

# The Food & You Survey Wave 4



## Northern Ireland Report

# Acknowledgements

The Food & You Survey Northern Ireland Report Wave 4 2

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**Authors:** Annemijn Sondaal, Beverley Bates, Si Ning Yeoh and Keeva Rooney

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The statistics presented in this bulletin meet the requirements of the UK Code of Practice for Official Statistics.

Further information on Official Statistics can be found on the UK Statistics Authority website.

## Introduction

Our food system is complex and, over the next few decades, global population growth is set to make huge demands on food production around the world. This impacts on the food supply in the UK and the challenge is to ensure that our food remains safe, authentic, nutritious, affordable and sustainable.

The role of the Food Standards Agency (FSA) is to protect the interests of the 'consumer' and it does this through a range of activities including regulation of food businesses and developing and targeting messages and initiatives for the public. The FSA's Strategy and Strategic Plan 2015–2020<sup>1</sup> renews its commitment to put 'consumers' first. This is against a rapidly changing landscape in terms of the production, distribution and consumption of food, nationally and globally.

The Food and You survey is the FSA's principal source of methodologically robust and representative evidence on consumers' self-reported food-related activities and attitudes. Understanding the UK population's reported behaviour, attitudes and knowledge in relation to food issues is key to measuring the FSA's progress towards its strategic objectives, providing evidence that supports the FSA's communication activities, identifying topics for further research or action and identifying groups for future interventions (e.g. those most at risk or those among whom FSA policies and initiatives are likely to have the greatest impact).

## Role of the FSA

The FSA was created in 2000 as an independent non-ministerial government department, governed by a Board whose members have extensive knowledge and experience in a wide range of sectors relevant to the FSA. The FSA was set up to protect public health from risks which may arise in connection with the consumption of food (including risks caused by the way in which it is produced or supplied),

1 [www.food.gov.uk/sites/default/files/FSA%20strategy%20document%202015-2020\\_April%202015\\_interactive%20%282%29.pdf](http://www.food.gov.uk/sites/default/files/FSA%20strategy%20document%202015-2020_April%202015_interactive%20%282%29.pdf)

and otherwise to protect the interests of ‘consumers’ in relation to food.

The FSA is responsible for food safety and hygiene in England, Wales and Northern Ireland, and is committed to ensuring the general public can have trust and confidence in the food they buy and eat.<sup>2</sup> The FSA also enforces standards through its regulatory responsibilities. The FSA provides guidance to consumers on best practices for food safety and hygiene in order to minimise the risk of food poisoning.<sup>3</sup> This includes advice on cleaning, cooking, cross-contamination and chilling (collectively known as the ‘4 Cs’). Guidance is also given on the use of date labels (such as ‘use by’ and ‘best before’ dates) and storage instructions on foods to help ensure safety of food eaten at home. In Northern Ireland the FSA is additionally responsible for nutrition and healthy eating practices.<sup>4</sup>

# The Food and You survey

## Background

Since its inception in 2000, the FSA has commissioned surveys to collect quantitative data on the public’s reported behaviour, attitudes and knowledge relating to food and food safety. Between 2000 and 2007 the FSA ran the Consumer

- 2 In April 2015, the FSA’s responsibilities in Scotland were transferred to the new non-ministerial government depart of the Scottish Government, Foods Standards Scotland (FSS).
- 3 Responsibility for food safety and nutrition in Scotland is the responsibility of Food Standards Scotland (FSS), a non-ministerial government department of the Scottish Government established by the Food Act 2015.
- 4 In 2010, responsibility for nutrition in England and Wales transferred to the Department of Health. From 1 April 2013, responsibility in England transferred to the Department of Health’s Executive Agency, Public Health England (PHE) and in Wales, responsibility transferred to the Welsh Government. Responsibility for nutrition and healthy eating practices in Northern Ireland remain the responsibility of the FSA in NI.

Attitudes Survey (CAS).<sup>5</sup> In 2008 FSA's Social Science Research Committee (SSRC) recommended that a new survey – Food and You – be developed.<sup>6</sup>

Food and You was set up as a biennial, cross-sectional survey of adults aged 16 years and over living in private households. Random probability sampling ensures that everyone in the included countries has an equal chance of being selected to take part, so the results are representative of the population. The first three waves of the survey were carried out by TNS BMRB (in 2010, 2012 and 2014 respectively). NatCen Social Research (NatCen), in collaboration with the Northern Ireland Statistics and Research Agency (NISRA), have been contracted to carry out Waves 4, 5 and 6 of the survey.

Topics have reflected the priorities and interests of the FSA and the survey has been an important means of measuring progress against the FSA's Strategic Plan 2010–2015,<sup>1</sup> providing evidence to assess delivery across the FSA's strategic objectives.<sup>7</sup> The first wave of Food and You (2010) assessed consumer attitudes and behaviour to food-related issues falling under the FSA's remit. Following Wave 1, the questionnaire was reviewed extensively in light of responsibility for nutrition in England and Wales being transferred from FSA in 2010.<sup>4</sup>

Wave 2 (2012) focussed on food safety and hygiene issues and was carried out in 2012, and Wave 3 (2014) was designed to monitor changes since the previous two waves in attitudes and reported behaviour about food issues, to identify at-risk groups for food safety issues, and to explore public understanding of issues regarding the FSA's targets. For the first time at Wave 3, results from Food and You were published as an official statistic, reflecting the robust methodology of the survey and the development of a regular time series of data.

5 Further information about the CAS can be found at: <http://tna.europarchive.org/20111116080332/www.food.gov.uk/science/socsci/surveys/foodsafety-nutrition-diet/>

6 See SSRC 2008 report, *Monitoring Public Attitudes and Behaviour – A Review of the Agency's Consumer Attitudes Surveys* [http://ssrc.food.gov.uk/sites/default/files/mnt/drupal\\_data/sources/files/multimedia/pdfs/ssrc0822v1.pdf](http://ssrc.food.gov.uk/sites/default/files/mnt/drupal_data/sources/files/multimedia/pdfs/ssrc0822v1.pdf)

7 See the FSA Strategy to 2015 <http://webarchive.nationalarchives.gov.uk/20120206100416/http://food.gov.uk/multimedia/pdfs/strategy20102015.pdf>

Wave 4 of the Food and You Survey included new questions to cover affordability of food, choice, security and sustainability.

New questions and modifications to the Wave 4 questionnaire were tested using cognitive testing techniques. The questionnaire was piloted prior to the start of mainstage fieldwork. Full details are given in the Development report.

## Aims

Food and You provides data about the prevalence of different attitudes, reported behaviour and knowledge about ways in which food is purchased, stored, prepared and eaten. The aims of Wave 4 were to provide the FSA with data on food hygiene and food safety and other food-related issues in order to:

- explore public understanding and engagement with food safety
- assess knowledge of messages and interventions aimed at raising awareness and changing behaviour
- describe public attitudes to food production and the food system
- monitor trends in reported behaviour, attitudes and knowledge (compared with data from the previous three waves or from other sources)
- identify target groups for future interventions (e.g. those most at risk or those among whom FSA policies and initiatives are likely to have the greatest impact)
- provide indicators and evidence for tracking the FSA's strategic plans<sup>1</sup>

## About this report

This report presents a descriptive overview of the findings for Northern Ireland from Wave 4 of Food and You. Fieldwork was conducted in 2016 and consisted of 3,118 interviews from a representative sample of adults aged 16 and over across England, Wales and Northern Ireland, including 521 in Northern Ireland, on which this report is based. The survey provides data about the prevalence of different reported behaviours, attitudes and knowledge relating to topics around food.

This report presents analysis of key areas of interest for the FSA by the following variables: age group, gender, household size, and presence of children in household, income, working status, Northern Ireland Multiple Deprivation Measure (NIMDM)<sup>8</sup> and the Rural Urban Classification.<sup>9</sup> In addition, four waves of data provide a robust time series in order to monitor the nature and prevalence of change in these behaviours and attitudes.

Reports of findings for Northern Ireland, and for the combined sample in England, Wales and Northern Ireland, are published separately. Full information on the methodology and questionnaire development is provided in the Technical and Development reports.

Full data are available in the UK Data Archive.<sup>10</sup>

## Self-reported behaviours

Interviews as a data collection method do not directly capture people's actual practices for a number of reasons, including recall not being accurate, certain behaviours being habitual

8 The Northern Ireland Multiple Deprivation Measure (NIMDM) 2010 is the official measure of area deprivation in Northern Ireland which considers deprivation across income, employment, health and disability, education skills and training, proximity to services, living environment, and crime and disorder. Areas are grouped into quintiles based on their 2010 NIMDM score, with quintile 1 the most deprived areas across Northern Ireland and quintile 5 the least deprived areas. /www.nisra.gov.uk/sites/nisra.gov.uk/files/publications/NIMDM\_2010\_Report\_0.pdf

9 The Rural Urban Classification defines areas as rural if they are outside settlements with more than 10,000 resident population: www.gov.uk/government/collections/rural-urban-classification

10 <http://data-archive.ac.uk/>

and therefore possibly difficult to recall, and desirability bias – described further below. In other words, what respondents say in interviews about what they do and think is necessarily *reported*. Here self-reported behaviour is used as a proxy for actual behaviour. Where the report refers to behaviour, attitudes or knowledge, the fact that the data refer to reported behaviour must always be borne in mind.

The risk of social desirability bias is also high i.e. respondents tend to answer questions based on what they think they ought to say, rather than reflecting what they actually do, know or think. As in previous waves, there were a number of topics in the questionnaire for which respondents might be reluctant to report behaviour which goes against what is possibly widely known advice (for example, not washing their hands before cooking or preparing food). The Food and You questionnaire has been carefully designed to limit this as far as possible by asking questions about behaviour within specific time periods (e.g. asking whether a respondent did something ‘in the last seven days’ rather than ‘usually’) and framing questions neutrally.

## Questionnaire changes between waves

While efforts are made to ensure consistency in questions asked at each wave to allow for comparisons over time, there have been a number of changes made to the questionnaire between waves, reflecting further development of the questionnaire and changing FSA priorities and responsibilities (see section 1.2).

As mentioned, wave 4 of the survey was carried out in England, Wales and Northern Ireland; unlike in previous waves Scotland was not included.<sup>11</sup> Analyses were undertaken of the data collected in previous waves to exclude Scotland and to allow comparisons to be made across waves.

<sup>11</sup> In April 2015, the FSA's responsibilities in Scotland were transferred to the new non-ministerial government department of the Scottish Government, Foods Standards Scotland (FSS).

A number of other changes to individual questions and response categories have been introduced between waves. Full details of changes to the questionnaire are outlined in each of the published technical reports.

## Reporting conventions (notes to text and tables)

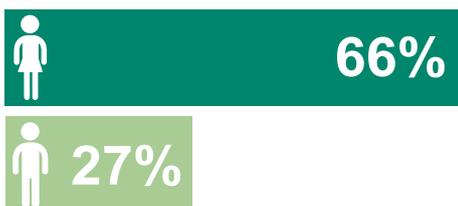
1. The data used in the report have been weighted. Weighted and unweighted sample sizes are shown at the foot of each table.
2. Weights were applied to correct for the lower selection probabilities of adults aged 16+ in multi-adult households/dwellings, as well as for the selection of one dwelling unit/household if two or more were found at the selected address. Weights also corrected for the over-representation of Wales and Northern Ireland relative to England (as a result of the boosted samples in those countries).
3. Where an earlier survey year (2010, 2012 or 2014) is not shown in a table, this is because the question(s) was not asked in that year.
4. Unless stated otherwise, where comparisons are made in the text between different population groups or variables, only those differences found to be statistically significant at the five per cent level are reported. In other words, differences as large as those reported have no more than a five per cent probability of occurring by chance.<sup>12</sup>
5. This individual report on Northern Ireland largely mirrors the combined report that covers England, Wales and Northern Ireland, with the exception of having smaller sample sizes. Due to the small sample sizes, reliable analysis by gender within each cross break is not possible unlike in the combined report. Thus the tables only show all adults as a cross break and sex as a sub-group.

<sup>12</sup> If we kept drawing on samples of the populations of the same size and composition, there would be an observed difference in 95% of those samples.

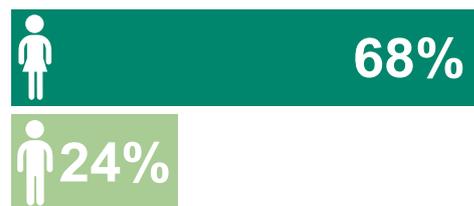
6. References made to all respondents reflect Northern Irish respondents only.
7. Comparisons between Northern Ireland, England and Wales have been made for various variables. Only variables for which there was a significant difference between respondents in Northern Ireland and those in England or Wales are reported on.
8. The following conventions have been used in tables:
  - *no observations (zero value)*
  - 0 non-zero values of less than 0.5% and thus rounded to zero
  - [ ] unless stated otherwise, data and bases for a variable with a cell size between 30–49 are presented in square brackets. For cell sizes below 30, bases have been presented in square brackets, but data have not been presented
9. Because of rounding, row or column percentages may not add exactly to 100%.
10. 'Missing values' occur for several reasons, including refusal or inability to answer a particular question/section; and cases where the question is not applicable to the participant.
11. The term 'significant' refers to statistical significance (at the 95% level) and is not intended to imply substantive importance.
12. At some questions respondents could give a number of responses to this question (as many as applied); at such questions the percentages will add to more than 100%.
13. Where a table contains more than one variable, the bases may not be exactly the same. Tables will usually show the bases for the first variable in the table with any differences in bases for other variables indicated in a footnote to the table.

# 1 Shopping, cooking and eating

## Responsibility for all or most cooking/preparing food



## Responsibility for all or most food shopping



## 11% reported an adverse reaction or avoided certain foods

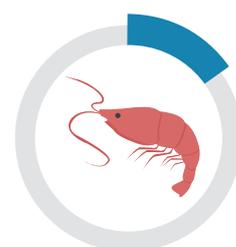
Most common food groups these people reported having an adverse reaction to:



**27%**  
cows' milk and cows' milk products



**26%**  
cereals containing gluten



**15%**  
crustaceans

## Food security

45% reported making at least one change in their buying/eating arrangements for **financial reasons** in the last 12 months:

Bought items on special offer more



**21%**

Ate out less



**14%**

Eaten fewer takeaways



**14%**

Shopped elsewhere for cheaper alternatives



**14%**

# 1 Shopping, cooking and eating

## 1.1 Introduction

This chapter gives an overall picture of people's shopping, cooking and eating habits, thus helping to build an understanding of the role food plays within people's lives and the extent of their involvement with food. In doing so it provides context for later chapters as well as data for further analysis, covering the extent to which people cook and eat at home, frequency of eating certain foods, attitudes towards food as well as cooking and shopping habits. The FSA's new strategy acknowledges the role it has to play in ensuring "we have access to an affordable healthy diet, and can make informed choices about what we eat, now and in the future".<sup>13</sup> Whilst attitudes to sustainability and food production now and in the future are covered in Chapter 5, this chapter also explores household food security, that is, whether households have access to an affordable and healthy diet. Questions asked expand on those included in earlier waves about changing eating and shopping habits for financial reasons.

This chapter also looks at food allergies and intolerances and other dietary restrictions. Minimising the incidence of food-related allergic reactions is part of the FSA's responsibility for protecting public health from risks which may arise in connection with the consumption of food.

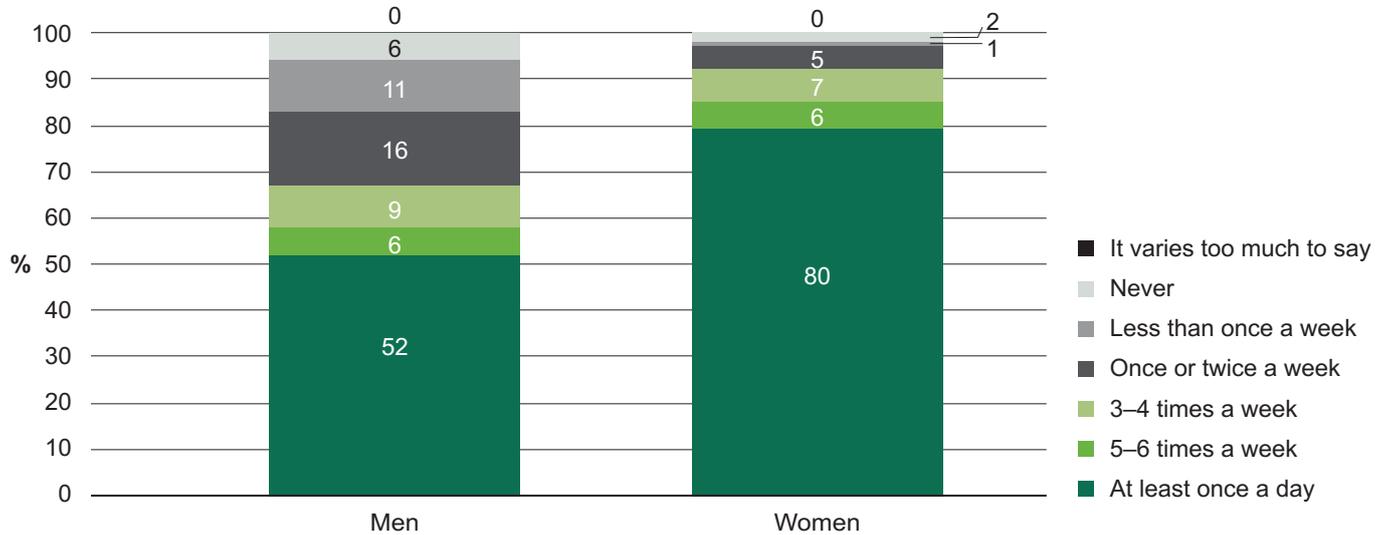
In line with the new priorities for the FSA existing questions were updated and new ones introduced in Wave 4 to provide information on the incidence of adult food allergy. More general allergy questions were asked to determine prevalence of reported adverse reaction to certain foods, the most common food groups to which people reported reactions to, and whether other household members have allergies. Combined with a range of measures around eating out and food safety, this information will provide FSA with an evidence base to inform and underpin policy on allergy and intolerance.

<sup>13</sup> [www.food.gov.uk/about-us/about-the-fsa](http://www.food.gov.uk/about-us/about-the-fsa)

## 1.2 Cooking and eating at home

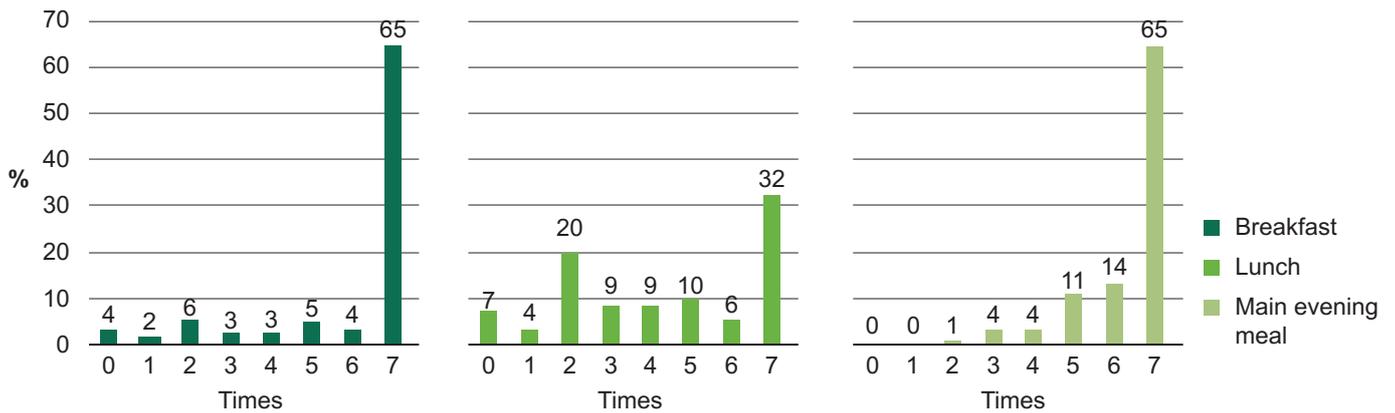
The majority of Northern Irish respondents (87%) reported having at least some responsibility for cooking or preparing food in the home, with half (48%) saying they were responsible for all or most of this. Women were more likely than men to have all the responsibility (66% compared with 27%). Women were also more likely to cook for themselves or others at least five days a week (86% compared with 58% of men). Nine per cent of men and 2% of women said they cooked less than once a month or never.

Figure 1.1 Frequency of cooking meals for themselves and others, by gender (Wave 4)



The majority of respondents reported eating all breakfast and main evening meals (both 65%) at home in the last seven days. There was greater variability in the proportion of respondents reporting eating lunch at home, with 32% having eaten it at home on all days in the past week and 31% reporting having eaten lunch at home twice or less. Respondents aged 65 and over were more likely than younger respondents to report eating each meal at home on a daily basis, particularly breakfast and lunch.

Figure 1.2 Frequency of eating breakfast, lunch and main evening meal at home (Wave 4)



When comparing between Northern Ireland, England and Wales, significant differences were found in the frequency that respondents cooked for themselves or others (see table 1.A).

Table 1.A Frequency of cooking for self or others, by country (Wave 4)

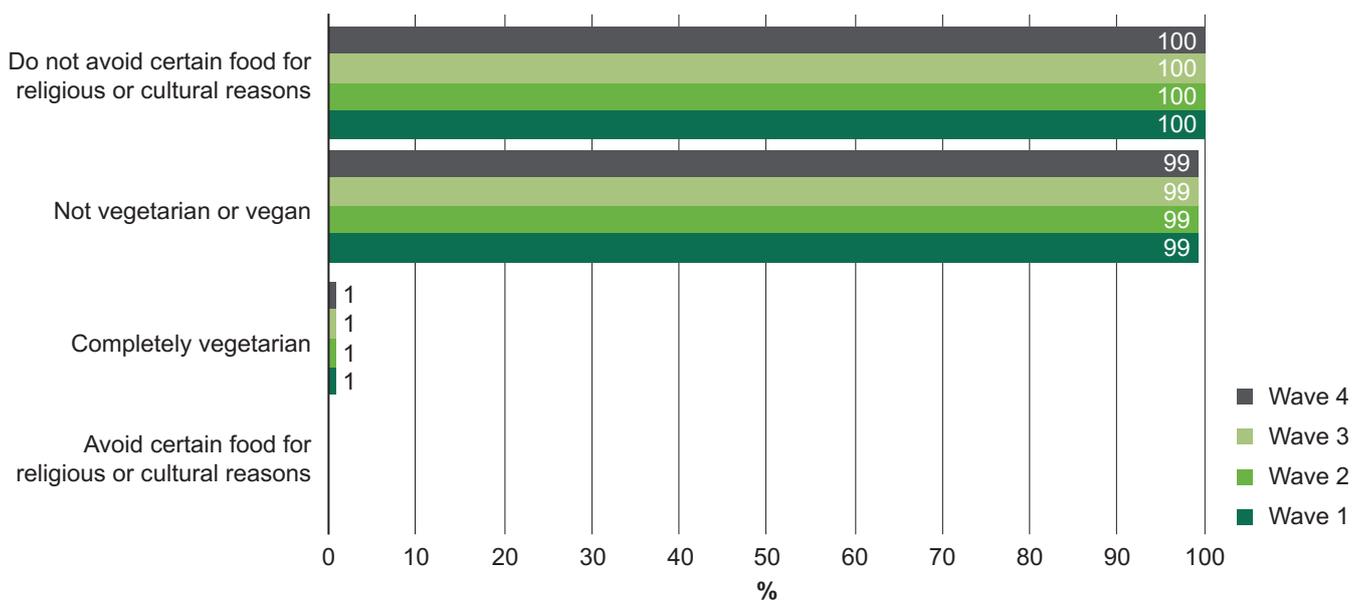
	Northern Ireland	England	Wales
At least once a day	67	56	64
5–6 times a week	6	10	10
3–4 times a week	8	12	8
Once or twice a week	10	13	7
Once a fortnight	1	2	1
Once a month	2	1	1
Less than once a month	2	2	2
Never	4	4	6
Bases (unweighted)	521	2105	492

Respondents living in Northern Ireland were more likely than those in England to report cooking for themselves or others at least once a day (67% compared with 56%), and less likely to report cooking for themselves or others 3–4 times a week (8% compared with 12%).

# 1.3 Dietary restrictions, food allergy and intolerance

The proportion of respondents who considered themselves vegetarian was small (1%). Less than 1% said they were vegan<sup>14</sup> and less than 1% said that they avoided food for religious/cultural reasons.

Figure 1.3 Dietary restrictions (Waves 1–4)



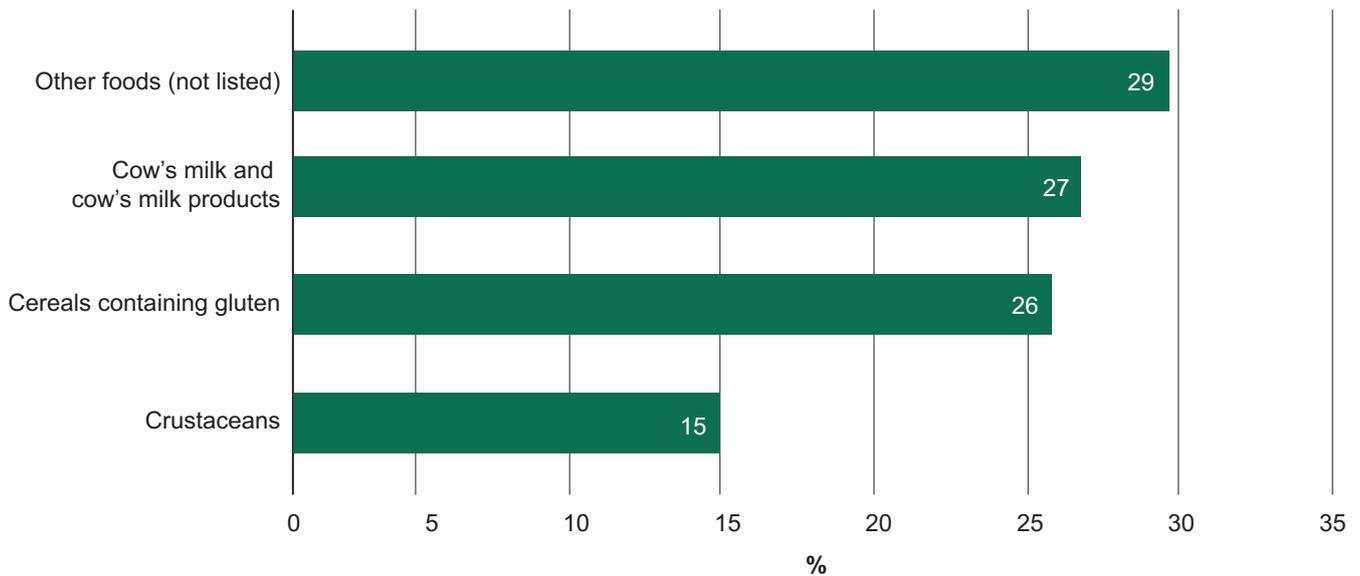
When asked if they ever suffered an adverse reaction when eating certain foods, 9% of respondents reported they did. A further 2% said they avoided certain foods because of the adverse reaction they might cause.

Respondents who had experienced an adverse reaction or avoided foods due to the reaction they might cause were asked if they had experienced a reaction to a list of 14 foods. These 14 foods are allergens listed in Annex II of the EU Food Information for Consumers Regulation No.1169/2011,

<sup>14</sup> An accurate comparison with previous waves cannot be made because the questions have been changed (to improve them).

which must always be labelled in pre-packed and non-prepacked foods when used as an ingredient or processing aid. Of those who reported an adverse reaction or avoided certain foods, the most common foods that people reported having an adverse reaction to were cows' milk and cows' milk products (27%), cereals containing gluten (26%) and crustaceans (15%). Twenty-nine per cent reported having an adverse reaction to 'other' (not listed) foods.

**Figure 1.4 Most commonly mentioned food groups causing (possible) adverse reactions (Wave 4)**



In total, 10% of respondents reported living in a household in which someone other than themselves had a food allergy, compared with 5% at Wave 3.

The base sizes for the questions concerning clinical diagnosis of allergy in Wales were too small and as a result could not be reported on.

When comparing between Northern Ireland, England and Wales, significant differences were found relating to respondents' dietary restrictions as well as food reactions (see table 1.B and 1.C).

**Table 1.B Dietary restrictions, by country (Wave 4)**

	Northern Ireland	England	Wales
Vegetarian and vegan			
Completely vegetarian	1	4	2
Vegan	0	0	1
Not vegetarian or vegan	99	96	97
Religious and cultural restrictions			
Avoid certain food for religious or cultural reasons	0	4	1
Do not avoid certain food for religious or cultural reasons	100	96	99
Bases (unweighted)	521	2105	492

Respondents in Northern Ireland were more likely not to be vegetarian or vegan compared with those in England and Wales (99% compared with 96% and 97% respectively). Compared with those in England, they were less likely to be completely vegetarian (1% compared with 4%), and less likely to avoid certain food for religious or cultural reasons (less than 1% compared with 4%).

**Table 1.C Food reactions, by country (Wave 4)**

	Northern Ireland	England	Wales
General adverse reactions			
Suffer adverse reaction to consuming certain foods	9	16	12
Avoid certain foods due to the reaction they might cause	2	5	5
Do not suffer adverse reaction or avoid foods	88	80	83
Bases (unweighted)	521	2105	492

Respondents in Northern Ireland were more likely not to suffer adverse reaction or avoid foods than those in England (88% compared with 80%).

Tables 1.6–1.8

## 1.4 Frequency of eating certain foods

This section looks at consumption of certain types of foods that pose, or are perceived to pose, greater food safety risks, for example in relation to food poisoning. It offers an indication of who eats these particular foods and how often, and how this is changing over time. This information complements the detailed information published by the FSA in 2014 of how many people suffer from food poisoning in the UK every year and how much food poisoning can be attributed to different foods, that supports efforts to reduce levels of food poisoning in the UK. Poultry meat was the food linked to the most cases of food poisoning, with an estimated 244,000 cases every year. After poultry, produce including vegetables, fruit, nuts and seeds caused the second highest number of cases of illness (an estimated 48,000 cases), while beef and lamb caused an estimated 43,000 cases.<sup>15</sup>

The majority of respondents reported eating cuts of red meat and processed red meat (burgers, sausages and pre-cooked meats) once or twice a week or less.

Chicken and turkey were eaten more often than red meat with 36% reporting that they ate this type of food 3–4 times a week compared with 21% or less who said they ate red meat or products 3–4 times a week. Frequency of chicken and turkey consumption was similar to previous waves.

The majority of respondents reported using milk and dairy products at least once a day (74%). Eighty-three per cent of respondents reported eating eggs 3–4 times a week or less.

<sup>15</sup> [www.food.gov.uk/news-updates/news/2014/6097/foodpoisoning](http://www.food.gov.uk/news-updates/news/2014/6097/foodpoisoning)

The majority of respondents reported eating cooked or smoked fish (excluding shellfish) once or twice a week or less (97%). Frequency of consumption of raw fish or shellfish was relatively low with 60% saying they never ate cooked shellfish and 85% saying they never ate raw fish or shellfish.

Over half (58%) of respondents reported eating raw fruit at least once a day while 2% said they never ate it. Patterns of consumption frequency were very similar to previous waves.

Vegetables were eaten less often than fruit with 18% saying they ate raw vegetables (including salad) and 39% eating cooked vegetables at least once a day.

Nearly half (55%) of respondents said they never ate pre-packed sandwiches and 51% said they never ate ready meals. These types of food were most commonly consumed between once or twice a week and less than once a month.

When comparing between Northern Ireland, England and Wales, significant differences were found relating to the frequency of eating certain foods, particularly for eating meat and poultry, fish and shellfish, and pre-packed sandwiches and ready meals (see table 1.C, 1.D and 1.E).

**Table 1.D Frequency of eating meat and poultry, by country (Wave 4)**

	Northern Ireland	England	Wales
Cuts or portions of beef, lamb or pork			
At least once a week	72	61	63
Less than once a week	22	27	26
Never	6	12	11
Burgers			
At least once a week	25	13	9
Less than once a week	59	57	58
Never	16	30	34
Sausages			
At least once a week	54	29	30
Less than once a week	36	51	54
Never	10	20	16
Chicken or turkey			
At least once a week	89	83	81
Less than once a week	8	10	14
Never	3	7	5
Duck or goose			
At least once a week	1	1	1
Less than once a week	32	41	37
Never	67	58	62
Pre-cooked meats (e.g. ham or meat pate)			
At least once a week	69	54	61
Less than once a week	16	25	25
Never	15	22	14
Bases (unweighted)	521	2105	492

Respondents living in Northern Ireland were more likely than those in England to eat the following types of meat and poultry at least once a week: cuts or portions of beef, lamb or pork (72% compared with 61%), burgers (25% compared with 13%), sausages (54% compared with 29%), chicken or turkey (89% compared with 83%), and pre-cooked meats (69% compared with 54%). They were correspondingly less likely never to eat these types of meat and poultry. Respondents in Northern Ireland were however more likely than those in England never to eat duck or goose (67% compared with 58%).

A similar pattern was found when comparing respondents living in Northern Ireland with those in Wales. Those in Northern Ireland were more likely than those in Wales to eat cuts or portions of beef, lamb or pork (72% compared with 63%), burgers (25% compared with 9%), sausages (54% compared with 30%), and chicken or turkey (89% compared with 81%) at least once a week. They were less likely than those in Wales never to eat cuts or portions of beef, lamb or pork (6% compared with 11%), burgers (16% compared with 34%), and sausages (10% compared with 16%).

**Table 1.E Frequency of eating fish and shellfish, by country (Wave 4)**

	Northern Ireland	England	Wales
<b>Cooked or smoked fish excluding shellfish</b>			
At least once a week	31	40	36
Less than once a week	39	38	41
Never	29	21	24
<b>Cooked shellfish</b>			
At least once a week	7	12	10
Less than once a week	33	45	38
Never	60	43	52
<b>Raw fish or shellfish (e.g. sushi, sashimi, raw oysters)</b>			
At least once a week	3	6	4
Less than once a week	13	24	17
Never	85	71	79
<b>Bases (unweighted)</b>	<b>521</b>	<b>2105</b>	<b>492</b>

Respondents living in Northern Ireland were less likely than those in England to eat fish and shellfish at least once a week, particularly cooked or smoked fish excluding shellfish (31% compared with 40%), and cooked shellfish (7% compared with 12%). Similarly they were more likely than those in England never to eat cooked or smoked fish excluding shellfish (29% compared with 21%), cooked shellfish (60% compared with 43%), and raw fish or shellfish (85% compared with 71%).

**Table 1.F Frequency of eating pre-packed sandwiches and ready meals, by country (Wave 4)**

	Northern Ireland	England	Wales
Pre-packed sandwiches			
At least once a week	10	19	16
Less than once a week	35	36	40
Never	55	45	44
Ready meals			
At least once a week	15	24	23
Less than once a week	34	38	41
Never	51	38	36
Bases (unweighted)	521	2105	492

Respondents living in Northern Ireland were less likely than those in England and Wales to report eating pre-packed sandwiches at least once a week (10% compared with 19% and 16% respectively), and were more likely to report never eating them (55% compared with 45% and 44% respectively).

Respondents in Northern Ireland were also less likely than those in England and Wales to report eating ready meals at least once a week (15% compared with 24% and 23% respectively), and more likely to report never eating ready meals (51% compared with 38% and 36% respectively).

## 1.5 Attitudes towards food and cooking

Respondents were asked whether they enjoyed cooking or took an interest in food or cooking. The overall picture was that respondents did enjoy and were interested in food and cooking. The majority of respondents agreed with the statements 'I like trying new things to eat' (61%) and 'I enjoy cooking and preparing food' (63%) while 81% disagreed with the statement 'I'm not generally interested in food'.

Older respondents aged 75 and over were less likely to agree they liked trying new things to eat (34% compared with 49%–73% in the other age groups).

The majority of respondents disagreed with the statement 'I don't have time to spend preparing and cooking food' (67%). This was similar to previous waves.

Those in work were more likely than those who were retired or with an 'other' working status<sup>16</sup> to agree that they didn't have time to prepare and cook food (27% compared with 9% and 10% respectively).

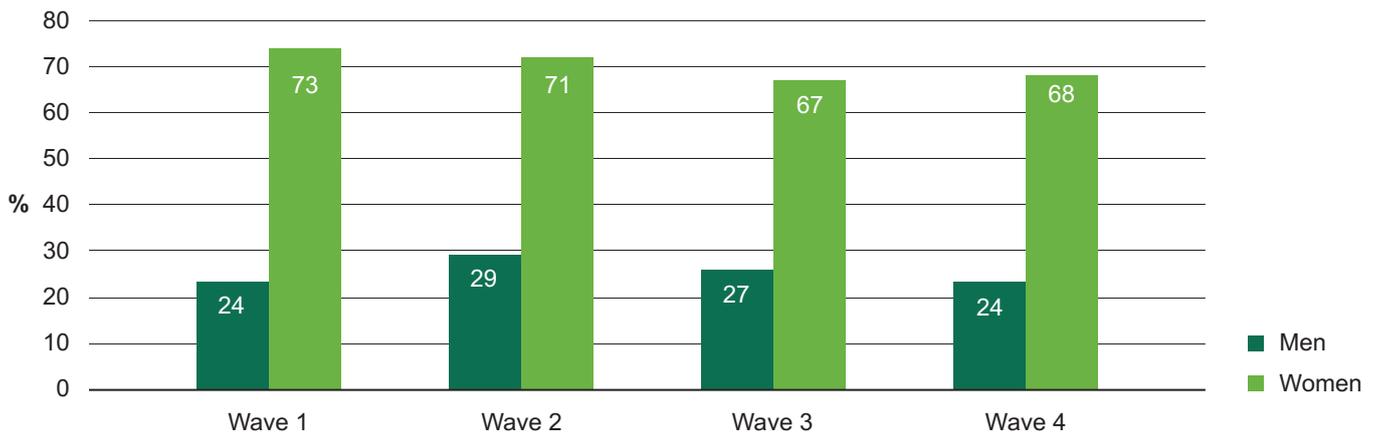
Tables 1.14

## 1.6 Shopping

The majority of respondents (82%) reported having at least some responsibility for household food shopping with half (47%) saying they were responsible for all or most of this. As with cooking and preparing food, the proportion of women who reported having all or most of the responsibility for food shopping was more than twice the proportion of men (68% compared with 24%).

<sup>16</sup> Working status 'other' includes other economically inactive groups such as those in full-time education or looking after home or family.

Figure 1.5 Responsibility for most or all food shopping, by gender (Waves 1–4)



As with Waves 2 and 3, the most common place for households to do their food shopping was large supermarkets (92%). Forty-five per cent shopped at mini supermarkets and 40% at a local or corner store. More than half (52%) of respondents used independent butchers.

Large supermarkets were where the majority of households (82%) did their main food shop (in-store not online). Eight per cent did their main shop at a mini supermarket and 3% through home delivery from a supermarket. These proportions were similar to Waves 2 and 3. More than half (60%) of respondents said their households did a main food shop once a week, similar to Waves 2 and 3.

Where the household shops for food differs significantly when comparing between Northern Ireland, England and Wales (see table 1.G).

**Table 1.G Where household shops for food, by country (Wave 4)**

	Northern Ireland	England	Wales
Large supermarket	92	95	95
Mini supermarket	45	40	30
Local or corner shop	40	27	28
Garage forecourt	19	5	7
Independent greengrocer	20	16	12
Independent butcher	52	31	28
Independent baker	18	13	14
Independent fishmonger	7	7	4
Market (including stalls or farmer's market)	10	18	14
Farm	6	7	6
Home delivery from a supermarket	9	14	16
Home delivery not from a supermarket (including vegetable boxes)	1	3	2
Other shop	2	3	4
Bases (unweighted)	521	2105	492

Respondents in Northern Ireland were more likely than those in England and Wales to shop at local or corner shops (40% compared with 27% and 28% respectively), garage forecourts (19% compared with 5% and 7%), and independent butchers (52% compared with 31% and 28%). They were also more likely than those in Wales to shop for food in mini supermarkets (45% compared with 30%) and independent greengrocers (20% compared with 12%).

Respondents in Northern Ireland were less likely than those in England to shop for food at a market (10% compared with 18%), and less likely than those in England and Wales to get a home delivery from a supermarket (9% compared with 14% and 16% respectively).

## 1.7 Food security

‘Food security’ means having access at all times to enough food that is both sufficiently varied and culturally appropriate to sustain an active and healthy life.<sup>17</sup> Household food security status is measured by the responses to a series of questions about behaviours and experiences associated with difficulty in meeting food needs. The ten questions used in Food and You are those used by the United States Department of Agriculture Economic Research Service.<sup>17</sup> Responses are allocated a score (see Technical Report for more details) and households are categorised as follows:

1. *High food security (score = 0)* – Households had no problems, or anxiety about, consistently accessing adequate food.
2. *Marginal food security (score = 1–2)* – Households had problems at times, or anxiety about, accessing adequate food, but the quality, variety, and quantity of their food intake were not substantially reduced.
3. *Low food security (score = 3–5)* – Households reduced the quality, variety, and desirability of their diets, but the quantity of food intake and normal eating patterns were not substantially disrupted.
4. *Very low food security (score = 6–10)* – At times during the year, eating patterns of one or more household members were disrupted and food intake reduced because the household lacked money and other resources for food.

Households reporting three or more conditions that indicate food insecurity are classified as “food insecure”.

<sup>17</sup> See [www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/measurement/](http://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/measurement/) for further details. The United States Department of Agriculture (USDA) monitors the extent and severity of food insecurity in U.S. households through an annual, nationally representative survey sponsored and analysed by USDA’s Economic Research Service.

The three least severe conditions that would result in a household being classified as food insecure are:

- They worried whether their food would run out before they got money to buy more
- The food they bought didn't last, and they didn't have money to get more
- They couldn't afford to eat balanced meals

Responses to these are presented separately first, before looking at households' overall food security status.

The majority (82%) of respondents reported that their household had never worried in the last 12 months about running out of food before there was money to buy more and 88% said that in the last 12 months they had never experienced food running out and they did not have money to get more. Eighty-eight per cent of respondents said that their household had never experienced not being able to afford to eat balanced meals in the last 12 months.

However, there were distinct differences across subgroups. Twenty-two per cent of respondents aged 16 to 24 said they often or sometimes worried that the household food would run out before there was money to buy more compared with 7%–9% of those aged 65 and over. Forty-three per cent of those in the lowest income quartile said they often or sometimes worried about running out of food before there was money to buy more, compared with 11% of those in the highest quartile. A higher proportion of respondents who were categorised as having an 'other working status'<sup>16</sup> (35%) worried that the household food would run out before there was money to buy more compared with those who were in work (15%) or retired (7%). Similar patterns were also seen with reported instances of food running out and being able to afford balanced meals.

The majority (78%) of respondents reported living in highly food secure households, 12% lived in marginally food secure households and 10% lived in low or very low food secure households (food insecure). Women and men were equally likely to live in food insecure households (10%).

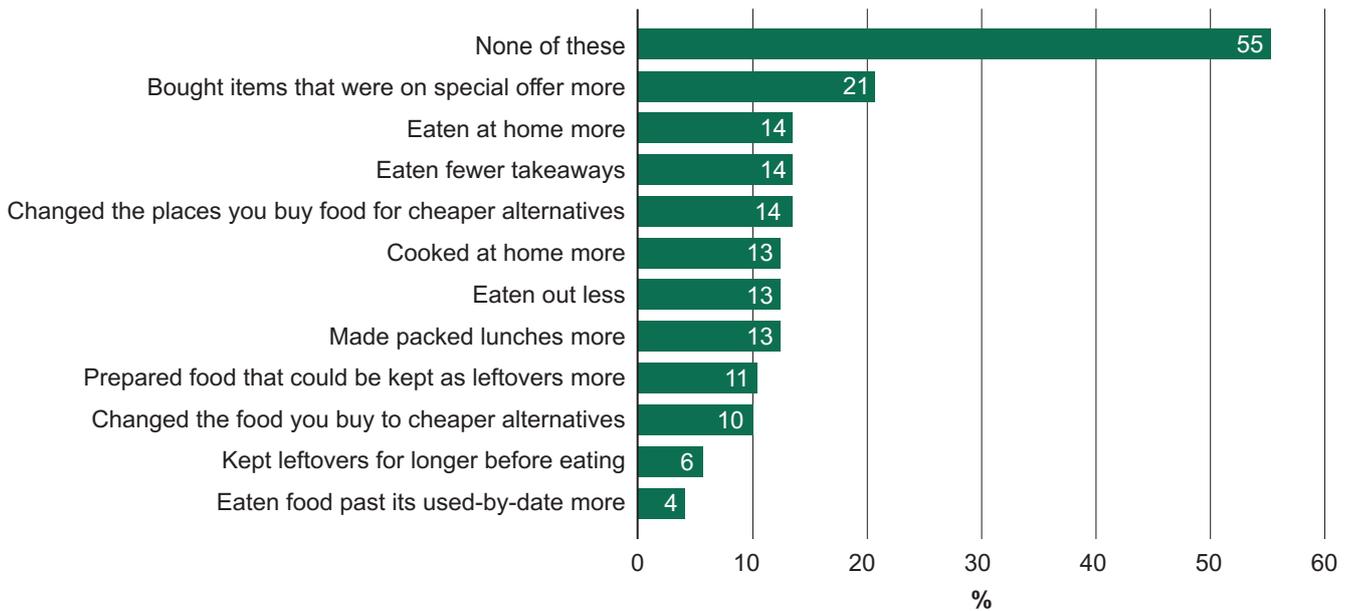
Levels of food security varied across other subgroups. Eleven per cent of those aged 16 to 24 and 27% of those aged 25 to 34 lived in food insecure households compared with 1% of those aged 75 and over. Twenty-four per cent of those in households in the lowest income quartile lived in food insecure households compared with 4% in the highest quartile. Similarly, 23% of respondents with an ‘other’ working status<sup>16</sup> lived in food insecure households compared with 7% of those in work and 2% of those who had retired.

**Figure 1.6 Worried whether food would run out by working status (Wave 4)**



Overall, 45% of respondents reported making at least one change in their buying or eating arrangements in the last 12 months for financial reasons including 21% who had bought items on special offer more, and 14% who had changed where they shopped for cheaper alternatives, eaten at home more and eaten fewer takeaways.

**Figure 1.7 Changes in buying and eating arrangements for financial reasons (Wave 4)**



Those who were more likely to report having made a change to their buying and eating arrangements were younger respondents (57% of those aged 16 to 24 and 64% of those aged 25 to 34, compared with 13%–27% of those aged 55 and over) and respondents in households with children aged under 16 (59% compared with 39% in adult-only households).

When comparing Northern Ireland, England and Wales there was a significant difference found for food security status (see table 1.G).

**Table 1.H Food security status, by country (Wave 4)**

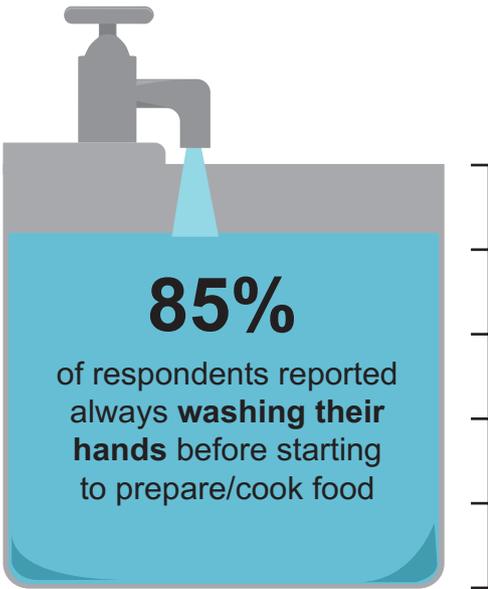
	Northern Ireland	England	Wales
0 – High food security	78	80	74
1–2 – Marginal food security	12	12	17
3–5 – Low food security	5	5	6
6–10 – Very low food security	5	3	3
Bases (unweighted)	521	2105	492

Respondents in Northern Ireland were more likely than those in England to be living in very low food secure households (5% compared with 3%).

**Tables 1.17–1.18**

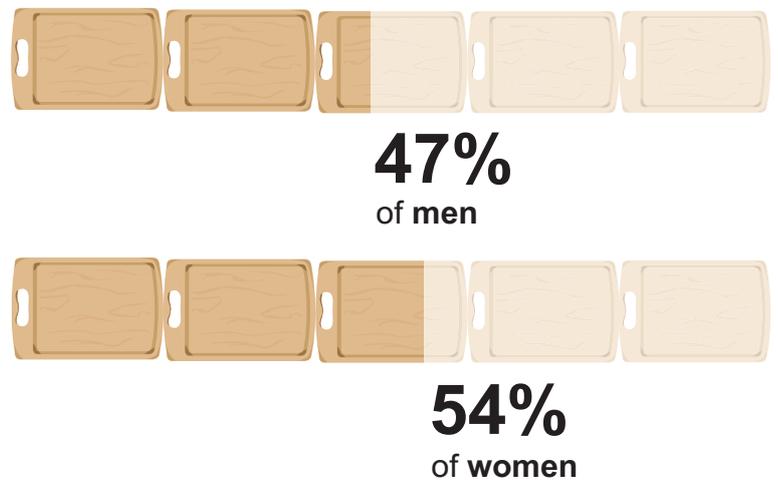
# 2 Food safety in the home

## Cleanliness



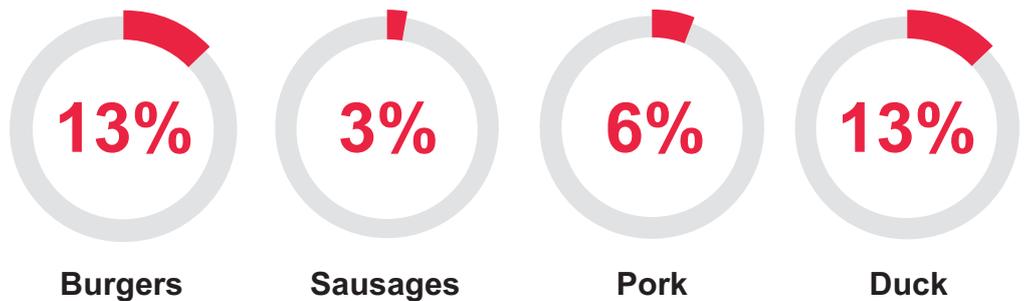
## Cross contamination

The proportion of men and women who reported always using a different chopping board for different foods

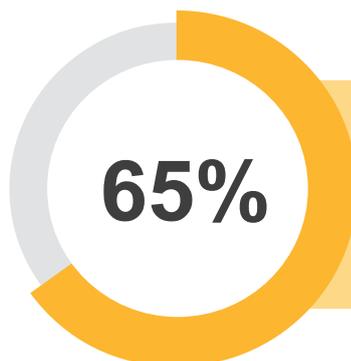


## Cooking food

The proportions who ever ate meat **when pink or with pink/red juices**, by meat product



## Chilling food



reported that they defrosted meat/fish by **leaving it at room temperature**, not in line with FSA recommendations

# 2 Food safety in the home

## 2.1 Introduction

The prevention of foodborne disease is a key element of the FSA's responsibility for protecting public health from risks which may arise in connection with the consumption of food. Improving understanding of the population's domestic food safety activities, when shopping for, storing, preparing, cooking and eating food, supports delivery of this aim. Four elements are particularly important: cleanliness, cooking, chilling and avoiding cross-contamination. Food and You is a key source of information on people's behaviour, attitudes and knowledge relating to these aspects of food safety, providing information on how far respondents' behaviour fits in line with recommendations. This supports the FSA to prioritise communications and policy making, identify potential interventions and particular groups to target, and review the most effective ways of engaging with certain subgroups of the population to provide them with the information they need to make informed decisions – a key theme in the FSA's Strategy 2015–2020.<sup>1</sup>

Comparisons across waves of the survey allow examination of trends over time and help to assess whether previous food safety campaigns (such as the 2014 Food Safety Week 'Don't wash raw chicken') have had an effect on people's behaviours.

Other than the inclusion of questions about knowledge of microwave wattage levels and methods of checking whether food reheated in a microwave had been cooked through, in order to gain insight into the use and understanding of microwave ovens, questions were unchanged from those included in previous waves.

## 2.2 Do people follow recommended food safety practices?

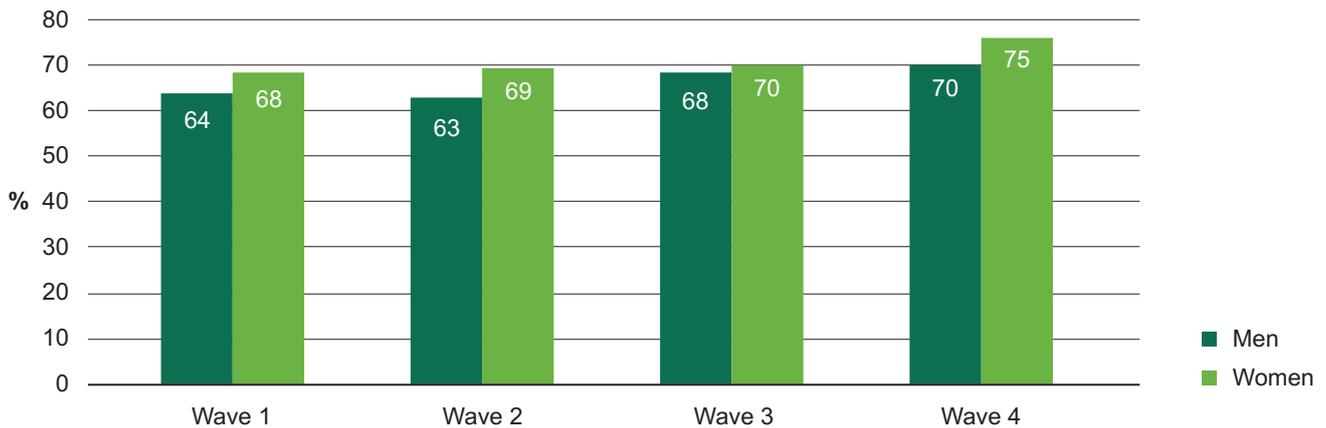
Food and You asks respondents a series of questions about whether they follow recommended practices in relation to five important elements or 'domains' of food safety: cleanliness, cooking, chilling, avoiding cross-contamination and use by dates. Further details of some of the responses to individual questions are provided in sections 2.3 to 2.7. To get an overall picture of people's food safety behaviour, however, it is helpful to look across all five domains. To do this, we use the Index of Recommended Practice (IRP), a composite measure of food hygiene knowledge and behaviours within the home, which includes some of the questions from each of the five domains.<sup>18</sup> It provides an overall picture which allows the FSA to track progress towards its strategic aims and identify socio-demographic groups who are less likely to report behaviour in line with recommended practice.

Questions were selected for the IRP because they mapped onto practices that, if not followed, were more likely to increase the risk of foodborne disease. Each item scores 1 for responses in line with recommended practice or 0 for responses not in line with recommended practice. The overall score is then converted to a score out of 100. A higher score indicates more reported behaviours that are in line with recommended food safety practice. It is important to note that IRP gives an overall indication of whether recommended practices are being followed and this is useful for comparing across subgroups but it does not inform about individual behaviours. (See Technical Report for more detail about the IRP content and scoring).

There was an increase in average IRP score from 66 in Wave 1 to 72 in Wave 4, indicating a small overall improvement in food safety practices.

<sup>18</sup> [www.food.gov.uk/science/research-reports/ssresearch/foodandyou/fs409012-2](http://www.food.gov.uk/science/research-reports/ssresearch/foodandyou/fs409012-2)

Figure 2.1 IRP scores by gender (Waves 1–4)



Other features of the IRP scores included:

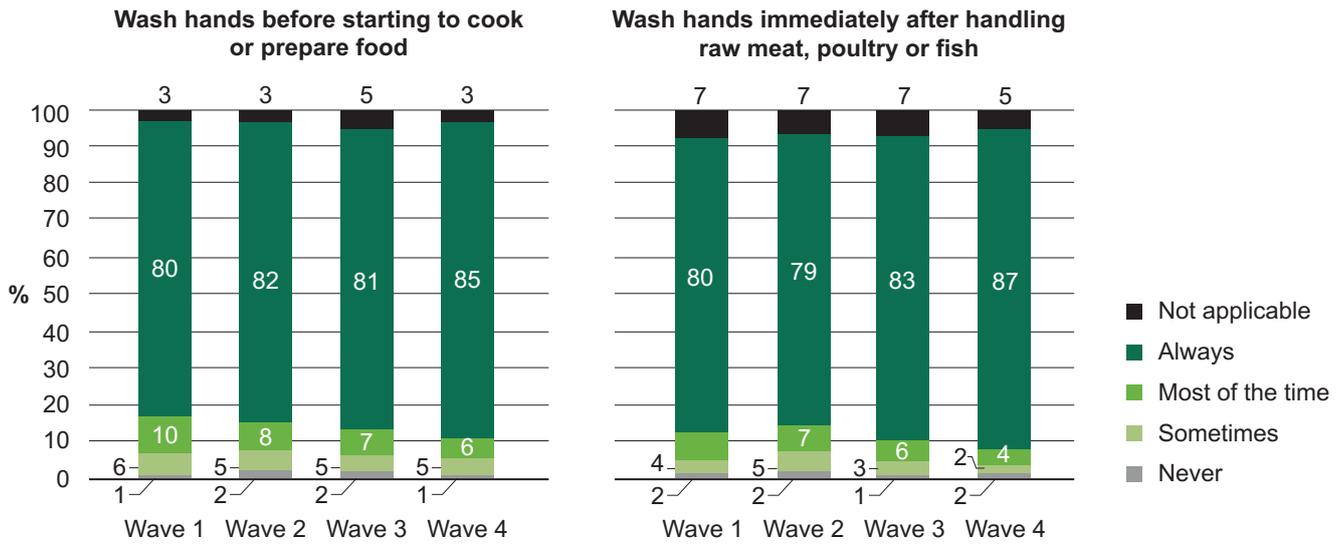
- Respondents in Northern Ireland had an average IRP score of 72, higher than in England (67), and not significantly different than in Wales (69).
- Women had a higher IRP score (75) than men (70).
- Those who were married/in a Civil partnership, or living with a partner had a higher IRP score (75) than those who were single, widowed or divorced (70).

Table 2.28

## 2.3 Cleanliness

The FSA recommends that people wash their hands thoroughly with soap and warm water before cooking and after touching the bin, going to the toilet, handling pets or handling raw food (particularly raw meat). Overall 85% of respondents reported always washing their hands before starting to prepare or cook food. The proportion who reported always washing their hands was similar in previous waves.

Figure 2.2 Reported frequency of hand washing (Waves 1–4)



Ninety-one per cent of women reported always washing their hands before starting to prepare or cook food compared with 80% of men.

Eighty-seven per cent of respondents reported always washing their hands immediately after handling raw meat, poultry or fish, similar to the proportion in previous waves. Ninety-four per cent of women reported always washing their hands immediately after handling raw meat, poultry or fish compared with 79% of men.

One per cent of respondents said they never washed their hands before preparing or cooking food and a similar proportion (2%) said they never washed their hands immediately after handling raw meat, poultry or fish.

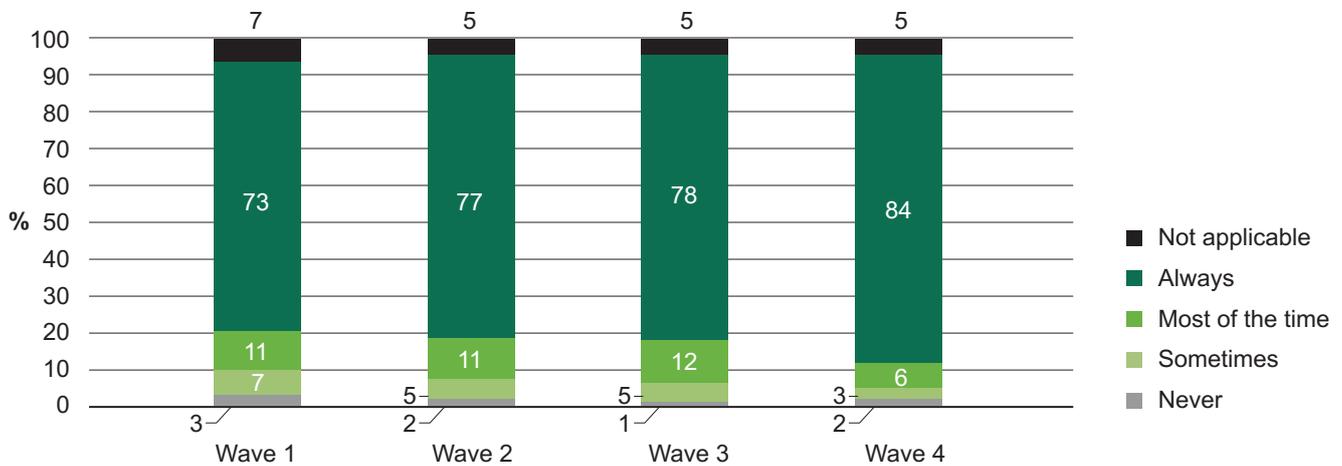
Table 2.1

## 2.4 Cooking

The FSA recommends that food is cooked thoroughly until it is steaming hot in the middle to kill any harmful bacteria that may be present. They advise that poultry and game such as chicken, turkey, duck and goose, and other meats including pork, burgers, sausages and kebabs should be properly cooked all the way through, that is, they are not pink and any juices run clear.

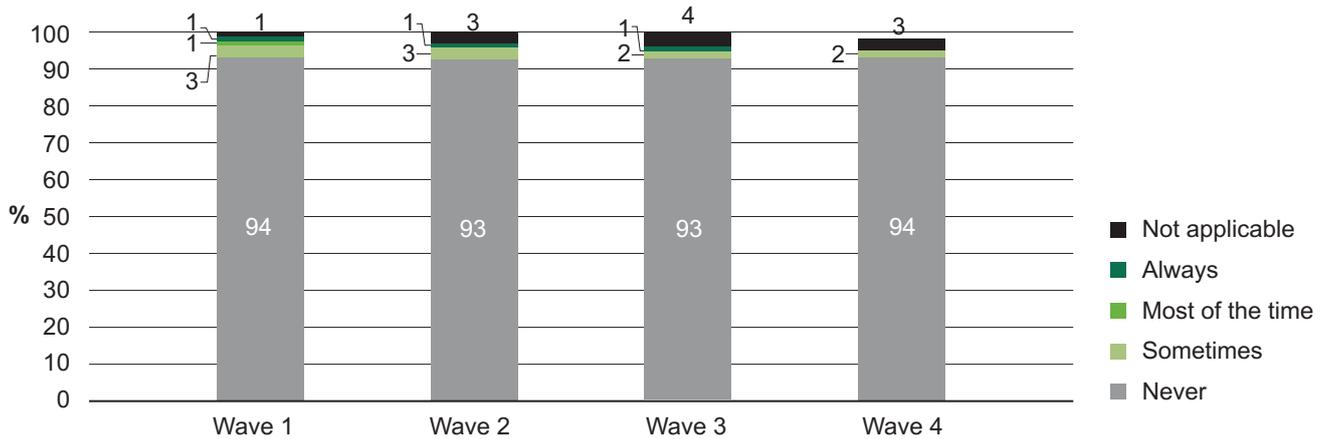
Overall, 84% of respondents reported that they always cooked food until it was steaming hot throughout while 2% reported that they never did this. This was similar to proportions recorded in previous waves. Men were less likely than women to report always cooking food until it was steaming hot throughout (79% compared with 89%).

Figure 2.3 Frequency of cooking food until it is steaming hot throughout (Waves 1–4)



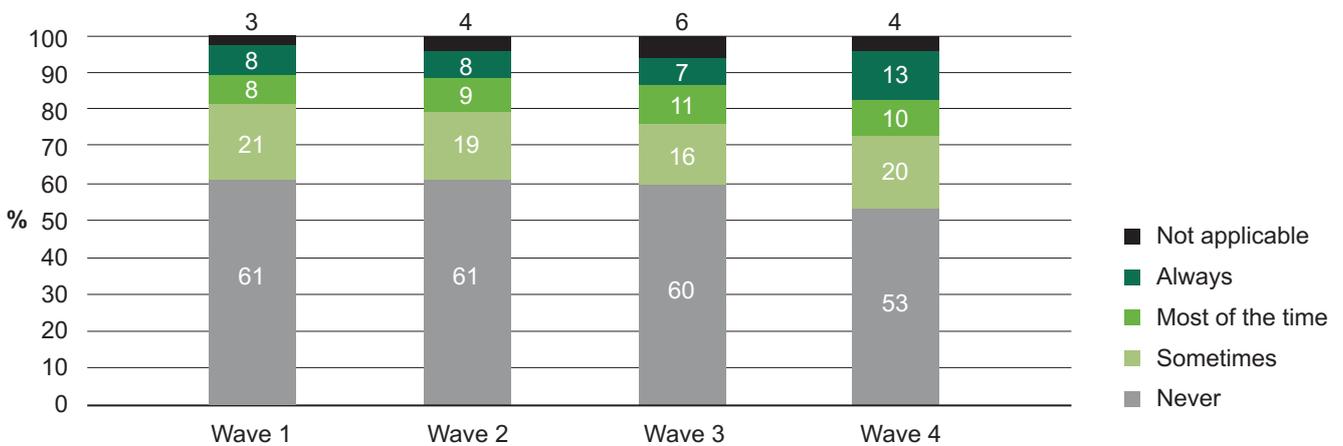
Two per cent of respondents reported eating chicken or turkey if the meat was pink or had pink/red juices. This was a similar proportion as in previous Waves.

**Figure 2.4 Frequency of eating chicken or turkey if the meat is pink or has pink/red juices (Waves 1–4)**



Steaks and other whole cuts of beef and lamb may be eaten rare, as long as they have been properly cooked and sealed on the outside. Thirteen per cent of respondents said they always ate red meat if it was pink or had pink/red juices, while 53% reported that they never did. The proportion of those who said they always ate red meat if it had pink/red juices was similar to previous waves.

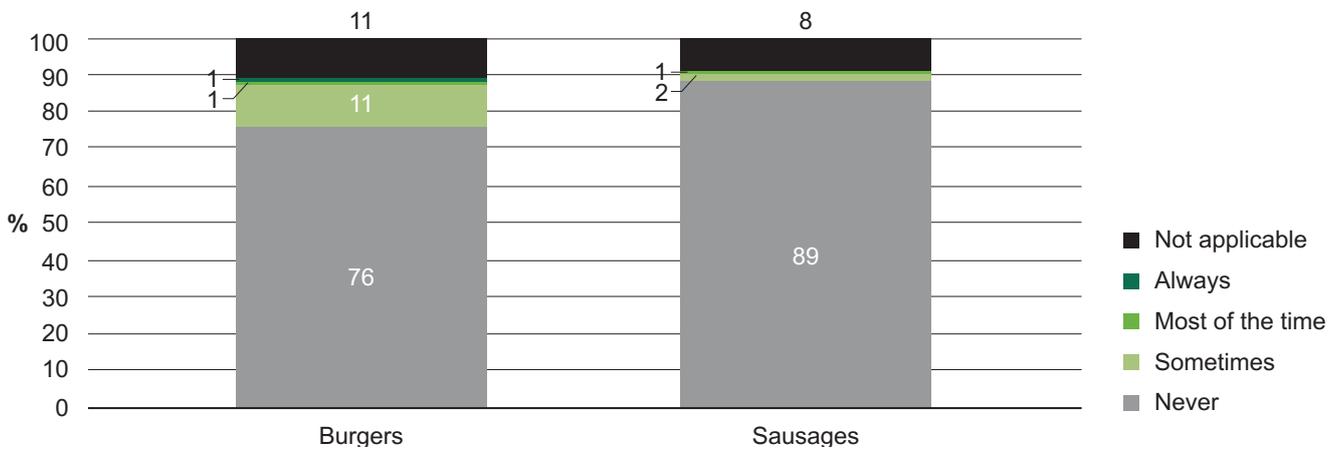
**Figure 2.5 Frequency of eating red meat, if the meat is pink or has pink/red juices (Waves 1–4)**



Forty-one per cent of respondents reported never eating duck if it had pink meat or red juices, and a further 46% said that this question was not applicable to them. In total, 13% said they did eat duck with pink meat or red juices at least some of the time.

Seventy-six per cent of respondents reported that they never ate burgers if the meat was pink or had pink/red juices and 89% reported that they never ate sausages if the meat was pink or had pink/red juices. Eighty-seven per cent of respondents said they never ate pork if it was pink or had pink or red juices and 6% said they did this at least some of the time. This was similar to Wave 3. The question was not asked in Waves 1 and 2.

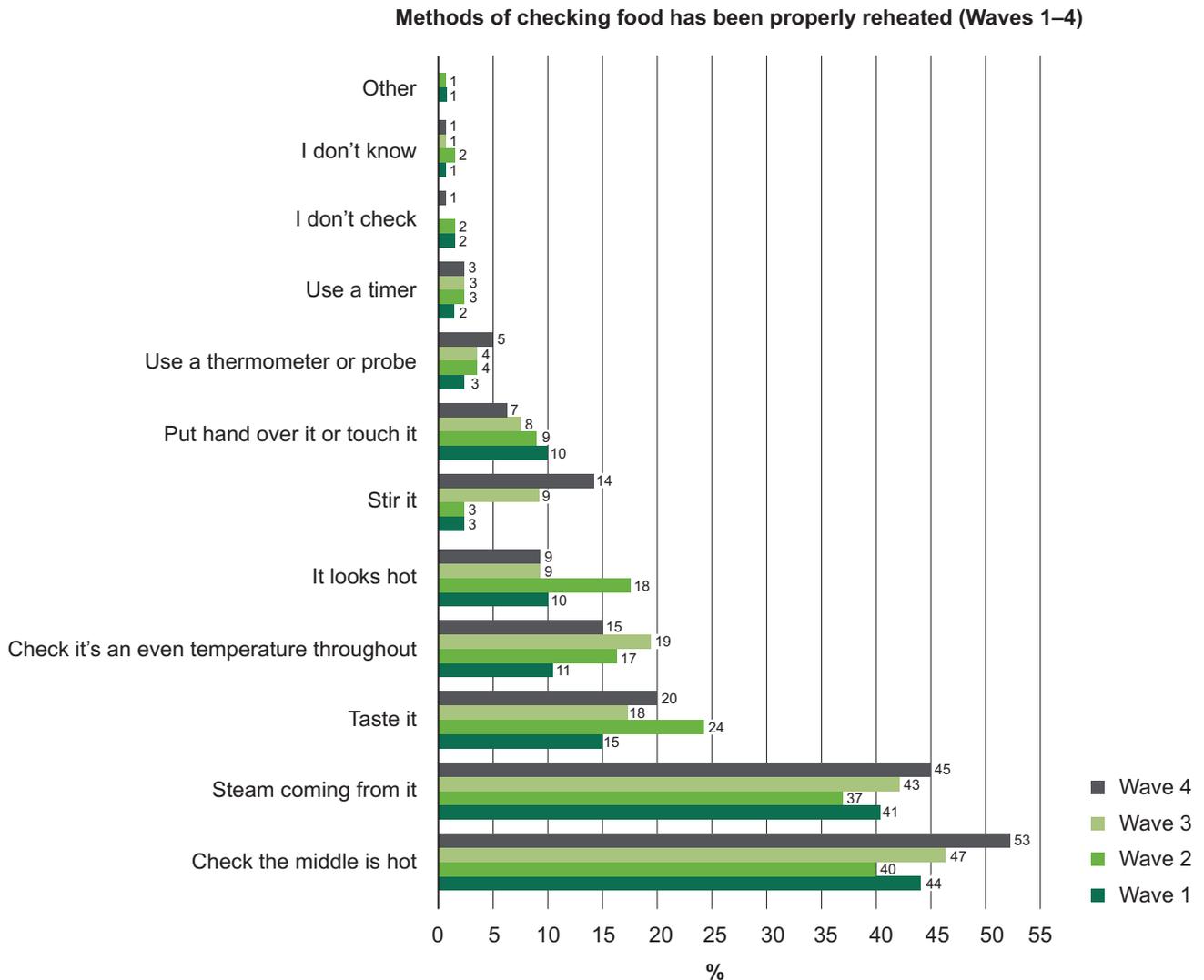
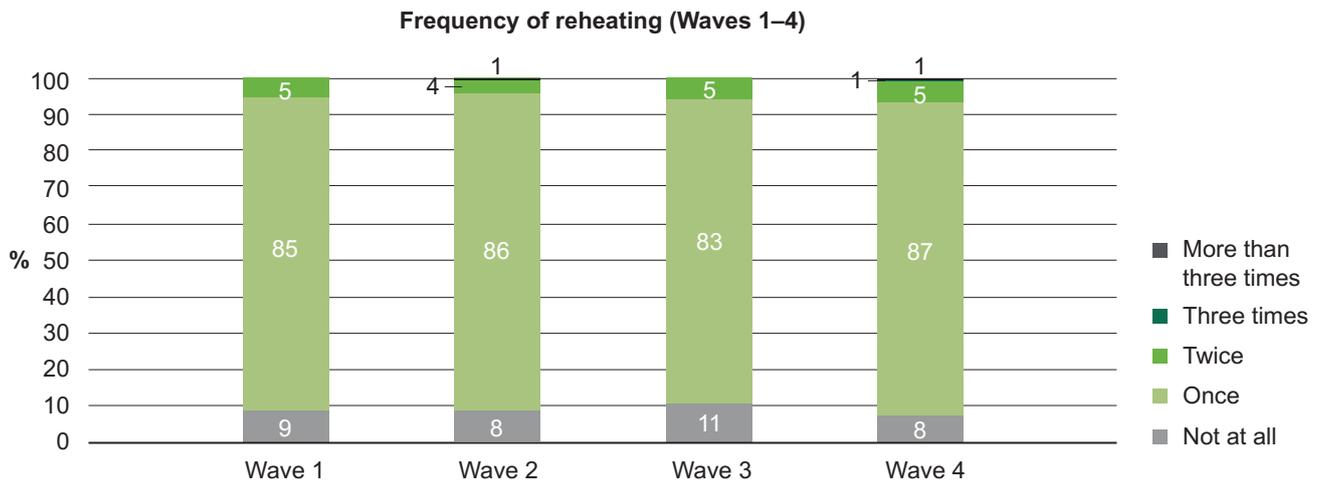
**Figure 2.6 Frequency of eating burgers or sausages, if the meat is pink or has pink/red juices (Wave 4)**



The FSA recommends that leftovers should not be reheated more than once and should be steaming hot throughout before serving. The majority of respondents (87%) reported that they would only reheat food once and 8% said they would not reheat food at all. Six per cent of respondents reported that they would reheat food twice or more.

When it came to testing if food had been properly reheated, the two most commonly reported methods were checking if the middle is hot (53%) and seeing if steam is coming out of it (45%).

Figure 2.7 Reheating food (Waves 1–4)



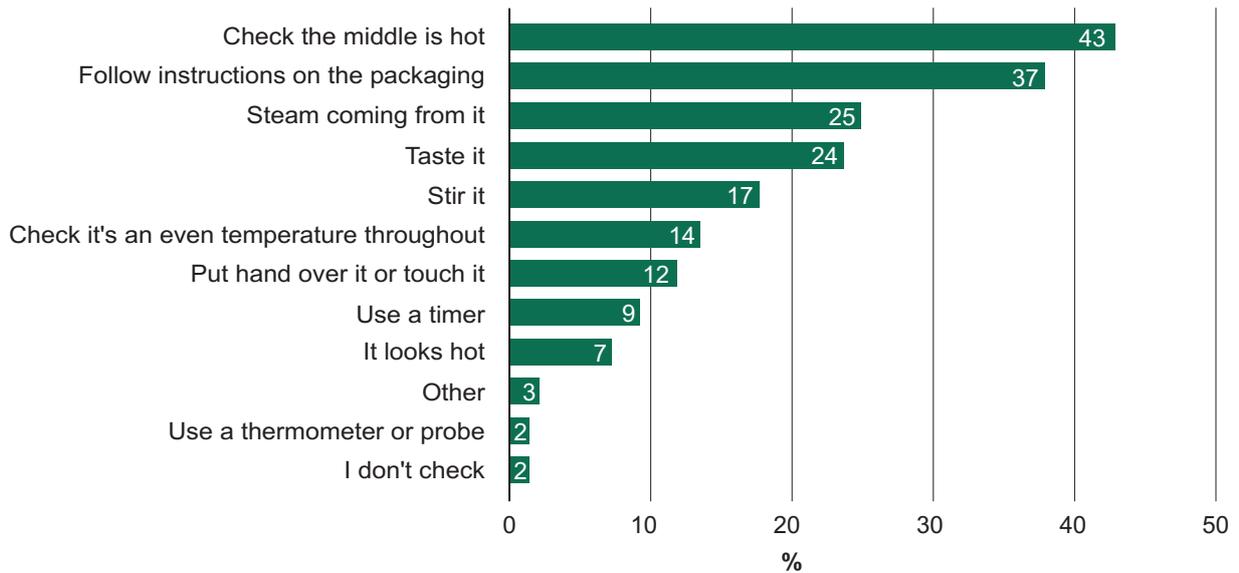
When reheating food in a microwave, the FSA recommend always following the product manufacturers instructions. Microwave power varies and this affects the timing given on instructions. The majority (87%) of respondents with a microwave knew that microwave power varies; 36% said that the wattage of their microwave was between 800 and 899 watts while 21% did not know what their microwave wattage was.

Figure 2.8 Knowledge of microwave wattage, by gender (Wave 4)



For those respondents who used their microwave to cook chilled or frozen ready meals, the most common reported methods for testing if food had been properly heated was checking if the middle is hot (43%) and following the packaging instructions (37%). These respondents were asked how they checked food had been heated properly if their microwave wattage differed from the cooking instructions: 71% said they would adjust the timing to give a bit longer and 14% said they would adjust the timing to go with lower wattage instructions.

**Figure 2.9 Methods of checking that food reheated in microwave has been heated properly (Wave 4)**



Significant differences were found in several areas of food preparation when comparing Northern Ireland, England and Wales (see table 2.A and 2.B).

**Table 2.A Eating meat or poultry if meat was pink – % who reported carrying out food preparation behaviour, by country (Wave 4)**

% reporting that they never	Northern Ireland	England	Wales
Eat chicken or turkey if the meat is pink or has pink or red juices	94	88	91
Eat red meat if the meat is pink or has pink or red juices	53	38	44
Eat burgers if the meat is pink or has pink or red juices	76	59	66
Eat sausages if the meat is pink or has pink or red juices	89	80	83
Eat whole cuts of pork or pork chops if the meat is pink or has pink or red juices	87	74	80
Bases (unweighted)	521	2105	492

Respondents living in Northern Ireland were more likely than those in England and Wales to never eat the following types of meat if the meat was pink or had pink or red juices: red meat (53% compared with 38% and 44% respectively), burgers (76% compared with 59% and 66%), sausages (89% compared with 80% and 83%), and whole cuts of pork or pork chops (87% compared with 74% and 80%).

In addition respondents in Northern Ireland were more likely than those in England to never eat chicken or turkey if the meat was pink or had pink or red juices (94% compared with 88%).

**Table 2.B Reheating food – % who reported carrying out this behaviours, by country (Wave 4)**

% reporting	Northern Ireland	England	Wales
How many times would you consider re-heating food after it was cooked for the first time?			
Not at all or Once	94	89	92
Bases (unweighted)	521	2105	492

Respondents living in Northern Ireland are more likely than those in England to report re-heating food after it was cooked for the first time not at all or only once (94% compared with 89%), which is in line with the FSA recommendations.

Tables 2.2– 2.6

## 2.5 Chilling

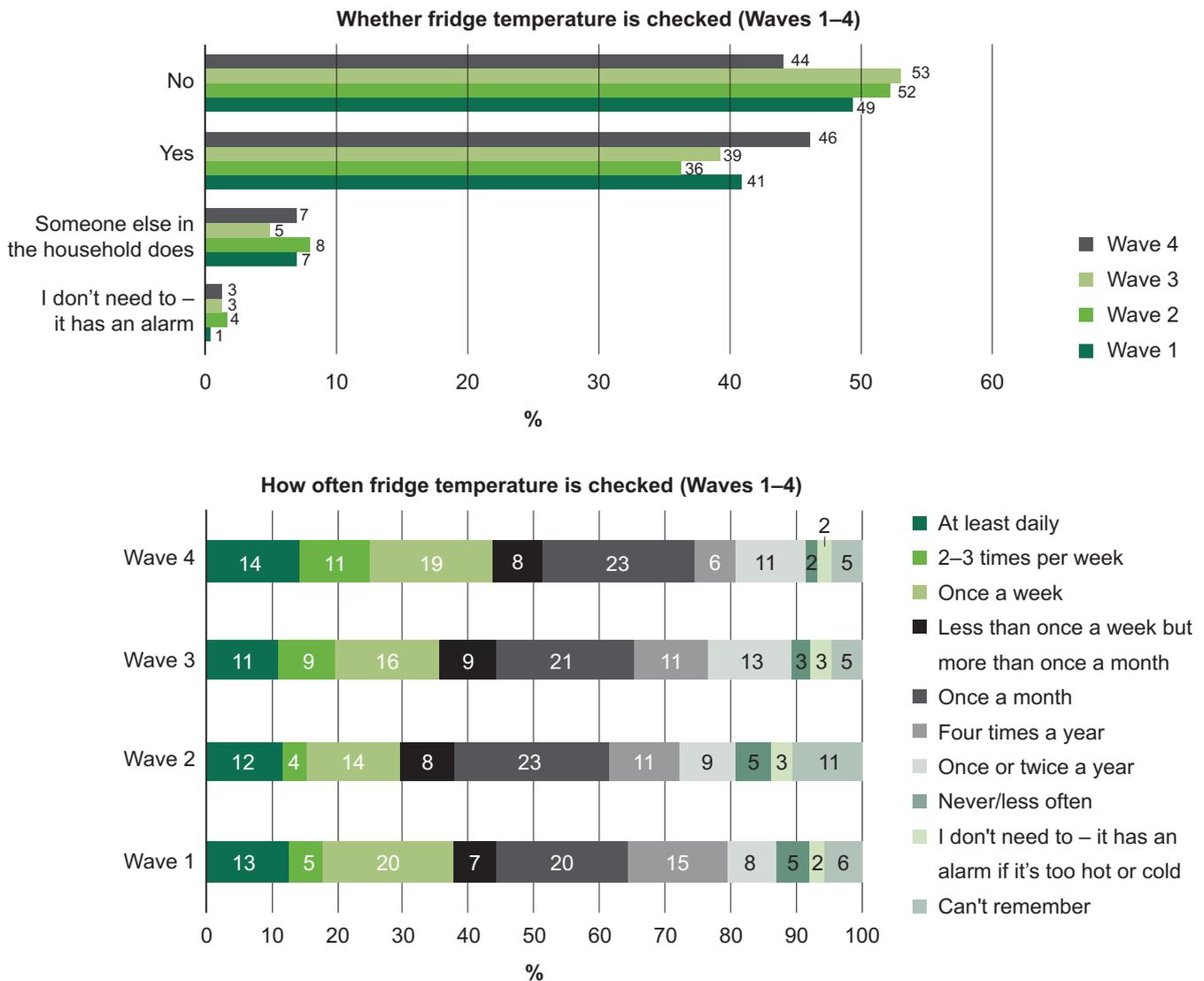
The FSA recommends that people set their fridge temperature to below 5°C, to help stop food poisoning bacteria such as *Listeria monocytogenes*, *Salmonella*, and *Campylobacter* from growing in food. The FSA recommends defrosting food slowly and safely overnight in the refrigerator or using a microwave oven (carefully ensuring that the food is fully defrosted before cooking it straight away).

Of respondents who had a fridge, half (53%) reported that they or someone else checked the temperature. Just under half of the respondents (44%) reported that they never checked their fridge temperature.

Sixty-four per cent of men and 49% of women living on their own reported that they never checked their fridge temperature.

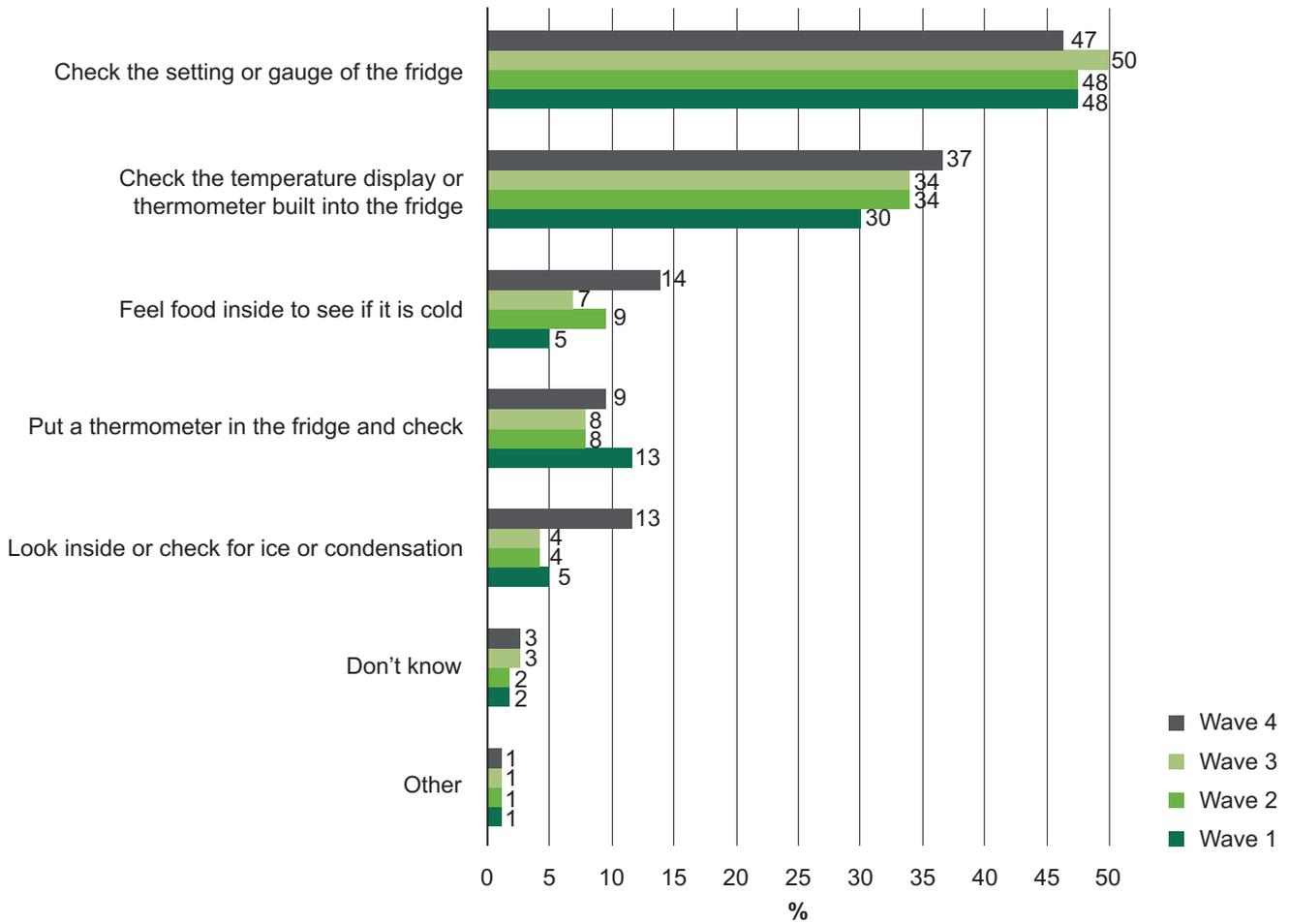
The majority (74%) of respondents who reported that their fridge temperature was checked said they did this at least once a month, which is in line with FSA recommendations. This proportion was similar to previous waves.

Figure 2.10 Checking fridge temperature (Waves 1–4)



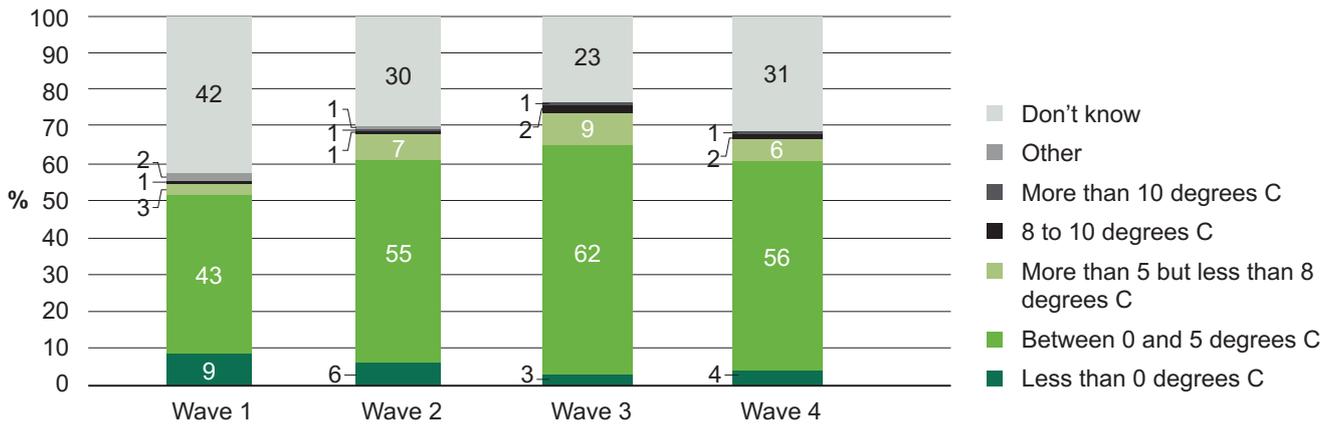
Respondents who reported checking their fridge temperature, but the fridge did not have an alarm, were asked how they normally checked it. Using a thermometer is the recommended method for checking fridge temperature and 9% of respondents reported putting a thermometer into the fridge and 37% reported checking the temperature display or thermometer built into the fridge. Checking the setting/gauge of the fridge was mentioned by 47% of respondents, although this is not a recommended method because results are potentially unreliable.

Figure 2.11 How fridge temperature is checked (Waves 1–4)



When asked what respondents thought the temperature inside the fridge should be, the majority (56%) said it should be between 0 and 5°C (the recommended temperature). This was higher than the proportion in Wave 1 (43%), but lower than the proportion in Wave 3 (62%). Thirty-one per cent of respondents in Wave 4 reported that they did not know what the fridge temperature should be, which was lower than the proportion in Wave 1 (42%) but higher than the proportion in Wave 3 (23%).

Figure 2.12 Awareness of recommended fridge temperature (Waves 1–4)



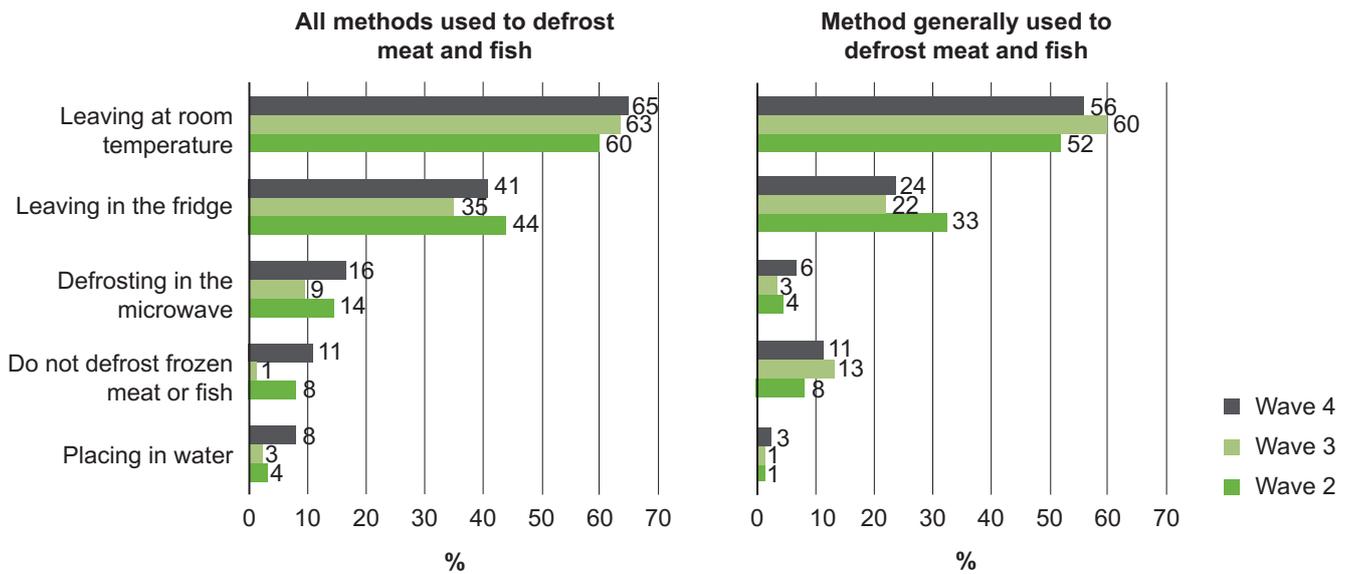
Respondents were asked which methods they used to defrost meat or fish. The method reported by the highest proportion of respondents was leaving meat or fish at room temperature (65%), which is not recommended.

Forty-one per cent of respondents said that they defrosted meat or fish in a fridge. Sixteen per cent of respondents defrosted meat or fish in a microwave oven, which was lower than at Wave 3 (9%) but similar to Wave 1 (14%).

Eight per cent of respondents said they placed frozen meat and fish in water to defrost. This was higher than in Waves 2 and 3 (4% and 3% respectively).

When asked which single method they generally used to defrost meat or fish, 56% of respondents said they generally left the meat or fish at room temperature and 24% reported that they generally defrosted it in a fridge.

Figure 2.13 Defrosting meat and fish (Waves 2–4)



When comparing between Northern Ireland, England and Wales, significant differences were found in the method and frequency of checking the fridge temperature as well as the method of defrosting frozen meat of fish (see table 2.C)

Table 2.C Chilling – % who reported carrying out certain practices related to chilling, by country (Wave 4)

% reporting	Northern Ireland	England	Wales
How do you normally check the fridge temperature?			
Put a thermometer in the fridge and check	9	16	19
What do you think the temperature inside your fridge should be?			
Between 0 and 5 degrees C (32 to 41 degrees F)	56	48	42

And which method do you generally use to defrost frozen meat or fish?			
Leaving at room temperature	56	45	42
Leaving in the fridge	24	31	36
Bases (unweighted)	521	2105	492

There was some variation by country in how respondents normally check the fridge temperature. Respondents in Northern Ireland were less likely to check their fridge temperature by putting a thermometer in the fridge (9%) compared with those in England and Wales (16% and 19% respectively).

The FSA recommends that people set their fridge temperature to below 5°C. Respondents in Northern Ireland were more likely than those in England and Wales to report that they thought their fridge should be between 0 and 5 degrees Celsius (56% compared with 48% and 42% respectively).

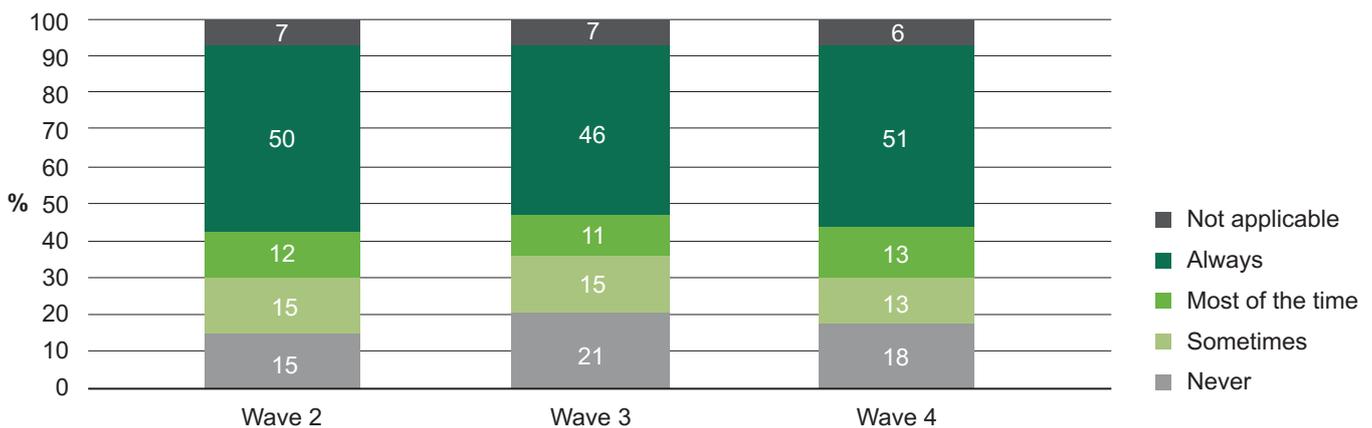
The FSA recommends defrosting food slowly and safely overnight in the refrigerator or using a microwave oven. Respondents in Northern Ireland were less likely than those in England and Wales to report behaviours in line with the recommended practice, by leaving frozen meat or fish in the fridge to defrost (24% compared with 31% and 36% respectively). Respondents in Northern Ireland were more likely to report leaving frozen meat or fish at room temperature to defrost (56% compared with 45% and 42% respectively), which is not recommended.

**Tables 2.7–2.10**

## 2.6 Cross contamination

Cross contamination occurs when harmful bacteria or viruses are spread between food, surfaces and equipment. The FSA recommends using different chopping boards for raw and ready-to-eat foods, or washing thoroughly in between preparing different foods, to avoid cross contamination. Half (51%) of respondents said they always used different chopping boards for different foods, whilst 18% said that they never did.

Figure 2.14 Frequency of using different chopping boards (Waves 2–4)



The proportion who said they never used different chopping boards for different foods was the same for men and women (18%).

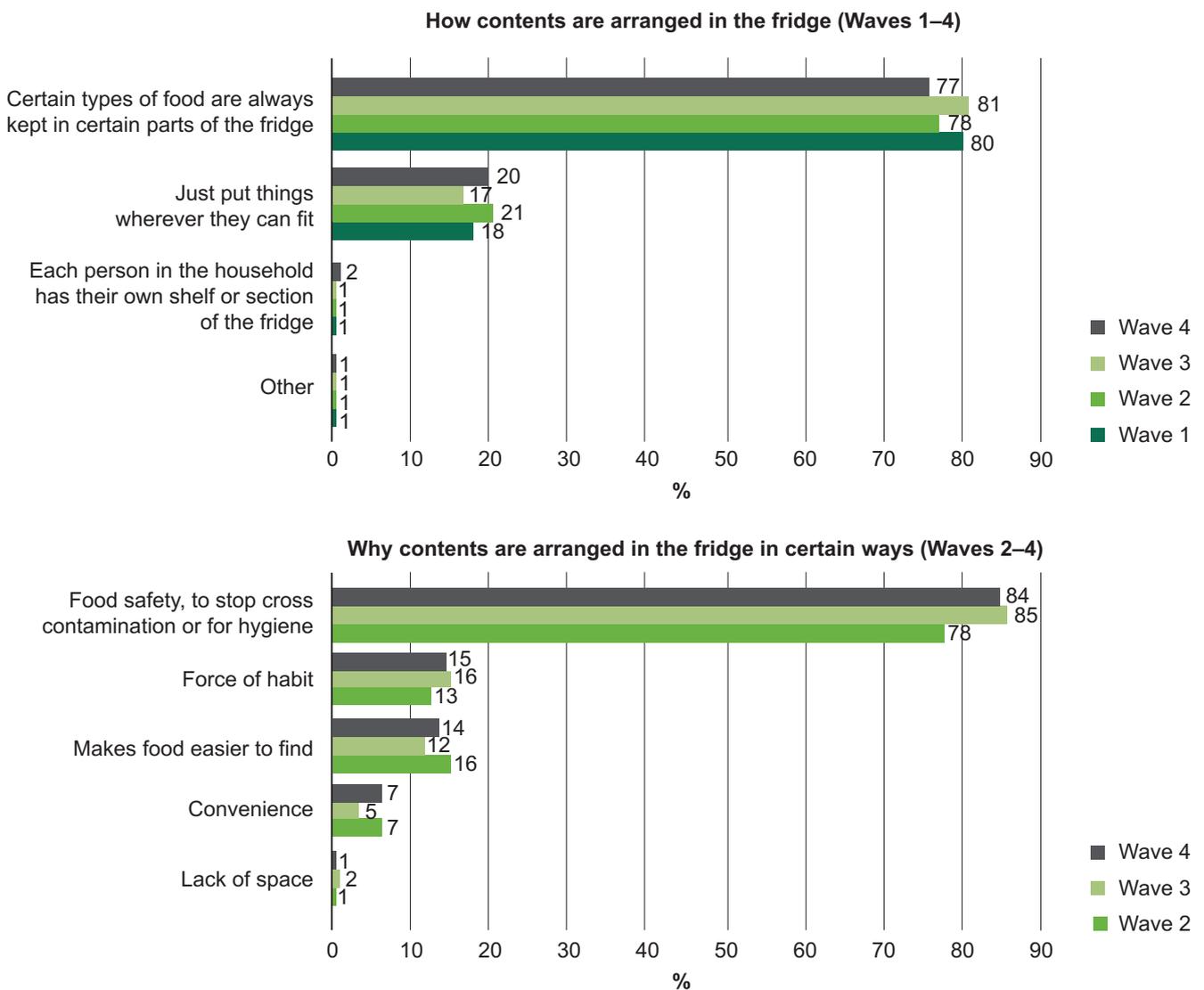
The most commonly reported reason for washing or changing chopping boards after preparing raw meat, poultry or fish were to prevent cross contamination (62%) and to wash away germs or bacteria (54%). Only 12% mentioned wanting to stop remains from getting onto the next food, and this was similar to previous years.

The FSA advises that raw meat should be stored separate from ready-to-eat food and that raw meat and poultry should be stored in sealed containers at the bottom of the fridge, to avoid dripping onto other food. When asked how they arranged the contents of their fridge, around three-quarters

(77%) of respondents said they always kept certain types of food in a specific part of the fridge while 20% said they just put things wherever they fit. These proportions were similar to previous waves.

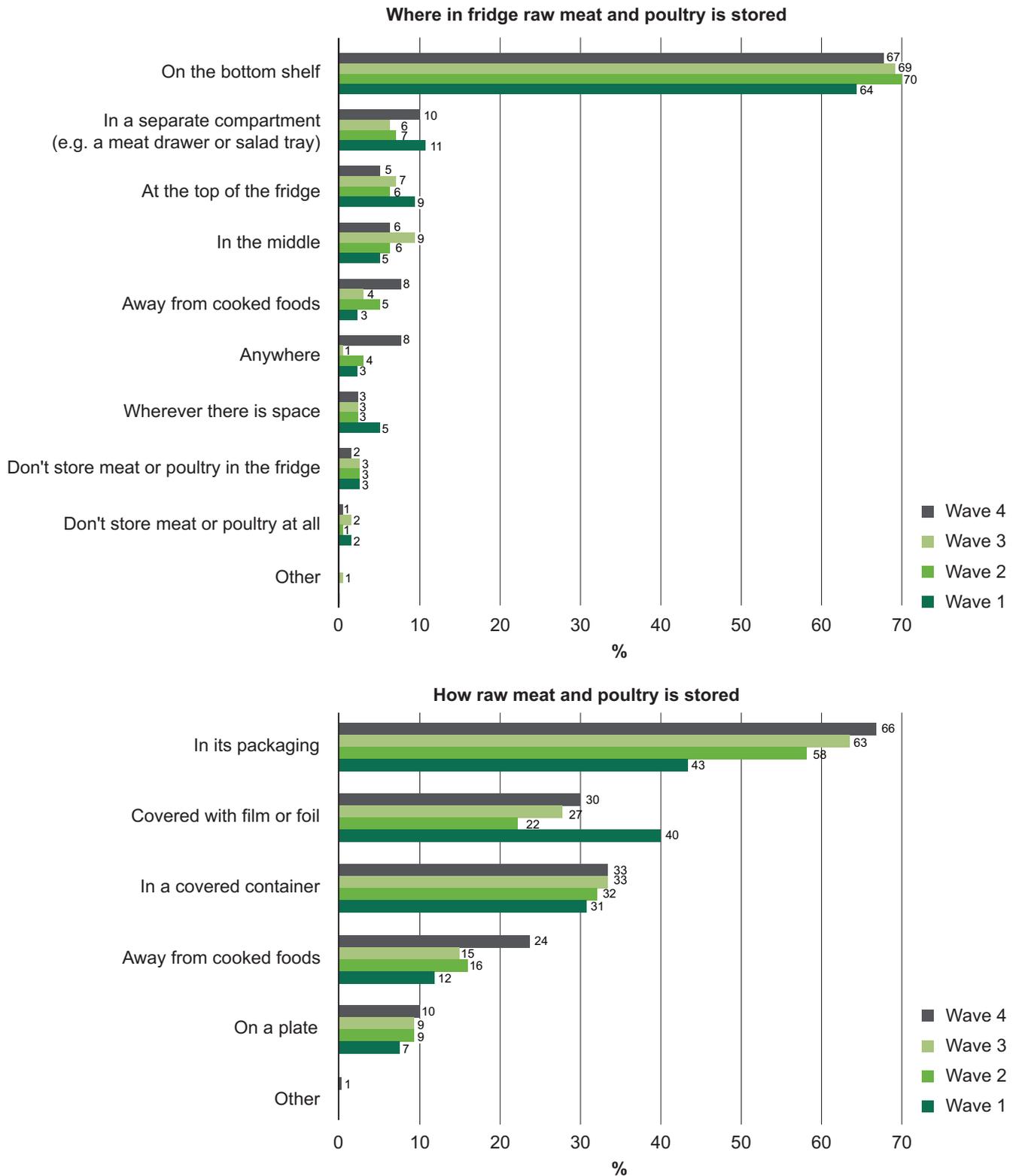
Those who said they kept certain foods in certain parts of the fridge were asked why they did this. The most common reason was for food safety or to stop cross contamination (84%). Fifteen per cent of respondents said it was a force of habit and 14% said it made food easier to find. This was similar to previous waves.

Figure 2.15 How and why contents are arranged in the fridge (Waves 1–4)



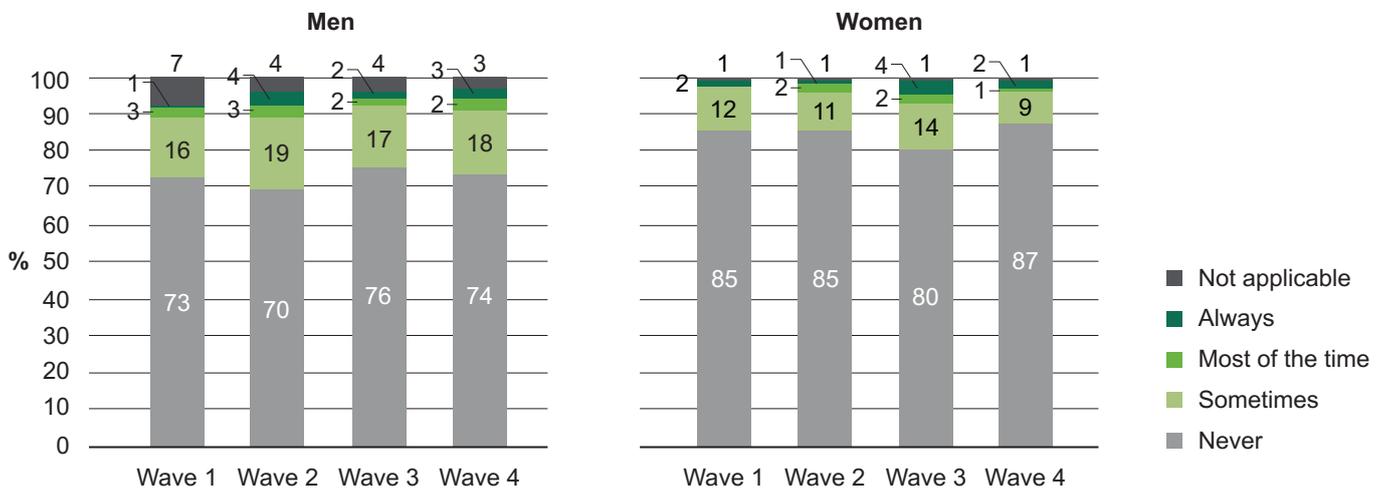
Respondents were asked where in the fridge they stored raw meat and poultry. Sixty-seven per cent reported that they stored this type of food on the bottom shelf of the fridge, in line with recommended practice. This was similar to previous waves. Respondents who reported storing raw meat and poultry in their fridge were asked how they stored it. The most common response was that they stored it in its packaging (66%). This is in line with recommendations (as long as the packaging has not been opened) and was higher than the proportions reporting doing this in previous waves (43% at Wave 1). Thirty per cent of respondents in Wave 4 reported that they covered raw meat and poultry with film/foil, 33% that they kept it in a covered container, and 24% reported that they stored it away from cooked food. These actions are in line with recommended practice.

Figure 2.16 Where and how raw meat and poultry is stored (Waves 1–4)



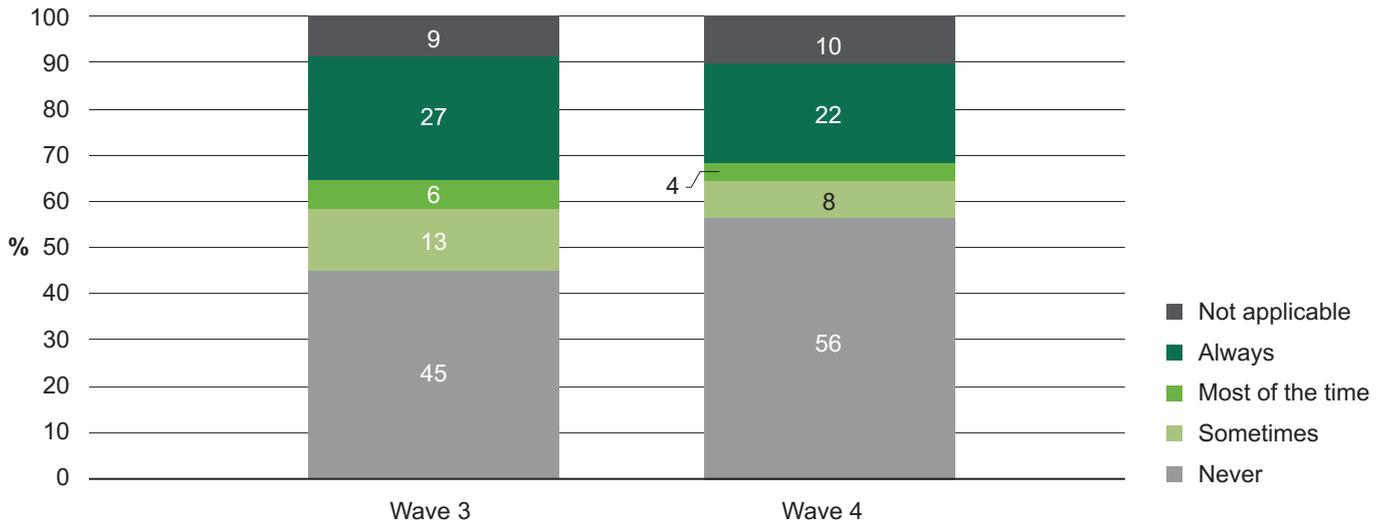
Respondents were asked whether they stored food in open tins in the fridge. The majority (81%) reported that they never did so, which is in line with FSA recommended practice as the tin may contaminate the food. Thirteen per cent said that they stored food in open tins in the fridge at least some of the time. These proportions were similar to previous waves.

Figure 2.17 Whether food stored in open tins in fridge, by gender (Waves 1–4)



The FSA recommends that raw meat and fish are not washed prior to cooking due to the risk of cross contamination from water splashing on the sink, surrounding surfaces, and utensils which may then come into contact with ready-to-eat food. In Wave 4, 60% of respondents said they never washed raw meat (excluding chicken); with 30% reporting that they did so at least sometimes. Thirty-four per cent of respondents reported washing raw chicken at least sometimes. This was lower than the proportion in Wave 3 (46%). Changes to the question in 2014 to separate raw meat and poultry other than chicken from raw chicken means that it is not possible to make comparisons with Waves 1 and 2.

Figure 2.18 Frequency of washing chicken (Waves 3–4)

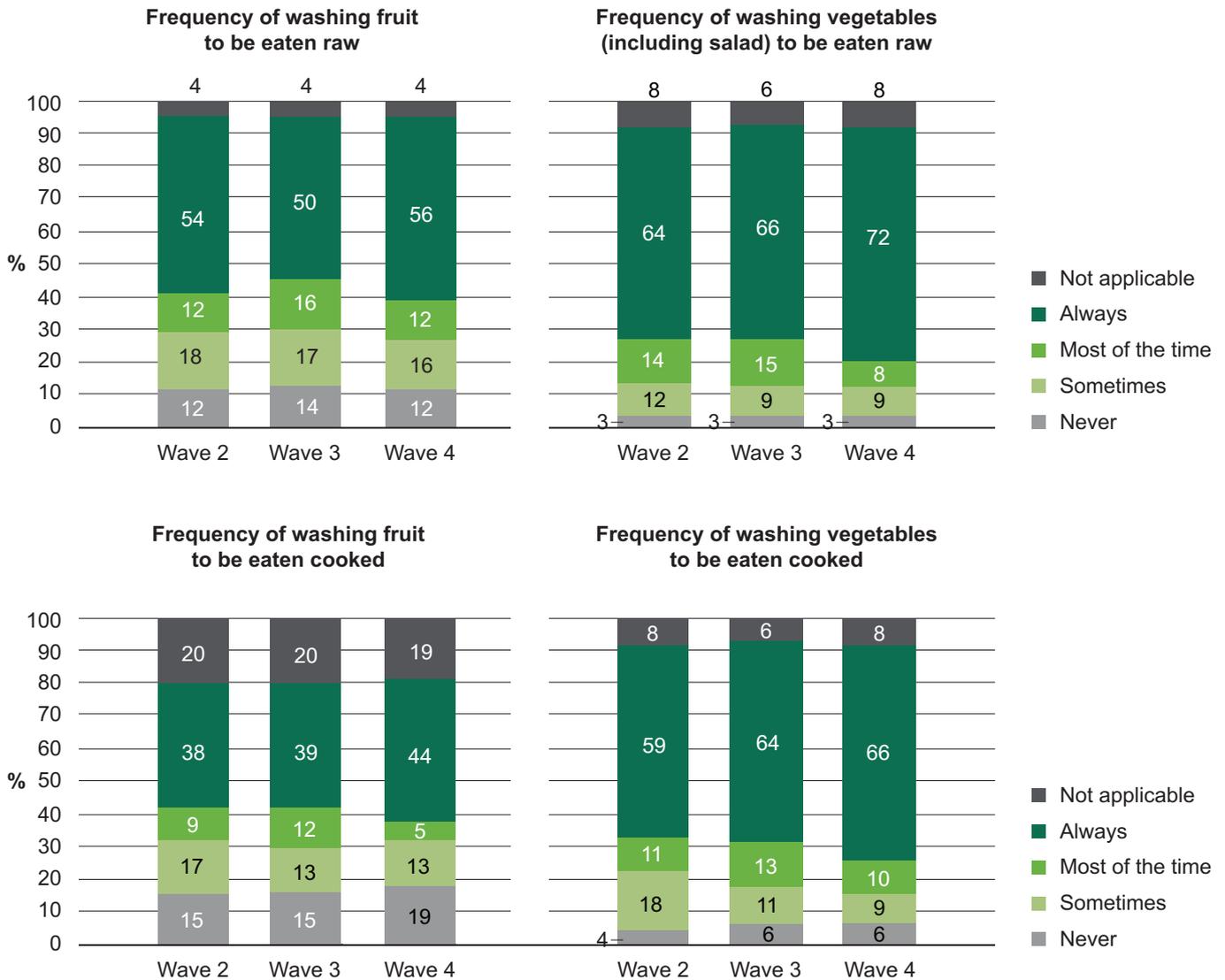


Compared with previous waves, a lower proportion of respondents reported that they washed raw fish and seafood at least some of the time: 27% compared with 55% in Wave 1, 42% in Wave 2 and 46% in Wave 3. Thirty per cent reported never doing this.

The FSA recommends that, unless packaging around vegetables says it is ‘ready-to-eat’, these foods should be washed, peeled or cooked before consumption. Vegetables which are going to be eaten raw should be washed to help minimise the risk of food poisoning (for instance from soil). Over half (56%) of respondents reported that they always washed fruit which was going to be eaten raw whilst 12% respondents reported that they never washed fruit.

Respondents were more likely to report washing vegetables that were going to be eaten raw; 72% said that they always did, 17% said they did this some or most of the time and 3% said they never did this.

**Figure 2.19 Frequency of washing fruit and vegetables which are going to be eaten raw and cooked (Waves 2–4)**



Women (77%) were more likely than men (66%) to report always washing raw vegetables (including salad).

When comparing between Northern Ireland, England and Wales, significant differences were found in the proportion of respondents following certain behaviours to prevent cross contamination as well as the proportion of respondents washing fruit and vegetables (see table 2.D and 2.E).

**Table 2.D Preventing cross contamination – % who reported never carrying out this behaviour, by country (Wave 4)**

% reporting that they never	Northern Ireland	England	Wales
Use different chopping boards for different foods	18	26	25
Storing open tins in the fridge	81	67	67
Wash raw meat and poultry other than chicken	60	49	52
Wash raw chicken	56	49	55
Bases (unweighted)	521	2105	492

In line with recommend practice, compared with those in England and Wales, respondents in Northern Ireland were less likely never to use different chopping boards for different foods (18% compared 26% and 25% respectively), and more likely never to store open tins in the fridge (81% compared with 67% in both), and never to wash raw meat and poultry other than chicken (60% compared with 49% and 52%). Respondents in Northern Ireland were also more likely than those in England to report never washing raw chicken (56% compared with 49%).

**Table 2.E Washing fruit and vegetables, by country (Wave 4)**

% reporting that they always	Northern Ireland	England	Wales
Wash fruit to be eaten raw	56	54	46
Wash vegetables (including salad) to be eaten raw	72	63	59
Wash fruit to be cooked	44	39	33
Wash vegetables to be cooked	66	53	51
Bases (unweighted)	521	2105	492

Respondents in Northern Ireland were more likely than those in England and Wales to report always washing raw vegetables (72% compared with 63% and 59% respectively), and washing vegetables to be cooked (66% compared with 53% and 51% respectively). Respondents in Northern Ireland were also more likely than those in Wales to report always washing fruit to be cooked (44% compared with 33%). All of these are in line with recommended practice.

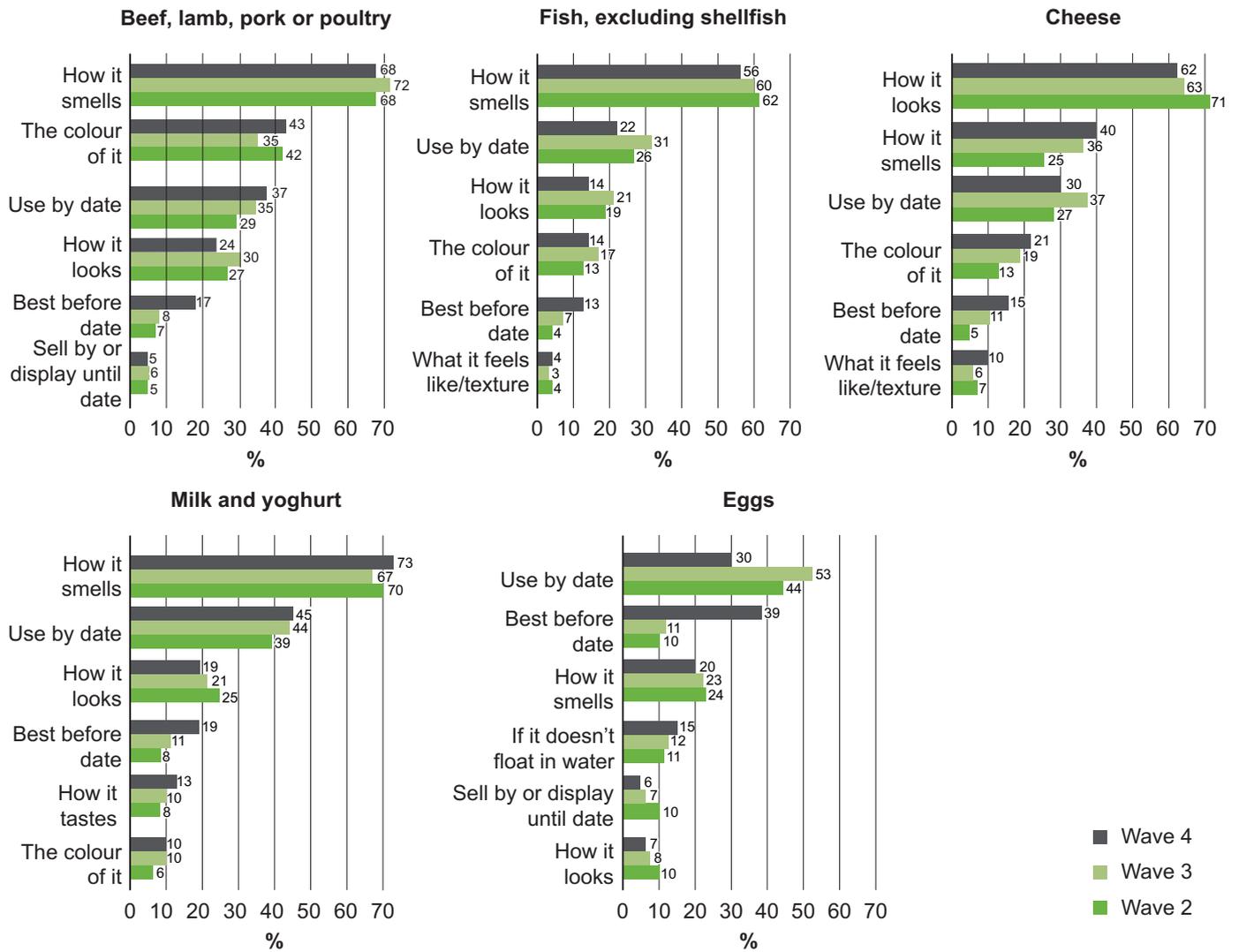
However, respondents in Northern Ireland were less likely than those in Wales to wash fruit to be eaten raw (56% compared with 46%).

Tables 2.11–2.16

## 2.7 Assessing if food is safe to eat

Respondents were asked what methods they used to tell if particular types of food were safe to eat. Methods employed varied across foods. How food smelled was the most common way respondents said they used to tell whether meat, milk/yoghurt and fish were safe to eat. Seventy-three per cent of respondents reported that they used this method when checking whether milk or yoghurt was safe to eat, 68% for meat and 56% for fish. For cheese, the most commonly reported method for telling whether it is safe to eat was the way it looks (62%). The most common methods reported for eggs were the best before and use by dates (39% and 30% respectively). Forty-five per cent of respondents reported that they used use by dates for checking milk/yoghurt, 37% for checking meat, and 22% for fish and 30% for cheese.

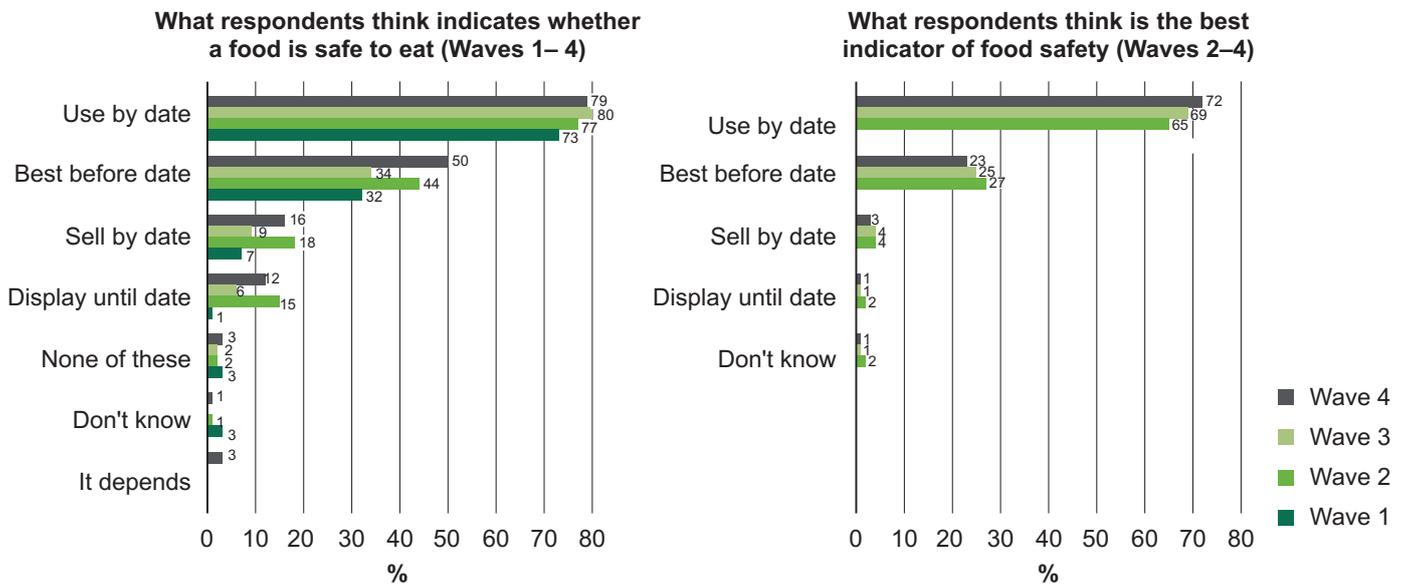
Figure 2.20 Methods used to tell whether food is safe to eat (Waves 2–4)



The FSA recommends that the use by date is the best indicator of whether food is safe to eat and food should not be eaten after this date. The majority of respondents (79%) cited use by dates as an indicator of whether food was safe to eat. This proportion was similar to previous waves. Fifty per cent said the best before date and 16% said the sell by date was an indicator of whether food was safe to eat.

When asked which date label was the *best* indicator of food safety, 72% selected the use by date (65% and 69% in Waves 2 and 3).

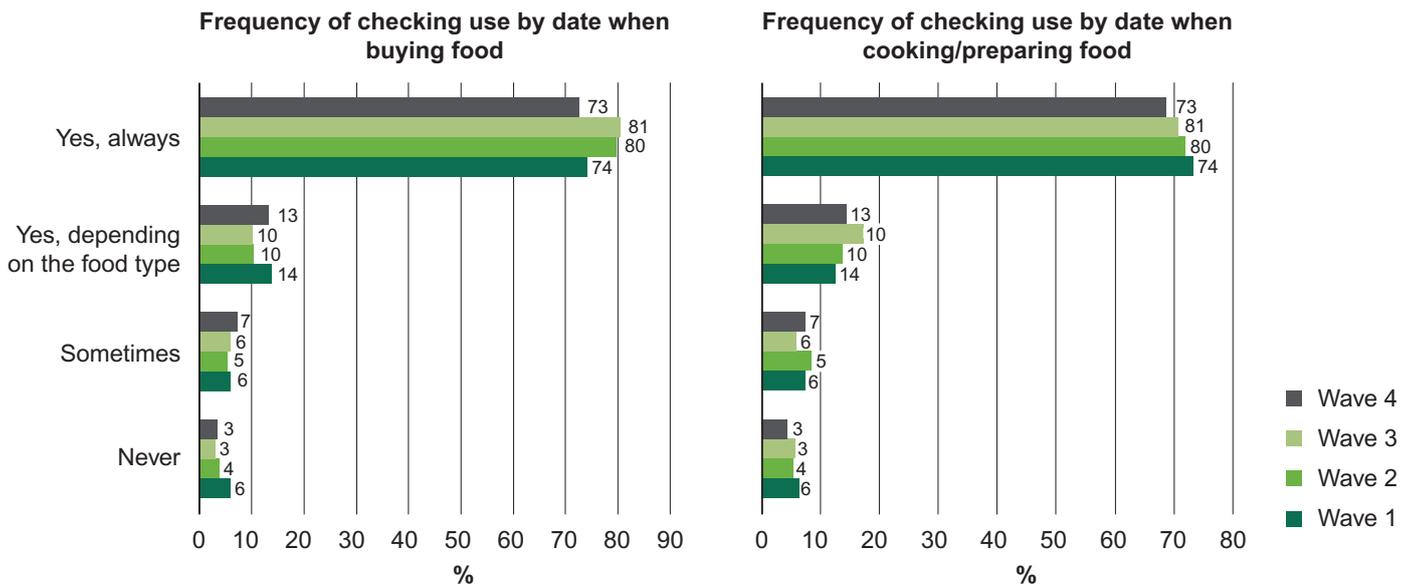
Figure 2.21 Indicators of food safety (Waves 1–4)



When asked if they checked use by dates when buying food, 73% of respondents reported that they always did this regardless of food type and 13% reported that they checked use by dates when buying food depending on food type. The proportion always checking use by dates regardless of food type was similar to previous waves (74% in Wave 1, 80% in Waves 2 and 81% in Wave 3).

The proportion of respondents who reported checking use by dates when cooking or preparing food was lower than that for buying food, with 69% saying they always checked the date. This proportion was similar to previous waves. Four per cent reported that they never checked the use by date when cooking or preparing food.

Figure 2.22 Frequency of checking use by dates (Waves 1–4)



Women were more likely to always check use by dates when shopping (80% compared with 65% of men) and before cooking or preparing food (74% compared with 63% of men).

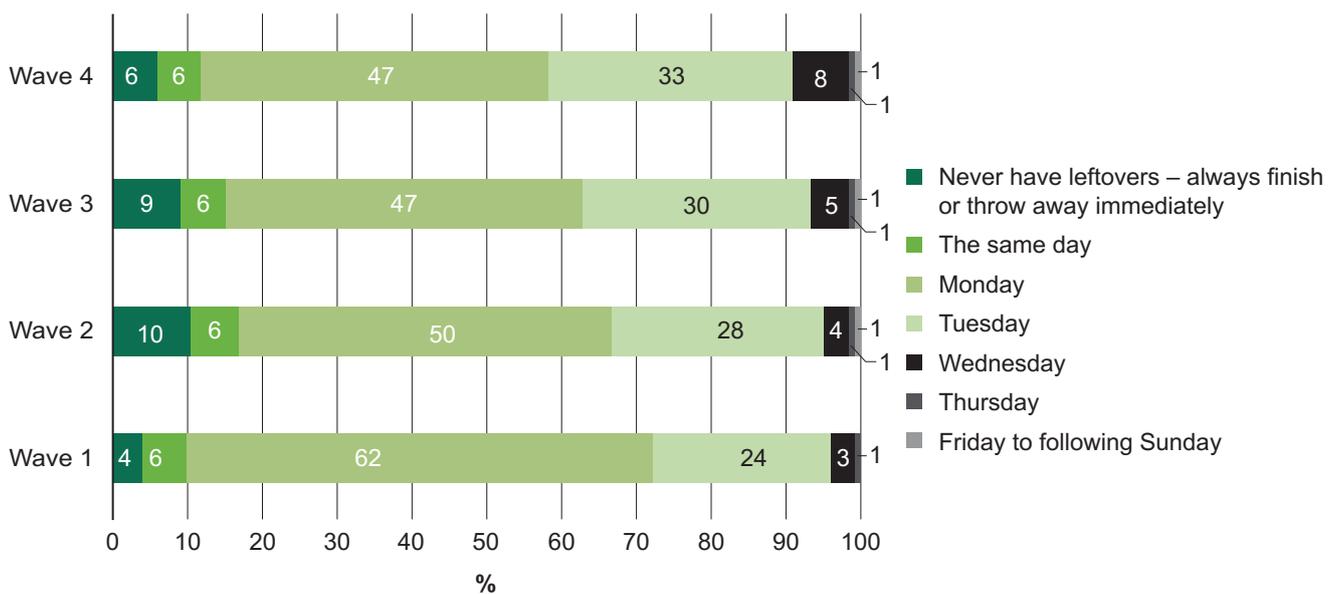
Twenty-eight per cent of respondents said they found labels on food products difficult to read because of the size of the print. This was lower than in Wave 3 (38%). The proportion reporting difficulty in reading labels is generally associated with age: 40%–51% of people aged 55 and above reported at least some difficulty. Forty-one per cent of those with fair eyesight had difficulty reading labels compared with 25% of those with good/very good eyesight.

The FSA recommends storing opened foods in the fridge and using within two days, unless the manufacturer’s instructions state otherwise. Respondents were most likely to report that they consumed smoked fish (65%) and meat, fish, or seafood pate (51%) within two days of opening.<sup>19</sup> Respondents were least likely to report consuming soft cheese within two days of opening (30%).<sup>19</sup>

<sup>19</sup> These figures are based on consumers only.

The FSA recommends that leftovers should be used within two days (that is, up to Tuesday if cooked on Sunday). The majority (85%) of respondents reported that, if they cooked a meal on Sunday, Tuesday would be the last day they would consider eating the leftovers, in line with recommended practice. This was similar to the proportion reporting two days or less in Waves 2 and 3, but lower than the proportion in Wave 1 (92%). Nine per cent reported that they would consider eating the leftovers three days or more after cooking (i.e. Wednesday or after).

**Figure 2.23 Last day respondents would consider eating leftovers from a meal (having cooked it on Sunday) (Waves 1–4)**



A similar proportion of men and women were likely to eat the leftovers within two days of cooking (82% and 87% respectively).

When comparing between Northern Ireland, England and Wales, significant differences were found in the proportion of respondents reporting other food safety practices such as checking use-by dates when you are about to cook or prepare food or what the last day is that you would consider eating leftovers (see table 2.F).

**Table 2.F Other food safety practices reported, by country (Wave 4)**

% reporting	Northern Ireland	England	Wales
Do you check use-by dates when you are about to cook or prepare food?			
Yes, always	69	61	56
If you made a meal on Sunday, what is the last day that you would consider eating the leftovers?			
Tuesday or earlier (maximum two days)	85	71	74
Bases (unweighted)	521	2105	492

Respondents in Northern Ireland were more likely to report behaviours in line with recommended practice for use by dates (always checking the use by date before cooking and preparing food) compared with those living in England and Wales (69% compared with 61% and 56% respectively).

The FSA recommends that leftovers should be used within two days (that is, up to Tuesday if cooked on Sunday). Respondents in Northern Ireland were more likely than those in England and Wales to report that they would eat leftovers within two days (85% compared with 71% and 74% respectively).

Tables 2.17–2.26

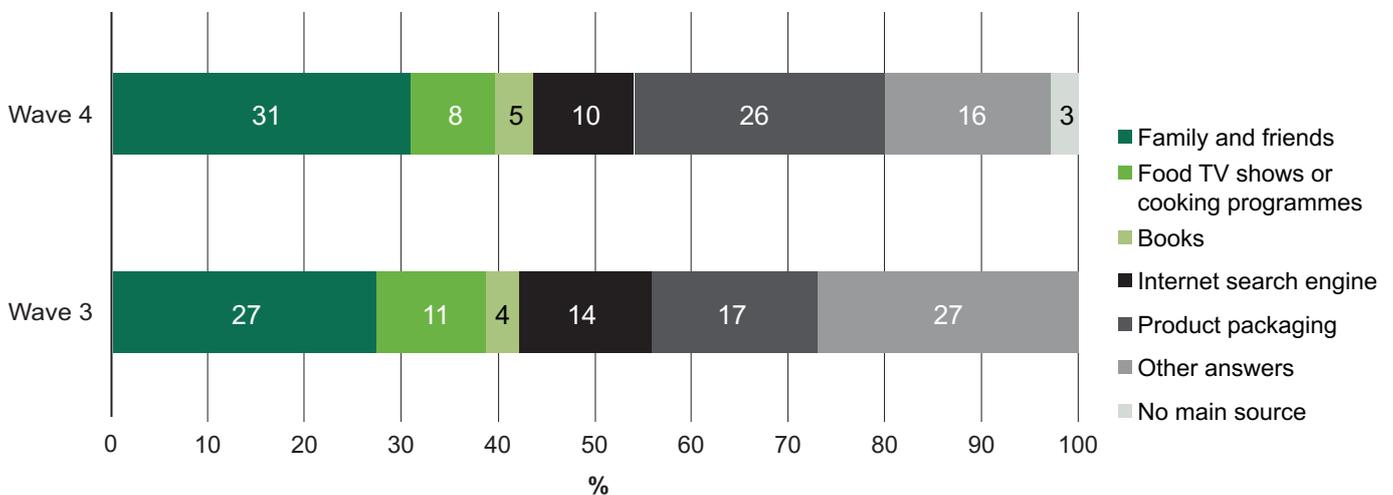
## 2.8 Sources of information about food safety

Where people get their information about food safety is important for getting food safety messages out to as wide an audience as possible but also to tailor information to target audiences.

Common sources of information about food safety practices cited by respondents were family and friends (43%) and product packaging (34%). Twenty-three per cent said they used the internet. A third (33%) said they used food TV shows or cooking programmes. Overall 81% of respondents reported that they got information from at least one of these sources Nineteen per cent said they did not look for information on food safety practices: higher amongst men (23%) than women (15%). Older people were most likely to say they did not look for this type of information.

For those who did look for information about food safety practices, when asked which their main source was, 31% said family and friends, 26% product packaging, and 10% the internet.

Figure 2.24 Main source of information about food safety (Waves 3–4)



# 3 Eating outside the home

## Eating out in the last month



**67%**

had eaten at a restaurant



**59%**

had eaten takeaway food



**47%**

had eaten in a café or coffee shop

## Factors which influence where people decide to eat out



## RECOGNITION OF FHRS STICKER HAS INCREASED



2012



2014



2016

FHRS stands for Food Hygiene Rating Scheme

# 3 Eating outside the home

## 3.1 Introduction

This chapter focusses on respondents' attitudes and behaviours when eating outside their homes and explores:

- where and how often respondents eat out
- the types of information respondents use to decide where to eat out and which factors they consider important when making these decisions
- respondents' awareness of hygiene standards and recognition of the Food Hygiene Rating Scheme (FHRS)

As part of their responsibility for protecting public health from risks which may arise in connection with the consumption of food, the FSA has identified a number of consumer rights, including 'the right to be protected from unacceptable levels of risk', and 'the right to make choices knowing the facts'. This includes eating and obtaining food outside the home. Providing the public with the information they need to make informed choices about where they eat out and purchase their food is a fundamental part of protecting these rights.

A key element in providing the public with the information they need is the Food Hygiene Rating Scheme (FHRS). Launched in November 2010 the FHRS is a partnership operating across England, Wales and Northern Ireland between the FSA and local authorities. The FHRS provides the public with information about the hygiene standards in food premises at the time they are inspected to check compliance with legal requirements. This helps people to make an informed decision when eating out or buying food, it recognises businesses with good standards and acts as an incentive for businesses with lower standards to make improvements. The overall aim of the scheme is to improve hygiene standards of food establishments and reduce the incidence of foodborne illness.

Local authorities (referred to as 'District Councils' in Northern Ireland) are responsible for carrying out inspections of food businesses to check that they comply with legal requirements and for awarding food hygiene ratings based on the findings

of inspections. Food businesses are issued with a sticker and the rating is uploaded to [food.gov.uk/ratings](http://food.gov.uk/ratings) for public use. Businesses in England are encouraged, although not legally required, to display these ratings, while display is mandatory for businesses in Wales, following the introduction of the Food Hygiene Rating (Wales) Act 2013 and in Northern Ireland the Food Hygiene Rating Act (Northern Ireland) 2016.

The FSA has commissioned independent research to track the proportion of businesses who display their FHRs ratings by audit and telephone survey since 2011: in 2016 59% of businesses in England, 64% in Northern Ireland and 86% in Wales were doing so.<sup>20</sup>

The data collected in Food and You contributes to the evidence base to inform policy making and communications. Consumer awareness, recognition and use of FHRs are now tracked more extensively through the FHRs Consumer Attitudes surveys.<sup>21</sup>

## 3.2 Frequency of eating out

The definition of eating out in the Food and You survey encompasses eating or buying food from a wide range of establishments including: restaurants, pubs, bars, nightclubs, cafés and coffee shops, sandwich bars, fast food outlets, canteens, hotels, stalls as well as takeaway food.<sup>22</sup>

Almost all respondents (95%) ate out, with half (52%) doing so at least once or twice a week. Sixty-one per cent of men ate out at least once or twice a week compared with 44% of women.

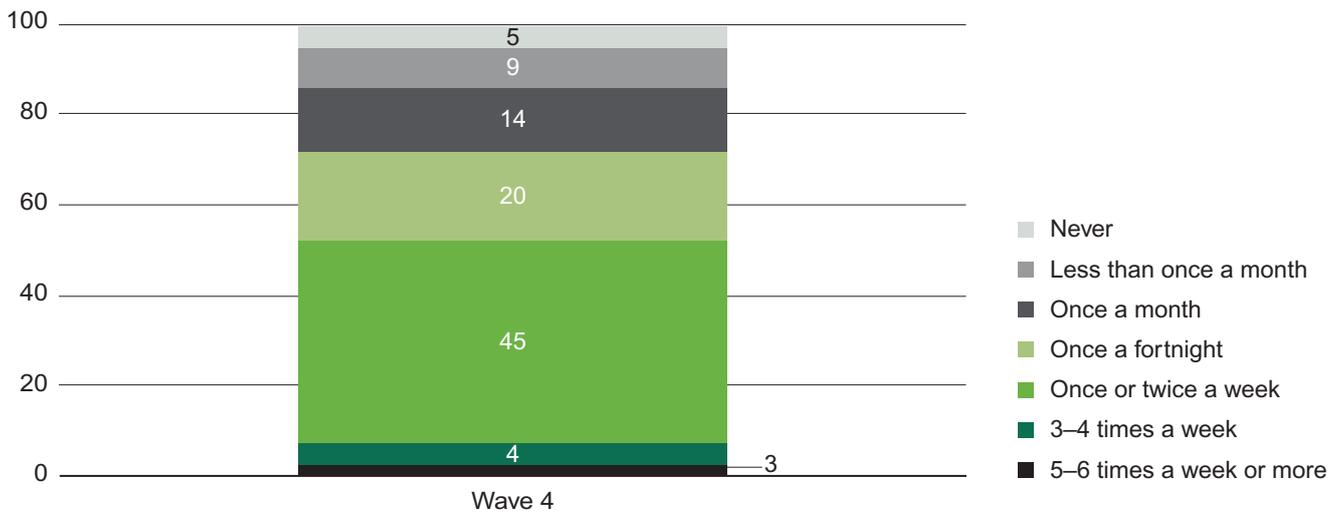
Comparisons are not made with previous waves due to changes in the reference time periods: in Wave 4 respondents were asked about eating out in the last month whereas in previous waves, respondents were asked to consider the last seven days.

20 [www.food.gov.uk/sites/default/files/fs244011afinalreport\\_0.pdf](http://www.food.gov.uk/sites/default/files/fs244011afinalreport_0.pdf)

21 [www.food.gov.uk/science/research-reports/ssresearch/foodsafetyss/fs244011w4](http://www.food.gov.uk/science/research-reports/ssresearch/foodsafetyss/fs244011w4)

22 For full list, see question 'EatOut' in the Technical Report.

**Figure 3.1 Reported eating out behaviour in the last month: frequency of eating out or buying food to take away (Wave 4)**

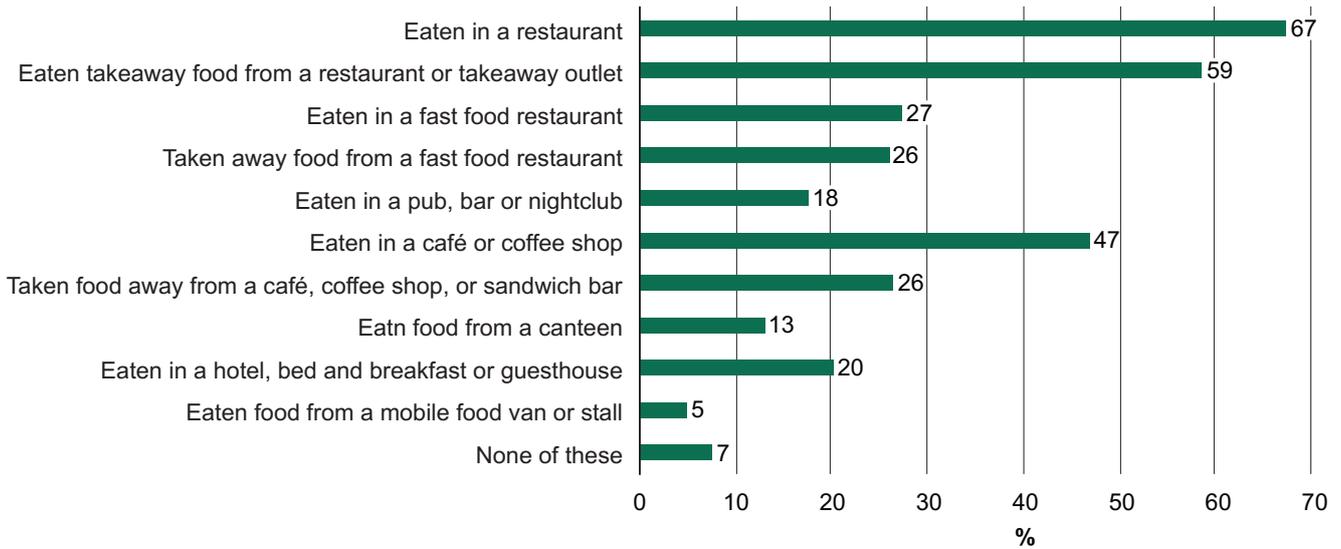


Younger respondents were more likely to report eating out once or twice a week (51% to 55% of those aged 16 to 44 compared with around a third or less of those aged 65 and over), and to have eaten at a fast food restaurant in the past month (49% of those aged 16 to 24 and 42% of those aged 25 to 34, compared with 7%–15% of those aged 55 and over).

Older respondents over were more likely to say they never ate out (16% of those aged 75 and over and 10% of those aged 65 to 74, compared with 1%–5% in the other age groups). The same was true for those in households with incomes in the lowest quartile (18% compared with 1%–4% in other household income quartiles).

Overall, 67% of respondents had eaten at a restaurant in the last month, 59% had eaten takeaway food from a restaurant or takeaway outlet and 47%, had eaten in a café or coffee shop.

**Figure 3.2 Reported eating out behaviour in the last month: prevalence of eating at, or buying food to take away from, different establishments (Wave 4)**



Respondents in households with children aged under 16 were more likely to have eaten takeaway food (from a restaurant or takeaway outlet) in the last month (72% compared with 53% of those in adult-only households). Retired respondents were less likely than other working status<sup>16</sup> groups to have eaten takeaway food (21% compared with 67%–69%).

Respondents in households in the highest income quartile were more likely than those in the lowest to have eaten in a restaurant in the last month (88% compared with 41%).

Table 3.A shows locations of eating out for which there were differences between respondents in Northern Ireland and in the other countries.

**Table 3.A Locations of eating out in the last month, by country (Wave 4)**

% reporting	Northern Ireland	England	Wales
Eaten in a restaurant	67	67	60
Eaten takeaway food from a restaurant or takeaway outlet	59	55	53
Eaten in a fast food restaurant	27	26	22

Taken away food from a fast food restaurant	26	21	18
Eaten in a pub, bar or nightclub	18	39	36
Eaten in a café or coffee shop	47	41	41
Taken food away from a café, coffee shop, or sandwich bar	26	32	30
Eaten food from a canteen	13	15	12
Eaten in a hotel, bed and breakfast or guesthouse	20	15	17
Eaten food from a mobile food van or stall	5	7	9
None of these	7	8	7
Bases (unweighted)	521	2105	492

Respondents in Northern Ireland were less likely to report eating in a pub, bar or nightclub in the past month: 18% did so, compared with 39% in England and 36% in Wales.

Respondents in Northern Ireland were more likely than those in Wales to have eaten out at a restaurant (67% compared with 60%), and more likely to have taken away food from a fast food restaurant (26% compared with 18%).

Respondents living in Northern Ireland were more likely than those in England to have eaten in a café or coffee shop (47% compared with 41%). They were also more likely than those in England to have eaten in a hotel, bed and breakfast or guesthouse (20% compared with 15%).

Tables 3.1

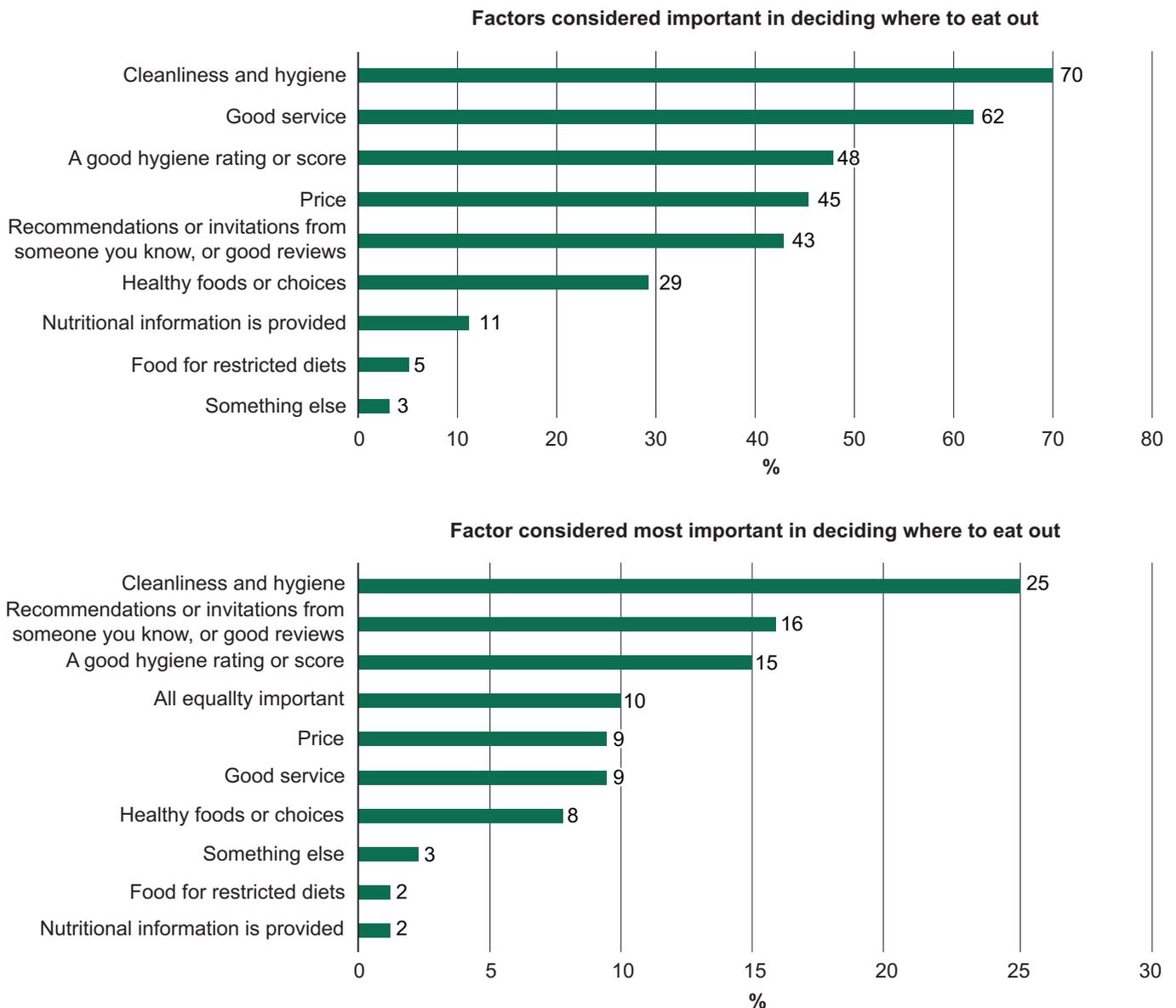
## 3.3 Deciding where to eat out

Respondents most commonly used their own experience of establishments (62%) when deciding where to eat out. Around half (50%) also took recommendations from friends or family and word of mouth (47%) into account.

When shown a list of factors which might influence their decision on where to eat out, 70% of respondents reported that the cleanliness and hygiene of the establishment was important to them; overall a quarter (25%) of respondents who ate out considered this the most important factor.

More than half of respondents listed service (62%) as a factor important to them when deciding where to eat out. Other factors selected by two in five or more included a good hygiene rating or score (48%), price (45%), and recommendations/reviews (43%).

**Figure 3.3 Importance of factors in deciding where to eat out (Wave 4)**



Men and women were both just as likely to be influenced by the cleanliness and hygiene of the establishment when deciding where to eat out (70% of women, 69% of men). Overall 29% of women and 20% of men said this was the most important factor in their decision making.

Respondents aged 25 to 34 were less likely than older groups to report cleanliness and hygiene of food establishments as the most important factor in deciding where to eat out (12%, compared with 27% to 35% of those aged 45 and over).

Table 3.B shows the factors considered most important when deciding where to eat out, where differences were found between respondents in Northern Ireland and in the other countries.

**Table 3.B Factor considered most important when deciding where to eat out, by country (Wave 4)**

% reporting	Northern Ireland	England	Wales
Price	9	10	8
Recommendations or invitations from someone you know, or good reviews	16	16	11
Nutritional information is provided	2	1	1
Healthy foods or choices	8	9	5
Cleanliness and hygiene	25	30	34
Good service	9	8	8
A good hygiene rating or score	15	9	17
Food for restricted diets	2	6	4
None of these	3	2	2
Something else	3	3	4
All equally important	10	6	5
Bases (unweighted)	521	2105	492

Respondents in Northern Ireland were less likely than those in England and Wales to report cleanliness and hygiene to be the most important factor when deciding where to eat out

(25% compared with 30% and 34% respectively). They were also less likely than those in England to report food for restricted diets to be the most important factor (2% compared with 6%).

Respondents living in Northern Ireland, compared with those in England, were more likely to report a good hygiene rating/score as the most important factor when deciding where to eat out (15% compared with 9%). They were also more likely to say that they considered all factors to be all equally important (10% compared with 5%).

**Table 3.2**

Comparisons are not made with previous waves due to changes in the reference time periods: when asked about how they decide where to eat out, Wave 4 respondents were asked to consider the last 12 months whereas respondents in previous waves were asked to consider “generally” rather than over a specific time period.

## 3.4 Awareness of hygiene standards when eating out

When asked how aware they were of hygiene standards when eating out or purchasing takeaway food, 81% of respondents reported being aware (38% ‘very aware’ and 43% ‘fairly aware’). This was lower than at Wave 3 (86%) but higher than at Wave 1 (71%).

Figure 3.4 Awareness of hygiene standards when eating out (Waves 1–4)

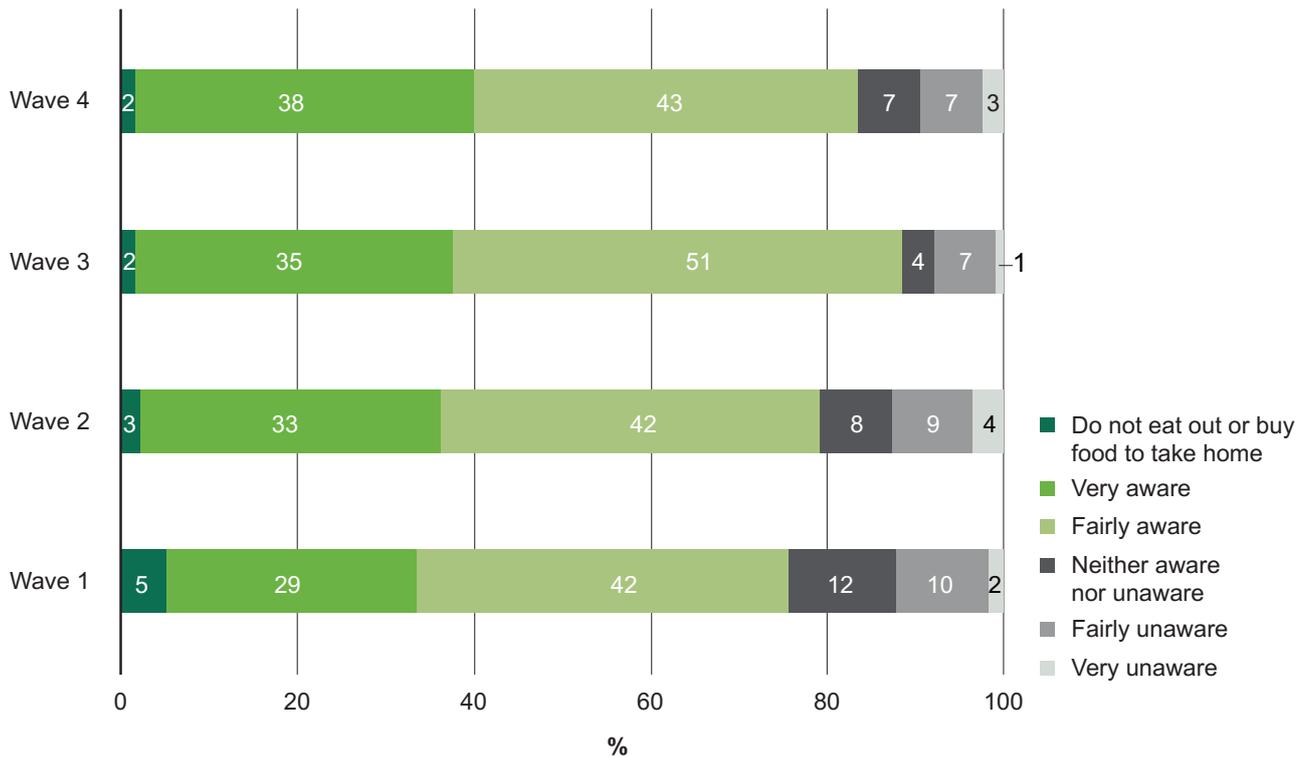


Table 3.3

Respondents were also asked what information they used for assessing the hygiene of establishments when eating out. The hygiene rating/score was the most commonly mentioned source (65% in Wave 4). Sixty per cent of respondents mentioned general appearance of premises in Wave 4, though this proportion was lower than in Waves 1 and 2 (between 66%–73%). This apparent decrease may be attributable to the inclusion for the first time in Wave 4 of ‘hygiene/rating score’ as a discrete response option.<sup>23</sup>

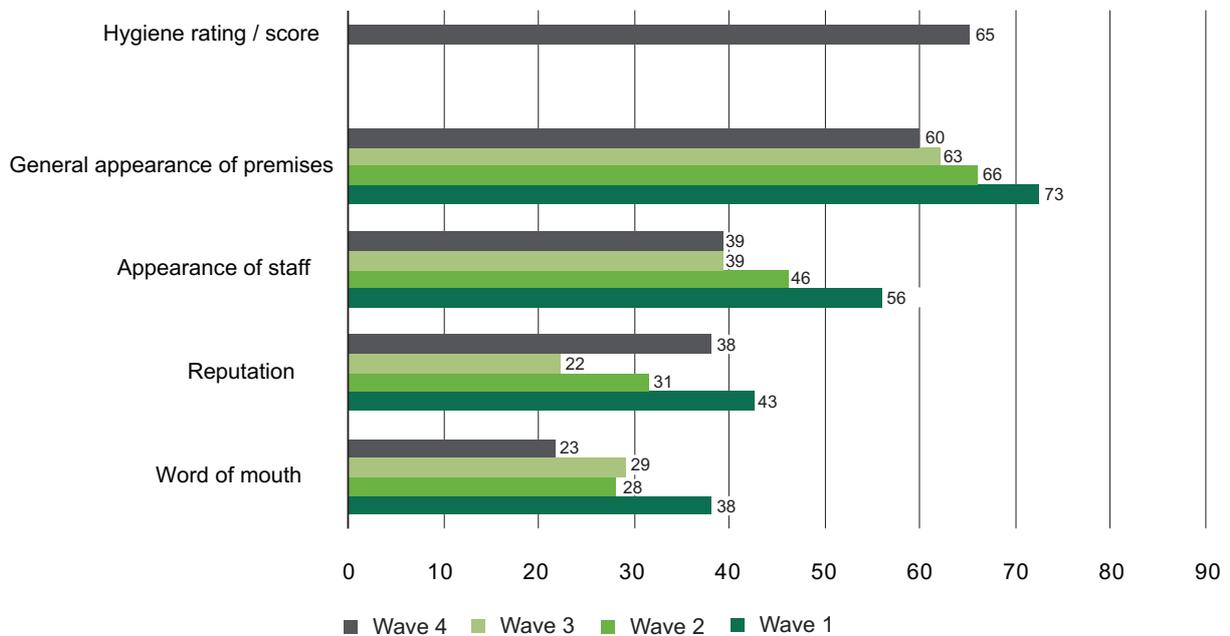
Respondents aged under 55 were more likely than older groups to use ‘hygiene rating/score’ to assess the hygiene

<sup>23</sup> In previous waves two separate categories were included in the response options – ‘Hygiene certificate’ and ‘Hygiene sticker’. These were replaced in Wave 4 with a single response option ‘A good hygiene rating/score’. The proportion citing using either a hygiene certificate or a hygiene sticker to inform them about hygiene standards was 56% at Wave 3, 48% at Wave 2 and 22% at Wave 1.

of establishments when eating out – between 70% and 79% of those aged 16–54 did so, compared with 57%–59% of those aged 55–74, and 25% of those aged 75 and over.

Respondents were less likely than in Waves 1 and 2 to assess hygiene standards by the general appearance of the premises (60% compared with 66%–73%), and less likely to use the appearance of staff (39% compared with 46%–56%).<sup>24</sup>

Figure 3.5 Indicators used to assess hygiene standards (Waves 1–4)



Significant changes were found between Northern Ireland, England and Wales in regards to hygiene standards when eating out. Table 3.C reports the differences in awareness and table 3.D shows information used for assessing hygiene when eating out.

<sup>24</sup> It should be noted that in Waves 1–3, only respondents who did not select 'Fairly/very unaware' in the previous question were asked this question. In W4, all respondents were asked.

**Table 3.C Awareness of food hygiene when eating out, by country (Wave 4)**

% reporting	Northern Ireland	England	Wales
Aware <sup>1</sup>	81	71	79
Neither aware nor unaware	7	11	9
Unaware <sup>2</sup>	10	14	10
Bases (unweighted)	521	2105	492

1 Aware consists of the responses 'very aware' and 'fairly aware'.

2 Unaware consists of the responses 'fairly unaware' and 'very unaware'.

Respondents living in Northern Ireland, compared with those in England, were more likely to be aware of food hygiene when eating out (81% compared with 71%). There were no significant differences between Wales and Northern Ireland.

Table 3.D shows information used for assessing hygiene when eating out, where differences were found between respondents in Northern Ireland and in the other countries.

**Table 3.D Information used for assessing hygiene when eating out, by country (Wave 4)**

% reporting	Northern Ireland	England	Wales
Reputation	38	35	29
Appearance of staff	39	41	30
Hygiene rating/ score	65	52	73
Bases (unweighted)	521	2105	492

Respondents living in Northern Ireland, compared with those in Wales, were more likely to use reputation (38% compared with 29%), and appearance of staff (39% compared with 30%) as a source of information to assess hygiene when eating out.

Respondents living in Northern Ireland, compared with those in England, were less likely to use hygiene rating/score (65% compared with 52%).

## 3.5 Recognition of the food hygiene rating schemes (FHRS)

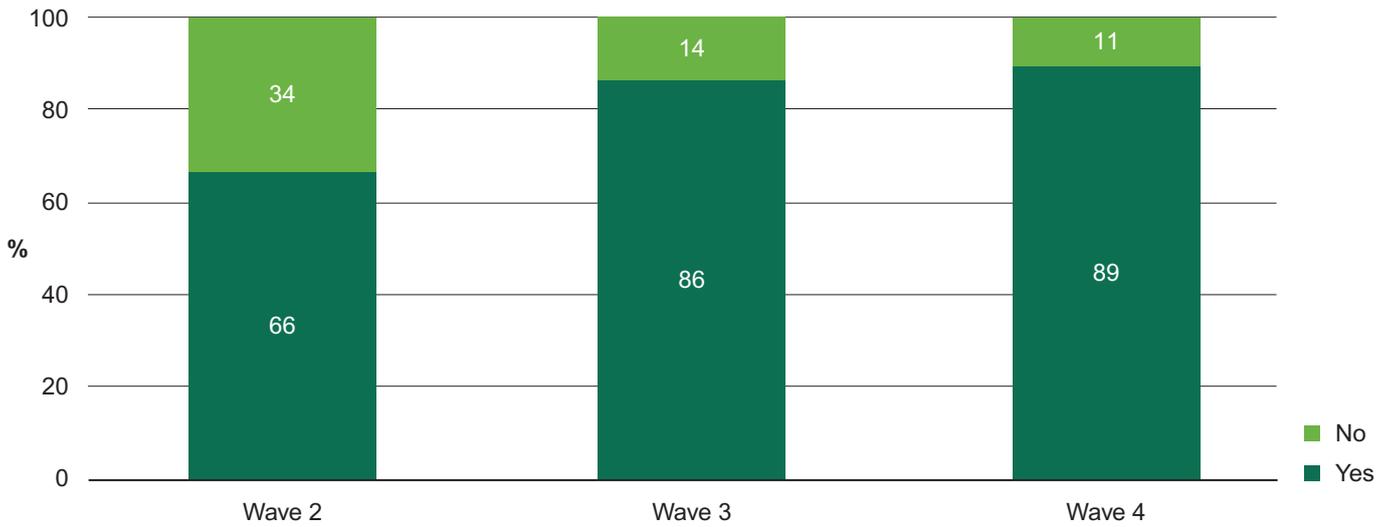
Respondents were shown images of the stickers for the FHRS in their respective countries (shown below) and were asked whether they had seen these images before. Businesses in England are encouraged, although not legally required, to display their FHRS rating, while display has been mandatory in Wales since 2013, and in Northern Ireland since 2016.



In Wave 4 89% of respondents recognised the FHRS images, similar to Wave 3 (86%) and an increase from Wave 2 (66%).

There was no difference in awareness of the FHRS between men and women (both 89%). However, recognition of the FHRS was associated with age: at least 90% of those aged 16 to 54 recognised the images compared with 49% of those aged 75 and over. Variation by working status reflected differences by age with retired respondents less likely to recognise the images (69%) than respondents in work (96%).

**Figure 3.6 Recognition of Food Hygiene Rating Scheme (FHRS) (Waves 2–4)**



Respondents living in households with children aged under 16 were more likely to recognise the scheme than those in adult-only households (97% compared with 86%).

When comparing recognition of FHRS across countries, a significant difference was found between respondents living in Northern Ireland compared to those living in England (see table 3.E).

**Table 3.E Recognition of Food Hygiene Rating Scheme (FHRS), by country (Wave 4)**

% reporting	Northern Ireland	England	Wales
Yes	89	82	89
No	11	18	11
Bases (unweighted)	521	2105	492

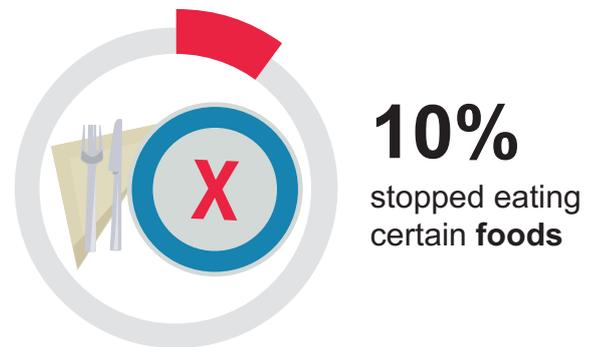
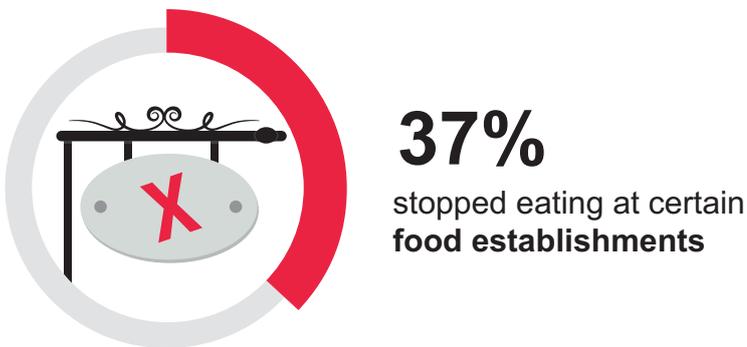
Respondents living in Northern Ireland, compared to those living in England, were more likely to agree that they recognised the FHRS (89% compared with 82%) and less likely to disagree (11% compared with 18%). There was no significant difference found between respondents in Northern Ireland and Wales on this measure.

**Table 3.5**

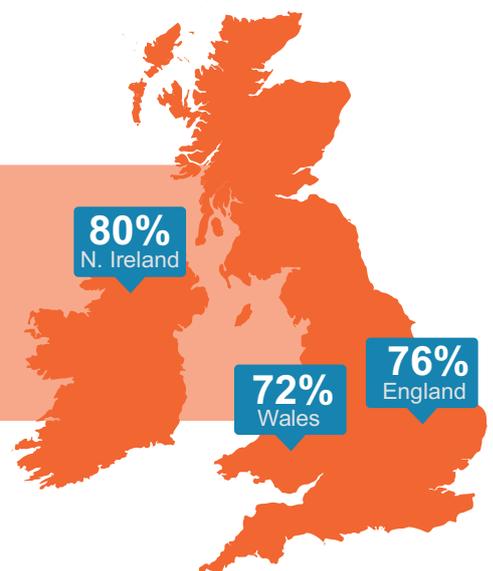
# 4 Food poisoning



Most commonly mentioned actions after experiencing food poisoning



Percentage who agreed they were unlikely to get food poisoning from food prepared in their own home



# 4 Food poisoning

## 4.1 Introduction

Food poisoning is a legally notifiable disease under the Health Protection Regulations 2010. It is known that official data for food poisoning cases significantly underestimates the issue, as only the most serious of food poisoning cases tend to be reported. Findings from an extension to the second study of Infectious Intestinal Disease in the Community, which focussed on identifying the proportion of foodborne disease in the UK and attributing foodborne disease by food commodity,<sup>25</sup> showed that there are more than 500,000 cases of food poisoning a year from known pathogens – a figure which would more than double if cases from unknown pathogens are included. Campylobacteriosis was the most common foodborne illness, with around 280,000 cases every year, and the salmonella pathogen causes the most hospital admissions – about 2,500 annually.<sup>25</sup>

This chapter covers respondents' experience of food poisoning, their action taken as a result of having food poisoning and their attitudes towards food poisoning and food safety. Food and You provides a comprehensive source of information on domestic food safety behaviour to underpin and evaluate progress on the 'Food is safe' and 'Empowering consumers' strategic outcomes in the Strategic Plan 2015–2020.<sup>1</sup> The information collected in Food and You complements FSA's scientific data and enables the FSA to monitor whether guidance on best practices to minimise the risk of food poisoning is being followed. The inclusion of these questions in Food and You also provides scope to compare experience of food poisoning with reported food behaviours to explore whether there are any links.

<sup>25</sup> [www.food.gov.uk/sites/default/files/IID2%20extension%20report%20-%20FINAL%2025%20March%202014\\_0.pdf](http://www.food.gov.uk/sites/default/files/IID2%20extension%20report%20-%20FINAL%2025%20March%202014_0.pdf)

## 4.2 Experience of food poisoning

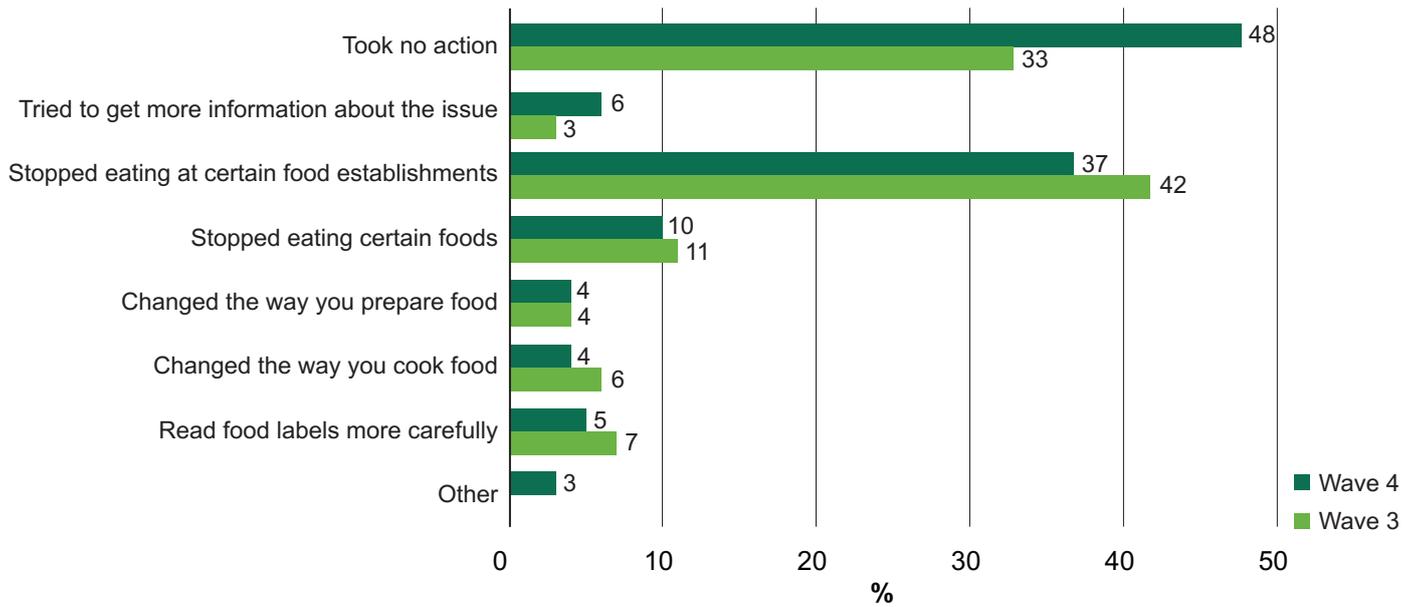
Overall, 29% of respondents reported having had food poisoning, similar to previous waves. Thirty per cent of men and 27% per cent of women reported having had food poisoning.

The base sizes for the questions concerning clinical diagnosis of food poisoning in Northern Ireland were too small and as a result could not be reported on.

**Table 4.1**

In regards to the action taken as a result of having food poisoning, 48% of respondents in Wave 4 and 33% in Wave 3 reported having taken no action after experiencing food poisoning. Where action was taken, the most commonly mentioned were to stop eating at certain food establishments (37%) and to stop eating certain foods (10%).

**Figure 4.1 Action taken as a result of having food poisoning on most recent occasion (Waves 3–4)**



When comparing between Northern Ireland, England and Wales, significant differences were found in the proportion of respondents reporting having had food poisoning (see table 4.A).

**Table 4.A Experience of food poisoning, by country (Wave 4)**

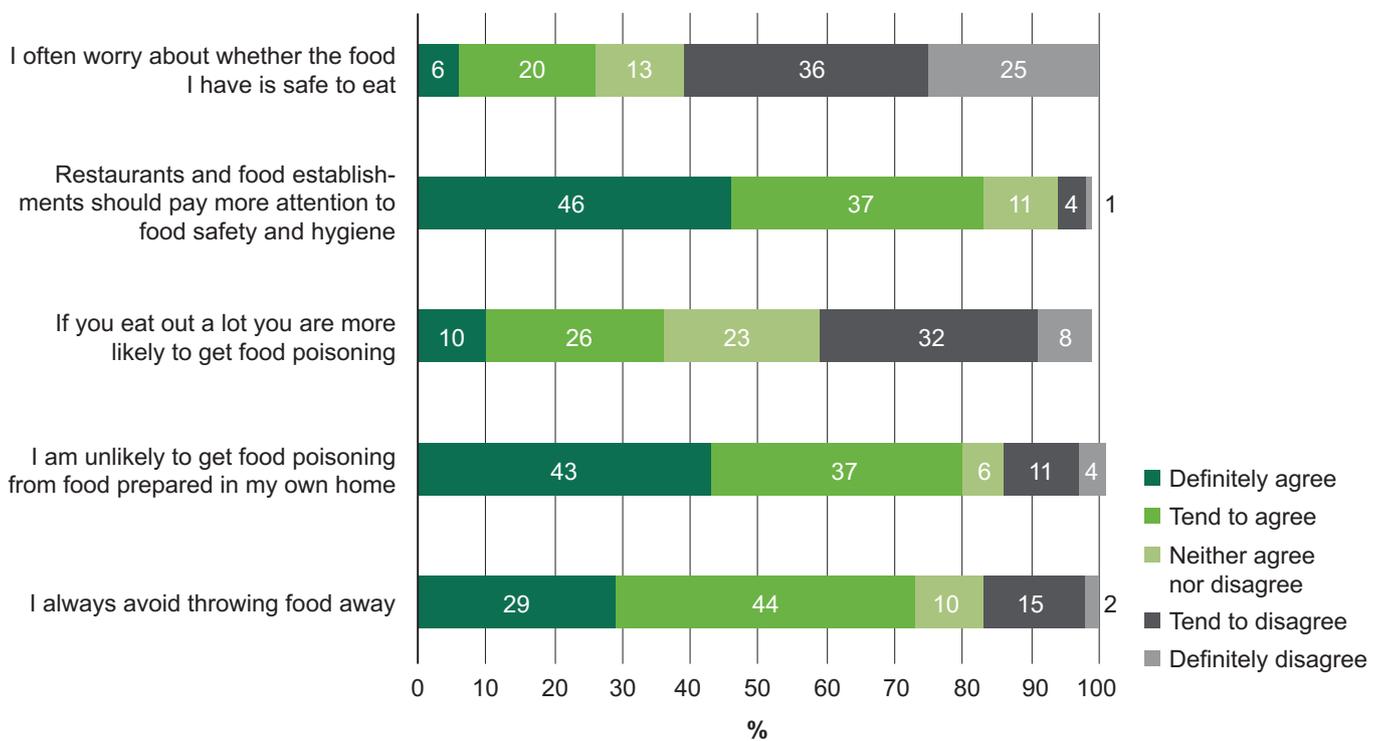
% reporting	Northern Ireland	England	Wales
Have had food poisoning	29	45	39
Have not had food poisoning	71	55	61
Bases (unweighted)	496	1957	463

Respondents in Northern Ireland, compared to those in England and Wales, were less likely to report having had food poisoning (29% compared with 45% and 39% respectively).

**Table 4.2**

## 4.3 Attitudes towards food poisoning and food safety

Figure 4.2 Attitudes towards food safety (Wave 4)



Overall, 80% of respondents agreed with the statement that they were unlikely ‘to get food poisoning from food prepared in my own home’.

Respondents in the most deprived areas were more likely to worry that the food they have is safe to eat than those in the least deprived areas (38% compared with 18%).

Respondents were more likely than in previous waves to agree with the statement ‘I always avoid throwing food away’ (73% compared with 64% in Wave 3, 58% in Wave 2 and 52% in Wave 1). This pattern held for men and women.

In relation to attitudes towards food safety and food poisoning, significant differences were found between respondents in Northern Ireland compared to those in England (see table 4.B).

**Table 4.B Attitudes towards food safety and food poisoning, by country (Wave 4)**

% reporting	Northern Ireland	England	Wales
I always avoid throwing food away			
Agree <sup>1</sup>	73	61	64
Neither agree nor disagree	10	11	12
Disagree <sup>2</sup>	17	28	24
Bases (unweighted)	521	2105	492

1 Agree consists of the responses 'definitely agree' and 'tend to agree'.

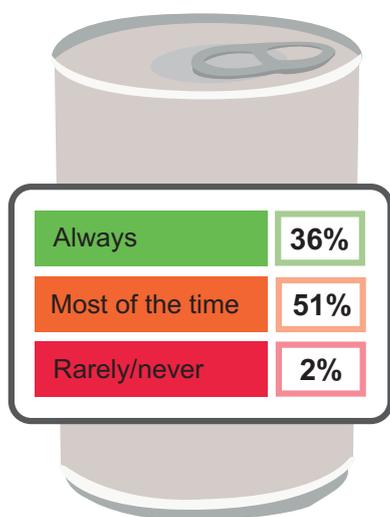
2 Disagree consists of the responses 'tend to disagree' and 'definitely disagree'.

Respondents in Northern Ireland were more likely than those in England and Wales to agree that they always avoid throwing food away (73% compared with 61% and 64% respectively).

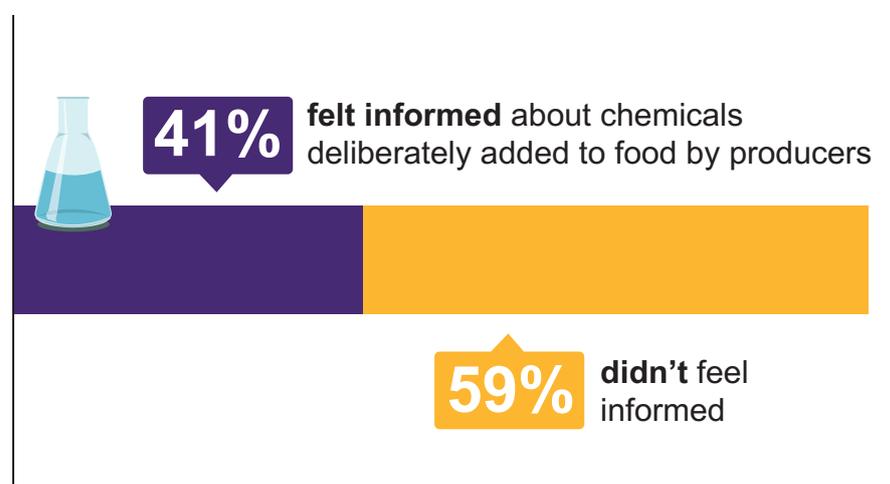
**Table 4.3**

# 5 Food production and the food system

Confident that food is **what it says it is** on the label or menu



### How informed do people feel about chemicals in food?



More **technology** in food production **47%**  
Make **changes** to what we eat **46%**  
Eat **less meat** **27%**

### Food sustainability and food futures



Changes needed to ensure there is enough food to **feed the worldwide population**

# 5 Food production and the food system

## 5.1 Introduction

The FSA's Strategic Plan 2015–20<sup>1</sup> identifies that 'consumers' have rights and responsibilities with regard to the food that they eat and reinforces the FSA's support to ensure the public's rights are respected and that they are able to make informed decisions about the food that they eat, thus influencing the food system as well as their own well-being and that of their families and communities.

The Wave 4 questionnaire included a set of questions intended to explore the extent of concern about food or drink authenticity (whether it is what it says it is on the label or menu) and to support delivery of the Strategic Plan's commitment that consumers have the 'right to make choices knowing the facts' and supporting delivery of the outcome 'food is what it says it is'. This information will help to develop the evidence base on consumer confidence, as well as a baseline against which any related activity can be monitored.

Questions were also introduced in Wave 4 to explore knowledge about the use of chemicals in food, in terms of both their natural presence in and their addition to foods, to gain a better understanding of consumers' views on the risks associated with different chemical contaminants in food in order to inform future FSA advice. This information supplements other work commissioned by the FSA such as that covered by the "Consumer understanding of food risk: chemicals" report<sup>26</sup> again, informing the evidence base in this space and offering a baseline for future monitoring.

In line with the Strategic Plan pledge that 'consumers' have the 'right to the best food future possible'.<sup>27</sup> questions were introduced in Wave 4 to determine levels of awareness, concern and acceptability around emerging technologies,<sup>28</sup>

26 [www.food.gov.uk/sites/default/files/consumer-understanding-of-food-risk-chemicals.pdf](http://www.food.gov.uk/sites/default/files/consumer-understanding-of-food-risk-chemicals.pdf)

27 This topic was last covered in Wave 2 but comparisons are not made between waves due to changes in questions wording.

28 These questions were developed based on a literature review and expert advice.

complementing wider FSA work in 2015/2016 such as “Our Food Future”<sup>29</sup> which centred on understanding public hopes, fears and aspirations about what the future could look like, exploring people’s priorities and needs and their initial expectations about what should be done, and by whom.

At the end of this chapter is also a set of questions on food provenance funded by the Department for the Environment, Food and Rural Affairs (DEFRA).

## 5.2 Food authenticity

Respondents were asked how often they felt confident<sup>30</sup> when buying or eating food that it is what it says it is on the label or the menu and whether they had taken any action over the last year when they were not confident about authenticity.

One third (36%) of respondents always felt confident that food is what it says it is on the label or the menu and around half (51%) felt confident most of the time. Just 2% said they rarely or never felt confident.

Respondents who did not always feel confident that food was what it said it was on the label or menu were asked whether they had, in the last year, taken any subsequent action. Almost a quarter (24%) of respondents reported reading food labels more carefully, 11% had stopped eating certain foods, 9% stopped shopping for food at certain places, and 5% had tried to get more information about the issue. Fifty-nine per cent of respondents had not taken any action.

<sup>29</sup> [www.food.gov.uk/sites/default/files/our-food-future-executive-summary.pdf](http://www.food.gov.uk/sites/default/files/our-food-future-executive-summary.pdf)

<sup>30</sup> Possible responses ranged from feeling confident ‘always’, ‘most of the time’, ‘some of the time’, ‘rarely’ and ‘never’.

Figure 5.1 Confidence that food is what it says it is on the menu or label, and action taken (Wave 4)

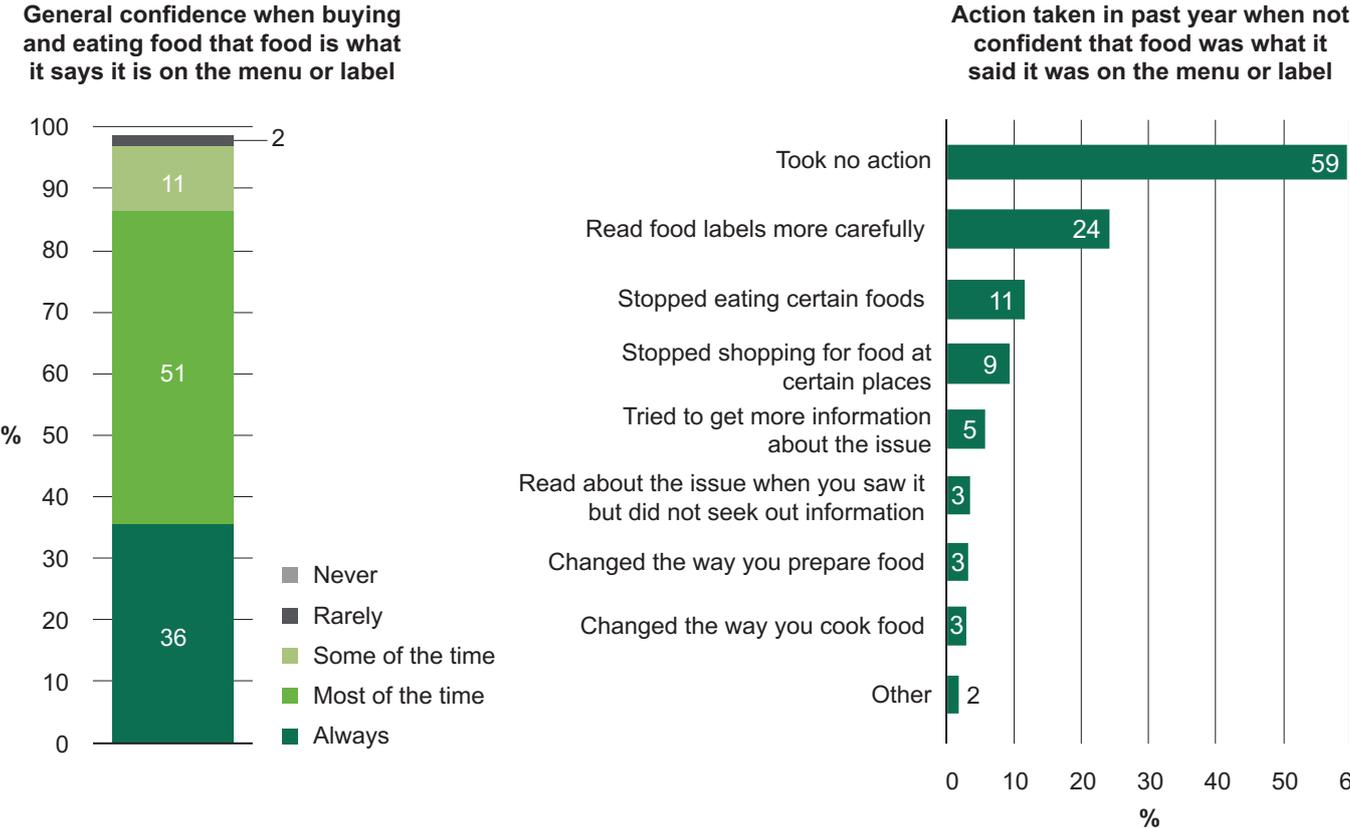


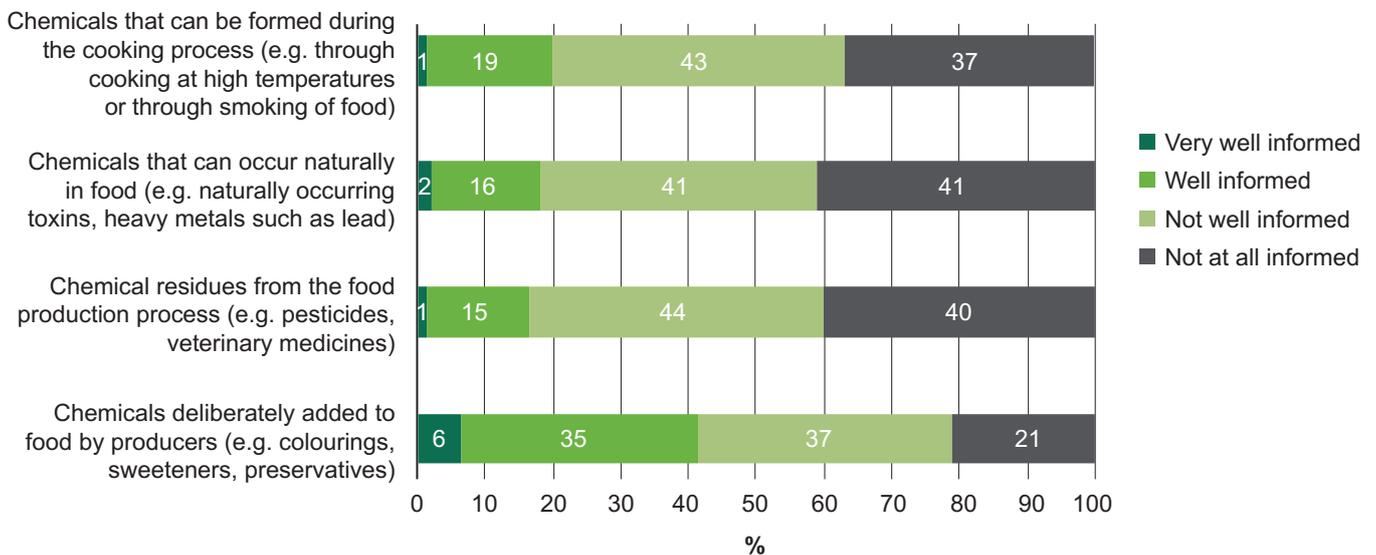
Table 5.1

## 5.3 Knowledge about added chemicals in food

When asked to what extent they felt informed about chemicals deliberately added to food by producers, 41% of respondents felt very well or well informed and 21% felt not at all informed.<sup>31</sup>

Respondents felt generally less well informed about chemical residues from the food production process (e.g. pesticides, veterinary medicines); 84% felt not informed about this matter compared with 59% who felt not informed about chemicals deliberately added to food by producers.

Figure 5.2 Knowledge about chemicals in food (Wave 4)



Eighty-two per cent of respondents felt not informed about the chemicals that can occur naturally in food (e.g. naturally occurring toxins or heavy metals such as lead) and 80% about the chemicals that can be formed during the cooking process (e.g. through cooking at high temperatures or through smoking of food). Around one fifth (18%–20%) felt informed about either of these two matters.

Table 5.2

<sup>31</sup> Possible responses ranged from 'very well-informed' and 'well-informed' to 'not well-informed' and 'not at all informed'. 'Don't knows' were also recorded.

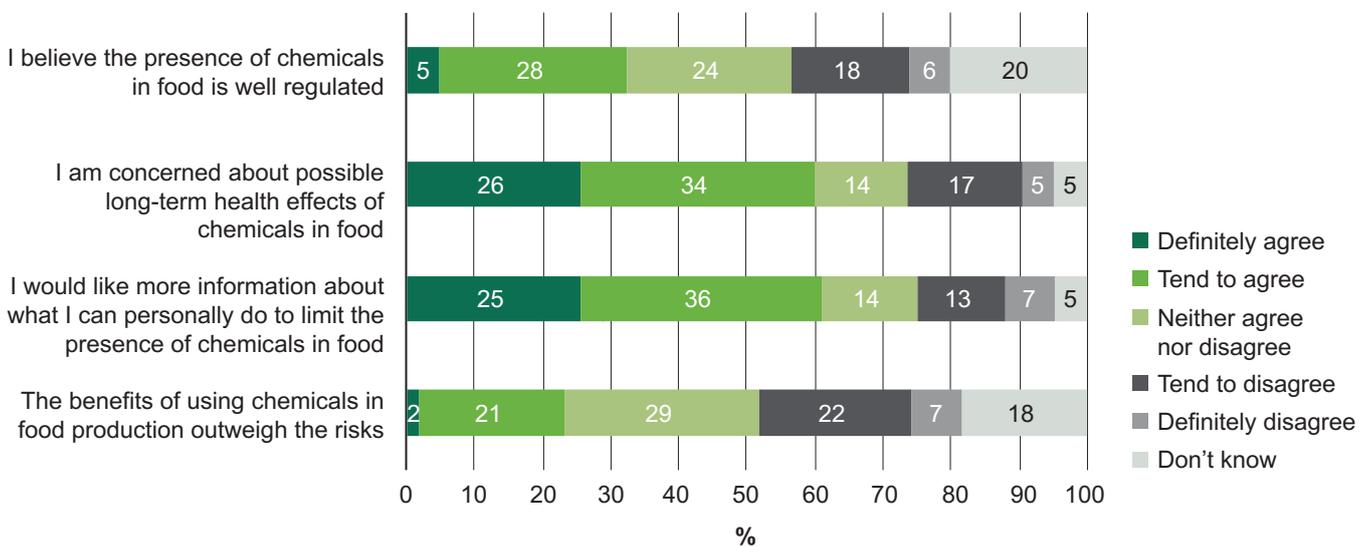
## 5.4 Attitudes towards chemicals in food production

When asked to what extent they agreed or disagreed that the benefits of using chemicals in food production outweigh the risks, 23% agreed (definitely agreed or tended to agree) and 30% disagreed (tended to disagree or definitely disagreed).

Almost two thirds (61%) of respondents agreed that they would like more information about what they can personally do to limit the presence of chemicals in food. Sixty per cent of respondents were concerned about possible long-term health effects of chemicals in food and 22% were not concerned.

Around a third (32%) of respondents agreed that the presence of chemical in food is well regulated, and around a quarter disagreed and neither agreed nor disagreed (23% and 24% respectively). Twenty per cent said they didn't know. Thus whilst there is not generally particular concern about the presence of chemicals in food, quite a proportion of respondents appeared unsure (or unconcerned) about the issue.

Figure 5.3 Attitudes towards use of chemicals in food production (Wave 4)



Tables 5.3

## 5.5 Food futures

Respondents were asked to what extent they agreed or disagreed that to help ensure there is enough food to feed the population worldwide, UK residents will have to make certain changes to the way we produce and consume food.

Almost half (46%) of respondents agreed and 29% disagreed with the statement that ‘to help ensure there is enough to feed the population worldwide, we in the UK will have to make changes to what we eat’. Similarly, 47% of respondents agreed and 20% disagreed that ‘to produce more food, we in the UK will have to make more use of technology in food production’. A higher proportion of men than women definitely agreed this was the case (17% compared with 8%).

Responses were a little more evenly spread to the statement ‘to help ensure there is enough food to feed the population worldwide, we in the UK will have to eat less meat’. Twenty-seven per cent of respondents agreed and 41% disagreed, with a further 31% of respondents who neither agreed nor disagreed.

Figure 5.4 Attitudes towards food futures (Wave 4)

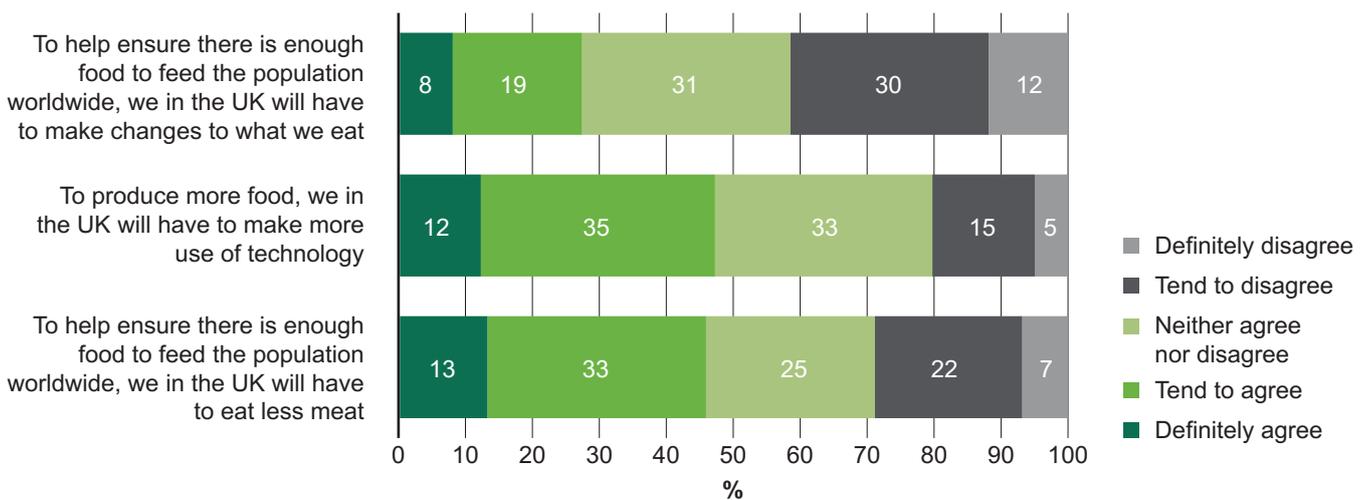


Table 5.4

## 5.6 Food provenance

Respondents were asked whether they agreed or disagreed with statements about checking where food was produced, and whether they preferred to buy – and had more trust in – food produced in Britain (asked of respondents in England and Wales) or the UK and Ireland (asked of respondents in Northern Ireland). Further statements covered whether food produced in Britain/the UK and Ireland tends to taste better, and/or is more expensive than food imported from overseas and whether people would be prepared to pay more for food produced in Britain/the UK and Ireland.

Whilst 32% of respondents agreed (definitely agreed or tended to agree) that when buying food they check to see where it was produced, a higher proportion (50%) did not check. Women were more likely to check where food was produced than men (36% compared with 28%).

More than half (62%) of all respondents agreed that where possible they prefer to buy food produced in the UK and Ireland, and 69% of respondents had greater trust in the quality of food produced in the UK and Ireland, compared with food imported from overseas.

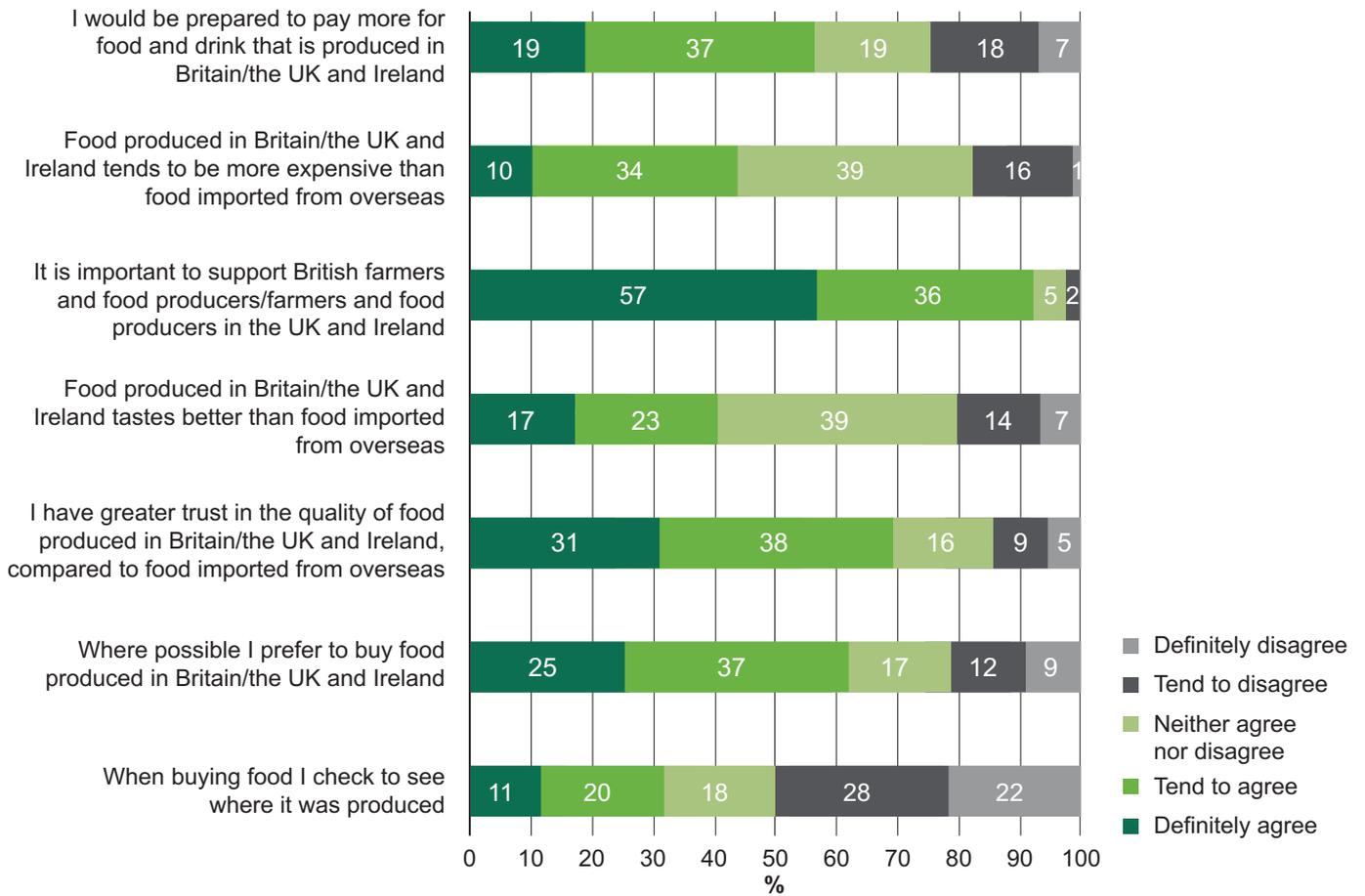
Older respondents had greater trust than younger respondents in the quality of food produced in the UK and Ireland (34%–49% of those aged 45 and over definitely agreed, compared with 11%–27% of those aged 16 to 34).

When asked to what extent they agreed or disagreed that food produced in the UK and Ireland tastes better than food imported from overseas, 40% agreed, 20% disagreed, and 39% neither agreed nor disagreed.

Ninety-two per cent of respondents agreed with the statement that it is important to support British farmers and food producers/farmers and food producers in the UK and Ireland. Over two thirds (72%–73%) of respondents aged 65 and over definitely agreed that it was important to support British/UK/Ireland farmers compared with 43%–55% of those aged 16 to 54.

Forty-four per cent of respondents agreed that food produced in the UK and Ireland tends to be more expensive than food imported from overseas. More than half (56%) of respondents said that they would be prepared to pay more for food and drink that is produced in the UK and Ireland.

Figure 5.5 Attitudes towards food provenance (Wave 4)



Attitudes towards food provenance differed significantly per country (see table 5.A).

**Table 5.A Food provenance, by country (Wave 4)**

% reporting	Northern Ireland	England	Wales
I have greater trust in the quality of food produced in Britain/the UK and Ireland, compared to food imported from overseas			
Agree <sup>1</sup>	69	48	54
Neither agree nor disagree	16	29	23
Disagree <sup>2</sup>	14	23	22
Food produced in Britain/the UK and Ireland tastes better than food imported from overseas			
Agree <sup>1</sup>	40	25	27
Neither agree nor disagree	39	47	47
Disagree <sup>2</sup>	20	28	26
Bases (unweighted)	521	2105	492

1 Agree consists of the responses 'definitely agree' and 'tend to agree'.

2 Disagree consists of the responses 'tend to disagree' and 'definitely disagree'.

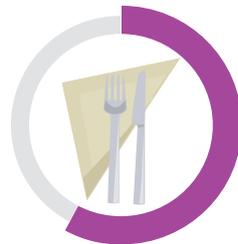
Respondents in Northern Ireland were more likely than those in England and Wales to agree that they have greater trust in the quality of food produced in the UK and Ireland compared to food imported from overseas (69% compared with 48% and 54% respectively).

Respondents in Northern Ireland were more likely than those in England and Wales to agree with the statement 'food produced in the UK and Ireland tastes better than food imported from overseas' (40% compared with 25% and 27% respectively).

**Table 5.5**

# 6 Healthy eating

Percentage of respondents who would like to see more information about healthy eating by location



**58%**  
restaurants



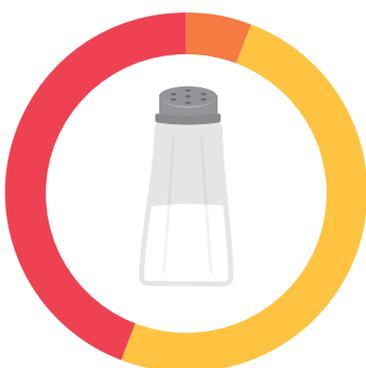
**52%**  
fast food  
restaurants



**47%**  
takeaway  
outlets

Percentage who mentioned 2,000 calories for **women 41%**  
Percentage who mentioned 2,500 calories for **men 38%**

Awareness of recommended calories per day



## Daily salt intake

**6%** of respondents stated that the recommended **daily intake of salt** was 6g, in line with FSA recommendations

**50%** thought it was **below** 6g

**44%** thought it was **above** 6g

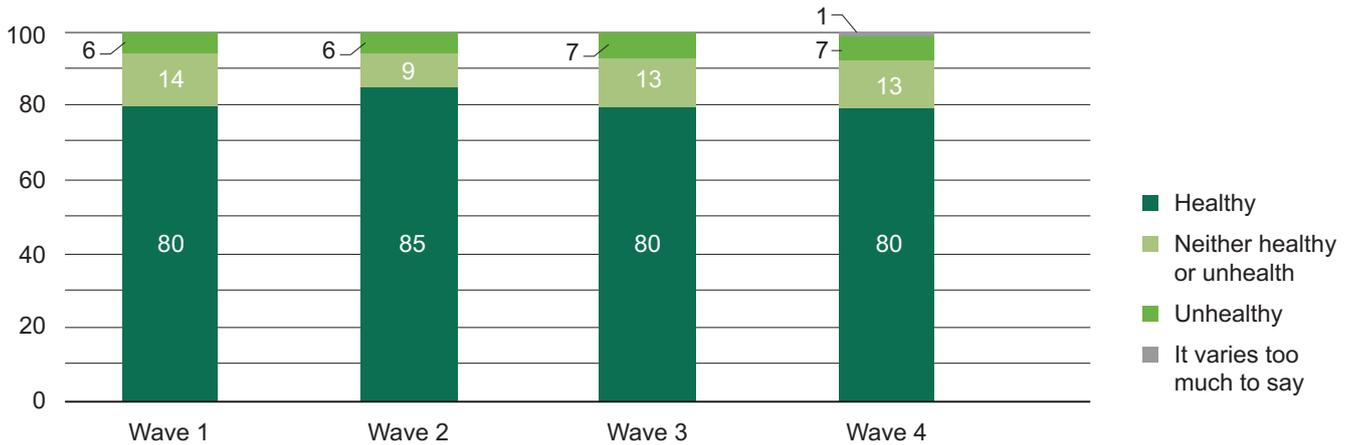
## 6.1 Introduction

Previous chapters have highlighted the FSA's responsibility for food safety and hygiene across the UK, and how the FSA is committed to ensuring the general public can have trust and confidence in the food they buy and eat. In Northern Ireland the FSA is additionally responsible for aspects of nutrition policy. This chapter gives an overall picture of people's perceptions of and attitudes towards eating healthily as well as their knowledge of nutritional recommendations, including the Eatwell Guide and recommended daily amounts of fruits and vegetables, calories, fat and salt. It also gives an indication of the consumption of different types of food. This information will contribute to the evidence base with which the FSA will inform nutrition initiatives and policy in Northern Ireland and consolidate the evidence supplied by previous waves.

## 6.2 Respondents' perceptions of their own eating habits

The majority of respondents (80%) thought that the food they usually ate was healthy with a small variation between men (79%) and women (81%). These findings were similar to previous waves. Respondents aged 25 to 34 were least likely to report that the food they usually ate was healthy (69%) and those aged 75 and over most likely (91%). Respondents in employment were less likely to report eating healthily compared than those who were retired (78% compared with 91%).

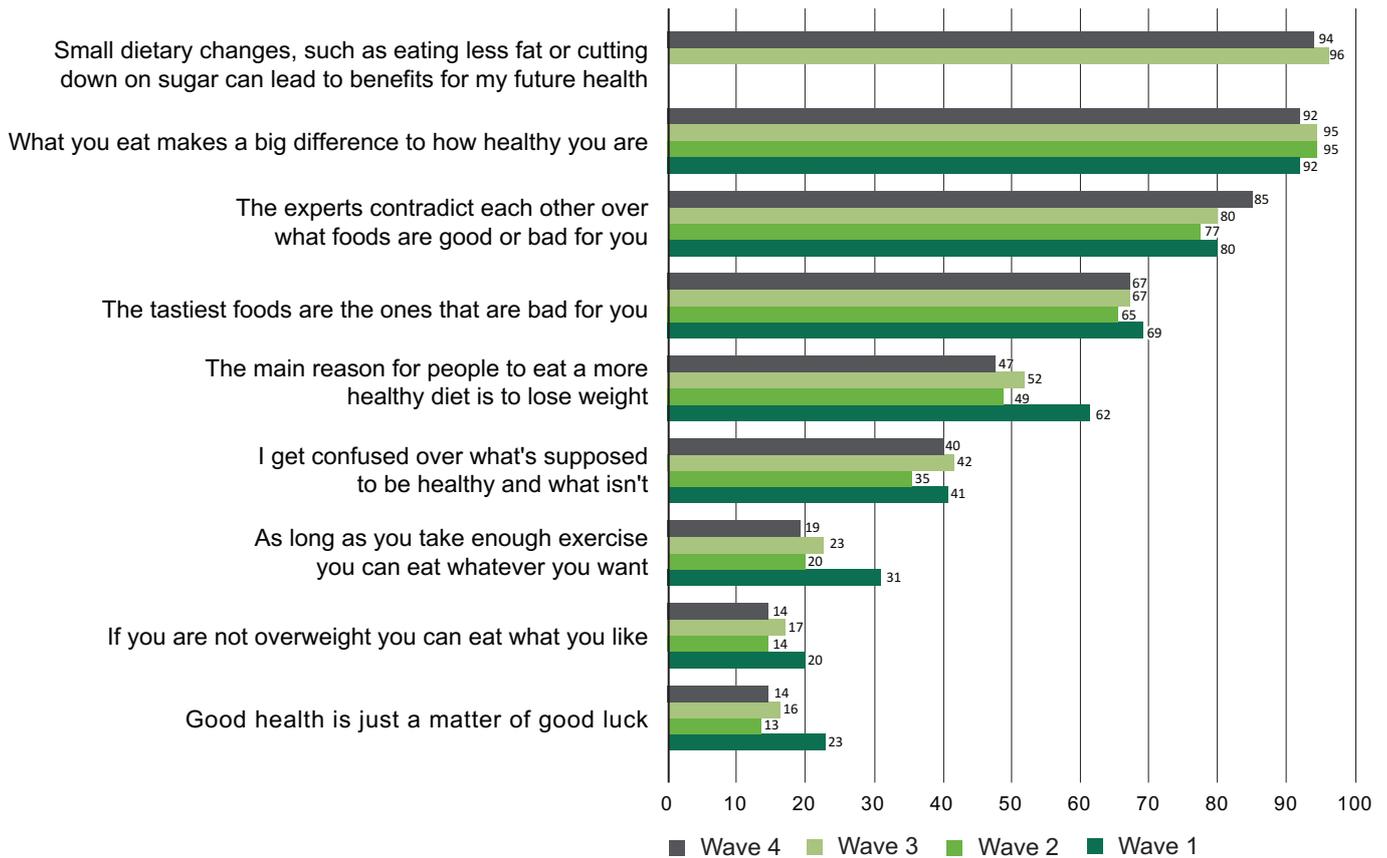
Figure 6.1 Perceived healthiness of food eaten (Waves 1–4)



## 6.3 Attitudes to healthy eating

Respondents were asked to say whether they agreed, neither agreed nor disagreed, or disagreed with a range of statements about healthy eating.

Figure 6.2 Agreement with attitudinal statements about healthy eating (Waves 1–4)



Almost all respondents agreed that what you eat makes a big difference to how healthy you are (92%) and that small dietary changes, such as eating less fat or cutting down on sugar, can lead to benefits for their future health (94%). This was similar for previous waves as well as for men and women. Respondents aged 75 and over were less likely to agree that small dietary changes can lead to benefits for future health than younger respondents (85% compared with 90%–97%).

Eighty-five per cent of respondents agreed that experts contradict each other over what foods are good or bad for you and two-fifths (40%) of respondents agreed that they get confused over what is supposed to be healthy and what is not. This was similar for previous waves as well as for men and women.

Around two-thirds (67%) of respondents agreed that the tastiest foods are the ones that are bad for you, similar to previous waves. Nineteen per cent agreed that if you take enough exercise you can eat whatever you want, similar to Waves 2 and 3 (20% and 23% respectively), but lower than at Wave 1 (31%).

The proportion of respondents who agreed to many of these statements differed by an Index of Multiple Deprivation. The Northern Ireland Multiple Deprivation Measure (NIMDM) is the official measure of relative deprivation in Northern Ireland.<sup>8</sup> Respondents living in the most deprived areas were more likely than those in the least deprived areas to agree that the tastiest foods are the ones that are bad for you (83% compared with 63%).

Almost half (47%) of respondents agreed that the main reason for people to eat a more healthy diet is to lose weight, which is lower than in previous waves (62% in Wave 1, 49% in Wave 2 and 52% in Wave 3). Fourteen per cent of respondents agreed that if you are not overweight you can eat what you like, while 80% disagreed with this statement. Respondents aged 16 to 34 were more likely to disagree with this statement than those aged 65 and over (81%–96% compared with 65%–68%).

Seventy-six per cent of respondents disagreed with the statement 'good health is just a matter of good luck'. This was similar to previous waves. Respondents aged 75 and over were most likely to agree with this statement (33% compared with 4%–17% of younger respondents).

**Table 6.2**

## 6.4 Eating out and eating healthily

Around three-fifths of respondents (62%) said that the food they ate outside of the home was less healthy<sup>32</sup> than the food they ate when at home. This was similar to previous waves (61%–63%). Thirty-two per cent of respondents said that the food they ate out was about the same as when they ate at home and only 4% of respondents reported that it was healthier.<sup>33</sup>

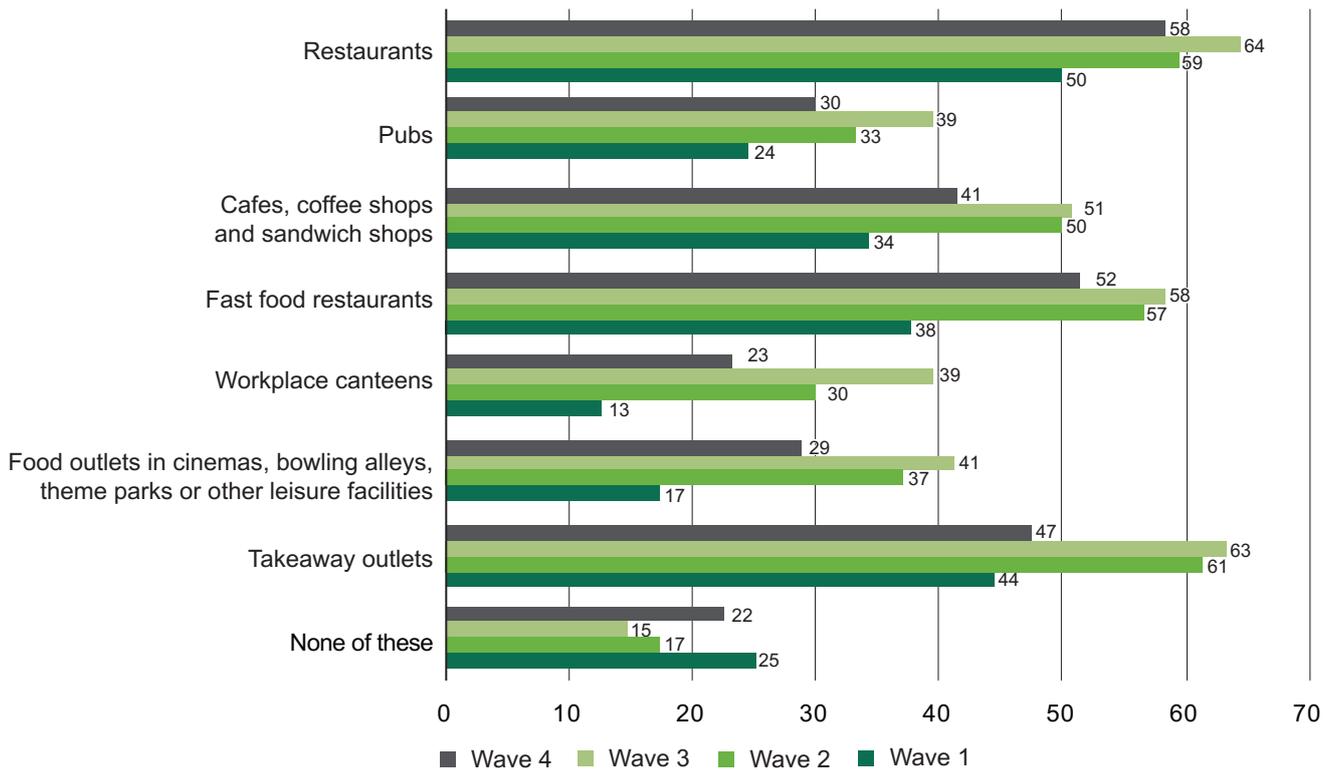
Respondents who were more likely to think that the food they ate outside of the home was less healthy than the food they ate at home included those aged 75 and over (44% compared with 67%–77% of those aged 16 to 34), those living in households with more than four people (71% compared with 45% of those living alone), those living in households with children under 16 (73% compared with 58% of those in adult only households), and those in work (67% compared with 47% of those who were retired).

Respondents were most likely to mention restaurants (58%), fast food restaurants (52%), and takeaway outlets (47%) as places where they would like to see more information about healthy eating options. Twenty-two per cent said that they would not like to see this information in any of the places mentioned.

32 'Less healthy' includes those who responded either 'a bit less healthy' or 'a lot less healthy'.

33 'Healthier' includes those who responded 'a bit more healthy' or 'a lot more healthy'.

**Figure 6.3 Places where respondents would like to see more information displayed about healthy options (Waves 1–4)**



Respondents were generally more likely to say that they would like to see more information displayed at eating establishments about healthy eating options compared with Wave 1. Specifically, the proportion of respondents reporting that they wanted to see more information in fast food restaurants (52%), takeaway outlets (47%), cafes (41%), food outlets (29%), and workplace canteens (23%), was higher compared with those in Wave 1 (where this was reported by 38%, 44%, 34%, 17%, and 13% respectively).

However, respondents in Wave 4 were generally less likely to want to see more information about healthy eating options compared with respondents in Wave 2 and 3. This is especially for takeaway outlets (47% compared with 61% in Wave 2 and 63% in Wave 3) and food outlets in cinemas and other leisure facilities (29% compared with 37% in Wave 2 and 41% in Wave 3).

**Table 6.3**

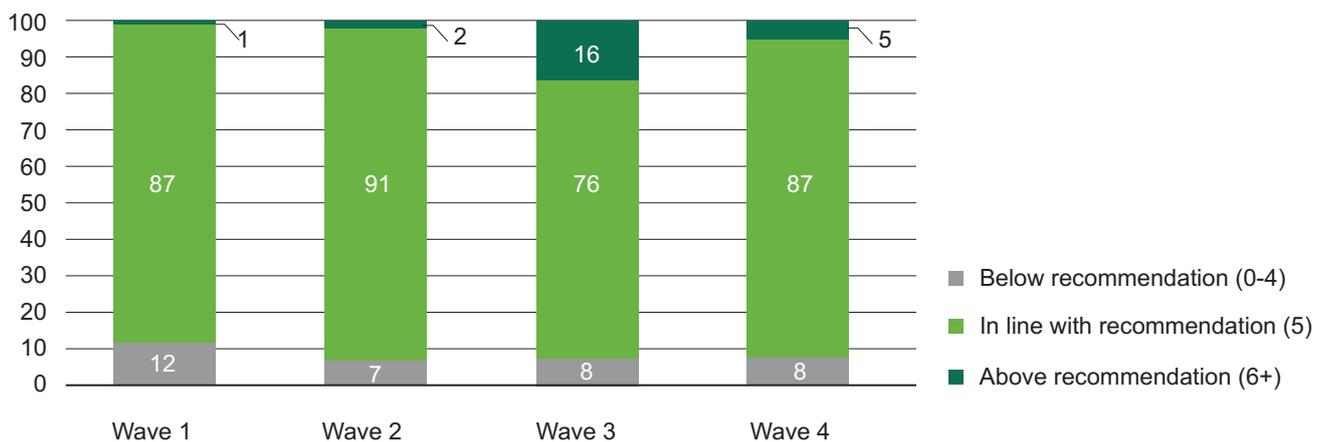
## 6.5 Awareness and understanding of recommended daily amounts

This section presents findings on respondents’ awareness and understanding of nutritional recommendations for fruit and vegetables, calories, fat and salt. The FSA has recommended daily amounts of intake sufficient to meet the nutrient requirements of nearly all healthy people. Information on these recommendations can be found on the Eat Well section of the Northern Ireland Direct website.<sup>34</sup>

### 6.5.1 Fruit and vegetables

The government recommends that people should aim to eat at least five portions of fruit and vegetables every day.<sup>34</sup> Overall, 87% of respondents stated that the recommended number of portions of fruit and vegetables to consume per day was five, in line with the recommendation. This was similar to Wave 1 (87%) and Wave 2 (91%), but higher than Wave 3 (76%). Eight per cent said the recommended number of portions was less than five, and 5% said it was above five.

Figure 6.4 Awareness of recommended daily intake of fruit and vegetables (Waves 1–4)



<sup>34</sup> [www.nidirect.gov.uk/information-and-services/food-and-nutrition/eat-well](http://www.nidirect.gov.uk/information-and-services/food-and-nutrition/eat-well)

Respondents were also asked whether they thought certain foods could count towards the daily fruit and vegetable intake. The majority of respondents reported, in line with the recommendations, that frozen vegetables (90%), dried fruit (80%), fruit smoothies (78%), pure fruit juice (76%), tinned fruit or vegetables (74%), pulses (73%), and baked beans (67%) could count towards '5 a day'. Seventy-one per cent of respondents said that a jacket potato could be counted towards the '5 a day'. This, along with jam and rice, are not items classified as portions of fruit and vegetables and do not count towards '5 a day'. Thirty-five per cent of respondents reported that rice, and 14% reported that jam would count towards the recommended daily intake.

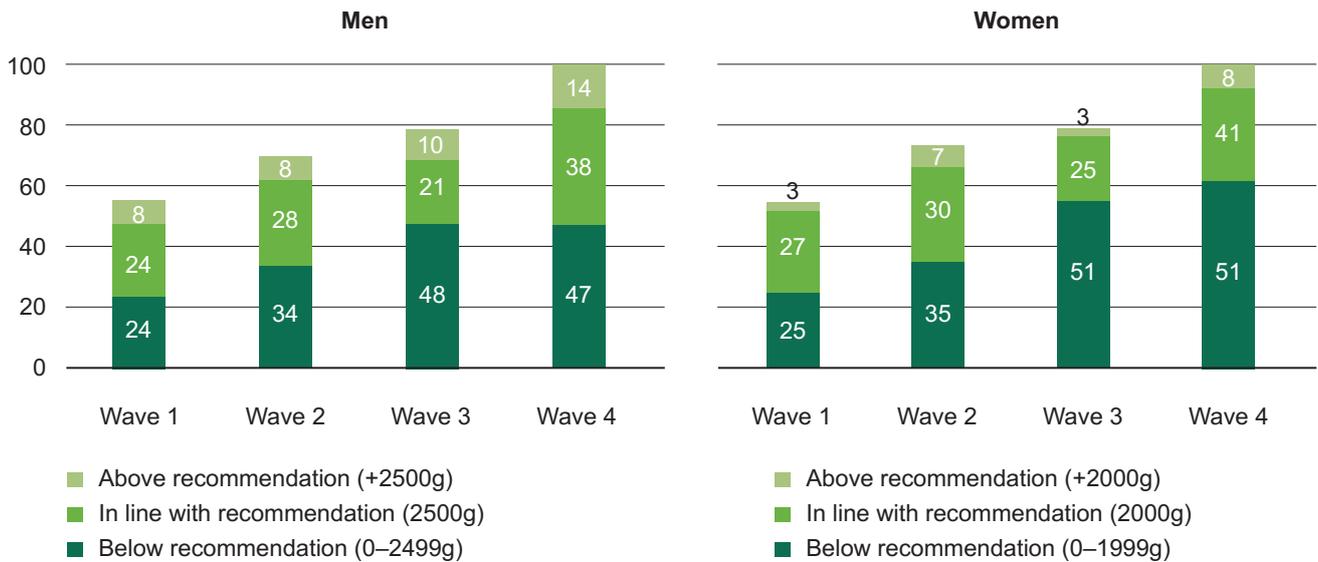
When comparing across previous waves the proportion of respondents who stated, in line with the recommendations, that dried fruit, baked beans and pulses could count toward the '5 a day' target was similar across waves. The proportion of respondents stating that frozen vegetables counted towards the '5 a day' has increased compared previous waves (90% compared with 84% in Wave 1). On the other hand, the proportion of respondents stating that tinned fruit or vegetables (74% compared with 86% in Wave 1), pure fruit juice (76% compared with 89% in Wave 1), and fruit smoothies (78% compared with 86% in Wave 1) counted towards the '5 a day' has gone down compared with previous waves.

Tables 6.4–6.5

## 6.5.2 Calories

The government recommends that the average man should consume around 2,500 calories a day and the average woman around 2,000 calories a day.<sup>34</sup>

**Figure 6.5 Awareness of recommend number of daily calorie, by gender (Waves 1–4)**



When asked what they thought the recommended number of calories average men should eat in a day, 38% mentioned 2,500 calories. This is in line with the recommendation and higher than in previous waves (24% in Wave 1).

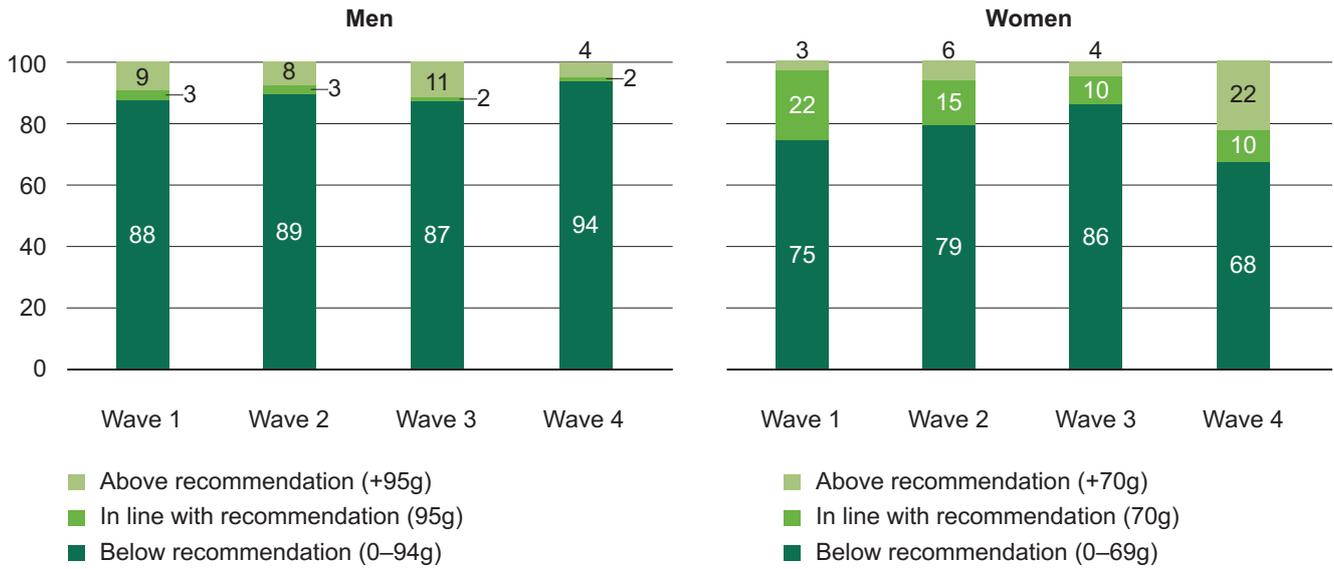
When respondents were asked what the recommended number of calories was for an average women, 41% mentioned 2,000 calories. This is in line with the recommendation and was higher than the proportion stating this number in previous waves (27% in Wave 1).

**Table 6.6**

### 6.5.3 Fat

The government recommends that the average daily intake of total fat should not exceed 95g for a man and 70g for a woman.<sup>34</sup> Men were asked how much fat, in grams, an average man should eat each day, and women were asked how much fat an average woman should eat each day. The majority (50%) of both men and women reported that they should eat between 1–20 grams of fat each day. Four per cent of men provided an answer above the recommended amount, as did 22% of women.

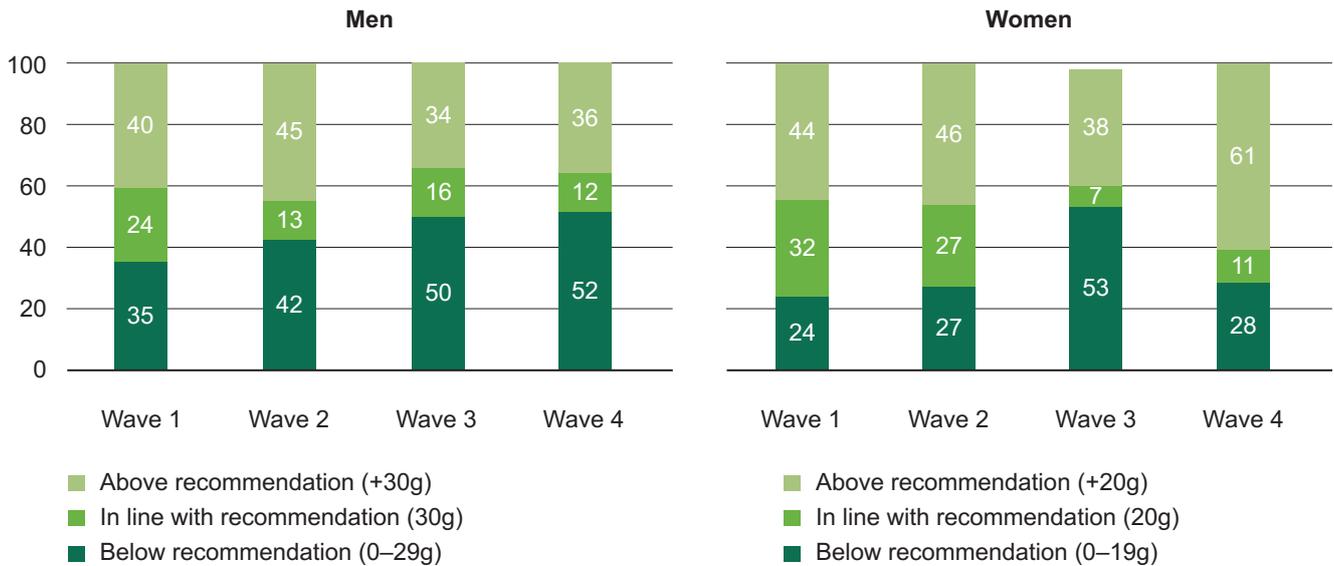
Figure 6.6 Awareness of recommended maximum daily intake of total fat, by gender (Waves 1–4)



The government recommends that a man’s maximum daily intake of saturated fat should not be more than 30g, and for women no more than 20g.<sup>34</sup> Twelve per cent of men reported the maximum recommended amount to be 30g, and 52% of men gave an answer below the maximum daily recommended intake of saturated fat. The proportion of respondents answering below the recommendation has increased compared to previous waves (52% in Wave 4 compared with 35% in Wave 1, 42% in Wave 2 and 50% in Wave 3), although this finding is not significant.

Eleven per cent of women reported the maximum recommended amount to be 20g, 28% of women gave an answer below the maximum, and 61% above the maximum. For women there were significant changes across survey waves. Respondents giving an answer above the recommended amount have increased compared with previous waves (61% in Wave 4 compared with 44% in Wave 1, 46% in Wave 2 and 38% in Wave 3). Respondents giving an answer in line with the recommendation (11%) has decreased compared with 32% in Wave 1 and 27% in Wave 2, but increased compared with 7% in Wave 3. Respondents giving an answer below the recommended amount (28%) is similar to Wave 1 and 2 (24% and 27% respectively), but is significantly lower compared with 53% in Wave 3.

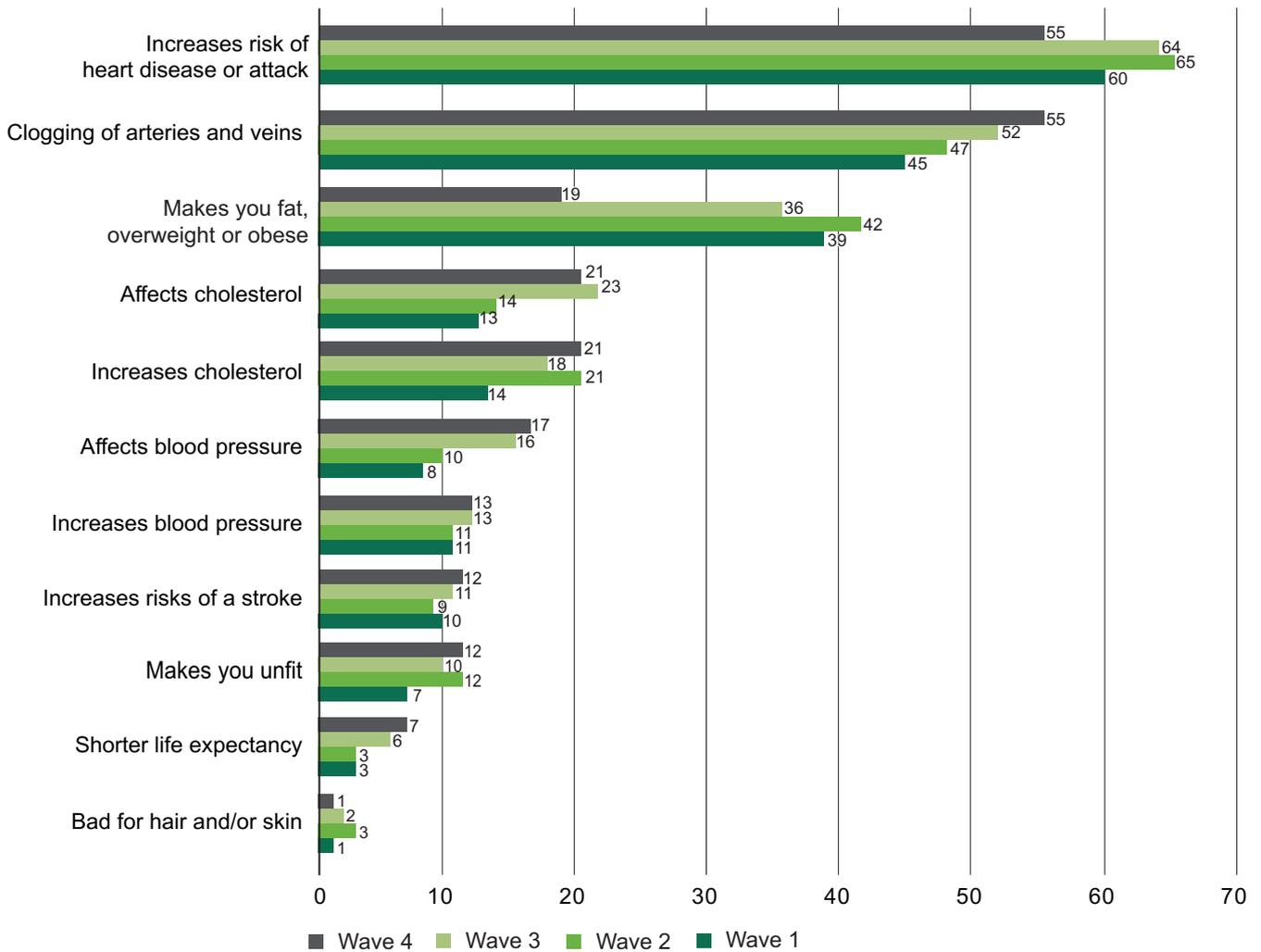
Figure 6.7 Awareness of recommended maximum daily intake of saturated fat, by gender (Waves 1–4)



Eating too much saturated fat is one of the major risk factors for heart disease, as it causes a build-up of cholesterol in the arteries. Frequently eating more energy than you need, for example by eating too much fat, increases the risk of becoming overweight or obese, which can increase cholesterol as well as the risk for heart disease. High saturated fat consumption has also been linked with an increased risk of diabetes.<sup>34</sup>

Respondents were asked what effects they thought eating too much saturated fat could have on their health. Almost three-fifths (55%) of respondents reported that eating too much saturated fat would increase the risk of heart disease or attack, and 55% reported that it would cause clogging of arteries and veins. Nineteen per cent of respondents mentioned that it could make you fat, overweight or obese, 21% said it could affect cholesterol, and 21% that it could increase cholesterol. Fewer respondents reported that too much saturated fat affects blood pressure (17%), increases blood pressure (13%), and increases risks of a stroke (12%).

Figure 6.8 Awareness of effects of eating too much saturated fat (Waves 1–4)



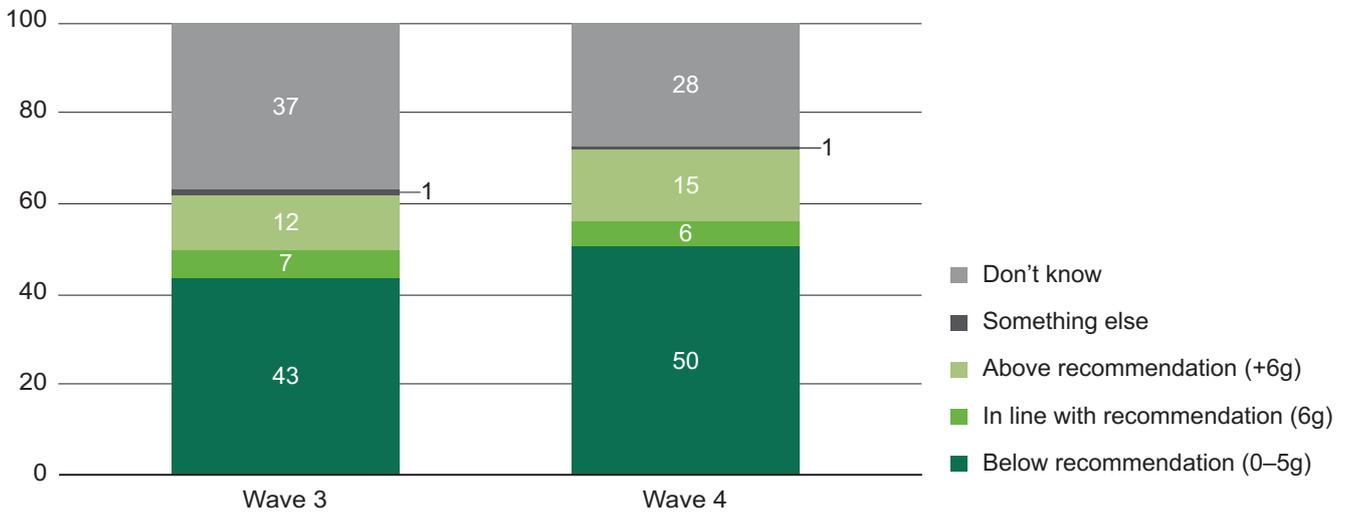
The proportion of respondents who stated that eating too much saturated fat can cause clogging of arteries and veins was 55% in Wave 4 compared with 45% in Wave 1. A greater proportion of respondents in Wave 4 also reported that too much fat affects cholesterol (21% in Wave 4 compared with 13% in Wave 1). A greater proportion of respondents reported that blood pressure is affected by eating too much saturated fat compared with previous waves (17% in Wave 4 compared with 8% in Wave 1).

Tables 6.7–6.8

### 6.5.4 Salt

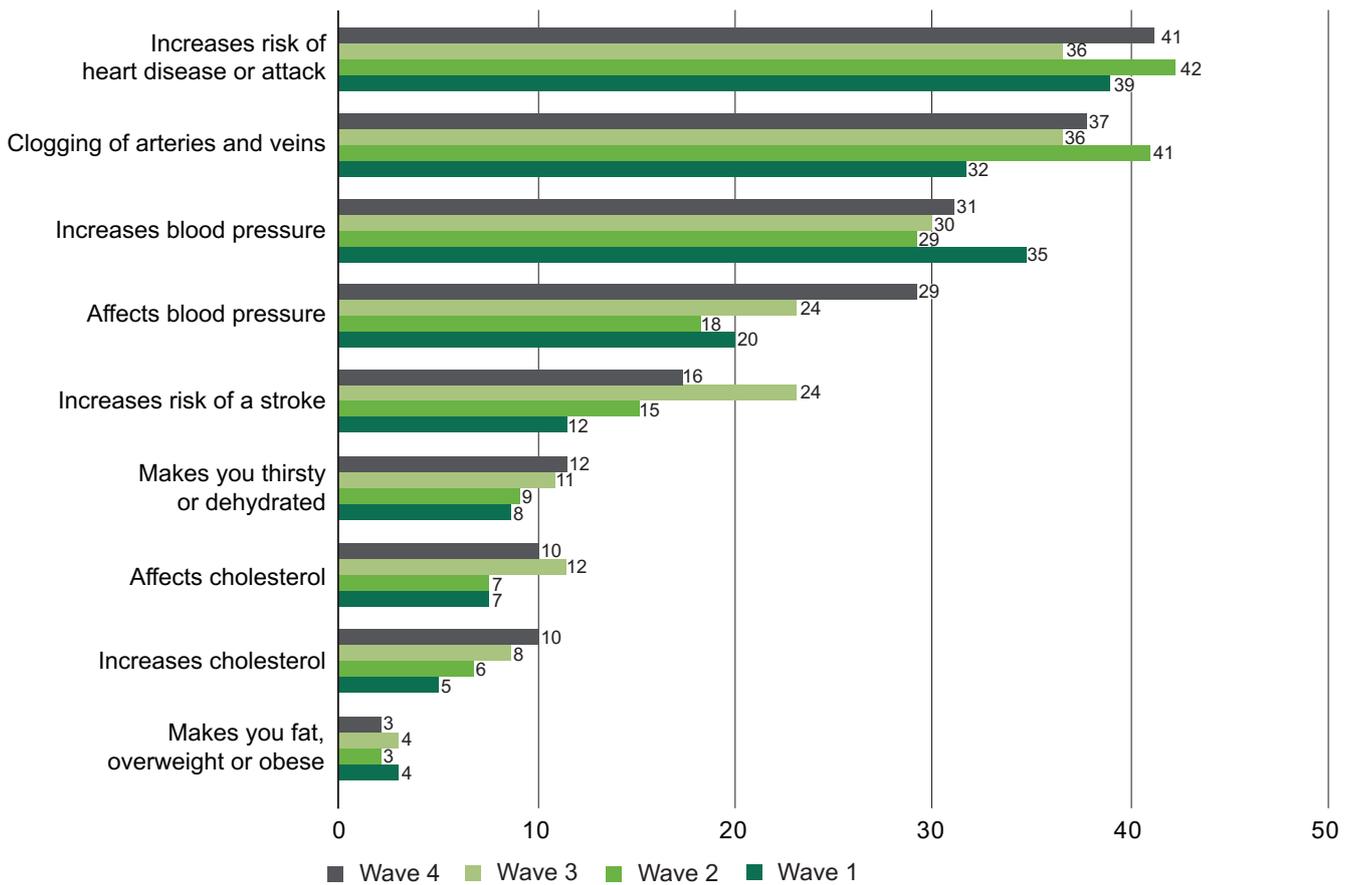
The government recommends that adults should consume no more than 6g of salt a day, which is around one teaspoon.<sup>34</sup> Six per cent of respondents stated, in line with the recommendation, that the recommended maximum daily intake of salt for adults was 6g. The largest proportion of respondents (50%) gave an answer below the recommended amount, 15% gave an answer above and 28% answered ‘don’t know’. Due to a change in the way the question was coded, Wave 4 can only be compared with Wave 3. Respondents were more likely to answer below the recommendation in Wave 4 (50% compared with 43% in Wave 3), but less likely to report ‘don’t know’ (28% compared with 37% in Wave 3), although these findings were not significant.

Figure 6.9 Awareness of recommended maximum daily adult intake of salt (Waves 3–4)



The main risk related to excessive salt consumption is that it increases blood pressure, and hence the risk of heart disease, heart attacks and strokes. Respondents were asked what effects they thought eating too much salt could have on their health.<sup>34</sup>

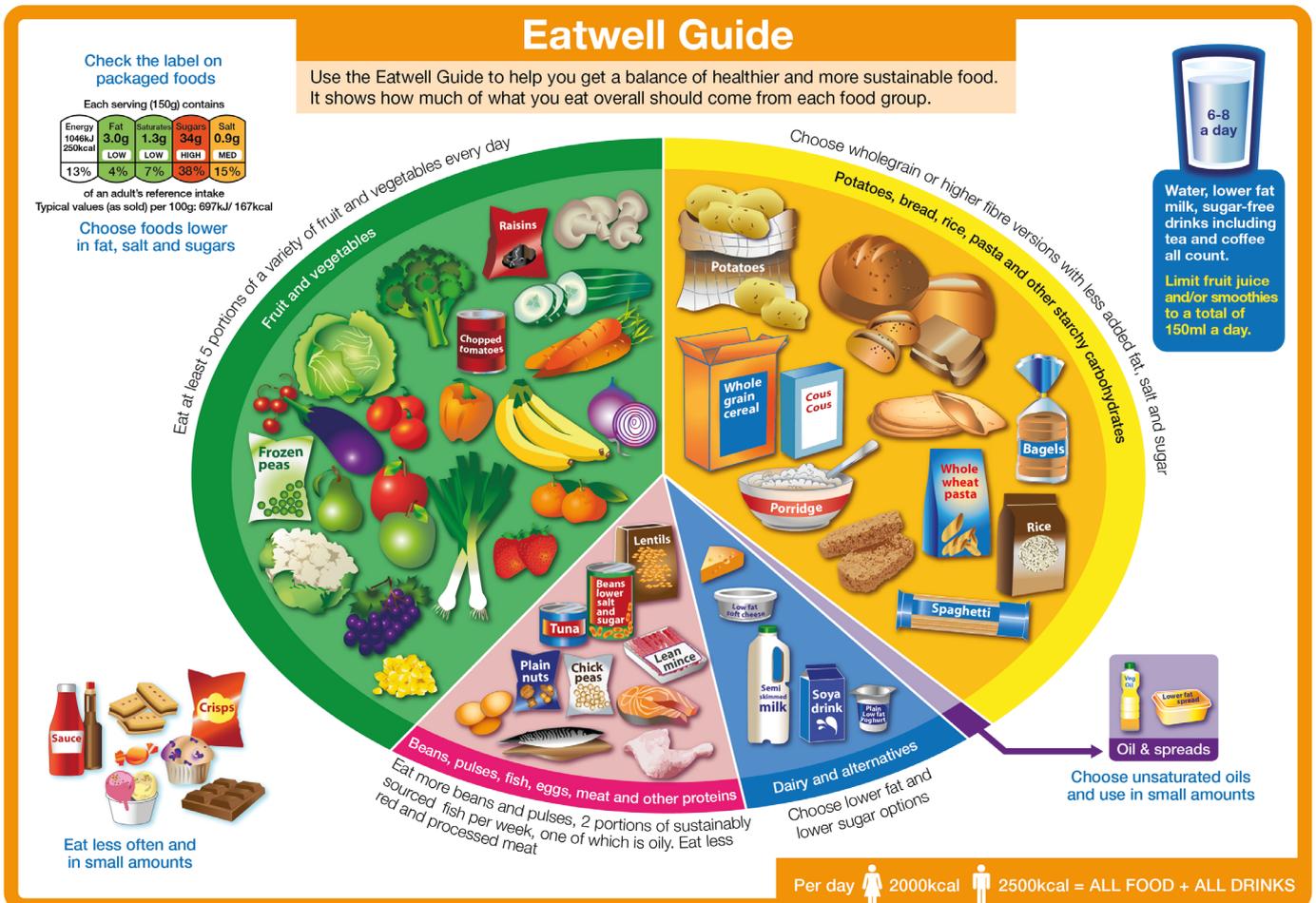
**Figure 6.10 Awareness of the effects that eating too much salt can have on health (Waves 1–4)**



Forty-one per cent of respondents said that eating too much salt could increase the risk of heart disease or attack, 37% causes clogging of arteries and veins, and 31% said that it could increase blood pressure. Thirty-one per cent said eating too much salt would affect blood pressure without specifying that blood pressure would increase, and 16% said it would cause an increased risk of stroke. The proportion of respondents who gave these answers was similar to previous waves, except for those saying it could affect blood pressure which was higher than in previous waves (29% compared with 20% in Wave 1) as well as those saying it could cause clogging of arteries and veins which was higher than in previous waves (37% compared to 32%).

# 6.6 The Eatwell Guide

The Eatwell Guide<sup>35</sup> illustrates the types and proportions of foods which are recommended to come from each food group for a healthy and well balanced diet. This includes: at least 5 portions of fruit and vegetables every day; meals based on potatoes, bread, rice, pasta or other starchy carbohydrates (wholegrain versions where possible); some dairy or dairy alternatives (such as soya drinks); choosing lower fat and lower sugar options; some beans, pulses, fish, eggs, meat or other proteins (including 2 portions of fish every week, one of which should be oily); and unsaturated oils and spreads in small amounts. The Eatwell Guide is shown below:



Source: Public Health England in association with the Welsh government, Food Standards Scotland and the Food Standards Agency in Northern Ireland

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Respondents were shown a picture of a blank Eatwell Guide with its sections marked but not labelled, and were asked to place cards showing each of the food groups in the recommended sections on the plate to represent what they thought was the recommended balanced diet.

Overall, 13% of respondents placed all six food groups in the recommended sections of the Eatwell Guide. Thirty-eight per cent of respondents placed four of the six food groups in the recommended sections, 17% placed three of six, 21% two of six, and 9% one of six. Three per cent did not place any food groups in the recommended sections. Respondents who were less likely to place all foods correctly on the Eatwell Guide included those living in households in the lowest income quartile (5% compared with 20% those in the highest quartile).

Respondents were most likely to place fruit and vegetables (86%) and foods high in fat, salt and sugars (69%) in the recommended section of the Eatwell Guide. Beans, pulses, fish, eggs, meat and other proteins were least likely to be placed correctly on the Eatwell Guide (23%). Women were more likely than men to place the following foods correctly: oils and spreads (66% compared with 53%), dairy and alternatives (61% compared with 49%), foods high in fat, salt and sugars (74% compared with 64%).

Comparisons with previous waves cannot be made because the questions were updated to reflect the new guidance from Public Health England in respect of the new 'Eatwell Guide'.<sup>36</sup>

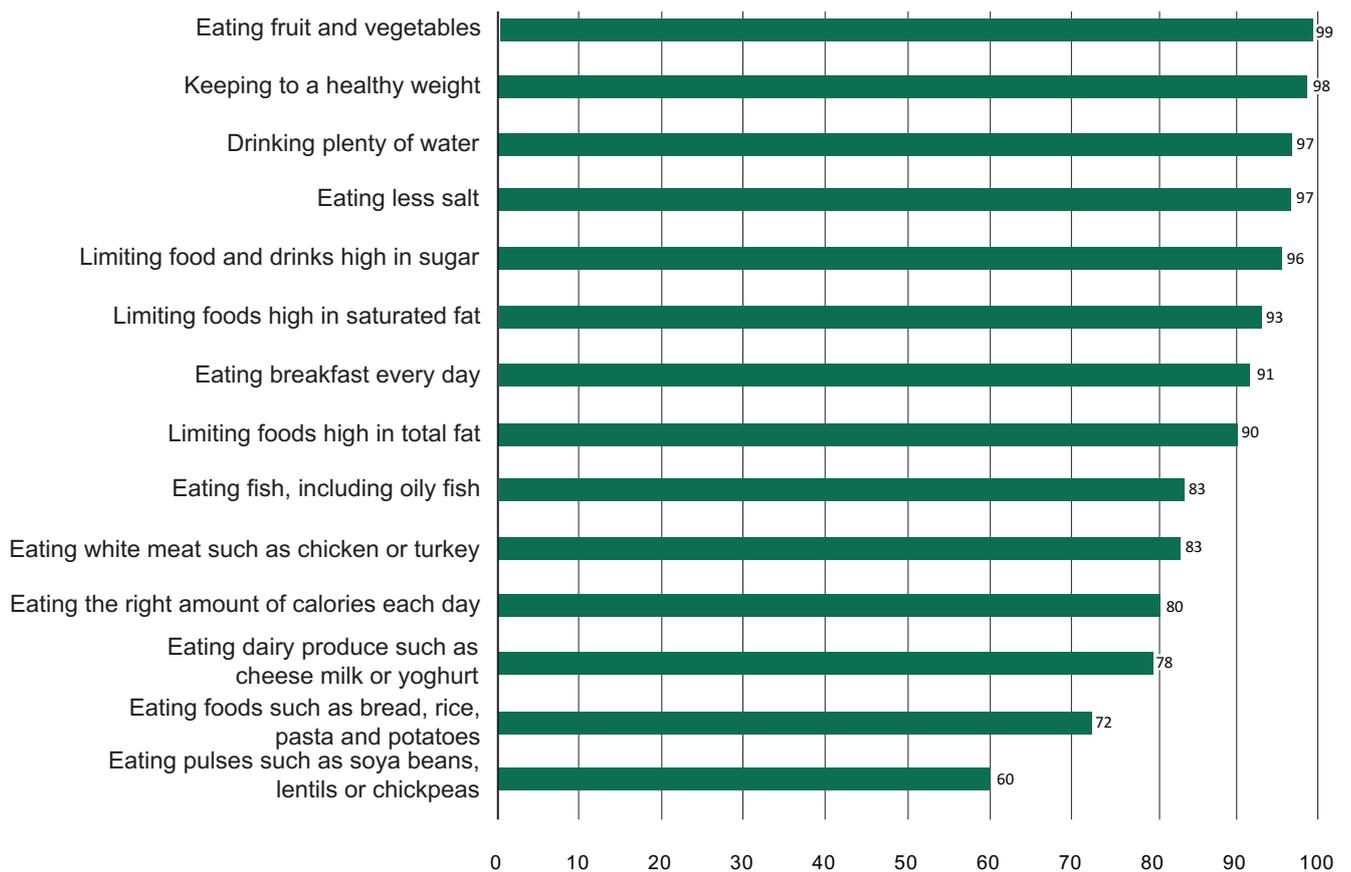
**Table 6.11**

<sup>36</sup> [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/528201/Eatwell\\_guide\\_whats\\_changed\\_and\\_why.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/528201/Eatwell_guide_whats_changed_and_why.pdf)

## 6.7 Foods for a healthy lifestyle

Respondents were asked how important they thought a variety of factors were for a healthy lifestyle in adults. These covered eating different foods such as fruit and vegetables, as well as other lifestyle factors such as keeping to a healthy weight.

Figure 6.11 Percentage of respondents answering that listed factors were important for a healthy lifestyle (Waves 4)



Almost all respondents saw the following as important for a healthy lifestyle: eating fruit and vegetables (99%), keeping to a healthy weight (98%), eating less salt (97%), drinking plenty of water (97%), limiting food and drinks high in sugar (96%), limiting foods high in saturated fat (93%), eating breakfast every day (91%), and limiting foods high in total fat

(90%). Respondents were least likely to consider eating pulses such as soya beans, lentils or chickpeas as important for a healthy lifestyle (60%).

Respondents were less likely, compared with previous waves, to consider the following as important: eating dairy produce such as cheese, milk or yoghurt (78% compared with 86% in Wave 1), eating the right amount of calories each day (80% compared with 89% in Wave 1), and eating starchy foods (72% compared with 89% in Wave 1).

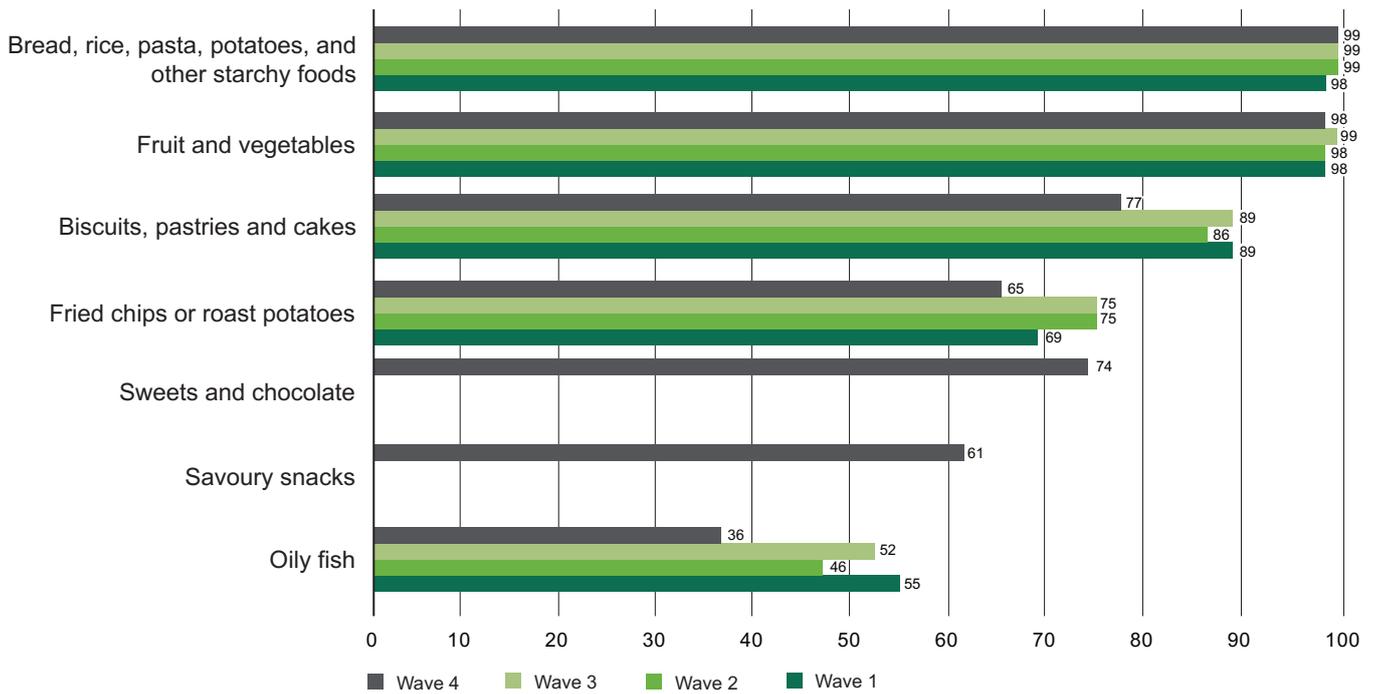
No statistically significant differences were found between men and women, except for eating dairy produce such as cheese, milk or yoghurt. Women were more likely to report this as an important factor for a healthy lifestyle than men (83% compared with 73%).

Table 6.12

## 6.8 Consumption of different types of food

Respondents were asked how frequently, at the moment, they ate the following list of foods: 1) biscuits, pastries and cakes, 2) sweets and chocolate, 3) savoury snacks, 4) bread, rice, pasta, potatoes and other starchy foods, 5) fried chips or roast potatoes, 6) oily fish, 7) fruit and vegetables.

Figure 6.12 Percentage of respondents eating different types of food weekly (Waves 1–4)



The majority (77%) of respondents ate biscuits, pastries and cakes at least once a week; 34% ate these at least once a day. The proportion of respondents reported eating this type of food at least once a week has decreased compared with previous waves (89% in Wave 1 and 3, and 86% in Wave 2).

The majority (74%) of respondents ate sweets and chocolate at least once a week, 16% ate them less than once a month and 9% never ate them. A lower proportion of respondents (61%) reported eating savoury snacks at least once a week. Seventeen per cent of the respondents reported never eating savoury snacks. ‘Sweets and chocolate’ and ‘savory snacks’ were only added to the list of food items in Wave 4, and thus no comparison can be made with previous waves.

Respondents who were more likely to eat savoury snacks at least once a week included those aged 16 to 34 (73%–82% compared with 28% of those aged 75 and over), those living in households with children below sixteen (75% compared

with 55% of those in adult only households), and those in work (69% compared with 36% of those who were retired).

All respondents (99%) ate bread, rice, pasta, potatoes and other starchy foods at least once a week, with the largest proportion of respondents (64%) reporting they ate this type of food at least once a day. The proportion eating this type of food at least once a day has decreased compared with previous waves (84% in Wave 1 and 73% in both Wave 2 and 3 compared with 64% in Wave 4). Respondents who were retired were more likely to eat these starchy foods at least once a day (74% compared with 65% of those in work and 49% of those with 'other' working status).<sup>16</sup>

Sixty-five per cent of respondents ate fried chips or roast potatoes at least once a week, the largest group of respondents eating them at once or twice a week (51%). This was similar to previous waves. Men were more likely than women to eat this type of food at least once a week (72% compared with 58%). Respondents were less likely to eat oily fish at least once a week (36%). Thirty-four per cent of respondents reported never eating oily fish, this has increased compared with previous waves (21% in Wave 1 and 23% in Wave 2 and 3).

Seventy-one per cent of respondents ate fruit and vegetables at least once a day, which was lower than in Wave 1 (78%) and higher than in Wave 3 (66%). Men were less likely than women to eat fruit and vegetables at least once a day (62% compared with 79%). Respondents living in the least deprived areas were more likely than those in the most deprived areas to eat fruit and vegetables at least once a day (70% compared with 52% of those in the most deprived areas).

Respondents were also asked to identify the total number of portions of fruit and vegetables they ate the previous day. Nineteen per cent of respondents reported that they ate five portions, which is in accordance with the agency's recommendation. Around half (49%) reported eating fewer than five portions, and 32% reported eating more than five. This was similar to previous waves. Men were more likely than women to have eaten fewer than five portions of fruit and vegetables the previous day (55% compared with 44%).

Respondents living in households consisting of four or more people (26%–33% compared with 14% of those living alone), households with children below 16 (26% compared with 16% of those in adult only households), and those living in households in the highest income quartile (23% compared with 5% in the lowest quartile) were more likely to have eaten at least five portions of fruit and vegetables.

**Tables 6.13–6.20**