

The Food & You Survey Wave 4

Wales Report



Acknowledgements

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

We would also like to thank the many interviewers who worked on this study and the colleagues who made a significant contribution to the project, particularly Nina Sal, Peter Hovard and Sarah Allcock (NatCen Social Research) and Barbara Muldoon (NISRA).

We are grateful for the input and support of the FSA Social Science team involved in the survey: Helen Atkinson, Charlotte Owen and Edward Eaton.

We also thank the Food and You Working Group – Joy Dobbs, Professor Anne Murcott, and David Nuttall – for their valuable direction and guidance.

Authors: Annemijn Sondaal, Beverley Bates and Si Ning Yeoh

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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 2015–2020¹ 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), and otherwise to protect the interests of 'consumers' in relation to food.

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

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.² 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.^{3,4} 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.

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

- 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.
- 5 Further information about the CAS can be found at: <http://tna.europarchive.org/20111116080332/http://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

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 2010–2015,¹ providing evidence to assess delivery across the FSA's strategic objectives.⁷ 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 2010.⁴

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, the FSA in Wales funded a boosted sample to create a baseline of attitudes and behaviours in Wales which has been carried on into Wave 4. In addition, 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. Wave 4 of the Food and You Survey included new questions to cover affordability of food, choice, security and sustainability.

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

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 plans¹

About this report

This report presents a descriptive overview of the findings for Wales 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 492 in Wales, 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, Welsh Index of Multiple Deprivation (WIMD)⁸, and the Rural Urban Classification⁹. 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.¹⁰

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 and therefore possibly difficult to recall, and desirability bias –

8 The WIMD considers deprivation across income, employment, health, education, access to services, community safety, physical environment and housing. Areas are grouped into quintiles based on their 2014 WIMD score, with quintile 1 the most deprived areas across Wales and quintile 5 the least deprived areas. <http://gov.wales/docs/statistics/2014/141112-wimd-2014-guidance-en.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/>

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.¹¹ Analyses were undertaken of the data collected in previous waves to exclude Scotland and to allow comparisons to be made across waves.

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.

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

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.¹²
5. The sample boost applied in Wave 3 and Wave 4 means that the sample size of those living in Wales is higher at Wave 4 (492 respondents) and Wave 3 (503 respondents) than at either Wave 1 (121 respondents) or Wave 2 (104 respondents). Care should be taken not to over-interpret these findings.
6. This individual report on Wales 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.

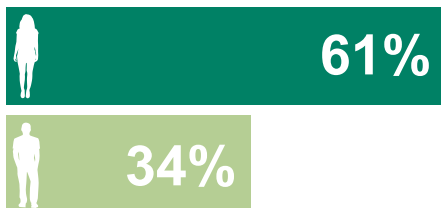
¹² If we kept on drawing samples of the populations of the same size and composition, there would be an observed difference in 95% of those samples.

Thus the tables only show all adults as a cross break and sex as a sub-group.

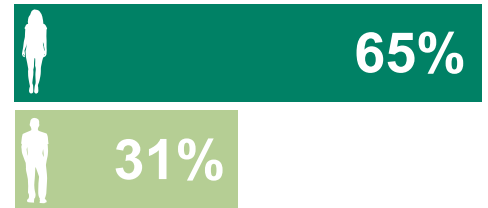
7. References made to all respondents reflect Welsh respondents only.
8. Comparisons between Wales, England and Northern Ireland have been made for various variables. Only variables for which there was a significant difference between respondents in Wales and those in England or Northern Ireland are reported on.
9. 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
10. Because of rounding, row or column percentages may not add exactly to 100%.
11. '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.
12. The term 'significant' refers to statistical significance (at the 95% level) and is not intended to imply substantive importance.
13. 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%.
14. 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

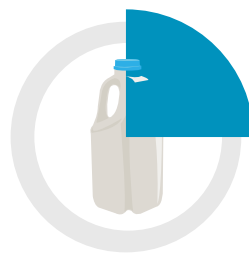


Responsibility for all or most food shopping

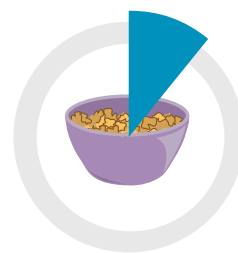


17% reported an adverse reaction or avoided certain foods

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



25%
cows' milk and cows' milk products



11%
cereals containing gluten



8%
eggs

Food security

46% 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



20%

Shopped elsewhere for cheaper alternatives



19%

Ate out less



16%

Eaten fewer takeaways



16%

1 Shopping, cooking and eating

1.1 Introduction

This chapter gives an overall picture of people's shopping, cooking and eating habits 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 and 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".¹³ 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.

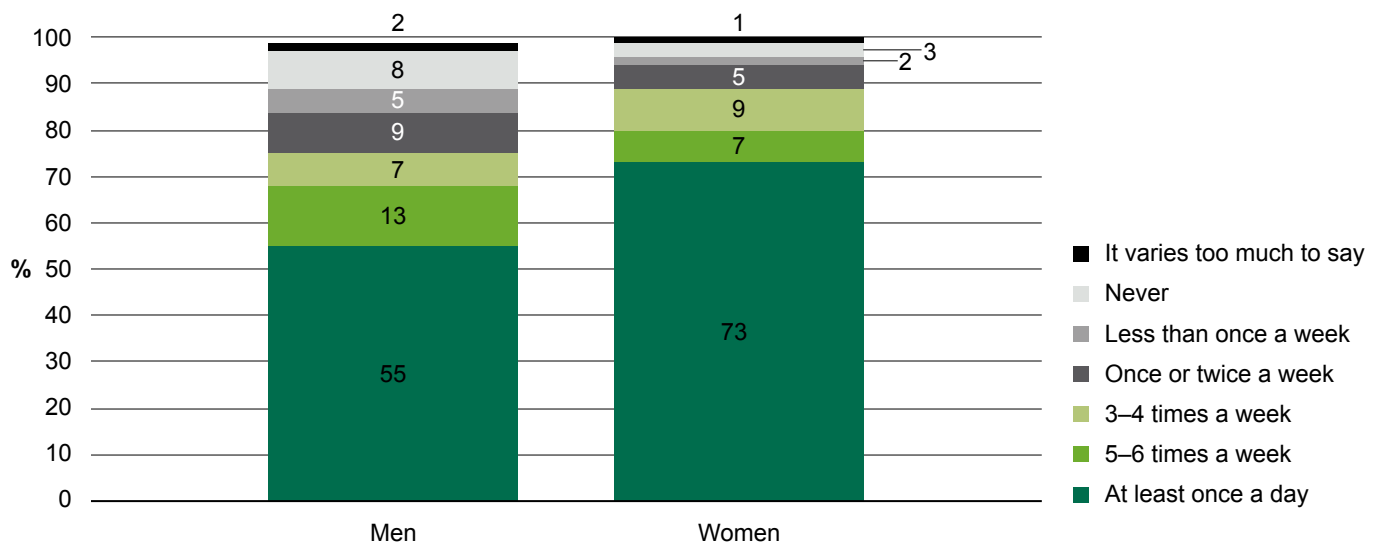
In line with the new priorities for the FSA existing questions were updated and new ones introduced in Wave 4 to provide information on the incidence of adult food allergy and questions were asked to determine the prevalence of reported adverse reaction to certain foods, the most common food groups to 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.

¹³ www.food.gov.uk/about-us/about-the-fsa

1.2 Cooking and eating at home

The majority of respondents (87%) reported having at least some responsibility for cooking or preparing food in the home, with half (47%) saying they were responsible for all or most of this. Women were more likely than men to have all the responsibility (61% compared with 34%). Women were also more likely to cook for themselves or others at least five days a week (80% compared with 68% of men). Ten per cent of men and 4% of women said they cooked less than once a month or never.

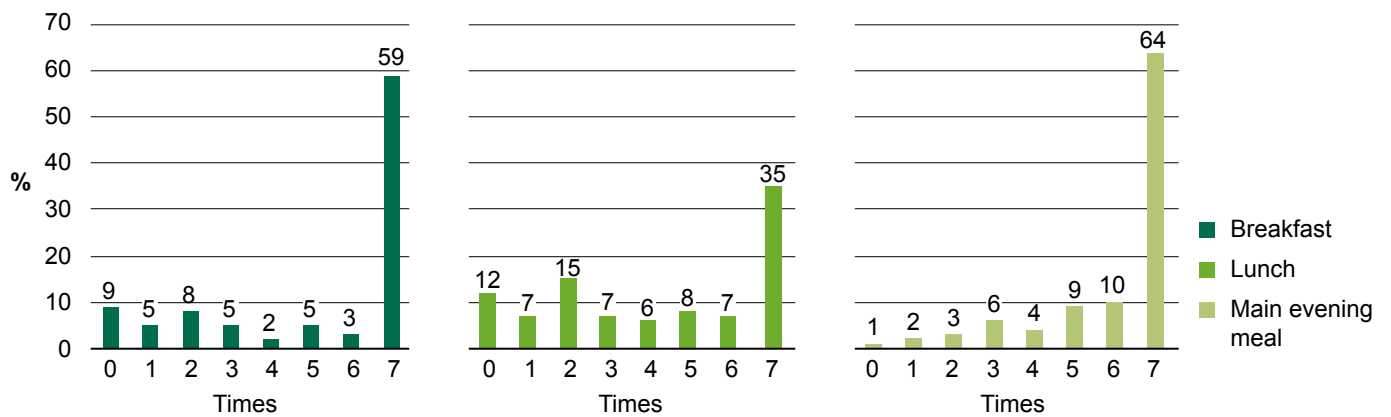
Figure 1.1 Frequency of cooking meals for themselves and others by gender (Wave 4)



The majority of respondents reported eating all breakfast (59%) and main evening meals (64%) at home in the last seven days. There was greater variability in the proportion of respondents reporting eating lunch at home, with 35% having eaten it at home on all days in the past week and 34% reporting having eaten lunch at home twice or less. The frequency of eating each meal at home was similar to that reported in the previous waves. Respondents aged 65 and over were more likely than younger respondents to report eating each meal at home on a daily

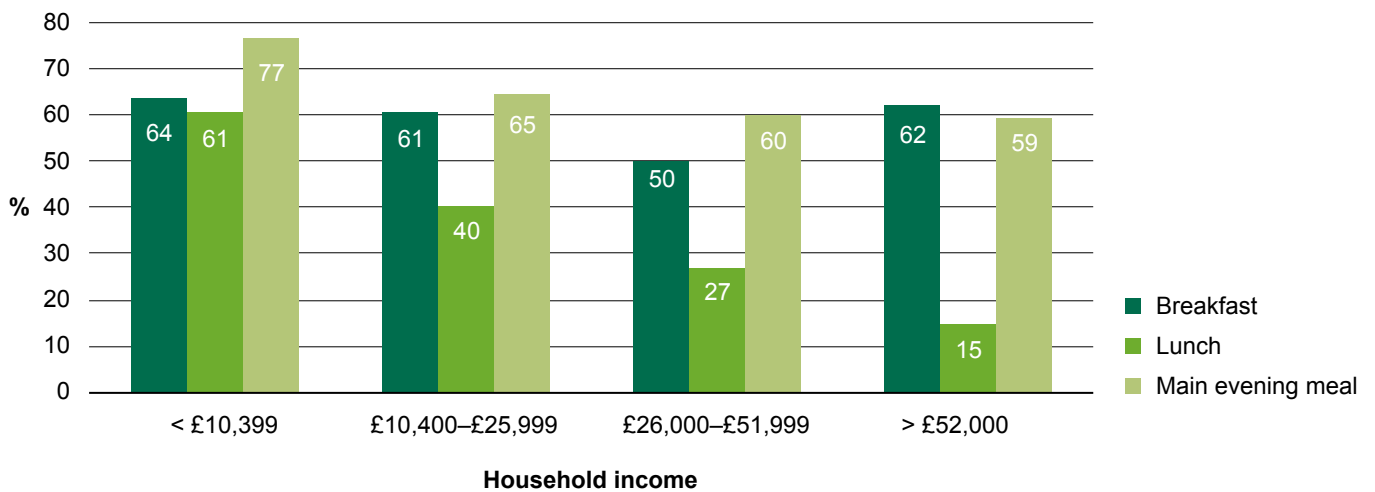
basis, particularly breakfast where 75%–93% of those aged 65 and over reported eating breakfast at home each day, compared with 39% of 16–24 year olds.

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



Patterns in eating were also observed to vary by household income. Eating lunch at home every day was most common in those living in households with the lowest income, and became less common with increasing income.

Figure 1.3 Variation of eating at home every day by household income (Wave 4)



When comparing between Wales, England and Northern Ireland, 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)

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

Respondents living in Wales were more likely than those in England to report cooking for themselves at least once a day (64% compared with 56%), and less likely to report cooking for themselves 3–4 times a week (8% compared with 12%) and once or twice a week (7% compared with 13%).

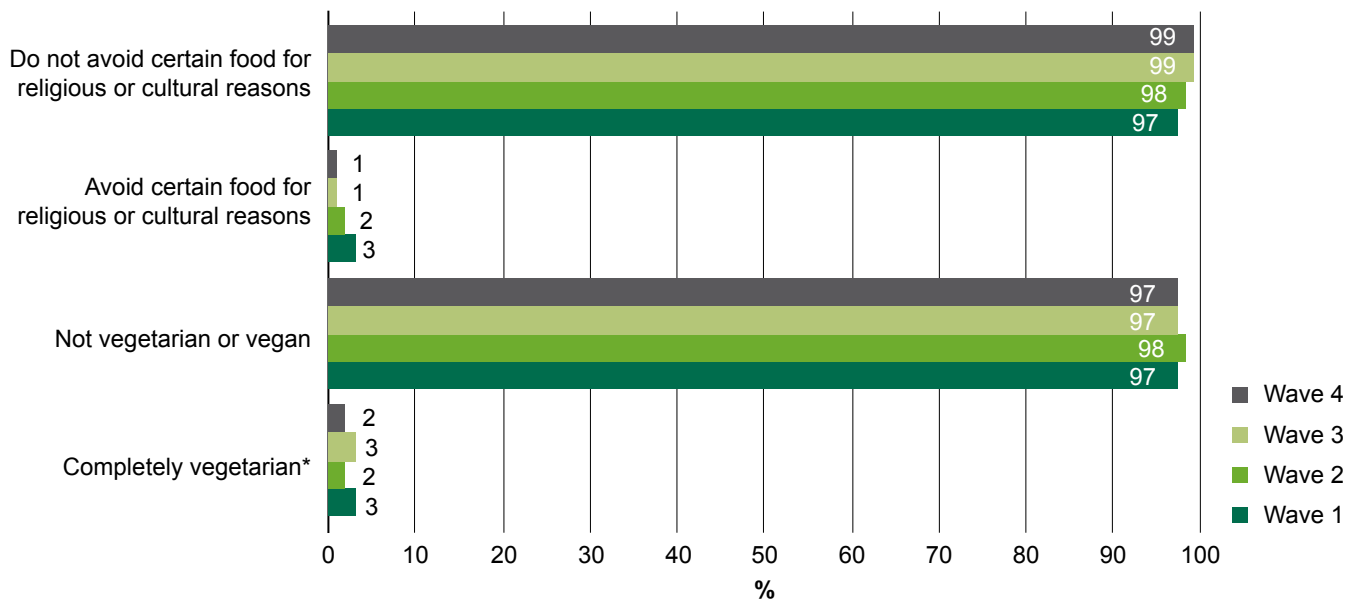
Tables 1.1–1.5

1.3 Dietary restrictions, food allergy and intolerance

The proportion of respondents who considered themselves vegetarian was small (2%). Fewer than 1% said they were vegan.¹⁴ One per cent of respondents said that they avoided food for religious/cultural reasons with the great majority of respondents (99%) saying they did not.

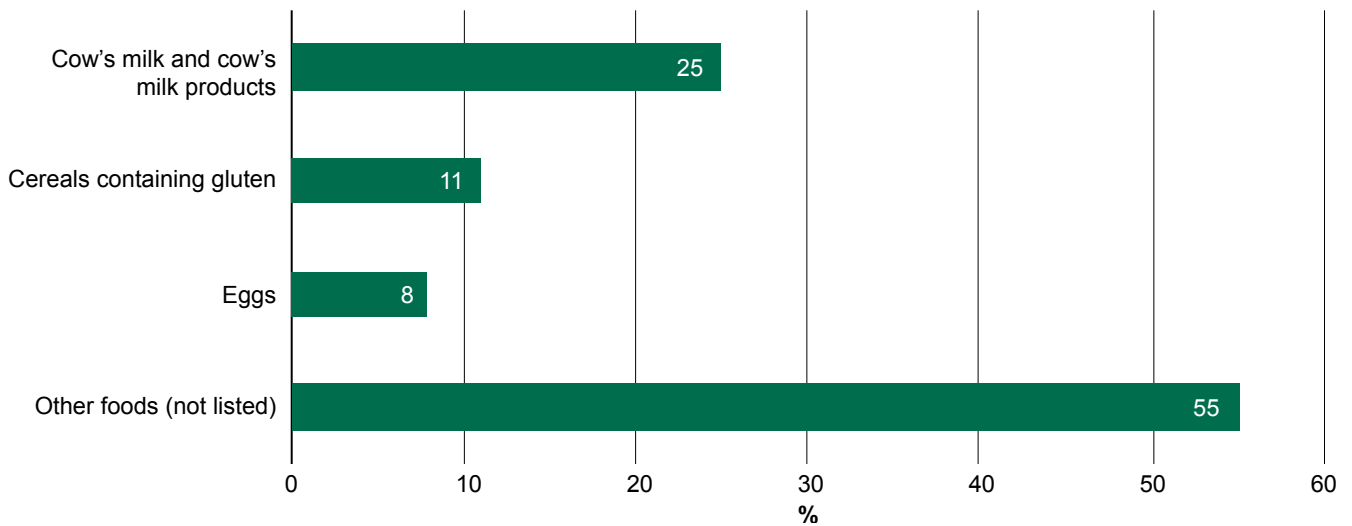
¹⁴ An accurate comparison with previous waves cannot be made because the questions have been changed (to improve them).

Figure 1.4 Dietary restrictions (Waves 1–4)



When asked if they ever suffer an adverse reaction when eating certain foods, 12% of respondents reported they did. A further 5% 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, 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 (25%), cereals containing gluten (11%) and eggs (8%). Fifty-five per cent reported having an adverse reaction to 'other' (not listed) foods.

Figure 1.5 Most commonly mentioned food groups causing (possible) adverse reactions (Wave 4)

In total, 13% of respondents reported living in a household in which someone other than themselves had a food allergy. This was similar to the proportion in Wave 3 (10%).

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 Wales, England and Northern Ireland, significant differences were found relating to respondents' dietary restrictions (see table 1.B).

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

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

Respondents in Wales were less likely than those in Northern Ireland not to be vegetarian or vegan (97% compared with 99%).

Respondents in Wales were less likely than those in England to report avoiding certain food for religious or cultural reasons (1% compared with 4%).

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.¹⁵

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 29% reporting that they ate this type of food 3–4 times a week compared with 15% 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.

¹⁵ <https://www.food.gov.uk/news-updates/news/2014/6097/foodpoisoning>

The majority of respondents reported using milk and dairy products at least once a day (80%). Eighty-three per cent of respondents reported eating eggs 3–4 times a week or less.

The majority of respondents reported eating smoked fish (excluding shellfish) once or twice a week or less (93%). Frequency of consumption of raw fish or shellfish was relatively low with 52% saying they never ate cooked shellfish and 79% saying they never ate raw fish or shellfish.

Over half (55%) 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 20% saying they ate raw vegetables (including salad) and 34% eating cooked vegetables at least once a day.

Frequency of eating fruit and vegetables differed by WIMD. Respondents in the most deprived areas⁸ were less likely to eat raw vegetables and cooked vegetables at least once a day compared with those in the least deprived areas. For example, 19% of those in the most deprived areas ate cooked vegetables at least once a day compared with 50% of those in the least deprived areas.

Nearly half (44%) of respondents said they never ate pre-packed sandwiches and 36% 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. There was a slight increase in the proportion who ever ate pre-packed sandwiches compared with previous waves (56% in Wave 4 compared with 42% in Wave 2 and 44% in Wave 3). Those in work were more likely to eat pre-packed sandwiches: 22% ate this type of food at least once or twice a week compared with 15% with an 'other' working status,¹⁶ and 6% of those who were retired.

When comparing between Wales, England and Northern Ireland, significant differences were found relating to the frequency of eating certain foods, particularly for eating meat and poultry,

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

fish and shellfish, and pre-packed sandwiches and ready meals (see table 1.C, 1.D and 1.E).

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

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

Respondents living in Wales were less likely than those in Northern Ireland to eat the following meat and poultry at least once a week: cuts or portions of beef, lamb or pork (63% compared with 72%), burgers (9% compared with 25%), sausages (30% compared with 54%), and chicken or turkey (81% compared with 89%). They were more likely than those in Northern Ireland never to eat the following meat and poultry: cuts or portions of beef, lamb or pork (11% compared with 6%), burgers (34% compared with 16%), and sausages (16% compared with 10%).

Respondents in Wales were more likely than those in England to eat pre-cooked meats (e.g. ham or meat pate) at least once a week (61% compared with 54%), and less likely to report never eating pre-cooked meats (14% compared with 22%).

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

	Wales	England	Northern Ireland
Cooked shellfish			
At least once a week	10	12	7
Less than once a week	38	45	33
Never	52	43	60
Raw fish or shellfish (e.g. sushi, sashimi, raw oysters)			
At least once a week	4	6	3
Less than once a week	17	24	13
Never	79	71	85
Bases (unweighted)	492	2105	521

Respondents living in Wales were more likely than those in England to report never eating cooked shellfish (52% compared with 43%). Respondents in Wales were also more likely than those in England to report never eating raw fish or shellfish (e.g. sushi, sashimi, raw oysters) (79% compared with 71%).

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

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

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

Respondents in Wales were more likely than those in Northern Ireland to eat ready meals at least once a week (23% compared with 15%) and less likely never to eat ready meals (36% compared with 51%).

Tables 1.9–1.13

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 (67%) agreed with the statements 'I like trying new things to eat' and 'I enjoy cooking and preparing food' while 84% 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 (47% compared with 63%–84% in the other age groups).

Those who ate out at least once a week were more likely to take an interest in food or cooking. For example, 73% of respondents who ate out at least once a week agreed that they liked to try new things compared with 55% of those who eat out less than once a month.

The majority of respondents disagreed with the statement 'I don't have time to spend preparing and cooking food' (64%). This is lower than in previous waves, 74% in Wave 2 and 67% in Wave 3, however the difference is not significant.

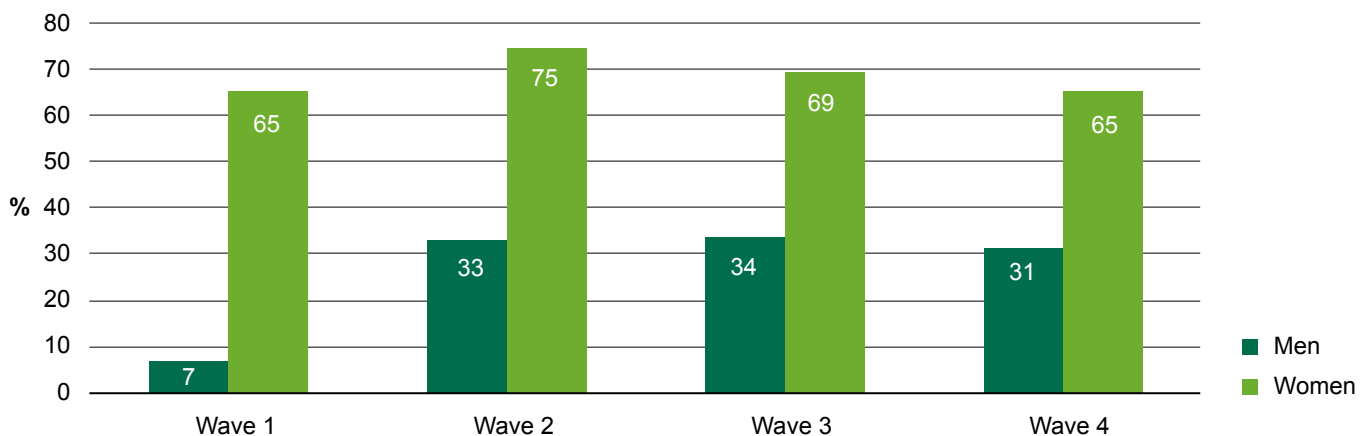
Those in work were more likely than those who were retired or with an 'other' working status¹⁶ to agree that they didn't have time to prepare and cook food (55% compared with 81% and 72% respectively).

Tables 1.14

1.6 Shopping

The majority of respondents (83%) reported having at least some responsibility for household food shopping with half (49%) 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 (65% compared with 31%).

Figure 1.6 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 (95%). Thirty per cent shopped at mini supermarkets and 28% at a local or corner store. Almost a third (28%) of respondents used independent butchers. Shopping at independent butchers was more common in rural areas (37%) compared with urban areas (22%).⁹

Large supermarkets were where the majority of households (85%) did their main food shop (in-store not online). Seven per cent did their main shop through home delivery from a supermarket and 4% at a mini supermarket. These proportions were similar to Waves 2 and 3. More than half (56%) 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 Wales, England and Northern Ireland (see table 1.F).

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

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

Respondents in Wales were less likely than those in England to shop for food at a mini supermarket (30% compared with 40%).

Respondents living in Wales were less likely than those in Northern Ireland to shop for food in the following places: mini supermarket (30% compared with 45%), local or corner shop (28% compared with 40%), garage forecourt (7% compared with 19%), independent greengrocer (12% compared with 20%), and independent butcher (28% compared with 52%). Respondents living in Wales were on the other hand more likely than those in Northern Ireland to get a home delivery from a supermarket (16% compared with 9%).

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.¹⁷ 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.¹⁷ 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.”

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

¹⁷ See 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.

- 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 (80%) 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 86% 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.

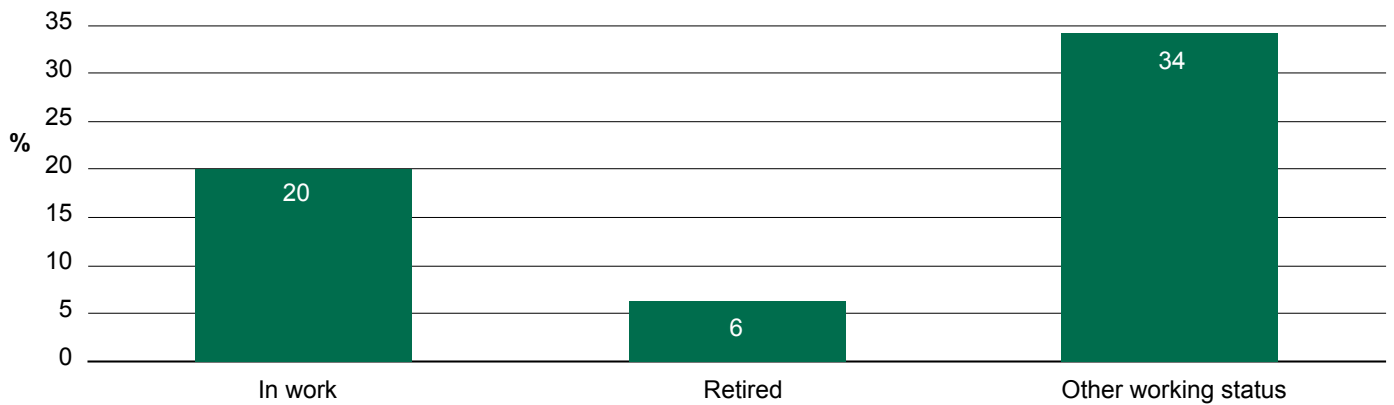
However, there were distinct differences across subgroups. Forty-one per cent of respondents aged 16 to 24 said they often or sometimes worried that the household food would run out before there was money to buy more compared with 5%–7% of those aged 65 and over. Thirty-nine per cent of those in the lowest income quartile said they often or sometimes worried about running out of food before there was money to buy more, compared with 8% of those in the highest quartile. A higher proportion of respondents who were categorised as having an 'other working status'¹⁶ (34%) worried that the household food would run out before there was money to buy more compared with those who were in work (21%) or retired (7%). Similar patterns were also seen with reported instances of food running out and being able to afford balanced meals.

The majority (74%) of respondents reported living in highly food secure households, 17% lived in marginally food secure households and 9% lived in low or very low food secure households (food insecure). Women were more likely to live in food insecure households than men (13% compared with 5%).

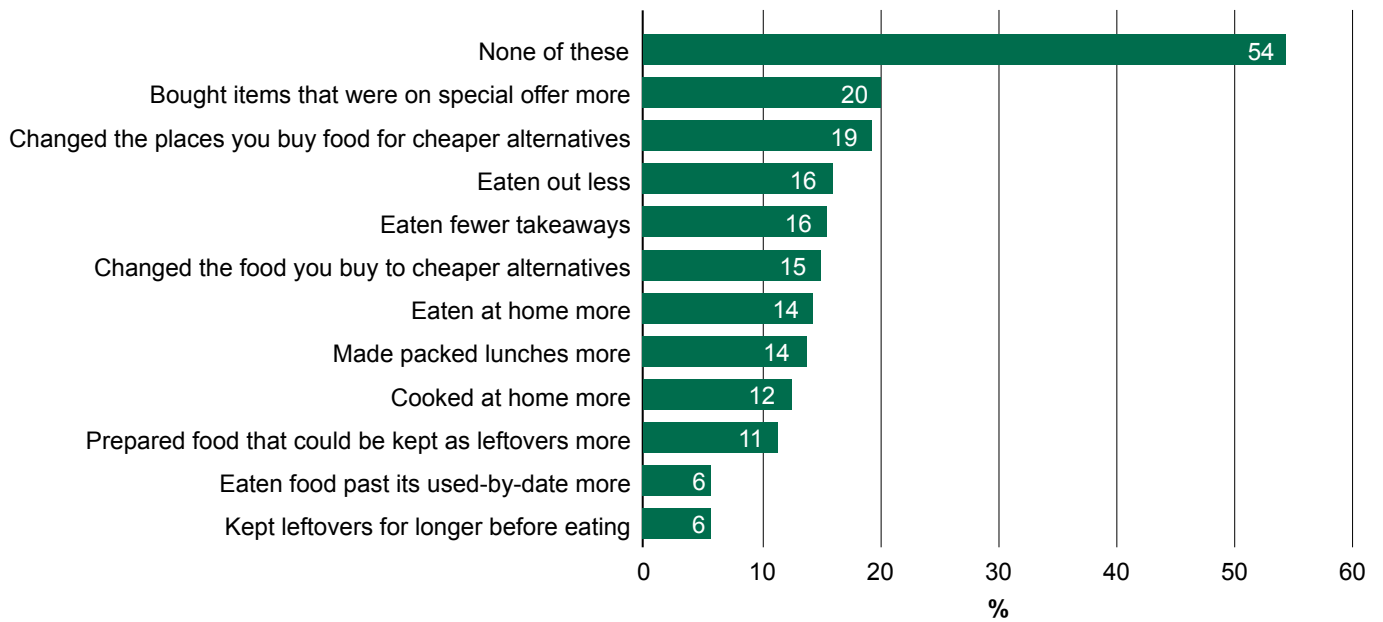
Levels of food security varied across other subgroups. Ten per cent of those aged 16 to 24 and 18% of those aged 25 to

34 lived in food insecure households compared with 2%–3% of those aged 65 and over. Twenty-eight per cent of those in households in the lowest income quartile lived in food insecure households compared with 6% in the highest quartile. Similarly, 12% of respondents with an 'other' working status¹⁶ lived in food insecure households compared with 9% of those in work and 2% of those who had retired.

Figure 1.7 Worried whether food would run out by working status (Wave 4)



Overall, 46% of respondents reported making at least one change in their buying or eating arrangements in the last 12 months for financial reasons including 20% who had bought items on special offer more, 19% who had changed where they shopped for cheaper alternatives and 16% who said they ate out less.

Figure 1.8 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 women (52% compared with 39% of men), younger respondents (60% of those aged 16 to 34 compared with 8%–21% of those aged 65 and over) and respondents in households with children aged under 16 (62% compared with 38% in adult-only households).

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

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

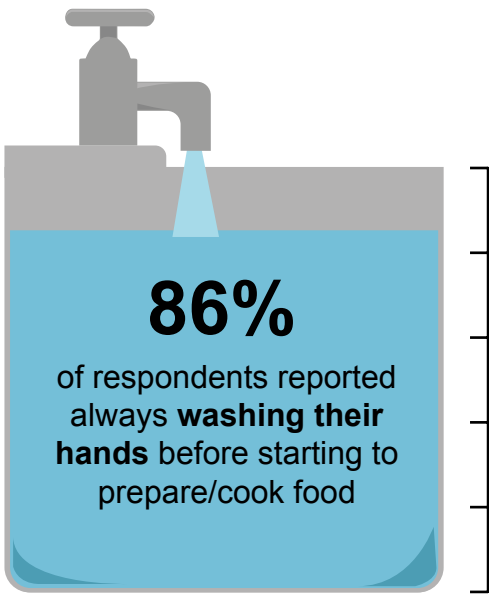
	Wales	England	Northern Ireland
0 – High food security	74	80	78
1–2 – Marginal food security	17	12	12
3–5 – Low food security	6	5	5
6–10 – Very low food security	3	3	5
Bases (unweighted)	492	2105	521

Respondents living in Wales were less likely to be living in highly food secure households (74%) compared with respondents living in England (80%).

Tables 1.17–1.18

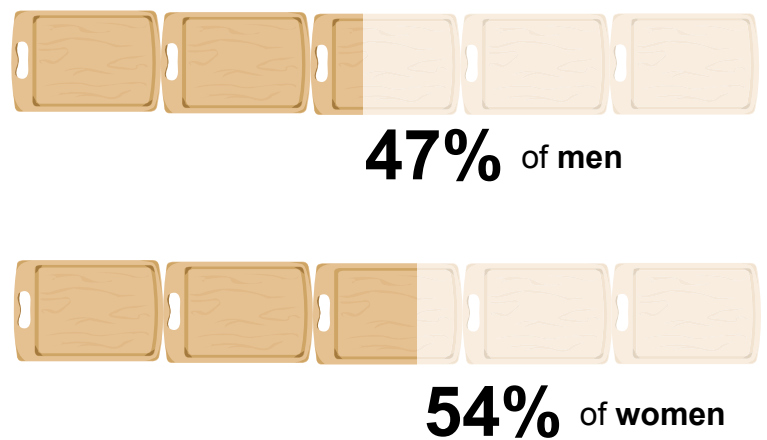
2 Food safety in the home

Cleanliness



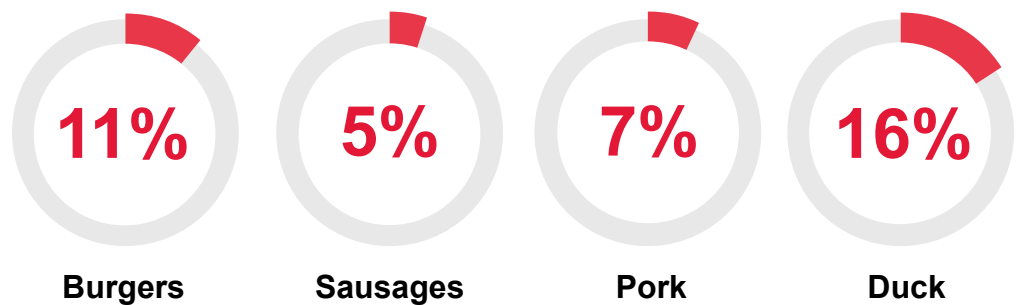
Cross contamination

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

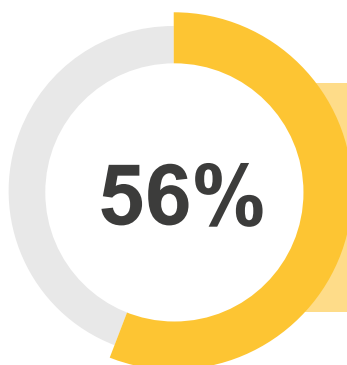


Cooking food

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 2015–2020.¹

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?

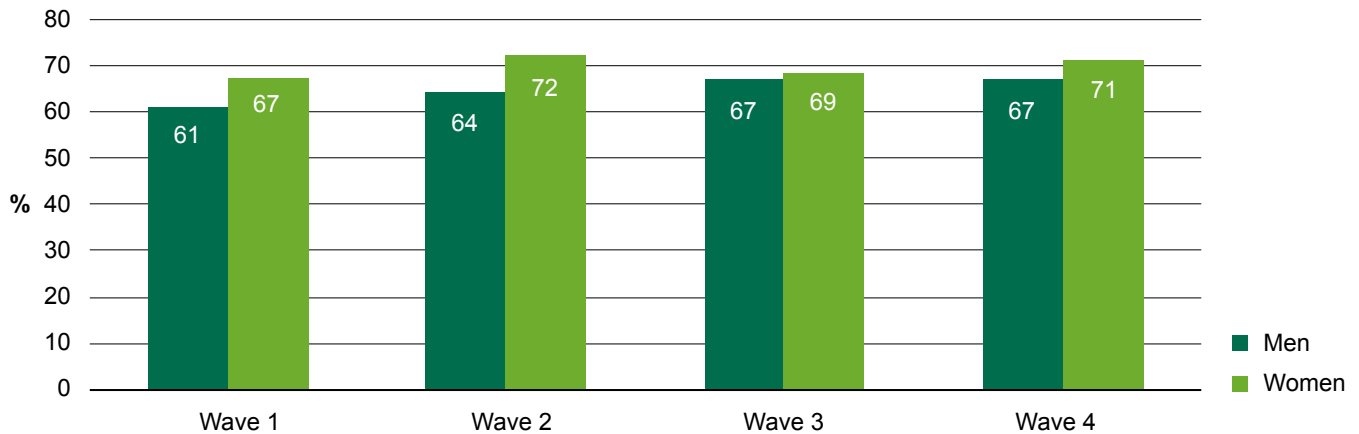
Food and You asks respondents a series of questions about whether they follow recommended practices in relation to five important elements or 'domains' of food safety: cleanliness, cooking, chilling, avoiding cross-contamination and use by dates. Further details of some of the responses to individual 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 domains¹⁸ 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 65 in Wave 1 to 69 in Wave 4, indicating a small overall improvement in food safety practices. In Wave 4, as in previous waves, women had a higher IRP score than men (71 compared with 67).

¹⁸ 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:

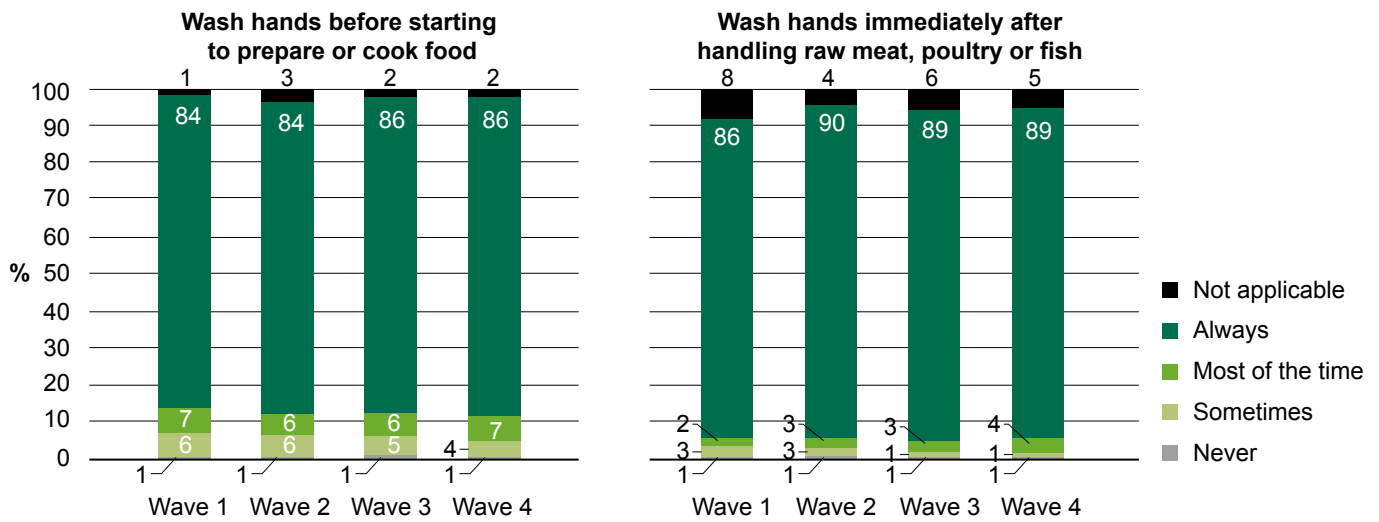
- Respondents in Wales had an average IRP score of 69, England 67 and Northern Ireland 72.
- Respondents living on their own had a lower score than those living with others.
- Those who were retired had a lower IRP score (67) than those in work (70).
- Respondents in households with a child under 6 had a higher IRP score (73) than those in households without young children (69).

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 86% 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)



Eighty-nine per cent of women reported always washing their hands before starting to prepare or cook food compared with 82% of men.

Eighty-nine 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-one per cent of women reported always washing their hands immediately after handling raw meat, poultry or fish compared with 87% of men. Respondents in the most deprived areas⁸ (80%) were less likely to wash their hands immediately after handling raw meat, poultry or fish than those in the least deprived areas (94%).

One per cent of respondents said they never washed their hands before preparing or cooking food and the same proportion said they never washed their hands immediately after handling raw meat, poultry or fish.

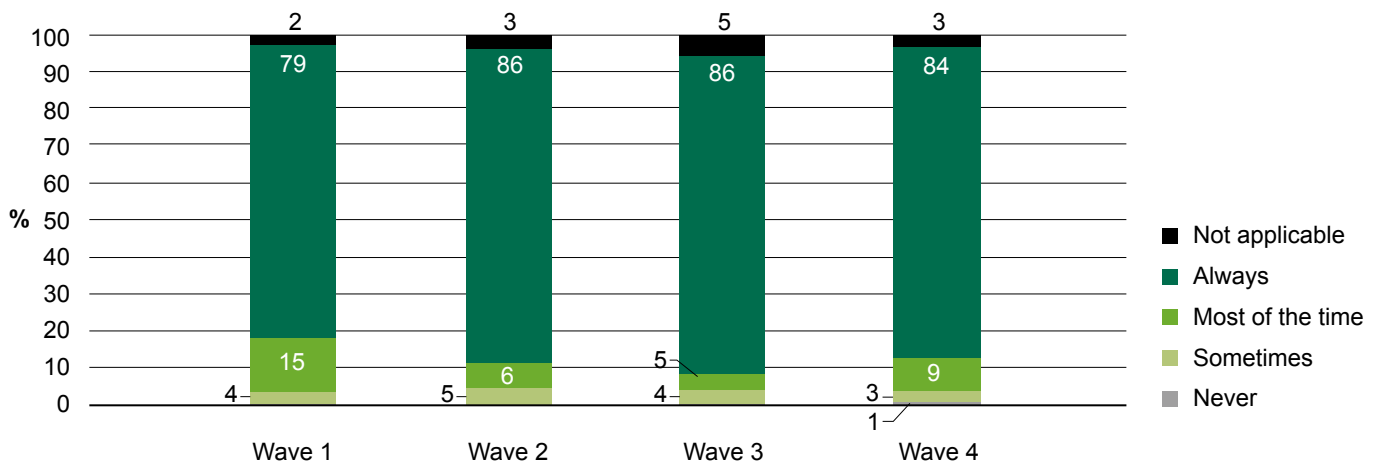
Table 2.1

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.

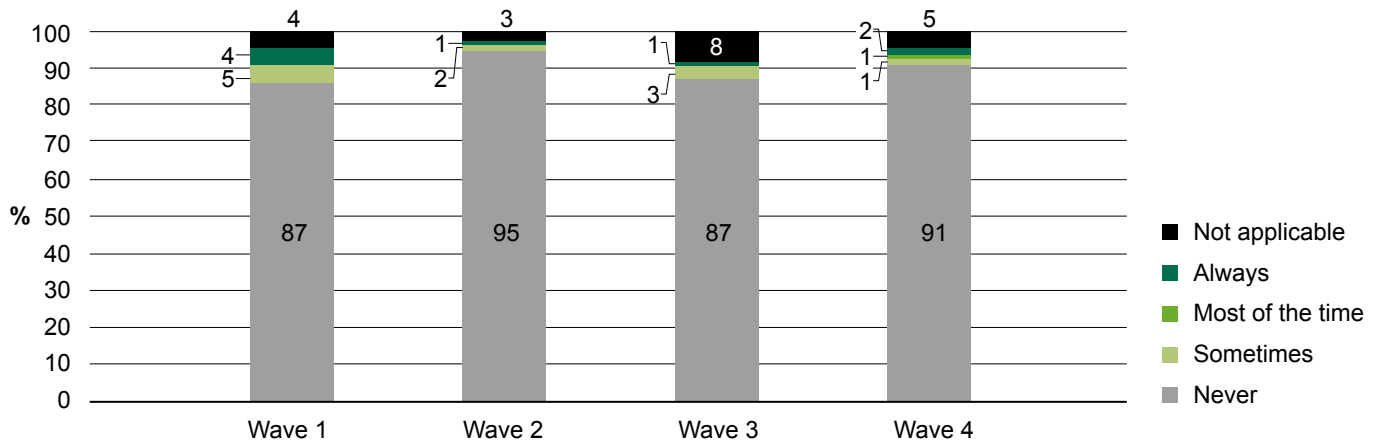
Overall, 84% of respondents reported that they always cooked food until it was steaming hot throughout while 1% reported that they never did this. This was similar to proportions recorded in previous waves. Men were less likely than women to report always cooking food until it was steaming hot throughout (79% compared with 89%).

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



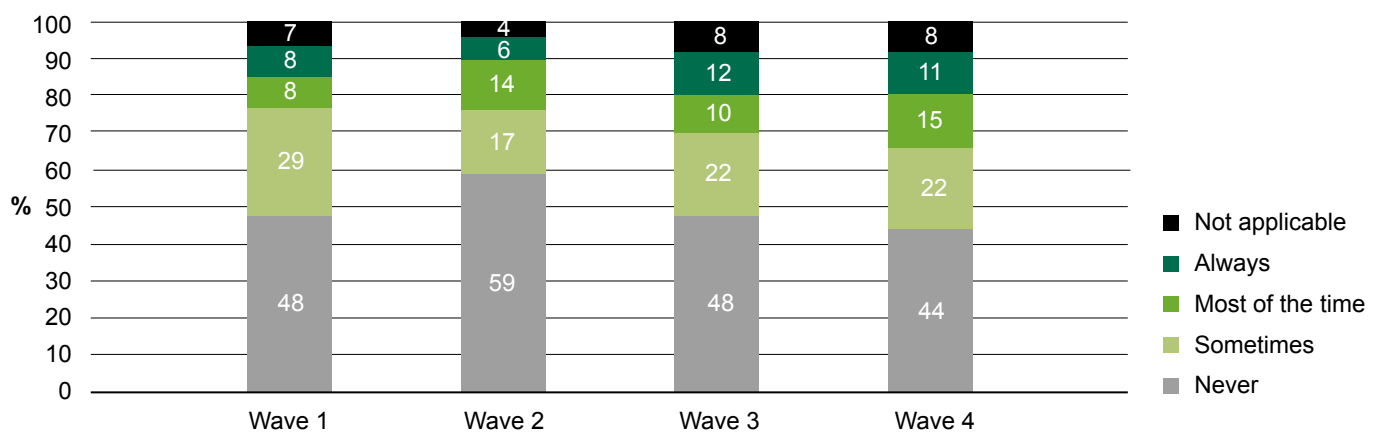
Four per cent of respondents reported eating chicken or turkey if the meat was pink or had pink/red juices. This was a similar proportion as in previous Waves.

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. Eleven per cent of respondents said they always ate red meat if it was pink or had pink/red juices, while 44% reported that they never did, both were similar proportions 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 42% said that this question was not applicable to them. In total, 16% said they did eat duck with pink meat or red juices at least some of the time.

Sixty-six per cent of respondents reported that they never ate burgers if the meat was pink or had pink/red juices and 83% reported that they never ate sausages if the meat was pink or had pink/red juices. Eighty per cent of respondents said they never ate pork if it was pink or had red juices and 7% 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)

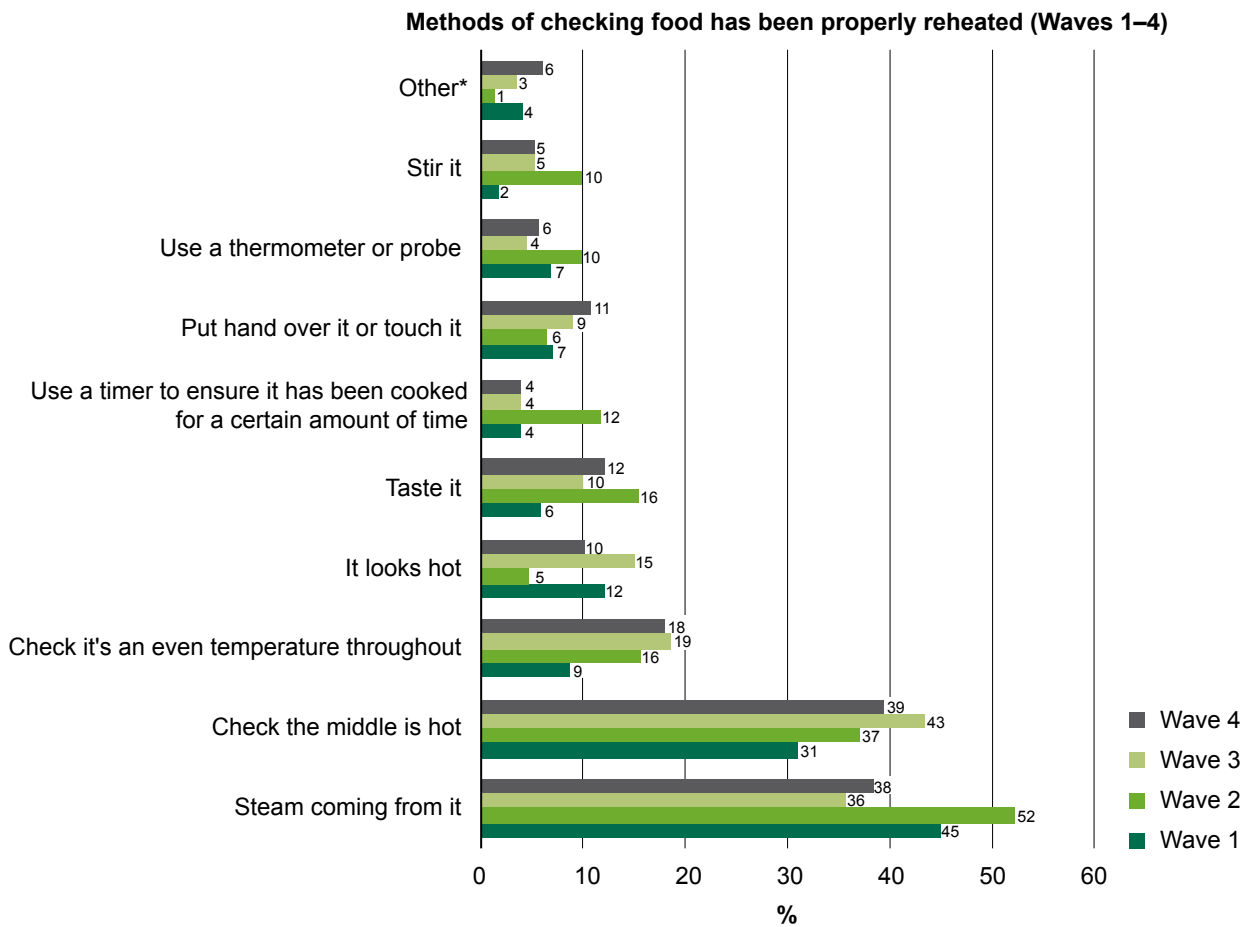
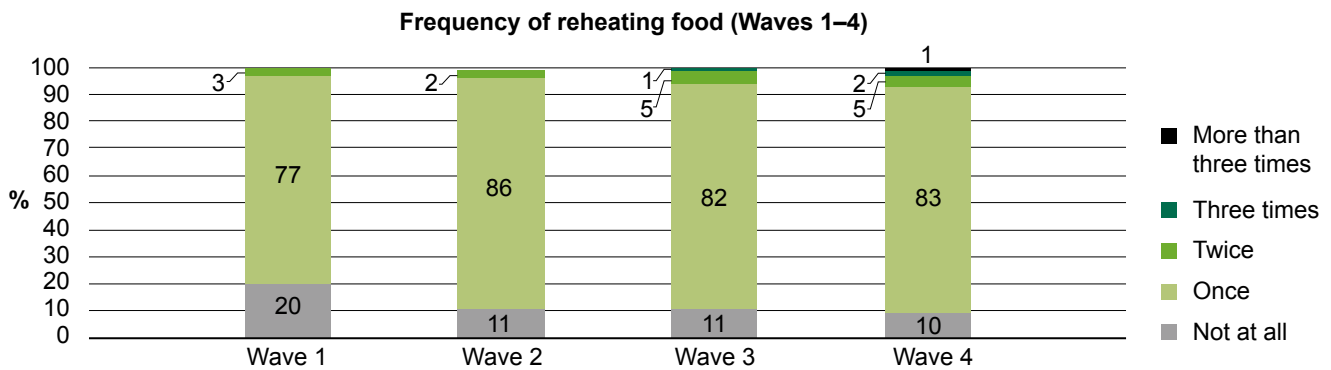


The FSA recommends that leftovers should not be reheated more than once and should be steaming hot throughout before serving. The majority of respondents (83%) reported that they would only reheat food once and 10% said they would not reheat food at all. Eight per cent of respondents reported that they would reheat food twice or more, this proportion was higher than in previous (3% in Wave 1, 2% in Wave 2, and 6% in Wave 3) waves.

Those most likely to report reheating food twice or more were people in the lowest income quartile (18% compared to 3% in the highest income quartile).

When it came to testing if food had been properly reheated, the two most commonly reported methods were checking if the middle is hot (39%) and seeing if steam is coming out of it (38%). These were similar to previous waves.

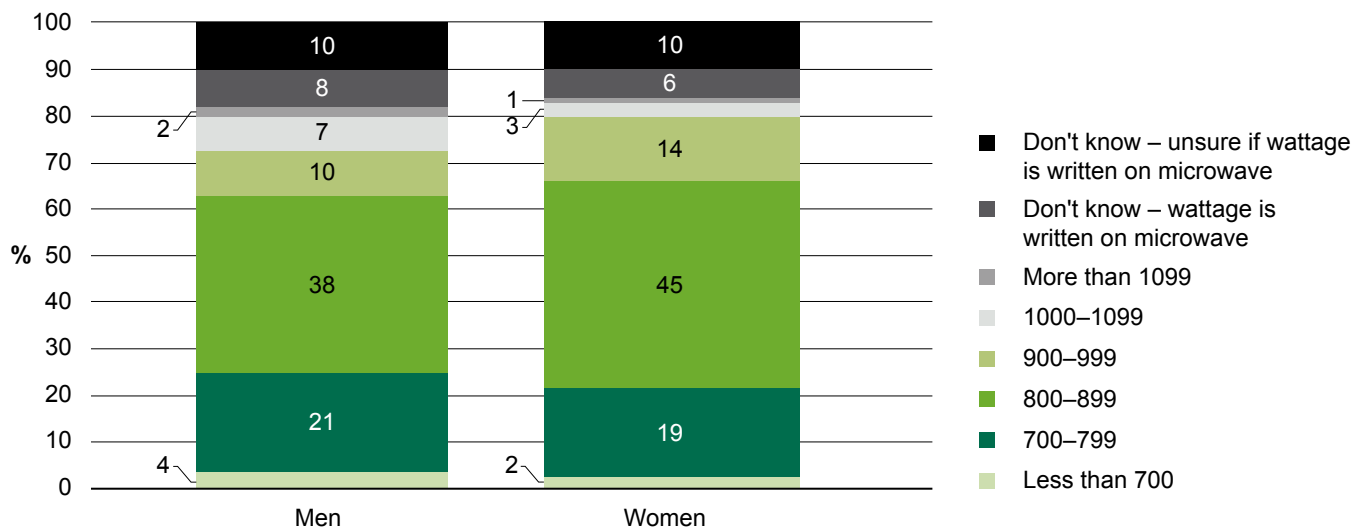
Figure 2.7 Reheating food (Waves 1–4)



* 'Other' includes those respondents that selected 'don't know' and 'I don't check'

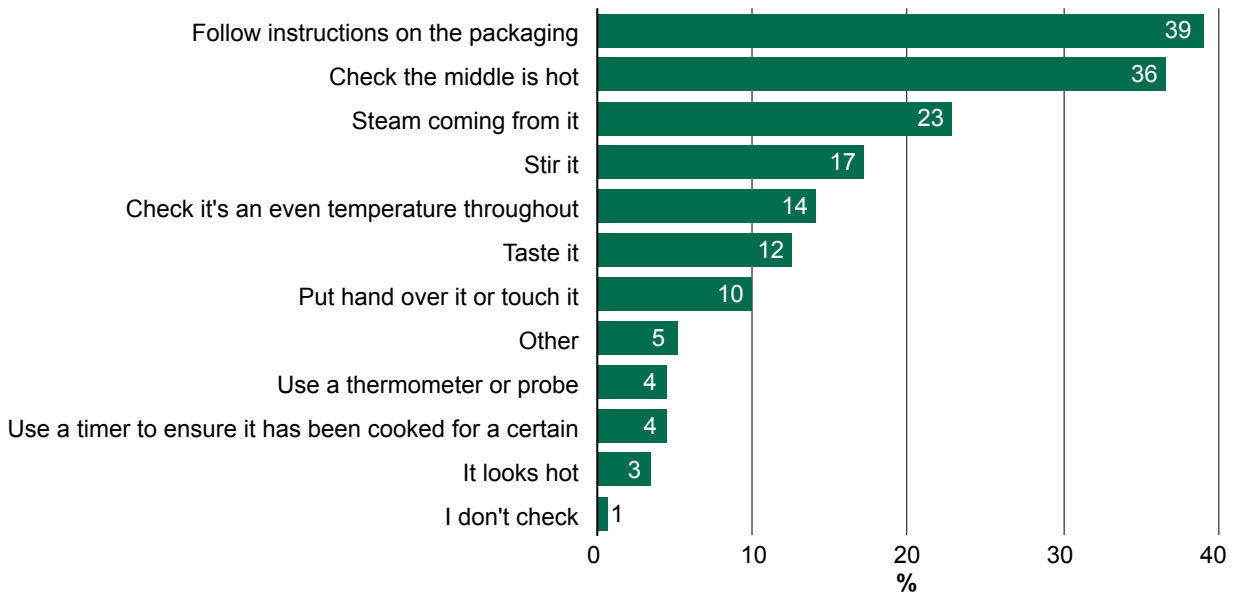
When reheating food in a microwave, the FSA recommend always following the product manufacturers instructions. Microwave power varies and this affects the timing given on instructions. The majority (93%) of respondents with a microwave knew that microwave power varies; 41% said that the wattage of their microwave was between 800 and 899 watts while 17% 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 following the packaging instructions (39%) and checking if the middle is hot (36%). These respondents were asked how they checked food had been heated properly if their microwave wattage differed from the cooking instructions: 79% said they would adjust the timing to give a bit longer and 11% 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)



When comparing between Wales, England and Northern Ireland, significant differences were found in the proportion of respondents eating meat or poultry if the meat was pink or has pink or red juices.

Table 2.A Eating meat or poultry if the meat was pink – % who reported never carrying out this behaviour, by country (Wave 4)

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

Respondents living in Wales were more likely than those in England to never eat burgers (66% compared with 59%) or whole cuts of pork or pork chops (80% compared with 74%) if the meat was pink or had pink or red juices.

In contrast, respondents in Wales were less likely than those in Northern Ireland to never eat the following types of meat if the meat was pink or had pink or red juices: red meat (44% compared with 53%), burgers (66% compared with 76%), sausages (83% compared with 89%), and whole cuts of pork or pork chops (80% compared with 87%).

Tables 2.2–2.6

2.5 Chilling

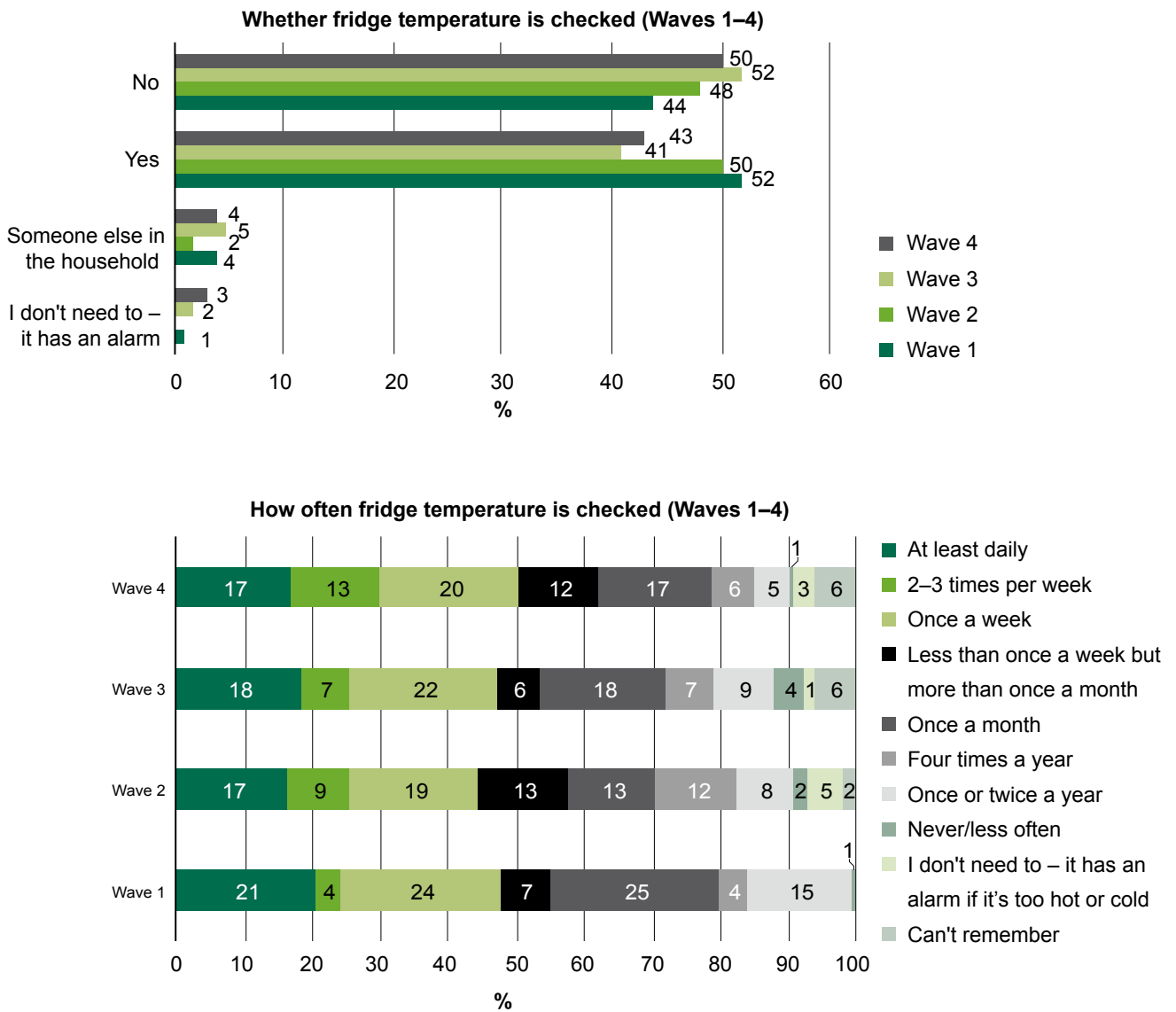
The FSA recommends that people set their fridge temperature to below 5°C, to help stop food poisoning bacteria such as *Listeria monocytogenes*, *Salmonella*, and *Campylobacter* from growing in food. The FSA recommends defrosting food slowly and safely overnight in the refrigerator or using a microwave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

Of respondents who had a fridge, almost half (47%) reported that they or someone else checked the temperature. This was similar to Wave 3 (46%) but lower than at Wave 1 (56%). Half of the respondents (50%) reported that they never checked their fridge temperature, an increase from 44% of respondents in Wave 1.

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

The majority (79%) 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 higher than in Waves 2 and 3 (71% and 72% respectively).

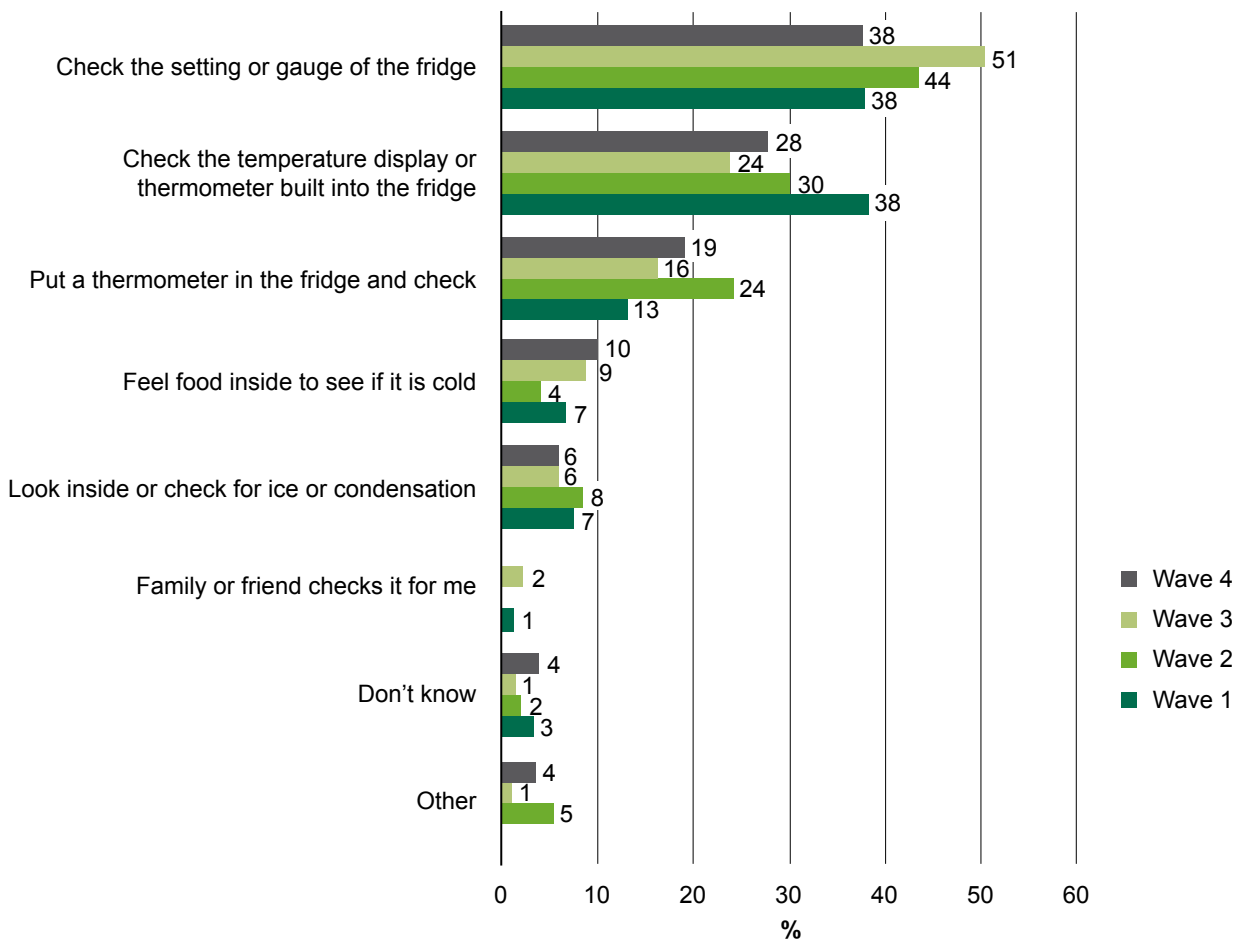
Figure 2.10 Checking fridge temperature (Waves 1–4)



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 19% of respondents reported putting a thermometer into the fridge and 28% reported checking the temperature display or thermometer built into the fridge. Checking the setting/gauge of the fridge was mentioned

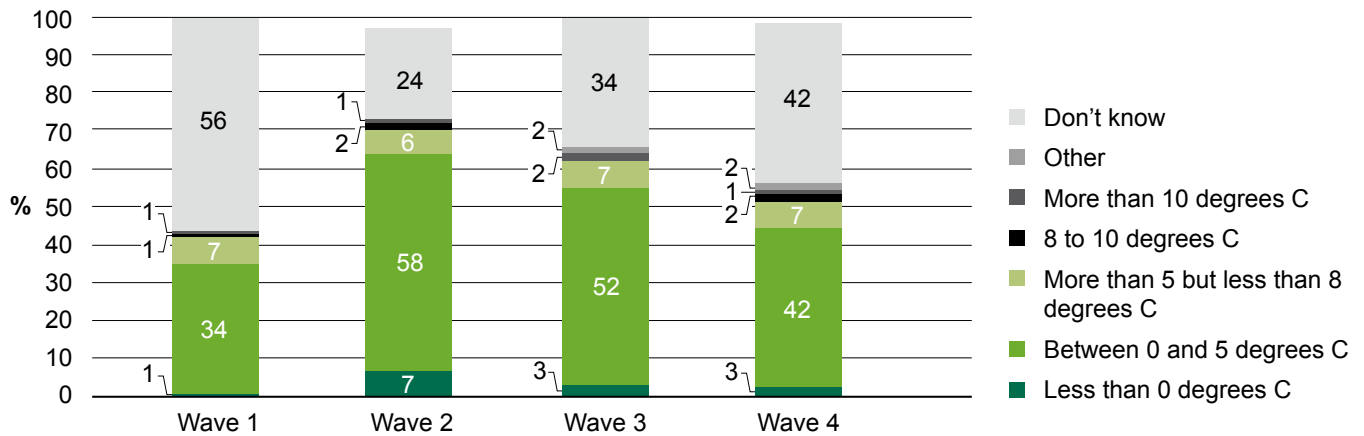
by 38% of respondents, although this is not a recommended method because results are potentially unreliable.

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



When asked what respondents thought the temperature inside the fridge should be, 42% said it should be between 0 and 5°C (the recommended temperature). This was higher than the proportion in Wave 1 (34%) but lower than the proportions in Waves 2 and 3 (58% and 52% respectively). Forty-two 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 (56%) but higher than the proportion in Waves 2 and 3 (26% and 34% respectively).

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



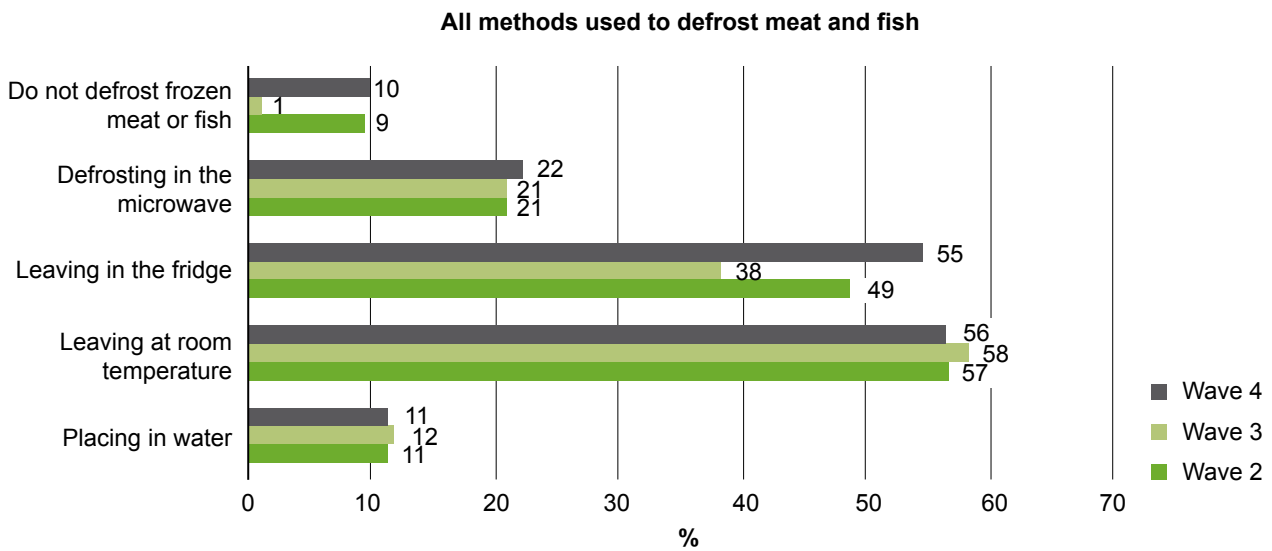
The proportion of people who reported that they did not know what the fridge temperature should be was higher for those with lower household income: 60% of those in the lowest income quartile said this compared with 32% in the highest.

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 (56%), which is not recommended. This was similar to Waves 2 and 3 (57% and 58% respectively).

A little more than half (55%) of respondents said that they defrosted meat or fish in a fridge, which was higher than at Wave 3 (38%). Twenty-two per cent of respondents defrosted meat or fish in a microwave oven, similar to previous waves. A similar proportion as in previous waves said they placed frozen meat and fish in water to defrost (11%).

When asked which single method they generally used to defrost meat or fish, 42% of respondents said they generally left the meat or fish at room temperature and 36% reported that they generally defrosted it in a fridge.

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



When comparing between Wales, England and Northern Ireland, significant differences were found in respondents reporting that they checked the temperature of their fridge and respondents reporting that they generally defrosted frozen meat or fish by leaving it in the fridge (see table 2.B).

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

% reporting	Wales	England	Northern Ireland
How do you normally check the fridge temperature?			
Check the temperature display or thermometer built into the fridge	28	38	37
Put a thermometer in the fridge and check	19	16	9
What do you think the temperature inside your fridge should be?			
Between 0 and 5 degrees C	42	48	56
And which method do you generally use to defrost frozen meat or fish?			
Leaving in the fridge	36	31	24
Bases (unweighted)	492	2105	521

There was some variation by country in how respondents normally check the fridge temperature. Respondents in Wales were less likely than those in England to report checking the temperature display or thermometer built into the fridge (28% compared with 38%). Respondents in Wales were more likely to check their fridge temperature by putting a thermometer in the fridge (19%) compared with those in Northern Ireland (9%).

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

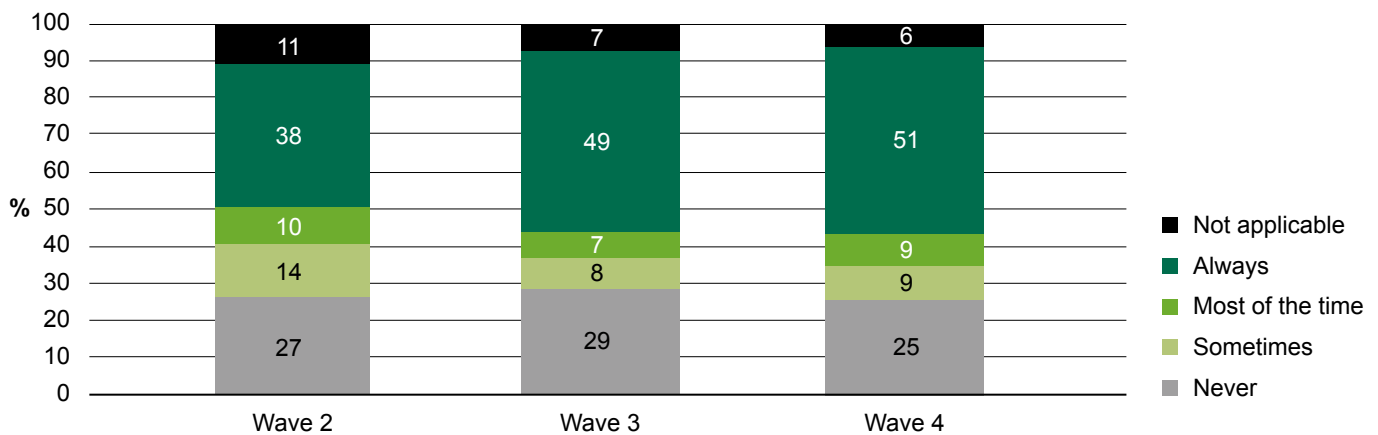
The FSA recommends defrosting food slowly and safely overnight in the refrigerator or using a microwave oven. Respondents in Wales were more likely than those in Northern Ireland to report behaviours in line with the recommended practice, by leaving frozen meat or fish in the fridge to defrost (36% compared with 24%).

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 25% said that they never did. This was similar to previous waves.

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



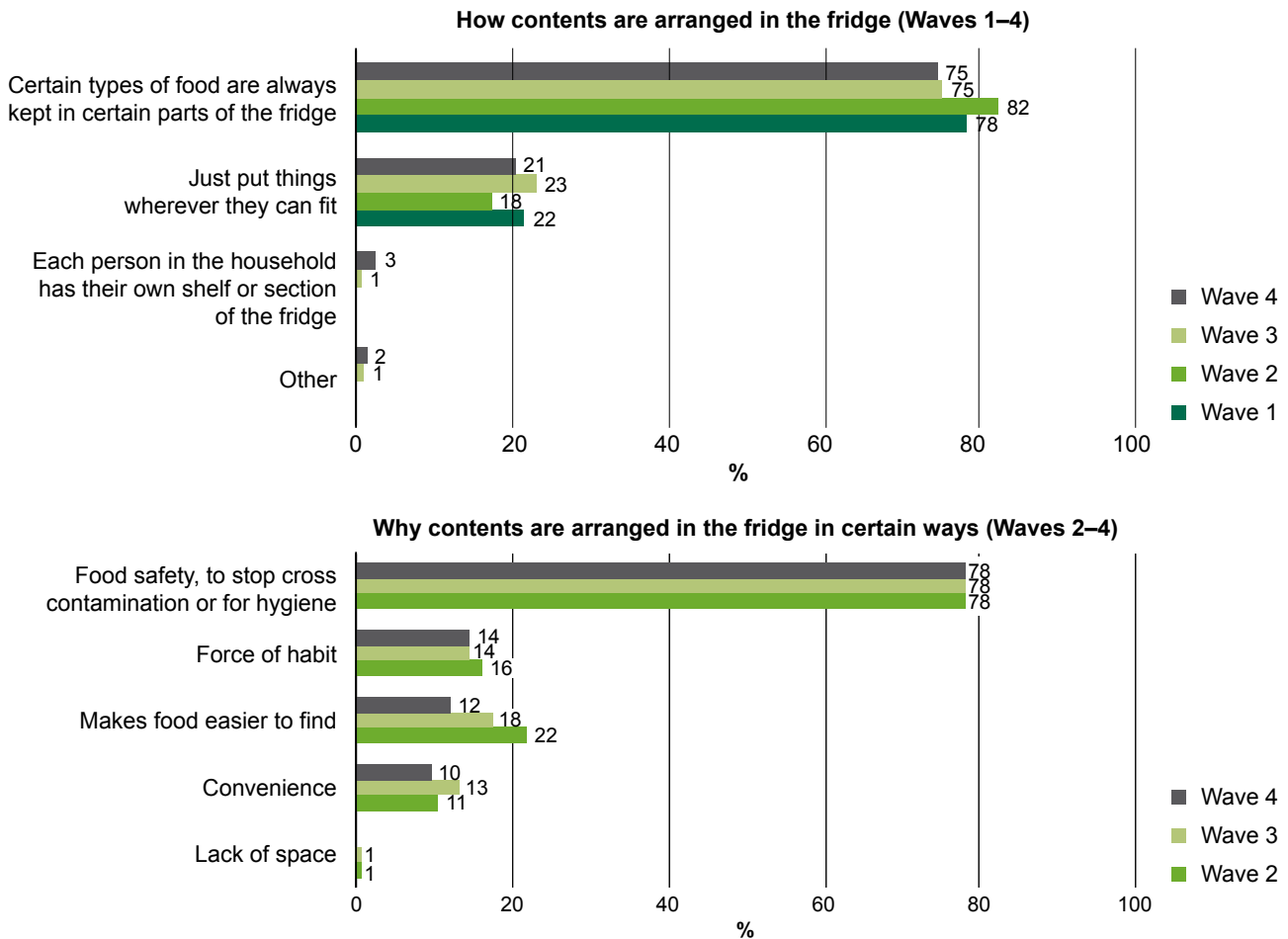
Twenty-eight cent of men and 23% of women said they never used different chopping boards for different foods.

The most commonly reported reason for washing or changing chopping boards after preparing raw meat, poultry or fish were to prevent cross contamination (65%) and to wash away germs or bacteria (49%). Only 2% mentioned wanting to stop remains from getting onto the next food, and this was much lower than in previous waves (16% in Wave 1, 25% in Wave 2 and 27% in Wave 3).

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, three-quarters (75%) of respondents said they always kept certain types of food in a specific part of the fridge while 21% said they just put things wherever they fit. These proportions were similar to previous waves.

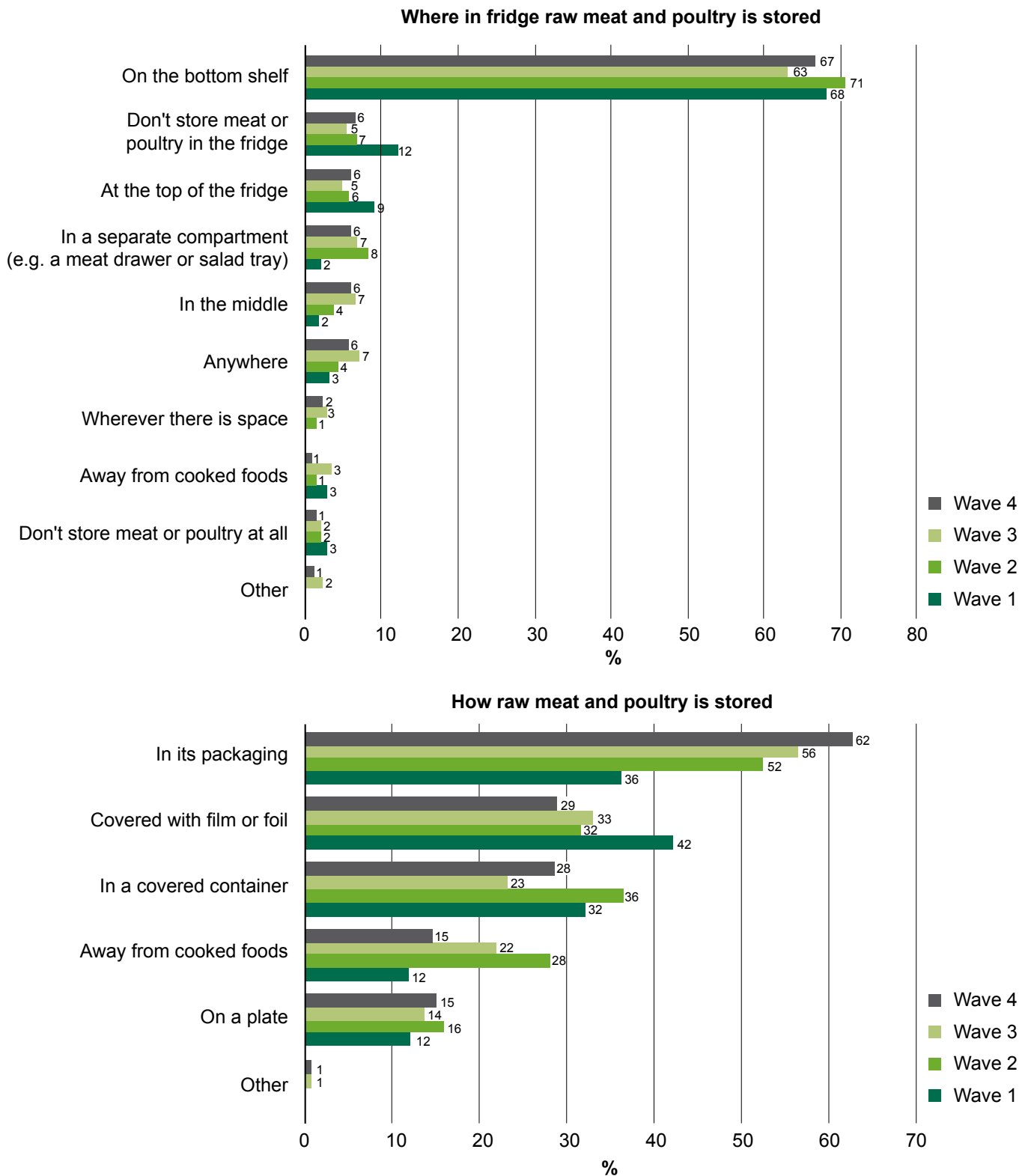
Those who said they kept certain foods in certain parts of the fridge were asked why they did this. The most common reason was for food safety or to stop cross contamination (78%). Fourteen per cent of respondents said it was a force of habit and 12% said it made food easier to find. This was similar to previous waves.

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



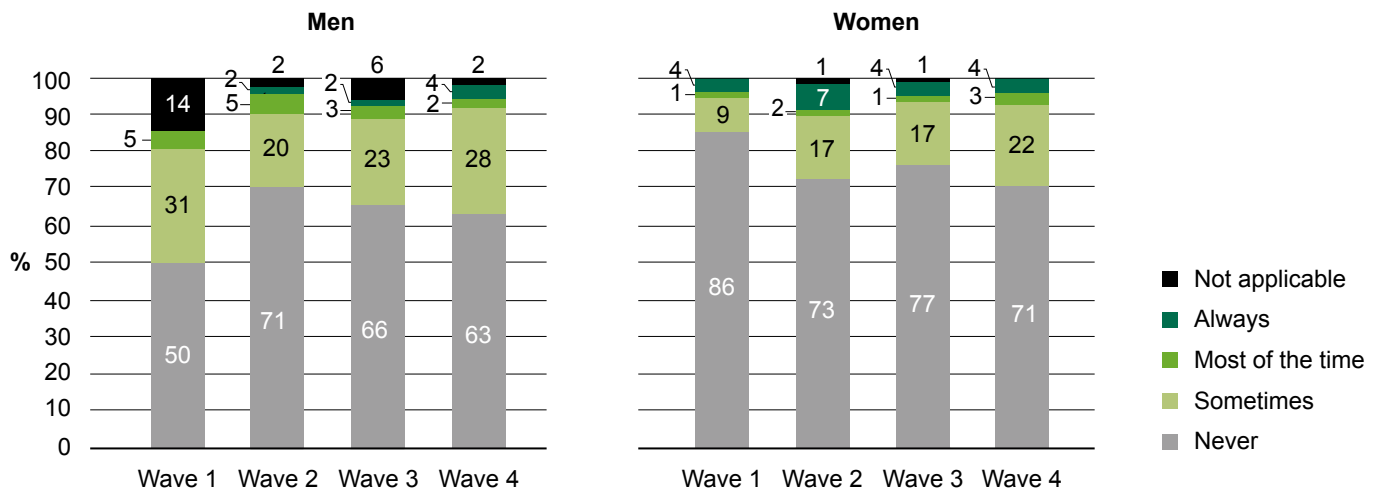
Respondents were asked where in the fridge they stored raw meat and poultry. Sixty-seven per cent reported that they stored this type of food on the bottom shelf of the fridge, in line with recommended practice. This was similar to previous waves. Respondents who reported storing raw meat and poultry in their fridge were asked how they stored it. The most common response was that they stored it in its packaging (62%). 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. Twenty-nine per cent of respondents in Wave 4 reported that they covered raw meat and poultry with film/foil, 28% that they kept it in a covered container, and 15% 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)



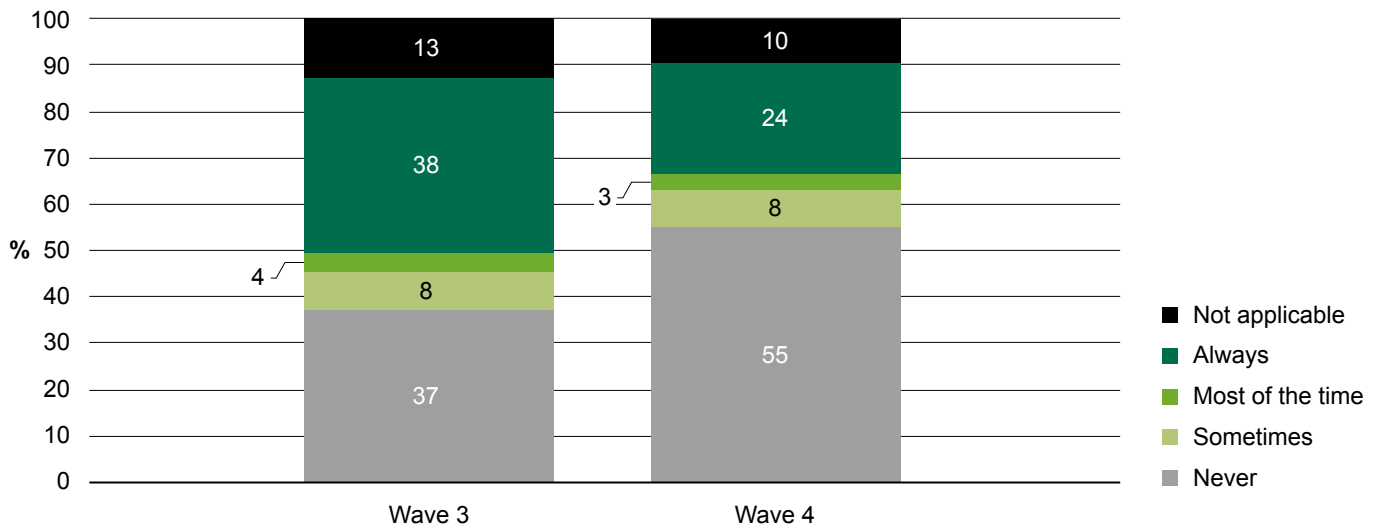
Respondents were asked whether they stored food in open tins in the fridge. The majority (67%) reported that they never did so, which is in line with FSA recommended practice as the tin may contaminate the food. A quarter (25%) said that they stored food in open tins in the fridge at least some of the 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, half (52%) of respondents said they never washed raw meat (excluding chicken); with 36% reporting that they did so at least sometimes. Thirty-five per cent of respondents reported washing raw chicken at least sometimes. This was lower than the proportion in Wave 3 (50%). 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)

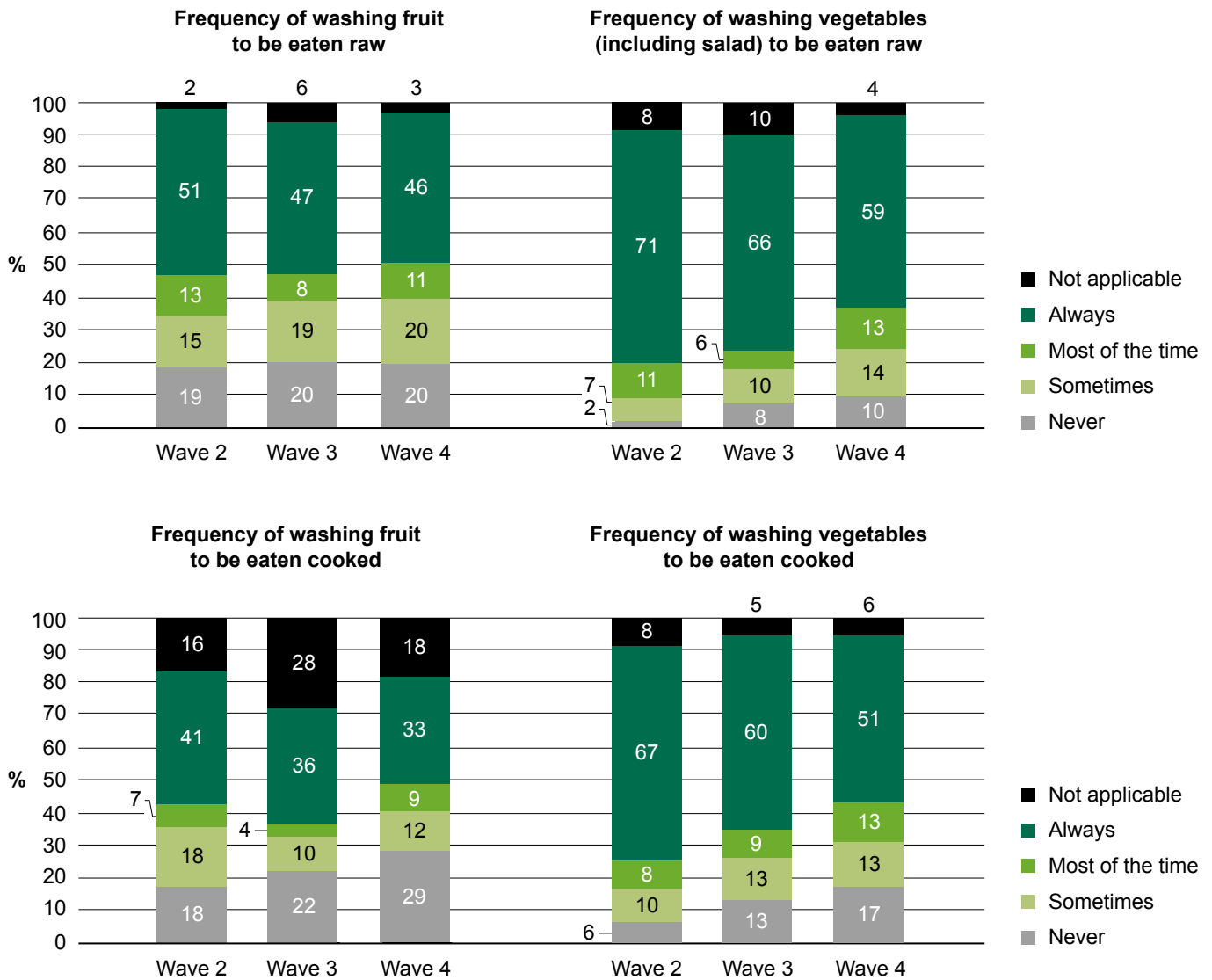


Compared with previous waves, a higher proportion of respondents reported that they never washed fish and seafood: 31% compared with 13% in Waves 1 and 2 and 24% in Wave 3. Thirty-five per cent reported that they did so at least some of the time, lower than in previous waves.

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). Almost half (46%) of respondents reported that they always washed fruit which was going to be eaten raw whilst 20% respondents reported that they never washed fruit.

Respondents were more likely to report washing vegetables that were going to be eaten raw; 59% said that they always did, 27% said they did this some or most of the time and 10% 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 (66%) were more likely to report always washing raw vegetables (including salad) compared to men (52%). Compared with previous waves, the proportions washing fruit were similar. However respondents in Wave 4 were less likely to always wash vegetables than in previous waves.

When comparing between Wales, England and Northern Ireland, 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.C and 2.D).

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

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

Respondents living in Wales were more likely never to use different chopping boards for different foods (25%) compared with respondents living in Northern Ireland (18%). Respondents living in Wales were also less likely than those in Northern Ireland never to store open tins in the fridge (67% compared with 81%), and never to wash raw meat and poultry other than chicken (52% compared to 60%).

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

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

Respondents in Wales were less likely than those in England and Northern Ireland always to wash fruit to be eaten raw (46% compared with 54% and 56% respectively).

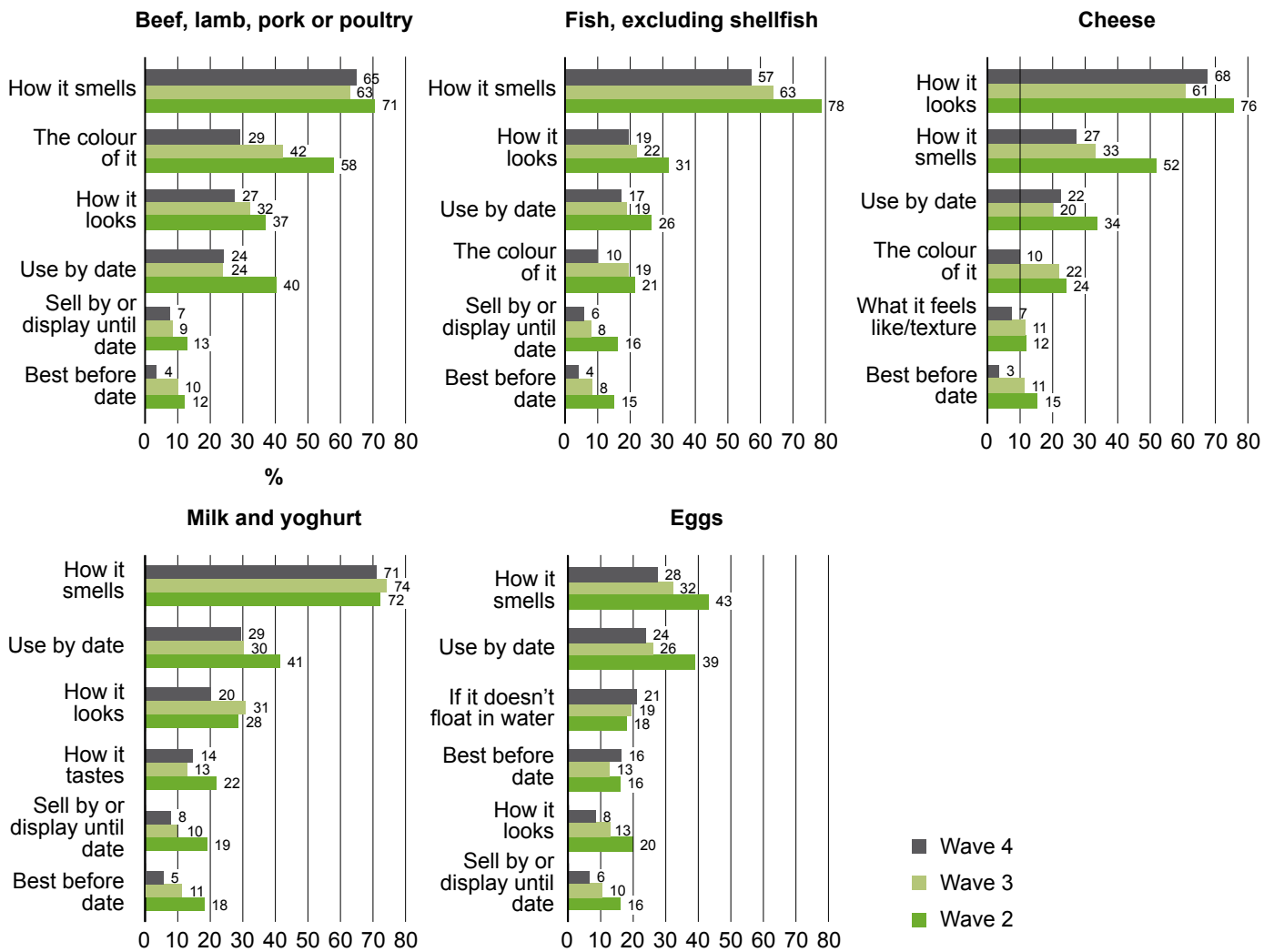
Respondents in Wales were also less likely those in Northern Ireland to report always washing raw vegetables (59% compared with 72%), washing fruit to be cooked (33% compared with 44%), and washing vegetables to be cooked (51% compared with 66%).

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-one per cent of respondents reported that they used this method when checking whether milk or yoghurt was safe to eat, 65% for meat and 57% for fish. For cheese, the most commonly reported method for telling whether it is safe to eat was the way it looks (68%). The most common methods reported for eggs were the way it smelled and use by dates (28% and 24% respectively). Eggs are marked with a best before date not a use by date; 16% of respondents said that they would use the best before date to tell whether eggs were safe to eat. However, the way food smelled and how it looked were less commonly reported methods for some foods for indicating food is safe to eat than in previous waves. Twenty-nine per cent of respondents reported that they used use by dates for checking milk/yoghurt, 24% for checking meat, and 22% for cheese and 17% for fish. These proportions were lower for milk/yoghurt, meat and cheese than at Wave 2.

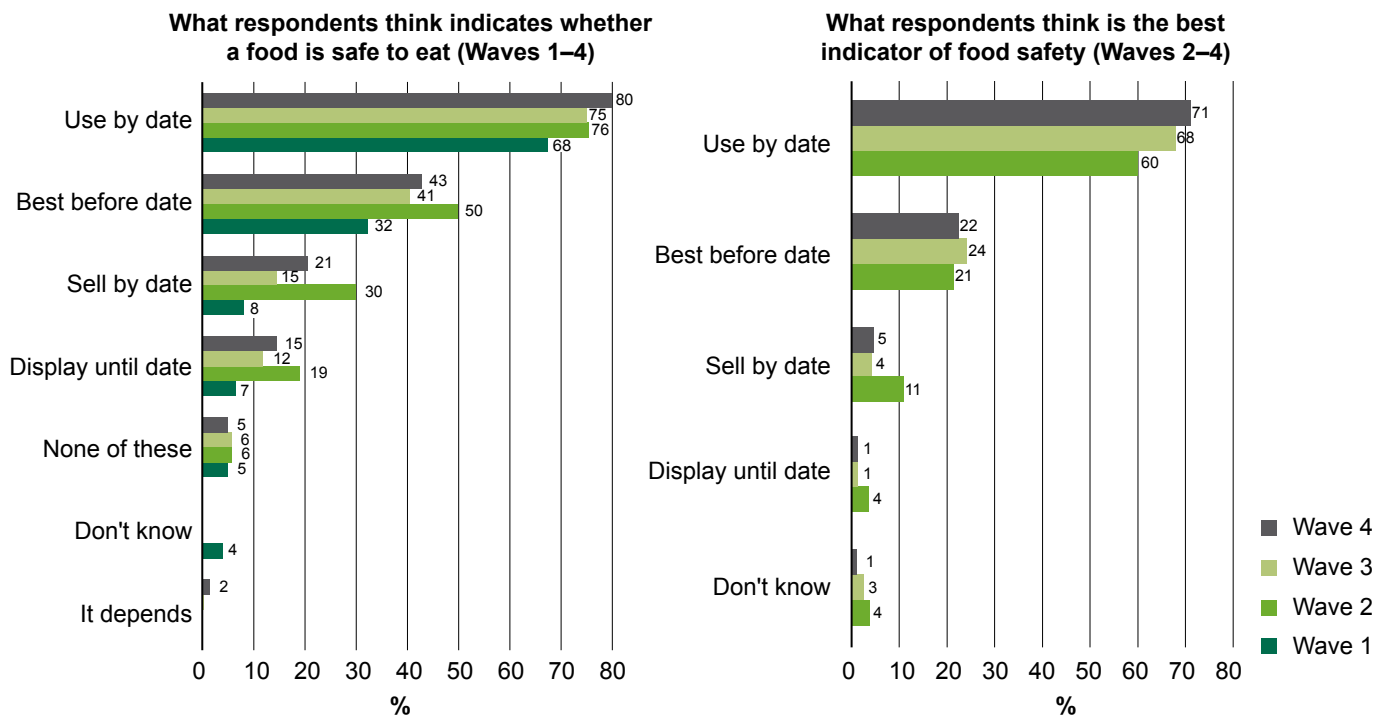
Figure 2.20 Methods used to tell whether food is safe to eat (Waves 2–4)



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 (80%) cited use by dates as an indicator of whether food was safe to eat. While similar to the proportions in Wave 2 and Wave 3, this was higher than the proportion in Wave 1 (68%). Forty-three per cent said the best before date and 21% 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, 71% selected the use by date (60%–68% in Waves 2 and 3). Older respondents aged 75 and over were least likely to say use by date was the best indicator of food safety (46% compared with 61%–93% in the other age groups).

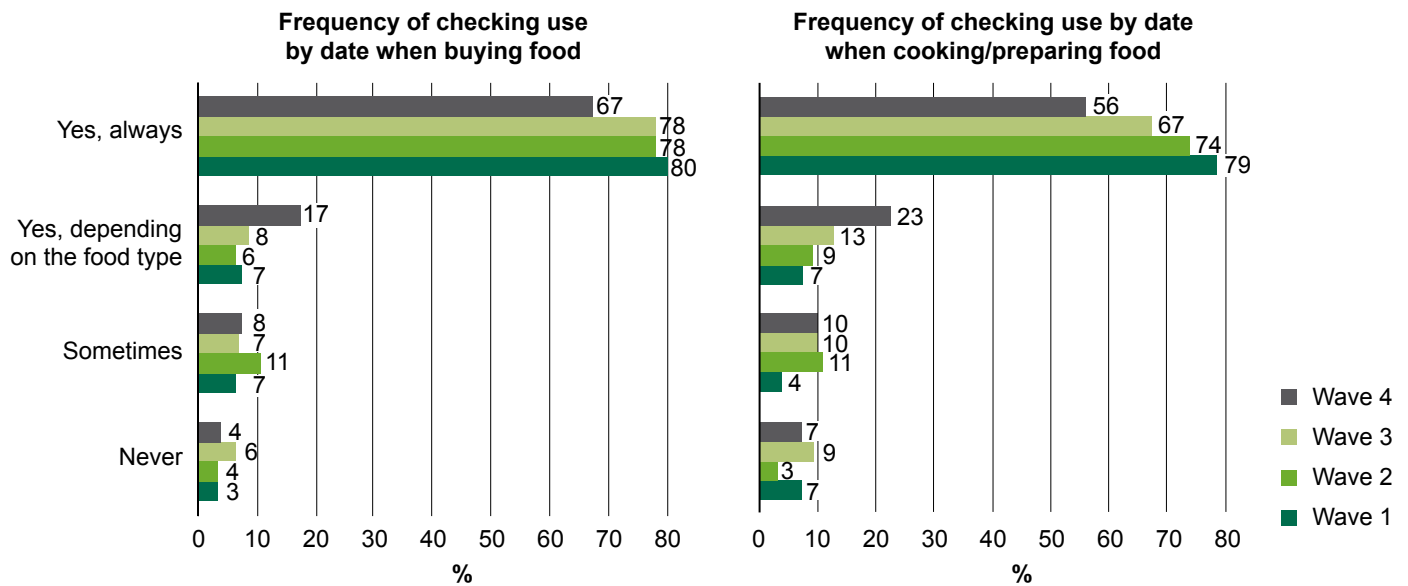
Figure 2.21 Indicators of food safety (Waves 1–4)



When asked if they checked use by dates when buying food, 67% of respondents reported that they always did this regardless of food type and 17% 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 lower than previous waves (80% in Wave 1 and 78% in Waves 2 and 3).

The proportion of respondents who reported checking use by dates when cooking or preparing food was lower than that for buying food, with 56% saying they always checked the date. This proportion was lower than in previous waves. Seven 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 (77% compared with 57% of men) and before cooking or preparing food (61% compared with 51% of men).

Respondents in households with children were more likely than those in adult-only households to always check use by dates before cooking. For example, 72% of respondents in households with children aged under 6 always checked use by dates before cooking compared with 53% of households without young children.

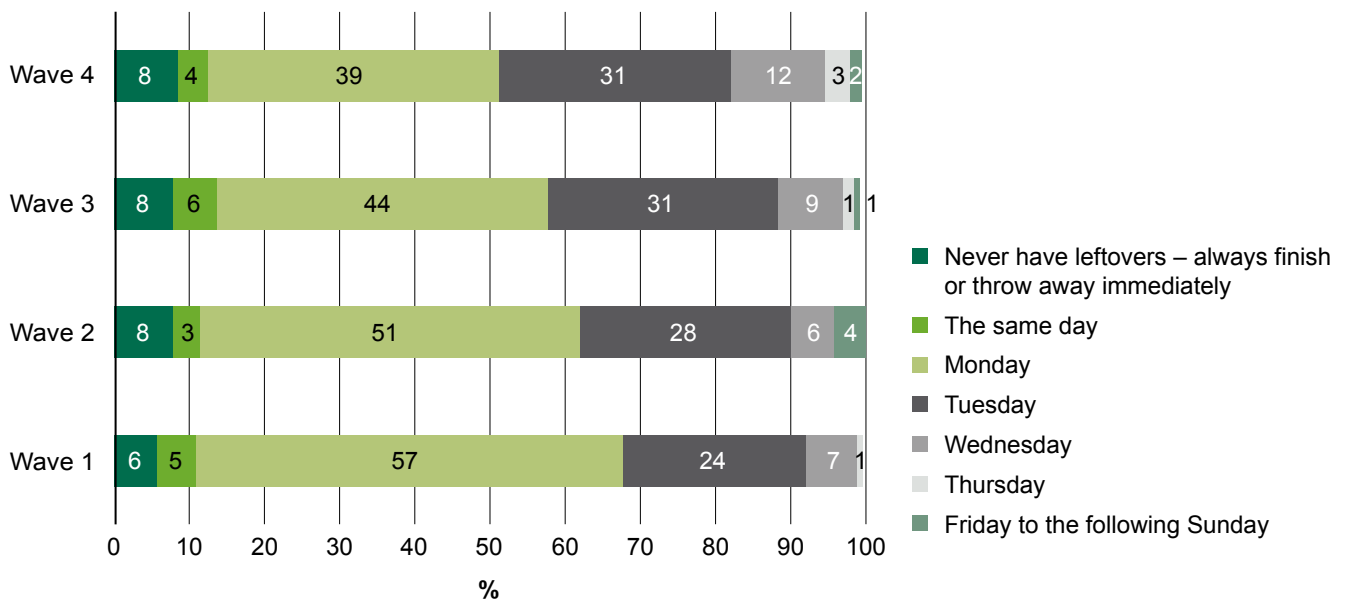
Thirty-six per cent of respondents said they found labels on food products difficult to read because of the size of the print. This was lower than in Wave 2 (40%). The proportion reporting difficulty in reading labels is generally associated with age: 64% of people aged 75 and over reported at least some difficulty. Over half (59%) of those with fair eyesight had difficulty reading labels compared with 30% 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 meat, fish, or seafood pate (30%) and smoked fish (27%) within two days of opening.¹⁹ Respondents were least likely to report consuming soft cheese within two days of opening (12%).¹⁹

The FSA recommends that leftovers should be used within two days (that is, up to Tuesday if cooked on Sunday). The majority (74%) 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 lower than the proportion reporting two days or less in previous waves (87% in Wave 1 and 81%–82% in Waves 2 and 3). Eighteen 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)



The same proportion of men and women were likely to eat the leftovers within two days of cooking (74% and 73% respectively).

¹⁹ These figures are based on consumers only

When comparing between Wales, England and Northern Ireland, 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.E).

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

% reporting	Wales	England	Northern Ireland
Do you check use-by dates when you are about to cook or prepare food?			
Yes, always	56	61	69
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)	74	71	85
Bases (unweighted)	492	2105	521

Respondents in Wales were less 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 Northern Ireland (56% compared with 69%).

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

Tables 2.17–2.26

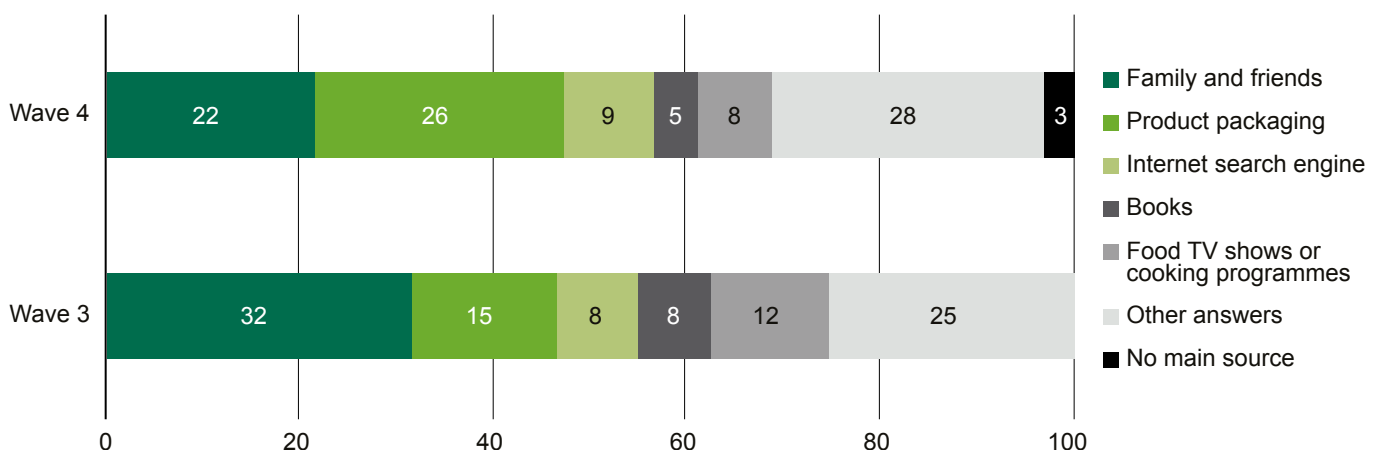
2.8 Sources of information about food safety

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 (35%) and product packaging (37%). Twenty-four per cent said they used the internet. The proportion using product packaging and the internet was higher than in Wave 3. A third (30%) said they used food TV shows or cooking programmes and this was similar to Waves 2 and 3. Overall 74% of respondents reported that they got information from at least one of these sources. Twenty-six per cent said they did not look for information on food safety practices: 31% of men and 22% of women. 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, 26% said product packaging, 22% family and friends, and 9% 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



60%

had eaten at a restaurant



53%

had eaten takeaway food



41%

had eaten in a café or coffee shop

Factors which influence where people decide to eat out



Cleanliness & hygiene

71%



Service

64%



Price of food

55%



Good hygiene rating/score

51%

RECOGNITION OF FHRS STICKER HAS INCREASED



2012



2014



89%

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 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 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.²⁰

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.²¹

3.2 Frequency of eating out

The definition of eating out in the Food and You survey encompasses eating or buying food from or at 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.²²

Almost all respondents (97%) ate out, with over a third (39%) doing so at least once or twice a week. Forty-two per cent of men ate out at least once or twice a week compared with 37% of women.

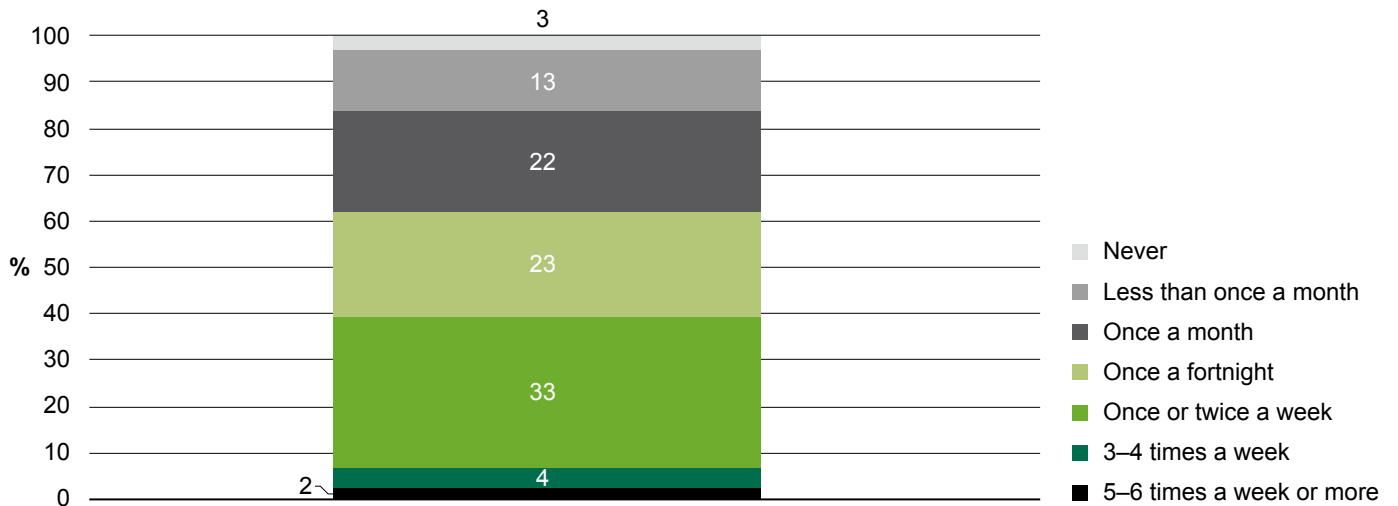
Comparisons are not made with previous waves due to changes in the reference time periods: in Wave 4 respondents were asked about eating out in the last month whereas in previous waves, respondents were asked to consider the last seven days.

20 www.food.gov.uk/sites/default/files/fs244011afinalreport_0.pdf

21 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)

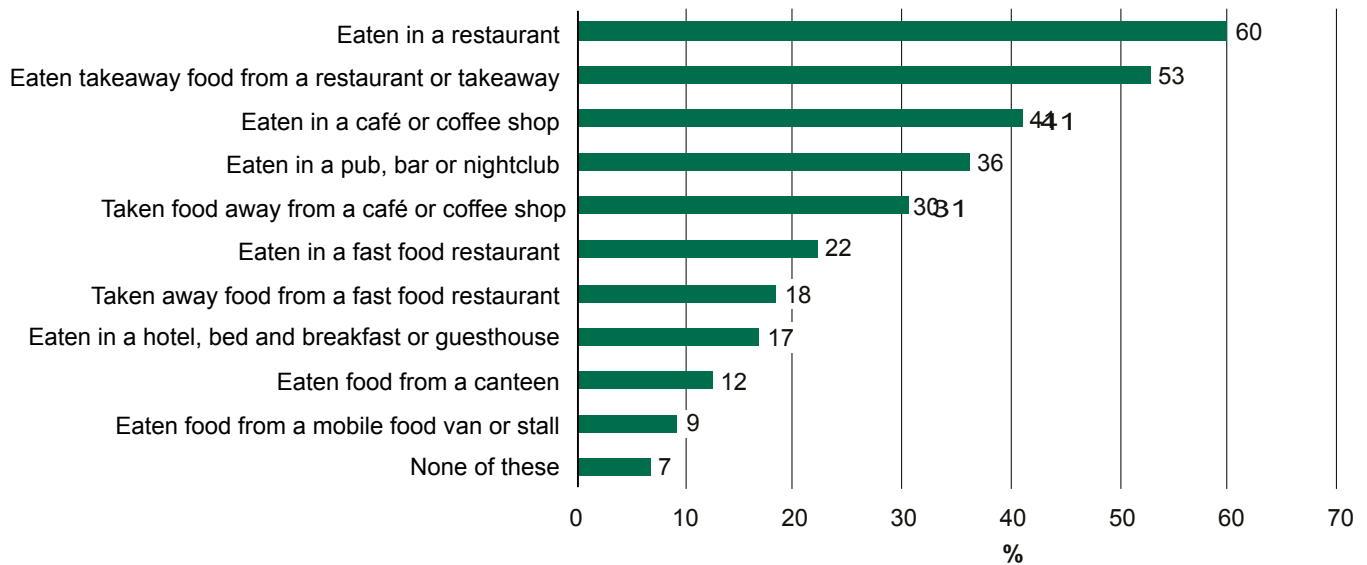


Younger respondents were more likely to have eaten at a fast food restaurant in the past month (37% of those aged 16 to 24 and 46% of those aged 25 to 34, compared with 4%–22% of older respondents).

Older respondents aged 75 and over were more likely to say they never ate out (16% compared with 0%–6% in the other age groups). The same was true for those in households with incomes in the lowest quartile (7% compared with 2% in the highest household income quartile).

Overall, 60% of respondents had eaten at a restaurant in the last month, 53% had eaten takeaway food from a restaurant or takeaway outlet and 41% had eaten in a café or coffee shop. There were differences in the types of establishment men and women had eaten at in the last month. For example, women were more likely than men to have eaten at a café or coffee shop (47% compared with 34%) and men were more likely to have eaten food in a pub, bar or nightclub (43% compared with 30%).

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)



Those more likely to have eaten takeaway food (from a restaurant or takeaway outlet) in the last month included respondents in households with children aged under 16 (65% compared with 48% of those in adult-only households) and those respondents in work (65% compared with 22% of those who were retired).

When comparing between Wales, England and Northern Ireland, there were significant differences in the locations where respondents ate out in the last month (see table 3.A).

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

% reporting	Wales	England	Northern Ireland
Eaten in a restaurant	60	67	67
Taken away food from a fast food restaurant	18	21	26
Eaten in a pub, bar or nightclub	36	39	18
Bases (unweighted)	492	2105	521

Respondents in Wales were less likely than those in England to have eaten in a restaurant (60% compared with 67%) in the last month.

Respondents living in Wales were more likely than those in Northern Ireland to have eaten out at a restaurant (60% compared with 67%) and a pub, bar or nightclub (36% compared with 18%).

Respondents in Wales, compared with those in Northern Ireland, were less likely to have taken away food from a fast food restaurant (18% compared with 26%).

Table 3.1

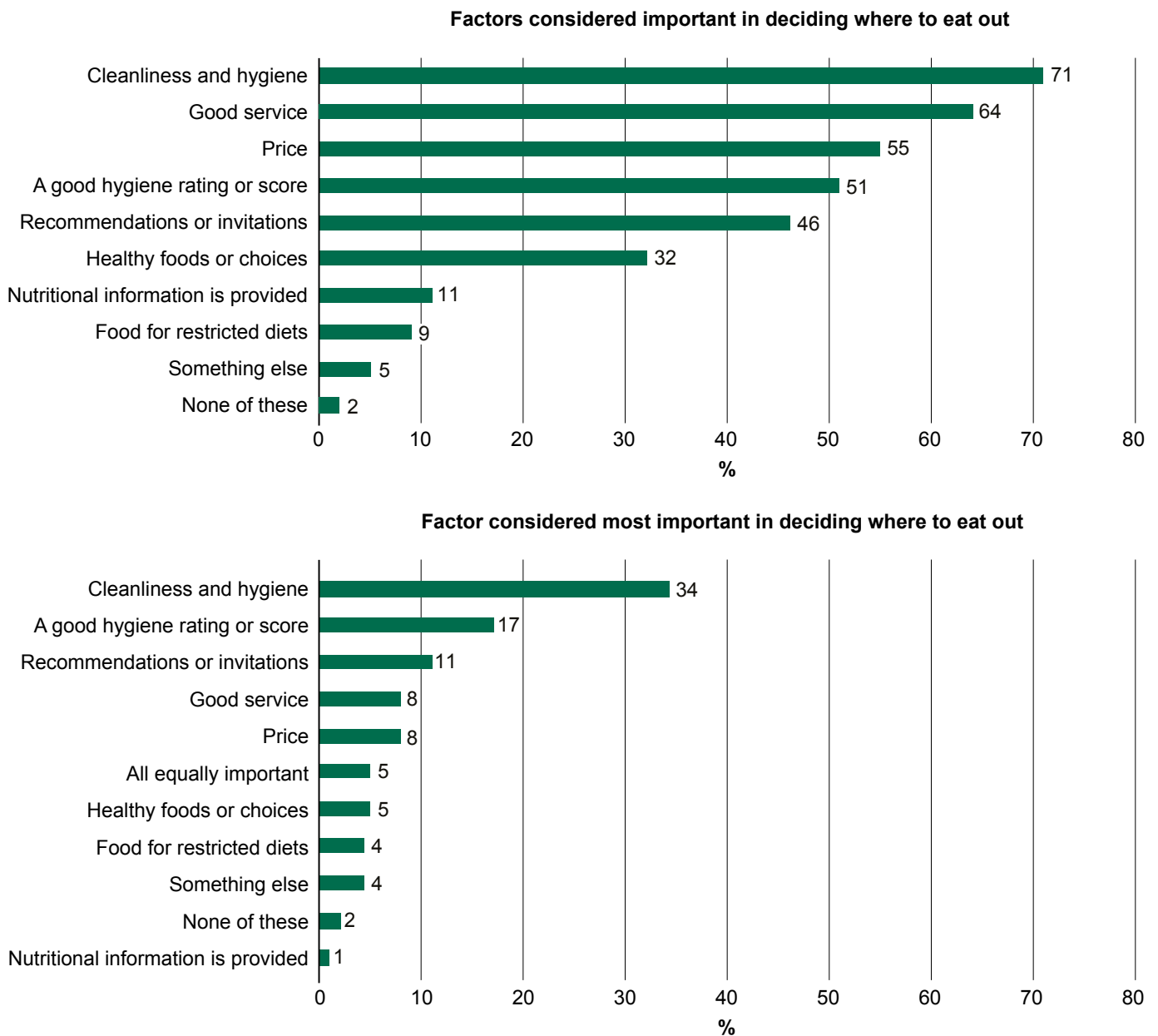
3.3 Deciding where to eat out

Respondents most commonly used their own experience of establishments (65%) when deciding where to eat out. Respondents also took word of mouth and recommendations from friends or family into account (43% and 42% respectively).

When shown a list of factors which might influence their decision on where to eat out, 71% of respondents reported that the cleanliness and hygiene of the establishment was important to them; overall a third (34%) of respondents who ate out considered this the most important factor.

At least half of respondents listed service (64%), price of food (55%) and a good hygiene rating (51%) as factors important to them when deciding where to eat out. Recommendations/reviews were mentioned by 46% of respondents.

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



Women were more likely than men to be influenced by the cleanliness and hygiene of the establishment when deciding where to eat out (76% of women, 65% of men). Overall 40% of women and 27% of men said this was the most important factor in their decision making.

In all age groups cleanliness and hygiene of food establishments was the most important factor.

When comparing Wales, England and Northern Ireland, significant differences were found in factors that are considered most important by respondents when deciding where to eat out (see table 3.B).

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

% reporting	Wales	England	Northern Ireland
Recommendations or invitations from someone you know, or good reviews	11	16	16
Healthy foods or choices	5	9	8
Cleanliness and hygiene	34	30	25
A good hygiene rating or score	17	9	15
Bases (unweighted)	492	2105	521

Respondents in Wales were less likely than those in England to report ‘recommendations or invitations from someone you know, or good reviews’ (11% compared with 16%) and ‘healthy foods or choices’ (5% compared with 9%) to be the most important factor when deciding where to eat out. On the other hand, respondents living in Wales were more likely than those in England to report a good hygiene rating or score (17% compared with 9%).

Respondents in Wales were more likely than those in Northern Ireland to report cleanliness and hygiene to be the most important factor (34% compared with 25%).

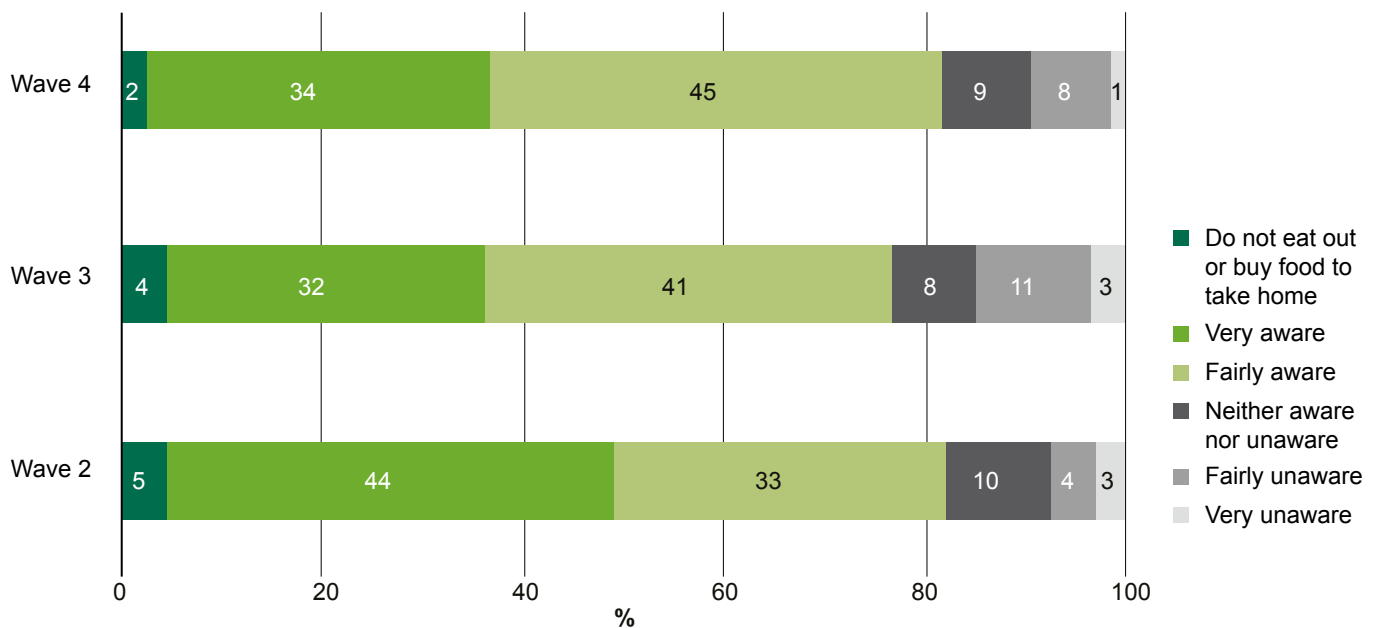
Table 3.2

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, 79% of respondents reported being aware (34% 'very aware' and 45% 'fairly aware'). This is very similar to findings in previous waves.

Figure 3.4 Awareness of hygiene standards when eating out (Waves 2–4)



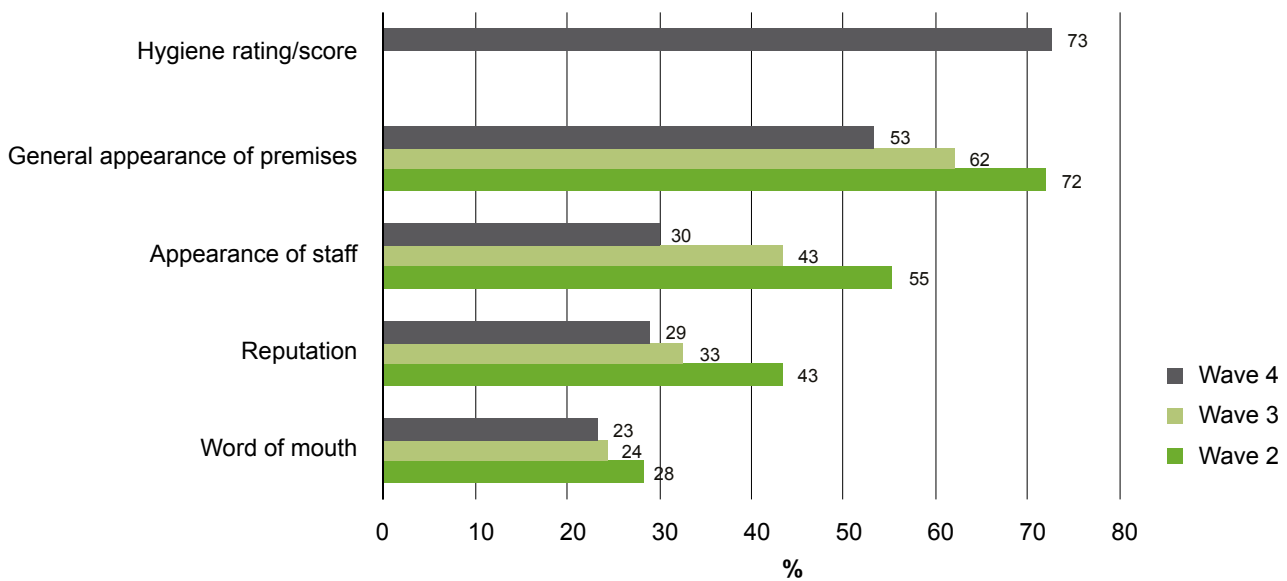
Respondents were also asked what information they used for assessing the hygiene of establishments when eating out. The hygiene/rating score is the most commonly mentioned source (73% in Wave 4). Fifty-three per cent of respondents mentioned general appearance of premises in Wave 4, though this proportion was lower than in previous waves (between 62%–72%). 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.²³

²³ 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 54% at Wave 3, 33% at Wave 2 and 32% at Wave 1.

Those more likely to use ‘hygiene/rating score’ to assess the hygiene of establishments when eating out were those respondents aged 16 to 24 (95% compared with 52% of those aged 75 and over), and those living in households with children under 16 (85% compared with 67% of respondents in adult-only households).

Respondents were less likely than in previous waves to assess hygiene standards by the general appearance of the premises (53% compared with 62%–72%), and less likely than in Waves 2 and 3 to use the appearance of staff (30% compared with 55% and 43% respectively).²⁴

Figure 3.5 Indicators used to assess hygiene standards (Waves 2–4)



Significant changes were found between Wales, England and Northern Ireland 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.

²⁴ 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 Wave 4, all respondents were asked.

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

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

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 Wales, compared with those in England, were more likely to be aware of food hygiene when eating out (79% compared with 71%). There were no significant differences between Wales and Northern Ireland.

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

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

Respondents living in Wales, compared with those in England, were less likely to use appearance of staff (30% compared with 41%) as a source of information to assess hygiene when eating out. They were more likely to use the hygiene rating/score (73% compared with 52%).

Respondents living in Wales, compared with those in Northern Ireland, were less likely to use reputation (29% compared with 38%), and appearance of staff (30% compared with 39%).

3.5 Recognition of the food hygiene rating schemes (FHRS)

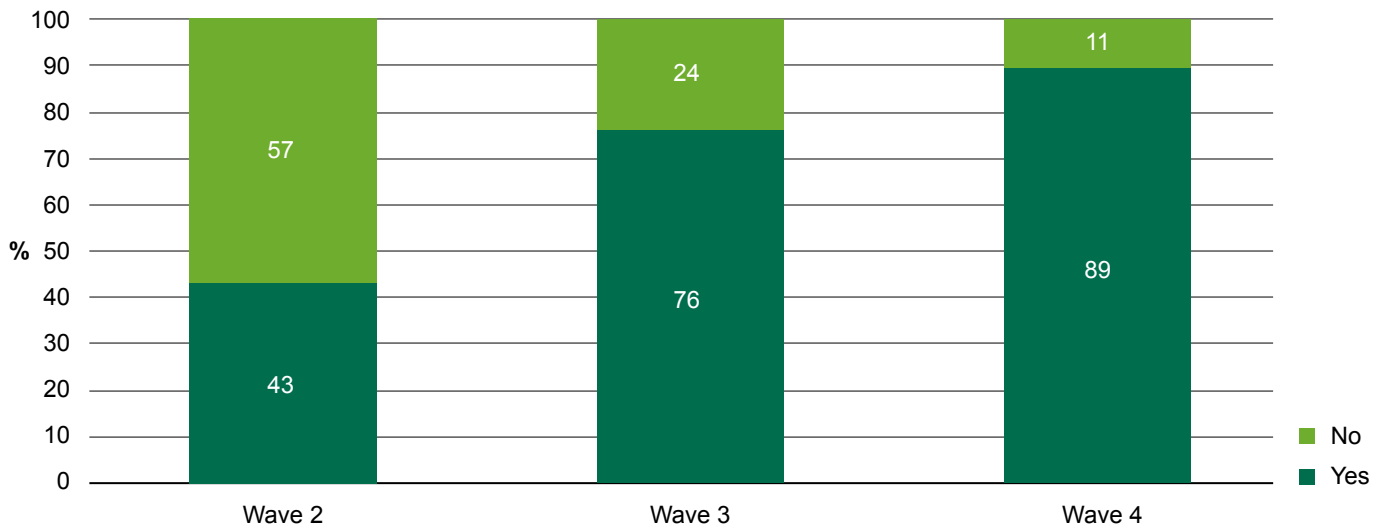
Respondents were shown images of the stickers for the FHRS in their respective countries (shown below) and were asked whether they had seen these images before. Businesses in England are encouraged, although not legally required, to display their FHRS rating, while display has been mandatory in Wales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



Recognition of the FHRS has increased, with 89% of Wave 4 respondents recognising the images compared with 76% in Wave 3 and 43% in Wave 2.

As with previous waves, there was very little difference in recognition of the FHRS between men and women. However, recognition of the FHRS was associated with age: 96%–98% of those aged 16 to 34 recognised the images compared with 62% of those aged 75 and over. Variation by working status reflected differences by age with retired respondents less likely to recognise the images (77%) than working respondents (92%).

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 (95% compared with 87%).

When comparing recognition of FHRS across countries, a significant difference was found between respondents living in Wales 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	Wales	England	Northern Ireland
Yes	89	82	89
No	11	18	11
Bases (unweighted)	492	2105	521

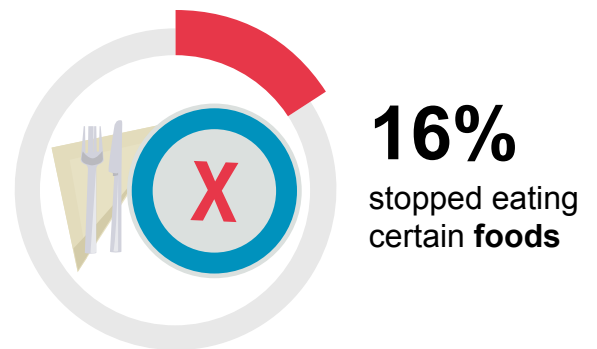
Respondents living in Wales, compared to those living in England, were more likely to agree that they recognised the FHRS (89% compared with 82%). There was no significant difference found between respondents in Wales and Northern Ireland on this measure.

Table 3.5

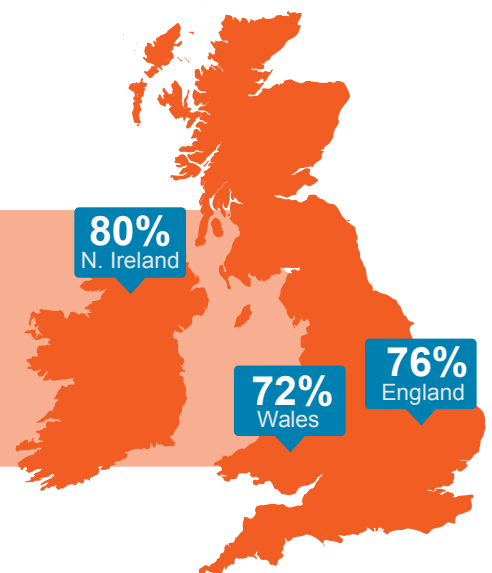
4 Food poisoning



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,²⁵ 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.²⁵

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. 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.

²⁵ www.food.gov.uk/sites/default/files/IID2%20extension%20report%20-%20FINAL%2025%20March%202014_0.pdf

4.2 Experience of food poisoning

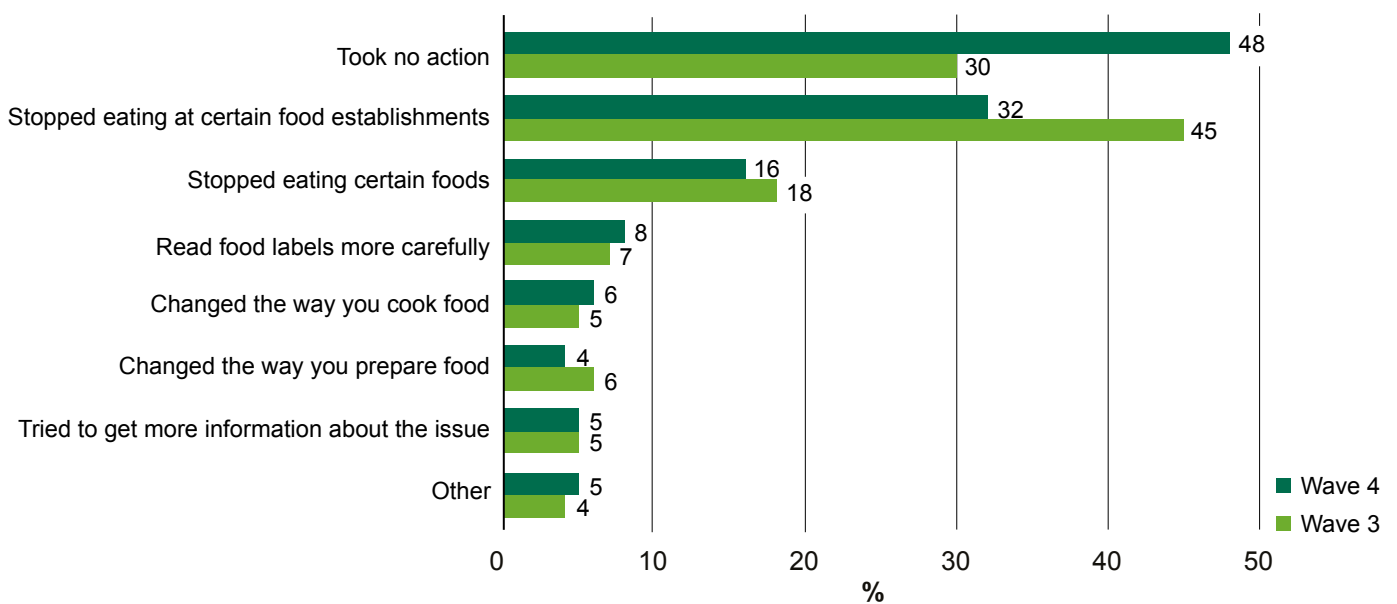
Overall, 39% of respondents reported having had food poisoning, similar to previous waves. Men were more likely than women to report having had food poisoning (42% compared with 36%).

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

Table 4.1

In regards to the respondents action taken as a result of having food poisoning, Wave 4 respondents were more likely than those in the previous wave to report having taken no action after experiencing food poisoning (48% compared with 30%). Where action was taken, the most commonly mentioned were to stop eating at certain food establishments (32%) and to stop eating certain foods (16%).

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



When comparing between Wales, England and Northern Ireland, 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)

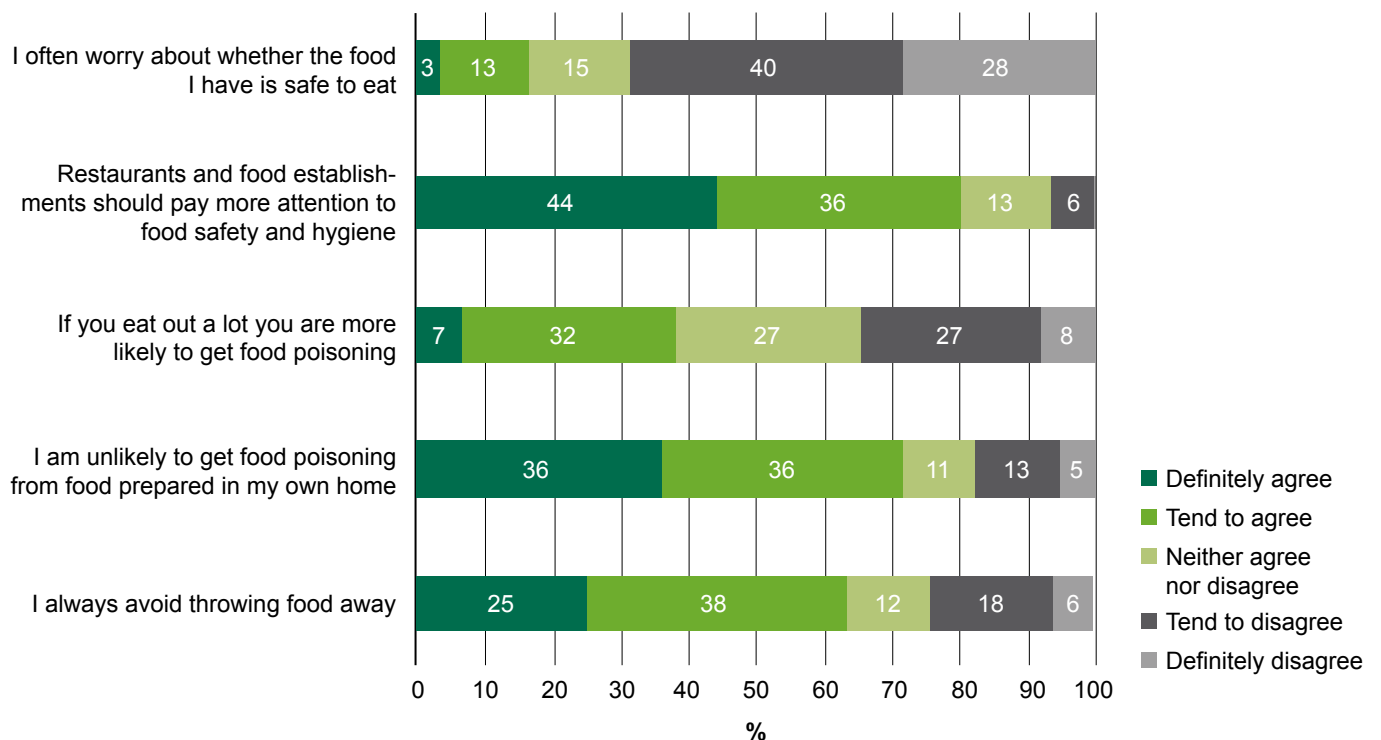
% reporting	Wales	England	Northern Ireland
Have had food poisoning	39	45	29
Have not had food poisoning	61	55	71
Bases (unweighted)	463	1957	496

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

Table 4.2

4.3 Attitudes towards food poisoning and food safety

Figure 4.2 Attitudes towards food safety (Wave 4)



Overall, 72% of respondents agreed with the statement that they were unlikely ‘to get food poisoning from food prepared in my own home’; the proportion was highest among 55–64 year olds.

Respondents in households with incomes in the lowest quartile were more likely to agree that ‘restaurants and food establishments should pay more attention to food safety and hygiene’: 88% did so compared with 73% of respondents in households in the highest income quartile.

Respondents in households with children aged under 16 were more likely to worry that the food they have is safe to eat than those who lived in adult-only households (23% compared with 13%).

Respondents were more likely than in previous waves to agree with the statement ‘I always avoid throwing food away’ (64% compared with 58% in Wave 3, 46% in Wave 2 and 48% 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 Wales compared to those in Northern Ireland (see table 4.B)

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

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

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

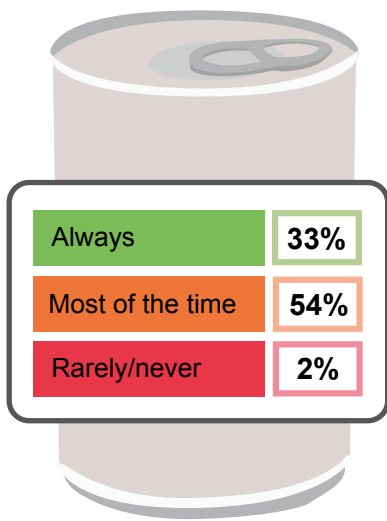
2 Disagree consists of the responses ‘tend to disagree’ and ‘definitely disagree’.

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

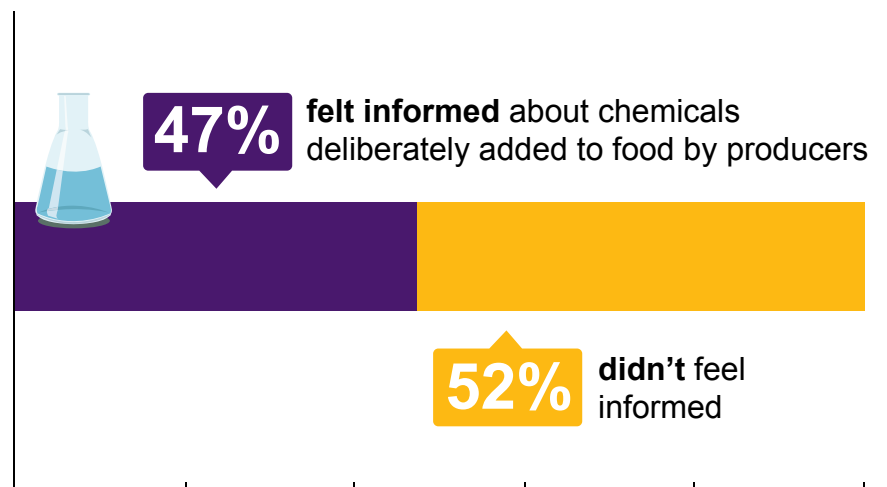
Table 4.3

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 48%
- Make **changes** to what we eat 45%
- Eat **less meat** 32%

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 2015–201 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" report²⁶ 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'²⁷, questions were introduced in Wave 4 to determine levels of awareness, concern and acceptability around emerging technologies,²⁸ complementing wider FSA work in 2015/16 such as "Our Food

26 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.

Future”²⁹ 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 confident³⁰ 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 (33%) of respondents always felt confident that food is what it says it is on the label or the menu and around half (54%) 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 third (31%) of respondents reported reading food labels more carefully, 12% had stopped eating certain foods, 11% had tried to get more information about the issue and 10% stopped shopping for food at certain places.

Table 5.1

29 www.food.gov.uk/sites/default/files/our-food-future-executive-summary.pdf

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

5.3 Knowledge about added chemicals in food

When asked to what extent they felt informed about chemicals deliberately added to food by producers, 47% of respondents felt very well or well informed and 13% felt not at all informed.³¹ Those most likely to report feeling not at all informed were those aged 75 and over (28%, compared with 9%–15% of those aged 16 to 64).

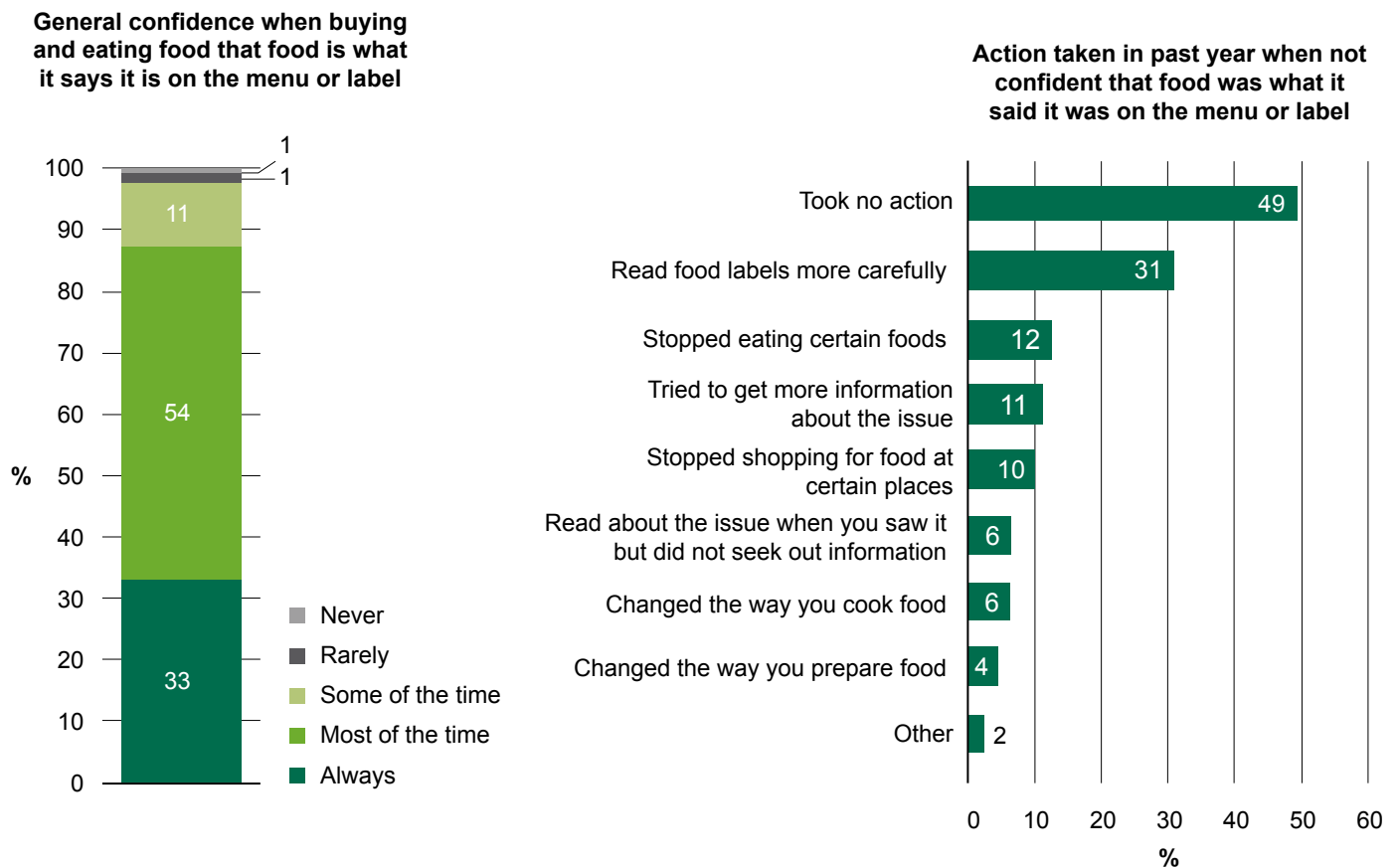
Respondents felt generally less well informed about chemical residues from the food production process (e.g. pesticides, veterinary medicines); 81% felt not informed about this matter compared with 52% who felt not informed about chemicals deliberately added to food by producers.

Eighty-one 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 78% 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 (19%–22%) felt informed about either of these two matters.

Table 5.2

³¹ 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.

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

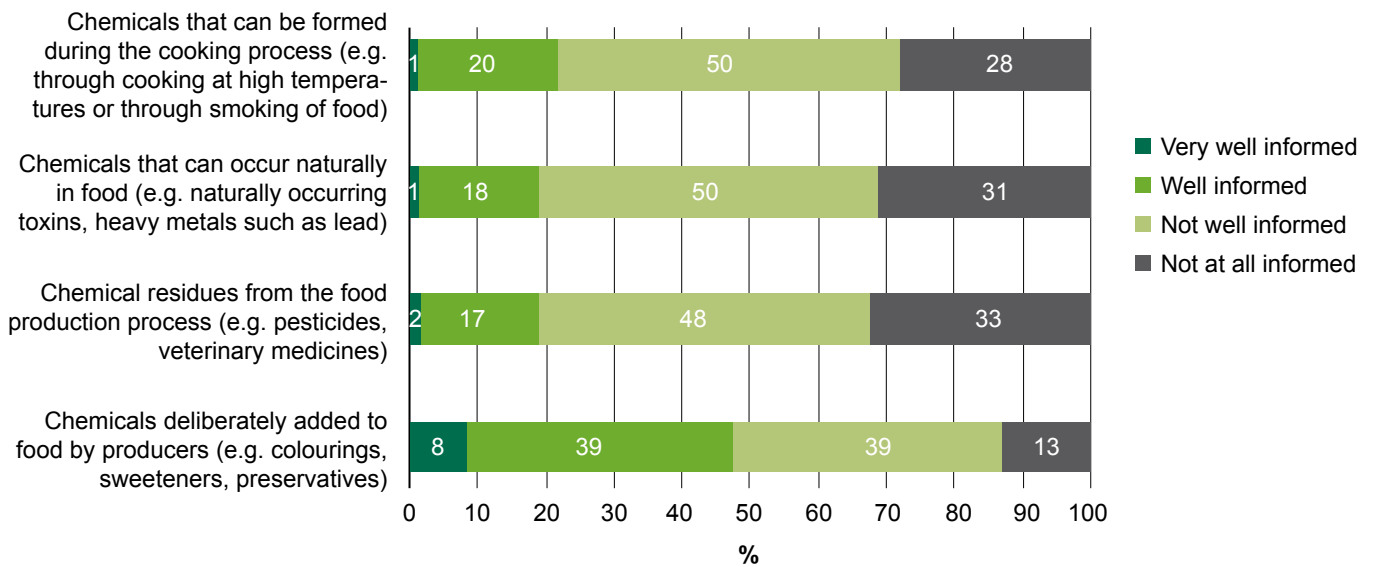


5.4 Attitudes towards chemicals in food production

When asked to what extent they agreed or disagreed that the benefits of using chemicals in food production outweigh the risks, 17% agreed (definitely agreed or tended to agree) and 30% disagreed (tended to disagree or definitely disagreed). There were differences by gender: men were more likely to agree that the benefits outweigh the risks (22% compared with 13%) and women were correspondingly more likely to disagree (35% compared with 26% of men).

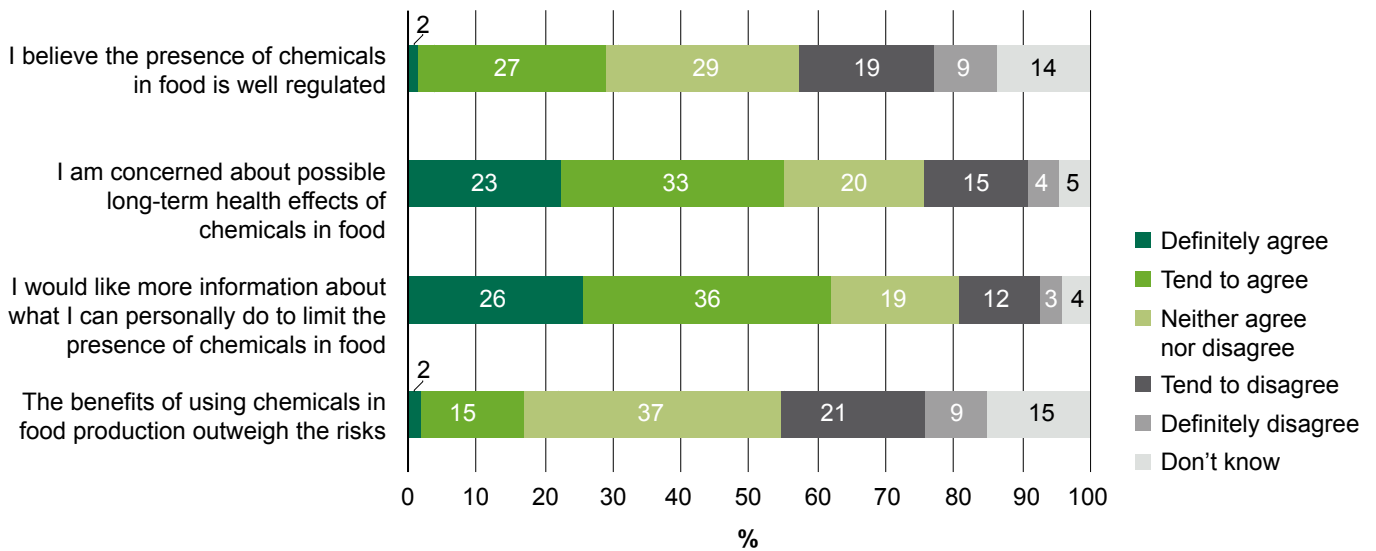
Almost two thirds (62%) of respondents agreed that they would like more information about what they can personally do to limit the presence of chemicals in food. Fifty-five per cent of respondents were concerned about possible long-term health effects of chemicals in food and 20% were not concerned.

Figure 5.2 Knowledge about chemicals in food (Wave 4)



Around three in ten (29%) respondents agreed that the presence of chemical in food is well regulated, and the same proportion disagreed and neither agreed nor disagreed. Fourteen 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 5.2–5.3

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 (45%) of respondents agreed and 24% 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, 48% of respondents agreed and 19% 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 (19% compared with 6%).

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’. Thirty-two per cent of respondents agreed and 42% disagreed, with a

further quarter of respondents (26%) neither agreed nor disagreed.

Figure 5.4 Attitudes towards food futures (Wave 4)

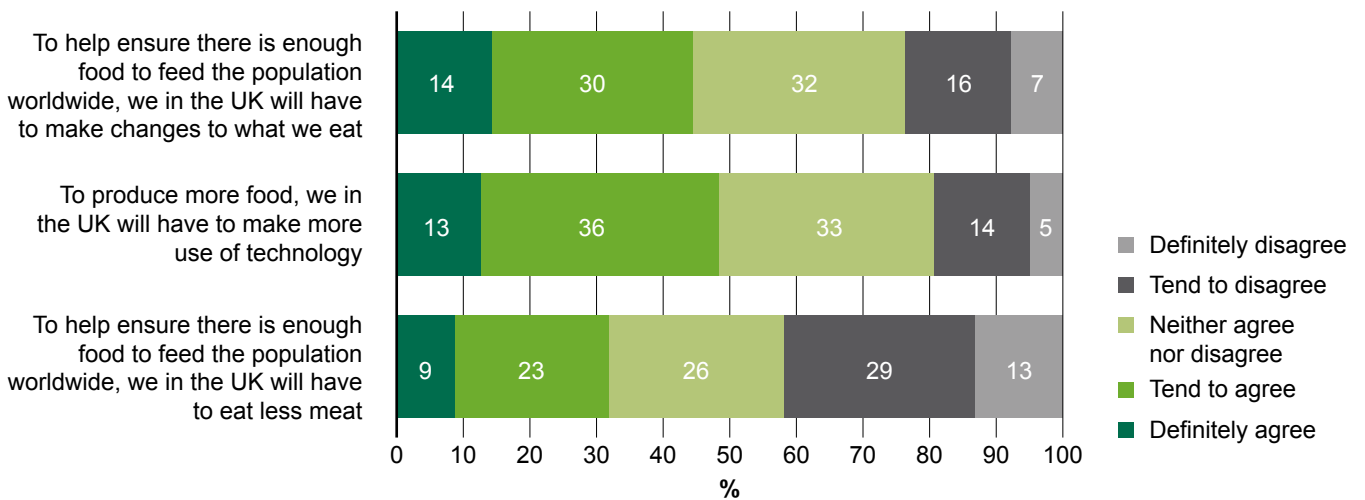


Table 5.4

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 37% of respondents agreed (definitely agreed or tended to agree) that when buying food they check to see where it was produced, a higher proportion (48%) did not check. Both men and women were just as likely to check where food was produced (37%).

More than half (59%) of respondents agreed that where possible they prefer to buy food produced in Britain.

More than half of respondents (54%) had greater trust in the quality of food produced in Britain, compared with food imported from overseas.

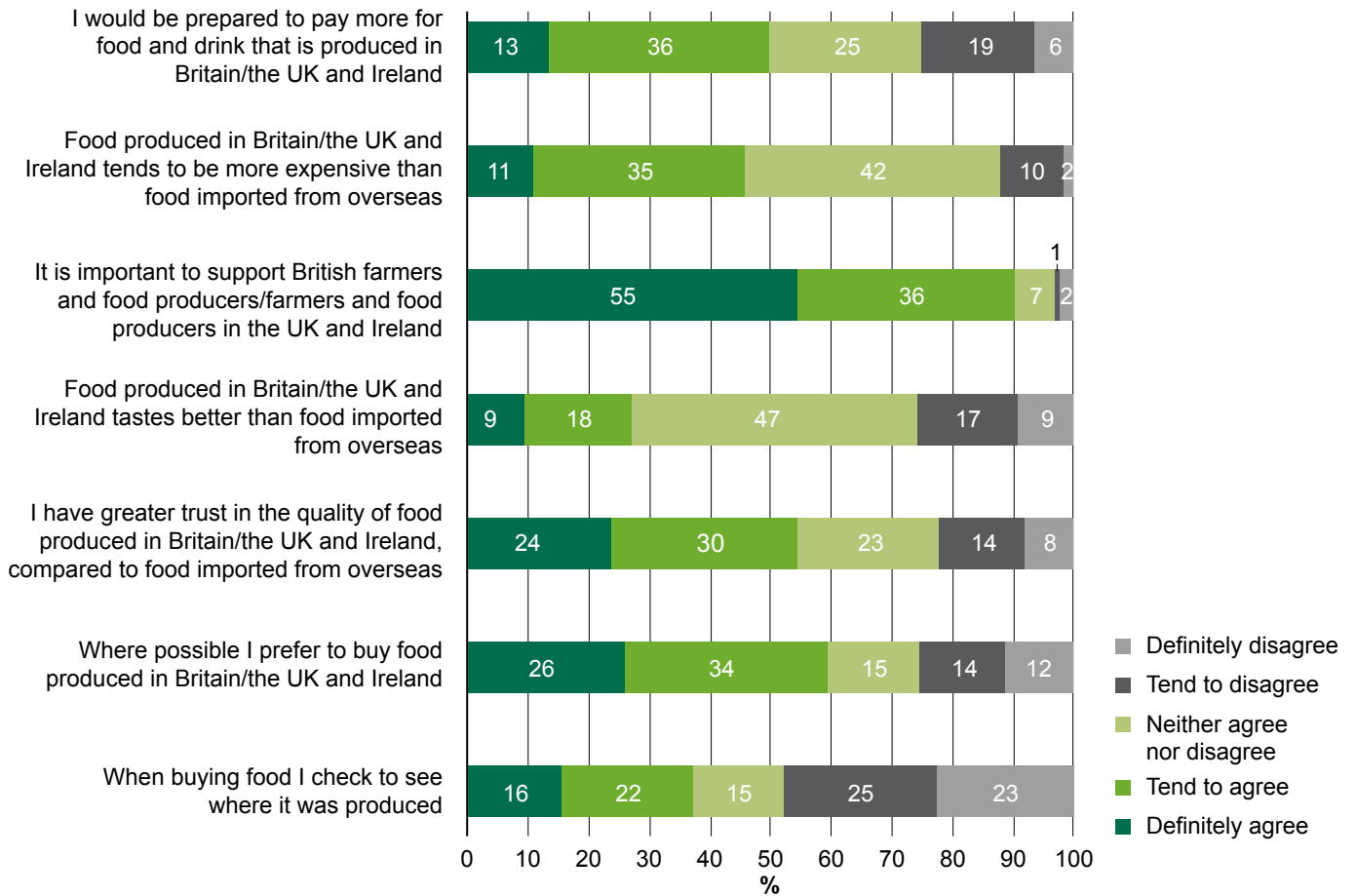
Older respondents had greater trust than younger respondents in the quality of food produced in Britain (37%–50% of those aged 65 and over definitely agreed, compared with 14%–15% of those aged 16 to 34).

When asked to what extent they agreed or disagreed that food produced in Britain tastes better than food imported from overseas, a similar proportion of respondents agreed (27%) as disagreed (26%); the majority of respondents neither agreed nor disagreed (47%). Those most likely to definitely agree were respondents aged 65 and over (16%–21% compared with 3%–8% of those aged 16–34).

Ninety per cent of respondents agreed with the statement that it is important to support British farmers and food producers. Over two thirds (71%–72%) of respondents aged 65 and over definitely agreed with this statement compared with 33%–56% of those aged 16 to 64.

Forty-six per cent of respondents agreed that food produced in Britain tends to be more expensive than food imported overseas. Half (50%) of respondents said that they would be prepared to pay more for food and drink that is produced in Britain. Older respondents aged 65 and over were more likely to definitely agree (24%–27% compared with 2%–3% of those aged 16 to 34).

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

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 Wales were less likely than those in Northern Ireland to agree that they have greater trust in the quality of food produced in Britain compared to food imported from overseas (54% compared with 69%). Correspondingly those in Wales were more likely than those in Northern Ireland to neither agree nor disagree (23% compared with 16%) and disagree (22% compared with 14%) with this statement.

Compared with those in England, respondents in Wales were less likely to neither agree nor disagree with this statement (23% compared with 29%).

When asked if they agreed with the statement 'food produced in Britain tastes better than food imported from overseas', respondents in Wales were less likely than those in Northern Ireland to agree (27% compared with 40%), and more likely to neither agree nor disagree (47% compared with 39%).

Table 5.5