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The 2014 FOOD and YOU Survey

UK Bulletin

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Social Science in Government

The 2014 FOOD and YOU Survey

UK Bulletin 2
Food safety in the home

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Contents

Official Statistics

The statistics presented in this 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.

Foreword

This bulletin presents a descriptive overview of selected findings from Wave 3 of the Food and You survey, commissioned by the Food Standards Agency (FSA or the Agency). Much of the Agency's work with the public is concerned with informing and influencing the ways in which food is purchased, stored, prepared and consumed. Food and You provides data about the prevalence of different reported behaviours, attitudes and knowledge relating to these topics.

Waves 1 and 2 of the Food and You survey were carried out in 2010 and 2012 respectively. Wave 3 was conducted in 2014 and consisted of 3,453 interviews from a representative sample of adults aged 16 and over across the UK. Wave 3 builds on and extends the previous findings.

The key findings from Wave 3 have been published in four separate bulletins, one for each of the following main topics:

- Eating, cooking and shopping
- Food safety in the home
- Eating outside the home
- Experience of food poisoning and attitudes towards food safety and food production

In addition to the bulletins, an executive summary has been published which presents key findings from across the entire survey.

This bulletin provides a descriptive overview of the key findings from Wave 3 in relation to food safety in the home.

Background and objectives

Role of the FSA

The FSA was created in 2000 as a non-ministerial, independent government department governed by a Board whose members have extensive knowledge and experience in a wide range of sectors relevant to the FSA. The Agency was set up to protect public health from risks which may arise in connection with the consumption of food, and otherwise to protect the interests of consumers in relation to food.

The FSA is responsible for food safety and hygiene across the UK, and is committed to ensuring the general public can have trust and confidence in the food they buy and eat.

In providing guidance on food safety to consumers, the Agency aims to minimise the risk of food poisoning. Advice generally relates to four aspects of food hygiene: cleaning, cooking, cross-contamination and chilling (collectively known as the ‘4 Cs’), with advice provided on each aspect. 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 the safety of food eaten at home.

The Food and You survey

In 2009, the FSA commissioned a consortium comprising TNS BMRB, the Policy Studies Institute (PSI) and the University of Westminster to carry out Wave 1 of Food and You. The main aim of this survey was to collect quantitative information as a baseline on the UK public’s reported behaviour, attitudes and knowledge relating to food issues (such as food safety and healthy eating). The results from this survey provided an extensive evidence base to support policy making at the FSA and across other government departments.

Waves 1 and 2 of the Food and You survey were conducted by the same consortium in 2010 and 2012 respectively. Reports of the findings and methodological details are available on the FSA

website[1]. Specific examples of use of the findings include results from Wave 1 being used to determine the theme of the 2012 FSA Food Safety Week[2] and findings from Wave 2 informing FSA public campaigns on food safety. Secondary analysis of the Waves 1 and 2 data has explored domestic food safety practices[3] and the relationships between nutrition and food safety[4]. Wave 3 was carried out in 2014 by TNS BMRB.

Prior to 2010, the FSA was responsible for food safety and nutrition policy across the UK. Accordingly, Wave 1 of the Food and You survey contained questions covering both healthy eating and food safety, and the findings were reported together. During Wave 1, responsibility for nutrition policy (healthy eating) was transferred in England and Wales to the Department of Health (DH) and the Welsh Government respectively. Nutrition policy in Scotland and Northern Ireland remains the responsibility of the Agency. Waves 2 and 3, therefore, focussed solely on food safety issues for respondents in England and Wales but included an additional question module on healthy eating for respondents in Scotland and Northern Ireland. This bulletin covers the UK wide food safety questions only; separate bulletins published for Scotland and Northern Ireland will include findings from the healthy eating module of questions[5].

The objectives for Wave 3 of the Food and You survey were to collect quantitative information to enable the Agency to:

- Explore public understanding of, and engagement with, the Agency's aim of improving food safety
- Identify specific 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)
- Monitor changes over time (compared with data from Waves 1 and 2 or from other sources) in reported attitudes and behaviour
- Broaden the evidence base and develop indicators to assess progress in fulfilling the Agency's strategic plans, aims and targets.

About this bulletin

Self-reported behaviours

Interviews as a data collection method do not necessarily capture people's actual practices. What respondents say in interviews about what they do and think is necessarily *reported* for a number of reasons, including recall not being accurate, certain behaviours being habitual and therefore possibly difficult to recall, and desirability bias – described further below. 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.

When developing the Food and You questionnaire, it was apparent that the risk of social desirability bias was high i.e. respondents tended to answer questions based on what they thought they ought to say, rather than reflecting what they actually do, know or think. In particular, there were a number of topics in the questionnaire for which respondents might be reluctant to report behaviour which goes against a generally well known 'best practice' (for example, not washing their hands before cooking or preparing food). The Food and You questionnaire was carefully designed to limit this as far as possible by asking questions about behaviour in specific time periods (e.g. asking whether a respondent did something 'in the last seven days' rather than 'usually') and framing questions in a neutral way.

[1] The Wave 1 report can be found at: http://www.foodbase.org.uk/admintools/reportdocuments/641-1-1079_Food_and_You_Report_Main_Report_FINAL.pdf and the Wave 2 report can be found at: http://www.foodbase.org.uk/admintools/reportdocuments/805-1-1460_Wave_2_Main_Report.pdf

[2] http://www.food.gov.uk/news-updates/campaigns/germwatch/

[3] http://www.food.gov.uk/science/research/ssres/fs409012

[4] http://www.food.gov.uk/science/research/ssres/crosscutss/fs307014

[5] Separate reports will be published for each of England, Wales, Scotland, and Northern Ireland. The reports for England and Wales will report the data relating to food safety for the individual country.

Questionnaire changes between waves

To reflect the changing responsibilities of the FSA, the focus of the survey content was changed between Wave 1 and Wave 2. To minimise any effects caused by changing the order of the questions attempts were made to keep the structure of the questionnaire as similar as possible between the waves. Despite this, the removal of the healthy eating questions in England and Wales, and further revisions of the food safety questions introduced unavoidable differences between the two waves of the survey. As the context in which survey questions are asked is known to influence the way respondents reply we cannot rule out the possibility that differences in responses between Waves 1 and 2 may have been partly or wholly because of changes to the questions in general and to the changed context resulting from removing the 'healthy eating' questions in particular. Further changes were made to the questionnaire at Wave 3. Again, whilst efforts were made to keep the structure of the questionnaire as similar as possible to the Wave 2 questionnaire, unavoidable differences were introduced between these two waves of the survey. That observed differences could be an effect of changes to the questionnaire should be kept in mind when considering the findings.

Where questions have remained consistent across the waves of the survey, statistical analysis has been used to determine whether results have changed significantly over time. Although having three data points now means it is possible to see trends starting to emerge, doing so is inevitably still tentative, whereas further waves of data collection would allow greater confidence in identifying trends.

At Wave 1 of the survey, in order to cover additional topics without over-burdening respondents, three question modules (eating arrangements, eating out and shopping patterns) were each asked of a random third of respondents. At Waves 2 and 3, all question modules were asked of all respondents. The larger sample sizes for these modules at Waves 2 and 3 mean that smaller differences observed between Waves 2 and 3 are statistically significant compared with differences between Wave 1 and Waves 2 or 3.

The Food and You Technical Report (published separately) provides a summary of questionnaire changes between Wave 2 and Wave 3.

Reporting conventions

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.

Percentages may not add to 100% as a result of rounding.

Topics covered

The Food and You survey collected data on a wide range of topics. As a result it is not feasible for this series of bulletins to present detailed analysis of all of the questions. In particular, only selected socio-demographic variables have been analysed to uncover statistically significant differences. These variables were identified by the FSA as of key interest, providing the most useful information about sub-group variation at this initial stage of data analysis. The identified variables were: age, gender, country of residence, household size, presence of children in household, income, socio-economic classification, and working status. Analysis of ethnicity has not been included in this report due to the small base numbers for 'non-white' respondents. Secondary data analysis will be conducted to explore these, and other variables, in more detail in due course. Full data are available in the UK Data Archive[6] and at data.gov.uk[7] for further analysis. Variation by age and gender has been considered across the three waves, while only Wave 3 data was examined for variation by the other demographic variables.

[6] http://www.data-archive.ac.uk/

[7] http://data.gov.uk/

1. Background

With reference to food safety in the home, the FSA is committed to ensuring that consumers better understand how to prepare and store food safely and more consumers follow best practice as a matter of course.

Food preparation in the home is recognised as a critical step in the food chain and the FSA promotes the '4 Cs' principle (Cleanliness, Cooking, Chilling and Cross Contamination) of good food hygiene which is aimed at preventing cases of domestic foodborne illness thus reducing its incidence:

Principles of good food hygiene – the '4 Cs'

Cleanliness

- Prevent harmful bacteria from spreading by observing good personal hygiene.
- Wash hands after using the loo, after handling raw food, and before touching food which is ready to eat.
- Do not handle or prepare food if you have had a stomach upset, have sores or cuts on your hands or weeping eye / ear infections.

Cooking

- Cook food thoroughly, especially meat and poultry.
- Make sure food is steaming hot throughout before serving.
- If you reheat food, make sure it is steaming hot throughout and only reheat it once.

Chilling

- Store raw meat in a covered container on the bottom shelf of the fridge, away from ready to eat foods.
- Check your fridge temperature regularly using a thermometer. Fridge temperature should be below 5 degrees Celsius.
- Once opened, food should be kept in the fridge and used within two days, unless the packaging states otherwise.

Cross Contamination

Cross contamination, or the transfer of bacteria from raw foods to ready-to-eat foods, can happen in several ways, including:

- Using the same chopping board to prepare raw and ready-to-eat foods.
- Using the same knife for raw and ready-to-eat food.
- Using the same cloth to clean up raw food spills and ready-to-eat food preparation areas.
- Storing raw and ready-to-eat foods together. Always store ready-to-eat foods above raw foods in the refrigerator.

This bulletin presents the findings relating to each aspect of domestic food safety practice, as well as practices relating to date labelling.

Note that at Wave 2 a composite measure of domestic food safety practices, known as the index of recommended practice (IRP), was developed[8] in order to summarise the individual aspects of domestic food safety and provide a clearer picture of which

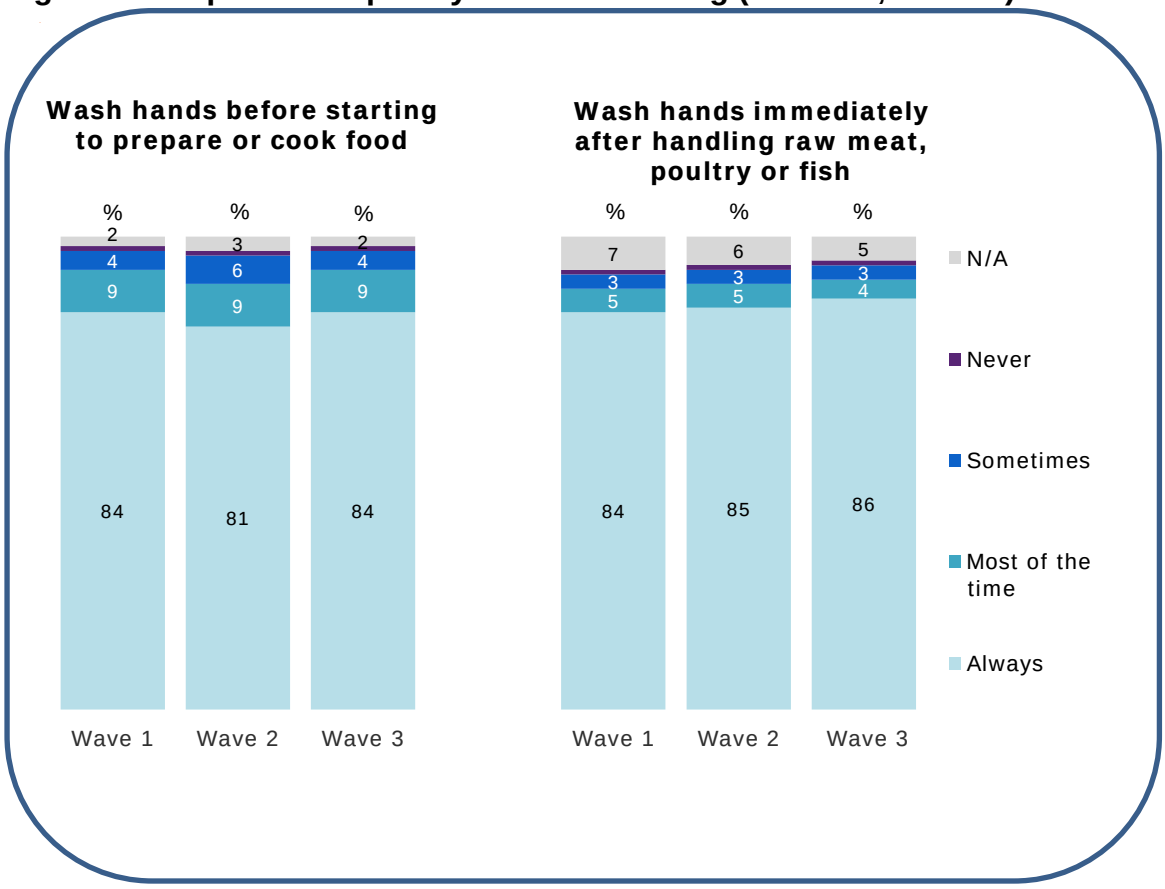
[8] Further details about how the index was constructed and the analysis which was conducted using the index can be found in the Wave 2 report. See http://www.foodbase.org.uk/admintools/reportdocuments/805-1-1460_Wave_2_Main_Report.pdf

socio-demographic groups overall were less likely to report behaviour in line with recommended practice.

The composite consisted of fourteen questions on food safety practices from Food and You. The FSA provides guidance relating to each practice such that where behaviour is not in line with recommended practice it is likely to increase the risk of exposure to a foodborne illness. For each practice, a score of 1 was allocated to reported behaviours which were not in line with recommended practice, and a score of 0 was allocated to reported behaviours that were in line with recommended practice. Since the Wave 2 report was published, the Food Standards Agency has done further work to refine the index and analysis of Wave 3 data using the refined index will be published in due course.

2. Practices relating to the ‘4 Cs’ - Cleaning

Figure 2.1 Reported frequency of hand washing (Waves 1, 2 and 3)



Source: Q4_1 Thinking about when you are storing, preparing and cooking food, I would like you to tell me whether you do or don’t do the following things at all when you are in the kitchen and if so how frequently.

Base: All respondents – Wave 1 (3,163); Wave 2 (3,231); Wave 3 (3,453)

The FSA recommends that hands should be washed thoroughly on a regular basis and in particular before preparing food, after touching raw food (especially meat), and after using the toilet.

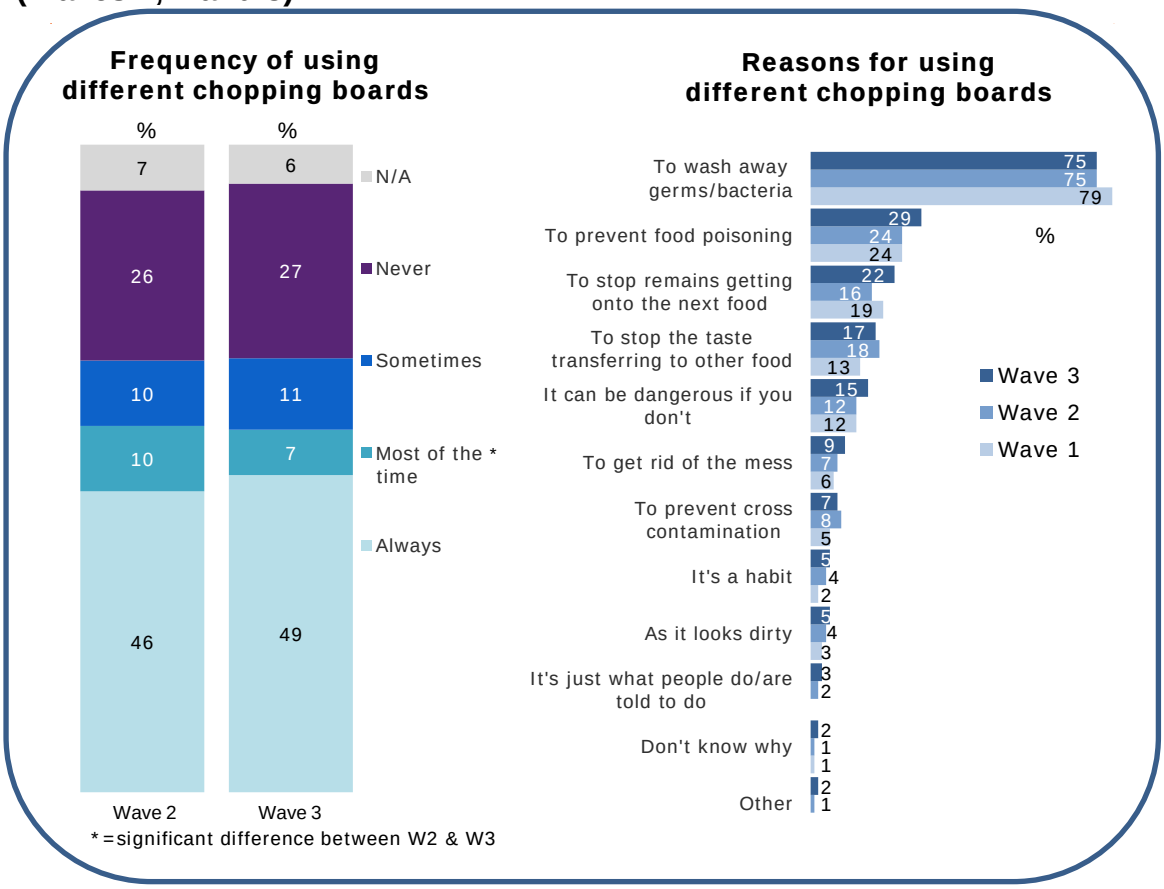
- Overall, 84% of respondents reported always washing their hands before starting to prepare or cook food, and 97% reported that they did this at least some of the time. The proportion who reported always washing their hands was similar to that at Wave 1, and higher than that at Wave 2.
- The majority of respondents (86%) reported always washing their hands immediately after handling raw meat, poultry or fish, similar to the proportion at Waves 1 and 2.
- One per cent of respondents said they never washed their hands before preparing or cooking food and one per cent said they never washed their hands immediately after handling raw meat, poultry or fish.
- In total, 80% of respondents reported always washing their hands before starting to prepare or cook food, and always washing their hands after handling raw meat

poultry or fish (if they ever did this), in line with FSA recommended practice for cleaning.

3. Practices relating to the '4 Cs' – Cross-contamination

3.1 Chopping boards

Figure 3.1 Frequency of, and reasons for, using different chopping boards (Waves 1, 2 and 3)



Source: Q4_1 Thinking about when you are storing, preparing and cooking food, I would like you to tell me whether you do or don't do the following things at all when you are in the kitchen and if so how frequently & Q4_3 After using a chopping board to prepare raw meat, poultry or fish people might wash the board before using it again for other foods or use a clean board. Why do you think they do this?
Note: respondents were able to give multiple reasons in answer to Q4_3;
Note: responses to Q4_3 were given spontaneously, with no prompted response list shown to respondents.

Base: All respondents - Wave 1 (3,163); Wave 2 (3,231); Wave 3 (3,453)

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.

- Around half (49%) of respondents said they always used different chopping boards for different foods, whilst 27% said that they never did, similar to Wave 2.
- At Wave 3, 56% of respondents reported using different chopping boards always or most of the time, the same as at Wave 2.

- As at Wave 2, three-quarters of respondents (75%) reported that the reason behind washing a chopping board after preparing raw meat, poultry or fish on it, and before using it for other food, was to wash away germs or bacteria, in line with the reason underpinning recommended practice. The proportion of respondents reporting this at Wave 1 was 79%.
- Around three in ten respondents (29%) said the reason for washing a chopping board was to prevent food poisoning, compared with 24% at Waves 1 and 2. Seven per cent said it was to prevent cross-contamination (compared with five per cent at Wave 1). Both of these reasons are in line with the reasoning underpinning recommended practice.
- The proportion of respondents giving the more general reason that it can be dangerous if you do not use a different board was 15%, compared with 12% at Waves 1 and 2.
- Other reasons commonly cited were to stop the taste transferring to other food (17%, compared with 13% at Wave 1) and to stop remains from getting onto the next food (22% compared with 19% at Wave 1 and 16% at Wave 2). These are not reasons which underpin recommended practice.

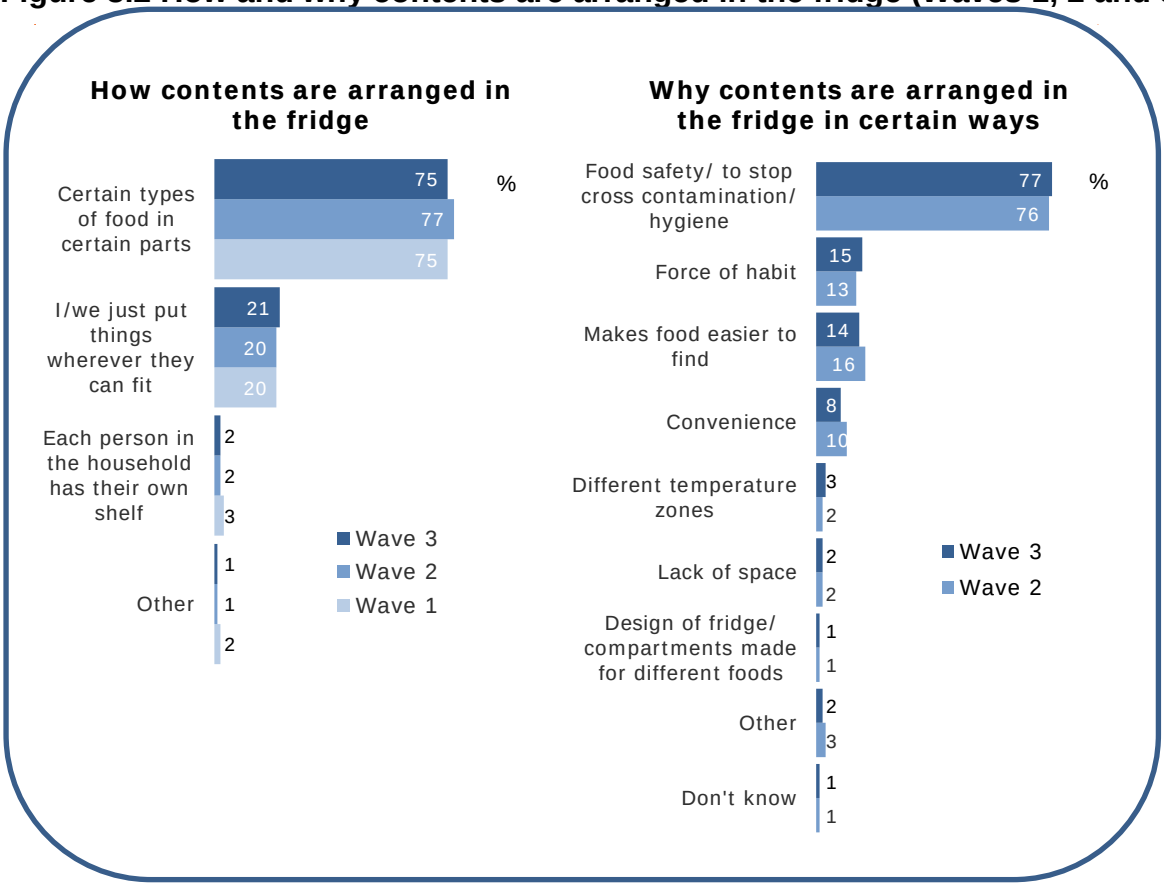
3.2 Food storage in the fridge

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.

The image below illustrates the FSA's advice on how food can be safely stored in the fridge[9].

[9] http://www.food.gov.uk/northern-ireland/nutritionni/niyoungpeople/survivorform/dontgetsick/chilling#.UQkirh3HGHc

Figure 3.2 How and why contents are arranged in the fridge (Waves 1, 2 and 3)

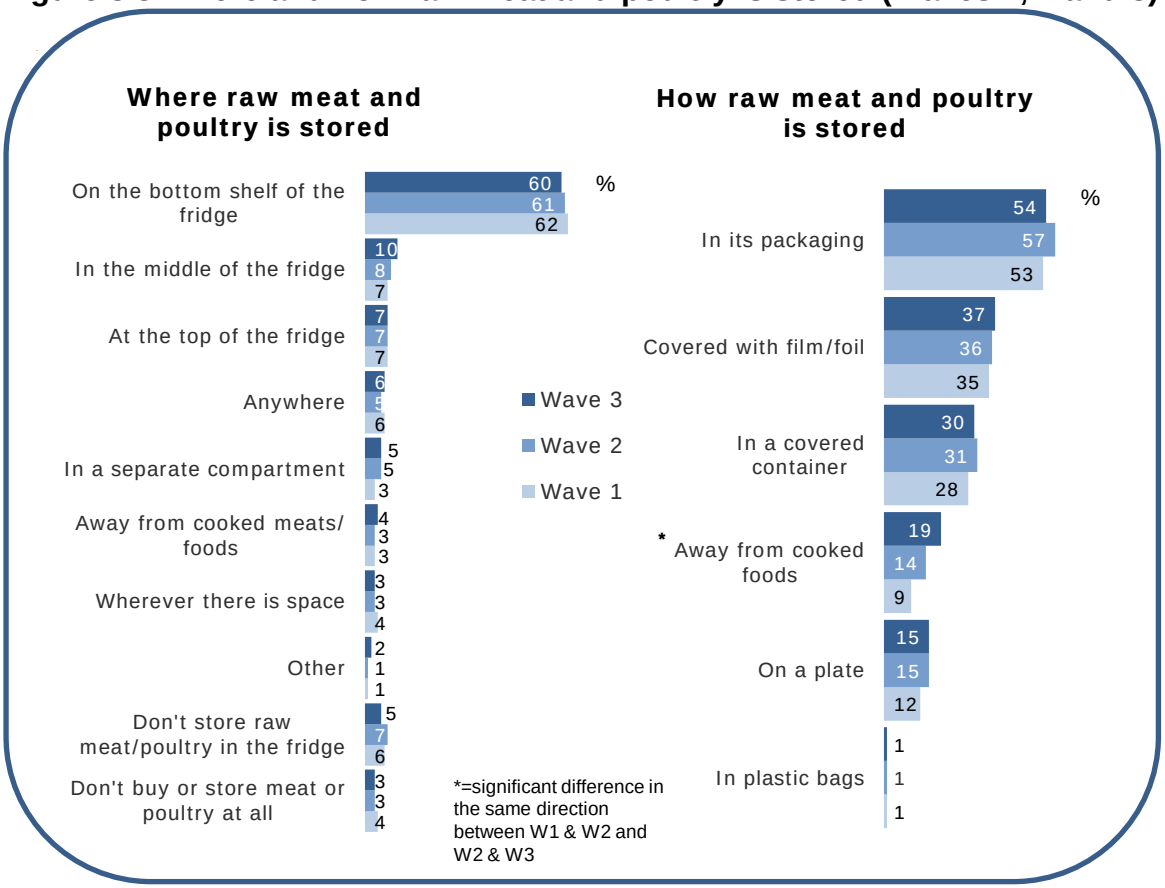


Source: Q4_13 And how do you arrange the contents of your fridge? & Q4_13A Why do you always keep certain types of food in certain parts of the fridge?
Note: respondents were able to give multiple reasons in answer to Q4_13A
Note: responses to Q4_13A were given spontaneously, with no prompted response list shown to respondents.

Base: Q4_13 - Wave 1 - All respondents (3,163); Wave 2 - All respondents who have a fridge in their household (3,206); Wave 3 - All respondents who have a fridge in their household (3,420); Q4_13A – Wave 2 - All respondents who always keep certain types of food in certain parts of the fridge (2,491); Wave 3 - All respondents who always keep certain types of food in certain parts of the fridge (2,668)

- 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.
- Of those who said they kept certain foods in certain parts of the fridge, 77% said they did so for reasons of food safety, hygiene or to stop cross contamination. Force of habit was chosen by 15%, and 14% said they did this because it made food easier to find.
- There were no statistically significant changes between Waves 1, 2 and 3.

Figure 3.3 Where and how raw meat and poultry is stored (Waves 1, 2 and 3)



Source: Q4_14 Where in the fridge do you store raw meat and poultry? & Q4_15 How do you store raw meat and poultry in the fridge?
Note: respondents were able to give multiple answers
Note: responses to both questions were given spontaneously, with no prompted response list shown to respondents.

Base: Q4_14 Wave 1 - All respondents (3,163); Wave 2 - All respondents who have a fridge in their household (3,206); Wave 3 - All respondents who have a fridge in their household (3,420) & Q4_15 Respondents who store raw meat and poultry: Wave 1 (2,843); Wave 2 (2,921); Wave 3 (3,126)

- Of respondents who said that they had a fridge in their household, 60% reported that they stored raw meat and poultry on the bottom shelf of the fridge, in line with recommended practice. Ten per cent said they stored it in the middle of the fridge, higher than the proportion at Wave 1, while seven per cent said they stored it at the top of the fridge. Five per cent reported keeping raw meat and poultry in a separate compartment, and four per cent reported keeping it away from cooked meats, in line with recommended practice.

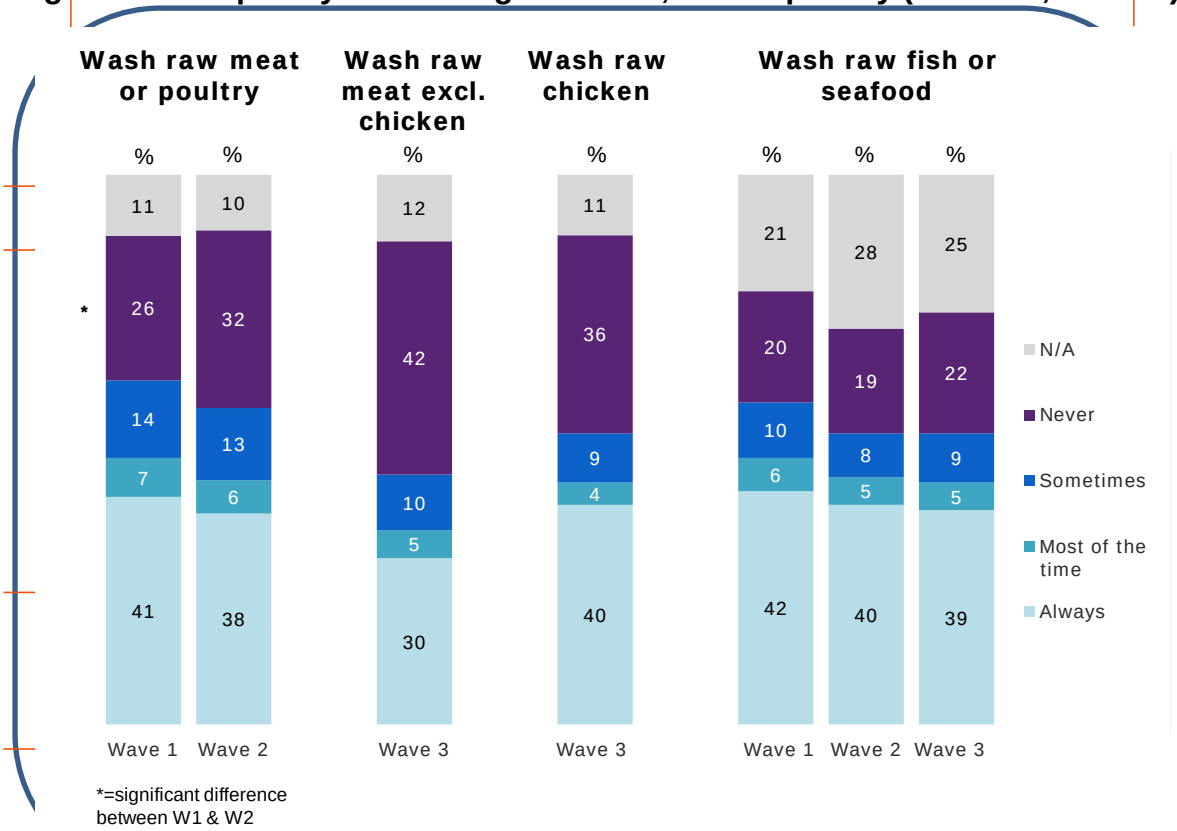
- Of respondents who reported storing raw meat and poultry in their fridge, 54% said they stored it in its packaging. This is not in line with recommended practice and was a similar proportion to the 53% reporting this at Wave 1, whilst at Wave 2, 57% reported doing this.

- Thirty-seven per cent of respondents reported that they covered raw meat and poultry with film / foil, 30% that they kept it in a covered container, and 19% reported that they stored it away from cooked food (an increase compared with nine per cent at Wave 1 and 14% at Wave 2). These behaviours are in line with recommended practice.

- Fifteen per cent of respondents reported storing raw meat or poultry on a plate (the same proportion as at Wave 2, but higher than the 12% reported at Wave 1), which is not in line with recommended practice.
- Looking across these reported practices, around half (51%) of those who reported storing raw meat and poultry in their fridge reported practice in line with FSA guidance on how raw meat should be stored in a fridge.
- Respondents were asked whether they stored food in open tins in the fridge. The majority (71%) reported that they never did so, which is in line with FSA recommended practice, as the tin may contaminate the food. Twenty-seven per cent said that they did this at least some of the time, and six per cent said that they always stored food in open tins in the fridge. These findings are similar to those at Wave 2.

3.3 Washing raw meat and fish

Figure 3.4 Frequency of washing raw meat, fish or poultry (Waves 1, 2 and 3)



Source: Q4_1 Thinking about when you are storing, preparing and cooking food, I would like you to tell me whether you do or don't do the following things at all when you are in the kitchen and if so how frequently.

Base: All respondents: Wave 1 (3,163); Wave 2 (3,231); Wave 3 (3,453)

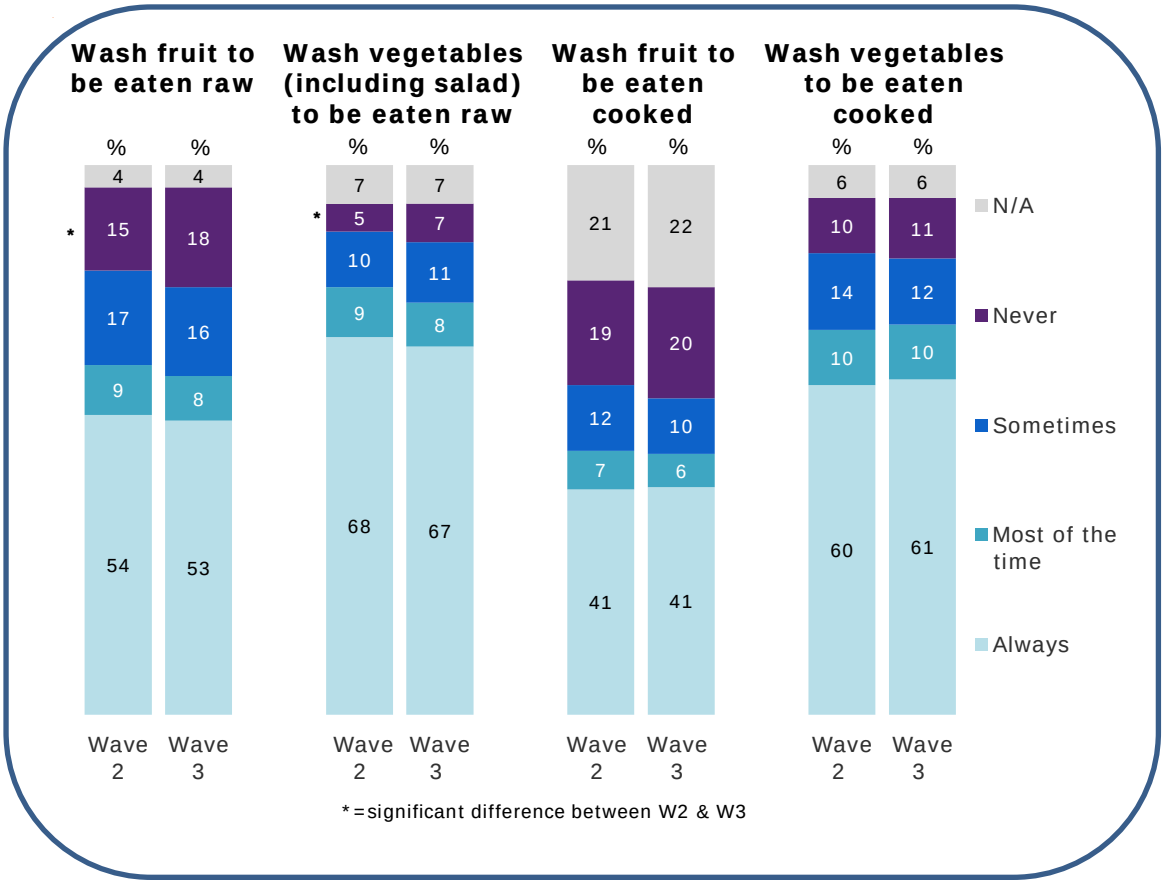
The FSA recommends that raw meat and fish are not washed prior to cooking due to the risk of cross contamination from water splashing on the sink, surrounding surfaces, and utensils, which may come into contact with ready to eat food.

- Similar to findings at Waves 1 and 2, 22% of respondents reported that they never washed raw fish or seafood when preparing and cooking it, while 53% reported that they did at least some of the time. Thirty nine per cent of Wave 3 respondents said they always washed raw fish or seafood.
- Compared with washing fish and seafood, a higher proportion of respondents reported that they never washed raw meat or poultry. Changes to the question at Wave 3 to separate raw meat and poultry other than chicken from raw chicken make comparisons with Waves 1 and 2 difficult. Nevertheless there appeared to have been an increase in the proportion of respondents reporting that they never washed raw meat at Wave 3, particularly meat other than chicken. This follows a higher proportion of respondents reporting that they never washed raw meat or poultry at Wave 2 compared with at Wave 1 (32% compared with 26%).

- Respondents were more likely to report washing chicken than other meats. Forty two per cent said they never washed meat other than chicken, with 46% reporting that they did so at least sometimes. Thirty six per cent of respondents said that they never washed chicken, but over half (53%) reported washing chicken at least sometimes.

3.4 Washing fruit and vegetables

Figure 3.5 Frequency of washing fruit and vegetables which are going to be eaten raw and cooked (Waves 2 and 3)



Source: Q4_1 Thinking about when you are storing, preparing and cooking food, I would like you to tell me whether you do or don't do the following things at all when you are in the kitchen and if so how frequently.

Base: All respondents: Wave 2 (3,231); Wave 3 (3,453) (Question not asked at Wave 1)

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).

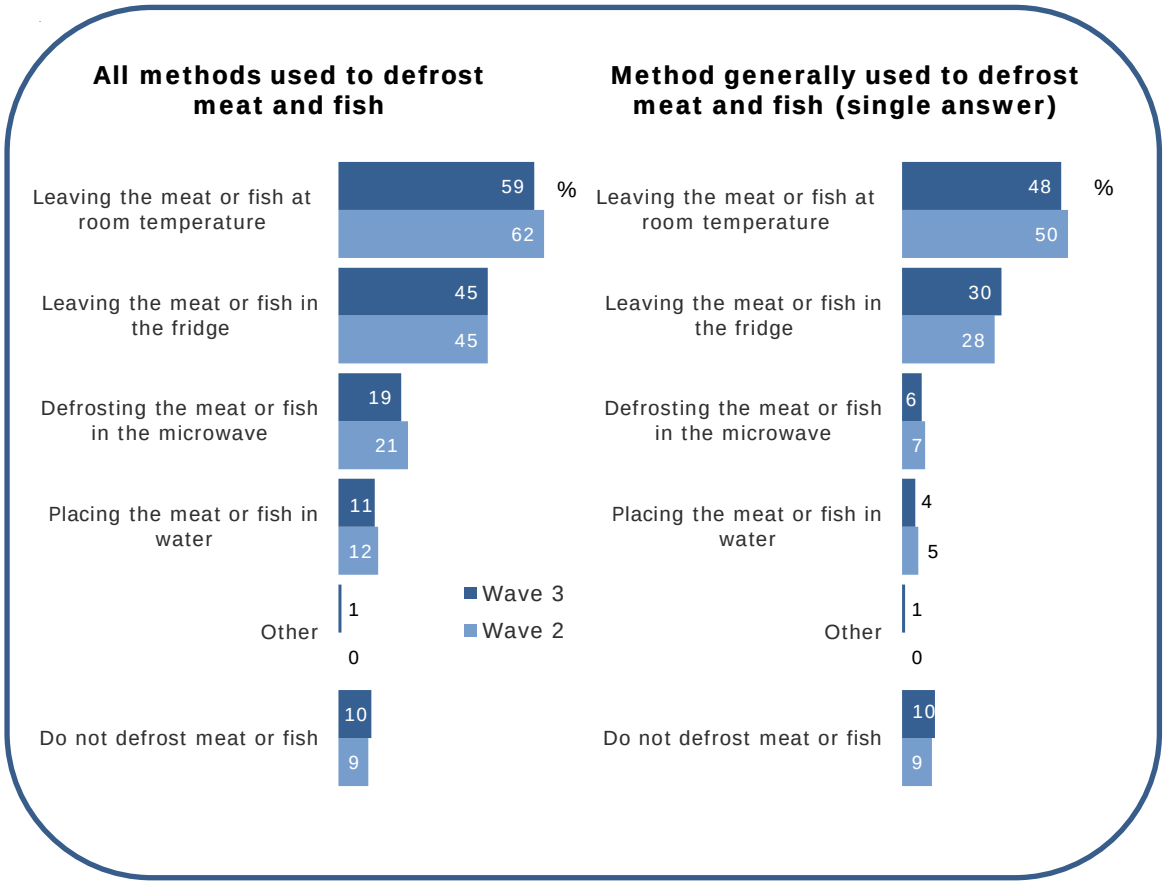
- Fifty-three per cent of respondents reported that they always washed fruit which was going to be eaten raw whilst 77% said they did this at least some of the time. Eighteen per cent of respondents reported that they never washed fruit which was going to be eaten raw, compared with 15% at Wave 2.
- Respondents were more likely to report washing vegetables that were going to be eaten raw; 67% said that they always did, 86% said they did this at least some of the time and seven per cent said they never did this.

- A lower proportion of respondents reported that they would always wash fruit that was going to be cooked compared with when it would be eaten raw (41% compared with 53%). Fifty seven per cent reported that they washed fruit that was going to be cooked at least some of the time, while 20% said that they never did.
- Respondents were more likely to report that they washed vegetables which were going to be cooked compared with fruit; 61% said they always did (compared with 41% for fruit), 84% said they did this at least some of the time (compared with 57%) and 11% reported they never did (compared with 20%).
- The findings for washing fruit and vegetables that are going to be cooked were similar to those seen at Wave 2.

4. Practices relating to the ‘4 Cs’ – Chilling

4.1 Chilling and defrosting

Figure 4.1 Defrosting meat and fish (Waves 2 and 3)



Source: Q4_1B Which of the following methods do you use to defrost frozen meat or fish? & Q4_1C And which method do you generally use to defrost frozen meat or fish?
Note: respondents were able to give multiple answers to Q4_1B

Base: All respondents: Wave 2 (3,231); Wave 3 (3,453) (Question not asked at Wave 1)

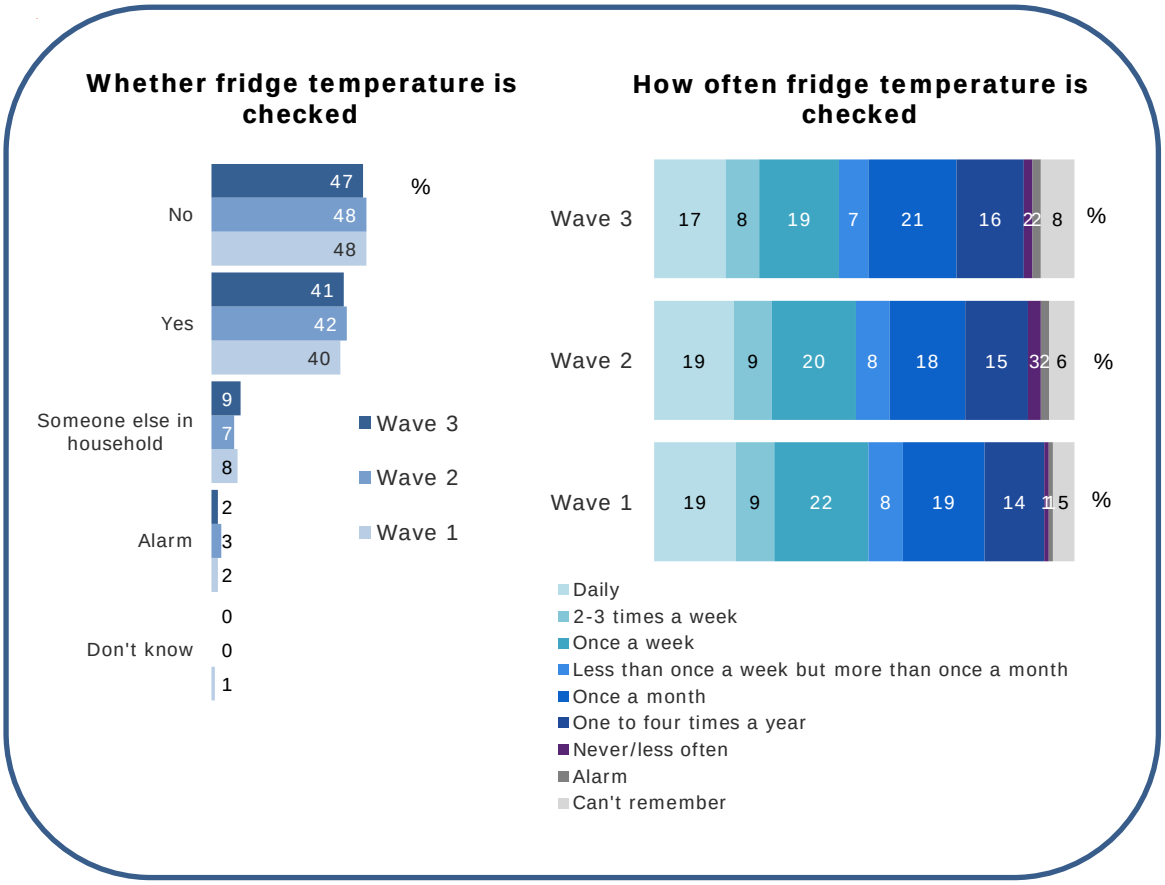
The FSA recommends defrosting food slowly and safely overnight in the refrigerator or using a microwave oven (carefully ensuring that the food is fully defrosted before cooking it straight away). The FSA does not recommend defrosting food at room temperature as this provides ideal conditions for bacteria to grow.

- Respondents were most likely to report leaving meat or fish at room temperature (59%) in order to defrost. Forty-five per cent of respondents said that they defrosted meat or fish in a refrigerator, and 19% in a microwave oven, similar to the findings at Wave 2.

- When asked for the single method they generally used, 48% of respondents said they generally left the meat or fish at room temperature, 30% reported that they generally defrosted it in a refrigerator and six per cent said they generally used a microwave oven.

4.2 Checking fridge temperature

Figure 4.2 Checking fridge temperature (Waves 1, 2 and 3)



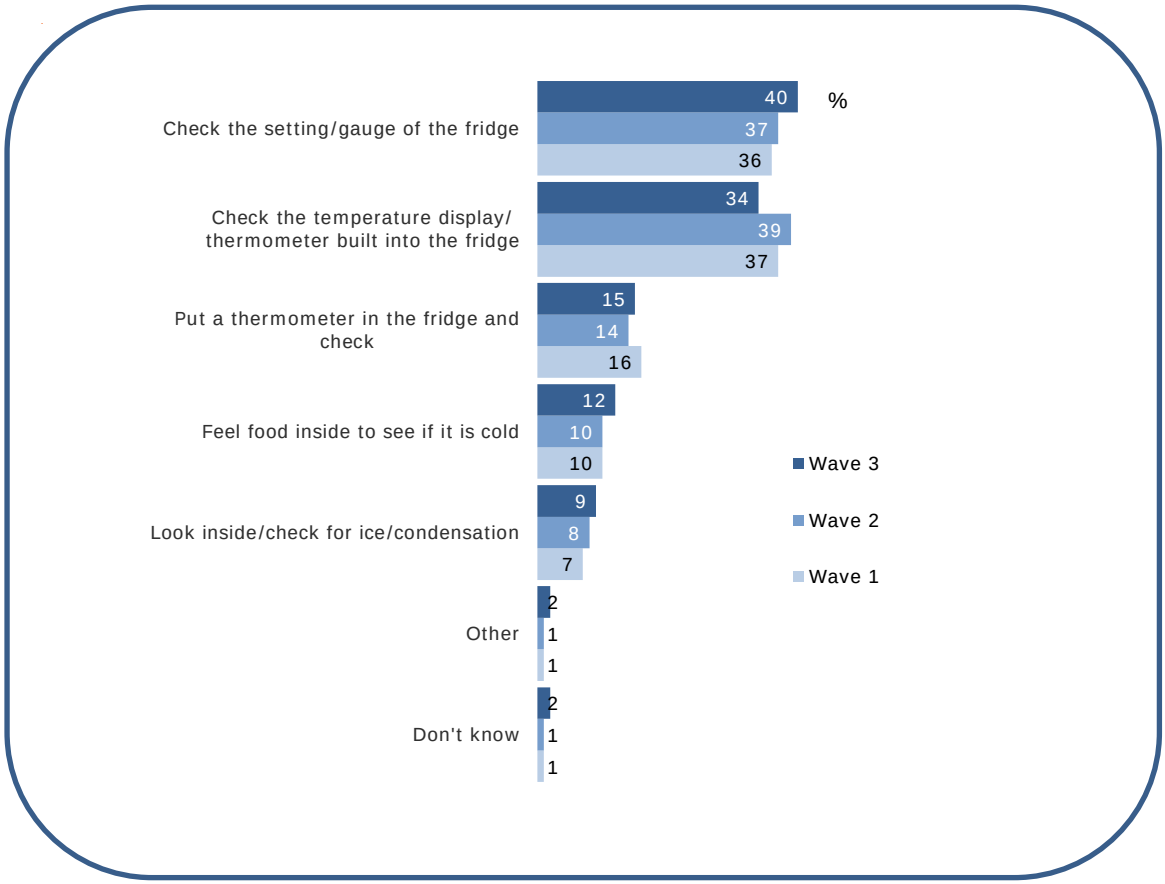
Source: Q4_9 Do you ever check your fridge temperature? & Q4_10 How often do you or another person in your household check the temperature of the fridge?

Base: Q4_9 Wave 1 - All respondents (3,163); Wave 2: All respondents who have a fridge in their household (3,206); Wave 3: All respondents who have a fridge in their household (3,420) & Q4_10 All respondents who check their fridge temperature – Wave 1 (1,501); Wave 2 (1,448); Wave 3 (1,643)

The FSA recommends that fridge temperatures are checked regularly and that the temperature is kept between 0-5°C to help stop food poisoning bacteria such as *Listeria monocytogenes* from growing in food.

- Of respondents who had a fridge, 50% reported that they or someone else checked the temperature, whilst 47% reported that they never checked their fridge temperature. Around four in ten (41%) said they checked it themselves.
- A minority of respondents (two per cent) said they did not need to check their fridge temperature as their fridge had an alarm if it was too hot or cold.
- The frequency with which respondents reported checking their fridge temperature differed from Wave 1. About seven in ten respondents (71%) who checked their fridge temperature said that they did so at least once a month, in line with recommended practice, compared with 77% at Wave 1. Forty three per cent said that they checked at least once a week (compared with 50% at Wave 1) and 17% said that they checked at least daily.

Figure 4.3 How fridge temperature is checked (Waves 1, 2 and 3)

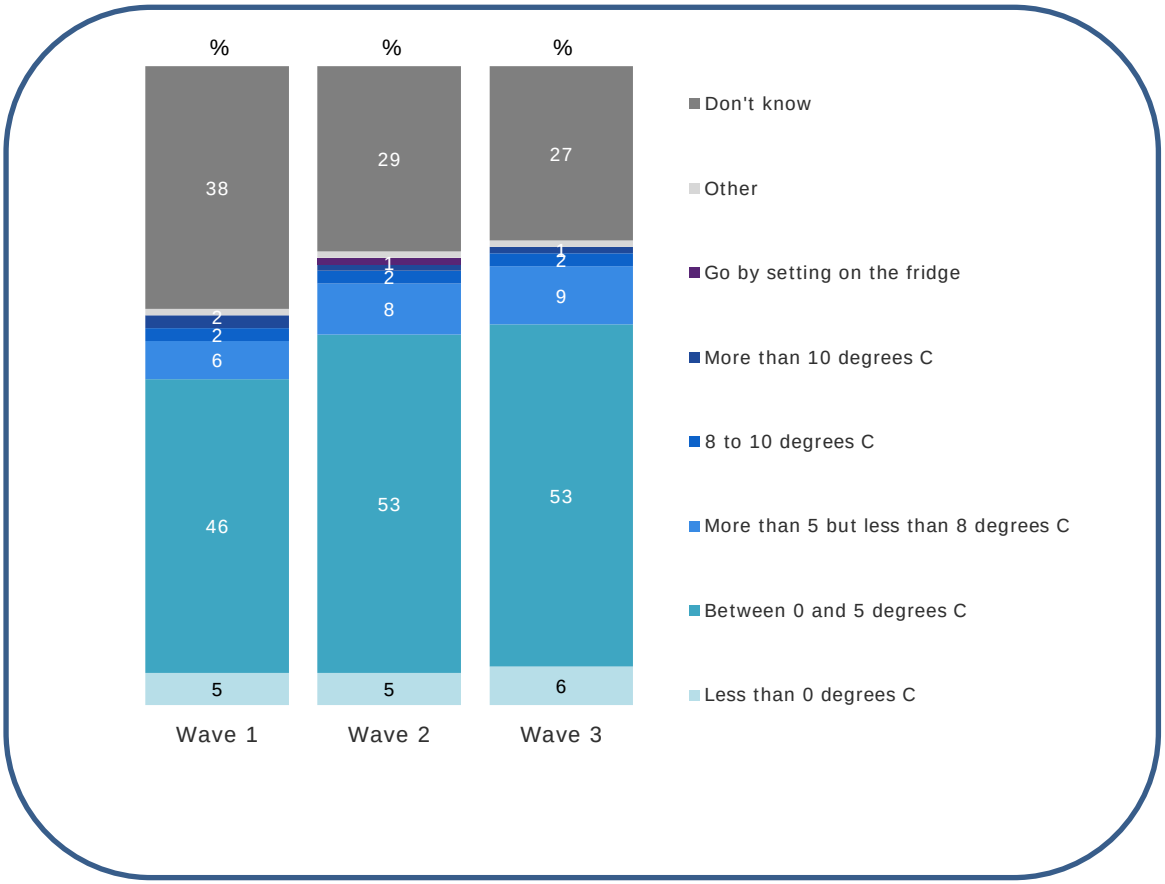


Source: Q4_11 Still thinking about fridge temperatures, can you tell me how you normally check the temperature?
Note: respondents were able to give multiple answers
Note: responses to Q4_11 were given spontaneously, with no prompted response list shown to respondents.

Base: Respondents who do not have a fridge alarm - Wave 1 (1,480); Wave 2 (1,421); Wave 3 (1,612)

- Respondents who reported checking their fridge temperature, but did not have an alarm, were asked how they normally checked it. Findings were similar to those at Waves 1 and 2.
- **The use of a thermometer is the recommended method for checking fridge temperature** and 15% of respondents reported using this method with 34% checking the temperature display / thermometer built into the fridge.
- The most common method was to check the setting / gauge of the fridge (40%). This is not a recommended method of checking the fridge temperature as these are not usually an indication of temperature.

Figure 4.4 Awareness of recommended fridge temperature (Waves 1, 2 and 3)



Source: Q4_12 What do you think the temperature inside your fridge should be?
Note: responses to Q4_12 were given spontaneously, with no prompted response list shown to respondents.

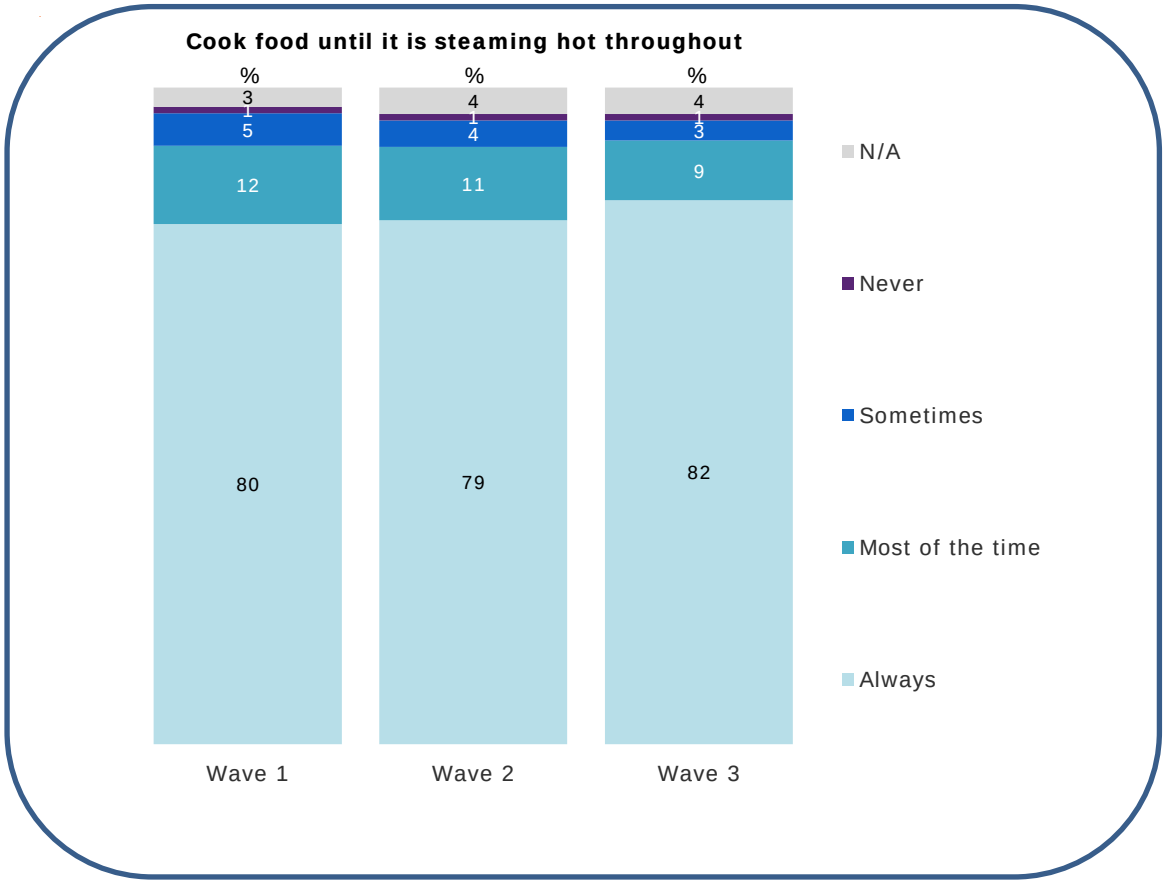
Base: Wave 1 All respondents (3,163); Wave 2 All respondents with a fridge in their household (3,206); Wave 3 All respondents with a fridge in their household (3,420)

- When asked what respondents thought the temperature inside the fridge should be, 53% said the fridge temperature should be between 0 and 5°C (the recommended temperature). This was similar to the proportion that reported this at Wave 2, and higher than the proportion that reported this at Wave 1 (46%).
- Twenty-seven per cent of respondents at Wave 3 reported that they did not know what the fridge temperature should be, similar to the proportion at Wave 2 and lower than that seen at Wave 1 (38%). Other respondents gave a range of answers, with more providing a response above the recommended temperature range than below the recommended range.
- In total 11% of respondents who had a fridge reported behaviours in line with FSA recommended practice for checking that their fridge temperature remains between 0 and 5°C at least monthly using a thermometer.

5. Practices relating to the ‘4 Cs’ – Cooking

5.1 Cooking food until steaming hot

Figure 5.1 Frequency of cooking food until it is steaming hot throughout (Waves 1, 2 and 3)



Source: Q4_1 Thinking about when you are storing, preparing and cooking food, I would like you to tell me whether you do or don’t do the following things at all when you are in the kitchen and if so how frequently?

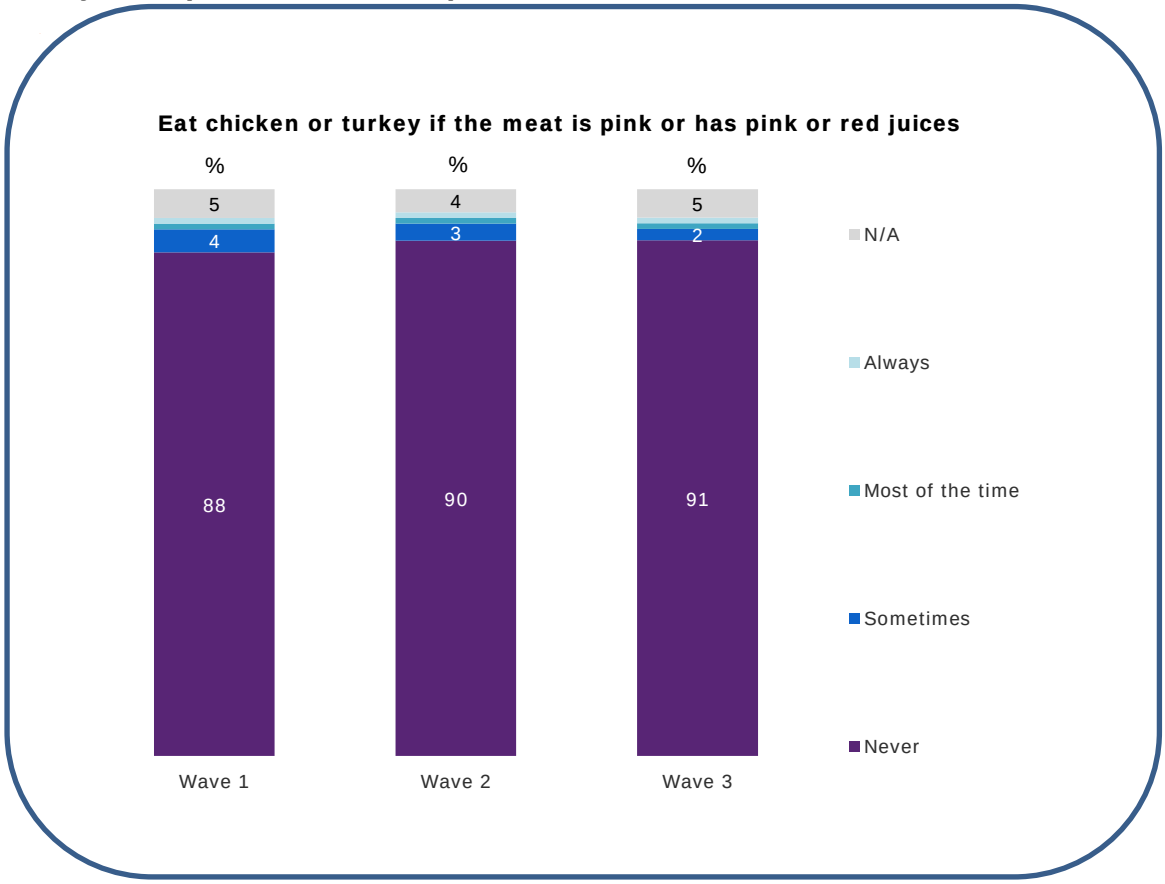
Base: All respondents - Wave 1 (3,163); Wave 2 (3,231); Wave 3 (3,453)

The FSA recommends that all food is cooked until it is steaming hot throughout.

- At Wave 3, 82% of respondents reported that they always cooked food until it was steaming hot throughout, while one per cent of respondents reported that they never did this. This was similar to the proportion recorded at Wave 1.

5.2 Cooking and eating meat, poultry, sausages or burgers

Figure 5.2 Frequency of eating chicken or turkey if the meat is pink or has pink / red juices (Waves 1, 2 and 3)



Source: Q4_1 Thinking about when you are storing, preparing and cooking food, I would like you to tell me whether you do or don't do the following things at all when you are in the kitchen and if so how frequently?

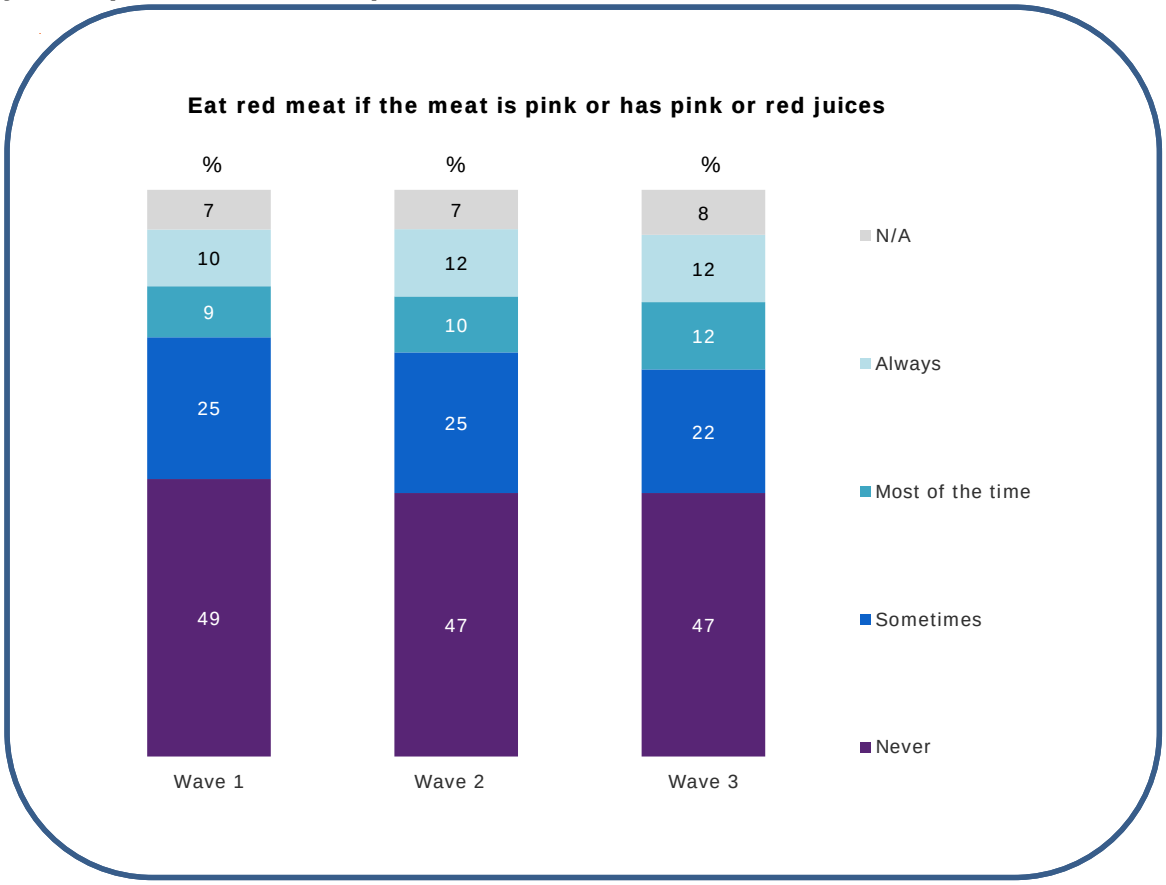
Base: All respondents - Wave 1 (3,163); Wave 2 (3,231); Wave 3 (3,453)

The FSA advises 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 have no pink / red juices. 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[10].

- Three per cent of respondents reported eating chicken or turkey if the meat was pink or had pink / red juices.
- Ninety-one per cent of respondents reported that they never ate chicken or turkey if the meat was pink or had pink / red juices, compared with 88% at Wave 1 and similar to 90% at Wave 2.

[10] Advice about steak and beef is fine for the majority, but the FSA advises at risk groups (especially pregnant mothers, the very elderly and those who are immuno-compromised) not to eat rare lamb owing to risk of toxoplasmosis.

Figure 5.3 Frequency of eating red meat, if the meat is pink or has pink / red juices (Waves 1, 2 and 3)

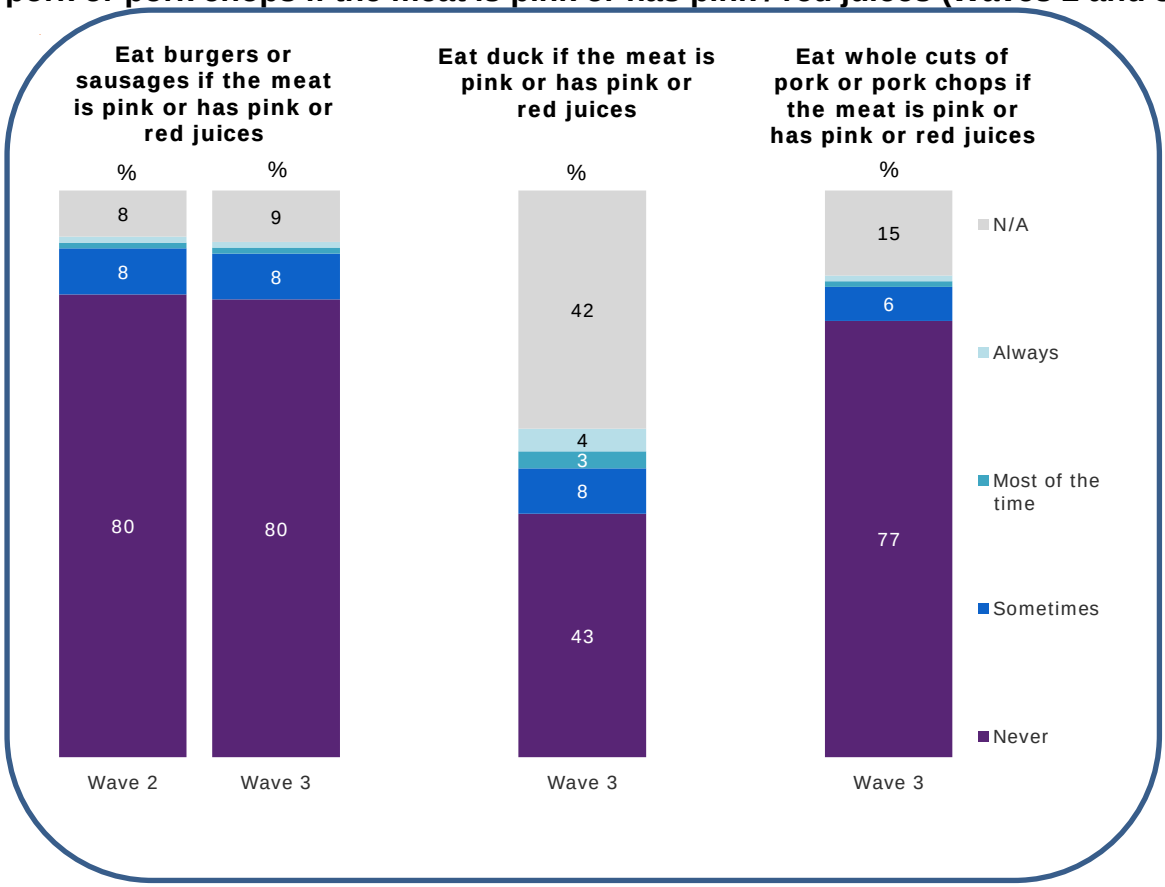


Source: Q4_1 Thinking about when you are storing, preparing and cooking food, I would like you to tell me whether you do or don't do the following things at all when you are in the kitchen and if so how frequently?

Base: All respondents - Wave 1 (3,163); Wave 2 (3,231); Wave 3 (3,453)

- For red meat, 12% of respondents said they always ate red meat if it was pink or had pink / red juices, and 47% reported that they never did.
- Compared with Wave 1, respondents were more likely to report eating red meat if the meat was pink or had pink / red juices always or most of the time (23% compared with 19% at Wave 1).

Figure 5.4 Frequency of eating burgers or sausages, duck, or whole cuts of pork or pork chops if the meat is pink or has pink / red juices (Waves 2 and 3)



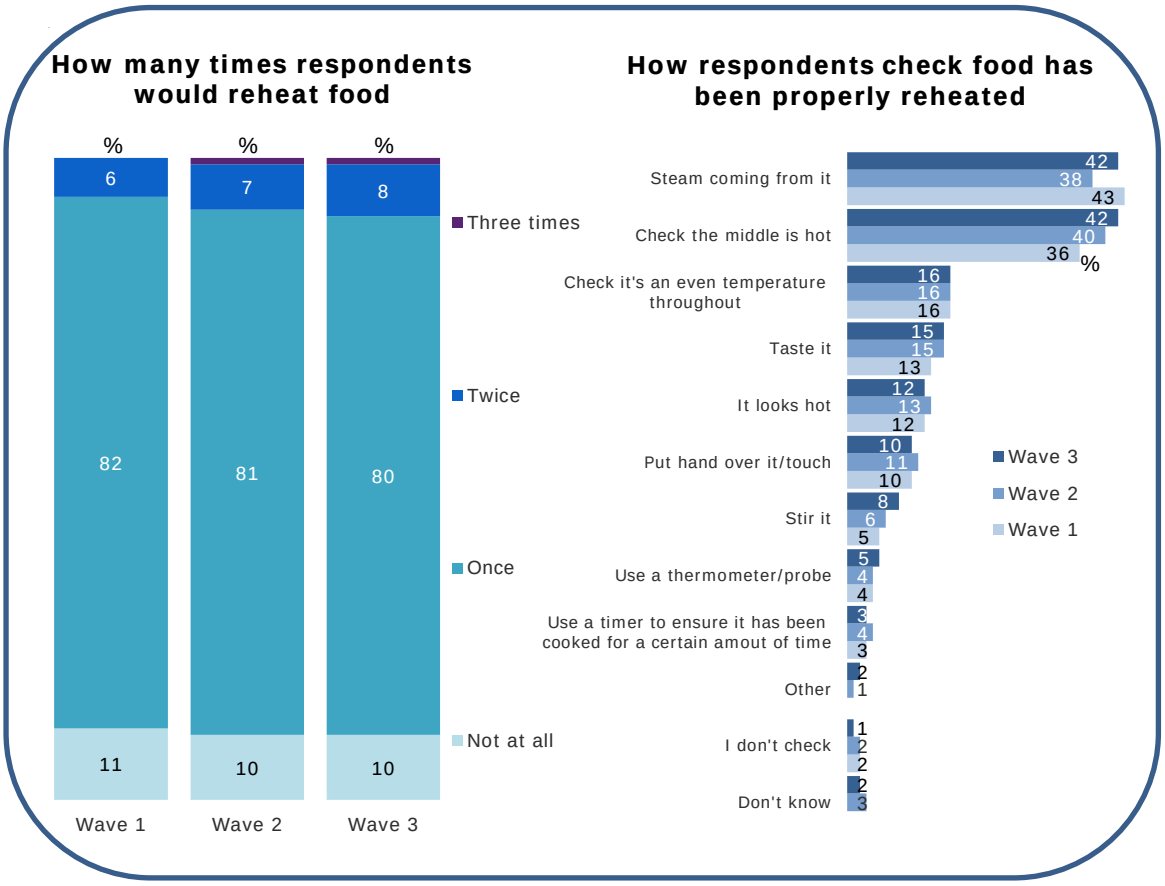
Source: Q4_1 Thinking about when you are storing, preparing and cooking food, I would like you to tell me whether you do or don't do the following things at all when you are in the kitchen and if so how frequently?

Base: All respondents - Wave 2 (3,231); Wave 3 (3,453)

- Eighty per cent of respondents reported that they never ate burgers or sausages if the meat was pink or had pink / red juices. Ten per cent of respondents reported that they ate burgers or sausages at least sometimes if the meat was pink or had pink / red juices. This had not changed significantly from the proportion at Wave 2.
- Forty-three 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, 14% said they did eat duck with pink meat or red juices at least some of the time.
- Around three in four respondents said they never ate pork if it was pink or had red juices (77%) and eight per cent said they did this at least some of the time.

5.3 Reheating

Figure 5.5 Reheating food (Waves 1, 2 and 3)



Source: Q4_25 How many times would you consider re-heating food after it was cooked for the first time? & Q4_26 And how do you usually tell that food has been re-heated properly? (answers given by more than one per cent of respondents shown)
Note: respondents were able to give multiple answers to Q4_26
Note: responses to both questions were given spontaneously, with no prompted response list shown to respondents

Base: Q4_25 All respondents who have leftovers: Wave 1 (2,937); Wave 2 (2,948); Wave 3 (3,171) & Q2_46 All respondents who have leftovers and would consider re-heating: Wave 1 (2,585); Wave 2 (2,618); Wave 3 (2,812)

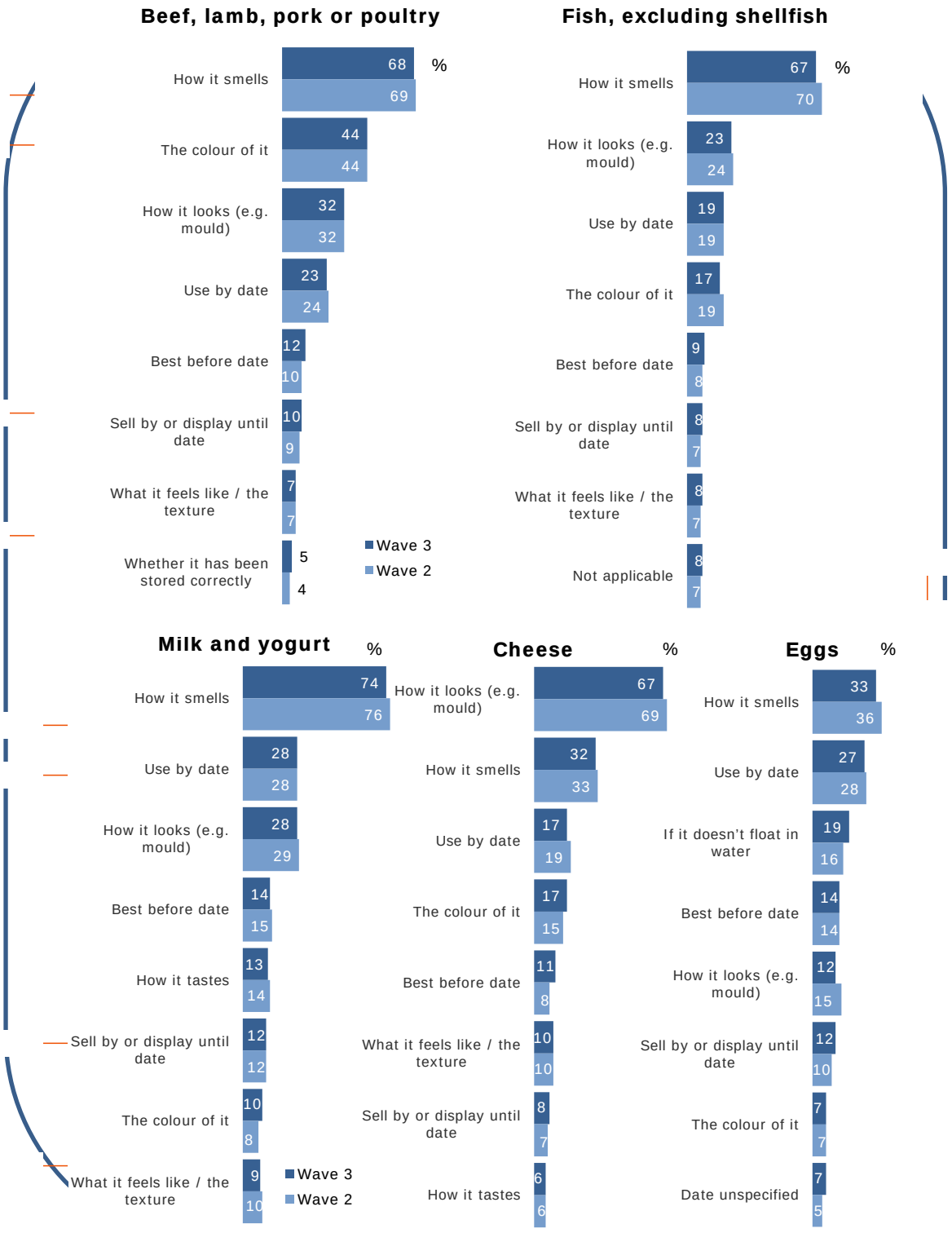
The FSA recommends that leftovers should not be reheated more than once and should be steaming hot throughout before serving.

- Eighty per cent of respondents reported that they would only re-heat food once, and 10% said they would not re-heat food at all.
- Nine per cent of respondents reported that they would re-heat food twice or more, compared with six per cent at Wave 1.
- Forty-two per cent of respondents reported testing if food had been properly reheated by seeing if steam is coming out of it, which was the most commonly reported method (similar to the proportion at Wave 1). The same proportion (42%) reported checking if the middle is hot, higher than the proportion at Wave 1 (36%).

- A minority of respondents (one per cent) reported that they did not check to see if food had been re-heated properly.

6. Methods used to tell whether food is safe to eat

Figure 6.1 Methods used to tell whether food is safe to eat (Waves 2 & 3)



Source: Q4_18 For each of the following foods, please say how you can tell whether it is safe to eat or use in cooking? Note: respondents were able to give multiple answers / only responses of five per cent or more are shown; Responses were given spontaneously, with no prompted response list shown to respondents.

Base: All respondents - Wave 2 (3,231); Wave 3 (3,453)

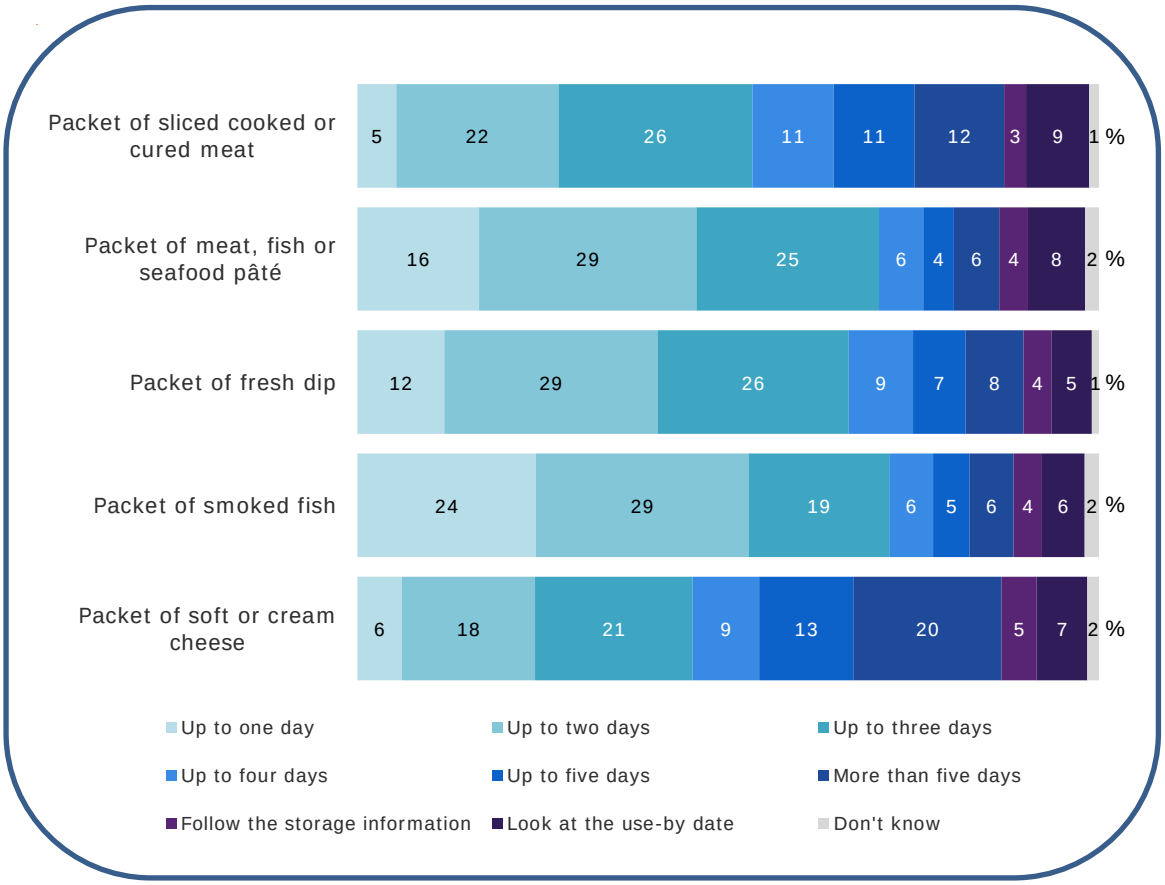
The FSA recommends that even if food looks and smells fine, the use by date is the best indicator of whether food is safe to eat[11].

- How food smelled was one of the most common ways respondents said they used to tell whether a food was safe to eat, and was the most commonly reported method for meat, fish, milk / yoghurt, and eggs.
- For example, around three-quarters (74%) of respondents reported that they used this method when checking whether milk or yoghurt was safe to eat, 68% used smell as an indicator for meat and 67% for fish.
- How food looks (for example the appearance of mould) was the most common practice (reported by 67% of respondents) for telling whether cheese was safe to eat. For meat, colour was the second most frequently reported method (reported by 44% of respondents).
- Use by dates were also mentioned as an indicator of whether food was safe; 28% of respondents reported that they used it for checking milk / yoghurt, 27% said they used it for checking eggs, and 23% for meat. The use by date was reported less often for checking fish (19%) and cheese (17%).
- Nineteen per cent of respondents said that they checked whether eggs floated in water to tell whether they were safe to eat.
- For each food asked about, two per cent of respondents or less reported that they used food on the day it was bought or bought it fresh so that they knew it was safe to eat, with the highest proportion reporting this for eggs (two per cent).
- These findings were similar to those seen at Wave 2.

[11] It is worth noting that eggs and some dairy products have a best before date instead of a use by date.

6.1 Storage information

Figure 6.2 Maximum time respondents would eat / use food after opening it (Wave 3)



Source: Q4_23A If you open ... and keep it stored in the fridge, what is the maximum number of days you would keep it in the fridge for before deciding you would definitely not eat it?
Note: responses to Q4_23A were given spontaneously, with no prompted response list shown to respondents

Base: All respondents, excluding those who do not eat / use each food item[12] – Packet of sliced cooked or cured meat (3,079); Packet of meat, fish or seafood pâté (2,575); Packet of fresh dip (2,550); Packet of smoked fish (2,318); Packet of soft or cream cheese (2,693)

The FSA recommends storing opened foods in the fridge and using within two days, unless the manufacturer's instructions state otherwise.

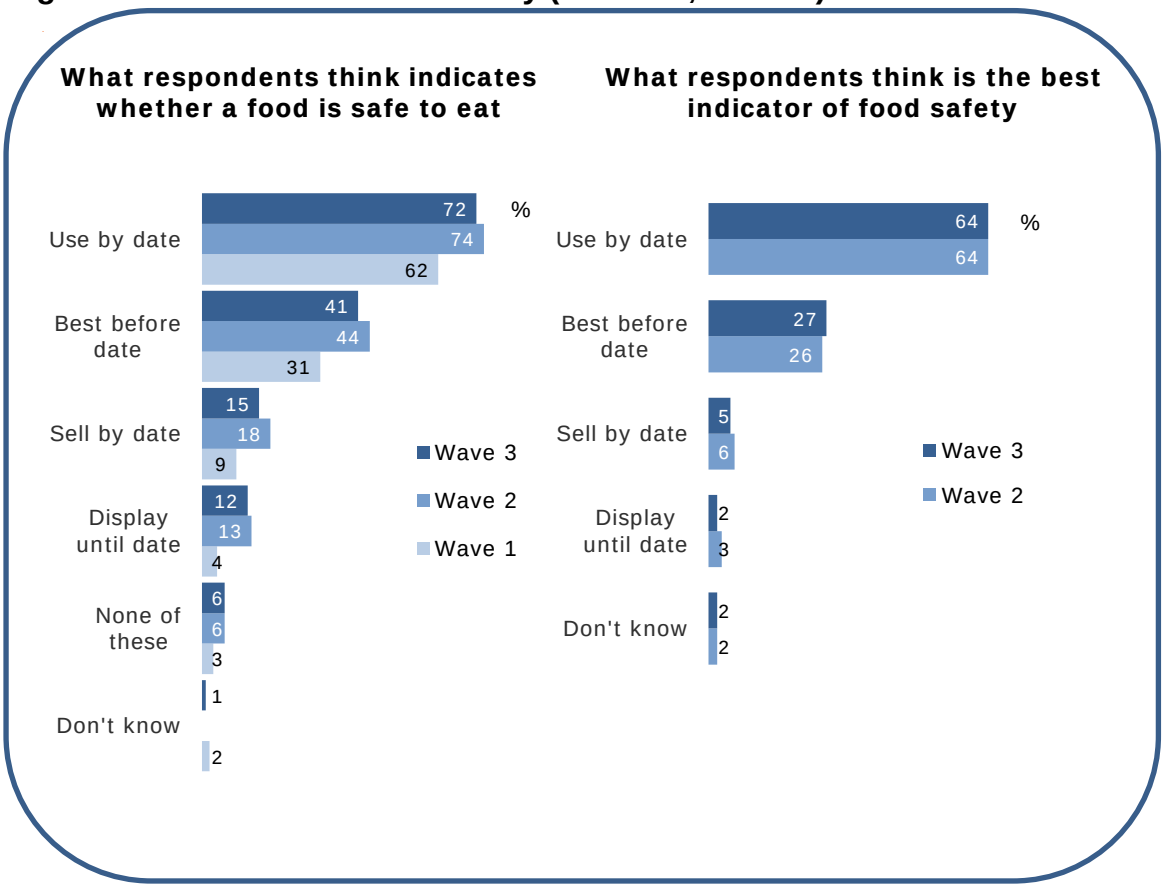
- Among those who reported eating specific foods, respondents were most likely to report that they consumed smoked fish (53%) and meat, fish or seafood pâté (46%) within two days of opening.

[12] All respondents were asked about all food items, but were given the option to state that they did not eat / use each. These respondents have been removed from the data reported here, so that it reflects only those reporting they actually use each item, making it easier to make comparisons across the different food types. Out of all respondents, 11% said they did not eat / use packets of sliced cooked or cured meat, 24% did not eat / use packets of meat, fish or seafood pâté, 21% did not eat / use packets of fresh dip, 31% did not use packets of smoked fish and 18% did not eat / use packets of soft or cream cheese.

- Respondents who reported eating these foods were least likely to report consuming soft cheese and sliced meat within two days of opening (reported by 24% and 27% respectively) and most likely to say they would eat them after more than two days (63% and 60% respectively).
- A minority of respondents reported that they would look at the use by date or follow the storage information on the product. Between five and nine per cent of respondents who said they ate each product stated they would look at the use by date and between three and five per cent stated that they would follow storage information.
- The findings were largely similar to those seen at Wave 2. Respondents were more likely to say they checked the use-by-dates on smoked fish (six per cent compared with four per cent). Respondents were less likely to say they would use pâté for more than one but up to two days (29% at Wave 3 compared with 33%), but there was no significant change in the proportion saying they would use it for one or two days (46% at Wave 3, 47% at Wave 2). Respondents were less likely at Wave 3 to say they would eat soft or cream cheese after more than five days (20% compared with 25% at Wave 2).

6.2 Use by and best before dates

Figure 6.3 Indicators of food safety (Waves 1, 2 and 3)



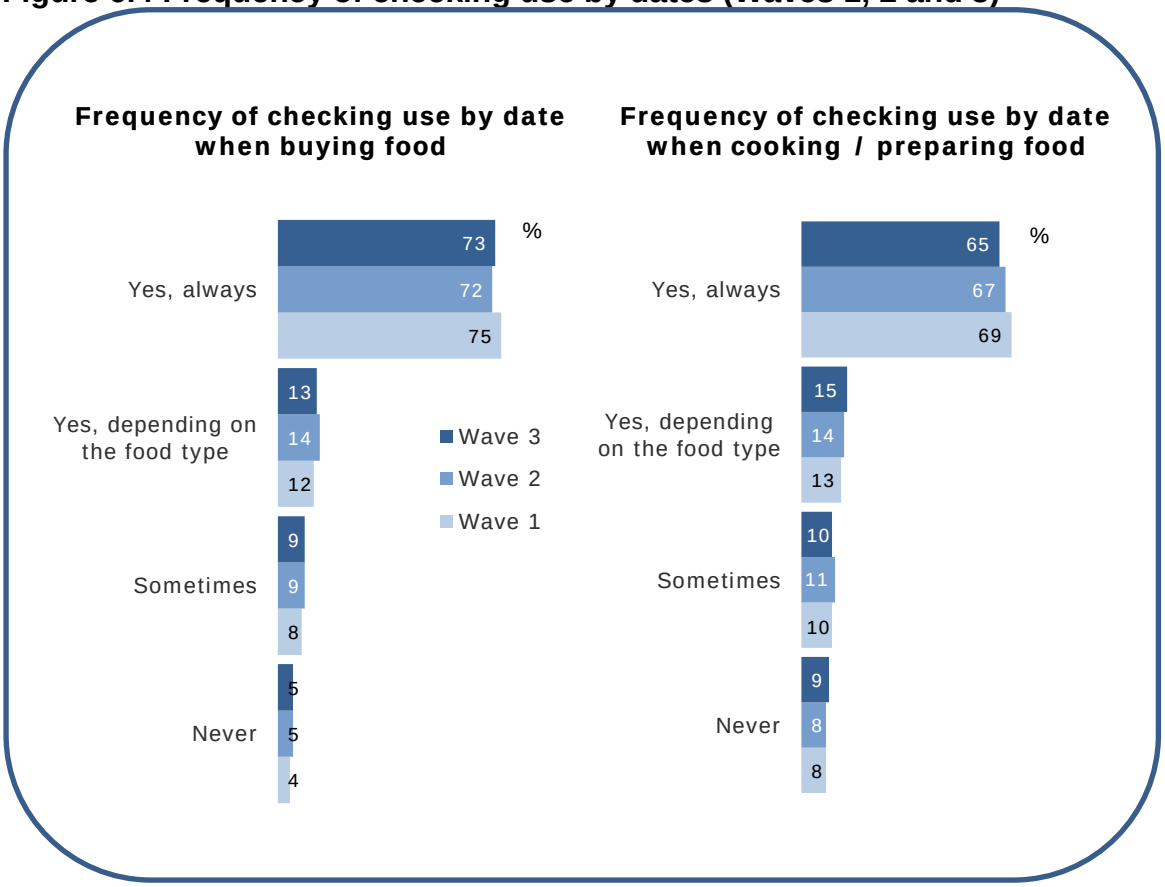
Source: Q4_19 Which of these indicates whether food is safe to eat? & Q4_19B Which of these is the best indicator of whether food is safe to eat?
Note: respondents were able to give multiple answers at Q4_19

Base: Q4_19 All respondents: Wave 1 (3,163); Wave 2 (3,231); Wave 3 (3,453) & Q4_19B All respondents: Wave 2 (3,231); Wave 3 (3,453)

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.

- Around seven in ten respondents (72%) cited use by dates as an indicator of whether food was safe to eat, compared with 62% at Wave 1.
- However, the proportion of respondents who *only* mentioned the use by date (47%) was similar to that at Waves 1 and 2 (both 44%).
- Nine per cent of respondents mentioned all four options (use by, best before, sell by, display until dates) as indicators of whether food is safe to eat.
- Respondents were then asked which one of the four dates was the best indicator of food safety; 64% selected the use by date while 27% selected the best before date.

Figure 6.4 Frequency of checking use by dates (Waves 1, 2 and 3)

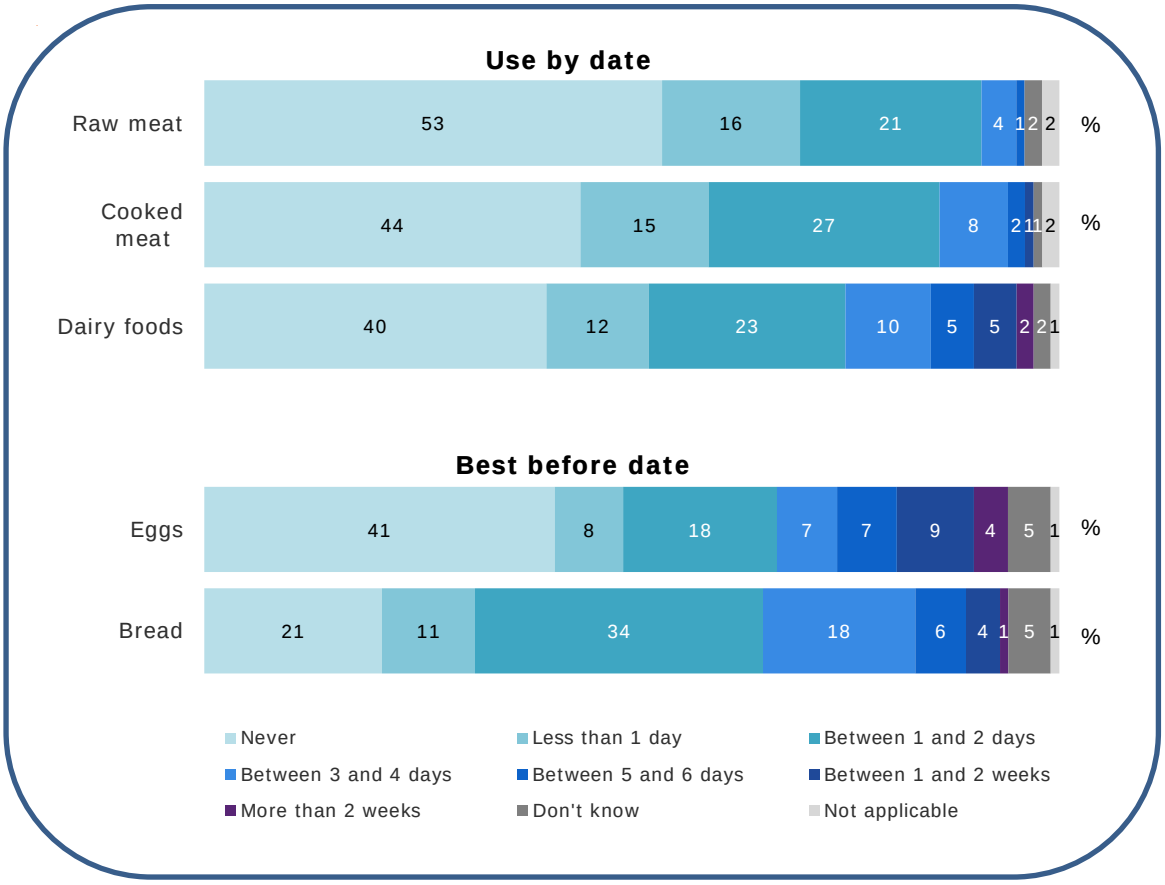


Source: Q4_21 Do you check use by dates when you are buying food? & Q4_22 Do you check use by dates when you are about to cook or prepare food?

Base: All respondents - Wave 1 (3,163); Wave 2 (3,231); Wave 3 (3,453)

- When asked if they checked use by dates when buying food, 73% of respondents reported that they always did this regardless of food type and 13% reported that they checked use by dates when buying food depending on food type (both similar to the proportions reporting this at Waves 1 and 2).
- Five per cent of respondents at Wave 3 reported that they never checked use by dates when buying food, similar to the proportions at Waves 1 and 2.
- The proportion of respondents who reported checking use by dates when cooking or preparing food was lower than that for buying food, with 65% saying they always checked the date, compared with 69% at Wave 1. Fifteen per cent said it depended on food type.
- A minority (nine per cent) reported that they never checked the use by date when cooking or preparing food.
- Overall around six in ten respondents (61%) reported behaviours in line with FSA recommended practice, stating that the use by date is the best indication of whether food is safe to eat, and that they checked the date when they were about to cook or prepare food.

Figure 6.5 Maximum time after use by date / best before date that respondents would eat / use food (Wave 3)



Source: Q11_6 What is the maximum time after the use by date / best before date that you would use / eat...?
Note: responses to Q11_6 were given spontaneously, with no prompted response list shown to respondents

Base: All respondents - (3,453)

The FSA recommends that foods should be consumed before the specified use by date as it could be dangerous to eat food after this, even though it might look and smell fine.[13]

Best before dates appear on food with a longer shelf life. They show how long the food will be at its best quality. Using food after the best before date does not mean it will be unsafe, with the exception of eggs (raw egg must be consumed by the best before date although cooked egg, provided it is cooked thoroughly by the best before date, can be consumed a day or two after the best before date).

- When asked about bread and eggs, respondents were more likely to report that they would eat them for longer after the recommended date, compared with any other food asked about. For example 28% and 26% of respondents said they

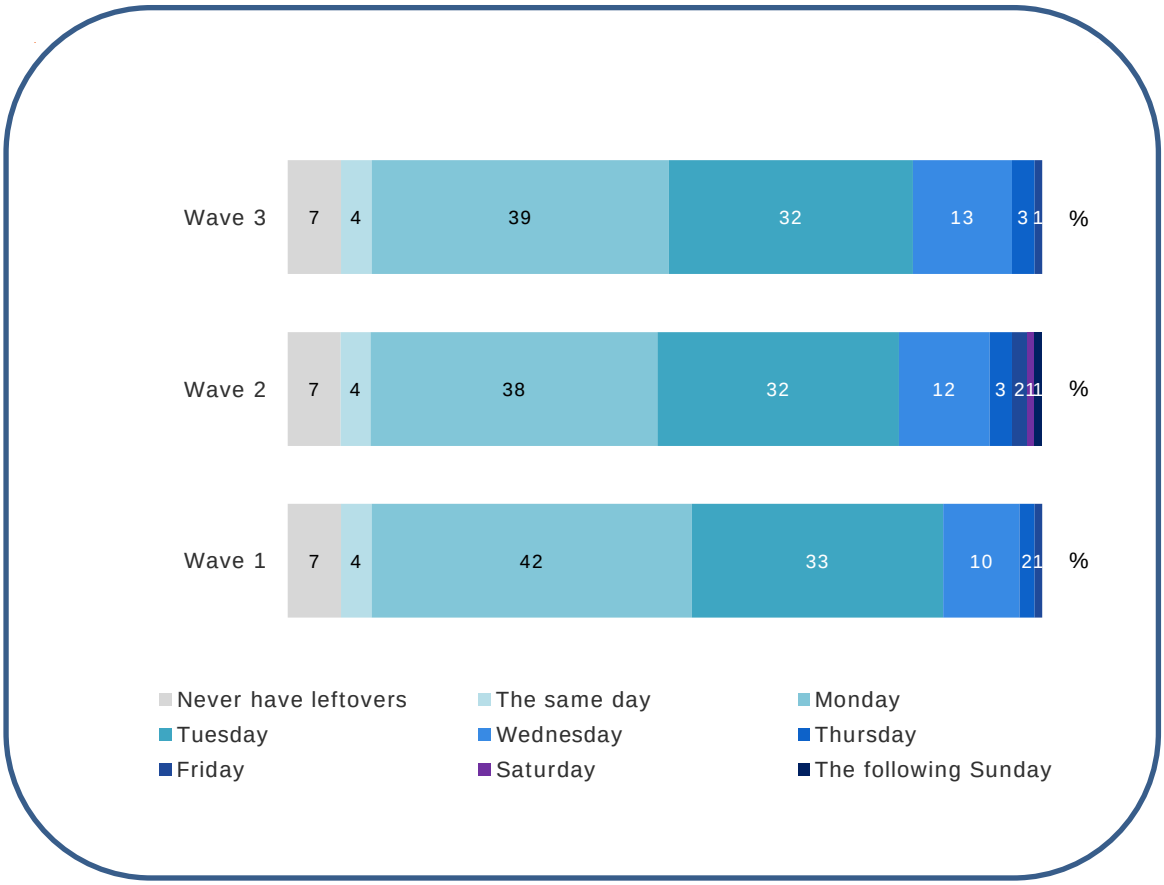
[13] Although dairy foods were asked about with respect to 'use by' dates, current guidelines state that each dairy product should have a date mark which is appropriate for the specific product. Foods which are microbiologically highly perishable or likely to become an immediate danger to human health after a short period of time will have a use by date. Other products may have a best before date. Further detail of these guidelines can be found at the following link: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69316/pb132629-food-date-labelling-110915.pdf

would eat bread and eggs (respectively) three days or more after the best before date.

- Twenty-two per cent of respondents said they would eat dairy products three days or more after the use by date.
- Respondents were less likely to report that they would eat meat for longer after the recommended date, compared with the other foods asked about. For example, 11% of respondents reported that they would eat cooked meat three days or more after the use by date, while six per cent said they would use raw meat three days or more after the use by date.
- Some differences were observed compared with findings at Wave 2. Respondents were more likely to report eating raw meat less than a day after the use by date (16% compared with 13% at Wave 2) and less likely to say they would eat it between one and two days after (21% compared with 24% at Wave 2). Respondents were less likely to say they would never eat eggs after the best before date (41% compared with 45% at Wave 2).

6.3 Maximum time for keeping leftovers

Figure 6.6 Last day respondents would consider eating leftovers from a meal (having cooked it on Sunday) (Waves 1, 2 and 3)



Source: Q4_24 If you made a meal on Sunday, what is the last day that you would consider eating the leftovers?
Note: responses to Q4_24 were given spontaneously, with no prompted response list shown to respondents

Base: All respondents - Wave 1 (3,163); Wave 2 (3,231); Wave 3 (3,453)

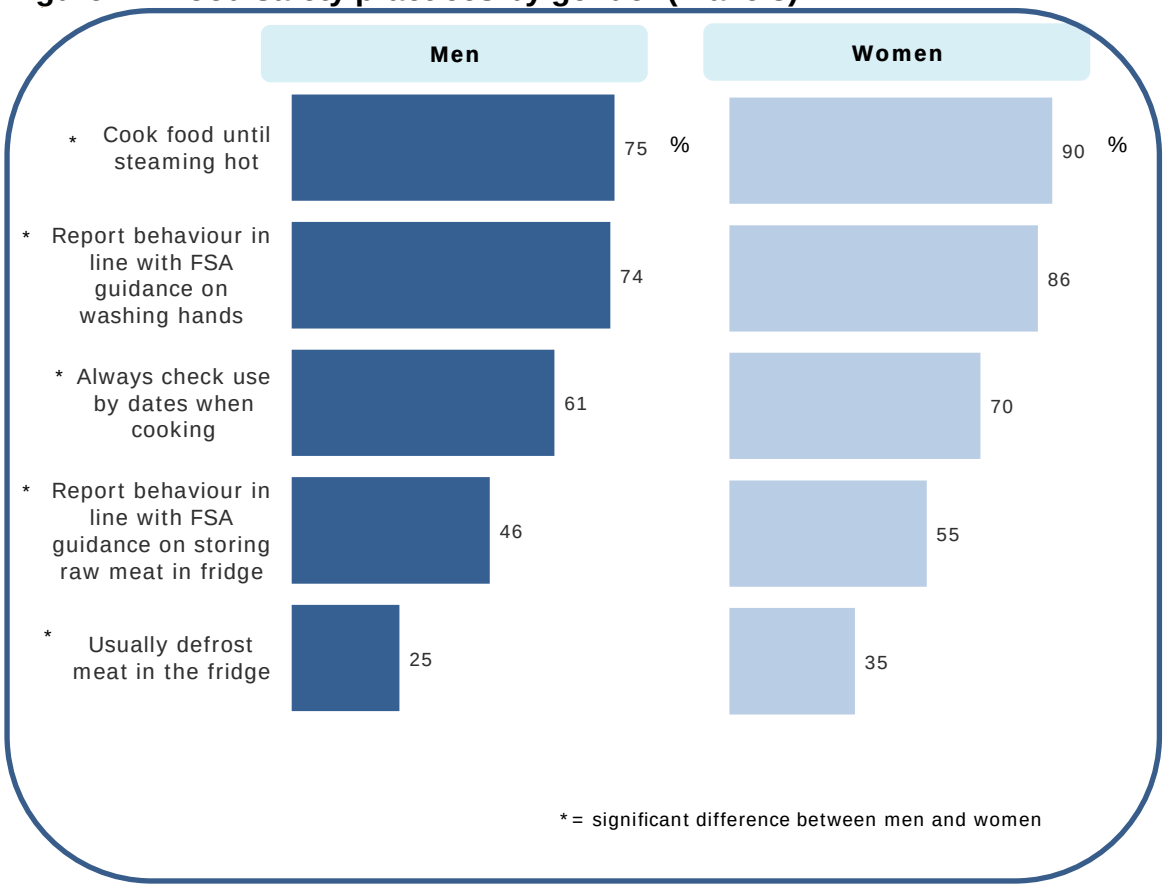
The FSA recommends that leftovers should be used within two days (that is, up to Tuesday if cooked on Sunday).

- Around three-quarters (75%) 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.
- Respondents most commonly reported that they would eat the leftovers by the next day (39%) and 32% reported that they would consider eating them up to two days after cooking the meal.
- Around a fifth of respondents (18%) reported that they would consider eating the leftovers three days or more after cooking (i.e. Wednesday or after).
- These findings were similar to those at Waves 1 and 2.

7. Variation in food safety practices ('4 Cs' and methods used to tell whether food is safe to eat) by different groups in the population[14]

Variation by gender and age, including differences between the survey waves

Figure 7.1 Food safety practices by gender (Wave 3)



Source: Q4_1 Thinking about when you are storing, preparing and cooking food, I would like you to tell me whether you do or don't do the following things at all when you are in the kitchen and if so how frequently; Q4_22 Do you check use by dates when you are about to cook or prepare food?; Q4_14 Where in the fridge do you store raw meat and poultry? & Q4_15 How do you store raw meat and poultry in the fridge? Q4_1C And which method do you generally use to defrost frozen meat or fish?

Note: Responses to Q4_14 and Q4_15 were given spontaneously, with no prompted response list shown to respondents.

Base: Men - Wave 3 (1,488); Women – Wave 3 (1,965)

- As at Waves 1 and 2, reported food safety practices were found to vary considerably by **gender** with women being more likely than men to report food safety practices in line with practices recommended by the Agency for:

[14] The following variables were analysed to identify statistically significant differences: age, gender, country of residence, household size, presence of children in household, income, socio-economic classification and working status.

- Always washing hands before preparing food (89% of women compared with 78% of men) and after handling raw meat (91% compared with 81%);
- Always using different chopping boards for different foods (55% compared with 44%);
- Storing certain foods in certain parts of the fridge (82% compared with 68%);
- Always storing raw meat on the bottom shelf of the fridge (67% compared with 54%);
- Washing fruit and vegetables (e.g. 73% of women reported always washing vegetables to be eaten raw compared with 61% of men);
- Always cooking food until it is steaming hot throughout (90% compared with 75%); and
- Always checking use by dates before cooking or preparing food (70% compared with 61%);

- There were two areas where women were less likely than men to report practices that were in line with recommended practice: they were more likely than men to report (ever) washing raw meat or poultry excluding chicken (49% compared with 43%) or to report (ever) washing chicken (57% compared with 48%), and less likely to report that the fridge temperature should be between 0 and 5^{o}C (48% compared with 58%). These differences were similar to those at Waves 1 and 2.
- Variation by **age** was also observed. As at Waves 1 and 2, younger respondents (**those aged 16-24**) were less likely than other age groups to report some practices in line with recommended practice for food safety. For example:
  - Lower levels of hand washing (74% of those aged 16-24 reported behaviour in line with recommended practice compared with 83% of those aged 35-54);
  - Fewer reporting behaviours in line with recommended practice for storing raw meat in the fridge (39% of those aged 16-24 who stored raw meat or poultry in the fridge compared with 53% of those aged 25 and over who stored raw meat or poultry in the fridge);
  - Lower levels of usually defrosting meat in the fridge (20% compared with 32% of those aged 25 and over);
  - Fewer always washing fruit and vegetables (e.g. 50% washing vegetables that are going to be eaten raw, compared with 70% of those aged 25 and over);
  - Fewer checking their fridge temperature (e.g. 24% ever checked their own fridge temperature, compared with 36% of those aged 25-34 and 46% of those aged 35 and over);
  - Fewer always cooking food until it is steaming hot throughout (72% compared with 84% of those aged 25 and over); and

- Fewer reporting behaviour in line with recommended practice for use by dates (59% compared with 69% of 25-44 year olds). Those aged 16-24 were also more likely to select best before dates as most useful (34% compared with 25% of respondents aged 25 and over), which had not been observed at Waves 1 and 2.

- Similar to findings at Waves 1 and 2, the oldest respondents (**aged 75 and over**) were also found to be less likely to report some food safety practices in line with recommended practice, compared with all other age groups. For example:

  - Lower levels of hand washing (75% of those aged 75 and over reported behaviour in line with recommended practice compared with 83% of those aged 35-54);

  - Less likely to always use different chopping boards for different foods (40% compared with 50% of respondents aged under 75);

  - Less likely to say they keep raw meat on the bottom shelf of the fridge (47% compared with 64% of 25-74 year olds);

  - Less likely to say their fridge temperature should be between 0 and 5°C (36% compared with 54% of 16-74 year olds); and

  - Less likely to always check use by dates when cooking or preparing food (55% compared with 70% of those aged 25-54). They were also less likely to say that use by dates are the best indicator of whether food is safe to eat (54% compared with 66% of those aged 25-74) and were more likely to select sell by dates (13% compared with five per cent of those aged 16-74).

- Respondents **aged 55 and over** were less likely to report behaviour in line with recommended practice for washing meat and fish of all types. For example, 60% reported (ever) washing chicken compared with 51% of those aged 25-54 and 45% of those aged under 25.

- Results suggest an increased awareness since Wave 1 that fridge temperature should be between 0 and 5°C among all age bands except those aged 16-24, and the differences were greatest for those aged 55-74 (50% of whom said the fridge temperature should be between 0 and 5°C compared with 38% at Wave 1) and those aged 25-54 (59% compared with 51% at Wave 1).

- Other than the differences from Waves 1 and 2 highlighted above, results were similar at Wave 3 to those at Waves 1 and 2 for both age and gender.

Other variations at Wave 3

- There were a number of variations by **country of residence**, with respondents in Northern Ireland in particular being more likely to report behaviours in line with recommended practice, and those in England generally less likely to do so. For example:

  - Respondents in Northern Ireland (81%) and Scotland (79%) were more likely than those in Wales (75%) or England (75%) to arrange their fridge according to its contents;

- While 54% of respondents in England reported washing chicken, this was lower at 46% in Northern Ireland and 47% in Scotland;
- Respondents in Northern Ireland were less likely to report eating meat that was pink or with red juices. For example, five per cent said they ate burgers or sausages in this way compared with 11% in England;
- Respondents in Northern Ireland were more likely to report that they would only keep food in the fridge for up to three days after opening it. For example, 64% said they would keep sliced meat for three days at most, compared with 46% to 56% of respondents in the other countries;
- In Northern Ireland, respondents were more likely than those in England in particular to report behaviours in line with recommended practice for use by dates (72% compared with 60%);
- Respondents in England were less likely to say the latest they would eat leftovers from Sunday dinner would be Tuesday (73%) compared with those in the other countries (81% to 83%);
- However, six in ten respondents in Northern Ireland (60%) said they usually defrosted meat at room temperature compared with 48-50% in the other countries.

- There was some variation by **household size**. Respondents in single person households were:
  - Less likely than those in larger households to report always using different chopping boards for different foods (43% compared with 50%);
  - Less likely than those in two to four person households to report storing raw meat at the bottom of the fridge (56% compared with 62%);
  - Less likely than those in two to four person households to never wash chicken (31% compared with 38%); and
  - Less likely to follow recommended practice for use by dates (55%) compared with those in two person households (62%) and three person households (69%).
- Respondents in households with **children aged under 16** were more likely than those without children in the household to report certain behaviours in line with recommended practice. These included:
  - Being less likely to wash meat or fish. For example 36% reported always washing chicken compared with 42% of those with no children in the household;
  - Reporting behaviour in line with recommended practices for use by dates (67% compared with 59% of those with no children in the household);
- Respondents in households with **children aged under six** were more likely to report other behaviours in line with recommended practice than those in households without children. These included:

- Being more likely to report always cooking food until it is steaming hot throughout (88% compared with 82% of those without children in the household);
- Being more likely to keep food in the fridge for no more than three days after opening. For example, 62% said they would keep fresh dip no more than three days compared with 51% of those without children in the household); and
- Being more likely to say the latest they would eat leftovers from a meal cooked on Sunday would be Tuesday (79% compared with 74%).

- Food safety behaviours also varied by **income[15], socio-economic group** and **working status**, although these variations are likely to be inter-related to some extent. For example:
  - Respondents with an annual household income of less than £10,400 were less likely than those with a higher household income to report always using different chopping boards for different foods (42% compared with 50%) and to arrange their fridge according to its contents (67% compared with 76%);
  - Unemployed respondents were less likely to say they arranged their fridge by contents (63%) than those in employment (77%) or who were retired (78%);
  - Respondents with an annual household income of less than £26,000 were more likely than those with a higher annual household income to say they ever washed chicken (58% compared with 51% of those with a household income of £26,000 to £51,999 and 42% of those with a household income of at least £52,000);
  - Those with an annual household income below £10,400 were less likely to report behaviour in line with recommended practice for use by dates than those with a higher household income (55% compared with 64%), as were unemployed and retired respondents compared with those in employment (53% and 52% compared with 65%) and those in routine / manual households compared with those in professional / managerial households (58% compared with 64%).
- In some cases respondents from higher-income households were less likely to report behaviours that were in line with recommended practice. For example:
  - Those with a household income of at least £52,000 were less likely to say they always washed vegetables to cook (53% compared with 63% of those from households with a lower income) and more likely to say they would keep leftovers from a meal cooked on Sunday until Wednesday (20% compared with 11%).
  - Those from households with a higher income were also more likely to report eating meat other than chicken that is pink or has red juices. For example,

[15] For the purposes of analysis, respondents were broken down into four groups in terms of household income: Up to £10,399, £10,400-£25,999, £26,000-£51,999 and £52,000 and over. The proportion of respondents in each category respectively was 12%, 29%, 32% and 26%.

24% of those with a household income of £52,000 or more said they ate duck in this way compared with 10% of those with a household income below £26,000. Similar patterns were observed between those in employment compared with unemployed respondents, and between those in managerial / professional households and those in routine / manual households.

- Respondents from households with lower incomes were more likely to report that they would keep certain foods for no more than three days after opening. For example, 41% of those with a household income of below £10,400 said they would keep soft or cream cheese for no more than three days, compared with 32% of those with a household income of £52,000 or more.