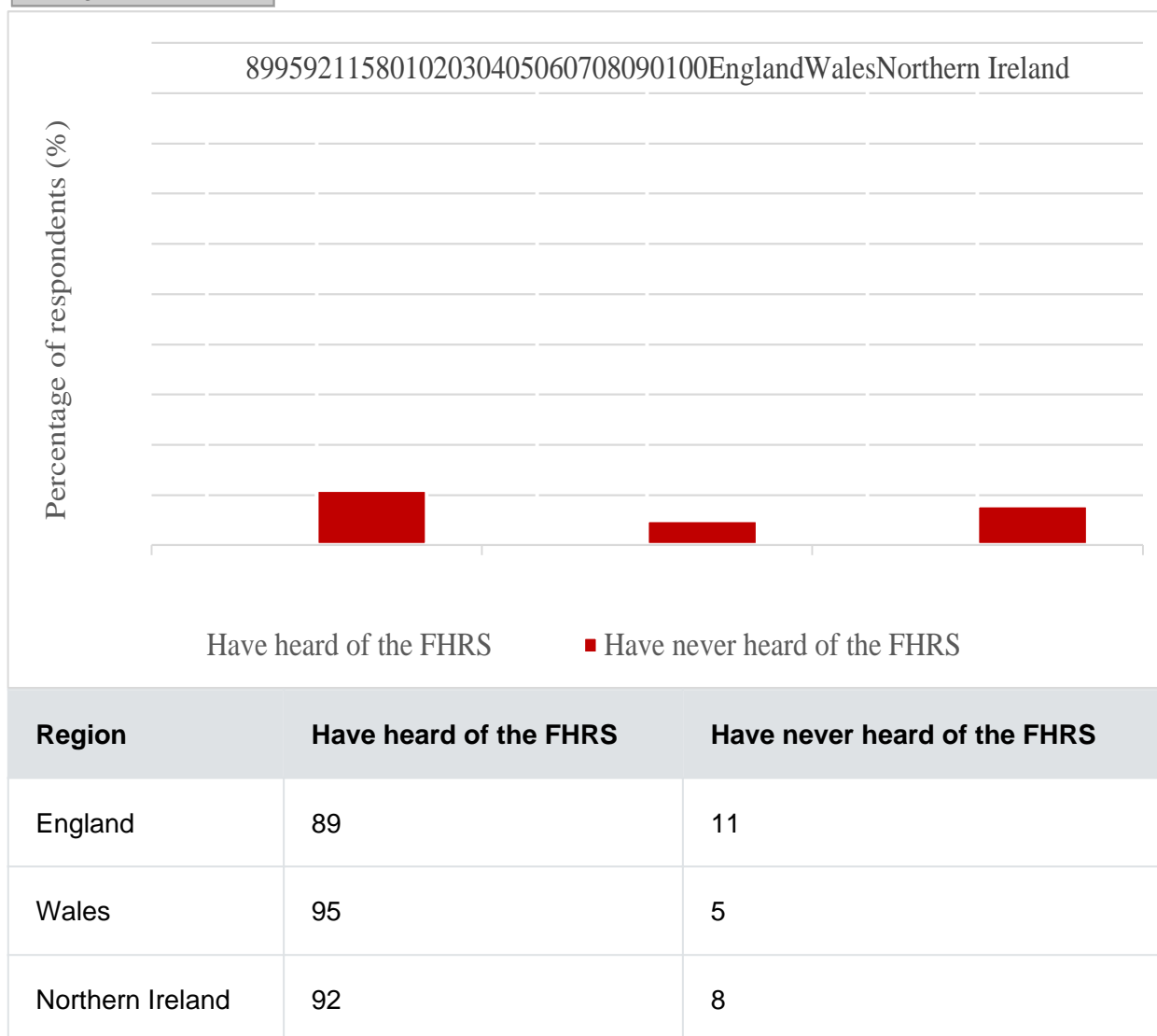
Awareness and recognition of the FHRS

Most respondents (89%) reported that they had heard of the FHRS. Over half (59%) of respondents reported that they had heard of the FHRS and had at least a bit of knowledge about it([footnote](#))FHRS questions not included in this report are available in the full dataset and tables. A more detailed FHRS report will be published separately.</p> " href="#">(footnote).

Figure 14: Percentage of respondents who had heard of the FHRS by country

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[Image .csv](#)

Source: Food and You 2: Wave 4

Most respondents living in England (89%), Wales (95%), and Northern Ireland (92%) had heard of the FHRS (Figure 14)**.

Respondents in Wales (74%) were more likely to report that they had heard of the FHRS and had at least some knowledge of the FHRS compared to those in England (57%) and Northern Ireland (65%)**.

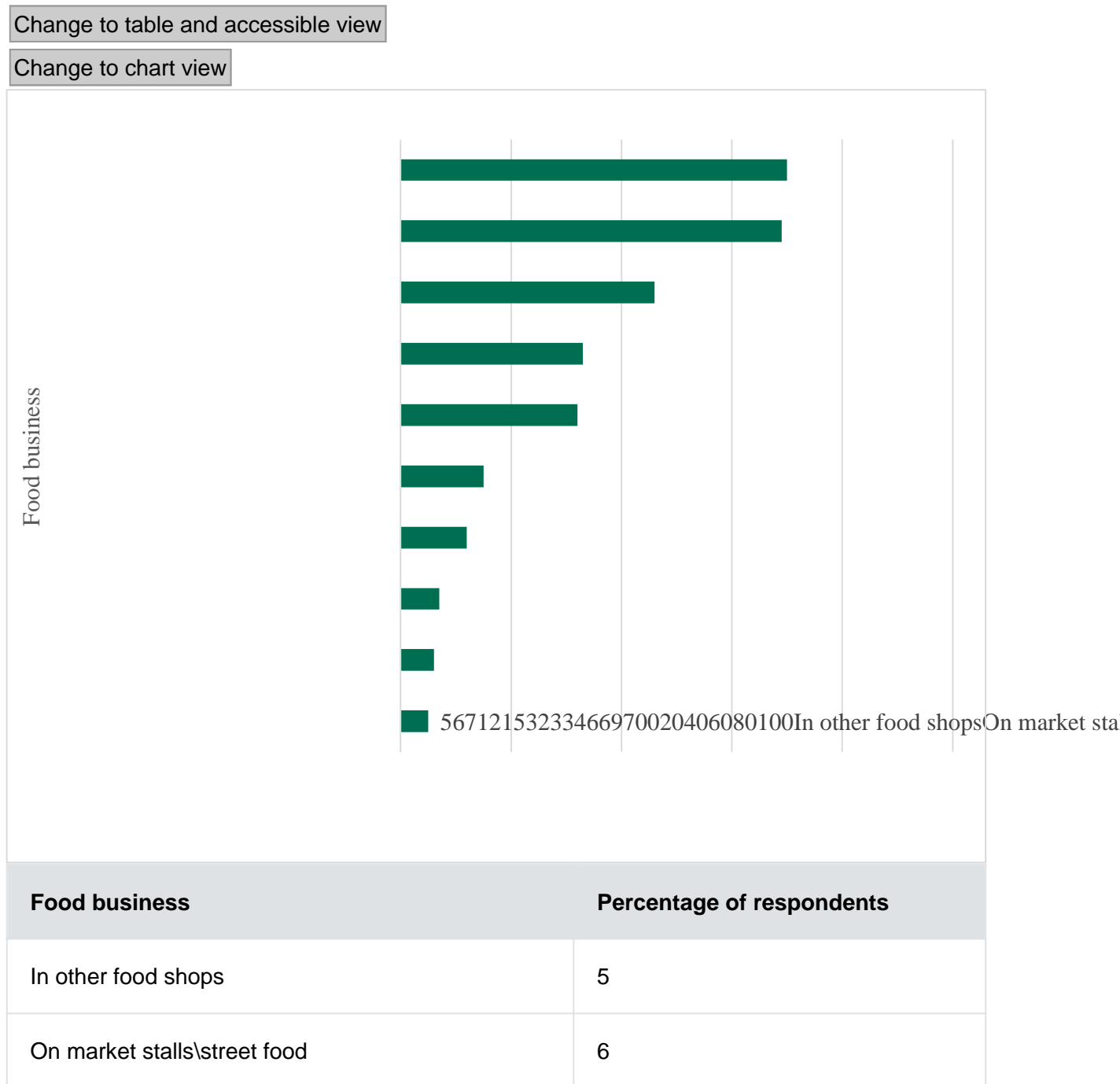
When shown an image of the FHRS sticker, most (88%) respondents reported that they had seen the FHRS sticker before. Recognition of the FHRS sticker was comparable across England (87%), Wales (95%) and Northern Ireland (94%) [**\(footnote\)](#).

FHRS usage

Respondents were asked if they had checked the hygiene rating of a food business in the last 12 months. Around 4 in 10 (41%) respondents reported checking the food hygiene rating of a business in the previous 12 months^(footnote).

Respondents living in Wales (54%) were more likely to have checked the hygiene rating of a food business in the last 12 months compared to respondents in England (40%) and Northern Ireland (46%)**.

Figure 15: Food businesses where respondents had checked the food hygiene rating in the last 12 months



Food business	Percentage of respondents
In schools, hospitals and other institutions	7
In supermarkets	12
In hotels /B&Bs	15
In pubs	32
In coffee or sandwich shops	33
In cafes	46
In restaurants	69
In takeaways	70

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Source: Food & You 2: Wave 4

Respondents who said they had checked the hygiene rating of a food business in the last 12 months were asked what types of food businesses they had checked. The most common types of food business which respondents had checked the food rating of were takeaways (70%) and restaurants (69%). Respondents were less likely to report that they had checked the food hygiene rating of cafés (46%), coffee or sandwich shops (33%) or pubs (32%) (Figure 15)([footnote](#)).

Chapter 5: Food allergies, intolerances and other hypersensitivities

Introduction

‘Food hypersensitivity’ is a term that refers to a bad or unpleasant physical reaction which occurs as a result of consuming a particular food. There are different types of food hypersensitivity including a food allergy, food intolerance and coeliac disease([footnote](#)).

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.

The FSA is responsible for allergen labelling and providing guidance to people with food hypersensitivities. [By law](#), food businesses in the UK must inform customers if they use any of the 14 most potent and prevalent allergens([footnote](#)) in the food and drink they provide.

To help consumers make safe and informed choices, food businesses can voluntarily provide information about the unintentional presence of 14 most potent and prevalent allergens, for example 'may contain' or 'produced in a factory with'. This is called [precautionary allergen labelling \(PAL\)](#). PAL information can be provided verbally or in writing but should only be provided where there is an unavoidable risk of allergen cross-contamination that cannot be sufficiently controlled through risk management actions.

This chapter provides an overview of respondents' understanding of food allergies and intolerances, the self-reported prevalence and diagnosis of food hypersensitivities, and experiences of eating out or ordering a takeaway among those with a hypersensitivity.

Prevalence and diagnosis of food hypersensitivities

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 because of the bad or unpleasant physical reaction they might cause([footnote](#)).

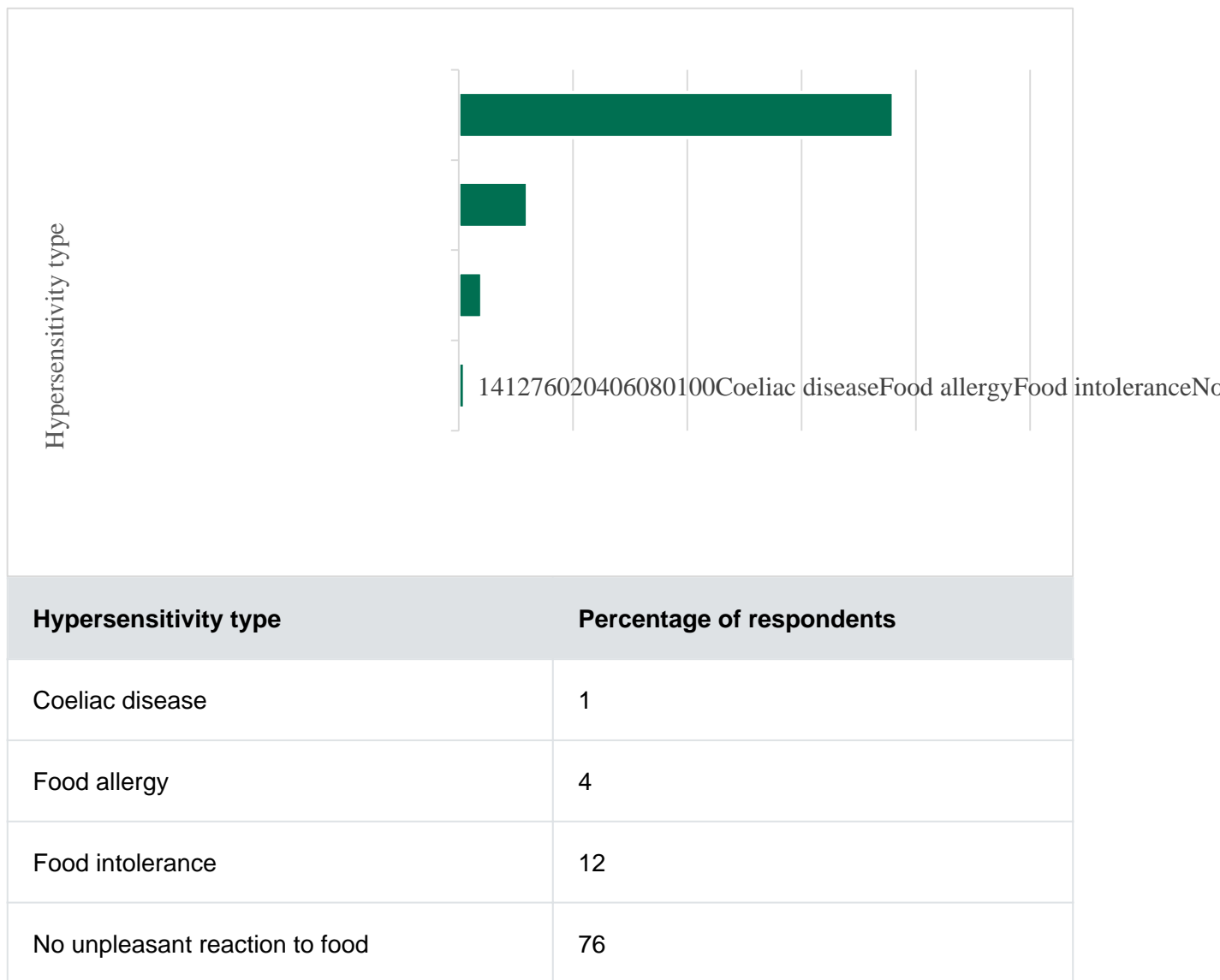
The prevalence of bad or unpleasant physical reactions to food varied between different groups of people in the following ways:

- gender: women (29%) were more likely to report a bad or unpleasant physical reaction to food than men (17%)
- NS-SEC: respondents who were full-time students (30%) or long-term unemployed and/or had never worked (29%) were more likely to report a bad or unpleasant physical reaction to food, compared to respondents in semi-routine and routine occupations (16%)
- food insecurity: respondents who had very low food security (32%) were more likely to report a bad or unpleasant physical reaction to food, compared to respondents who had high (22%) or low (22%) food security.

Figure 16: Prevalence of different types of food hypersensitivity

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Source: Food and You 2: Wave 4

Most respondents (76%) reported that they did not have a food hypersensitivity. Just over 1 in 10 (12%) respondents reported that they had a food intolerance, 4% reported having a food allergy, and 1% reported having coeliac disease (Figure 16)([footnote](#)).

Diagnosis of food hypersensitivities

Respondents who reported having a bad or unpleasant reaction were asked how they had found out about their condition. More than 2 in 10 (22%) respondents who had a food hypersensitivity had been diagnosed by an NHS or private medical practitioner and 4% had been diagnosed by alternative or complementary therapist but not NHS/private medical practitioner. However, 10% had used other methods and most respondents (74%) had not received any diagnosis([footnote](#))

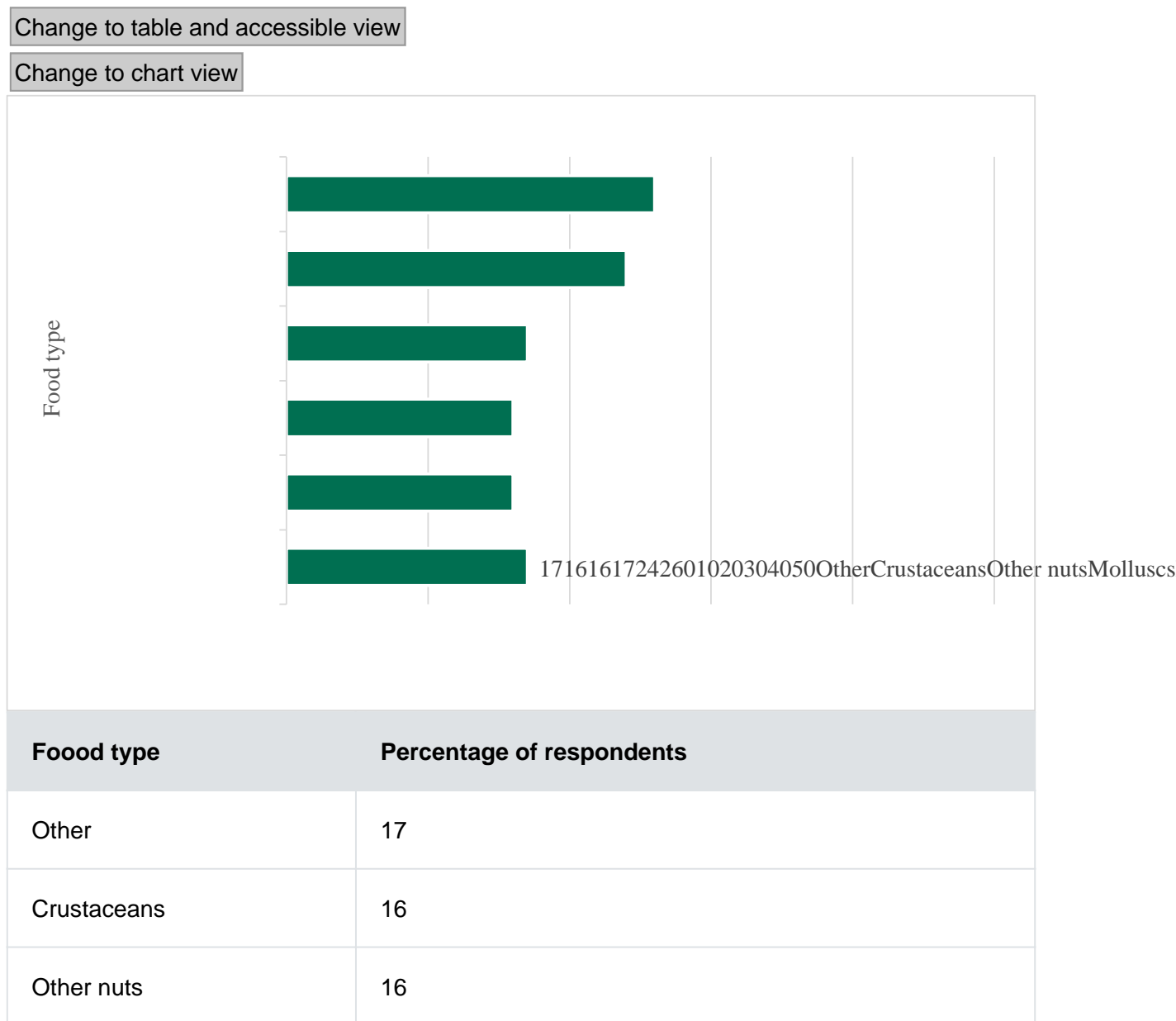
Around a third (34%) of respondents who reported having a food allergy had been diagnosed by an NHS or private medical practitioner compared to 17% of those with a food intolerance. Over

three-quarters (78%) of respondents who reported a food intolerance had noticed that a food causes them problems, but not been formally diagnosed with a specific condition, compared to 64% of those with an allergy.

Foods most likely to cause unpleasant reactions

Respondents who reported that they suffered from a bad or unpleasant physical reaction after consuming certain foods or avoided certain foods because of the bad or unpleasant physical reaction it might cause were asked to which foods they experienced reactions.

Figure 17: The five food groups most likely to cause allergic reactions



Food type	Percentage of respondents
Molluscs	17
Fruit	24
Peanuts	26

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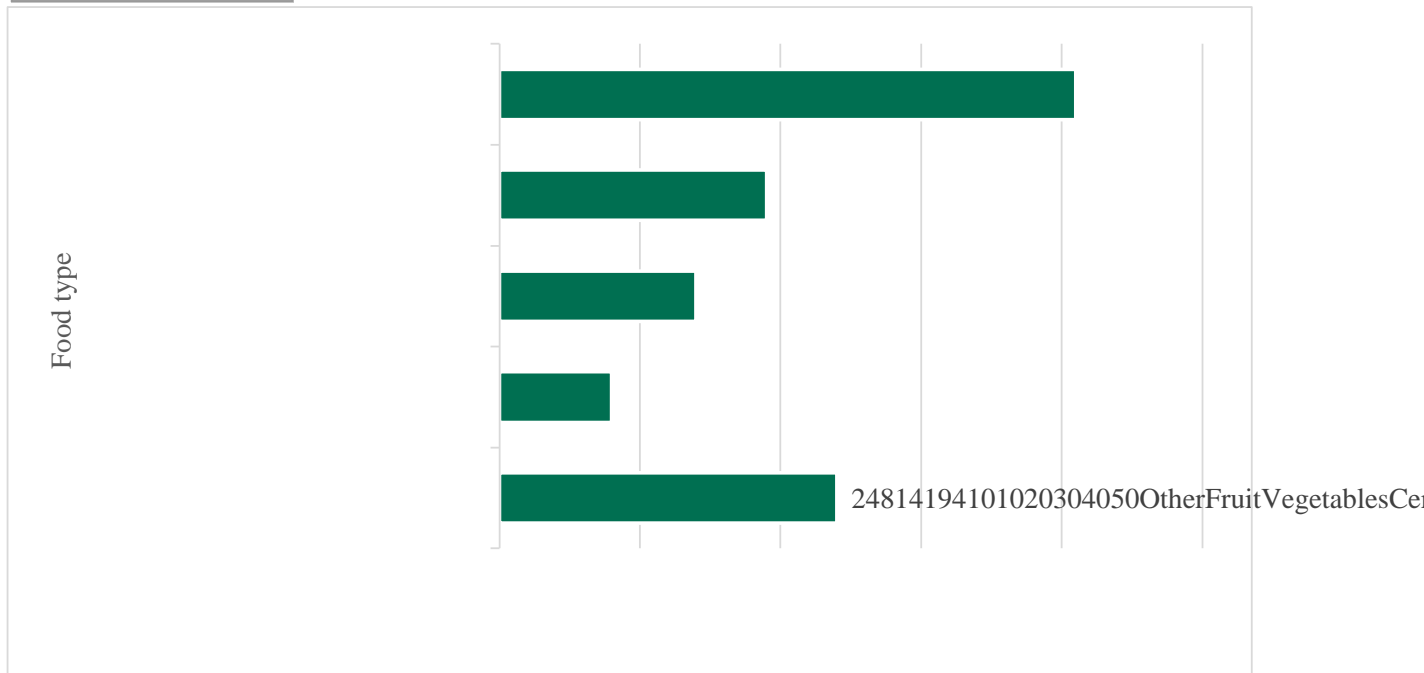
Source: Food and You 2: Wave 4

Amongst the respondents who reported having a food allergy, the most common foods reported as causing a reaction were peanuts (26%) and fruit (24%). Other common allergens were molluscs (for example, mussels, snails, squid) (17%), other nuts (for example almonds, hazelnuts, walnuts) (16%) and crustaceans, (for example, crabs, lobster, prawns) (16%). However, almost 2 in 10 (17%) respondents reported an allergy to a food which was not in the given list, which included the 14 most potent and prevalent allergens (Figure 17)([footnote](#)).

Figure 18: The five food groups most likely to cause a food intolerance

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Food type	Percentage of respondents
Other	24
Fruit	8
Vegetables	14
Cereals containing gluten	19
Cow's milk and products made with cow's milk"	41

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Source: Food and You 2: Wave 4

Amongst the respondents who reported having a food intolerance, the most common foods reported as causing intolerance were cow's milk and products made with cow's milk (41%) and cereals containing gluten (19%). Around a quarter (24%) reported an intolerance to other foods, which were not listed in the questionnaire (Figure 18)([footnote](#)).

Eating out with a food hypersensitivity

The FSA provides guidance for food businesses on providing allergen information. Food businesses in the retail and catering sector are required [by law](#) to provide allergen information and to follow labelling rules. The type of allergen information which must be provided depends on the type of food business. However, all food business operators must provide allergen information for prepacked and non-prepacked food and drink. Foods which are pre-packed or pre-packed for direct sale (PPDS) are required to have a label with a full ingredients list with allergenic ingredients emphasised([footnote](#)).

How often people checked allergen information in advance when eating somewhere new

Respondents who suffer from a bad or unpleasant physical reaction after consuming certain foods were asked how often, if at all, they checked in advance that information was available which would allow them to identify food that might cause them a bad or unpleasant reaction when they ate out or ordered a takeaway from somewhere new.

Around 2 in 10 (21%) respondents always checked in advance that information was available which would allow them to identify food that might cause them a bad or unpleasant reaction, and around 4 in 10 (42%) respondents checked this information was available less often (for example,

most of the time or less often). However, over a third (37%) of respondents never checked in advance that information was available which would allow them to identify food that might cause them a bad or unpleasant reaction^(footnote).

Availability and confidence in allergen information when eating out or ordering takeaways

Respondents who suffer from a bad or unpleasant physical reaction after consuming certain foods were asked how often information which allowed them to identify food that might cause them a bad or unpleasant reaction was readily available when eating out or buying food.

More than 1 in 10 (13%) respondents reported that this information was always readily available and around two-thirds (68%) of respondents reported that this information was available less often (for example, most of the time or less often). However, 9% of respondents reported that this information was never readily available when they ate out or bought food to take away^(footnote).

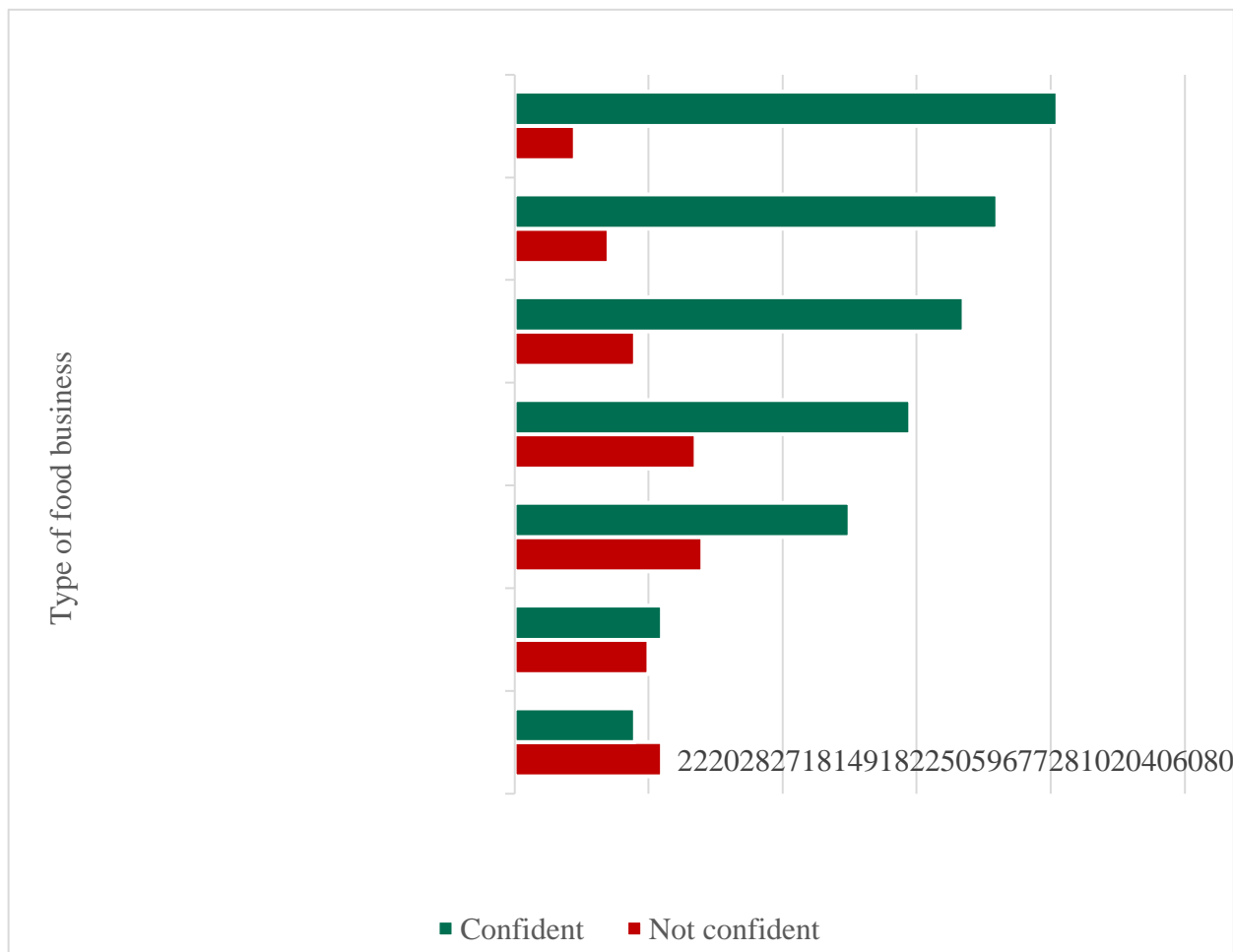
Respondents were asked how often they asked a member of staff for more information when it is not readily available. Around 2 in 10 (22%) respondents reported that they always asked staff for more information, whilst 43% did this less often (i.e., most of the time or less often), and 32% never asked staff for more information^(footnote).

Respondents were asked how comfortable they felt asking a member of staff for more information about food that might cause them a bad or unpleasant physical reaction. Around 7 in 10 (72%) of respondents reported that they were comfortable (for example, very comfortable or fairly comfortable) asking staff for more information, however 17% of respondents reported they were not comfortable doing this (for example, not very comfortable or not at all comfortable)^(footnote).

Figure 19: Confidence of respondents with a food hypersensitivity in information provided by food businesses

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Type of food business	Not confident	Confident
Facebook Marketplace	22	18
Food-sharing app	20	22
Takeaway (via online delivery company)	28	50
Takeaway (ordered directly)	27	59
Pub or bar	18	67
Caf?, coffee or sandwich shop	14	72
Restaurant	9	81

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Respondents who had a food hypersensitivity were asked how confident they were that the information provided at different types of food businesses would allow them to identify and avoid food that might cause a bad or unpleasant physical reaction. Respondents were more likely to report confidence (i.e., very or fairly confident) in the information provided by restaurants (81%), cafés, coffee or sandwich shops (72%), and pubs or bars (67%) compared to the information provided by takeaways when ordering directly from a takeaway shop or restaurant (59%) or when ordering through an online ordering and delivery company (for example, JustEat, Deliveroo, UberEats) (50%). Respondents were least likely to report confidence in the information provided by food-sharing apps (for example, Olio or Too Good To Go) (22%) or Facebook Marketplace (18%) (Figure 19)([footnote](#)).

Most respondents were confident (i.e., very confident or fairly confident) that the information provided in writing (83%) or verbally by a member of staff (69%) would allow them to identify and avoid food that might cause a bad or unpleasant physical reaction([footnote](#)).

Chapter 6: Eating at home

Introduction

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, including 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. The FSA gives practical guidance and recommendations to consumers on [food safety and hygiene](#) in the home. Food and You 2 also asks respondents about the frequency with which they prepare or consume certain types of food.

Two versions of the 'Eating at home' module have been created, a brief version which includes a limited number of key questions, and a fuller version which includes all related questions. The brief 'Eating at home' module was included in the Wave 4 survey and is reported in this chapter ([footnote](#)).

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

Cleaning

Handwashing in home

The [FSA recommends](#) that everyone should wash their hands before they prepare, cook or eat food and after touching raw food, before handling ready-to-eat food.

The majority (73%) of respondents reported that they always wash their hands before preparing or cooking food. However, 26% of respondents reported that they do not always (for example, most of the time or less often) wash their hands before preparing or cooking food([footnote](#)).

Most respondents (91%) reported that they always wash their hands immediately after handling raw meat, poultry, or fish. However, 8% of respondents reported that they do not always (for example, most of the time or less often) wash their hands immediately after handling raw meat,

poultry or fish([footnote](#)).

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. Around half (46%) of respondents reported that they always washed their hands, used hand sanitising gel or wipes when they ate outside of their home, 49% did this less often (for example, most of the time or less often) and 4% never did this([footnote](#)).

Chilling

The [FSA provides guidance](#) on how to chill food properly to help stop harmful bacteria growing.

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. Almost 1 in 5 (19%) respondents reported that the temperature should be above 5 degrees, 3% reported that the temperature should be below 0 degrees, and 16% of respondents did not know what temperature the inside of their fridge should be([footnote](#)).

Almost half of respondents who have a fridge reported that they monitored the temperature, either manually (47%) or via an internal temperature alarm (10%)([footnote](#)). Of the respondents who monitor the temperature of their fridge, 84% reported that they check the temperature of their fridge at least once a month, as recommended by the FSA([footnote](#)).

Cooking

The FSA recommends 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 the FSA recommends 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.

The majority (79%) of respondents reported that they always cook food until it is steaming hot and cooked all the way through, however 21% reported that they do not always do this([footnote](#)).

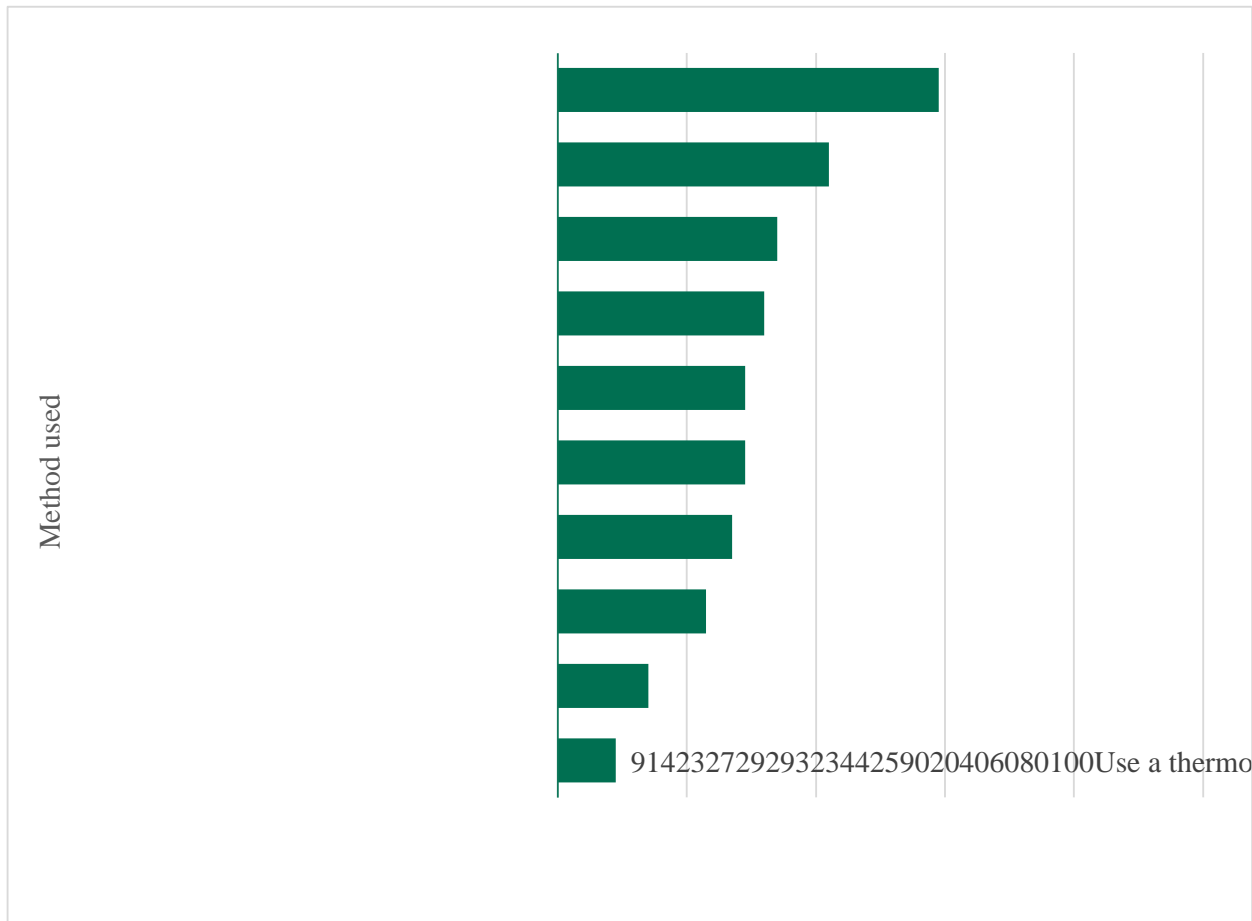
When respondents were asked to indicate how often they eat chicken or turkey when the meat is pink or has pink juicesP64F P, the majority (91%) reported that they never eat chicken or turkey when it is pink or has pink juices([footnote](#)). However, 7% of respondents reported eating chicken or turkey at least occasionally when it is pink([footnote](#)).

Reheating

Figure 20. Checking that the middle is hot is the most common method to check food is reheated and ready to eat

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Methods used	Percentage of respondents (%)
Use a thermometer / probe	9
Put my hand over / touch it	14
Taste it	23
Check it is an even temperature throughout	27
Stir it	29
Use a timer	29
See steam coming from it	32
See it's bubbling	34

Methods used	Percentage of respondents (%)
Follow label instructions	42
Check the middle is hot	59

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Source Food and You 2 Wave 4

Respondents were asked to indicate how they check food is ready to eat when they reheat it. The most common method was to check the middle is hot (59%), and the least common method was to use a thermometer or probe (9%) (Figure 20)([footnote](#)).

When respondents were asked how many times they would reheat food, the majority reported that they would only reheat food once (81%), 10% would reheat food twice, and 3% would reheat food more than twice([footnote](#)).

Leftovers

Respondents were asked how long they would keep leftovers in the fridge for. Almost two-thirds (65%) of respondents reported that they would eat leftovers within 2 days, around a quarter (26%) of respondents reported that they would eat leftovers within 3-5 days and only 2% would eat leftovers after 5 days or longer([footnote](#)).

Avoiding cross-contamination

The FSA provides guidelines on [how to avoid cross-contamination](#). The FSA recommends that people [do not wash raw meat](#). Washing raw meat can spread harmful bacteria onto your hands, clothes, utensils, and worktops.

Over half of respondents (56%) reported that they never wash raw chicken, whilst 40% of respondents wash raw chicken at least occasionally (for example, occasionally or more often) ([footnote](#)).

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

The [FSA recommends](#) that refrigerated raw meat and poultry is kept covered, separately from ready-to-eat foods and stored at the bottom of the fridge to avoid cross-contamination.

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 (67%) or away from cooked foods (49%). A third of respondents reported storing raw meat and poultry covered with film/foil (33%) or in a sealed container (34%), with fewer keeping the product on a plate (13%)([footnote](#)).

Two-thirds (66%) of respondents reported storing raw meat and poultry at the bottom of the fridge, as [recommended by the FSA](#). However, 2 in 10 (20%) respondents reported storing raw

meat and poultry wherever there is space in the fridge, 11% respondents reported storing raw meat and poultry in the middle of the fridge, and 5% at the top of the fridge^(footnote).

Use-by and best before dates

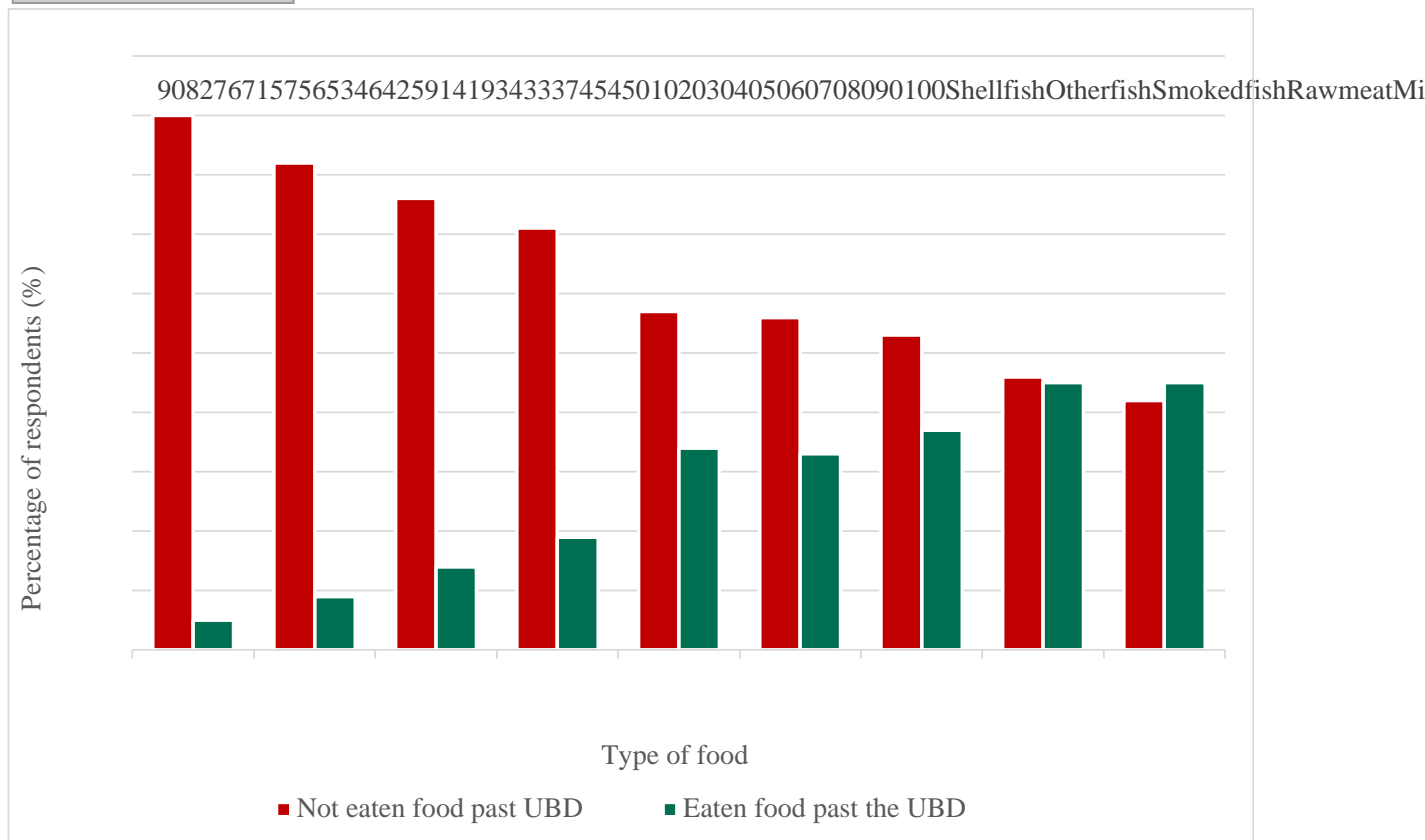
Respondents were asked about their understanding of the different types of [date labels](#) and instructions on food packaging, as storing food for too long or at the wrong temperature can cause food poisoning. Use-by dates relate to food safety. Best before (BBE) dates relate to food quality.

Respondents were asked to indicate which date shows that food is no longer safe to eat. In accordance with [FSA recommendations](#), over two-thirds (69%) of respondents identified the use-by date as the information which shows that food is no longer safe to eat. However, 9% of respondents identified the best before date as the date which shows food is no longer safe to eat ^(footnote)

Around two-thirds (67%) of respondents reported that they always check use-by dates before they cook or prepare food and around a quarter (23%) of respondents did this 3Tmost of the time. Almost 1 in 10 (8%) reported checking use-by less often (for example, about half the time or occasionally), and just 1% reported never checking use-by dates^(footnote).

Figure 21: Types of food respondents had eaten after the use by date in the previous month

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Percentage of respondents	Shellfish	Other fish	Smoked fish
Not eaten food past UBD	90	82	76
Eaten food past the UBD	5	9	14

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Source Food and You 2 Wave 4

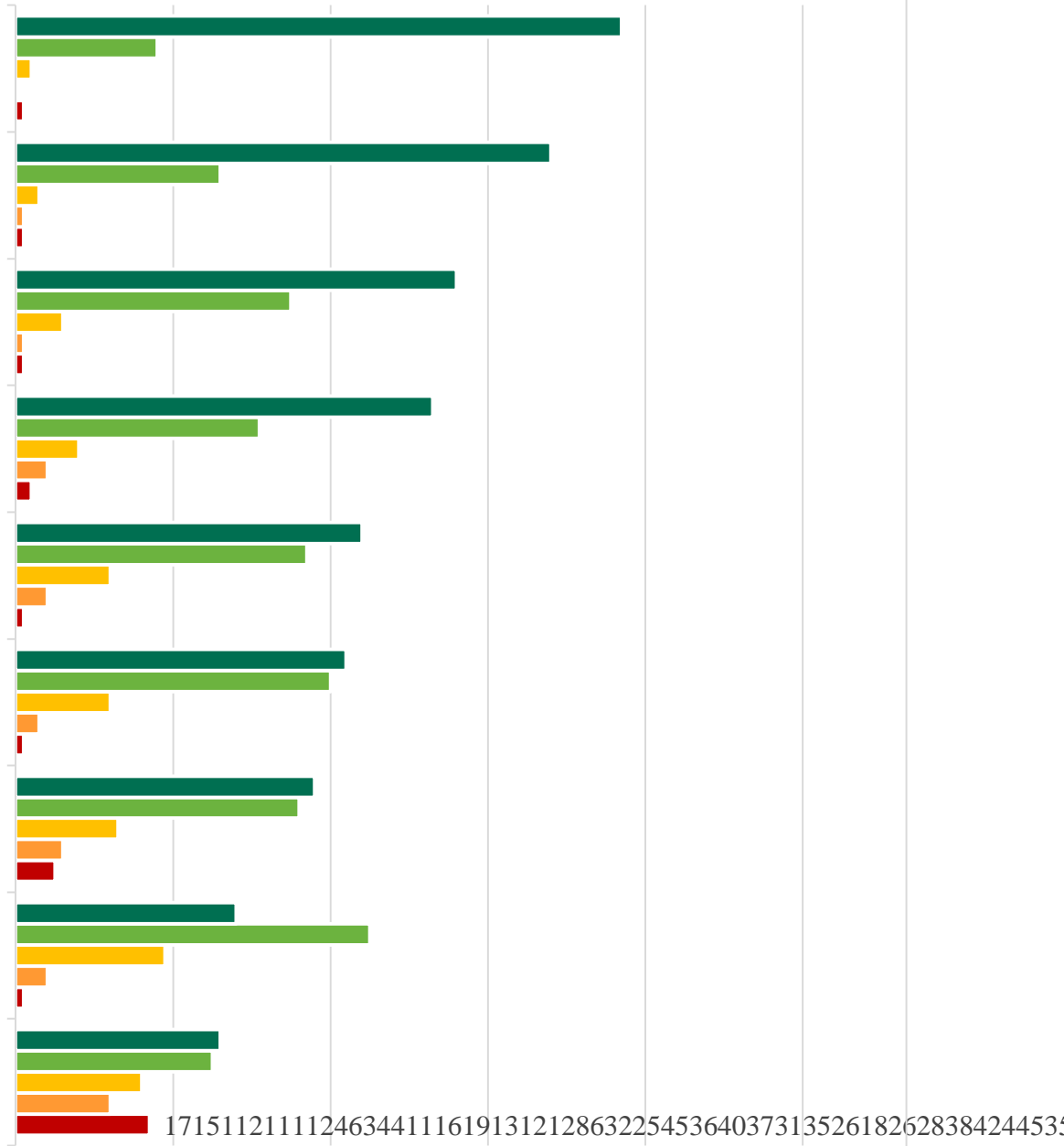
Respondents who had eaten certain foods in the last month were asked to indicate if they had eaten that food past the use-by date. Of these respondents, most reported that they had not eaten shellfish (90%), other fish (82%), smoked fish (76%) or raw meat (such as beef, lamb, pork or poultry) (71%) past the use-by date in the previous month. Whereas over half of respondents had not consumed milk (57%), cooked meat (56%) or yoghurt (53%) past the use-by date in the previous month. Less than half of respondents had eaten bagged salad (46%) or cheese (42%) past the use-by date in the previous month (Figure 21)([footnote](#)).

Figure 22: How long after the use-by-date respondents would consume different foods

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Type of food



- Don't eat/drink this after its use-by date
- 1 - 2 days
- 3 - 4 days
- 5 - 6 days
- More than 1 week

Percentage of respondents	Cheese	Bagged salad	Yoghurt	Cooked meat	Milk	Smoked fish
More than 1 week	17	1	5	1	1	2

Percentage of respondents	Cheese	Bagged salad	Yoghurt	Cooked meat	Milk	Smoked fish
5 - 6 days	12	4	6	3	4	4
3 - 4 days	16	19	13	12	12	8
1 - 2 days	25	45	36	40	37	31
Don't eat/drink this after its use-by date	26	28	38	42	44	53

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Source Food and You 2 Wave 4

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. Of these respondents, most reported that they would not eat shellfish (77%), other fish (68%) past the use-by date. Over half of respondents would not eat raw meat (56%) or smoked fish (53%) past the use-by date. When foods are eaten past the use-by date, they are typically eaten 1-2 days after the use-by date (for example, 45% of respondents would eat bagged salads 1-2 days after the use-by date). Of the specified foods, respondents reported that they would be most likely to eat bagged salad and cheese after the use-by date: around 7 in 10 respondents would eat bagged salad (70%) and cheese (71%) after the use-by date. Almost 2 in 10 (17%) respondents would eat cheese more than 1 week after the use-by date (Figure 22)([footnote](#)).

Chapter 7: Food shopping: sustainability and environmental impact

Introduction

In March 2022, the [FSA launched a new 5 year strategy \(2022-2027\)](#). Building on the previous strategy, the FSA's vision has evolved to include 'food is healthier and more sustainable', to account for the growing priorities of dietary health and sustainability for the UK Government, Welsh Government, Northern Ireland Executive, and for consumers.

The [Department for Environment, Food and Rural Affairs \(Defra\)](#) has a broad remit but plays a major role in increasing the sustainability, productivity and resilience of the agriculture, fishing, food and drink sectors; enhancing biosecurity at the border; and raising animal welfare standards.

This chapter provides an overview of respondent knowledge, attitudes and behaviours relating to the sustainability and environmental impact of food including shopping choices and diets. Defra

co-funded questions in this chapter which relate to the environmental impact and sustainability of food.

The importance of buying foods with a low environmental impact

Respondents were asked how important it was to buy food which has a low environmental impact. Over three-quarters (78%) of respondents reported that it was important (for example, very important or somewhat important) to them to buy food which has a low environmental impact. Almost 2 in 10 (18%) respondents did not consider it important (i.e., not very important or not at all important^(footnote)).

The perceived importance placed on buying food which has a low environmental impact varied between different categories of people in the following ways:

- NS-SEC: respondents in some occupational groups (for example, 82% of those in intermediate occupations) and full-time students (78%) were more likely to consider buying food which has a low environmental impact as important compared to those in other occupational groups (for example, 69% of those in lower supervisory and technical occupations) and those who were long term unemployed and/or never worked (68%)
- responsibility for cooking: respondents who were responsible for cooking (79%) were more likely to consider buying food which has a low environmental impact as important compared to those who do not cook (58%)
- responsibility for shopping: respondents who were responsible for shopping (79%) were more likely to consider buying food which has a low environmental impact as important compared to those who never do food shopping (59%)

How often respondents check for information about the environmental impact of food

Respondents were asked how frequently they check for information about the environmental impact of food when purchasing food. Around 2 in 10 (21%) respondents reported that they often checked (for example, always or most of the time) for information about the environmental impact when purchasing food, 45% did this less often (for example, about half of the time, or occasionally) and 29% of respondents reported that they never checked for information about the environmental impact when purchasing food^(footnote).

How often respondents checked for information about the environmental impact of food, varied between different categories of people in the following ways:

- annual household income: respondents with an income of £19,000 or below (28%) were more likely to often check for information about the environmental impact of food compared to those who had a higher income, for example, 17% of those with an income of £64,000-£95,999
- food security: respondents with very low food security (34%) were more likely to often check for information about the environmental impact of food compared to those who had high (18%) or marginal (22%) food security
- ethnic group: Asian or British Asian (33%) respondents were more likely to often check for information about the environmental impact of food compared to white (20%) respondents
- food hypersensitivity: respondents with a food allergy (31%) were more likely to often check for information about the environmental impact of food compared to those who did not have a food hypersensitivity (20%)

- responsibility for cooking: respondents who were responsible for cooking (22%) were more likely to often check for information about the environmental impact of food compared to those who do not cook (10%)

How often respondents buy foods with a low environmental impact

Respondents were asked to indicate how often, where possible, they buy food which has a low environmental impact. Almost a third (30%) of respondents often (for example, always or most of the time) buy food which has a low environmental impact and 43% do this less often (for example, about half of the time, or occasionally). Less than 1 in 10 (7%) respondents reported that they never buy food which has a low environmental impact, however almost 2 in 10 (19%) respondents do not know how often they buy food which has a low environmental impact([footnote](#))

How often respondents bought food which had a low environmental impact, where possible, varied between different categories of people in the following ways:

- age group: older adults were more likely to have bought food which has a low environmental impact compared to younger adults. For example, 39% of those aged 75 years or older bought food which has a low environmental impact compared to 26% of those aged 16-24 years
- annual household income: the likelihood that respondents bought food which has a low environmental impact did not vary by income. For example, 31% of those with an income of £19,000 or below bought food which has a low environmental impact compared to 33% of those with an income of £96,000 and over**
- food security: the likelihood that respondents bought food which has a low environmental impact did not vary by level of food security. For example, 29% of those with high food security bought food which has a low environmental impact compared to 35% of those with very low food security**
- food hypersensitivity: respondents with a food intolerance (44%) were more likely to have bought food which has a low environmental impact compared to those who do not have a food hypersensitivity (28%)
- responsibility for cooking: respondents who were responsible for cooking (31%) were more likely to have bought food which has a low environmental impact compared to those who do not cook (17%)

Attitudes toward information about a products environmental impact

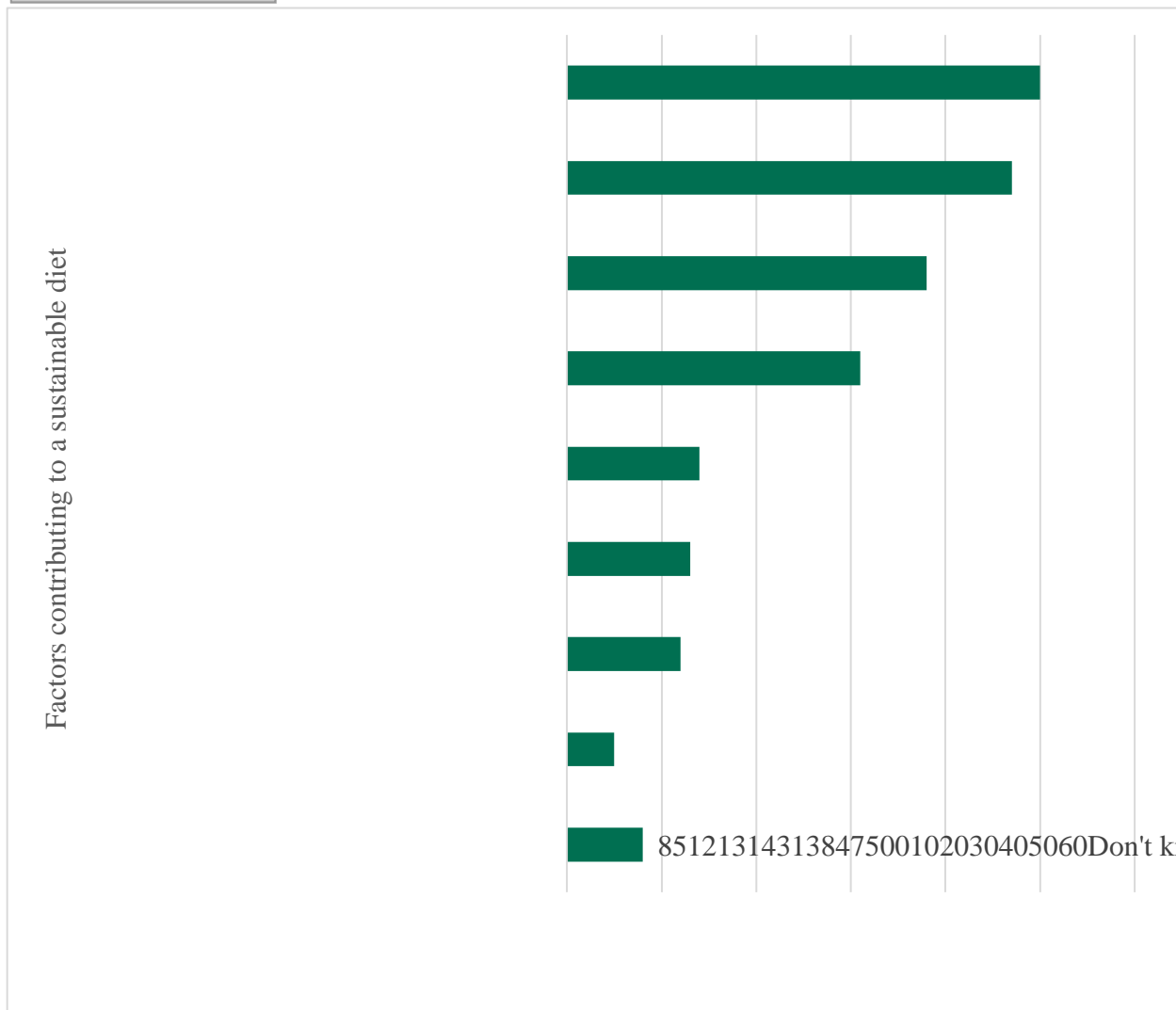
Respondents were asked to indicate to what extent they agreed or disagreed that food products show enough information about their environmental impact. Almost a quarter (24%) of respondents agreed (for example, strongly agree or agree) that products show enough information about their environmental impact, however around a third (34%) of respondents disagreed (for example, strongly disagree or disagree). Almost 1 in 10 (11%) respondents reported that they do not know whether products show enough information about their environmental impact([footnote](#)).

Perceptions of factors which contribute to sustainable diets and shopping choices

Figure 23: Factors which respondents thought contribute most to a sustainable diet

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Factors contributing to a sustainable diet	Percentage of respondents
Don't know	8
Eating a pescatarian diet	5
Eating/drinking less dairy	12
Eating a vegan diet	13

Factors contributing to a sustainable diet	Percentage of respondents
Eating a vegetarian diet	14
Eating less meat, poultry or fish	31
Eating more fruit and/or vegetables	38
Minimising food waste	47
Eating less processed food	50

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[Image](#) [.csv](#) [.ods](#)

Source: Food and You 2: Wave 4

Respondents were asked, from a list of options, what they thought contributes most to someone having a sustainable diet. Half of respondents thought that eating less processed food (50%) and 47% thought that minimising food waste contributed most to someone having a sustainable diet. Around a third of respondents thought that eating more fruit and/or vegetables (38%), and eating less meat, poultry, or fish (31%) contributed most to a sustainable diet. Fewer respondents thought that eating a vegetarian (14%) or vegan (13%) diet or consuming less dairy (12%) contributed most to a sustainable diet. Almost 1 in 10 (8%) respondents reported that they did not know what contributed most to someone having a sustainable diet (Figure 23)([footnote](#)).

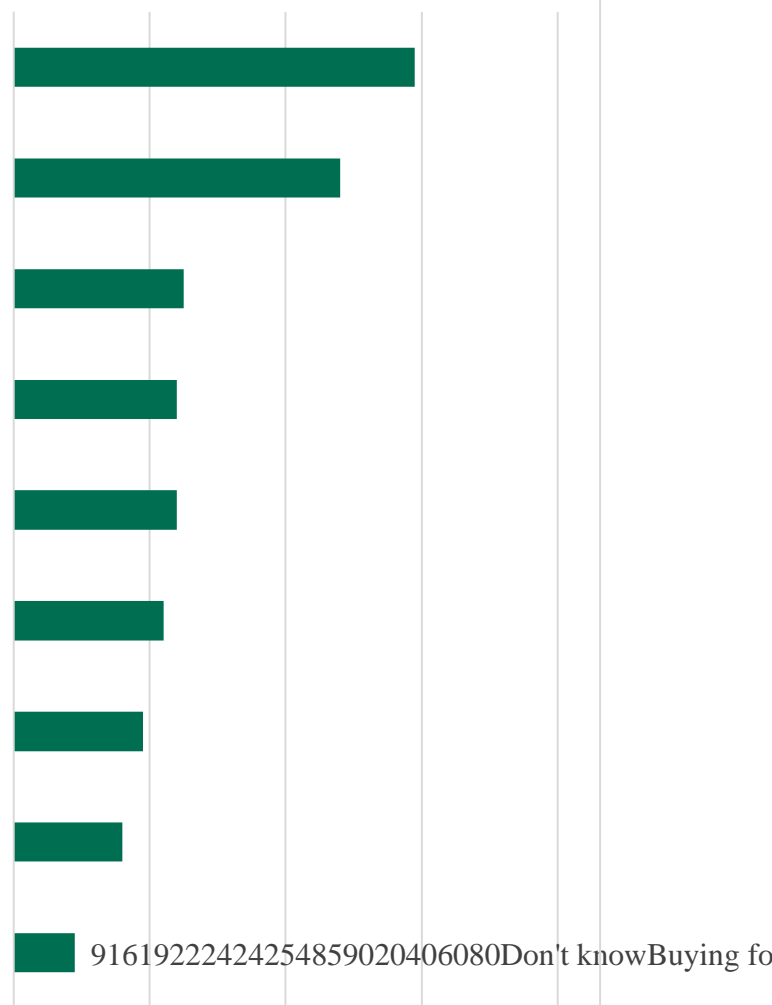
Perceptions of what contributes to sustainable shopping choices

Figure 24: What respondents thought contributes most to sustainable shopping choices

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Factors contributing to a sustainable shopping choices



Factors contributing to sustainable shopping choices	Percentage of respondents
Don't know	9
Buying foods grown organically	16
Buying sustainably sourced fish	19
Buying animal products with high welfare standards	22
Buying Fairtrade products	24

Factors contributing to sustainable shopping choices	Percentage of respondents
Buying foods that have been produced with minimal water usage and/or deforestation	24
Growing fruit and/or vegetables instead of buying them	25
Buying foods with minimal or no packaging	48
Buying locally produced food or food that is in season	59

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Source: Food and You 2: Wave 4

Respondents were asked, from a list of options, what they thought contributed most to someone making sustainable food shopping choices. Almost 6 in 10 (59%) respondents thought that buying locally produced food or food that is in season contributed most. Around half of respondents thought that buying foods with minimal or no packaging (48%) 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 (25%), buying foods that have been produced with minimal water usage and/or minimal deforestation (24%), buying Fairtrade products (24%) and buying animal products with high welfare standards (22%), contributed most. Almost 1 in 10 (9%) respondents reported that they did not know what contributed most to someone making sustainable food shopping choices (Figure 24)([footnote](#)).

Chapter 8: Sustainable diets, meat alternatives and genetic technologies

Introduction

The FSA's vision as set out in the [2022-2027 strategy](#) is a food system in which 'food is healthier and more sustainable', accounting for the growing priorities of dietary health and sustainability for the UK Government, Welsh Government, Northern Ireland Executive, and for consumers.

The [Department for Environment, Food and Rural Affairs \(Defra\)](#) has a broad remit and plays a major role in increasing the sustainability, productivity and resilience of the agriculture, fishing, food and drink sectors, enhancing biosecurity at the border and raising animal welfare standards. In addition, [Defra oversees the regulation](#) of genetic technologies such as genetically modified organisms (GMO) and gene edited (GE) organisms.

This chapter provides an overview of respondent knowledge, attitudes and behaviours relating to sustainable foods, meat alternatives and genetic technologies. Defra co-funded questions in this

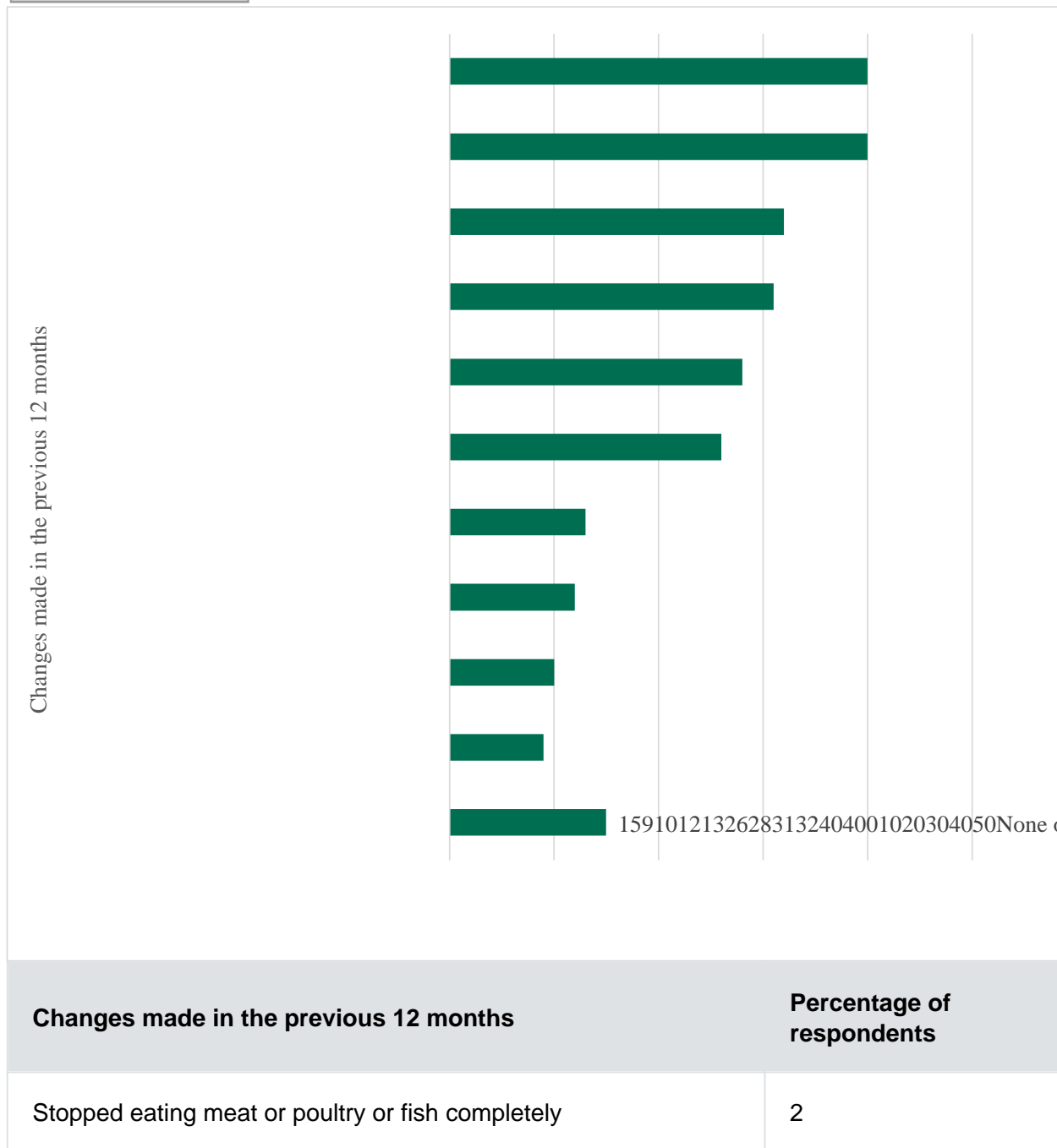
chapter which relate to the environmental impact and sustainability of food.

Changes to eating habits and food-related behaviours

Figure 25. Changes which respondents had made in the previous 12 months

Change to table and accessible view

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Changes made in the previous 12 months	Percentage of respondents
Started buying foods that have been produced with minimal water usage and / or minimal deforestation	4
Started buying foods grown organically	8
Started buying animal products with high welfare standards	9
None of these	15
Started buying sustainably sourced fish	9
Started buying fair trade products	10
Started growing fruit	
and/or vegetables"	12
Eaten/drunk less dairy	13
Started buying locally produced	
food or food that is in season"	26
Eaten less meat, poultry or fish	28
Started buying foods with	
minimal or no packaging"	31
Started eating more fruit	
and/or vegetables"	32
Started minimising food waste	40

Changes made in the previous 12 months	Percentage of respondents
Eaten less processed food	40

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Source: Food and You 2: Wave 4

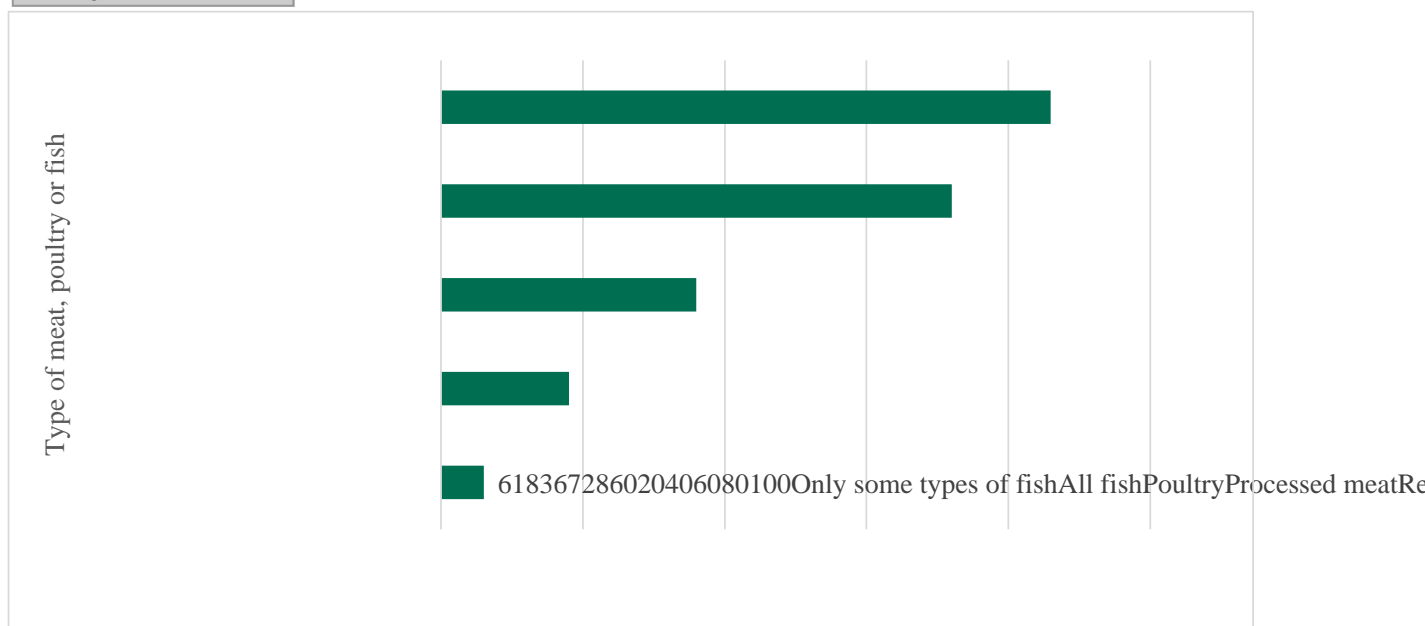
Respondents were asked, from a list of options, which, if any changes they had made in the previous 12 months. The most common changes reported by respondents were that they had eaten less processed food (40%) and started minimising food waste (40%). Almost a third of respondents reported that they had started eating more fruit and vegetables (32%), started buying food with minimal or no packaging (31%) and/or had eaten less meat, poultry, or fish (28%) in the previous 12 months. Around a quarter (26%) of respondents reported that they had started buying locally produced food or food that is in season. However, 15% of respondents reported that they had not made any of the listed changes in the previous 12 months (Figure 25)([footnote](#)).

Meat, poultry and fish: changes in consumption habits

Figure 26. Types of meat, poultry or fish which respondents had eaten less of in the previous 12 months

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Type of meat, poultry or fish	Percentage of respondents
Only some types of fish	6
All fish	18
Poultry	36
Processed meat	72
Red meat	86

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Source: Food and You 2: Wave 4

Respondents who reported that they had eaten less meat, poultry, or fish in the previous 12 months were asked which types of products the changes related to. Of these respondents, most respondents (86%) had eaten less red meat (for example, beef, pork, or lamb) and 72% had eaten less processed meat (for example, chicken nuggets, ham, bacon) in the previous 12 months. Over a third (36%) of respondents reported that they had eaten less poultry and 18% of respondents reported that they had eaten less of all types of fish, with 6% eating less of only some types of fish in the previous 12 months (Figure 26)([footnote](#)).

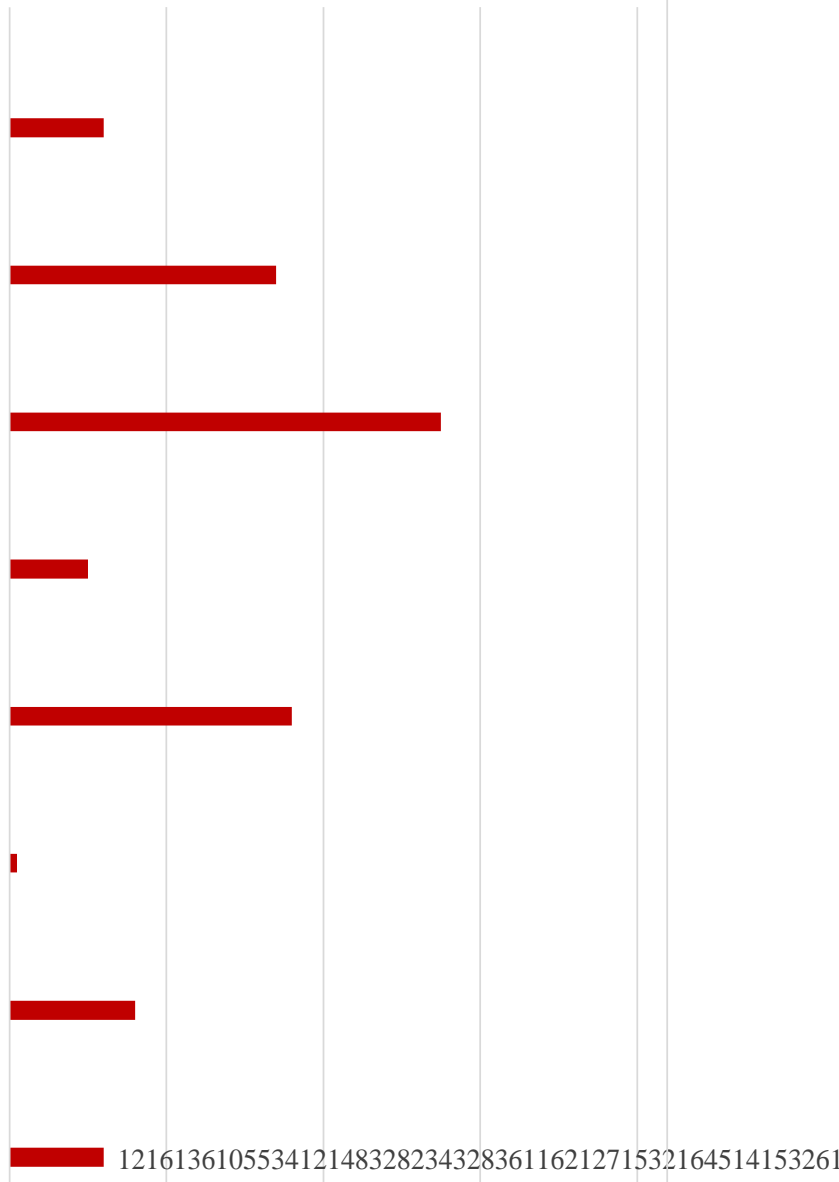
Reasons of changes in consumption habits

Figure 27. Health was the most common reason to have eaten less processed foods, processed meat, red meat, dairy and/or eggs

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Reason for eating less of the specified food



Processed foods

Processed meat

Red meat

Dairy/Eggs

Poultry

■ Fish

Reason for eating less of the specified food

Fish

Poultry

Dairy/Eggs

Red meat

Processed meat

Processed foods

Because other people in my household or my friends have reduced their consumption / don't eat this product	12	14	11	14	14	7
For financial reasons	16	8	6	15	7	7
Because of the bad or unpleasant physical reaction	1	3	21	3	4	8
For animal welfare reasons	36	28	27	26	24	10
Because I wanted a change	10	23	15	19	18	19
For environmental or sustainability reasons	55	43	32	55	36	20
Because of concerns about where the product comes from	34	28	16	16	24	32
For health reasons	12	36	45	57	69	75

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Source: Food and You 2: Wave 4

Respondents who reported that they had eaten less processed food, red meat, process meat, poultry, fish or dairy and/or eggs in the previous 12 months were asked, which, if any of the given options, were the reasons that they had eaten less of that product. The most common reason to have eaten less processed food (75%), processed meat (69%), red meat (57%), dairy and/or eggs (45%) were for health reasons (for example, to be more healthy or lose weight). The most common reason to have eaten less fish (55%) or poultry (43%) was for environmental or sustainability reasons (for example, impact on climate change). Respondents were more likely to report that they had eaten less dairy and/or eggs (21%) because of the bad or unpleasant physical reaction eating dairy and/or eggs causes compared to other foods (for example, 1% of respondents had eaten less fish because of the bad or unpleasant physical reaction it causes) (Figure 27)([footnote](#)).

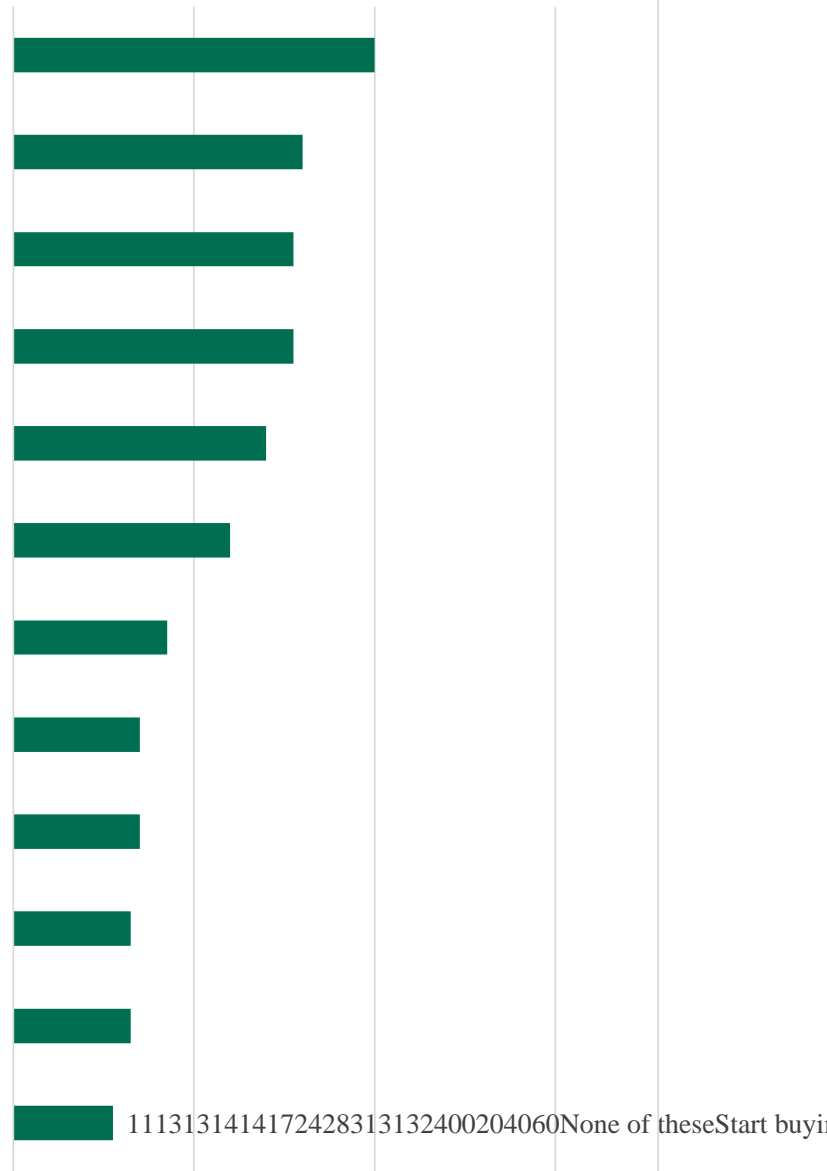
Food related changes which respondents are willing to try

Figure 28. Changes which respondents were willing to try in the following 12 months

Change to table and accessible view

Change to chart view

Type of change respondent would be willing to try



Type of change	Percentage of respondents
Other	2
Stop eating meat or poultry or fish completely	4
Don't know	7
Start growing fruit and/or vegetables	11

Type of change	Percentage of respondents	
Start buying foods grown organically	11	
None of these	11	
Eat/drink less dairy, e. g. milk, cheese, butter or eggs	12	
Start buying sustainably sourced fish	13	
Replace dairy products with plant-based alternatives such as soya	oat or almond milk"	13
Start buying Fairtrade products	14	
Start buying animal products with high welfare standards"	14	
Start buying foods that have been produced with minimal water usage and/or minimal deforestation"	17	
Eat less meat or poultry or fish	24	
Start buying locally produced food or food that is in season"	28	
Start minimising food waste	31	
Start eating more fruit and/or vegetables	31	
Start buying foods with		

Type of change	Percentage of respondents
minimal or no packaging"	32
Eat less processed food	40

Download this chart

[Image](#) [.csv](#)

Source: Food and You 2: Wave 4

Respondents were asked which, if any, of a given list of changes, they were willing to try in the following 12 months. The most common change that respondents reported that they were willing to try was to eat less processed food (40%). Around a third of respondents reported that they were willing to start buying food with minimal or no packaging (32%), start minimising food waste (31%) or start eating more fruit and/or vegetables (31%) in the following 12 months. However, 11% of respondents reported that they would not be willing to try any of the changes listed in the following 12 months (Figure 28)([footnote](#)).

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).

Meat alternative consumption

Respondents were asked if they had ever eaten meat alternatives. Around a third (32%) of respondents reported that they had eaten meat alternatives, 21% of respondents reported that they used to eat meat alternatives but no longer do and 39% of respondents reported that they had never eaten meat alternatives([footnote](#)).

Of the respondents who currently eat meat alternatives, 34% reported eating meat alternatives 2-3 times a week or more often (for example, every day, most days, 2-3 times a week), 45% reported eating meat alternatives occasionally (i.e., about once a week, 2-3 times a month) and 21% reported eating meat alternatives about once a month or less often (i.e., about once a month, less than once a month)([footnote](#)).

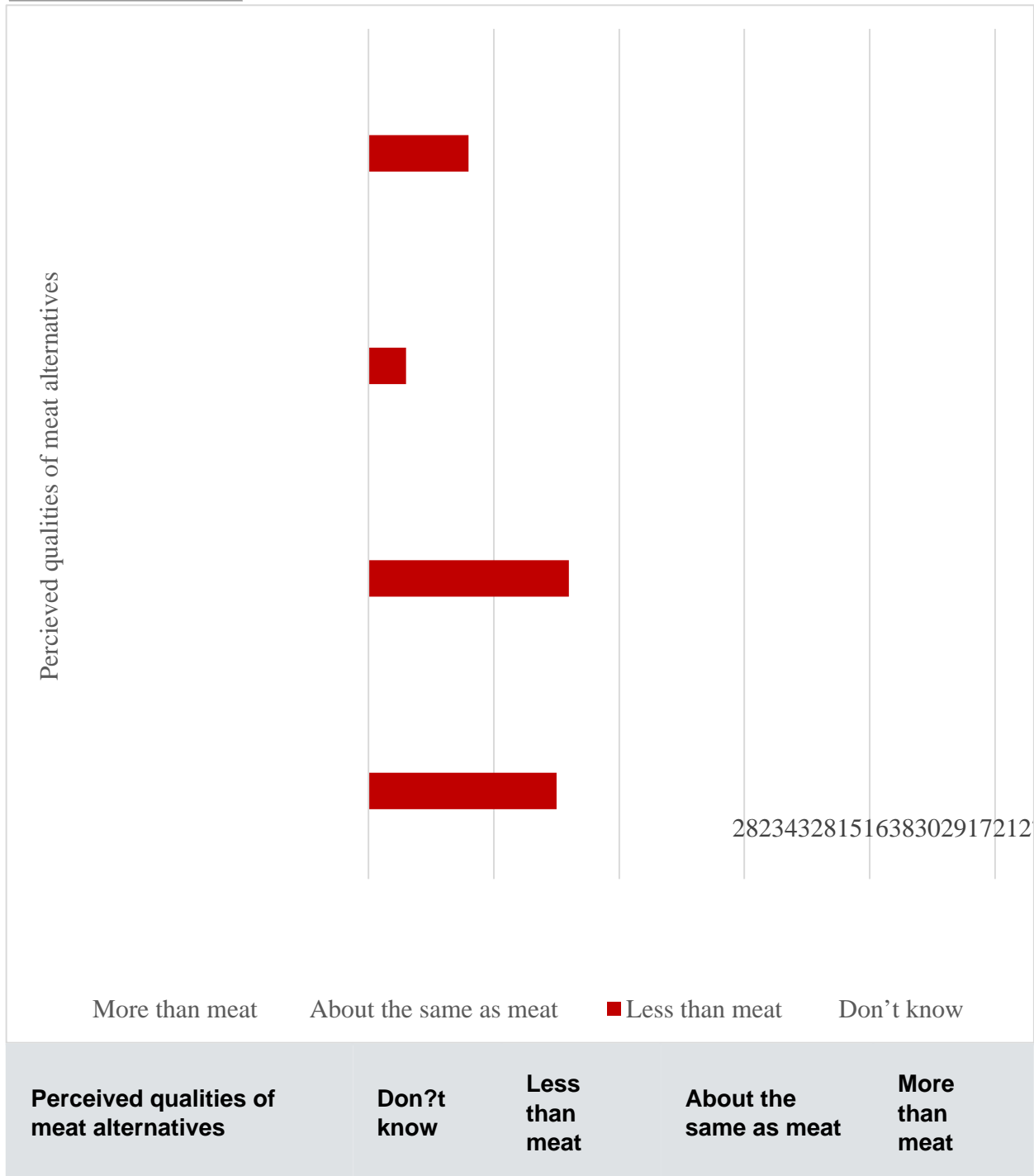
Respondents who reported that they currently eat meat alternatives were asked why they eat meat alternatives from a list of options. The most common reasons were for environmental or sustainability reasons (41%), for animal welfare reasons (35%) and for health reasons (35%)([footnote](#)).

Perceptions of meat alternatives compared to meat

Figure 29. Around 4 in 10 respondents think that shop-bought meat alternatives are more environmentally friendly than meat

Change to table and accessible view

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Healthy	28	15	30	27
Expensive	23	16	29	33
Refrigerated shelf-life	43	3	17	36
Environmentally friendly	28	8	21	42

Download this chart

[Image .csv](#)

Source: Food and You 2: Wave 4

Respondents were asked how they think meat alternatives compared to meat on several qualities including environmental impact, shelf life, cost, and healthiness. Around 4 in 10 respondents thought that meat alternatives were more environmentally friendly (42%) and would last longer in the fridge (36%) compared to meat. However, many respondents did not know how meat alternatives compare to meat when considering how long refrigerated shop-bought meat alternatives last (43%), how environmentally friendly (28%), healthy (28%) and expensive (23%) shop-bought meat alternatives are (Figure 29)[\(footnote\)](#).

Willingness to try lab-grown meat

‘Lab-grown meat’ is grown in a laboratory from the cells or tissue of a live animal such as a cow, without having to kill the animal.

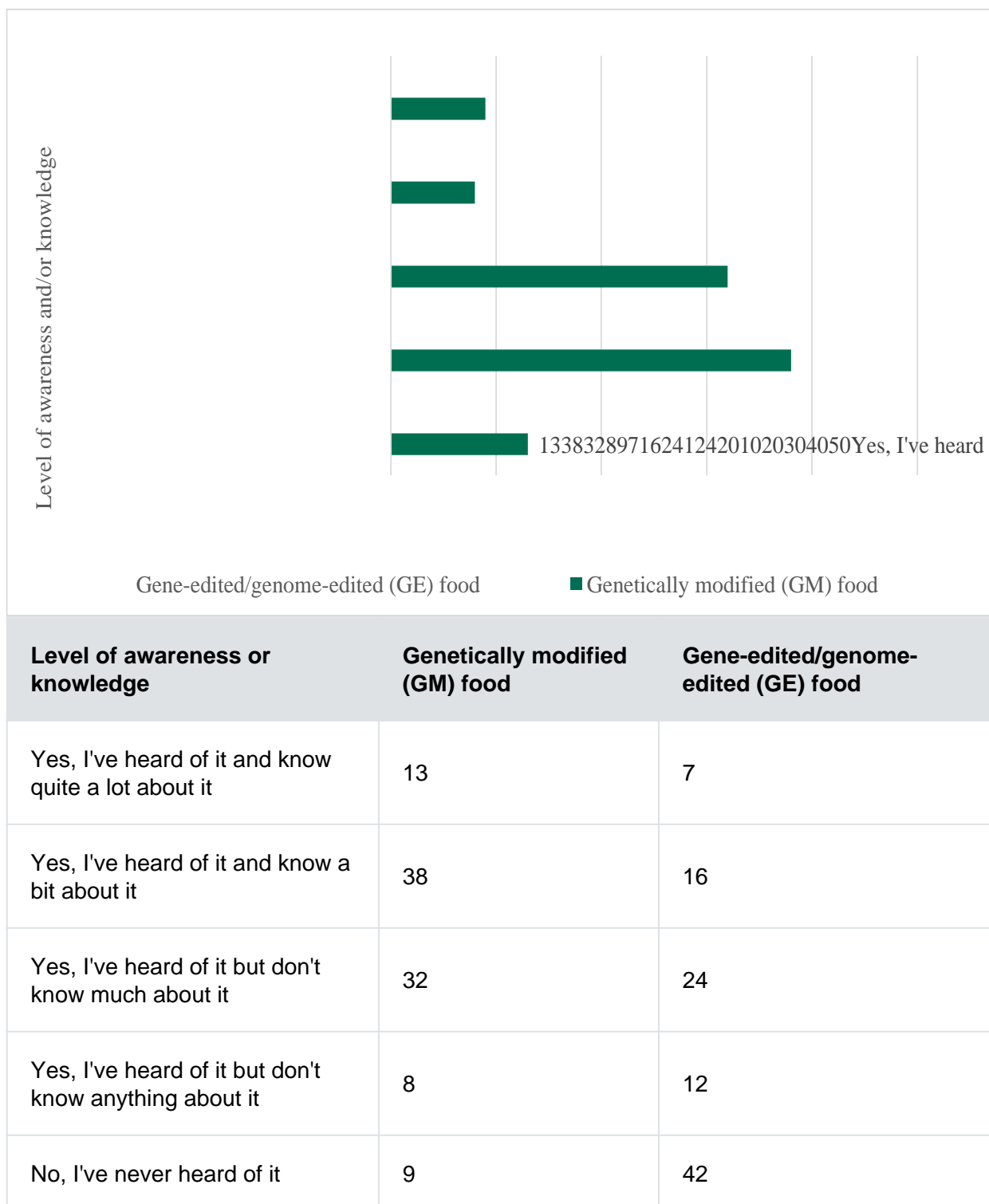
Respondents were asked if they would like to try including lab-grown meat in their diet if it became available in this country. Almost 3 in 10 (28%) respondents reported that they would like to try lab-grown meat (for example, 9% would definitely like to try; 18% probably would try) and around 6 in 10 (59%) would not (for example, 21% would probably not like to try, 38% would definitely not like to try). However, 14% of respondents reported that they didn’t know whether they would like to try including lab-grown meat in their diet[\(footnote\)](#).

Awareness of gene edited (GE) and genetically modified (GM) and gene edited/genome edited (GE) food

Figure 30. Awareness and knowledge of genetically modified (GM) food is greater than that of gene-edited / genome-edited (GE) food

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[Image .csv](#)

Source: Food and You 2: Wave 4

Respondents were asked if they had ever heard of genetically modified (GM) food and gene-edited or genome-edited food. Respondents reported greater awareness and knowledge of genetically modified (GM) food than gene-edited or genome-edited food (GE). For example, 42% of respondents had never heard of GE food and 9% of respondents had never heard of GM food (Figure 30)([footnote](#)).

Annex A: Food and You 2: Wave 4

Background

In 2018 the [Advisory Committee for Social Science \(ACSS\)](#) established a new Food and You Working Group to review the methodology, scope and focus of the Food and You survey. The Food and You Working Group provided a [series of recommendations](#) on the future direction of the Food and You survey to the FSA and ACSS in April 2019. Food and You 2 was developed from the recommendations.

The Food and You 2 survey has 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.

Previous publications in this series include:

- [Food and You 2: Wave 1 Key Findings](#) (March 2021)
- [Food and You 2: Wave 2 Key Findings](#) (July 2021)
- [Food and You 2: Wave 3 Key Findings](#) (January 2022)

Methodology

The Food and You 2 survey is commissioned by the Food Standards Agency (FSA). The fieldwork is conducted by Ipsos. Food and You 2 is a biannual survey. Fieldwork for Wave 4 was conducted from 18th October 2021 and 10th January 2022.

Food and You 2 is a sequential mixed-mode 'push-to-web' 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. This 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 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. Further details about the methodology are available in the [Technical Report](#). 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. Comparisons can be made between the different waves of [Food and You 2](#).

The sample of main and reserve addresses([footnote](#)) was stratified by region (with Wales and Northern Ireland being treated as separate regions), and within region (or country) by local authority (district in Northern Ireland) to ensure that the issued sample was spread proportionately across the local authorities. National deprivation scores were used as the final level of stratification within the local authorities - in England the [Index of Multiple Deprivation \(IMD\)](#), in Wales the [Welsh Index of Multiple Deprivation \(WIMD\)](#) and in Northern Ireland, the [Northern Ireland Multiple Deprivation Measure \(NIMDM\)](#).

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 of the postal survey are referred to as the 'Eating Out' and 'Eating at Home' postal questionnaires. 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. As a social research survey, Food and You 2 cannot report observed behaviours. Observed behaviour in kitchens has been reported in [Kitchen Life](#), an ethnographic study which used a combination of observation, video observation and interviews to gain insight into domestic kitchen practices. This study will be updated through Kitchen Life 2, which is in progress now and due to report in 2023.

The minimum target sample size for the survey is 4,000 households (2,000 in England, 1,000 in Wales, 1,000 in Northern Ireland), with up to two adults in each household invited to take part as mentioned above. For Wave 4 a total of 5,796 adults from 4,026 households across England (2,940 adults), Northern Ireland (1,575 adults), and Wales (1,281 adults), completed the survey. An overall response rate of 28.5% was achieved (England 29.8%, Wales 29.1%, Northern Ireland 25.9%). Sixty-five per cent of respondents completed the survey online and 28.5% completed the postal version of the survey. The postal responses from 51 respondents were removed from the data set as the respondent had completed both the online and postal survey. Further details about the response rates are available in the [Technical Report](#).

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 4 data are available in the [Technical Report](#).

The data have been checked and verified by six members of Ipsos and two members of the FSA Statistics branch. Descriptive analysis and statistical tests have been performed by Ipsos. Quantum (statistical software) was used by Ipsos 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 sub-group 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

1. 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.
2. 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).

3. [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.
4. [Index of Multiple Deprivation \(IMD\)](#) / [Welsh Index of Multiple Deprivation \(WIMD\)](#) / [Northern Ireland Multiple Deprivation Measure \(NIMDM\)](#) is the official measure of relative deprivation of a geographical area. IMD/WIMD/NIMDM classification is assigned by postcode or place name. IMD/WIMD/NIMDM is a multidimensional calculation which is intended to represent the living conditions in the area, including income, employment, health, education, access to services, housing, community safety and physical environment. Small areas are ranked by IMD/WIMD/NIMDM; this is done separately for England, Wales and Northern Ireland.

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