



Food  
Standards  
Agency  
food.gov.uk

.....

# **Food and You 2: 2020-2023 trends**

.....

**December 2023**

**Authors: Dr Beth Armstrong, Lucy King,  
Robin Clifford, Mark Jitlal, Katie Mears,  
Charlotte Parnell, Dr Daniel Mensah**

**DOI <https://doi.org/10.46756/sci.fsa.dpl504>**

# Contents

Food and You 2: 2020-2023 trends	1
List of figures	4
List of tables	6
Executive Summary	7
Headline findings	7
Food you can trust	7
Concerns about food	8
Food security	8
Eating out and takeaways	8
Eating at home	8
Food shopping and labelling	8
Acknowledgements	10
Introduction	11
The Food Standards Agency: role, remit, and responsibilities	11
Food and You 2: Wave 1-6	11
Interpreting the findings	13
Future publication plans	14
Chapter 1: Food you can trust	15
Introduction	15
Confidence in food safety and authenticity	15
Confidence in the food supply chain	16
Awareness, trust, and confidence in the FSA	19
Chapter 2: Concerns about food	23
Introduction	23
Common concerns	23
Chapter 3: Food security	33
Introduction	33
Food security	33
Food bank use	34
Chapter 4: Eating out and takeaways	36

Introduction	36
Eating out and takeaways by mealtime	36
Awareness and recognition of the FHRS	38
FHRS usage	40
Views on mandatory display	45
Availability and confidence in allergen information when eating out or ordering takeaways	48
Chapter 5: Eating at home	55
Introduction	55
Cleaning	56
Chilling	57
Cooking	64
Reheating	66
Leftovers	68
Avoiding cross-contamination	69
Use-by dates	70
Chapter 6: Food shopping and labelling	73
Introduction	73
What do respondents report that they look for when buying food?	73
How often do respondents report buying food produced in Britain, which has animal welfare information or has a low environmental impact?	75
Confidence in allergen labelling	77
Annex A: Background and methodology	79
Background	79
Previous publications in this series include:	79
Methodology	79
Technical terms and definitions	82
References	82

## List of figures

Figure 1. Confidence that food is safe and information on food labels is accurate.	15
Figure 2. Confidence in the food supply chain.	16
Figure 3. Confidence that food outlets ensure food is safe to eat.	17
Figure 4. Confidence that food producers ensure food is safe to eat.	19
Figure 5. Confidence in the Food Standards Agency.	20
Figure 6. Trust in the Food Standards Agency.	21
Figure 7. Top 5 prompted food-related concerns.	24
Figure 8. Prompted food-related concerns related to nutrition.	26
Figure 9. Prompted food-related concerns related to food production.	27
Figure 10. Prompted food-related concerns related to food safety and hygiene.	28
Figure 11. Concern about the safety and authenticity of food produced in or outside the UK.	29
Figure 12. Concern about the affordability of food.	31
Figure 13. Food security in England, Wales, and Northern Ireland.	33
Figure 14 Use of food banks and/or other emergency food providers.	34
Figure 15. The percentage of respondents that eat out or buying food to take out about 2-3 times a month or more often by mealtime.	36
Figure 16. The percentage of respondents in England, Wales and Northern Ireland who have heard of the FHRS and had at least a bit of knowledge about it.	38
Figure 17. Recognition of the food hygiene rating sticker in England, Wales and Northern Ireland.	39
Figure 18. The percentage of respondents who had checked the hygiene rating of a food business.	40
Figure 19. Most common methods used to check food hygiene ratings.	42
Figure 20. What rating respondents would consider the lowest acceptable food hygiene rating.	44

Figure 21. The percentage of respondents who think that food businesses should be required by law to display their food hygiene rating at their premises.	45
Figure 22. The percentage of respondents who think that online food ordering services should display their food hygiene rating.	47
Figure 23. The availability of allergen information when eating out or buying food to take out.	48
Figure 24. How often respondents who suffer from a bad or unpleasant physical reaction after consuming certain foods ask staff for allergen information when eating out or buying food to take out.	50
Figure 25. The percentage of respondents who suffer from a bad or unpleasant physical reaction after consuming certain foods who feel comfortable asking a member of staff for allergen information.	52
Figure 26. How confident respondents who suffer from a bad or unpleasant physical reaction after consuming certain foods were in allergen information provided in writing or verbally by a member of staff.	53
Figure 27. The percentage of respondents who always wash their hands.	56
Figure 28. The percentage of respondents who think that the inside of a fridge should be between 0-5 degrees Celsius.	57
Figure 29. The percentage of respondents who check the temperature of their fridge.	58
Figure 30. The percentage of respondents who check the temperature of their fridge at least once a month.	59
Figure 31. The percentage of respondents who check the temperature of their fridge using a recommended method.	60
Figure 32. How respondents store raw meat and poultry in the fridge.	61
Figure 33. Where respondents store raw meat and poultry in the fridge.	63
Figure 34. The percentage of respondents who always cook food until it is steaming hot and cooked all the way through.	64
Figure 35. The percentage of respondents who never eat chicken or turkey when it is pink or has pink juices.	65
Figure 36. Most common methods used to check if food is ready to eat when reheating it.	66
Figure 37. How many times respondents would consider reheating food.	67

Figure 38. The latest respondents would consume any leftovers stored in the fridge.	69
Figure 39. The percentage of respondents who never wash raw chicken.	70
Figure 40. The percentage of respondents who identified the use-by date as the information which shows when food is no longer safe to eat.	71
Figure 41. How often respondents check use by dates when they are about to cook or prepare food.	72
Figure 42. What factors are important to respondents when shopping.	73
Figure 43. The percentage of respondents who, always or most of the time, buy food with a certain a provenance, animal welfare or environmental impact.	76
Figure 44. The percentage of respondents who are confident in allergen labelling.	77

## List of tables

Table 1: Summary of Wave 1 to 6 fieldwork dates and responses.	12
--	----

## Executive Summary

Food and You 2 is a biannual 'Official Statistic' survey commissioned by the Food Standards Agency (FSA). The survey measures consumers' self-reported knowledge, attitudes and behaviours related to food safety and other food issues amongst adults (16 years and over) in England, Wales, and Northern Ireland.

This is the first Food and You 2 trends report which provides an overview of key trends between Wave 1 (July 2020 to October 2020) and Wave 6 (October 2022 to January 2023).

## Headline findings

- Public confidence in food safety and authenticity has remained high across all waves.
- Public trust and confidence in the FSA has remained high across all waves.
- Following a period of stability, reported levels of household food insecurity increased from 15% in Wave 3 to 25% in Wave 6.
- The percentage of respondents who were highly concerned about the affordability of food almost doubled, from 26% in Wave 2 to 51% in Wave 6.

## Food you can trust

Across all waves, respondents' confidence that the food they buy is safe to eat (Wave 1-6 average: 92%), and that the information on food labels is accurate has remained high (Wave 1-6 average: 86%).

Respondents' confidence in the food supply chain (Wave 1-6 average: 76%), and that many actors in the food supply chain ensure that the food respondents buy is safe to eat (for example, farmers Wave 1-6 average: 88%), has remained high across all waves.

Across all waves, confidence that the FSA can be relied upon to protect the public from food-related risks (Wave 1-6 average: 83%), takes appropriate action if a food-related risk is identified (Wave 1-6 average: 82%), and is committed to communicating openly with the public about food-related risks (Wave 1-6 average: 78%), has remained high. Trust in FSA to do its job, that is to make sure food is safe and what it says it is, has remained high (Wave 1-6 average: 76%), across all waves.

## Concerns about food

Between Wave 1 and Wave 4 the most common concerns were food waste and the amount of sugar in food. There has been a notable increase in concern about food prices, increasing from 39% in Wave 2 to 66% in Wave 5, becoming the issue most respondents were concerned about from Wave 5.

The percentage of respondents who reported that they were highly concerned about the affordability of food almost doubled between Wave 2 (26%) and Wave 6 (51%).

## Food security

Following a period of stability between Wave 1 and Wave 3, the percentage of respondents classified as food insecure increased, from 15% in Wave 3 to 25% in Wave 6.

## Eating out and takeaways

Since monitoring began in Wave 2, the percentage of respondents who reported that they had heard of the Food Hygiene Rating Scheme (FHRS) and had knowledge about it has increased over time (47% Wave 2, 58% Wave 6). There were no notable differences in the percentage of respondents in England and Wales who reported that they had checked the food hygiene rating of a business, however, this has slightly decreased in Northern Ireland.

## Eating at home

There were no notable differences in the percentage of respondents who reported that they always wash their hands before preparing or cooking food (Wave 1-6 average: 75%); always cook food until steaming hot and cooked all the way through (Wave 1-6 average: 77%), and never eat chicken or turkey when it is pink or has pink juices (Wave 1-6 average: 91%).

There were no notable differences in the percentage of respondents who identified the use-by date as the information which shows that food is no longer safe to eat (Wave 1-6 average: 67%), or the frequency with which respondents check use-by dates before they cook or prepare food (Wave 1-6 average: always 64%, sometimes 33%).

## Food shopping and labelling



There were no notable differences in the percentage of respondents who reported that it was important to buy meat, eggs and dairy which are produced with high standards of animal welfare (Wave 1-6 average: 91%); support British farmers and food producers (Wave 1-6 average: 89%); to buy food which has a low environmental impact (Wave 1-6 average: 85%), or the frequency with which respondents buy meat, eggs and dairy products which have information on animal welfare (Wave 1-6 average: always 25%, most of the time 39%).

## Acknowledgements

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

We would like to thank the team at Ipsos who made a significant contribution to the project, particularly Kavita Deepchand, Kathryn Gallop, Stephen Finlay, Hannah Harding, Amber Parish, Dr Patten Smith, Kelly Ward and Ammeline Wang.

We would like to thank the FSA working group, Welsh Language Unit, and our FSA colleagues – Joanna Disson and Clifton Gay.

Finally, thank you to our external advisors – Professor George Gaskell, Professor Anne Murcott and Joy Dobbs for their valuable direction and guidance.

Authors: Dr Beth Armstrong, Lucy King, Robin Clifford, Mark Jitlal, Katie Mears, Charlotte Parnell, Dr Daniel Mensah.

# 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<sup>1</sup>. 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 its mission of 'food you can trust' and to inform policy decisions by measuring consumers' self-reported 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: Wave 1-6

This is the first Food and You 2 trends report which provides an overview of key trends between Wave 1 (July 2020 to October 2020) and Wave 6 (October 2022 to January 2023).

(Table 1).

---

<sup>1</sup> In Scotland, the non-ministerial office [Food Standards Scotland](#), is responsible for ensuring food is safe to eat, consumers know what they are eating and improving nutrition.

**Table 1: Summary of Wave 1 to 6 fieldwork dates and responses.**

Wave	Fieldwork dates	Number of respondents	Number of households
1	29 July - 6 October 2020	9,319	6,408
2	20 November 2020 - 21 January 2021	5,900	3,955
3	28 April 2021 - 25 June 2021	6,271	4,338
4	18 October 2021 - 10 January 2022	5,796	4,026
5	26 April - 24 July 2022	6,770	4,727
6	12th October 2022 - 10th January 2023	5,991	4,217

Data were collected following the UK's exit from the EU in 2020 and the COVID-19 pandemic. Earlier waves of the survey were conducted during the Covid-19 pandemic, during which there were lockdowns, and other related measures which differed across the UK.<sup>2</sup> More recent waves of the survey were conducted during a period which saw the highest levels of annual inflation of the price of food and non-alcoholic drinks since 1977<sup>3</sup>. It is expected that these circumstances will have had a significant impact on

---

<sup>2</sup> See the [Timeline of UK government coronavirus lockdowns and measures](#), and a [summary of key actions from the UK government](#) between 2020 and 2022.

<sup>3</sup> See the [Cost of living insights: Food \(ONS\)](#).

people's food-related behaviours, such as, how and where people buy and eat food, and on levels of household food insecurity<sup>4</sup>.

## Interpreting the findings

To highlight the key differences between waves of data collection, 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 ( $p < 0.05$ ).

Some differences between waves 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 (\*\*).

Trends are typically reported for data which has been collected in three waves or more. In some cases, where trend data has not been calculated or not included in the report, the data are available in the full data set. Key information is provided for each reported question in the footnotes, including:

- Question wording (question) and response alternatives (response).
- The total 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.

Key information is provided in each figure, including, the wave and fieldwork period of each data point. For example, W1 (July 2020 to October 2020) refers to Wave 1 and the fieldwork period of July 2020 to October 2020.

---

<sup>4</sup> For example, [Consumer insights tracker report: key findings from December 2021 to March 2022 \(2022\)](#), FSA. [The UK Public's Interests, Needs and Concerns Around Food \(2022\)](#), Bright Harbour. [Food in a pandemic \(2021\)](#), FSA. [Family Resources Survey \(FRS\): financial year 2020 to 2021 \(2021\)](#), DWP. The FRS asks respondents to report experiences of food insecurity in the last 30 days so responses cannot be compared with Food and You 2.

## **Future publication plans**

A report which provides an overview of key trends from Food and You 2: Wave 1 to Wave 8 is expected to be published late 2024.

# Chapter 1: Food you can trust

## Introduction

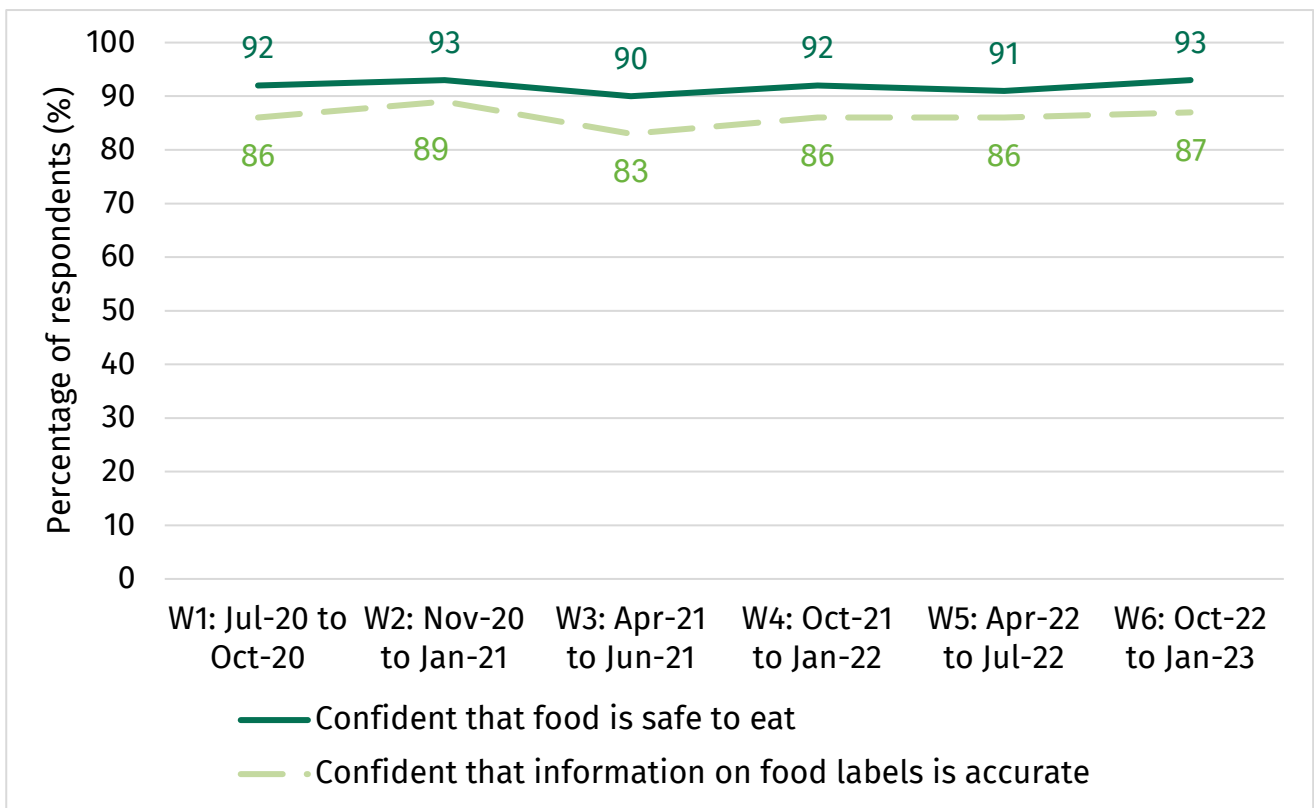
The FSA’s overarching mission is ‘food you can trust’. The FSA’s vision is a food system in which:

- 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 between Wave 1 (July 2020 to October 2020) and Wave 6 (October 2022 to January 2023).

## Confidence in food safety and authenticity

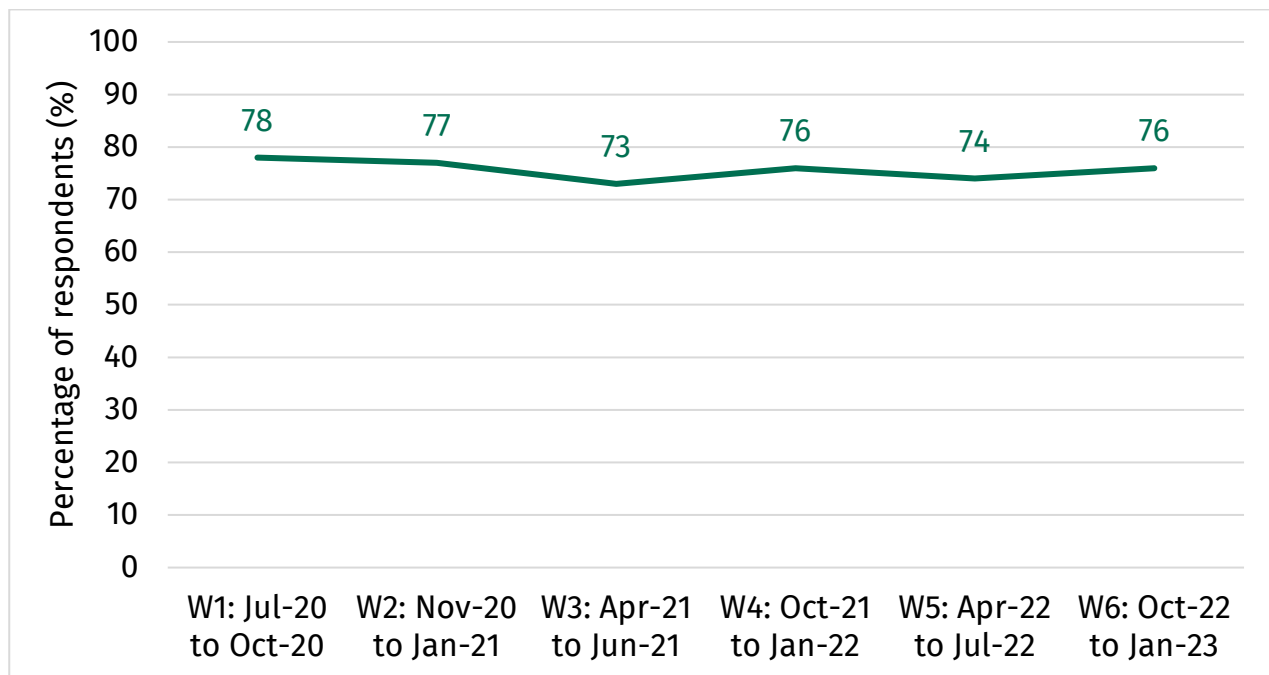
Figure 1. Confidence that food is safe and information on food labels is accurate.



There were no notable differences in confidence in food safety and authenticity between Wave 1 (July 2020 to October 2020) and Wave 6 (October 2022 to January 2023). Across all waves, around 9 in 10 respondents reported that they were confident (i.e., very confident or fairly confident) that the food they buy is safe to eat and over 8 in 10 respondents reported that they were confident that the information on food labels is accurate (Figure 1)<sup>5</sup>.

## Confidence in the food supply chain

**Figure 2. Confidence in the food supply chain.**



Food and You 2: Wave 1-6

There were no notable differences in confidence in the food supply chain between Wave 1 (July 2020 to October 2020) and Wave 6 (October 2022 to January 2023).

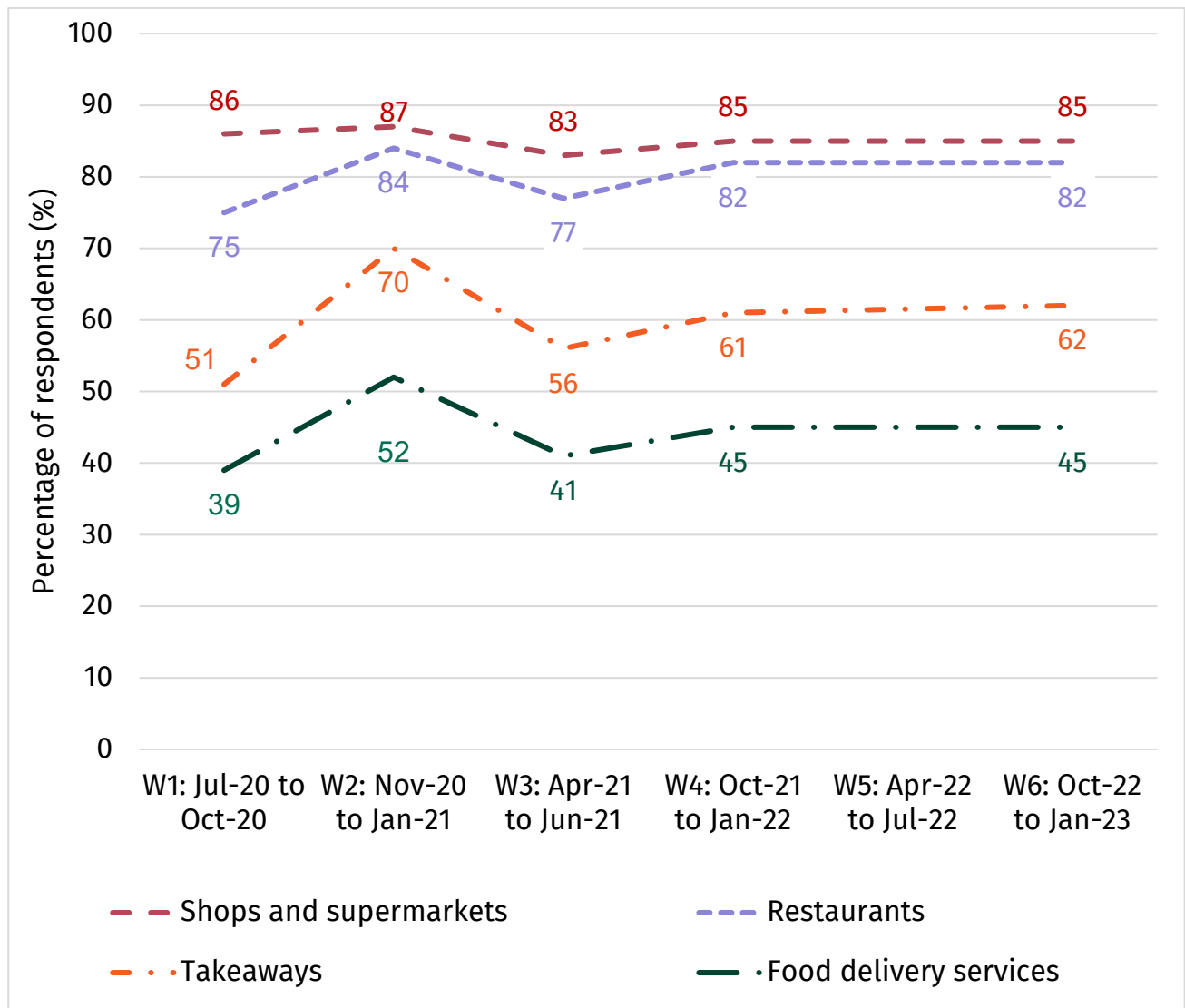
---

<sup>5</sup> Question: How confident are you that... a) the food you buy is safe to eat. b) the information on food labels is accurate (for example, ingredients, nutritional information, country of origin). Responses: very confident, fairly confident, not very confident, not at all confident, it varies, don't know. Base= 37943, all online respondents, and those answering the relevant postal questionnaire.



Across all waves, about three quarters of respondents reported that they were confident (i.e., were very confident or fairly confident) in the food supply chain (Figure 2)<sup>6</sup>.

**Figure 3. Confidence that food outlets ensure food is safe to eat.**



Food and You 2: Wave 1-6

Respondents were asked to indicate how confident they were that many actors involved in the food supply chain ensure that the food they buy is safe to eat. There were no notable differences in confidence (i.e., very confident or fairly confident) in shops and

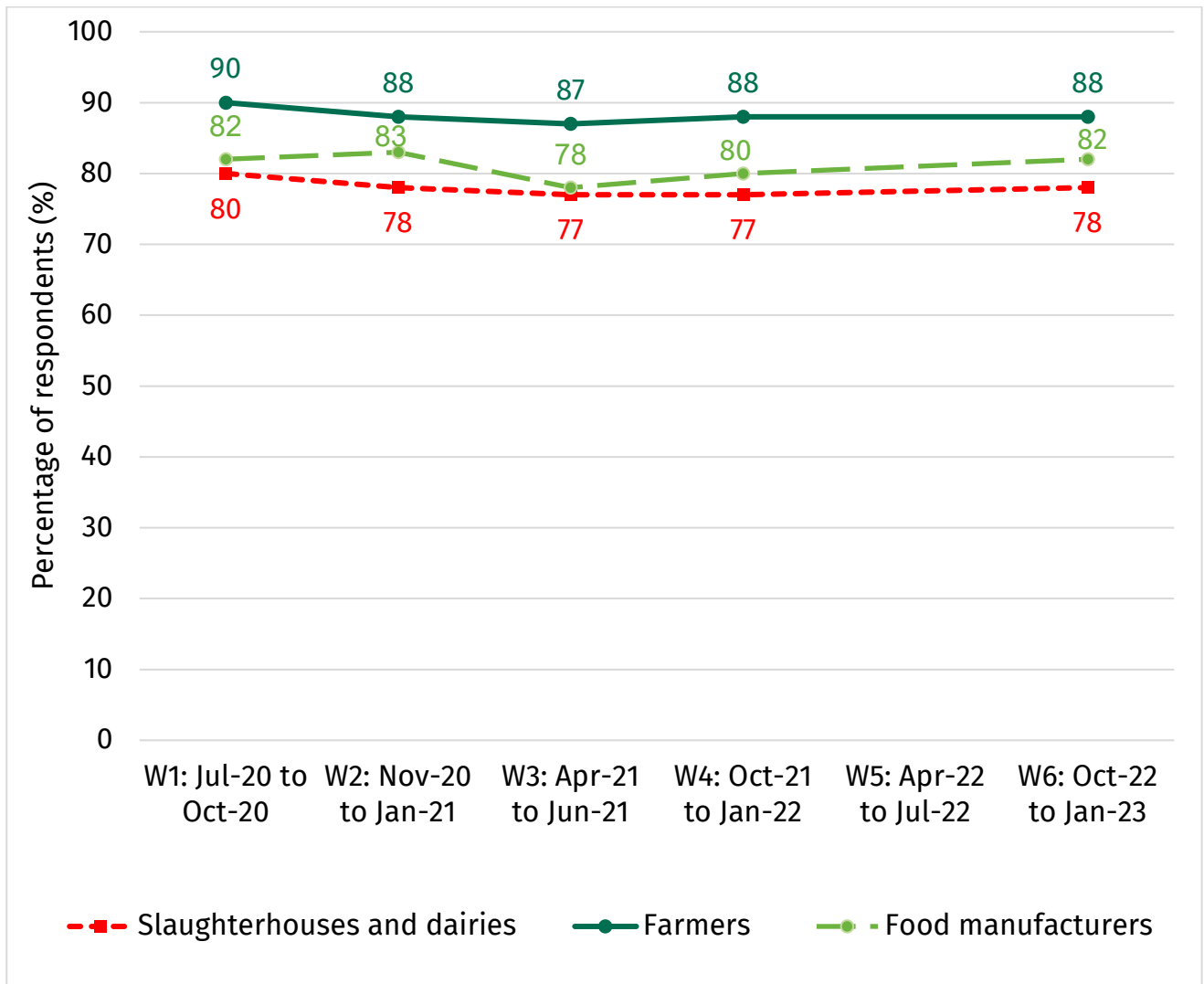
<sup>6</sup> Question: How confident are you in the food supply chain? That is all the processes involved in bringing food to your table. Responses: very confident, fairly confident, not very confident, not at all confident, it varies, don't know. Base= 37943, all online respondents, and those answering the relevant postal questionnaire.

supermarkets between Wave 1 (July 2020 to October 2020) and Wave 6 (October 2022 to January 2023). Whilst confidence in restaurants, takeaways and food delivery services was generally consistent across waves, confidence in these actors peaked in Wave 2 (November 2020 to January 2021)\*\* (Figure 3)<sup>7</sup>.

---

<sup>7</sup> Question: How confident are you that... A) Farmers, B) Slaughterhouses and dairies, C) Food manufacturers for example, factories, D) Shops and supermarkets, E) Restaurants, F) Takeaways, G) Food delivery services for example, Just Eat, Deliveroo, Uber Eats...in the UK (and Ireland) ensure the food you buy is safe to eat. Responses: very confident, fairly confident, not very confident, not at all confident, it varies, don't know. Base= 28409, all online respondents, and those answering the relevant postal questionnaire. Please note: there has been minor rewording across the waves. This question was not included in Wave 5.

**Figure 4. Confidence that food producers ensure food is safe to eat.**

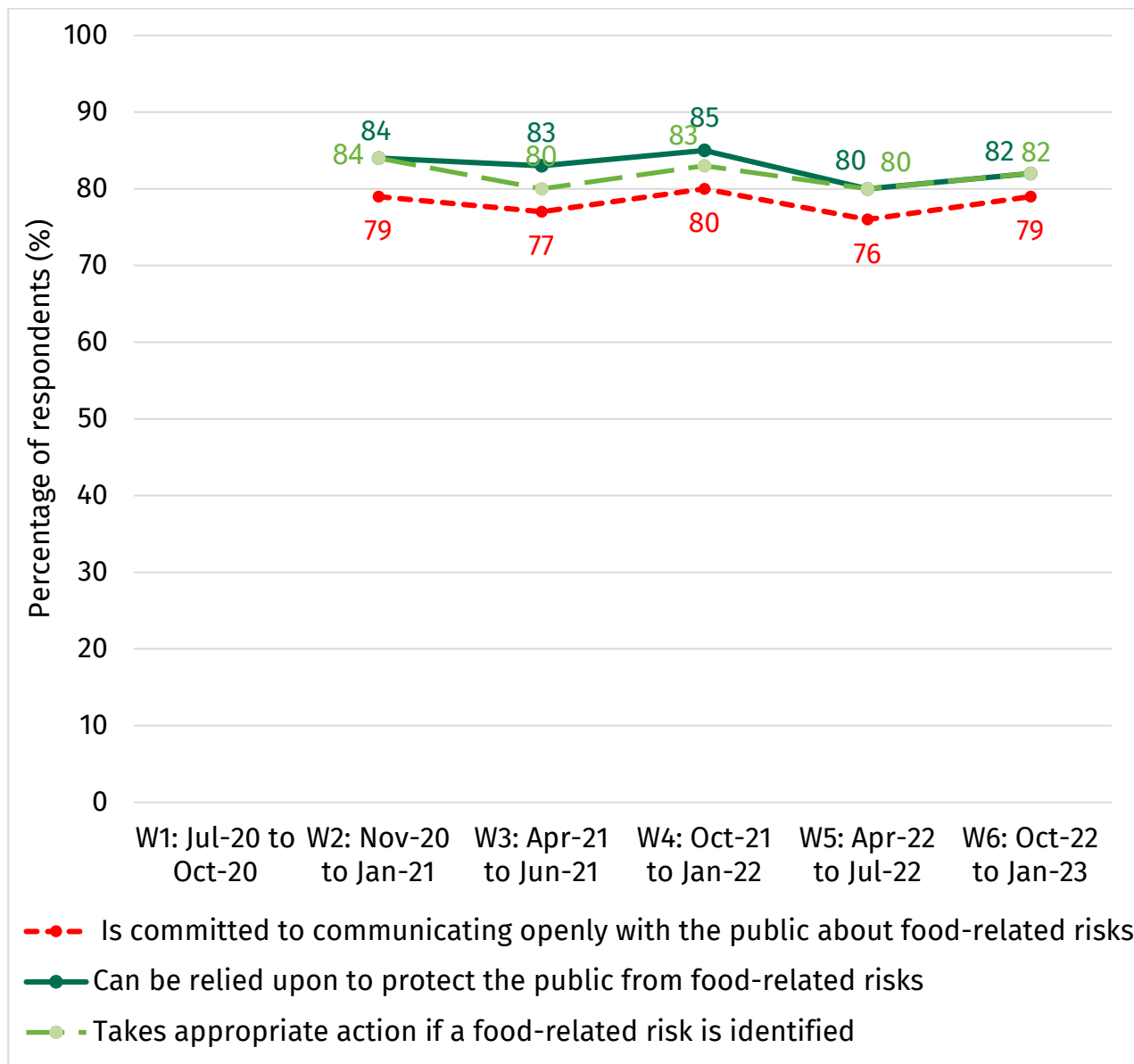


Food and You 2: Wave 1-6

There were no notable differences in confidence in farmers, food manufacturers, and slaughterhouses and dairies between Wave 1 (July 2020 to October 2020) and Wave 6 (October 2022 to January 2023). Across all waves, around 9 in 10 respondents reported confidence in farmers and around 8 in 10 respondents reported confidence in food manufactures, and slaughterhouses and dairies (Figure 4).

## Awareness, trust, and confidence in the FSA

**Figure 5. Confidence in the Food Standards Agency.**

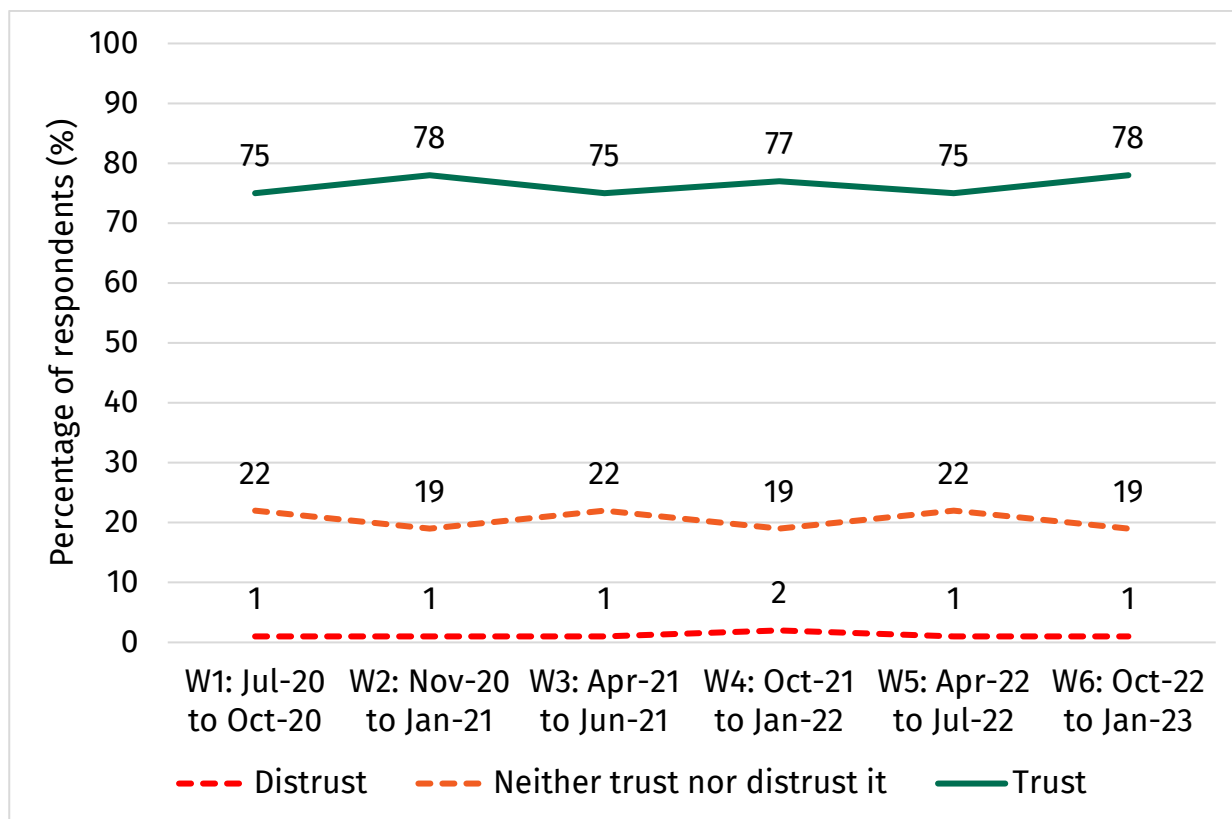


Food and You 2: Wave 1-6

There were no notable differences in confidence in the FSA between Wave 2 (November 2020 to January 2021) and Wave 6 (October 2022 to January 2023). Across all waves, around 8 in 10 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); takes

appropriate action if a food-related risk is identified, and is committed to communicating openly with the public about food-related risks (Figure 5)<sup>8</sup>.

**Figure 6. Trust in the Food Standards Agency.**



Food and You 2: Wave 1-6

<sup>8</sup> Question: How confident are you that the Food Standards Agency / the government agency responsible for food safety in England, Wales and Northern Ireland...a) Can be relied upon to protect the public from food-related risks (such as food poisoning or allergic reactions from food). b) Is committed to communicating openly with the public about food-related risks. c) Takes appropriate action if a food related risk is identified? Responses: very confident, fairly confident, not very confident, not at all confident, don't know. Base= 30720, all online respondents, and those answering the relevant postal questionnaire. Please note: Respondents with little or no knowledge of the 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. The data from Wave 1 is not present in the trends due to differences in filtering / question wording.

There were no notable differences in trust in the FSA between Wave 1 (July 2020 to October 2020) and Wave 6 (October 2022 to January 2023).

Across all waves, around three quarters of respondents who had at least some knowledge of the FSA reported that they trusted (i.e., 'I trust it a lot' and 'I trust it') the FSA to do its job, that is to make sure food is safe and what it says it is. Across all waves, around 2 in 10 reported that they neither trust nor distrust the FSA to do this (Figure 6)<sup>9</sup>.

---

<sup>9</sup> Question: How much do you trust or distrust the Food Standards Agency to do its job? That is to make sure that food is safe and what it says it is. Responses: I trust it a lot, I trust it, I neither trust nor distrust it, I distrust it, I distrust it a lot, don't know. Base= 23681, all respondents who know a lot or a little about the FSA and what it does.

## Chapter 2: Concerns about food

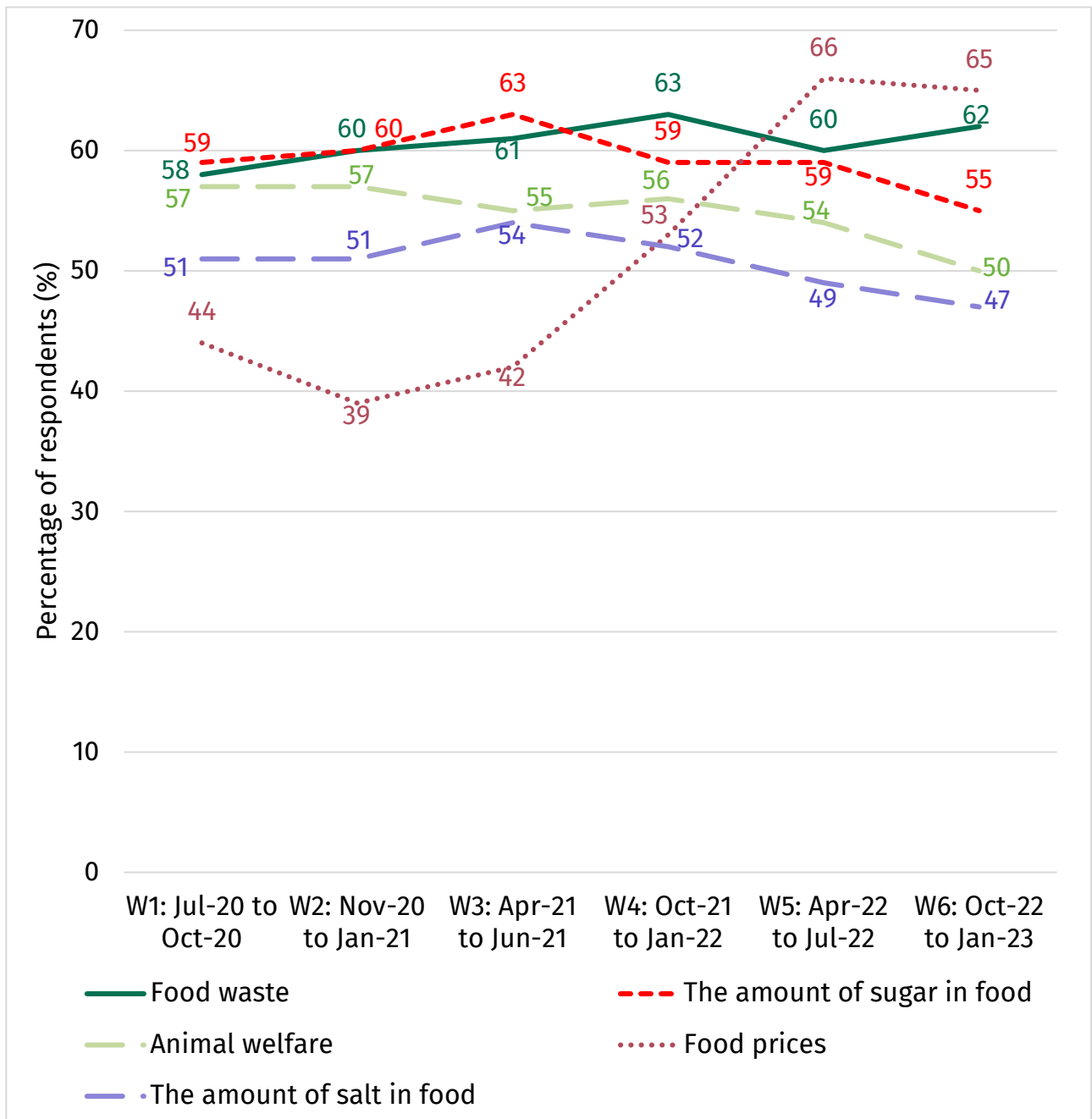
### Introduction

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 consumers' concerns about food issues, such as food safety and production, nutrition, and food-related behaviours in the home.

This chapter provides an overview of respondents' concerns about food between Wave 1 (July 2020 to October 2020) and Wave 6 (October 2022 to January 2023).

### Common concerns

**Figure 7. Top 5 prompted food-related concerns.**



Food and You 2: Wave 1-6

Respondents were asked to indicate if they had concerns about several food-related issues, from a list of options. Between Wave 1 (July 2020 to October 2020) and Wave 6 (October 2022 to January 2023) the most common concerns have varied. Between Wave 1 and Wave 4 (October 2021 to January 2022) the most common concerns were food waste and the amount of sugar in food. Since Wave 4, there has been a notable increase

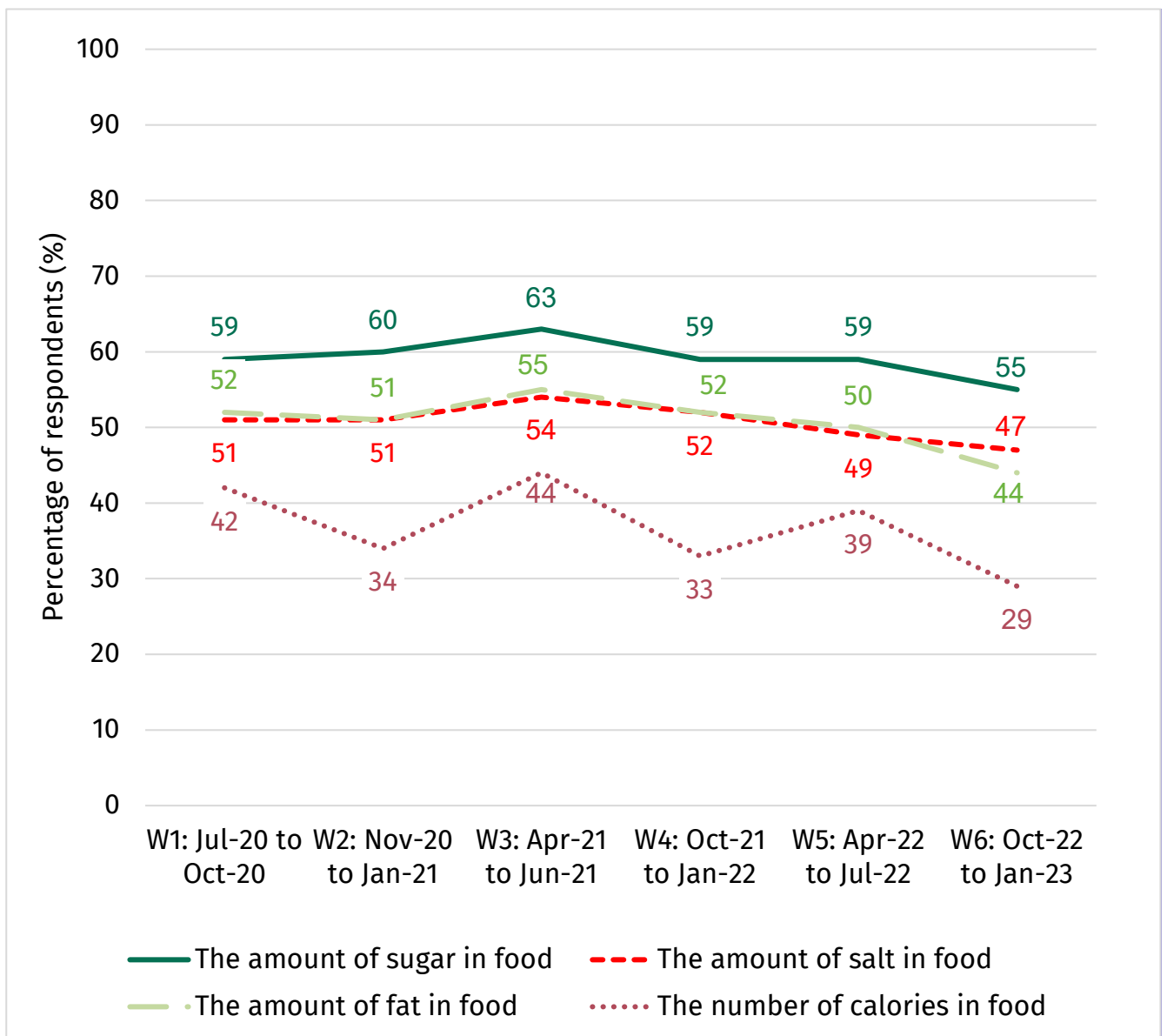


in concern around food prices, with this becoming the most prevalent concern in Wave 5 and 6 (Figure 7)<sup>10</sup>.

---

<sup>10</sup> Question: Do you have concerns about any of the following? Responses: the amount of sugar in food, food waste, animal welfare, hormones, steroids or antibiotics in food, the amount of salt in food, the amount of fat in food, food poisoning, food hygiene when eating out, food hygiene when ordering takeaways, the use of pesticides, food fraud or crime, the use of additives (for example, preservatives and colouring), food prices, genetically modified (GM) foods, chemical contamination from the environment, food miles, the number of calories in food, food allergen information, cooking safely at home, the quality of food, the amount of food packaging, being able to eat healthily, none of these, don't know. Base= 25632, all online respondents. Please note: the data from this question are not directly comparable across all waves due to new response options being added, see Technical Report for further details.

**Figure 8. Prompted food-related concerns related to nutrition.**



Food and You 2: Wave 1-6

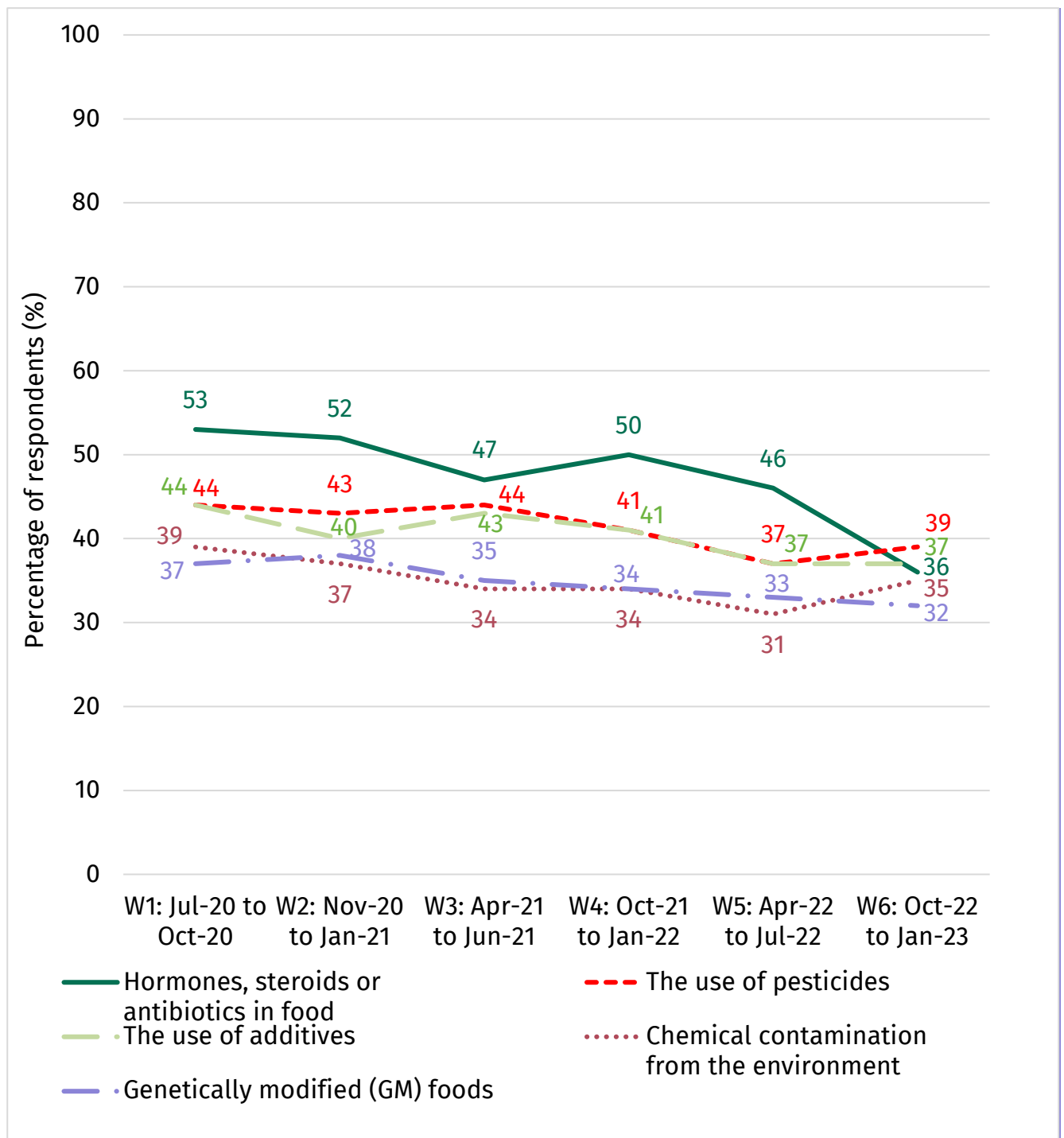
Across all waves, the amount of sugar in food was consistently the most common concern related to nutrition, followed by the amount of salt and the amount of fat in food. The number of calories in food was the issue related to nutrition that consumers were least concerned about across all waves<sup>10</sup>.

The percentage of respondents who reported concern about the number of calories in food, amount of sugar in food, amount of salt in food and the amount of fat in food peaked in Wave 3 (April 2021 to June 2021) and has slightly declined since \*\*.

The percentage of respondents that reported concern about the number of calories in food has fluctuated across waves indicating possible seasonal effects; respondents were

more likely to report concern about the number of calories in food in summer (for example, Wave 3: April 2021 to June 2021) than in winter (for example, Wave 6: October 2022 to January 2023) (Figure 8).

**Figure 9. Prompted food-related concerns related to food production.**



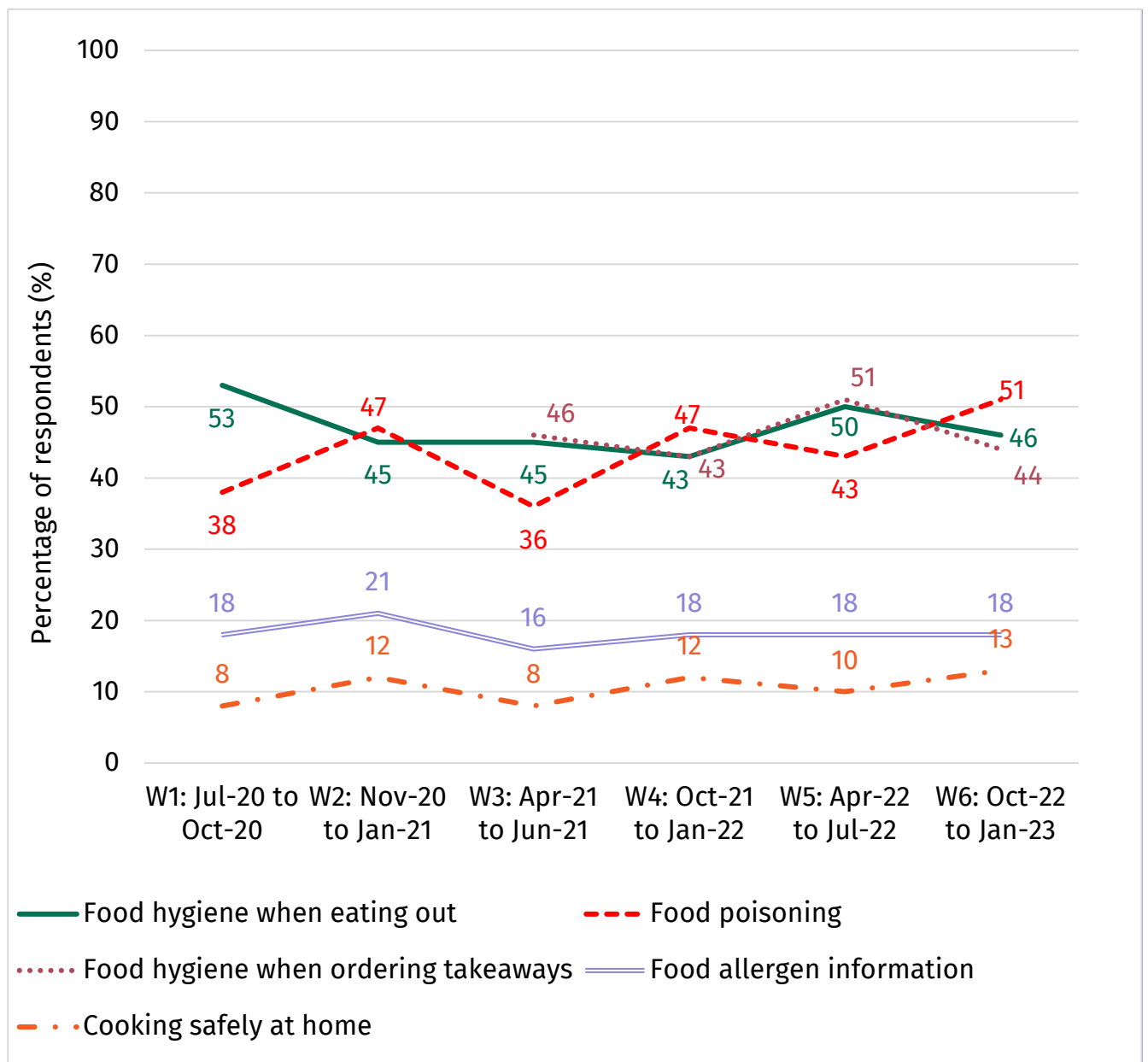
Food and You 2: Wave 1-6

The percentage of respondents who reported concerns which relate to the production of food varied across waves. The percentage of respondents who reported concern about

hormones, steroids or antibiotics has decreased since Wave 1 (July 2020 to October 2020), reaching the lowest reported level of concern in Wave 6 (October 2022 to January 2023)<sup>10</sup>

Overall, the percentage of respondents who reported concern about the use of pesticides, the use of additives, genetically modified (GM) foods, and chemical contamination from the environment has slightly decreased since Wave 1 (Figure 9) \*\*.

**Figure 10. Prompted food-related concerns related to food safety and hygiene.**



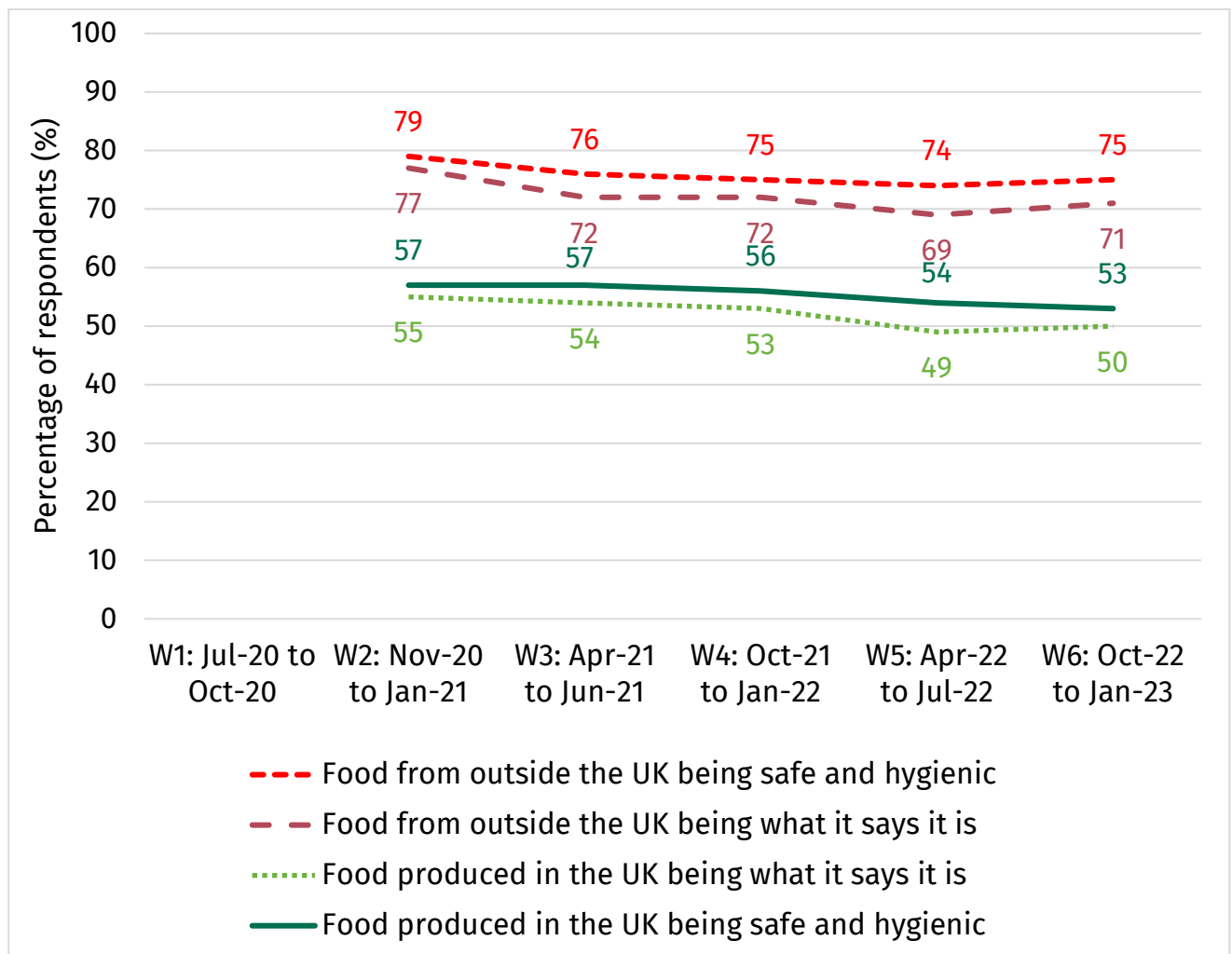
Food and You 2: Wave 1-6

Across all waves, respondents were more likely to report concern about food hygiene when eating out or when ordering takeaways compared to cooking safely at home<sup>10</sup>

The percentage of respondents that reported concern about food poisoning fluctuated between waves, indicating possible seasonal effects. Respondents were more likely to report concern in winter (for example, Wave 6: October 2022 to January 2023) than in summer (for example, Wave 3: April 2021 to June 2021). To a lesser extent, the percentage of respondents that reported concern about food hygiene when eating out and food hygiene when ordering takeaways fluctuated between waves, indicating possible minor seasonal effects\*\*.

There were no notable differences in the percentage of respondents that reported concern about cooking safely at home and food allergen information between Wave 1 (July 2020 to October 2020) and Wave 6 (Figure 10).

**Figure 11. Concern about the safety and authenticity of food produced in or outside the UK.**



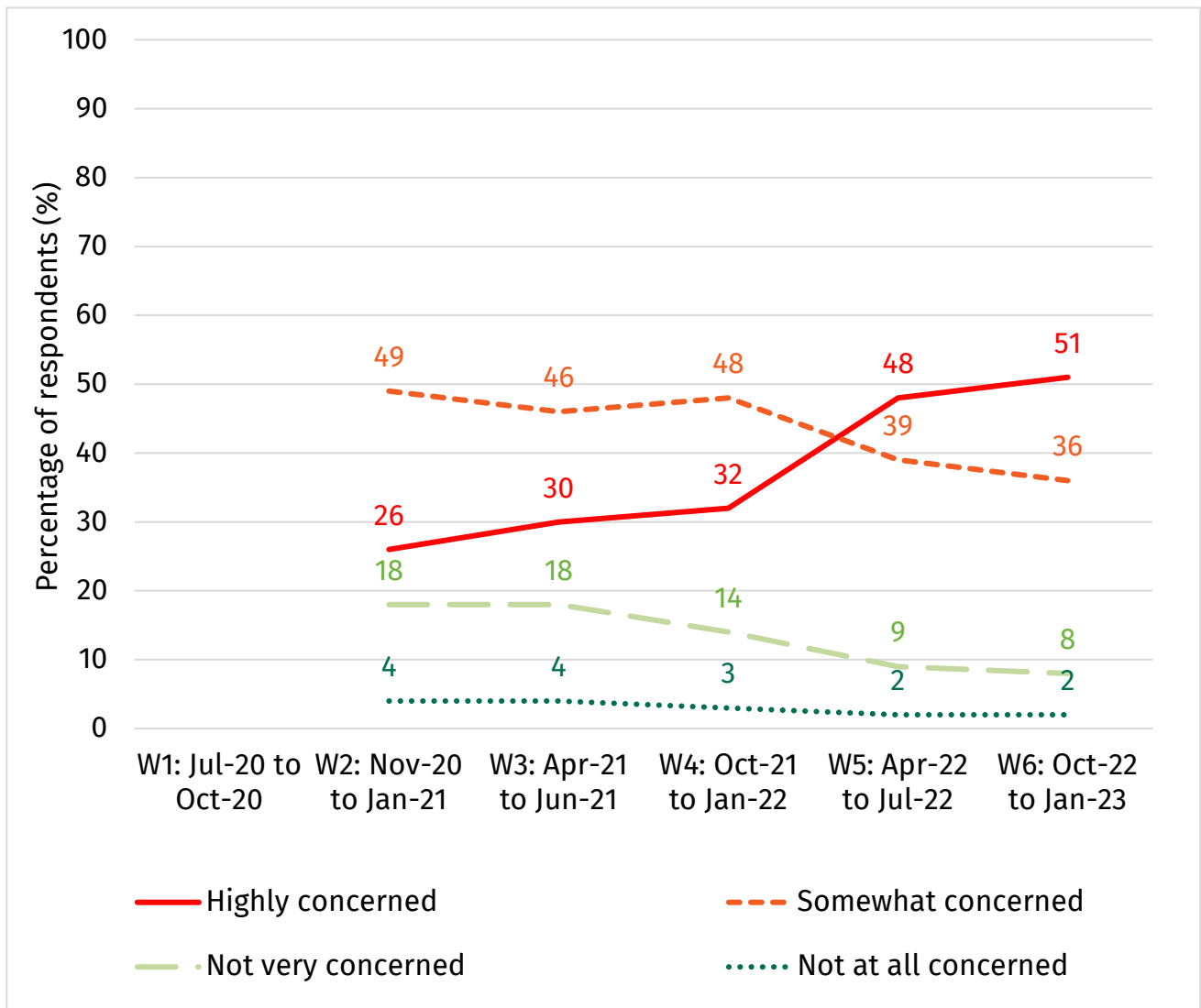
Food and You 2: Wave 1-6

Respondents were asked to indicate the extent to which they were concerned about the safety and authenticity of food produced in the UK and food produced outside the UK. Across all waves, respondents were more likely to report concern (i.e., highly concerned or somewhat concerned) about the safety and authenticity of food produced outside the UK compared to food produced in the UK. The level of concern about the safety and authenticity of food produced in the UK and food produced outside the UK has slightly decreased since monitoring began in Wave 2 (November 2020 to January 2021) (Figure 11) \*\* 11.

---

<sup>11</sup> Question: Thinking about food in the UK [question wording variation in Northern Ireland: the UK and Ireland] today, how concerned, if at all, do you feel about each of the following topics? a) affordability of food b) food produced in [in England and Wales: the UK; [in Northern Ireland: the UK and Ireland] being safe and hygienic c) food from outside [in England and Wales: the UK; in Northern Ireland: the UK and Ireland] being safe and hygienic d) food produced in [in England and Wales: the UK; in Northern Ireland: the UK and Ireland] being what it says it is e) food from outside [in England and Wales: the UK; in Northern Ireland: the UK and Ireland] being what it says it is f) food being produced sustainably g) the availability of a wide variety of food h) animal welfare in the food production process i) ingredients and additives in food j) genetically modified (GM) food. Responses: highly concerned, somewhat concerned, not very concerned, not at all concerned, Don't know. Base = 19696, all online respondents. Please note: some question wording was modified for respondents in England, Wales and Northern Ireland.

**Figure 12. Concern about the affordability of food.**



Food and You 2: Wave 1-6

Respondents were asked to indicate how concerned they were about the affordability of food. Since monitoring began in Wave 2 (November 2020 to January 2021), the reported level of concern about the affordability of food has notably increased. The percentage of respondents who reported that they were highly concerned about the affordability of food almost doubled between Wave 2 (26%) and Wave 6 (October 2022 to January 2023)

(51%) (Figure 12)<sup>12</sup>. In Wave 6, 87% of respondents reported that they were concerned (i.e., highly concerned or somewhat concerned) about the affordability of food.

---

<sup>12</sup> Question: Thinking about food in the UK [question wording variation in Northern Ireland: the UK and Ireland] today, how concerned, if at all, do you feel about each of the following topics? a) affordability of food b) food produced in [in England and Wales: the UK; [in Northern Ireland: the UK and Ireland] being safe and hygienic c) food from outside [in England and Wales: the UK; in Northern Ireland: the UK and Ireland] being safe and hygienic d) food produced in [in England and Wales: the UK; in Northern Ireland: the UK and Ireland] being what it says it is e) food from outside [in England and Wales: the UK; in Northern Ireland: the UK and Ireland] being what it says it is f) food being produced sustainably g) the availability of a wide variety of food h) animal welfare in the food production process i) ingredients and additives in food j) genetically modified (GM) food. Base = 19696, all online respondents. Please note: this question was not included in Wave 1. Some question wording was modified for respondents in England, Wales and Northern Ireland.



## Chapter 3: Food security

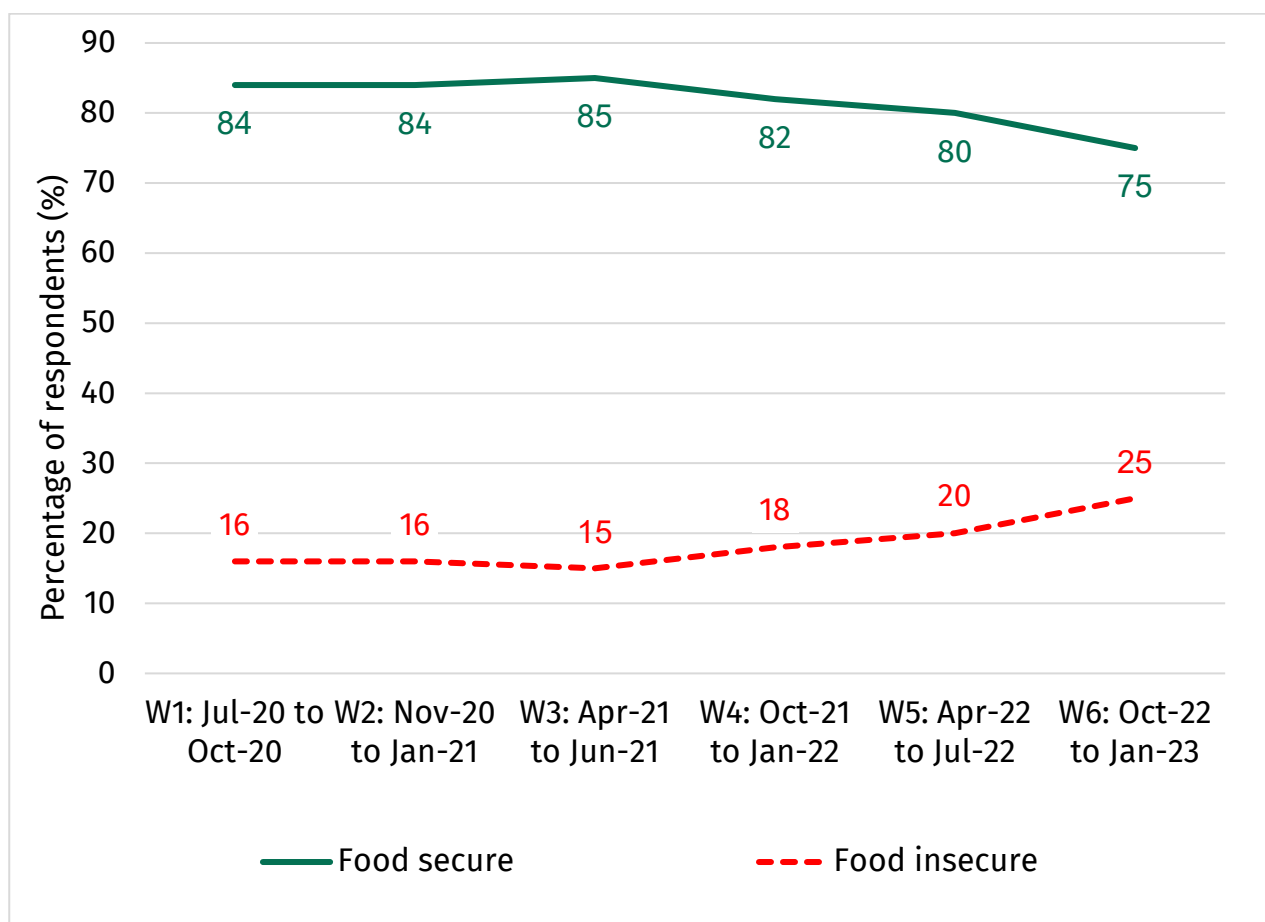
### Introduction

“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.

This chapter reports how food security and food bank use changed between Wave 1 (July 2020 to October 2020) and Wave 6 (October 2022 to January 2023).

### Food security

Figure 13. Food security in England, Wales, and Northern Ireland.



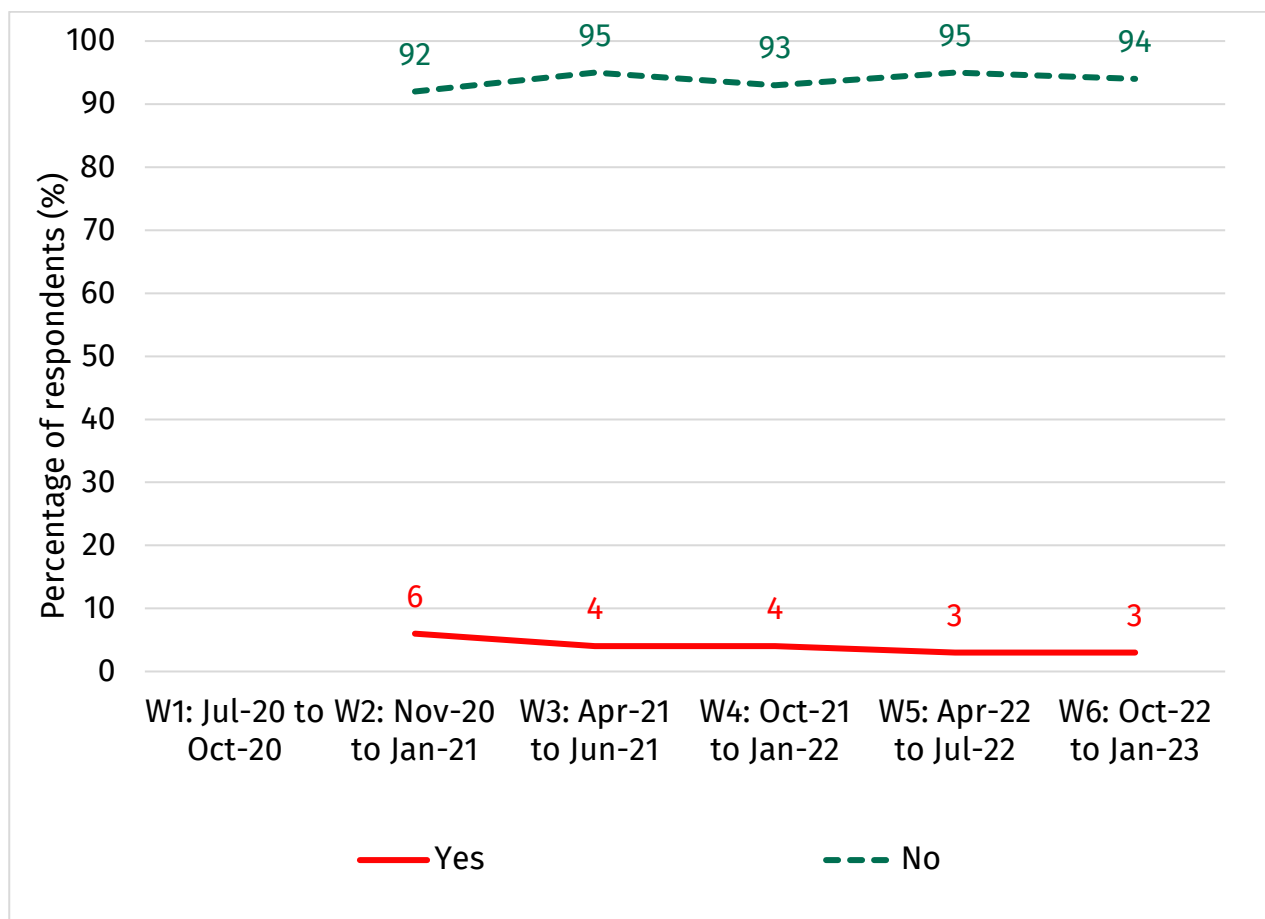
Food and You 2: Wave 1-6

Following a period of stability between Wave 1 (July 2020 to October 2020) and Wave 3 (April 2021 to June 2021), the percentage of respondents classified as food secure (i.e., high or marginal) has notably decreased, from 85% in Wave 3 to 75% in Wave 6

(October 2022 to January 2023). Conversely, the percentage of respondents classified as food insecure (i.e., low or very low) increased, from 15% in Wave 3 to 25% in Wave 6 (Figure 13)<sup>13</sup>.

## Food bank use

**Figure 14 Use of food banks and/or other emergency food providers.**



Food and You 2: Wave 1-6

<sup>13</sup> Question/Responses: Derived variable, see [USDA Food Security guidance](#) and Technical Report. Base= 40039, all respondents. Please note: Those with high or marginal food security are referred to as food secure. Those with low or very low food security are referred to as food insecure. More information on how food security is measured and how classifications are assigned and defined can be found in Annex A and on the [USDA Food Security website](#).

Since monitoring began in Wave 2 (November 2020 to June 2021) the percentage of respondents reporting that they had received a free parcel from a food bank or other emergency food provider in the previous 12 months has slightly decreased\*\* (Figure 14)<sup>14</sup>.

---

<sup>14</sup> Question: In the last 12 months, have you, or anyone else in your household, received a free parcel of food from a food bank or other emergency food provider? Responses: Yes, No, Prefer not to say. Base= 19696, all online respondents. Please note: this question was not included in Wave 1. Please note: [in 2020, a government-led scheme delivered boxes of emergency food to clinically vulnerable people across the UK. This was a large scale scheme, for example, over one million boxes were delivered to clinically vulnerable people in England.](#)

## 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 food businesses' hygiene standards. Food businesses are provided with a sticker which shows their FHRS rating<sup>15</sup>.

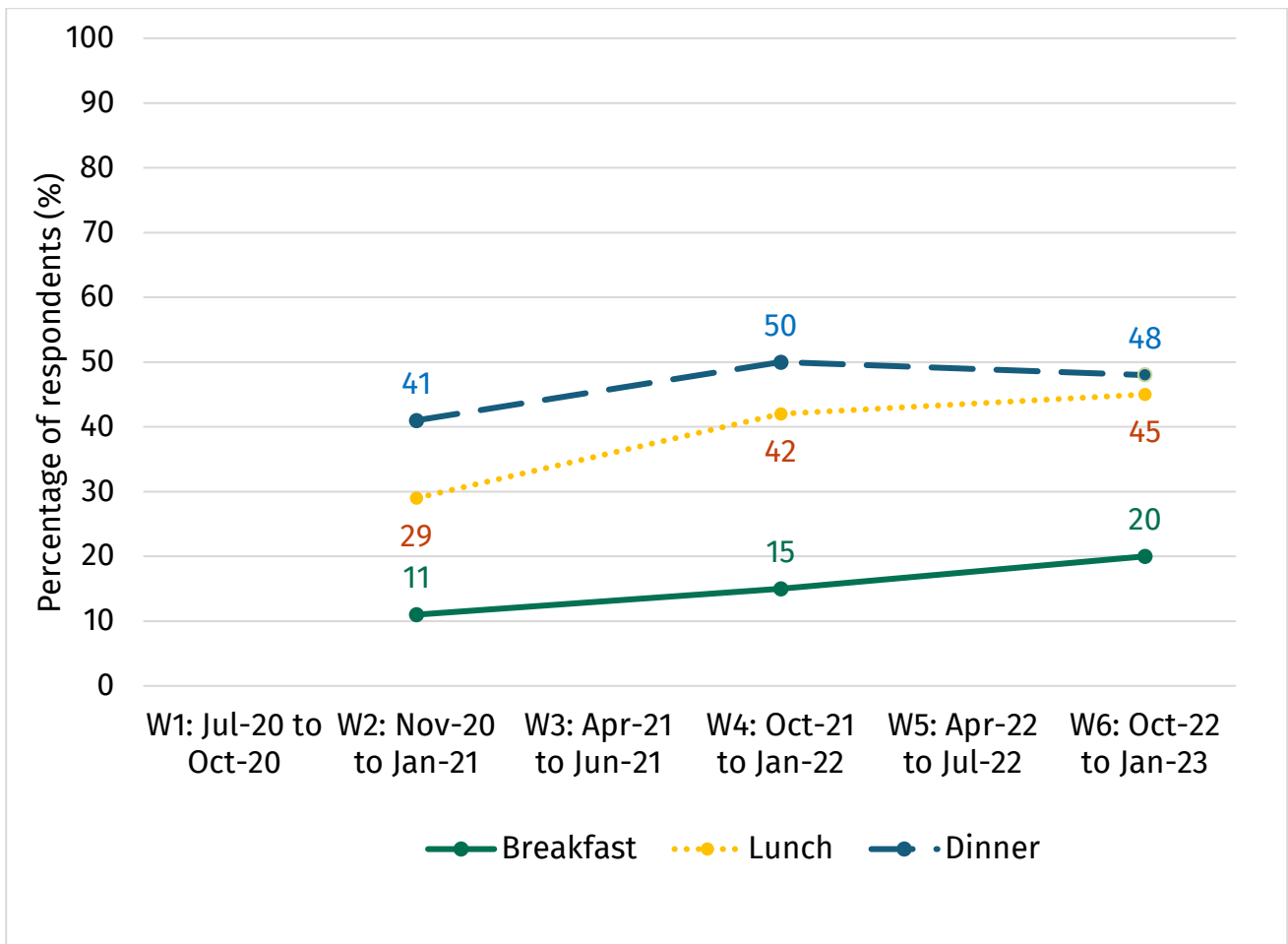
This chapter provides an overview of respondents' eating out and takeaway ordering habits, recognition and use of the FHRS, perceptions on mandatory display of the FHRS, and experiences of the availability and confidence in allergen information, between Wave 1 (July 2020 to October 2020) and Wave 6 (October 2022 to January 2023).

### Eating out and takeaways by mealtime

**Figure 15. The percentage of respondents that eat out or buy food to take out about 2-3 times a month or more often by mealtime.**

---

<sup>15</sup> Legislation for the mandatory display of FHRS ratings was introduced in November 2013 in Wales and October 2016 in Northern Ireland.



Food and You 2: Wave 1-6

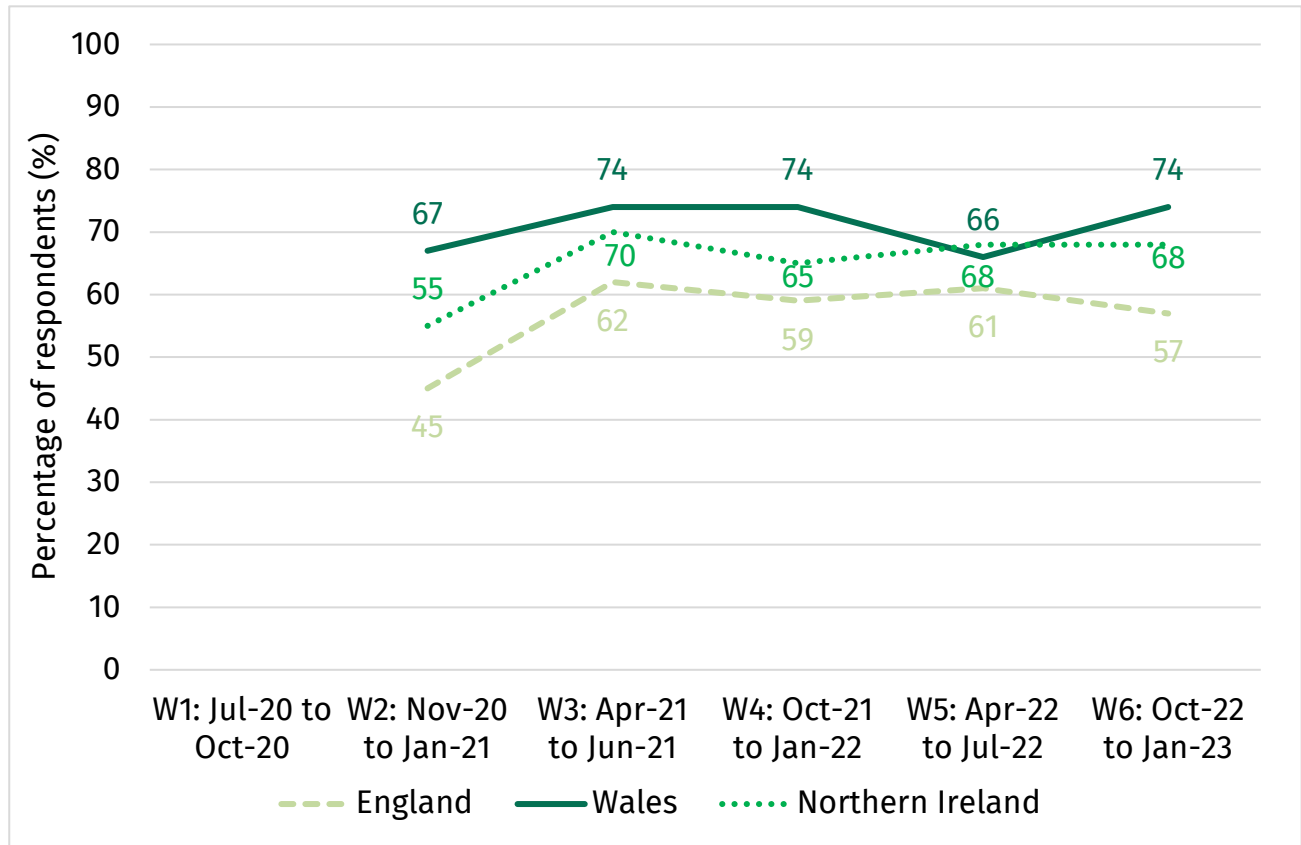
Respondents were asked how often they ate out or bought food to take out for breakfast, lunch, and dinner. Across all waves, respondents were most likely to eat out or buy food (i.e., about 2-3 times a month or more often) for dinner and least likely to eat out or buy food to take out for breakfast.

Since monitoring began in Wave 2 (November 2020 to January 2021) the percentage of respondents that reported eating out or buying food to take out for breakfast, lunch, and dinner has increased\*\* (Figure 15)<sup>16</sup>.

<sup>16</sup> Question: At the moment, how often, if at all, do you eat out or buy food to take out for...? A) Breakfast, B) Lunch, C) Dinner. Responses: Several times a week, About once a week, About 2-3 times a month, About once a month, Less than once a month, Never, Can't remember. Base= 11329, all online respondents. Please note: this question was not included in Wave 1, Wave 3, Wave 5.

## Awareness and recognition of the FHRS

Figure 16. The percentage of respondents in England, Wales and Northern Ireland who had heard of the FHRS and had at least a bit of knowledge about it.

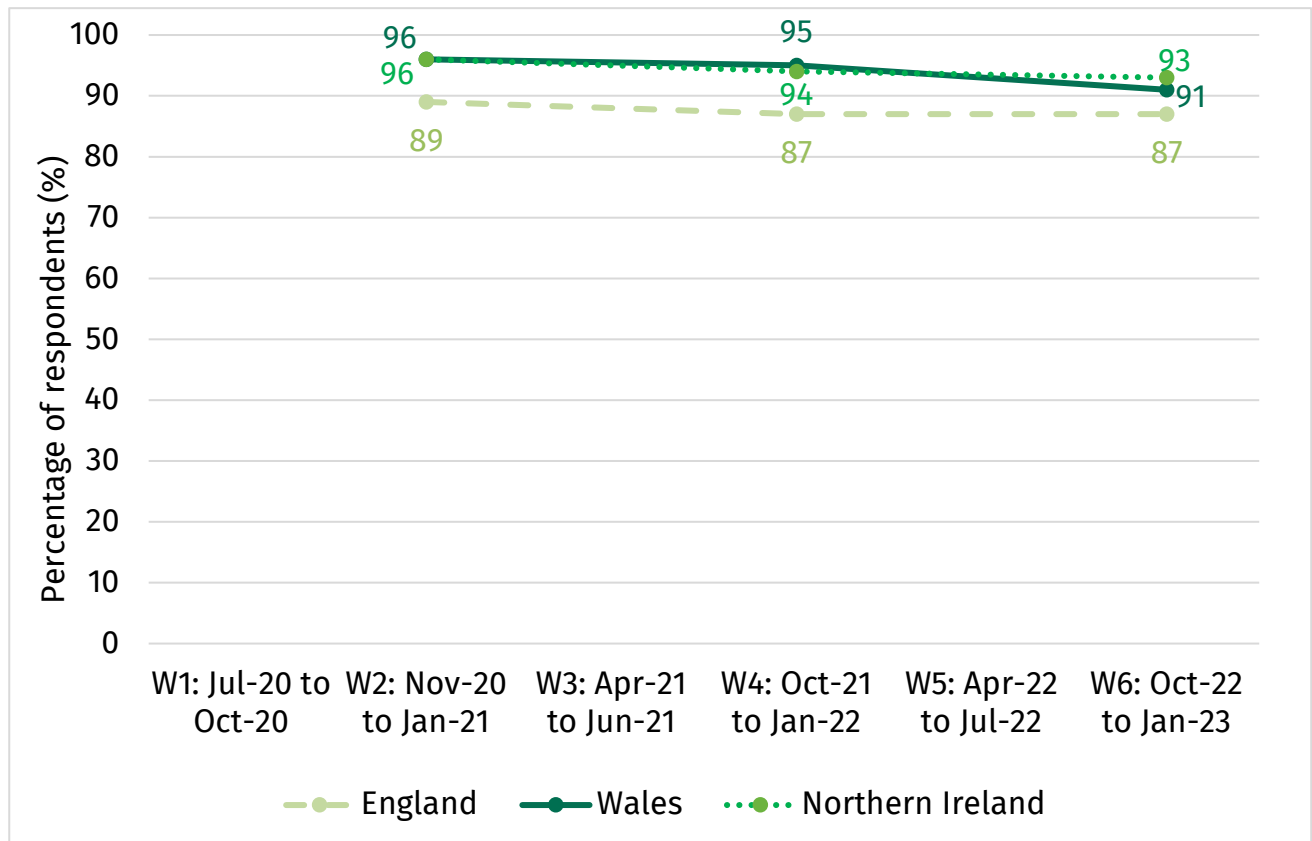


Food and You 2: Wave 1-6

Overall, the percentage of respondents who reported that they had heard of the FHRS and had knowledge about it (i.e., Yes, I've heard of it and know a lot / bit about it) has increased since monitoring began in Wave 2 (November 2020 to January 2021). Respondents in Wales had a higher level of awareness and knowledge of the FHRS than

those in Northern Ireland. The lowest level of awareness and knowledge of the FHRS was reported in England (Figure 16) <sup>17,18</sup>.

**Figure 17. Recognition of the food hygiene rating sticker in England, Wales and Northern Ireland.**



Food and You 2: Wave 1-6

Since monitoring began in Wave 2 (November 2020 to January 2021) there were no notable differences in the percentage of respondents in England, Wales or Northern

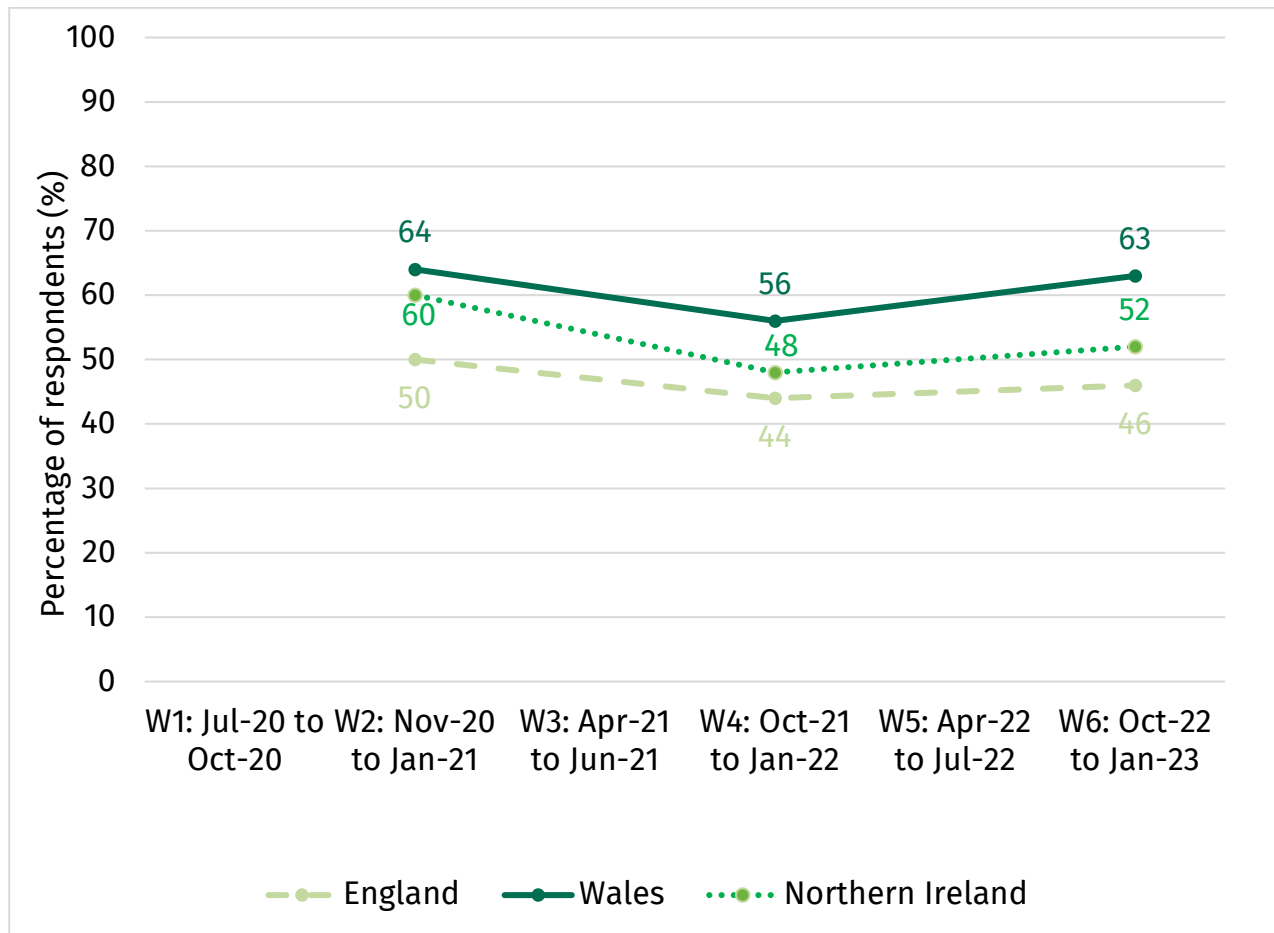
<sup>17</sup> Question: Have you heard of the Food Hygiene Rating Scheme? Responses: Yes, I've heard of it and know quite a lot about it, Yes, I've heard of it and know a bit about it, Yes, I've heard of it but don't know much about it, Yes, I've heard of it but don't know anything about it, No, I've never heard of it. Base = 19696, all online respondents. Please note: this question was not included in Wave 1.

<sup>18</sup> Responses to other FHRS questions not included in this report are available in the full dataset and tables. A more detailed FHRS report is published separately.

Ireland who reported that they had seen the food hygiene rating sticker. Across all waves, around 9 in 10 respondents reported that they had seen the sticker. (Figure 17)<sup>19</sup>.

## FHRS usage

**Figure 18. The percentage of respondents who had checked the hygiene rating of a food business.**



Food and You 2: Wave 1-6

Respondents were asked if they had checked the hygiene rating of a food business in the last 12 months. Overall, there were no notable differences in the percentage of

<sup>19</sup> Question: Have you ever seen this sticker before? Responses: Yes, No, Don't know / not sure. Base = 14523, all online respondents and those answering the Eating Out postal questionnaire. Please note: this question was not included in Wave 1, Wave 3 or Wave 5.

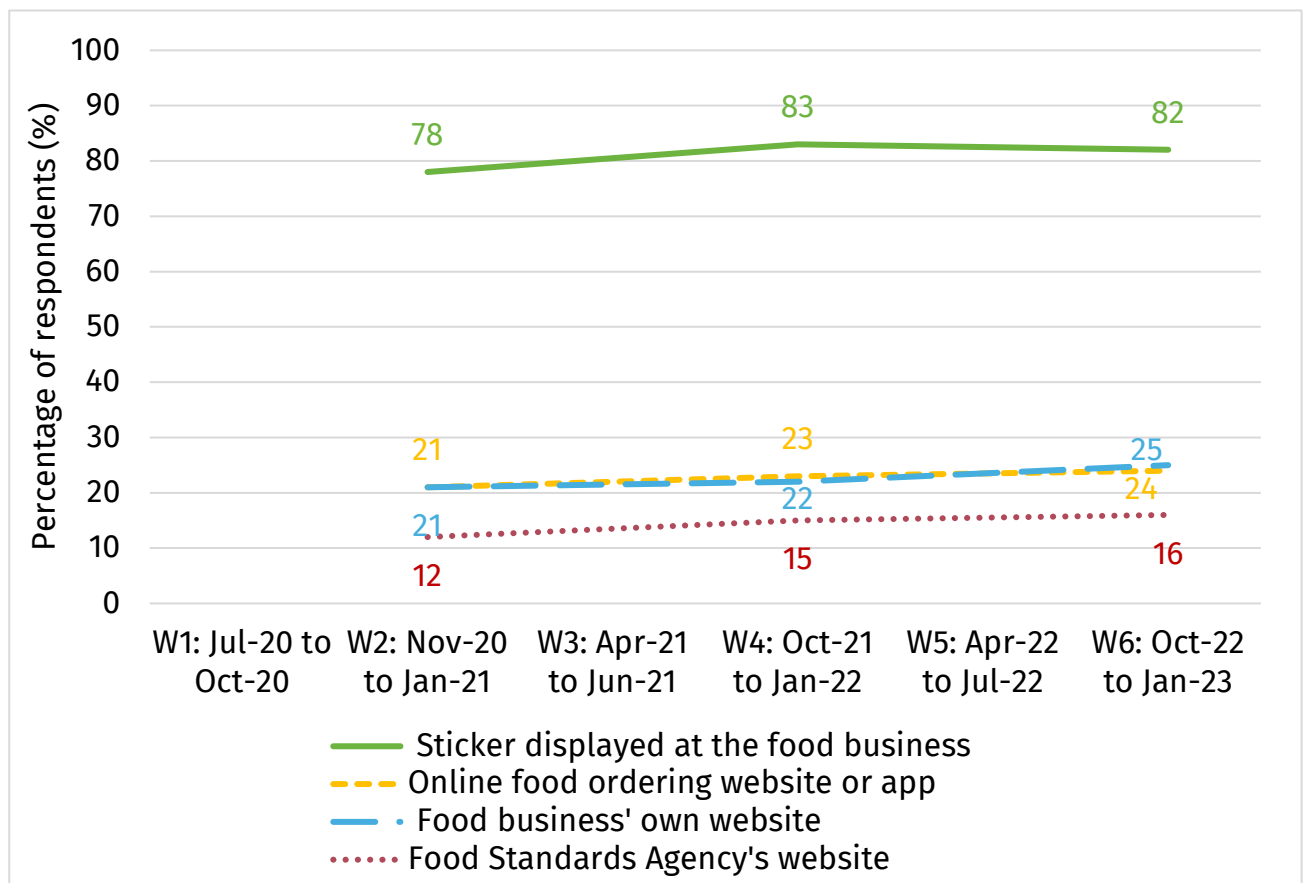


respondents in England and Wales who reported that they had checked the food hygiene rating of a business, since monitoring began in Wave 2 (November 2020 to January 2021). Over the same period, there was a slight decrease in the percentage of respondents in Northern Ireland who reported that they had checked the food hygiene rating of a business\*\* (Figure 18)<sup>20</sup>.

---

<sup>20</sup> Question: In the last 12 months, have you checked the hygiene rating of a food business? You may have checked a rating at the business premises, online, in leaflets or menus whether or not you decided to purchase food from there. Responses: Yes, I have checked the Food Hygiene Rating of a food business, No, I have not checked the Food Hygiene Rating of a food business, Don't know. Base = 13162, all online respondents and those answering the 'Eating Out' postal questionnaire, who have heard of the Food Hygiene Rating Scheme. Please note: this question was not included in Wave 1, Wave 3 or Wave 5.

**Figure 19. Most common methods used to check food hygiene ratings.**



Food and You 2: Wave 1-6

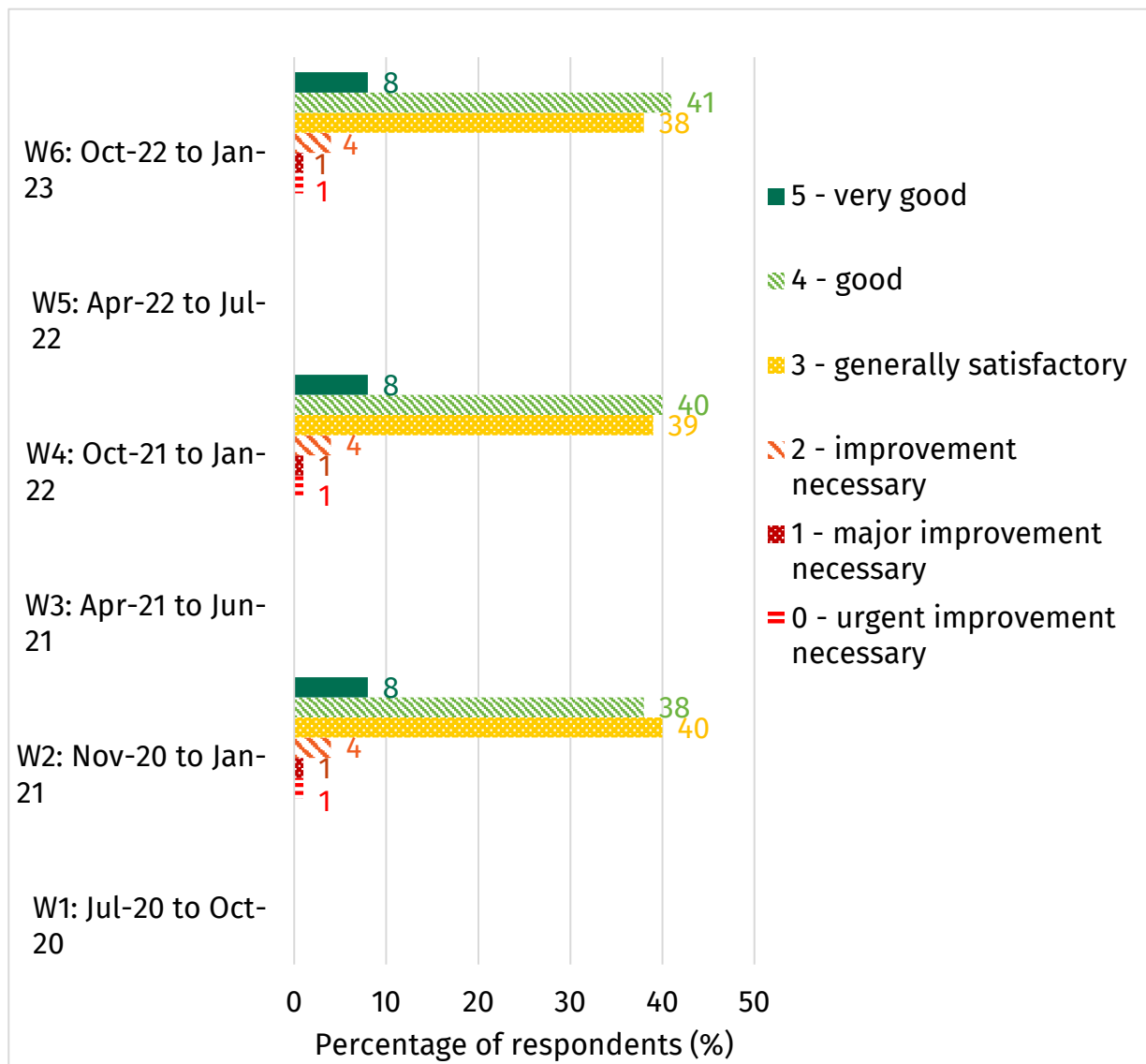
Respondents who had checked the food hygiene of a food business in the previous 12 months were asked how they had checked the rating. Since monitoring began in Wave 2 (November 2020 to January 2021) there were no notable differences in how respondents

checked the food hygiene rating of a business (Figure 19)<sup>21</sup>.

---

<sup>21</sup> Question: How did you check these ratings? Responses: I looked at an FHRS sticker displayed at the food business (such as in a business' window or on the door), I checked an online food ordering website or app (e.g. Just Eat, Deliveroo, Uber Eats), I checked the food business' own website, I checked on the Food Standards Agency's website, I checked on an app (e.g. Scores on the Doors Food Hygiene Rating), I checked on another website, I checked in a local newspaper, Other, Don't know. Base = 6714, all online respondents and those answering the 'Eating Out' postal questionnaire, who have checked the Food Hygiene Rating of a food business in the previous 12 months. Please note: there has been minor rewording across the waves. This question was not included in Wave 1, Wave 3 or Wave 5.

**Figure 20. What rating respondents would consider the lowest acceptable food hygiene rating.**



Food and You 2: Wave 1-6

Respondents were asked which food hygiene rating they would consider the lowest acceptable level. Since monitoring began in Wave 2 (November 2020 to January 2021) there were no notable differences in the food hygiene rating which respondents would consider the lowest acceptable level. Across all waves, about 4 in 10 respondents considered a rating of 4 – good as the lowest acceptable level and about 4 in 10

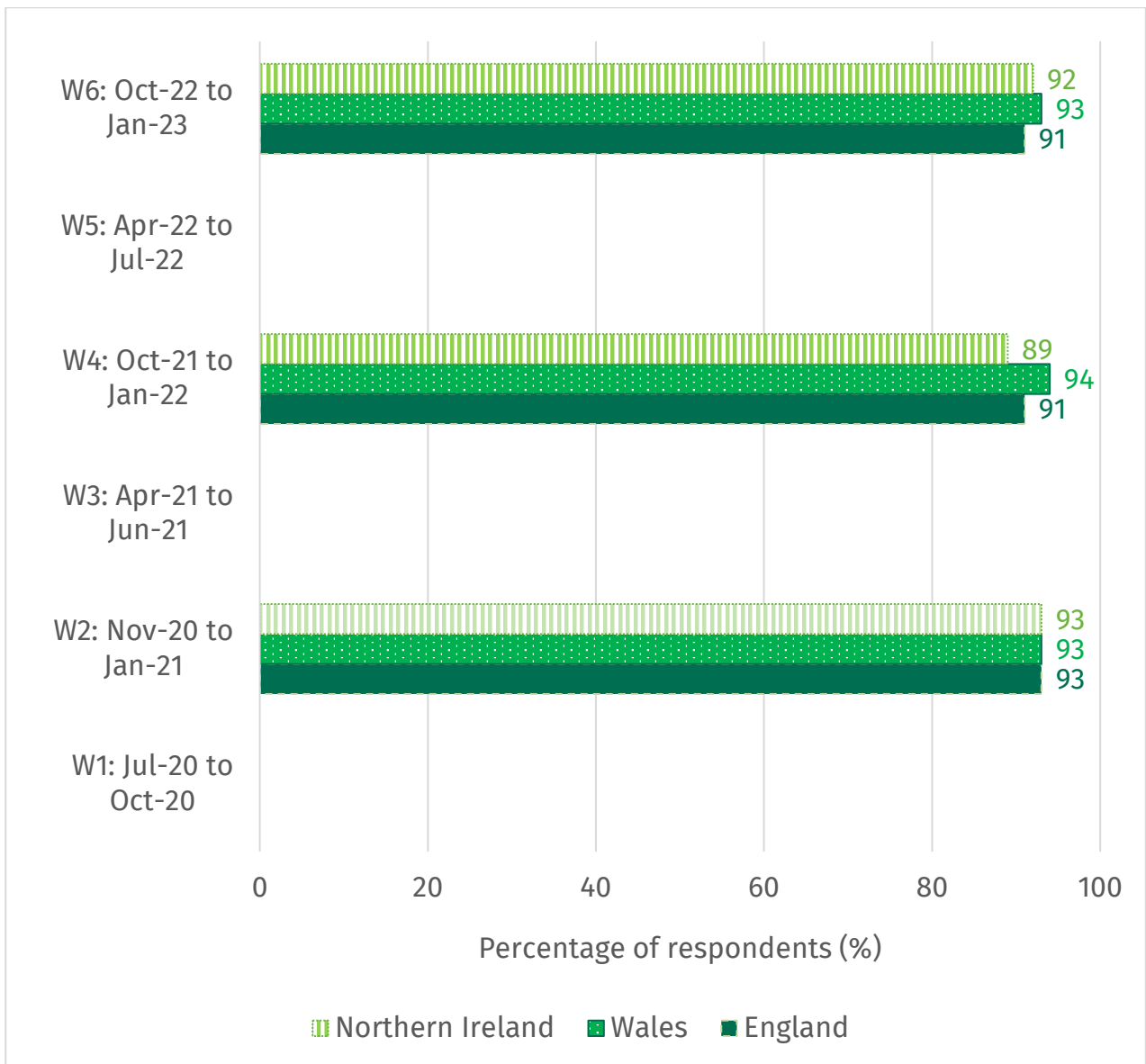
respondents considered 3 – generally satisfactory as the lowest acceptable level (Figure 20)<sup>22</sup>.

## Views on mandatory display

**Figure 21. The percentage of respondents who think that food businesses should be required by law to display their food hygiene rating at their premises.**

---

<sup>22</sup> Question: From a rating of 0 to 5, what is the lowest rating you would usually consider acceptable, if you were considering buying food from somewhere? Responses: 0 - urgent improvement necessary, 1 - major improvement necessary, 2 - improvement necessary, 3 - generally satisfactory, 4 – good, 5 - very good, Don't know, I do not usually notice the rating when I go into a food business. Base = 14523, all online respondents and those answering the 'Eating Out' postal questionnaire. Please note: this question was not included in Wave 1, Wave 3 or Wave 5.

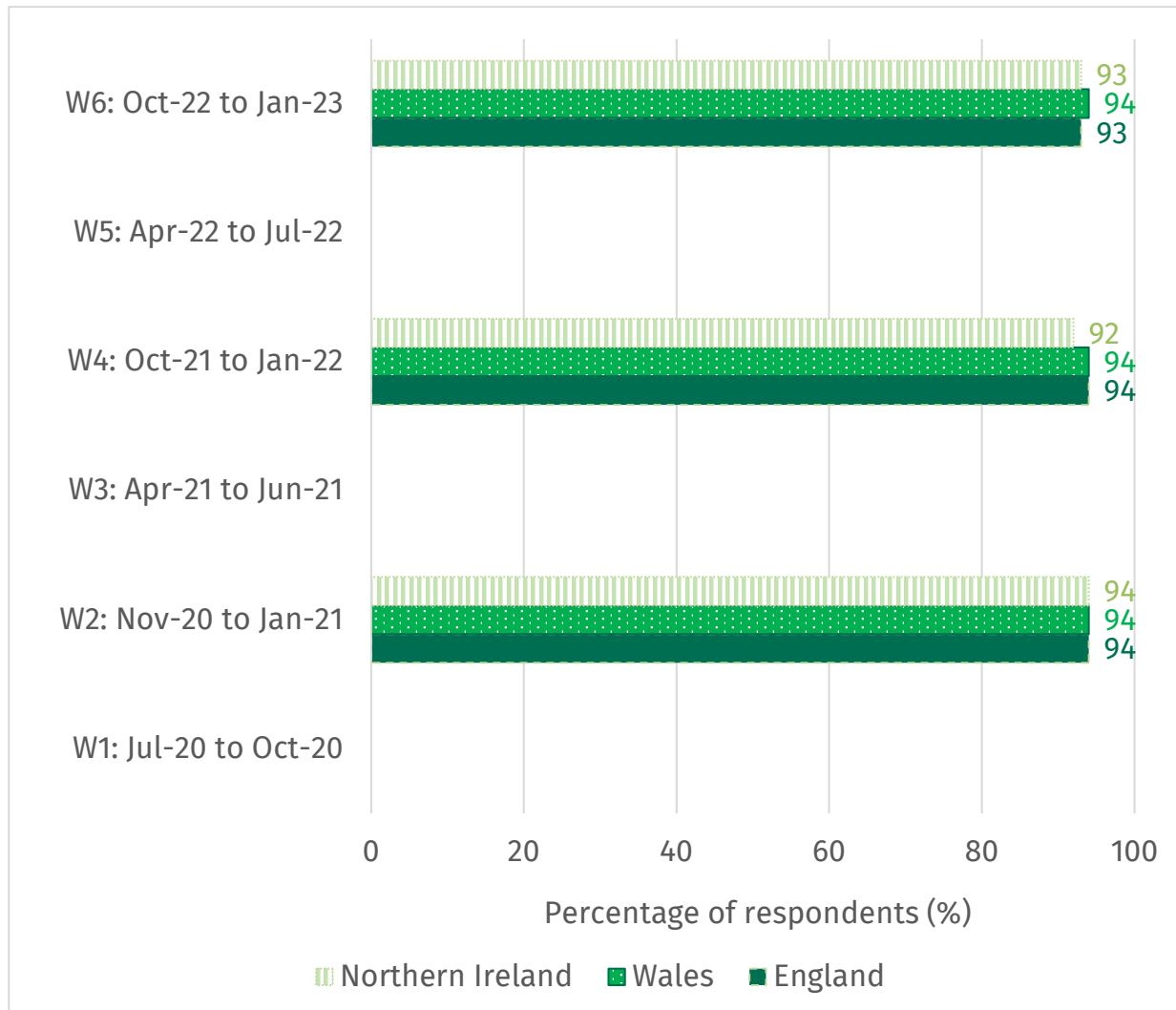


Food and You 2: Wave 1-6

Since monitoring began in Wave 2 (November 2020 to January 2021) there were no notable differences in the percentage of respondents in England, Wales and Northern Ireland who think that food businesses should be required by law to display their food hygiene rating at their premises. Across all waves, around 9 in 10 respondents reported

that they think food businesses should be required by law to display their food hygiene rating at their premises (Figure 21).<sup>23</sup>

**Figure 22. The percentage of respondents who think that online food ordering services should display their food hygiene rating.**



Food and You 2: Wave 1-6

<sup>23</sup> Question: Do you think that food businesses should be required by law to display their Food Hygiene Rating at their premises, or should it be up to the business to decide whether to or not? Responses: They should have to, It should be up to them to decide, Don't know. Base = 14523, all online respondents and those answering the 'Eating Out' postal questionnaire. Please note: this question was not included in Wave 1, Wave 3 or Wave 5.

Since monitoring began in Wave 2 (November 2020 to January 2021) there were no notable differences in the percentage of respondents in England, Wales and Northern Ireland who think that food businesses providing online food ordering services should be required by law to display their food hygiene rating where it can clearly be seen by customers before they order food. Across all waves, around 9 in 10 respondents reported that they think that food businesses providing online food ordering services should be required by law to display their food hygiene rating where it can clearly be seen by customers before they order food (Figure 22).<sup>24</sup>

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

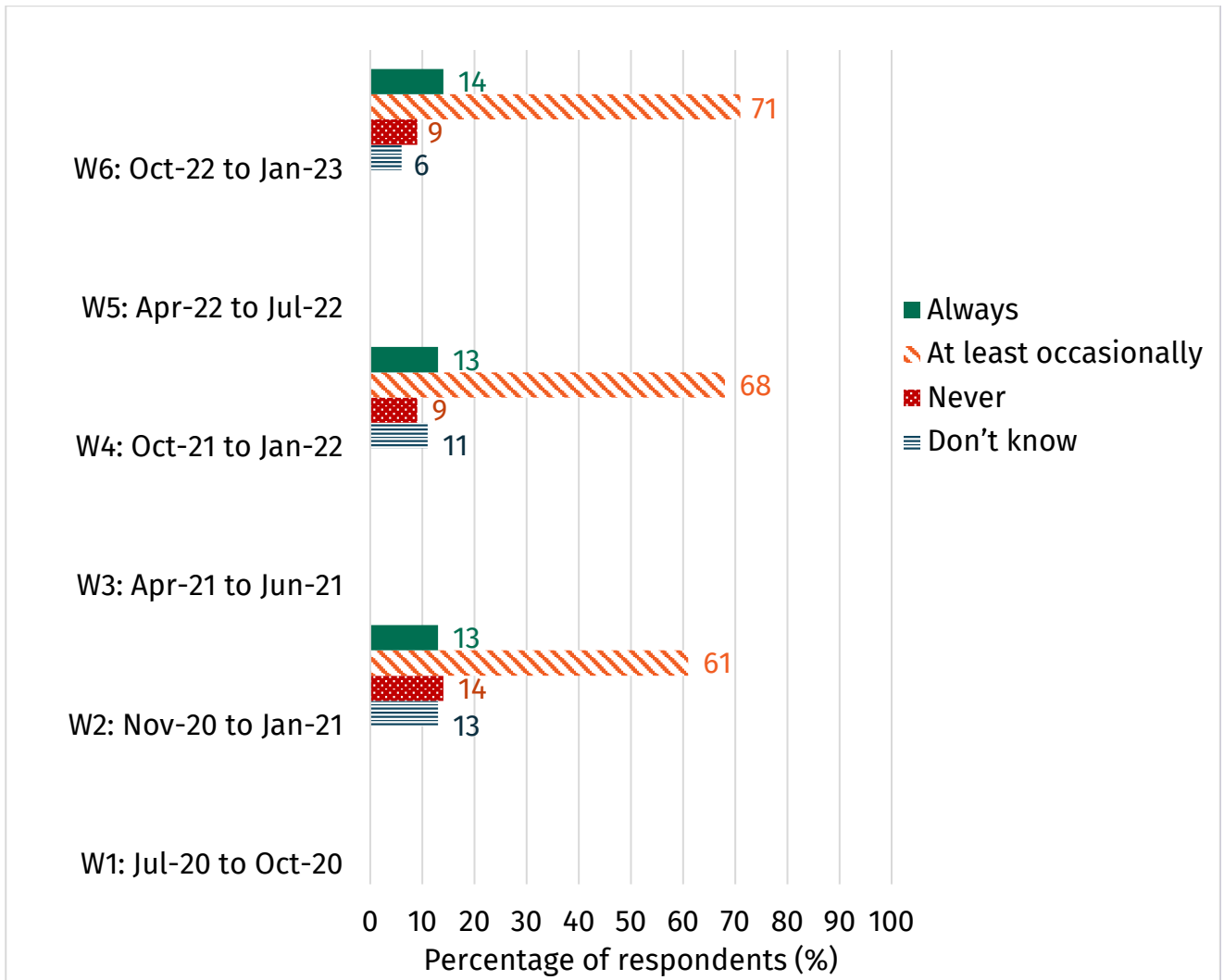
The [FSA provides guidance for food businesses on providing allergen information](#). Food businesses in the retail and catering sector are required [by law](#) to provide allergen information and to follow labelling rules. The type of allergen information which must be provided depends on the type of food business. However, all food business operators must provide allergen information for pre-packed and non-pre-packed 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.

**Figure 23. The availability of allergen information when eating out or buying food to take out.**

---

<sup>24</sup> Question: Do you think businesses providing an online food ordering service should display their Food Hygiene Rating where it can clearly be seen by customers before they order food? Responses: Yes, No, Don't know. Base = 14523, all online respondents and those answering the 'Eating Out' postal questionnaire. Please note: this question was not included in Wave 1, Wave 3 or Wave 5.





Food and You 2: Wave 1-6

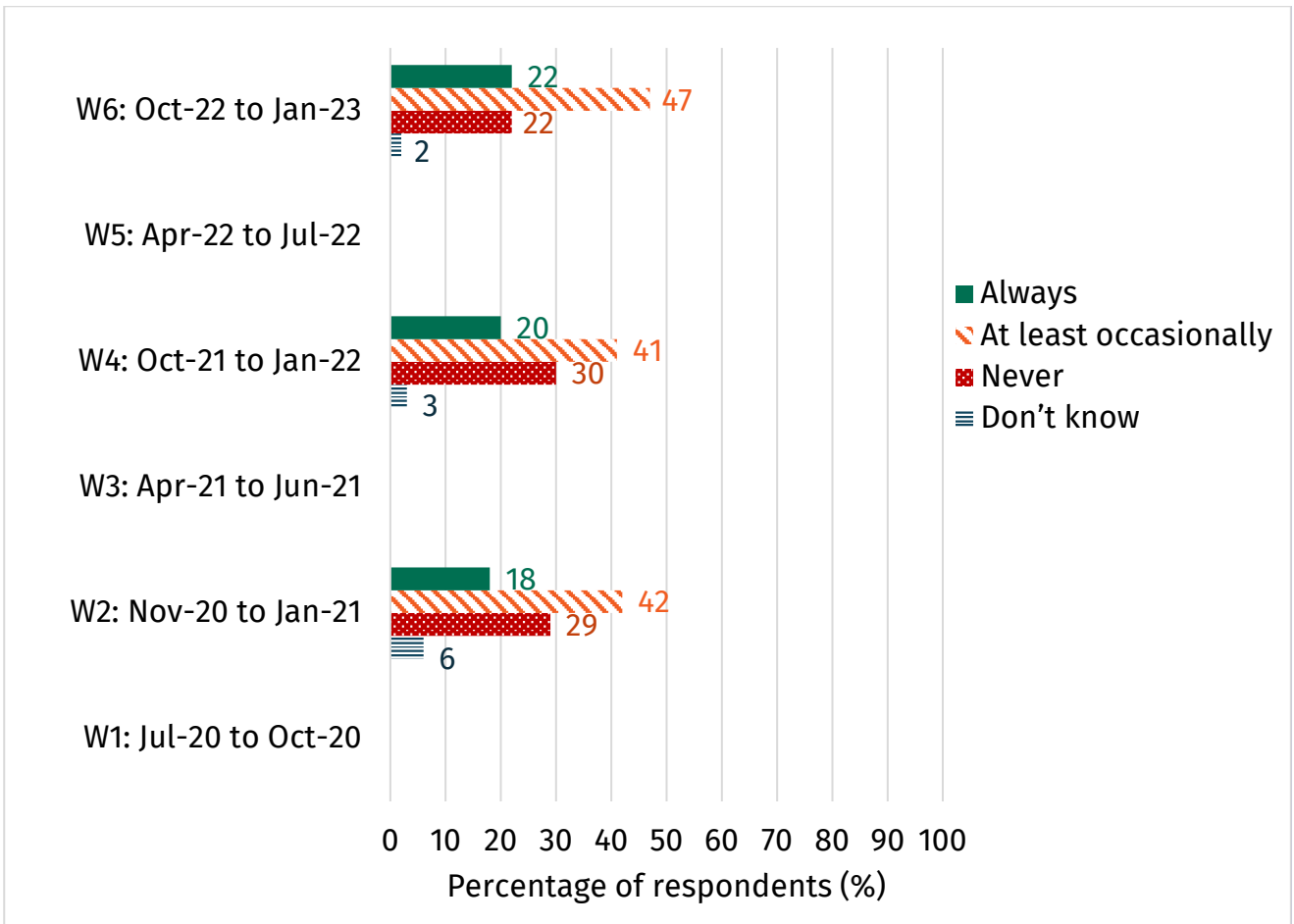
Since monitoring began in Wave 2 (November 2020 to January 2021) there were no notable differences in the percentage of respondents who reported that the information they need to help identify food that might cause a bad or unpleasant physical reaction is always readily available. However, over the same period, the percentage of respondents who reported that this information is available at least occasionally (i.e., occasionally, most of the time, about half of the time) has increased. The percentage of respondents

who reported that this information is never available, or they do not know has slightly decreased since Wave 2\*\* (Figure 23)<sup>25</sup>.

**Figure 24. How often respondents who suffer from a bad or unpleasant physical reaction after consuming certain foods ask staff for allergen information when eating out or buying food to take out.**

---

<sup>25</sup> Question: When eating out or buying food to take out, how often, if at all, is the information you need to help you identify food that might cause you a bad or unpleasant physical reaction readily available? Responses: Always, Most of the time, About half of the time, Occasionally, Never, Don't know. Base= 3812, all online respondents who eat out or buy food to take away and have a food reaction, and all postal respondents, who suffer from a bad or unpleasant physical reaction after consuming certain foods, or avoid certain foods because of the bad or unpleasant physical reaction they might cause, who eat out or order takeaway. Please note: there have been slight routing differences into this question across the waves. This question was not included in Wave 1, Wave 3 or Wave 5.

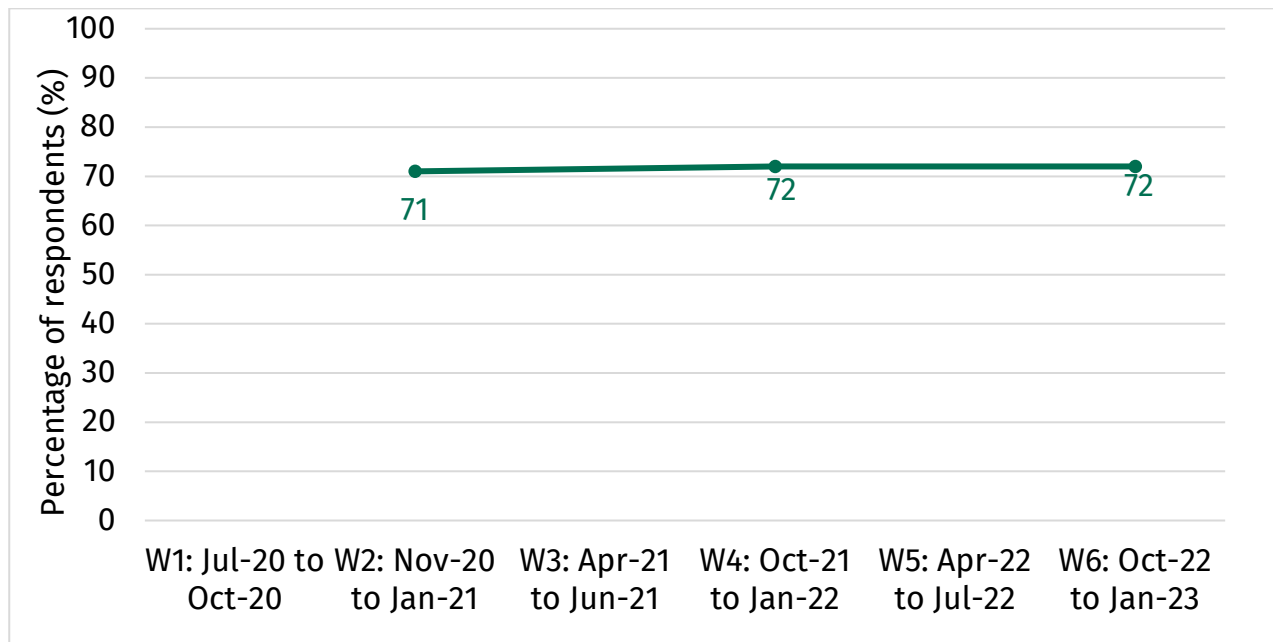


Food and You 2: Wave 1-6

Since monitoring began in Wave 2 (November 2020 to January 2021) there were no notable differences in the percentage of respondents who reported that they always asked a member of staff for more information about food that might cause them a bad or unpleasant physical reaction. However, over the same period, there has been a slight

decrease in the percentage of respondents who reported that they never did this (Figure 24)<sup>26</sup>.

**Figure 25. The percentage of respondents who suffer from a bad or unpleasant physical reaction after consuming certain foods who feel comfortable asking a member of staff for allergen information.**



#### Food and You 2: Wave 1-6

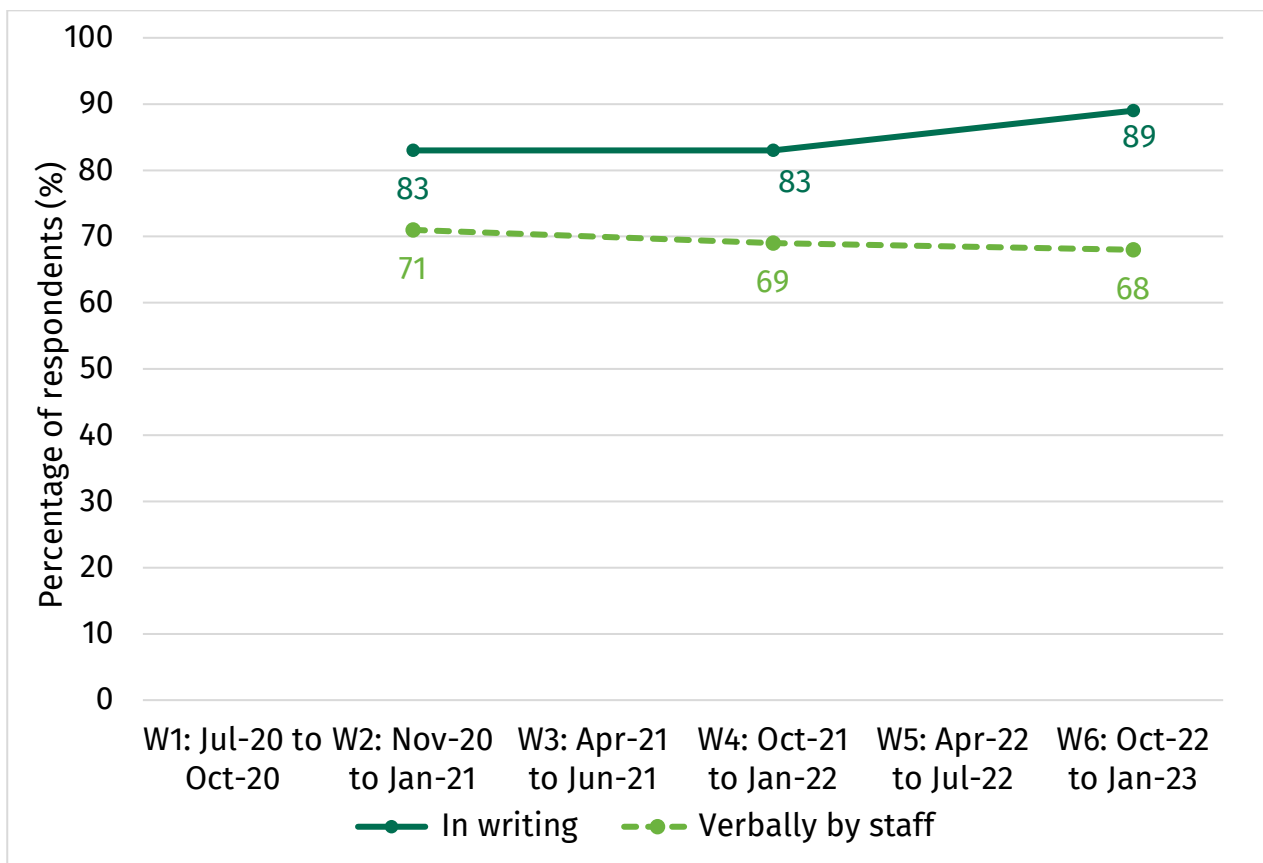
Since monitoring began in Wave 2 (November 2020 to January 2021) there were no notable differences in the percentage of respondents who reported that they were

---

<sup>26</sup> Question: When information is not readily available, how often do you ask a member of staff for more information? Responses: Always, Most of the time, About half of the time, Occasionally, Never, I don't need to ask because the information is always readily available, Don't know. Base= 3813, all online respondents who eat out or buy food to take away and have a food reaction, and all postal respondents, who suffer from a bad or unpleasant physical reaction after consuming certain foods, or avoid certain foods because of the bad or unpleasant physical reaction they might cause, who eat out or order takeaways. Please note: there have been slight routing differences into this question across the waves. This question was not included in Wave 1, Wave 3 or Wave 5.

comfortable (i.e., very comfortable or fairly comfortable) asking staff for more information (Figure 25)<sup>27</sup>.

**Figure 26. How confident respondents who suffer from a bad or unpleasant physical reaction after consuming certain foods were in allergen information provided in writing or verbally by a member of staff.**



Food and You 2: Wave 1-6

<sup>27</sup> Question: How comfortable do you feel asking a member of staff for more information about food that might cause you a bad or unpleasant physical reaction? Responses: Very comfortable, Fairly comfortable, Not very comfortable, Not at all comfortable, It varies from place to place, Don't know. Base = 3813, all online respondents who eat out or buy food to take away and have a food reaction, and all postal respondents, who suffer from a bad or unpleasant physical reaction after consuming certain foods, or avoid certain foods because of the bad or unpleasant physical reaction they might cause.

Since monitoring began in Wave 2 (November 2020 to January 2021) there were no notable differences in the percentage of respondents who reported that they were confident (i.e., very confident or fairly confident) that the information provided in writing or verbally by a member of staff would allow them to identify and avoid food that might cause a bad or unpleasant physical reaction. Across all waves, respondents were more likely to report that they were confident in the information provided in writing compared to the information provided verbally by a member of staff (Figure 26)<sup>28</sup>.

---

<sup>28</sup> Question: How confident are you that the information provided will allow you to identify and avoid food that might cause you a bad or unpleasant physical reaction? A) when the information is provided in writing (for example, on the main menu or a separate allergen menu). B) when the information is provided verbally by a member of staff. Responses: Very confident, Fairly confident, Not very confident, Not at all confident, It varies from place to place, Don't know. Base= 3813, all online respondents who eat out or buy food to take away and have a food reaction, and all postal respondents, who suffer from a bad or unpleasant physical reaction after consuming certain foods, or avoid certain foods because of the bad or unpleasant physical reaction they might cause, who eat out or order takeaways. This question was not included in Wave 1, Wave 3 or Wave 5.

# Chapter 5: Eating at home

## Introduction

The FSA is responsible for protecting the public from foodborne diseases. The FSA gives practical guidance and recommendations to consumers on [food safety and hygiene](#) in the home.

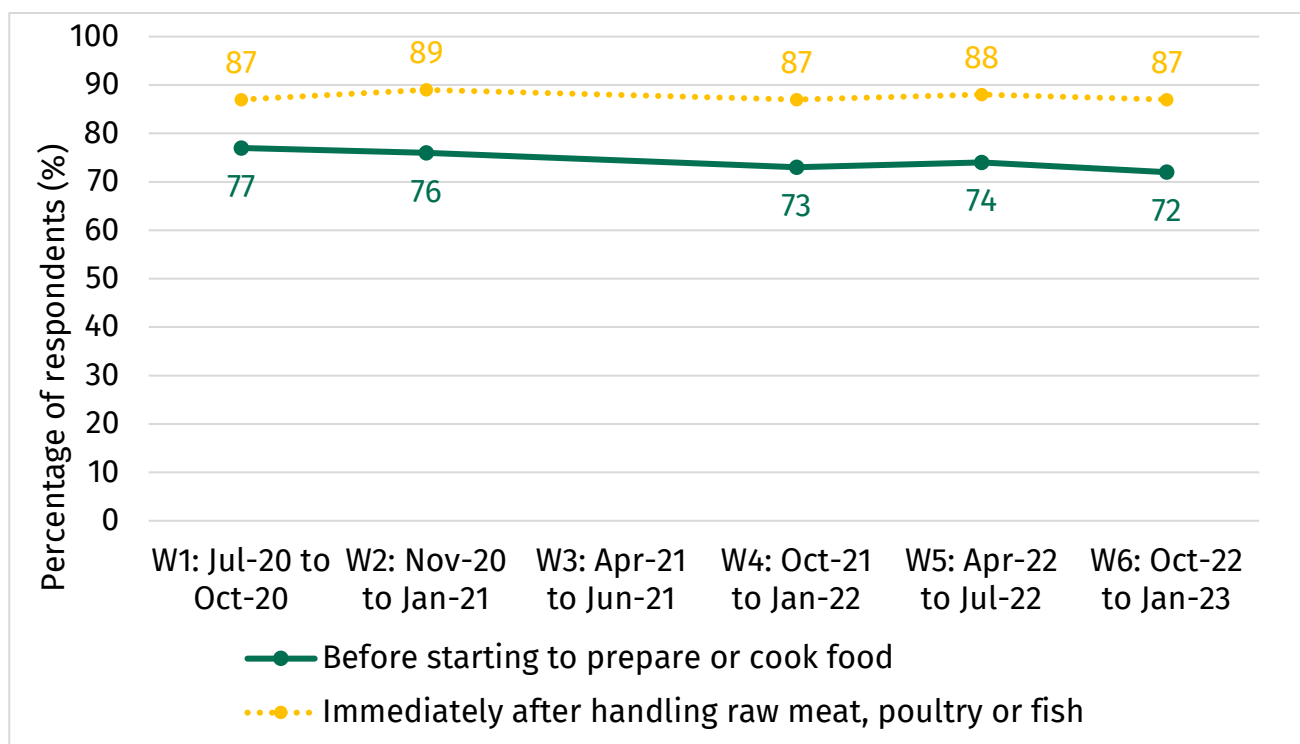
This chapter provides an overview of respondents' knowledge and reported behaviours relating to food safety and other food-related behaviours between Wave 1 (July 2020 to October 2020) and Wave 6 (October 2022 to January 2023).

## Cleaning

### Handwashing in the home

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

**Figure 27. The percentage of respondents who always wash their hands.**



Food and You 2: Wave 1-6

There were no notable differences in the percentage of respondents who reported that they always wash their hands before preparing or cooking food<sup>29</sup>, or immediately after

---

<sup>29</sup> Question: When you are at home, how often, if at all, do you wash your hands before starting to prepare or cook food. Responses: always, most of the time, about half the time, occasionally, never, I don't cook, don't know. Base= 28718, all online respondents and all those who completed the relevant postal questionnaire, who ever do some food preparation or cooking for their household. Please note: this question was not included in Wave 3.

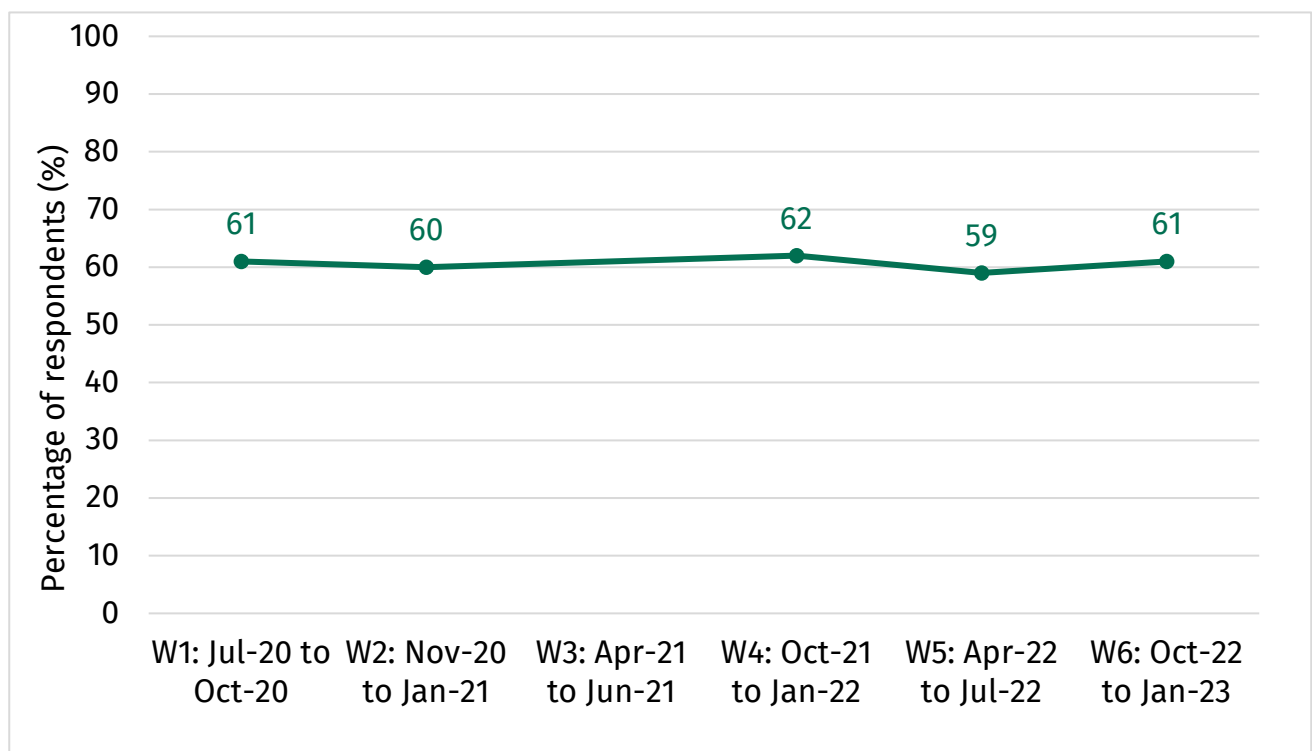


handling raw meat, poultry, or fish<sup>30</sup>, between Wave 1 (July 2020 to October 2020) and Wave 6 (October 2022 to January 2023) (Figure 27).

## Chilling

### If and how respondents check fridge temperature

**Figure 28. The percentage of respondents who think that the inside of a fridge should be between 0-5 degrees Celsius.**



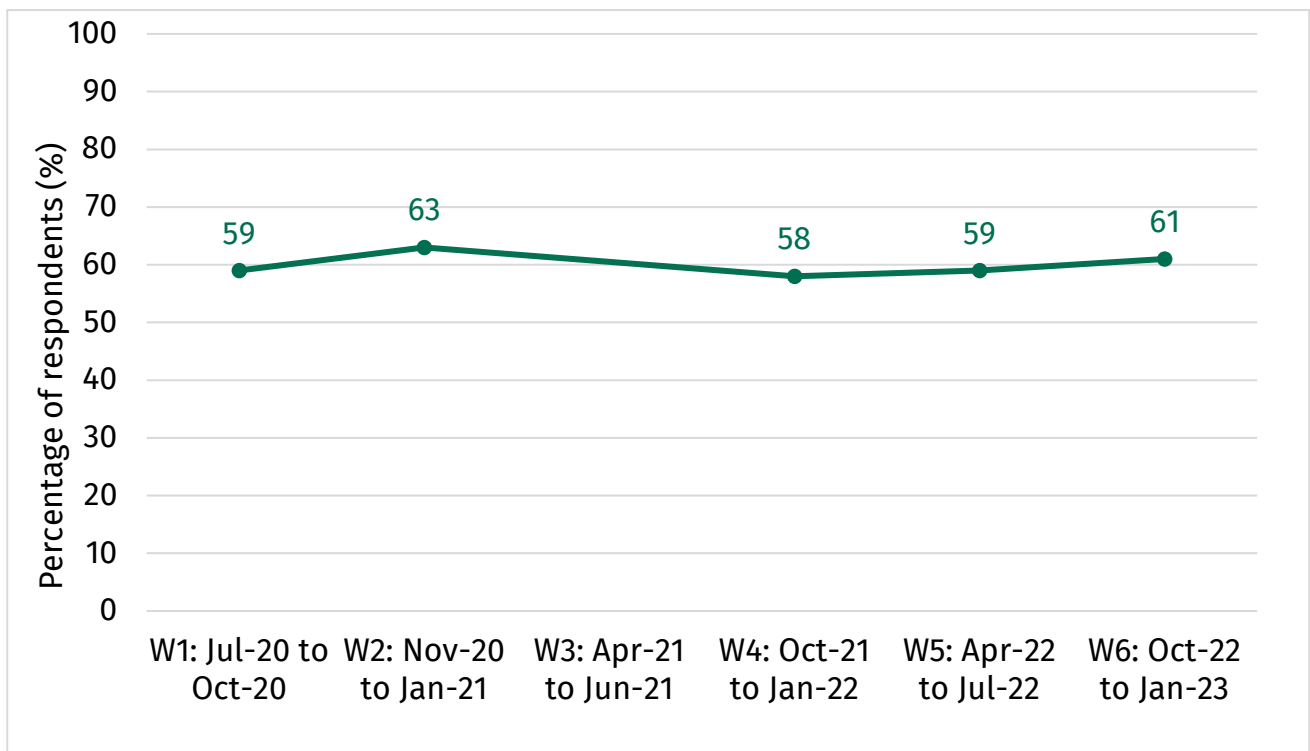
---

<sup>30</sup> Question: When you are at home, how often, if at all, do you wash your hands immediately after handling raw meat, poultry or fish. Responses: always, most of the time, About half the time, Occasionally, Never, I don't cook meat, poultry or fish, Don't know. Base= 28718, all online respondents and those who completed the relevant postal questionnaire who ever do some food preparation or cooking for their household, who ever do some food preparation or cooking for their household. Please note: this question was not included in Wave 3.

Food and You 2: Wave 1-6

The FSA recommends that the [inside of a fridge should be between 0-5 degrees Celsius](#). There were no notable differences in the percentage of respondents who reported the temperature of the inside of a fridge should be between 0-5 degrees Celsius, between Wave 1 (July 2020 to October 2020) and Wave 6 (October 2022 to January 2023) (Figure 28)<sup>31</sup>.

**Figure 29. The percentage of respondents who check the temperature of their fridge.**



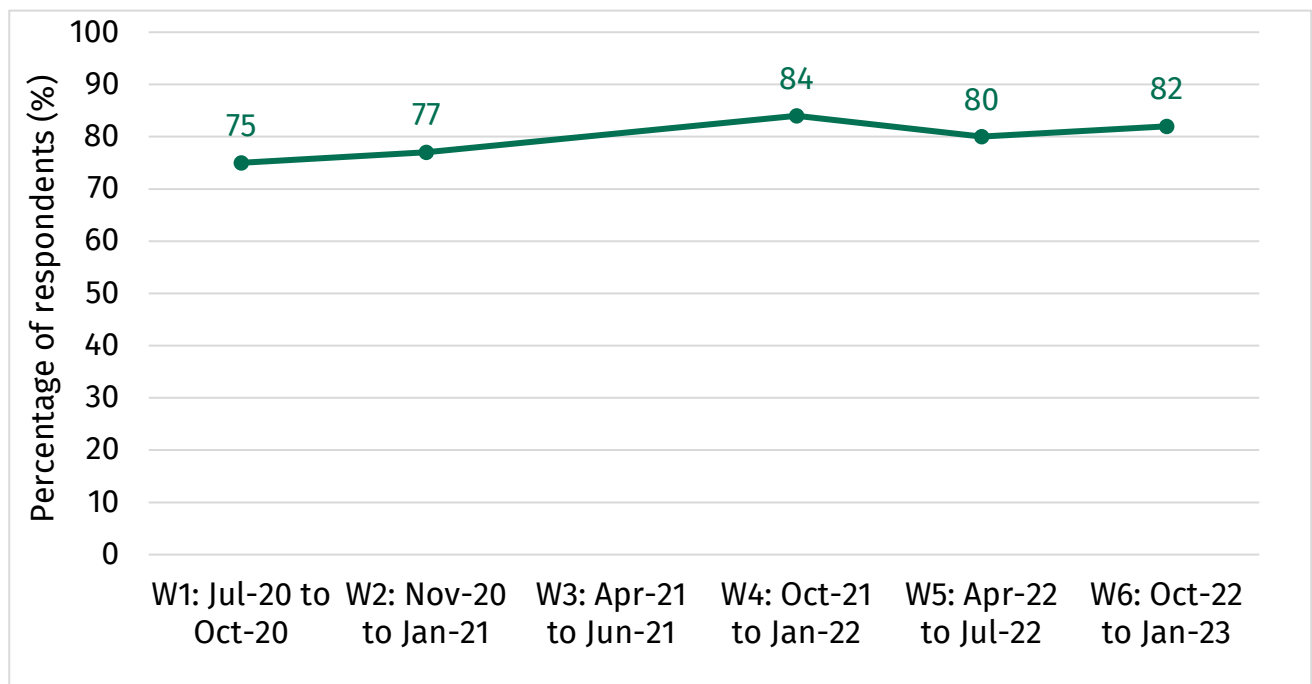
Food and You 2: Wave 1-6

---

<sup>31</sup> Question: What do you think the temperature inside your fridge should be? Responses: less than 0 degrees C (less than 32 degrees F), between 0 and 5 degrees C (32 to 41 degrees F), more than 5 but less than 8 degrees C (42 to 46 degrees F), 8 to 10 degrees C (47 to 50 degrees F), more than 10 degrees C (over 50 degrees F), other, I don't have a fridge, don't know. Base= 30582, all online respondents and those answering the relevant postal questionnaire. Please note: this question was not included in Wave 3.

There were no notable differences in the percentage of respondents who reported that they check the temperature of their fridge or do not need to as it has an alarm, between Wave 1 (July 2020 to October 2020) and Wave 6 (October 2022 to January 2023) (Figure 29)<sup>32</sup>.

**Figure 30. The percentage of respondents who check the temperature of their fridge at least once a month.**



Food and You 2: Wave 1-6

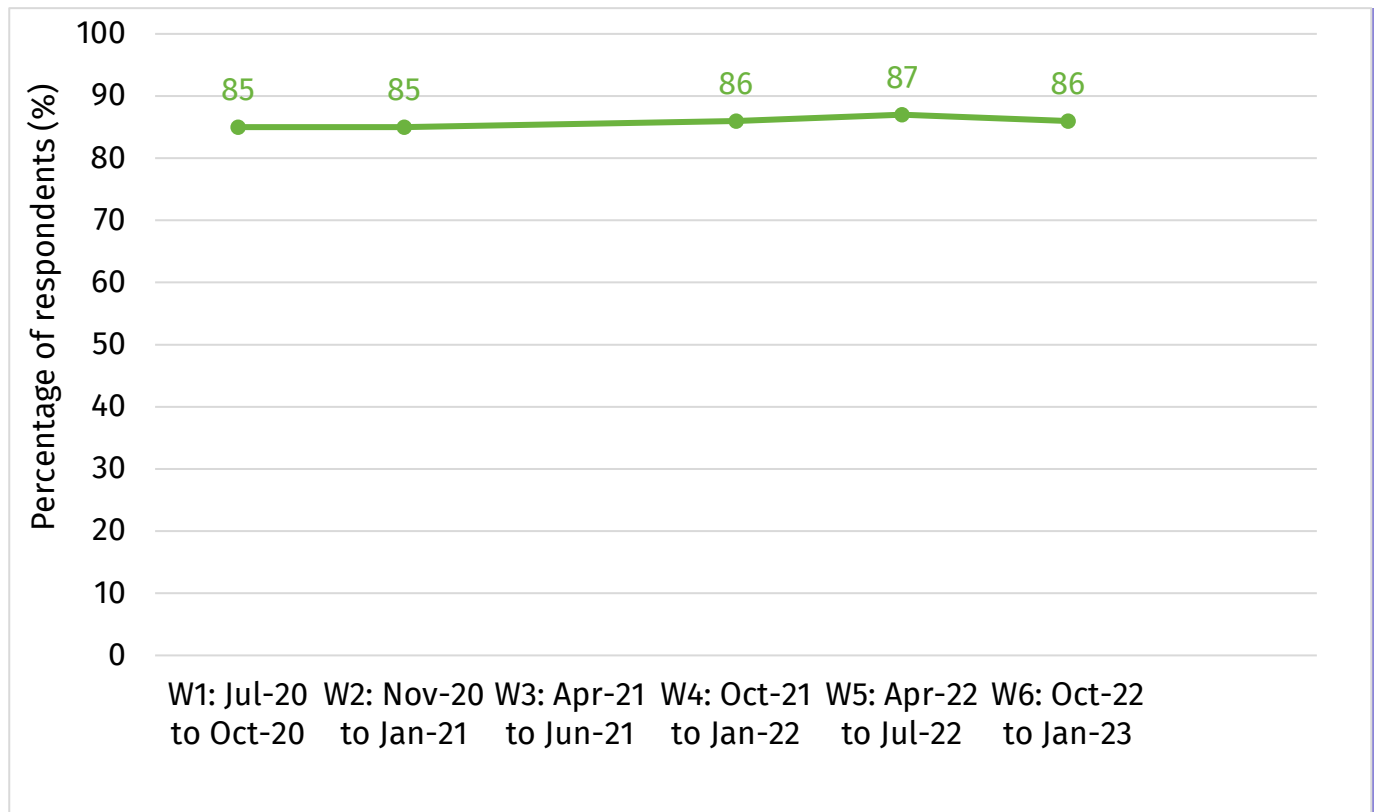
The FSA recommends that people [check the temperature of their fridge at least once a month](#). There was a slight increase in the percentage of respondents who reported that they, or someone else in their household, checks the temperature of their fridge at least

---

<sup>32</sup> Question: Do you, or anyone else in your household, ever check your fridge temperature? Responses: yes, no, I don't need to - it has an alarm if it is too hot or cold, don't know. Base= 30521, all online respondents, and all those who completed the relevant postal questionnaire, excluding those who don't have a fridge. Please note: this question was not included in Wave 3.

once a month between Wave 1 (July 2020 to October 2020) and Wave 6 (October 2022 to January 2023) (Figure 30) \*\* 33

**Figure 31. The percentage of respondents who check the temperature of their fridge using a recommended method.**



Food and You 2: Wave 1-6

Between Wave 1 (July 2020 to October 2020) and Wave 6 (October 2022 to January 2023) there were no notable differences in the percentage of respondents who reported

---

<sup>33</sup> Question: How often, if at all, do you or someone else in your household check the temperature of the fridge? Responses: at least daily, 2-3 times a week, once a week, less than once a week but more than once a month, once a month, four times a year, 1-2 times a year, never/less often, don't know. Base= 15324, all online respondents and all those who completed the relevant postal questionnaire, where someone in household checks fridge temperature. Please note: this question was not included in Wave 3.

that they check the temperature of their fridge using a method recommended by the FSA (Figure 31)<sup>34</sup>.

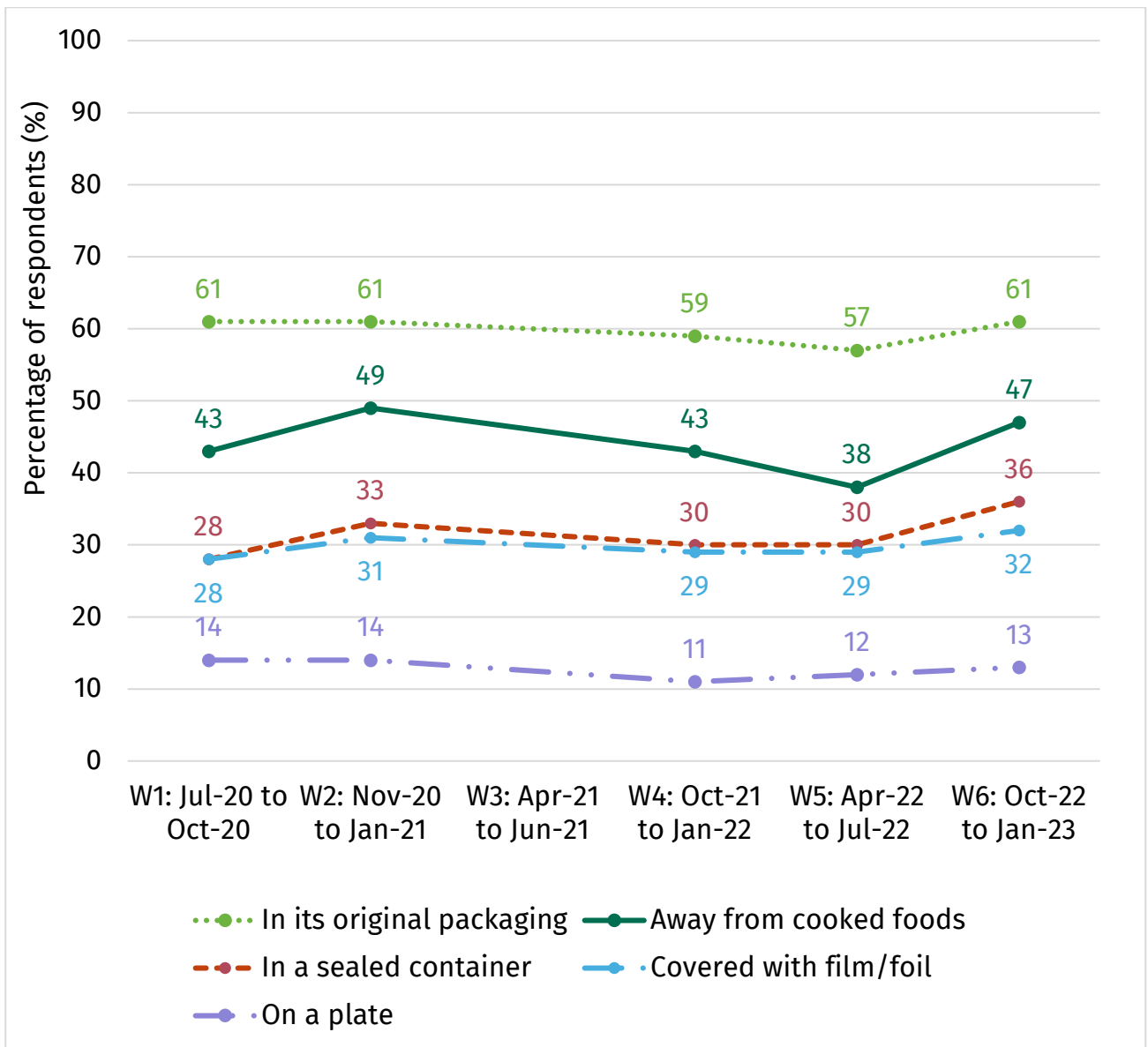
## How and where respondents store raw meat and poultry in the fridge

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

**Figure 32. How respondents store raw meat and poultry in the fridge.**

---

<sup>34</sup> Question: How do you (or someone else in your household) normally check the temperature? Responses: Check the temperature display built into the fridge, Check the setting / gauge, Put a thermometer in the fridge and check, Feel food inside to see if it is cold, Check for ice or condensation, Other, Don't know. Base= 15324, all online respondents and all those who completed the relevant postal questionnaire, where someone in household checks fridge temperature. Please note: this question was not included in Wave 3. There has been minor rewording of the question across the waves.

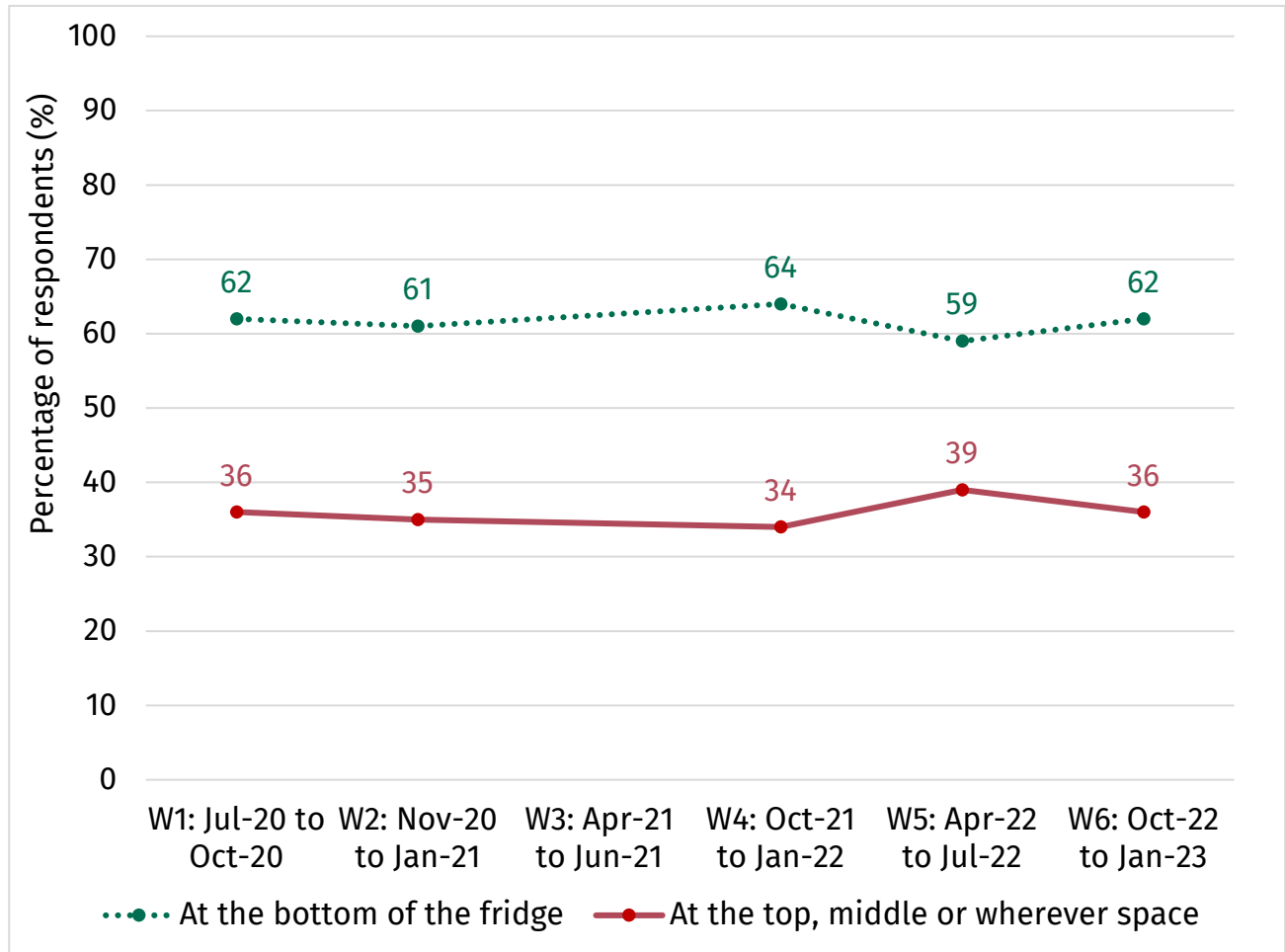


Food and You 2: Wave 1-6

Overall, there were no notable differences in how respondents reported storing raw meat and poultry between Wave 1 (July 2020 to October 2020) and Wave 6 (October 2022 to January 2023). However, the percentage of respondents who reported storing raw meat and poultry away from cooked foods has fluctuated (49% in Wave 2 (November 2020 to January 2021), 38% in Wave 5 (April 2022 to July 2022)) and there has been a slight

increase in the percentage of respondents who reported storing raw meat and poultry in a sealed container (Figure 32) <sup>\*\*35</sup>.

**Figure 33. Where respondents store raw meat and poultry in the fridge.**



Food and You 2: Wave 1-6

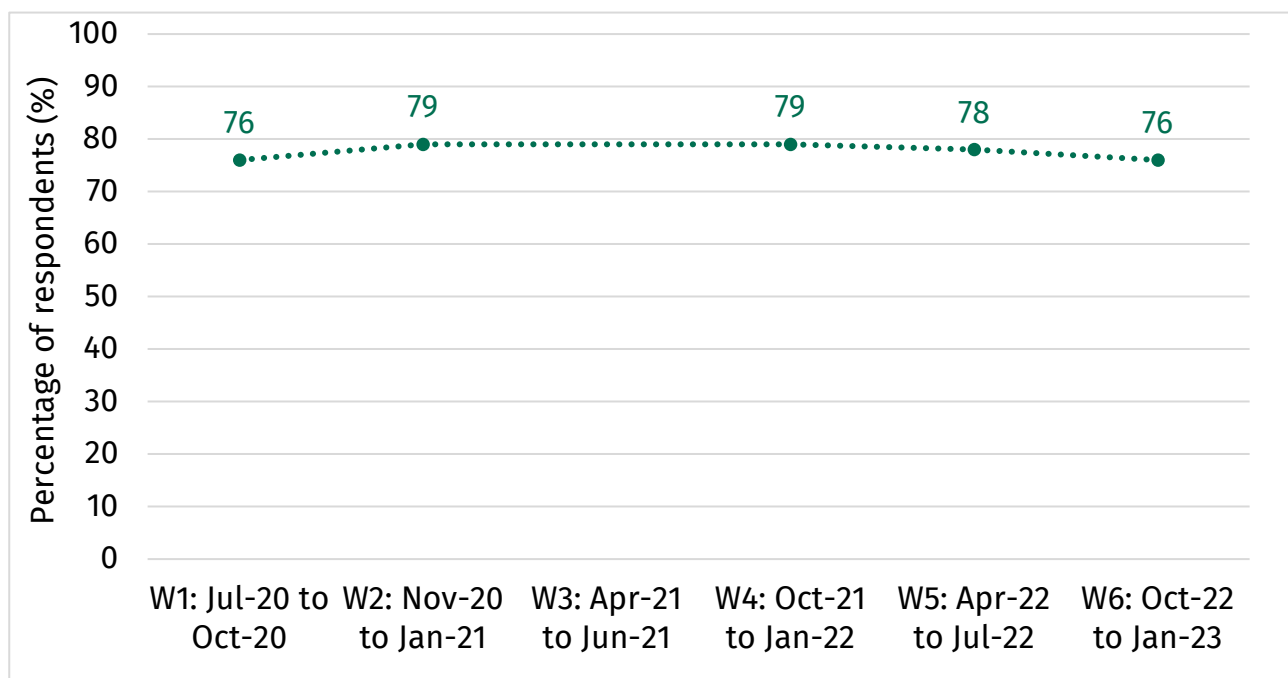
There were no notable differences in where in the fridge respondents reported storing raw meat and poultry between Wave 1 (July 2020 to October 2020) and Wave 6 (October

<sup>35</sup> Question: How do you store raw meat and poultry in the fridge? Please select all that apply. Responses: away from cooked foods, covered with film/foil, in a sealed container, in its original packaging, on a plate, I don't buy or store meat or poultry, I don't store raw meat/poultry in the fridge I don't have a fridge, Don't know. Base= 30582, all online respondents, and those answering the relevant postal questionnaire. Please note: this question was not included in Wave 3.

2022 to January 2023). Across all waves, around 6 in 10 respondents reported that they store raw meat and poultry at the bottom of the fridge, [as recommended by the FSA](#), and over a third of respondents store raw meat and poultry in other areas of the fridge (Figure 33)<sup>36</sup>.

## Cooking

**Figure 34. The percentage of respondents who always cook food until it is steaming hot and cooked all the way through.**



Food and You 2: Wave 1-6

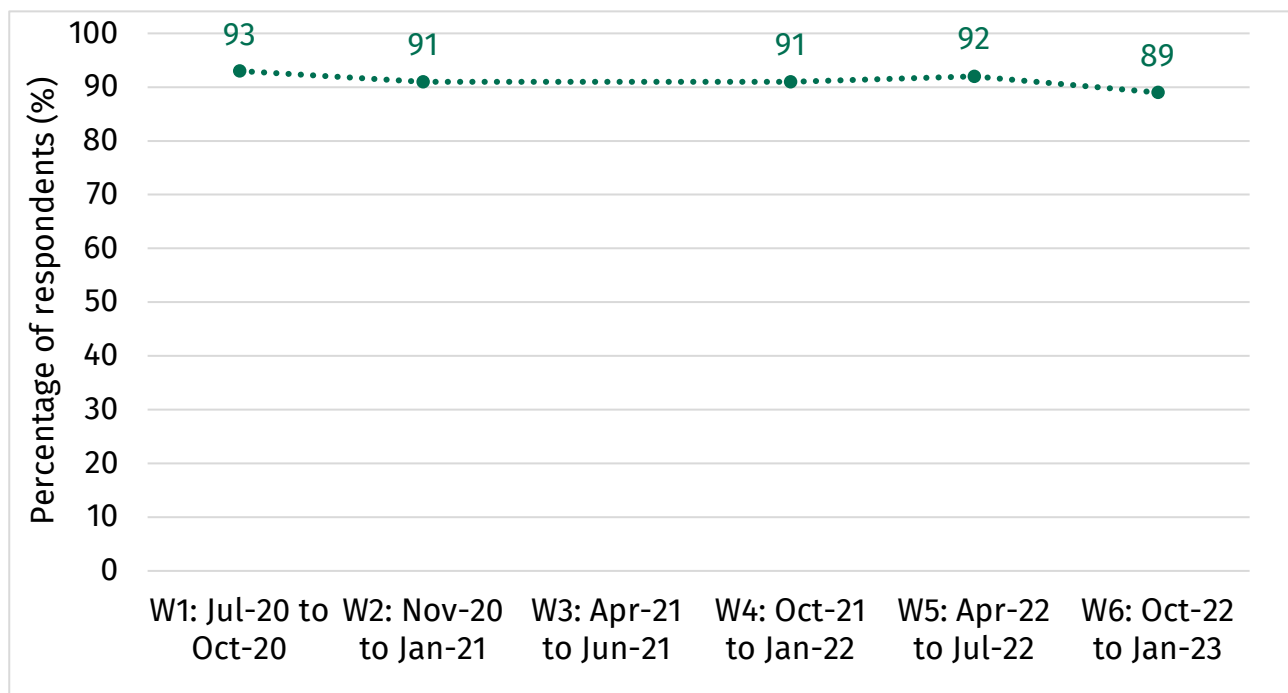
The FSA recommends that [food is cooked until steaming hot and cooked all the way through](#). There were no notable differences the percentage of respondents who reported that they always cook food until steaming hot and cooked all the way through, between

<sup>36</sup> Question: Where in the fridge do you store raw meat and poultry? Responses: wherever there is space, at the top of the fridge, in the middle of the fridge, at the bottom of the fridge. Base= 27704, all online respondents, and those answering the relevant postal questionnaire, who store raw meat/poultry in the fridge. Please note: this question was not included in Wave 3.



Wave 1 (July 2020 to October 2020) and Wave 6 (October 2022 to January 2023). Across all waves, around 8 in 10 respondents reported that they always cook food until steaming hot and cooked all the way through (Figure 34)<sup>37</sup>.

**Figure 35. The percentage of respondents who never eat chicken or turkey when it is pink or has pink juices.**



Food and You 2: Wave 1-6

Between Wave 1 (July 2020 to October 2020) and Wave 6 (October 2022 to January 2023), there were no notable differences in the percentage of respondents who reported that they never eat chicken or turkey when it is pink or has pink juices. Across all waves,

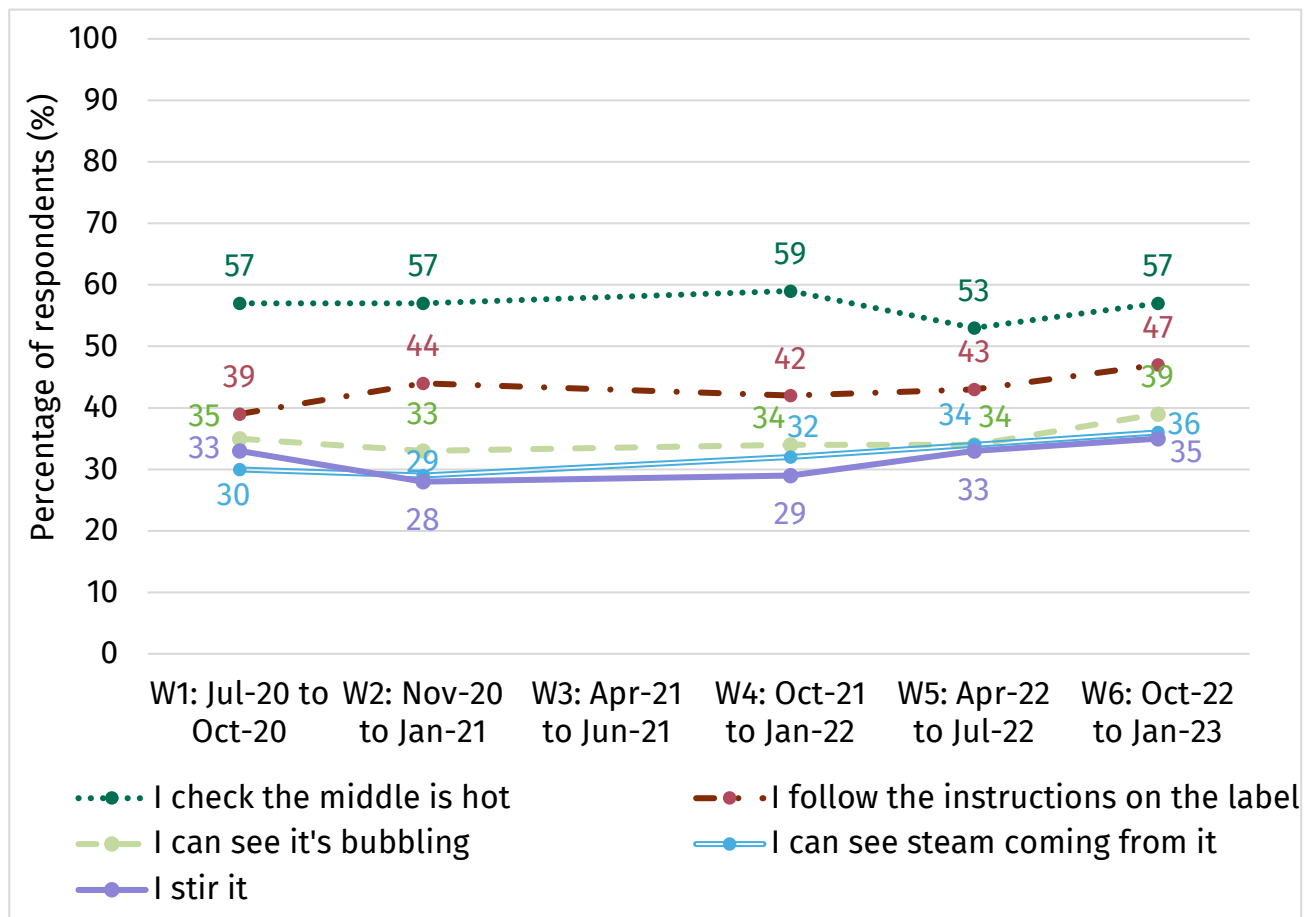
---

<sup>37</sup> Question: How often, if at all, do you cook food until it is steaming hot and cooked all the way through? Responses: always, most of the time, about half of the time, occasionally, I don't cook food, never, don't know. Base= 28718, online respondents and all those who completed the relevant postal questionnaire, who ever do some food preparation or cooking for their household. Please note: this question was not included in Wave 3.

around 9 in 10 respondents reported that they would never eat chicken or turkey when it is pink or has pink juices (Figure 35)<sup>38</sup>.

## Reheating

**Figure 36. Most common methods used to check if food is ready to eat when reheating it.**



Food and You 2: Wave 1-6

<sup>38</sup> Question: How often, if at all, do you eat chicken or turkey when the meat is pink or has pink or red juices? Responses: always, most of the time, about half of the time, occasionally, never, don't know. Base = 28287, all online respondents, and those answering the relevant postal questionnaire, who are not vegan, pescatarian or vegetarian, and who do eat chicken/turkey. Please note: this question was not included in Wave 3.

There were no notable differences in the methods respondents used when reheating food to know when it is ready to eat, between Wave 1 (July 2020 to October 2020) and Wave 6 (October 2022 to January 2023) (Figure 36).<sup>39</sup>

**Figure 37. How many times respondents would consider reheating food.**

---

<sup>39</sup> Question: When reheating food, how do you know when it is ready to eat? (Select all that apply). Responses: I check the middle is hot, I follow the instructions on the label, I can see its bubbling, I use a timer to ensure it has been cooked for a certain amount of time, I check it's an even temperature throughout, I can see steam coming from it, I taste it, I stir it, I put my hand over it/touch it, I use a thermometer/probe, None of the above, I don't check. Base= 28038, all online respondents and all those who completed the relevant postal questionnaire, who ever do some food preparation or cooking for their household, excluding 'I don't reheat food' and 'not stated'. Please note: this question was not included in Wave 3.



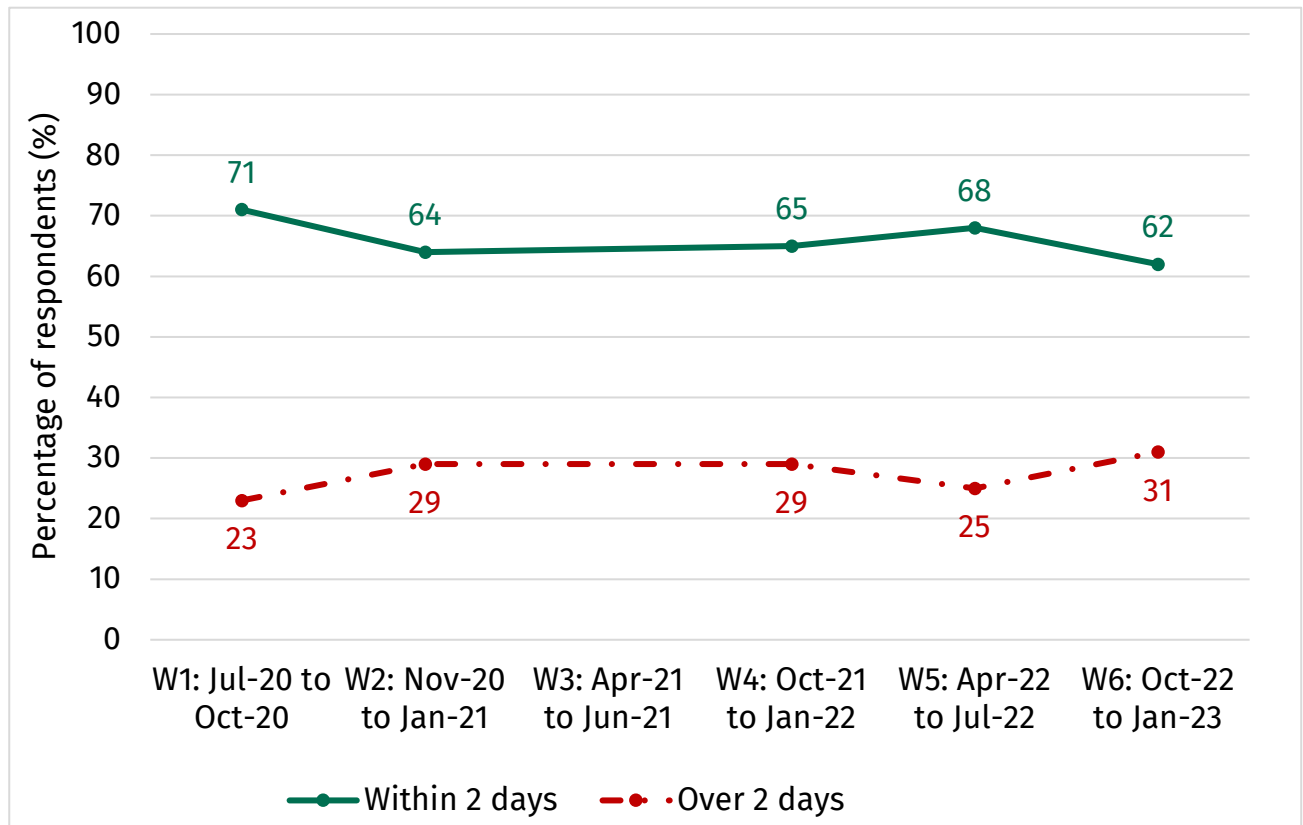
Food and You 2: Wave 1-6

The FSA recommends that [food is only reheated once](#). There were no notable differences in the number of times which respondents would reheat food, between Wave 1 (July 2020 to October 2020) and Wave 6 (October 2022 to January 2023). Across all waves, around 8 in 10 respondents reported that they would reheat food once (Figure 37)<sup>40</sup>.

## Leftovers

<sup>40</sup> Question: How many times would you consider reheating food after it was cooked for the first time? Responses: not at all, once, twice, more than twice, don't know, I don't reheat food. Base= 27477, all online respondents and all those who completed the relevant postal questionnaire, who reheat food using one of the methods in the previous question. Please note: this question was not included in Wave 3.

**Figure 38. The latest respondents would consume any leftovers stored in the fridge.**



Food and You 2: Wave 1-6

Between Wave 1 (July 2020 to October 2020) and Wave 6 (October 2022 to January 2023) there was a slight decrease in the percentage of respondents who reported that they would eat leftovers within 2 days, and a slight increase in the percentage of respondents who reported that they would eat leftovers after 2 days or longer (Figure 38)

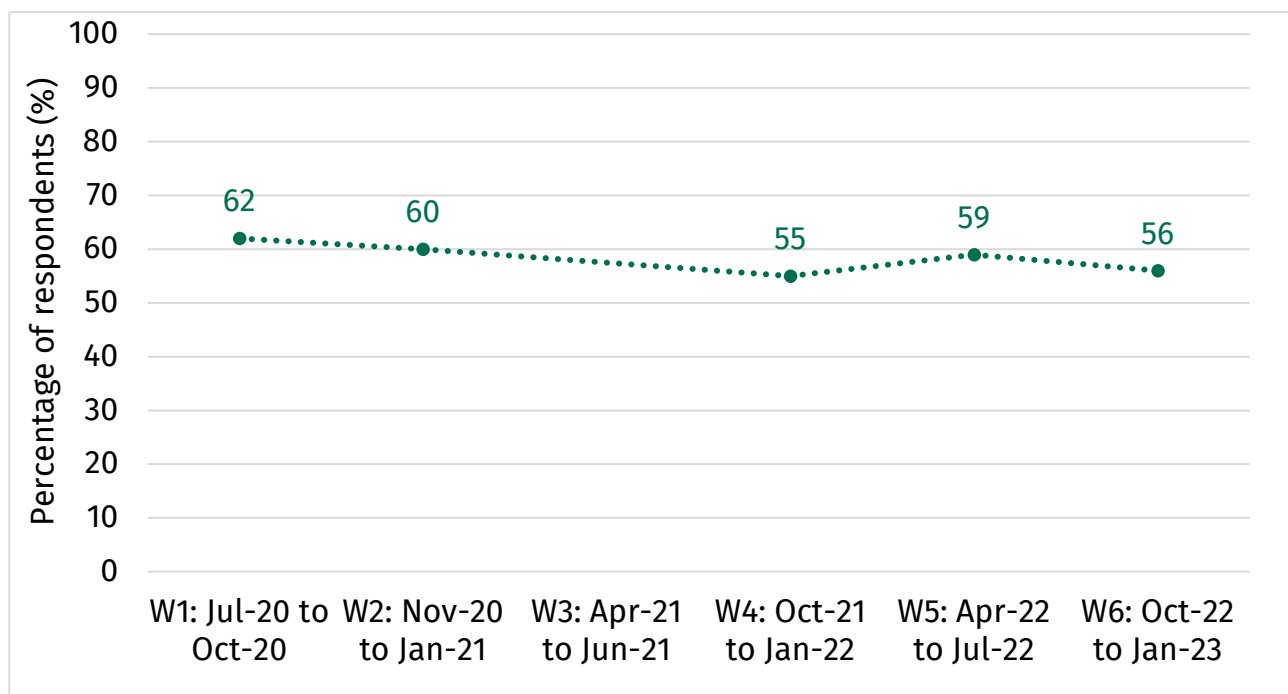
\*\*41.

## Avoiding cross-contamination

<sup>41</sup> Question: When is the latest you would consume any leftovers stored in the fridge?  
 Responses: the same day, within 1-2 days, within 3-5 days, more than 5 days later, it varies too much, don't know. Base= 30582, all online respondents, and those answering the relevant postal questionnaire. Please note: this question was not included in Wave 3.

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

**Figure 39. The percentage of respondents who never wash raw chicken.**



Food and You 2: Wave 1-6

Between Wave 1 (July 2020 to October 2020) and Wave 6 (October 2022 to January 2023), there was a slight decrease in the percentage of respondents who reported that they never wash raw chicken\*\*. Across all waves, around 6 in 10 respondents reported that they never wash raw chicken (Figure 39)<sup>42</sup>.

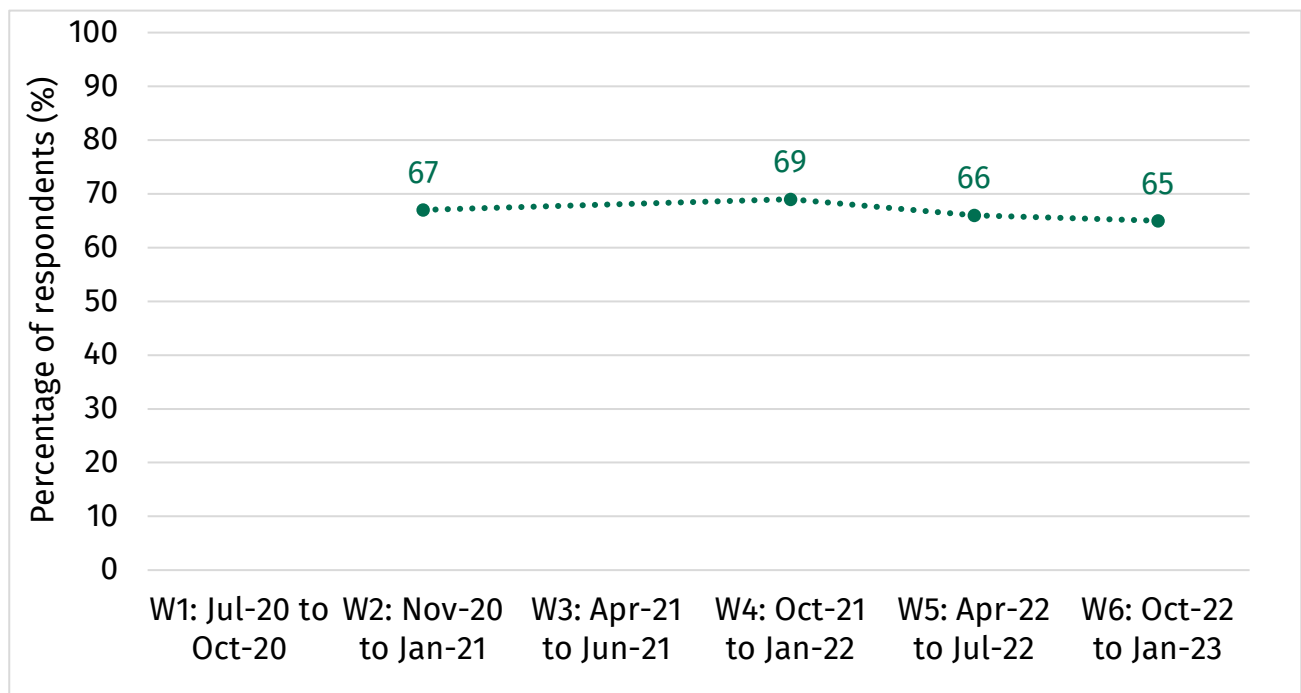
## Use-by dates

---

<sup>42</sup> Question: How often, if at all, do you wash raw chicken? Responses: always, most of the time, about half of the time, occasionally, never, don't know. Base = 28718, all online respondents and all those who completed the relevant postal questionnaire, who ever do some food preparation or cooking for their household. Please note: this question was not included in Wave 3.

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 related to food safety and best before (BBE) dates relate to food quality.

**Figure 40. The percentage of respondents who identified the use-by date as the information which shows when food is no longer safe to eat.**



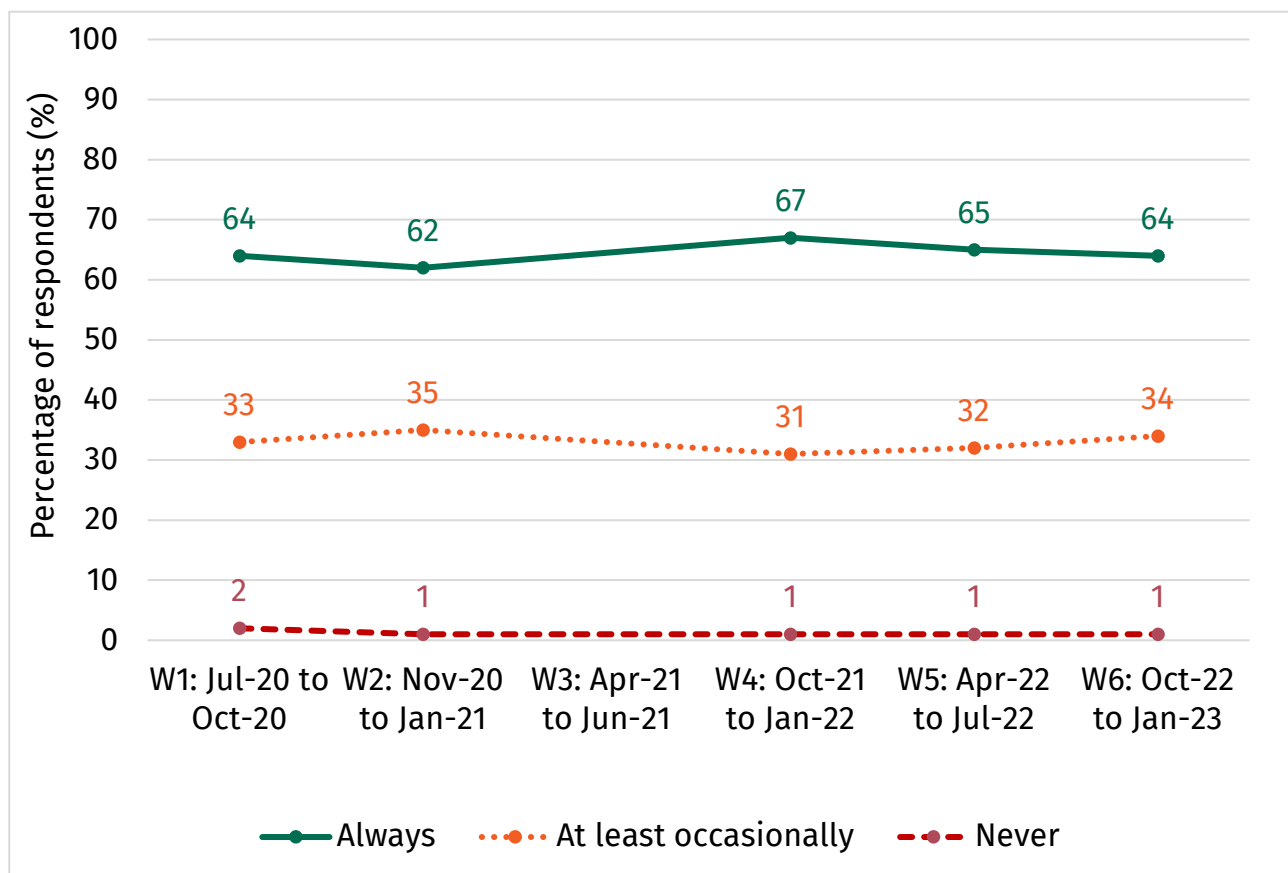
Food and You 2: Wave 1-6

Between Wave 1 (July 2020 to October 2020) and Wave 6 (October 2022 to January 2023), there were no notable differences in the percentage of respondents who identified the use-by date as the information which shows that food is no longer safe to eat. Across all waves, over 6 in 10 respondents identified the use-by date as the information which shows that food is no longer safe to eat (Figure 40)<sup>43</sup>.

---

<sup>43</sup> Question: Which of these shows when food is no longer safe to eat? Responses: use-by date, best before date, sell by date, display until date, all of these, it depends, none of these, don't know. Base= 21263, all online respondents, and those answering the relevant postal questionnaire. Please note: this question was not included in Wave 1 or Wave 3.

**Figure 41. How often respondents check use-by dates when they are about to cook or prepare food.**



Food and You 2: Wave 1-6

Between Wave 1 (July 2020 to October 2020) and Wave 6 (October 2022 to January 2023), there were no notable differences in the percentage of respondents who reported that they always, occasionally, or never check use-by dates before they cook or prepare food. Across all waves, over 6 in 10 respondents reported that they always check use-by dates before they cook or prepare food (Figure 41)<sup>44</sup>.

<sup>44</sup> Question: How often, if at all, do you check use-by dates when you are about to cook or prepare food? Responses: always, most of the time, about half of the time, occasionally, never, it varies too much to say, I don't cook/prepare food, don't know. Base= 28718, all online respondents and all those who completed the relevant postal questionnaire, who ever do some food preparation or cooking for their household. Please note: this question was not included in Wave 3.



## Chapter 6: Food shopping and labelling

### Introduction

The remit of food labelling is held by multiple bodies, that differ between [England, Wales and Northern Ireland](#)<sup>45</sup>.

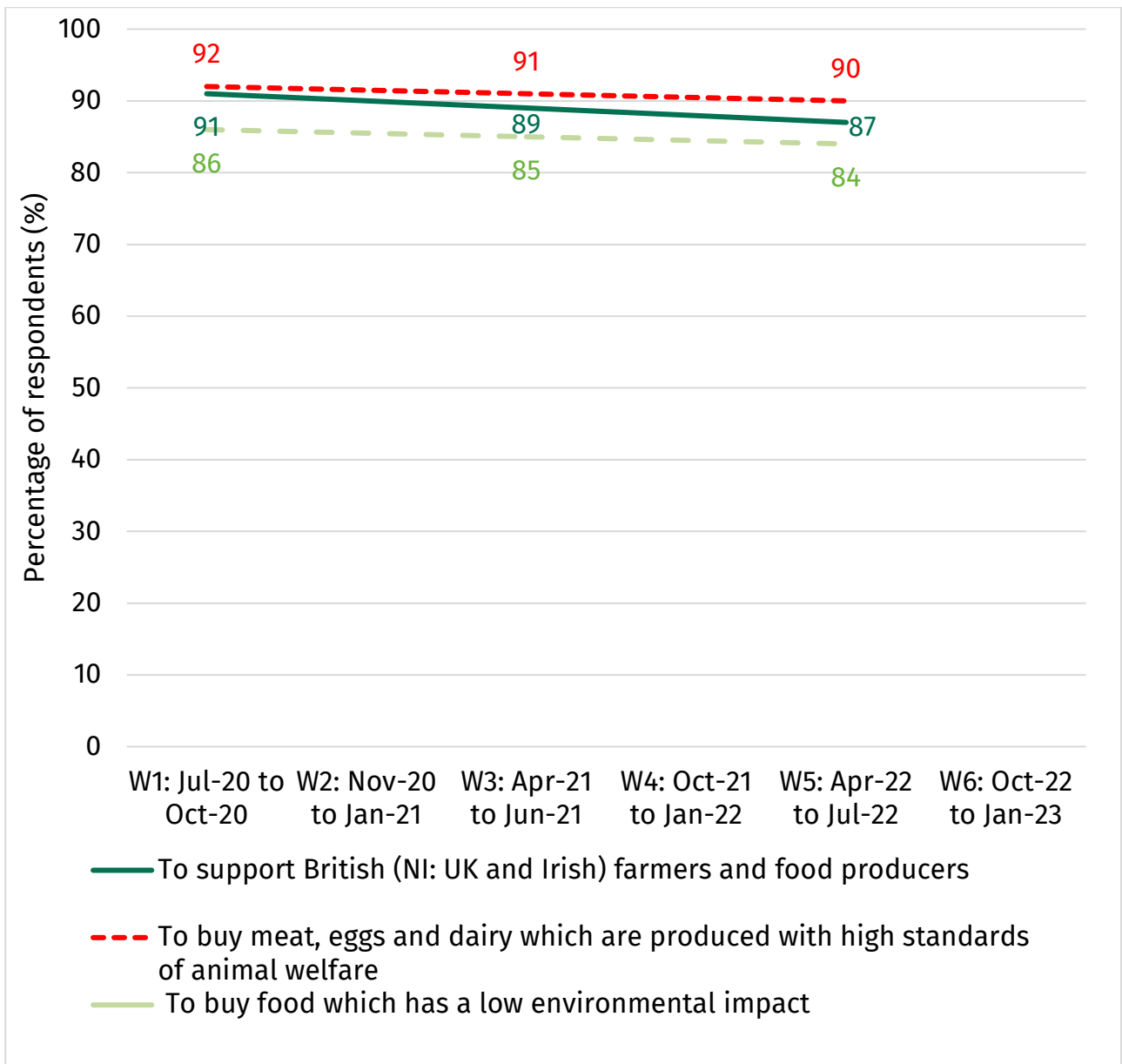
This chapter provides an overview of food purchasing, what respondents look for when they are shopping and confidence in allergen labelling between Wave 1 (July 2020 to October 2020) and Wave 6 (October 2022 to January 2023).

### What do respondents report that they look for when buying food?

**Figure 42. What factors are important to respondents when shopping.**

---

<sup>45</sup> Nutrition standards and nutrition food labelling is the remit of the Department of Health and Social care in England and the Welsh Government in Wales.



Food and You 2: Wave 1-6

Between Wave 1 (July 2020 to October 2020) and Wave 5 (April 2022 to July 2022), there were no notable differences in the percentage of respondents who reported that it was important to: buy meat, eggs and dairy which are produced with high standards of

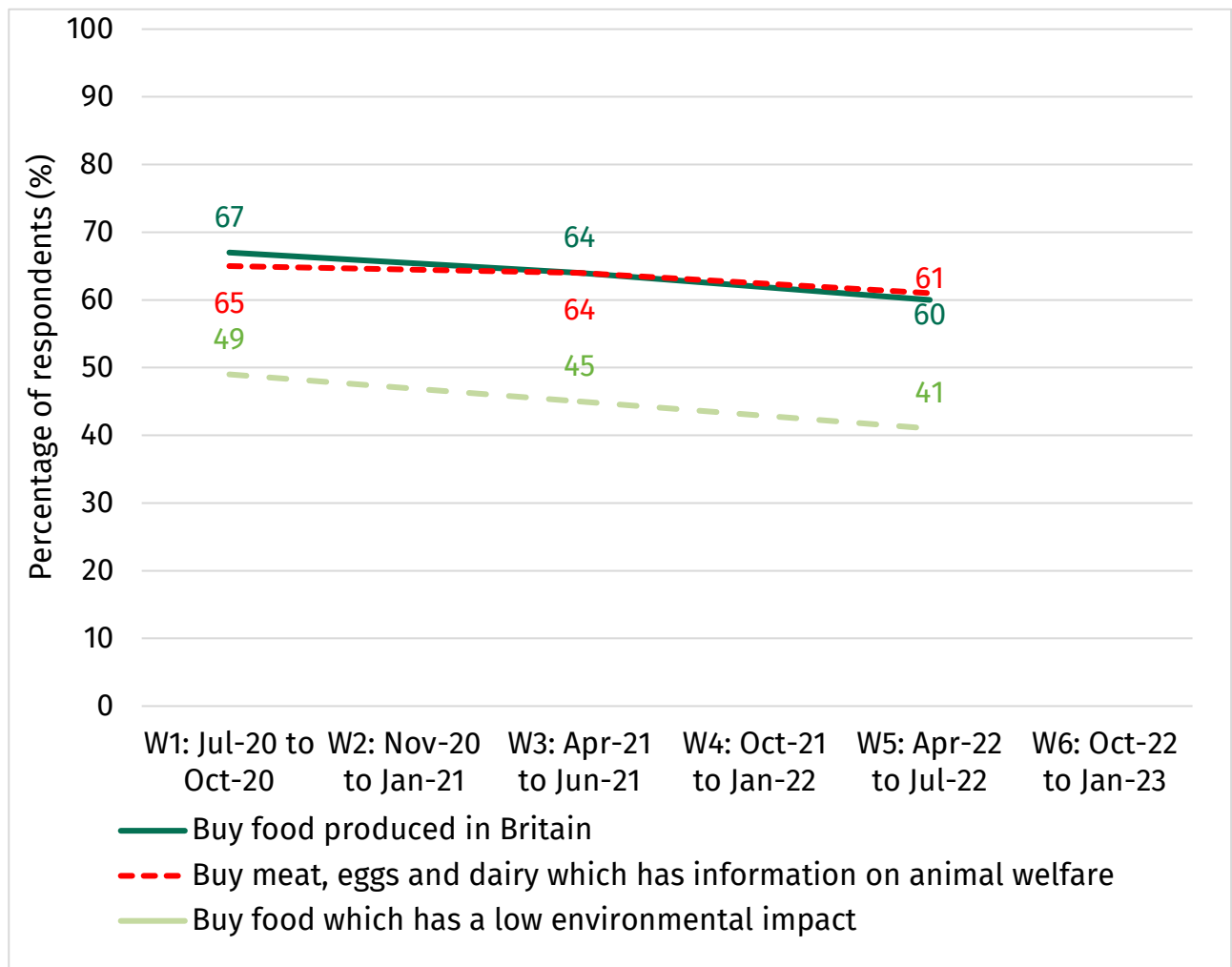
animal welfare; support British farmers and food producers; and to buy food which has a low environmental impact (Figure 42) <sup>46</sup>.

## **How often do respondents report buying food produced in Britain, which has animal welfare information or has a low environmental impact?**

---

<sup>46</sup> Question: How important is it to you...a) to support British [if Northern Ireland: UK and Irish] farmers and food producers. b) to buy meat, eggs and dairy which are produced with high standards of animal welfare. c) to buy food which has a low environmental impact. Responses: very important, somewhat important, not very important, not at all important, don't know. Base= 22352, all online respondents, and those answering the relevant postal questionnaire. Please note: this question was not included in Wave 2, Wave 4 or Wave 6.

**Figure 43. The percentage of respondents who, always or most of the time, buy food with a certain provenance, animal welfare or environmental impact.**



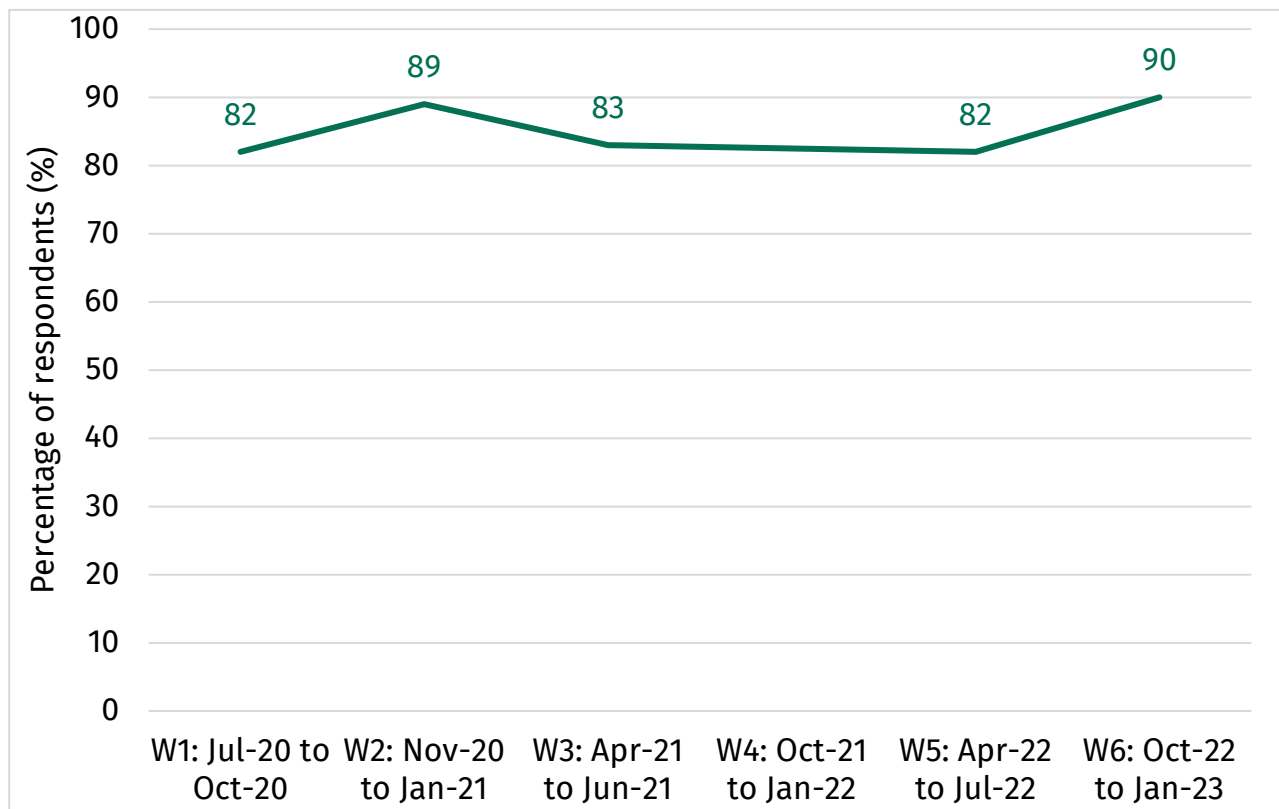
Food and You 2: Wave 1-6

Between Wave 1 (July 2020 to October 2020) and Wave 5 (April 2022 to July 2022) there were no notable differences in the percentage of respondents who reported that, where possible, they always or most of the time buy meat, eggs and dairy which has information on animal welfare. However, there was a slight decrease in the percentage of respondents who reported that, where possible, they buy food which was produced in

Britain, or food which had a low environmental impact either always or most of the time (Figure 43) <sup>\*\*47</sup>.

## Confidence in allergen labelling

**Figure 44. The percentage of respondents who are confident in allergen labelling.**



Food and You 2: Wave 1-6

Between Wave 1 (July 2020 to October 2020) and Wave 6 (October 2022 to January 2023), there were no notable differences in the percentage of respondents who stated that they were confident (i.e., very confident or fairly confident) that the information

---

<sup>47</sup> Question: How often do you do the following, where possible? A) Buy food produced in Britain [If Northern Ireland: 'the UK and Ireland']? B) Buy meat, eggs and dairy which has information on animal welfare. C) Buy food which has a low environmental impact. Responses: Always, Most of the time, About half the time, Occasionally, Never, Don't know. Base= 22352, all online respondents, and those answering the relevant postal questionnaire. Please note: this question was not included in Wave 2, Wave 4 or Wave 6.

provided on food labels allows them to identify foods that will cause a bad or unpleasant physical reaction has varied between waves. A slightly greater percentage of respondents reported confidence in allergen labelling in Wave 2 and Wave 6, than other waves (Figure 44) \*\*<sup>48</sup>.

---

<sup>48</sup> Question: How confident are you that the information provided on food labels allows you to identify foods that will cause you, or another member of your household, a bad or unpleasant physical reaction? Responses: very confident, fairly confident, not very confident, not at all confident, it varies from place to place, don't know. Base= 9959, all online respondents who consider the dietary requirements of themselves/someone else in the household when shopping for food. Please note: this question was not included in Wave 4.

# Annex A: Background and methodology

## Background

In 2018 the FSA's [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 replaced the biennial Food and You survey (2010-2018), biannual Public Attitudes Tracker (2010-2019) and annual Food Hygiene Rating Scheme (FHRS) Consumer Attitudes Tracker (2014-2019). The Food and You survey has been an Official Statistic since 2014. Due to the difference in methodology between the Public Attitudes Tracker, FHRS Consumer Attitudes Tracker and Food and You survey (2010-2018) it is not possible to compare the data collected in Food and You 2 (2020 onward) with these earlier data. Comparisons can be made between the different waves of [Food and You 2](#).

## 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)
- [Food and You 2: Wave 4 Key Findings](#) (August 2022)
- [Food and You 2: Wave 5 Key Findings](#) (March 2023)
- [Food and You 2: Wave 6 Key Findings](#) (July 2023)

## 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. See Table 1 in the Introduction for the fieldwork dates for each wave of data collection.

Food and You 2 is a sequential mixed-mode 'push-to-web' survey (summary of method below). Push-to-web helps to reduce the response bias that otherwise occurs with online-

only surveys. This method is accepted for government surveys and national statistics, including the 2021 [Census](#) and [2019/2020 Community Life Survey](#).

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

The sample of main and reserve addresses<sup>49</sup> 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, up to two versions were produced. The content of the versions of the postal questionnaires differed between waves of data collection. See the Technical Report of each wave for further details.

All data collected by Food and You 2 are self-reported. The data are the respondents own reported attitudes, knowledge and behaviour relating to food safety and food issues. As a social research survey, Food and You 2 cannot report observed behaviours.

---

<sup>49</sup> A reserve sample of addresses was created to use if the target number of respondents was not achieved from the main sample of addresses.



Observed behaviour in kitchens has been reported in [Kitchen Life 2](#), an ethnographic study which used motion-sensitive cameras, surveys, interviews, and fridge and freezer thermometers, to explore food safety behaviours in 70 households and 31 food business operator kitchens.

The minimum target sample size wave of the Food and You 2 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. See the Technical Report for each wave for details about the sample size, response rate and number of respondents who were removed from the dataset.

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. Separate trend weights have been calculated for each country, for all countries combined and for 'Welsh-England' estimates. The purpose of trend weights is to allow data for individual questions to be compared across waves. For each trend weight, relevant wave weights were identified and then rescaled in order to equalise the weighted sample size in each wave. Further details about the weighting approach used and the weights applied to the Wave 1 – 6 trends data are available in the Trends SPSS User Guide and Food and You 2, Waves 1-6: Weighting note.

The data have been checked and verified by the Ipsos research team and the FSA Statistics branch. Further details about checks of the data are available in the Technical Report. Descriptive analysis and statistical tests have been performed by 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

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

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

## References

- [2 Years of COVID-19 on GOV.UK](#) (25 July, 2022). Government Digital Service / Cabinet Office.
- [Census 2011. Office of National Statistics](#)
- [Cost of living insights: Food.](#) (November 2023). Office for National Statistics.

- Consumer insights tracker report: key findings from December 2021 to March 2022. (May 2021). Food Standards Agency.  
<https://doi.org/10.46756/sci.fsa.qsc504>
- Duffy, B., Smith, K., Terhanian, G., & Bremer, J. (2005). [Comparing data from online and face-to-face surveys.](#) *International Journal of Market Research*, 47(6), 615-639. <https://doi.org/10.1177/147078530504700602>
- [Family Resources Survey: financial year 2020 to 2021.](#) Department for Work and Pensions.
- [Food and You \(2010-2019\)](#)
- [Food in a Pandemic.](#) (March 2021). Food Standards Agency / Demos.
- [Introducing Food and You 2. \(March, 2020\).](#) Food Standards Agency.
- Gaskell, G. (2019). [Review of FSA's Food and You Survey.](#) 2 April 2019 ACSS Meeting – Food and You Review Report (Paper 3.5).
- Kitchen Life 2 (2023). Food Standards Agency.  
<https://doi.org/10.46756/sci.fsa.rvw614>
- [Timeline of UK government coronavirus lockdowns and measure March 2020 to December 2021.](#) Institute for Government Analysis.
- United States Department of Agriculture (USDA). [Food security.](#)
- UK Public's Interests, Needs and Concerns Around Food. (May 2022) Food Standards Agency. <https://doi.org/10.46756/sci.fsa.ihw534>
- [World Food Summit 1996, Rome Declaration on World Food Security.](#)

© Crown copyright 2023

This publication (not including logos) is licensed under the terms of the Open Government Licence v3.0 except where otherwise stated. Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.

For more information and to view this licence:

- visit [the National Archives website](#)
- email [psi@nationalarchives.gov.uk](mailto:psi@nationalarchives.gov.uk)
- write to: Information Policy Team, The National Archives, Kew, London, TW9 4DU

For enquiries about this publication, [contact the Food Standards Agency](#).

Project reference: FS430662



Follow us on Twitter: [@foodgov](#)



Find us on Facebook: [facebook.com/FoodStandardsAgency](https://facebook.com/FoodStandardsAgency)