

Environment Protection Authority

# Love Food Hate Waste tracking survey 2019–20



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# Executive summary

## Why is food waste a problem?

Wasting food has significant environmental, economic and social implications which the community, including governments, businesses and households, is starting to recognise. To tackle this issue, the NSW Government is delivering the Love Food Hate Waste (LFHW) program, which focuses on educating households and businesses about behaviours that avoid the waste of food.

A LFHW food waste behaviour benchmark survey was conducted in 2009 and has been followed by four additional waves of tracking in 2011, 2012, 2015 and 2017.

The Environment Protection Authority (EPA) is a core participant in the Fight Food Waste Cooperative Research Centre (FFWCRC). In 2019, the EPA worked in partnership with FFWCRC to commission and lead national benchmark research on current community knowledge, attitudes and behaviours around household food management and waste. This work aligned previous NSW tracking surveys with the national online survey of 5,272 people across Australia.

This report focuses on the 1,476 NSW respondents to the survey, who have the main, joint or partial responsibility for planning, shopping, storing, preparing and disposing of their households' food. See the FFWCRC [Food Waste Australian Household Attitudes and Behaviour National Benchmark Study](#) for national findings.

## NSW households key findings of NSW food waste behaviours in 2019

This report details NSW results aligned with the national food waste benchmark questions. Many of the questions from previous tracking surveys were not included because of this change. However, a small number of questions were retained in a separate survey undertaken only in NSW to enable the EPA to continue to track findings against the earlier surveys. These responses are reported on page 55.

### Amount and type of food waste

NSW households were asked to estimate the amount of food their household wasted in the week prior to the survey. An average of 10.26 standard measures was reported, which was statistically lower than the national average of 10.56 standard measures. The standard measures used were relevant to the particular food type and included such things as cups, slices of bread or a small steak.

### NSW households' self-reported reasons for food waste

NSW households attributed their main reasons for food waste to:

- household members not always finishing their meals – 18% reported this, the same as the national baseline
- too much food being cooked – 15% compared with the national average of 14%
- food being stored for too long in the fridge or freezer (11% in both NSW and nationally).

### Food waste awareness raising

The survey found 22% of NSW households were aware of the food waste issue over the preceding 12 months (23% nationally), while 17% weren't sure.

The study also found that 61% of NSW households did not recall any communications about food waste in the previous 12 months.

For NSW, the internet is considered a more effective information source than in other states. NSW results for sources of food waste information are:

- 55% picked up information from TV (62% nationally)
- 26% nominated the internet as a source of information, covering news feeds, social media advertising and searches for information about food waste (21% nationally)
- 21% mentioned local council communications, the same proportion as nationally
- Facebook – 20% (19% nationally)
- community newspapers – 12% (13% nationally)
- newspapers – 12% (same as nationally)
- radio – 12% (11% nationally)
- magazines – 8% (same as nationally).

### **Self-reported motivation to reduce food waste**

Forty-two percent of NSW households said they were very motivated to reduce their food waste and 34% fairly motivated, mirroring the national average. The survey found the motivating factors with the most potential to improve food waste behaviours in NSW were:

- saving money – 49% (51% nationally), particularly for families (54% for NSW and nationally)
- the social norm around 'it's the right thing to do' – 19% (18% nationally), particularly for non-families (21% for NSW and 20% nationally)
- environmental benefits ('saving the planet') – 17% (16% nationally).

### **How is food managed within households?**

#### **Key points about NSW households when planning food purchasing**

- 76% of NSW households mostly checked the food already in the house when planning food purchases (75% nationally).
- 11% claimed it was hard to see what's in the fridge most times and 14% about half the time (10% nationally).
- Close to half (45%) mostly planned the meals they would cook; with the remainder planning half the time or rarely (46% nationally).
- 31% of households said they write comprehensive shopping lists and 28% prepare a basic one (national average 33% and 27%, respectively).

#### **Key points about NSW households when shopping**

- Sticking to a budget – 40% of NSW households reported mostly having a set budget while 40% rarely did (nationally 40% and 41%, respectively).
- Buying only what was on the list – 37% in NSW were most likely to do this though an even greater 40% rarely did (nationally 39% and 39%, respectively).
- Buying specials – 41% in NSW usually bought specials when they shopped while 32% rarely did (nationally 42% and 32%, respectively).

#### **Three food shopping behaviours were reasonably well entrenched in NSW**

- Buying freshest ingredients – 67% of NSW mostly did this, while 13% rarely did (compared with 66% and 13% nationally).
- Checking the use-by dates prior to purchase – 60% of NSW mostly doing this and 58% nationally.



- Only 15% of the NSW community buys in bulk while 65% rarely do this (compared with 16% and 65% nationally).

### **Key points about NSW households when preparing food**

There was widespread reporting of critical behaviours in NSW that are likely to lead to food waste:

- 37% of NSW households said they prepared extra for planned future meals most of the time and 25% did this about half the time (38% and 25%, respectively, at the national level)
- 24% in NSW reported usually making extra food 'just in case' and 19% did this half the time (24% and 20% nationally)
- 23% of NSW households said they mostly make extra food without knowing how hungry the eaters would be (national average 22%).

### **Key points about NSW households when storing food**

- 67% of NSW households reported mostly storing food to keep it as fresh as possible (same as the national average).
- 59% of NSW households said they usually froze food to extend its shelf life (national average 61%) but 19% only do this about half the time and 21% rarely (18% and 20% nationally).
- 47% of NSW households mostly make use of leftovers by putting them in the fridge and eating them later, while 16% did so about half the time and 37% rarely or sometimes (nationally 47%, 17% and 36%, respectively).
- The survey showed 9% of NSW households saved food in the fridge only to throw it out afterwards (7% nationally), 5% down on the 2017 figure.

### **Does the community understand food labels?**

Fifty percent of NSW households understood the meaning of both food date labels (national average 51%), 43% did not know the meaning of one of the labels and 7% didn't understand either of them.

Understanding of the two labels varied: older people in NSW (77%) were more likely to understand best-before and less likely to understand use-by (68%) while for younger people the reverse was the case – 58% understood best-before and 81% use-by.

### **How much does eating out of the home add to food waste?**

- 42% of NSW respondents (41% nationally) ordered a takeaway/home delivery in the week before the survey with 28% of those in NSW ordering one meal and 14% ordering two or more (nationally 27% and 14%, respectively).
- 41% of NSW respondents ate out with 27% having one meal out and 14% two or more meals (26% and 12% nationally).
- Looking at both forms of consuming food prepared out of the home, 60% of NSW households sourced a meal from at least one of these channels

### **How does the community shop for food?**

Seventy-six percent of households across NSW reported shopping weekly for groceries (same as the national average), followed by a 'top-up' shop. A further 12% only shop for food as they need it.

The main grocery shop was undertaken once a week for a majority of NSW households (60%).

Almost all households in NSW do a top-up shop at least weekly. The most common frequency for a top-up shop was once to twice a week.

The main reasons for food shoppers' choice of the store (irrespective of stores) were:

- convenience of location
- easy parking
- good prices
- products they like.

The online shopping approach has achieved significant in-roads as a real channel with 13% of NSW households using it in the week before the survey. Families were more likely to shop online for groceries than non-families (15% versus 11%).

## **Segmentation analysis for NSW**

The mind-sets underpinning the attitudes and behaviours of households fell into the following five segments, with the NSW results being identical to the national average:

- 'Disciples' (19%) – those motivated to reduce food waste and taking action to reduce food waste
- 'Family spectators' (23%) – those motivated, but taking few actions to reduce food waste
- 'Non-family spectators' (34%) – those motivated but taking few actions to reduce food waste
- 'Wasters' (20%) – those unmotivated and taking few actions to reduce food waste
- 'Know what I'm doing' (4.1%) – those unmotivated to reduce food waste because they think they know what they are doing.

Fifty-seven percent of NSW households fell into the Spectators segments, which suggested that over half the people in the state were motivated to make a change to reduce their household food waste. To add insight, the Spectator segments were split between families (23%) and non-families (34%) because of the large differences in the attitudes and behaviours of these two demographics.



# Background and objectives

## Background

The 2019 National *Food Waste Australian Household Attitudes and Behaviours National Benchmarking Study* identified that 34% of Australia's food waste is generated by households, equating to an estimated 2.5 million tonnes of food waste a year. Reducing food waste in the home will be an important part of meeting Australia's commitment to halve food waste by 2030. In NSW, more than 750,000 tonnes of food waste goes to landfill every year, comprising 580,000 tonnes from households and 170,000 tonnes from businesses. Much of this waste could be avoided.

Wasting food has significant environmental, economic and social implications which the community, including governments, businesses and households, is starting to recognise. To tackle this issue, the NSW Government is delivering the Love Food Hate Waste (LFHW) program to educate households and businesses about behaviours to avoid food waste. A LFHW food waste behaviour benchmark survey was conducted in 2009, followed by four tracking studies in 2011, 2012, 2015 and 2017.

The 2017 LFHW tracking survey estimated NSW households wasted an average of \$3,805 a year on food which was bought but never eaten. There were many reasons food was wasted at home, including cooking too much, not using up leftovers and storing food incorrectly.

In 2019, most of the tracking food waste avoidance measures were changed to align with the national food waste benchmarking study, commissioned in partnership with Fight Food Waste Cooperative Research Centre (FFWCRC). This report relates to the 1,476 NSW households sampled in the national study, who had the main, joint or partial responsibility for planning, shopping, storing, preparing and disposing of food. The aim of this 2019 NSW LFHW report is to continue to track the state's food waste behaviours, along with a small number of measures which were examined in a separate survey to ensure these measures could be captured until the current phase of funding for LFHW NSW ends in 2021.

## Objectives

The objectives of this LFHW 2019–20 food waste report are to:

- gain a deeper understanding of NSW households' knowledge, awareness and behaviour around food management and food waste
- compare the NSW food waste avoidance performance against the Australian national average
- identify key target audiences and unpack the barriers and opportunities for them to adopt behaviours that avoid food waste.

## Target participants

The scope of the national food waste benchmark project included the following participation specifications:

- people who primarily or jointly make decisions on food purchase, preparation, storage and disposal ('households')
- a targeted survey across every Australian state and territory.

Surveys were conducted online with representative samples of people aged 18 and over who were primarily responsible for food purchasing, preparation or storage in their household. Surveys were conducted in English. The respondent gender ratio was 58% female, 42% male.

## Online sample

The online sample was drawn from the largest market and social research panel dedicated to research.

The sample was drawn with quotas for geography, age and gender that closely represented the NSW population. The survey only accepted people who qualified as being primarily, jointly or partly responsible for planning for grocery shopping or doing the grocery shopping or storing the food (i.e. of grocery items and leftovers) or doing the cooking/food preparation in their household or disposing of leftover food.

The survey also rejected anyone who had been away from home for three nights or more as the piloting revealed an inability to answer questions about the food management experiences in the household over the previous week.

Respondents were sent the following pre-survey note to sensitise them to the survey.

‘Welcome to the study and thank you for participating in this household food management study about how you and your household handles food, from planning it, shopping for it, preparing it, to dealing with leftovers and then disposing of what is uneaten. Next week we will send you a questionnaire that covers how you handle food in the days leading up to the day that you complete the survey.

‘We ask that you don’t change anything about what you would normally do. Just pay closer attention to all the stages of the usual food purchasing, preparation and disposal in your household and how you and your household normally respond at each stage. Please pay attention to what happens to both the edible and inedible parts of food, e.g. both an egg yolk (edible) and the eggshell (inedible). It doesn’t include food and drinks that you buy when eating out at a café or restaurant. Alcohol is also excluded.



‘We would like you to be mindful of the roles that members of your household play in handling food. This includes planning it, shopping for it, preparing it, dealing with leftovers, and disposing of what is uneaten. It includes any food that goes into the garbage bin, compost, or given to an animal/bird. Thank you very much in advance!’

The purpose of the pre-survey note was to get respondents thinking about their food management. Other research indicated this facilitated more accurate responses.

## Data handling notes

Weighting of the data: the actual sample profile provides the unweighted responses. The results presented in the rest of the report are weighted to the population based on ABS data by geography (state and territory).

Statistical significance of 5% at 95% level of confidence: all statistical significance tests have been undertaken at the 95% level of confidence and, unless otherwise noted, any notation of a ‘difference’ between subgroups means that the difference discussed is significant at the 95% level of confidence. When reporting significant differences in segments, ‘(+x%; -x%)’ represents the variance in percentage terms from the total sample and percentage of the total sample, respectively.

A red  or green  circle around a value denotes that the result is significantly lower or greater (respectively) than that of the total sample for that question.

Treatment of means – Where responses are scale variables, for example 1 to 5 where 1 is ‘disagree strongly’ and 5 is ‘agree strongly’, the mean is also calculated with the removal of ‘don’t know’.

Rounding of figures may result in anomalies of +/-1%: all results have been rounded to the nearest whole percentage figure and anomalies of about +/-1% may occur in charts, i.e. total percentages for each bar add to 99% or 100% or 101% due to rounding error.

Net figures are also rounded, which may also result in anomalies. Net results are also rounded after summing the separate proportions rather than simply summing two rounded figures (e.g. ‘% total agree’). For this reason, anomalies of about 1% sometimes occur between net results and rounded results shown in charts. For example, a proportion of 33.3% ‘agree’ rounds to 33% and a proportion of 12.4% ‘strongly agree’ rounds to 12%. However, when combined to derive the total agree (i.e. ‘agree’ plus ‘strongly agree’), 33.3% plus 12.4% equals 45.7%, which would be rounded to 46%. In this case, the results would be shown in a chart as 33% ‘agree’ and 12% ‘strongly agree’, but the proportion reported as ‘total agree’ would be 46%.

## Food waste in NSW households

### Key points

1. Sixty-seven percent of NSW respondents had the main responsibility across the five areas of food management explored, 21–30% were equally responsible and 6–11% partly responsible.
2. Inedible food was the most common food wasted in the seven days prior to the survey.
3. Fifty percent of respondents threw away fresh vegetables and herbs with the mean amount being 1.06 cups.
4. Forty-four percent threw away uneaten cooked or prepared food, a mean of 1.07 cups.
5. Forty-two percent threw away some bread and bakery items – 1.4 slices on average.
6. Thirty-three percent threw away fresh fruit.
7. A quarter threw away meat and seafood with an average amount of 0.75 of a portion (100 g).
8. The items least likely to be wasted were frozen foods and drinks (81% of respondents reported no wastage of both in the week prior); packaged and pantry food and dairy products (both 72%); and prepared food, including takeaway and home delivered (73%).

Main reasons reported for food waste were:

1. Household members didn’t always finish their meal (18%)
2. Too much food was cooked (15%)
3. Food had been stored in the fridge or freezer for too long (11%).

## Was last week a typical week for food in NSW households?

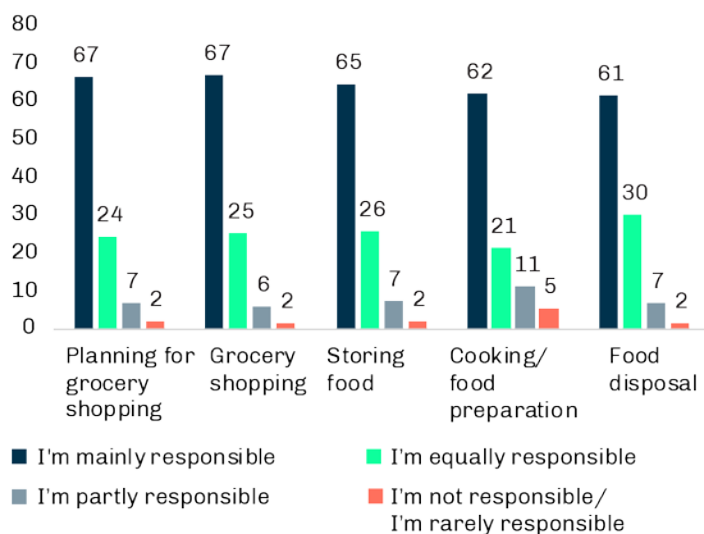
Piloting of the survey instrument revealed that the idea of wasting food was highly value-laden with most people reluctant to admit they wasted food. In light of this, it was decided that this benchmark study would refer at all times to ‘disposal of food’ until the specific questions about the amount of food that was disposed of were asked towards the conclusion of the survey.

The reluctance to openly admit to food waste also meant many people rationalised when it did occur by claiming that ‘last week wasn’t typical’. In an attempt to minimise this tendency, the survey asked people whether they felt the last week was typical or not. This admission allowed those inclined to use this as an excuse for food waste behaviours to speak more freely about the previous week in cases where others knew it hadn’t been typical. Fewer than 10% of respondents in the survey identified the week as being atypical: see Figure 1.

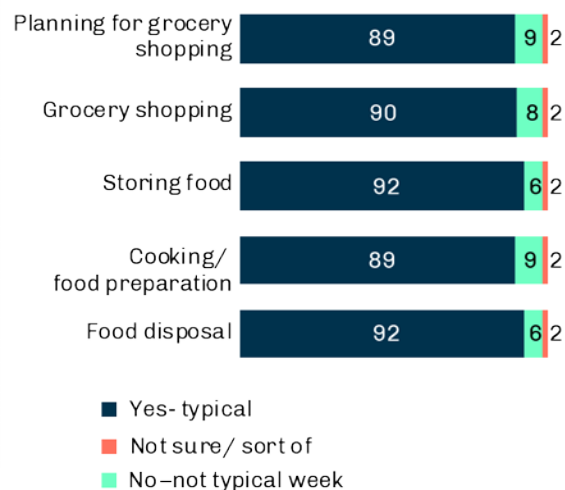
Overall, an average of 65% of household food shopping, preparation and disposal fell to one person nationally, with fewer than 30% having an equal share of responsibilities in these tasks. This was a remarkably similar pattern repeated across all aspects of household food management.

Our sample included those mainly, equally or partly responsible for food in one of five ways over the last 7 days. Either they did the grocery shopping planning (67%), the grocery shopping (67%), storing the food (65%), the cooking and preparing of the food (62%) or the food disposal (61%). About 9 in 10 said this had been a typical week.

### Who is responsible for?



### Has it been a typical week?



#### S4. Who is responsible for doing the following in your household:

- planning for grocery shopping
- doing the grocery shopping
- storing the food (i.e. of grocery items and leftovers)
- doing the cooking/food preparation in your household
- disposing of leftover food

S5. Thinking just about the last 7 days, up until last night, would you say that it was a typical week or not, for you and your household in terms of planning and grocery shopping, storing food, cooking and disposing of leftovers?

Base: Total sample (n=5272)

Figure 1: Consumer food shopping behaviours in NSW

## What types of food are being wasted?

The National Food Waste Strategy estimated that households threw away 3.1 million tonnes of edible food a year at an annual cost of \$3,800 per NSW household. Under-reporting of food waste in the study was suspected for many reasons, including people finding it hard to believe they throw out as much as they do, not wanting to admit to wasting food, some categories of food missing from the survey and failure to include fridge or pantry clean-outs. Further research is needed to accurately measure food waste, possibly through the use of diaries or audits.

In NSW, inedible food waste was the most common waste thrown away in the preceding seven days (69% see Figure 2). Inedible food waste includes items such as peels, cores, skins, seeds, eggshells and nut shells, used coffee grounds and tea bags. The average amount of inedible food waste personally thrown away was 2.67 cups, although 16% of households reported disposing of five or more cups in the previous seven days.

Half the sample (50%) said they threw away fresh vegetables and herbs with the average amount being 1.01 cups.



**E2.** In the past 7 days, about how much of the following food types would you say that your household has thrown away – without it being eaten?  
**Base:** Total sample (n=5272)

Figure 2: Types of food waste

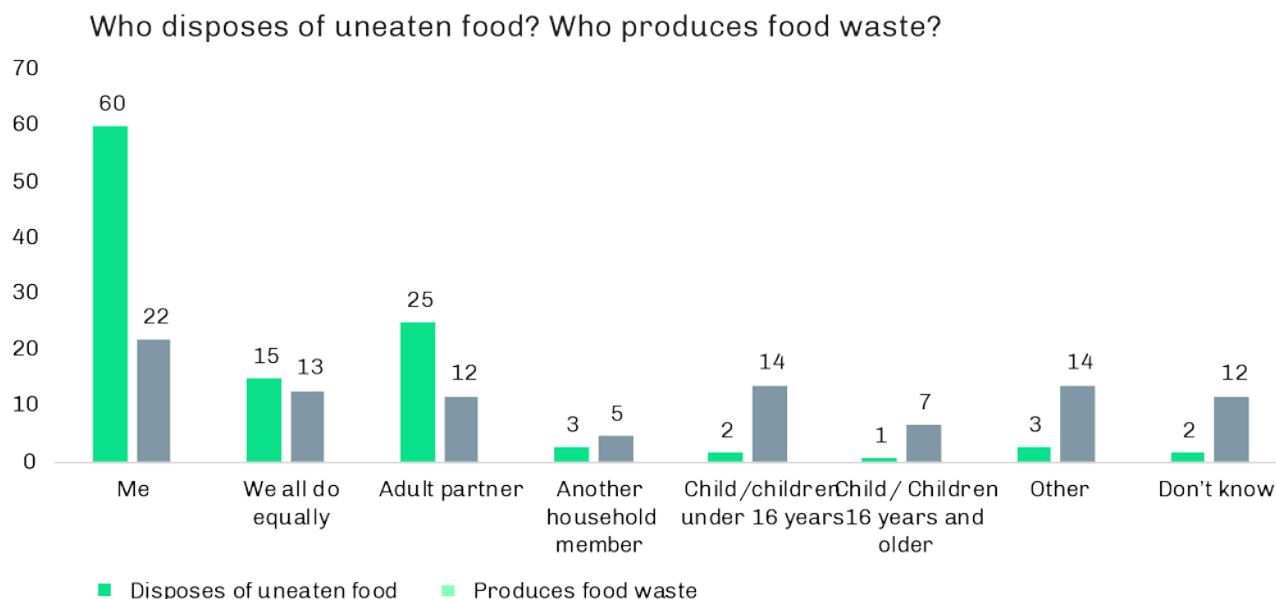
Another important food item frequently thrown away was meal leftovers, with 47% of respondents reporting they disposed of uneaten cooked or prepared food. On average, 1.05 cups were thrown away with one in five throwing away two or more cups. Fewer than half (44%) of the sample threw away some bread and bakery items (1.37 slices on average) and more than a third threw out fresh fruit (37%). A quarter of households (28%) said they threw away meat and seafood with the average amount 0.75 of a small steak (100 g).

Prepared food, including takeaway and home-delivered, was generally not thrown away (only 27%) and an average of 0.55 medium dinner-plate-size of food waste was reported (Figure 4). Similarly, packaged and pantry food and dairy products, both 72%, were less frequently reported as being thrown away, with 0.58 cup on average for package and pantry food and 0.56 cup for dairy products.

## What are the main reasons food is wasted?

Sixty percent of respondents said they were responsible for disposing of food waste and 22 percent said they generated it. Children under 16 were next most likely to be producers of food waste at 14% while 13% of people felt everyone in the house was equally responsible: see Figure 3.

Me (60%), we all do equally (15%) and adult partner (25%) were the top three answers when asked who disposed of uneaten food in their household. When it came to producing food waste however, me (23%), children under 16 (14%), we all do equally (13%) and adult partner (12%) were the top producers of waste.



**D3a.** Who mostly disposes of any uneaten food in your household?

**D3b.** Who leaves the most food on their plates in your household?

**Base:** Total sample (n=1,476)

Figure 3: Who disposes and who produces food waste in the home?

Eighteen percent of NSW households attributed the main cause of food waste to household members who don't always finish their meal (the same as nationally). Too much food being cooked was the next most cited cause of food waste (15% and same nationally). The third main reason for food waste in NSW was because it had been stored for too long in the fridge or freezer (11% and the same nationally).

Segmentation by life stage in NSW shows the main reason families with children waste food because of meals being left unfinished (32%) and families in general (28%) compared with state average, 18%.

Initiatives in the areas of food portioning and storage management skills will likely yield improvements in food waste.

## What are the other reasons food is left uneaten?

The top three reasons for disposing of food were:

- almost a third of NSW households (32%) could not discern whether food was able or safe to be consumed based on seeing, smelling or tasting it
- nearly one-quarter (23% in NSW) were unsure whether anyone would actually eat the food if saved and consequently choose to dispose of it instead
- a further 21% of NSW households admitted they remained unsure of the meaning of the consumer information on packaging (use-by and best-before dates) that was supposed to guide them (18% nationally).



Additional causes of food waste included:

- a lack of knowledge about how to use the food (13% in NSW and 14% nationally)
- whether it was safe to be reheated (12% in NSW and nationally)
- whether defrosted food could be refrozen if too much is removed from the freezer (10% in NSW and 11% nationally)
- a lack of knowledge about how long leftovers could be kept in the freezer (9% in NSW and 10% nationally)
- no room available in the fridge/freezer (9% in NSW and 10% nationally)
- a lack of knowledge about how long cooked rice and pasta could be kept (9% in NSW and 8% nationally).

There were no statistical differences across the different states, although 36% of NSW families with older children (16+ years) group were more likely to say 'I wasn't sure if food was still safe to eat' and 'not sure if it would get eaten' while NSW average was 32% (Table 5).

A third group of causes of food waste related to the community's lack of knowledge about the way to store food and the limitations of various storage systems.

It was clear there is a need to provide information and education around all the following quite specific areas where communities have concerns about food safety. These included:

- an inability to tell whether eggs were fresh or too old to eat (9% in NSW and 8% nationally)
- how long uncooked meat lasts in the freezer (7% in NSW and 6% nationally)
- whether certain fruits and vegetables could be frozen (6% in NSW and 5% nationally) or freshly cooked food could be reheated (6% in NSW and 5% nationally)
- how long seafood could be kept (7% in NSW and 5% nationally), and
- how long fresh food lasts in the freezer (5% in NSW and nationally).

Lesser reported concerns included how long purchased pre-frozen food lasts in the freezer (4% in NSW and 3% nationally) and uncertainty whether to trust that freezers and fridges had maintained the right temperature (3% in NSW and 2% nationally).

No significant differences were observed across life stage on the lower tier causes of food waste.

## Food waste awareness

### Key points

1. Twenty-two percent of NSW households reported being aware of the food waste issue over the previous 12 months, while 61% had not seen, read or heard about food waste; 17% weren't sure.
2. Nationally, those who reported their awareness of the issue reported with most frequency:
  - the ABC-TV *War on Waste* program
  - a general TV program – but couldn't be more specific
  - information on the importance of using the correct bins.
3. TV was cited as the most common communication channel – 62% nationally but only 55% in NSW. The internet works more effectively in NSW (26% versus 21% nationally).

### Have people seen, read or heard about food waste?

Over the previous 12 months, 22% of NSW households – and 23% nationally – had seen, read or heard something about food waste and/or how to avoid it. Another 17% (both NSW and nationally)

weren't sure. The majority (61% in NSW and 60% nationally) reported no awareness of any advertisement on food waste.

These results show there is a clear challenge to make the food waste issue salient to those householders in charge of food management in the home.

## How are people becoming aware of the food waste issue?

In the previous 12 months, television (55% in NSW and 62% across Australia) was the most cited channel for communications for those who had seen, read or heard something about food waste and/or how to avoid it.

The internet was the second most frequently cited channel by NSW household (26% versus 21% nationally), followed by local council communication (21% both in NSW and nationally) and social media like Facebook (20% in NSW and 19% nationally).

However, other channels should not be ignored as there was a wide spectrum that households used to source information about food waste and/or how to avoid it. These included community newspapers (12% in NSW versus 13% nationally), major newspapers (12% both in NSW and nationally), radio (12% in NSW and 11% nationally) and magazines (both 8%).

The internet was the second most frequently cited channel by NSW household (26% versus 21% nationally), followed by local council communication (21% both in NSW and nationally) and social media like Facebook (20% in NSW and 19% nationally).

The study revealed other channels that may be of some value in particular market segments, including Twitter (6% in NSW and 4% nationally), in-store promotions (5% in NSW and 6% nationally) and festivals and events (4% in NSW and 5% nationally).

## What would motivate people to reduce their food waste?

### Key points

1. Forty-two percent of NSW households said they were very motivated to reduce their food waste with 34% fairly motivated (both the same nationally).
2. Twenty-three percent in NSW (22% nationally) either didn't know if they were motivated to change their food waste behaviours or weren't motivated to any significant degree.
3. Most motivating factors to change food waste behaviour were:
  - potential monetary savings (particularly for families)
  - environmental benefits
  - social norm around it's 'the right thing to do' (particularly for non-families)
  - education (more so for families than non-families).

Despite low levels of awareness of the food waste issue, over three-quarters of the sample said they were very motivated to reduce household food waste (42%) or fairly motivated (34%) both in NSW and nationally. NSW families were less likely than the NSW average to be very motivated to reduce the household's food waste (38% versus the state average of 42%). In contrast nationally, non-families score higher than families on being very motivated (43% vs 42%).

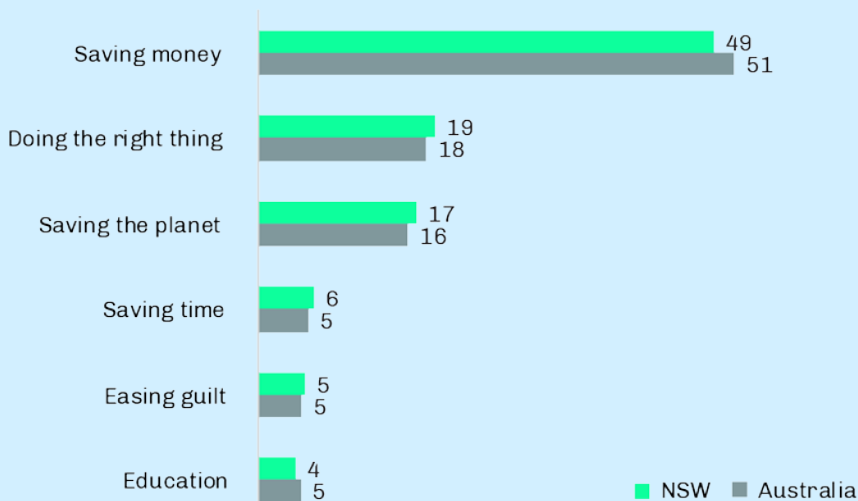
These results suggest that reducing food waste is highly aspirational, but this is not reflected in the actual household food management behaviours or awareness of how much food is being wasted nor in the attention given to messages about the importance of the issue and how to reduce food waste.

## What are the motivations to change food waste behaviour?

Saving money (54%), doing the right thing (37%) and saving the planet (34%) were the top reasons nominated to motivate NSW households to make changes to their food waste behaviours. When asked about the one most motivating factor (Figure 4), saving money (49%) came out on top, followed by doing the right thing (19%) and saving the planet (17%).

Saving money (54%), doing the right thing (36%), and saving the planet were (32%) were the top reasons that would motivate people to make changes. When asked about the one most motivating factor, saving money (51%) and saving the planet (16%) were still among the top two factors.

### The most motivating factor



**D2b.** Which one would be the most motivating factor?

**Base:** Total sample (n=5272), NSW (n=1476)

Figure 4: Motivations to change behaviour – NSW and nationally

The findings suggest facilitating behaviours that will result in savings should be a key change strategy. A critical first step would be to get an accurate measure of how much households are wasting in terms of actual dollars and using this to motivate them to change the current habits that are resulting in food waste.

However, while potential savings delivered through reducing food waste might motivate 49% of NSW households to change their behaviours, it will also be important to establish and promote positive social norms around reduced food waste for the 19% who say that doing the right thing is their main motivating factor. Associating environmental benefits from reducing waste will also reinforce and maintain behaviour change for the 17% of NSW households for whom the main driver was saving the planet.

Saving money, doing the right thing and saving the planet again featured as the top reasons to motivate both families and non-families to make changes. However, education was more likely a motivating factor for families than non-families (31% versus 22%).

Saving money was the top factor for families more than for non-families (54% vs 46%), while non-families were more likely to nominate doing the right thing (21% vs 14%) as their second motivational reason.

## How is food purchased and managed in NSW?

### Key points about food planning

1. Seventy-six percent of NSW households (75% nationally) mostly check what food is already in the house when planning food purchases.
2. Forty-five percent (46% nationally) usually plan the meals to be cooked.
3. Thirty-one percent in NSW said they write a comprehensive list for food shopping while 28% prepare a basic one (33% and 27%, respectively for national households).

### Key points about food shopping

1. Forty percent of both NSW and national households reported mostly having a set budget, while 40% in NSW and 41% nationally rarely did.
2. Thirty-seven percent of NSW households (39% nationally) are most likely to buy what is on their shopping lists while 40% rarely do this (compared with 39% nationally).
3. Forty-one percent of NSW households (42% nationally) usually buy according to specials when they shop and 31% rarely doing so (and 32% nationally).

### Three food shopping behaviours were reasonably well entrenched:

1. Mostly buying the freshest ingredients – 67% in NSW do this and 66% nationally
2. Mostly checking the use-by dates prior to purchase – 60% in NSW do this and 58% nationally
3. Rarely buying in bulk – only 15% in NSW and 16% nationally.

### Key points about preparing food

1. Thirty-seven percent of NSW households (38% nationally) said they prepare extra for a planned future meal most of the time and 25% (both NSW and nationally) said they did it half the time.
2. Twenty-four percent of both NSW and national households reported mostly making extra food just in case and 19% in NSW (20% nationally) do it half the time.
3. Twenty-three percent of NSW households (22% nationally) make extra food most times/every time due to the unpredictability of how hungry the eaters will be.

These food preparation behaviours were particularly common in families with children.

### Key points about storing food

1. Sixty-seven percent of NSW households (and the same nationally) reported mostly storing food to keep it as fresh as possible.
2. Fifty-nine percent of NSW households (and the 61% nationally) said they usually freeze food to extend its life, although 19% in NSW only do this half the time and 21% rarely.

### Key points about leftovers

1. Forty-seven percent of NSW households (the same nationally) reported mostly making use of leftovers while 15% do so about half the time versus 14% nationally and 36% in both NSW and nationally rarely eat leftovers.
2. A sizable minority of household food managers (9% in NSW and 7% nationally) save the leftovers but then usually throw them out. Another 11% (10% nationally) do this about half the time.

## Food planning and purchasing behaviours in households

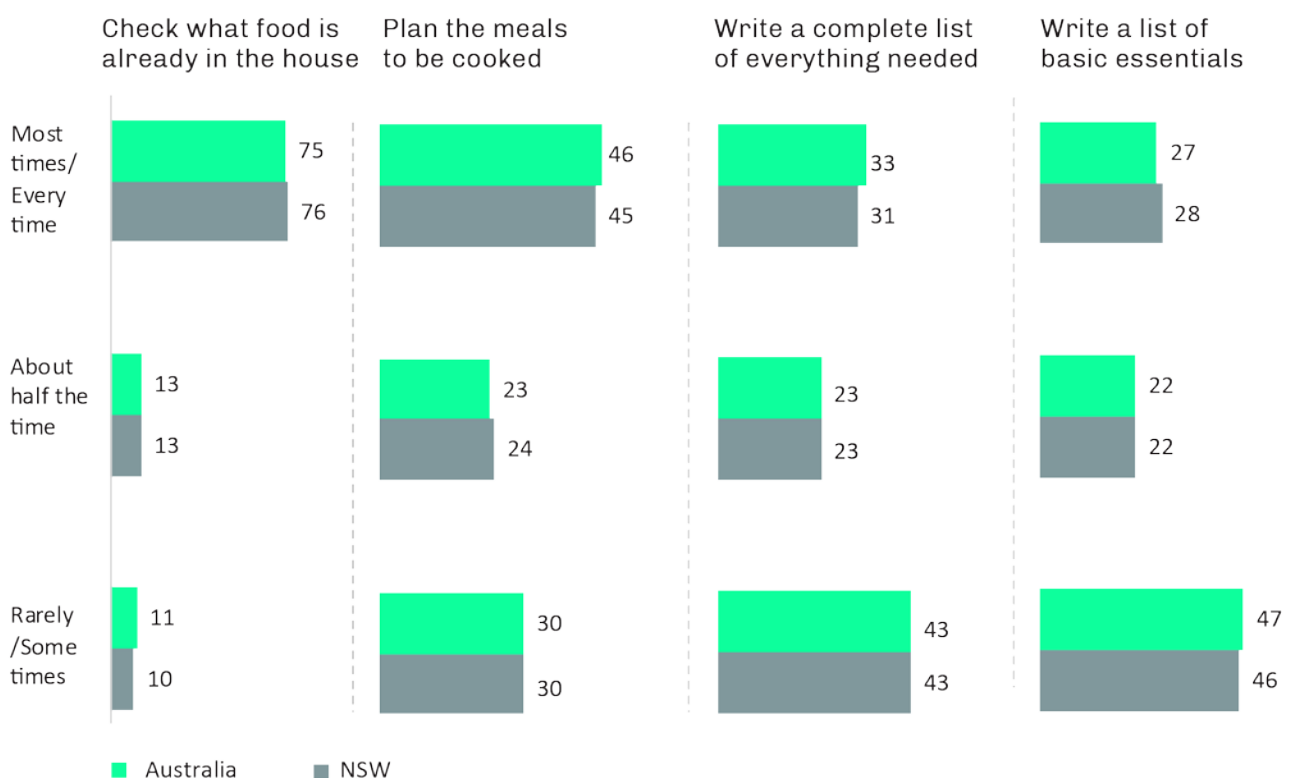
Seventy-six percent of NSW households (75% nationally) check what food is already in the house when planning their food purchases. However, as the survey results show, most also do top-up

shops allowing additional food items to be bought later. This suggests their 'check what you have at home' may be hasty in many cases given that only 31% in NSW (33% national average) go on to mostly write a comprehensive list, while 28% in NSW (and 27% nationally) usually write a list of the basic essentials they need.

Similarly, 45% mostly plan the meals to be cooked (46% nationally) suggesting the majority of households require (or allow) a great deal of flexibility in the food they have on hand to provide meals.

The study shows that 43% of NSW households (same nationally) rarely write a complete list and that 46% rarely write a list of basic essentials (47% nationally). The risk of over-purchasing or potentially doubling up what they have at home may lead to food waste: see Figure 5.

Unsurprisingly, 52% of NSW families with children are more likely to plan their meals most/every time than adult only households and non-families (45% and 43%).



**B2.** Before you or your household does the main grocery shopping, how often do you or your household, do the following?

**Base:** Total sample (n=5272), NSW (n=1476)

Figure 5 Food planning behaviours – NSW and nationally

### How do people shop for food?

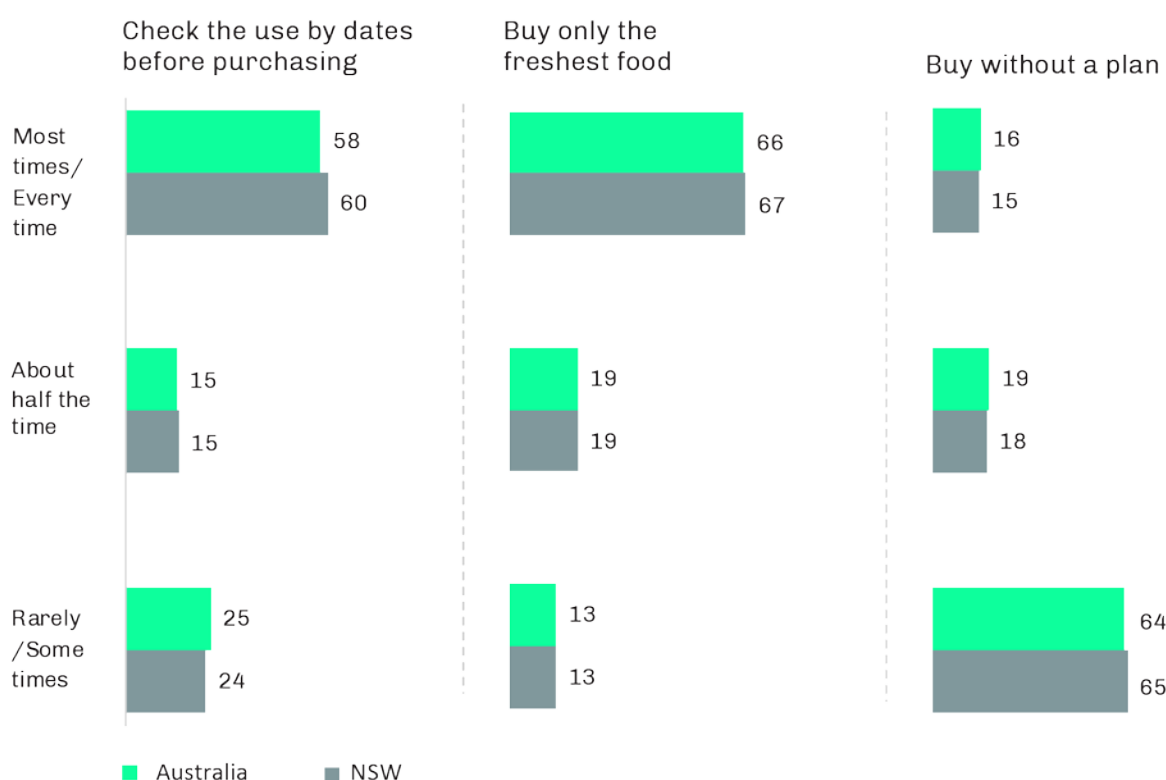
Forty percent of NSW households mostly shop to a set budget (same as the national average), while 40% rarely do (41% nationally). There is a similar division when it comes to buying food on special with 41% in NSW and 42% nationally mostly doing this with another 31% in NSW rarely attracted to specials when shopping (32% national average).

Fifteen percent of NSW households (16% nationally) reported that they buy food in bulk most times or every time and another 18% in NSW (same nationally) shop this way about half the time.

NSW families with children are more likely to buy according to a set budget than non-family households (46% compared to 38%). Families with children are also most likely buy food on special (48%) compared with 36% for non-families and buy in bulk (20% versus 14%).

A number of food shopping behaviours are reasonably well entrenched including buying the freshest ingredients with 67% of NSW households mostly doing this (66% nationally) and 13% in both NSW and nationally only sometimes or rarely doing so: see Figure 6. About 60% of NSW households mostly check the use-by or best-before dates before purchasing (58% national average). Only 15% in NSW and 16% nationally buy without a plan but the good news is that 65% of NSW households rarely do so (64% nationally): see Figure 6.

NSW families with children are less likely to mostly check the use-by dates before purchasing (53% compared with the national average of 58%) and only buy the freshest food (61% versus the average of 66%)



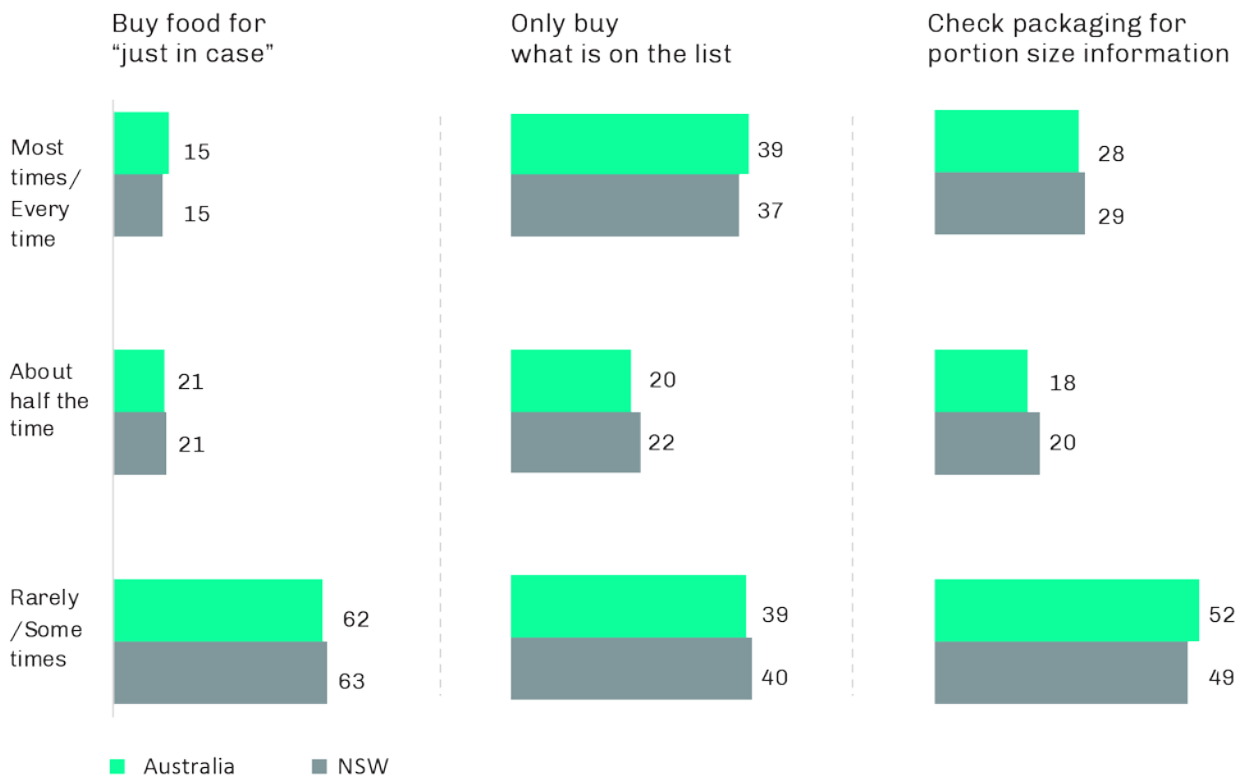
**B2. Buy food according to a set budget?**  
**Base:** Total sample (n=5272), NSW (n=1476)

Figure 6 Food buying interactions – NSW and nationally

The survey results also show that only 15% of NSW households (same nationally) mostly buy food ‘just in case’, 21% (versus 19% nationally) do it half the time and 63% in NSW (62% nationally) rarely do it. Only buying what is on a shopping list is polarising behaviour, with equal proportions of household (37% NSW and 39% national average) mostly sticking to what is on the list and 40% in NSW (same 39% national average) rarely following it: see Figure 7.

Nearly half (49%) of NSW household rarely check the packaging for portion size information (52% is the national average). Only 29% of NSW households (28% nationally) look out for portion size information most times/every time. Greater focus on matching the amount of food purchased and cooked to the amount needed offers the possibility of reducing food waste: see Figure 6.





**B2. Buy food according to a set budget?**  
**Base:** Total sample (n=5272), NSW (n=1476)

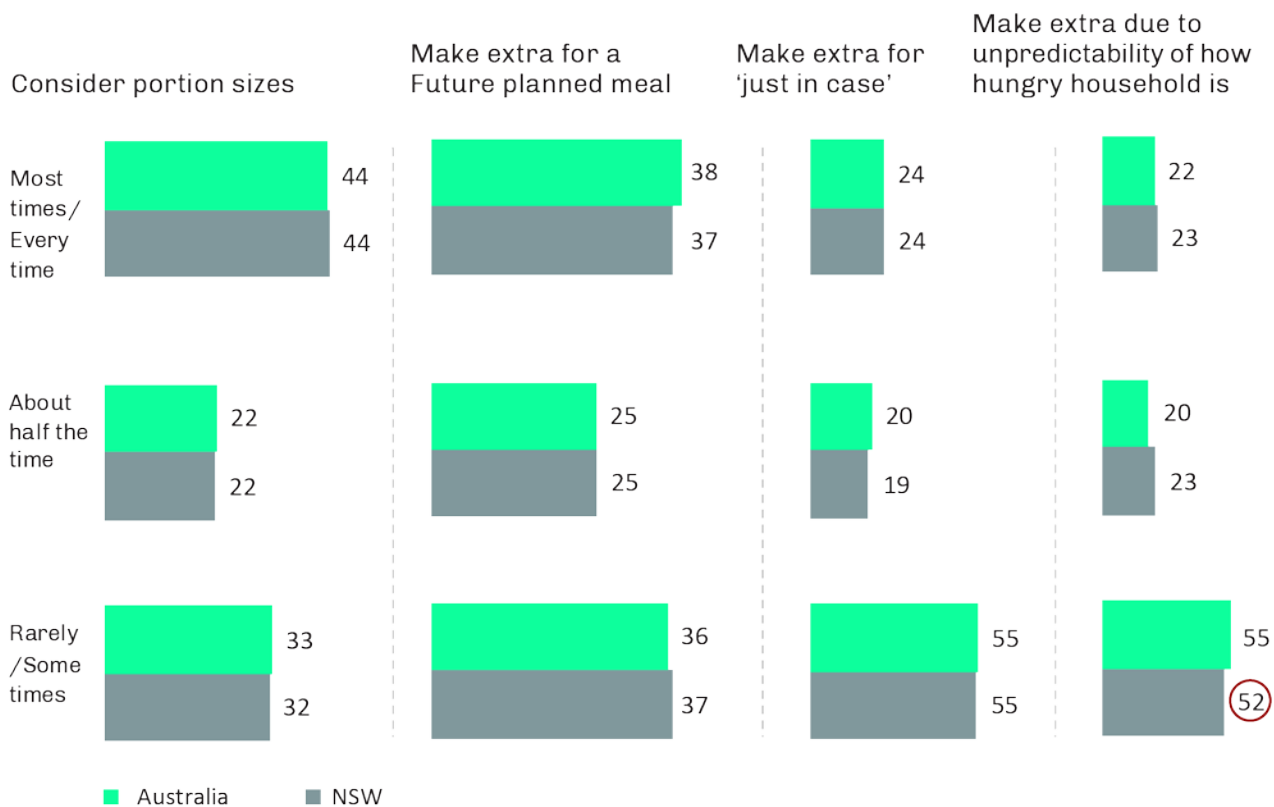
Figure 7 Food buying consideration behaviours – NSW and nationally

NSW families with children are more likely to mostly buy food ‘just in case’ (22% do so compared to the state average of 15%).

### How do people prepare their food?

Preparing extra food for a planned future meal is a common behaviour, with households in NSW doing this 37% of the time (38% nationally) and another 25% (both NSW and nationally) half the time (Figure 8).

In addition, 24% of households in both NSW and nationally mostly make extra food just in case and 19% in NSW (20% nationally) do this half the time. In a similar vein, 23% of NSW households (22% nationally) reported mostly making extra food because they didn’t know how hungry the household was. This sets the scene for wasting food and skills are needed to help effectively store food and use it for other meals.



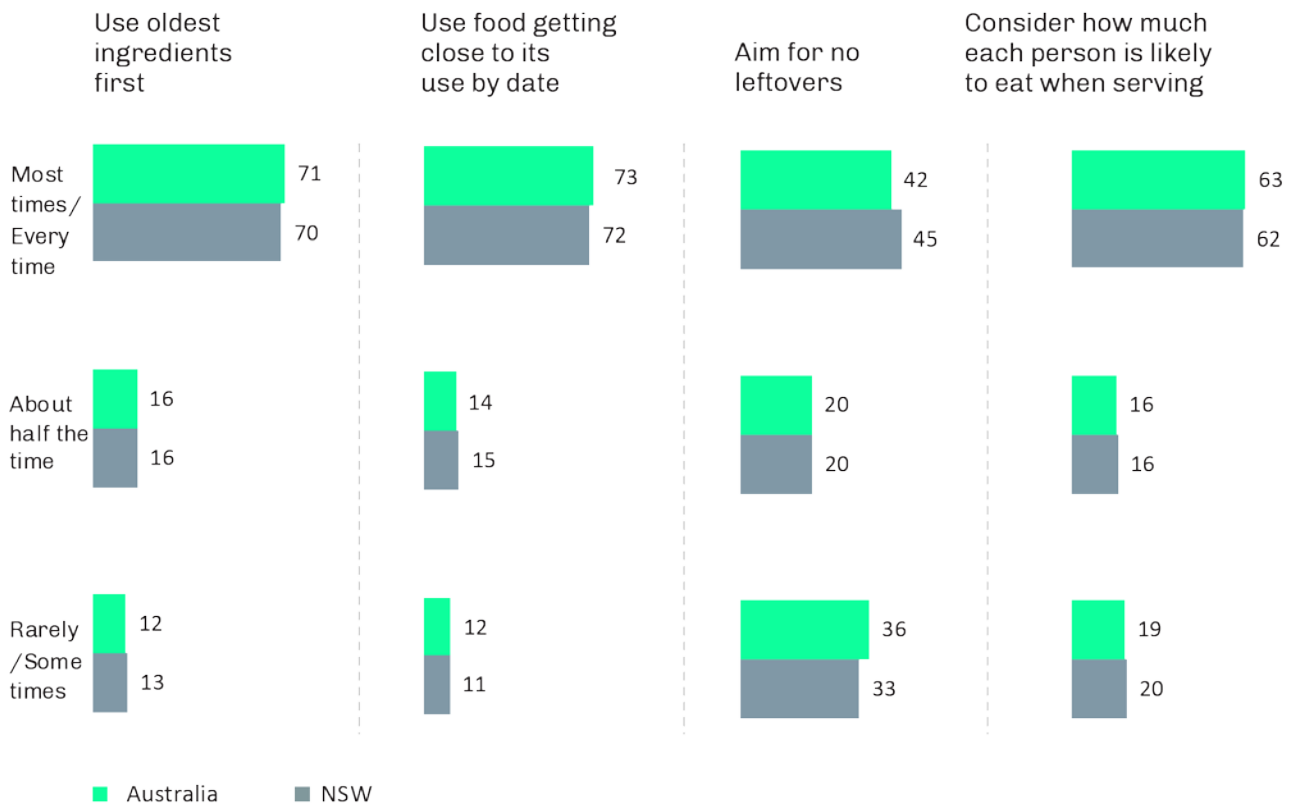
**B4. About how often do you or your household do the following when preparing a main meal?**

**Base:** Total sample (n=5272), NSW (n=1476)

Figure 8 Planning in preparation of meals – NSW and nationally

NSW families with children were less likely to consider portion sizes (40% compared with 44% in NSW). They are also most likely to make extra food for a future planned meal (40% versus 37%), make extra just in case (32% vs 24%) and make extra due to the unpredictability of how hungry the household is (29% vs 23%).

Not all households take the crucial food preparation step of thinking about the amount each person is likely to eat when serving. Only 62% in NSW (63% nationally) do this most times (Figure 9), potentially resulting in leftovers on plates which end up as food waste. As noted earlier in the report, households attribute the main cause of food waste to household members who don't always finish their meal (18%). Strategies that enable food preparers to respond to the needs of those consuming the food will be valuable in reducing food waste from the plate.



**B5. When there are leftovers in your household about how often do you or your household do the following?**  
**Base:** Total sample (n=5272), NSW (n=1476)

Figure 9 Conscious food preparation – NSW and nationally

Fewer than half the households surveyed mostly aimed for no leftovers (45% in NSW and 42% nationally) while 33% of NSW household (36% nationally) did this rarely/sometimes and 20% (same in NSW and nationally) about half the time. This result means that strategies are needed that both help people make better use of leftovers as well as assisting households to balance production with consumption.

Some positive preparation behaviours are well entrenched. These include using food that is getting close to its use-by date with 72% of NSW households (73% nationally) reporting they mostly try to do this. Also, 70% of NSW respondents (71% nationally) try mostly to use the oldest ingredients they have first but, with 16% (both NSW and nationally) doing this half the time and 13% in NSW (12% nationally) rarely.

NSW families with children are also less likely to prepare food consciously. They are less likely to ‘mostly use the oldest ingredients first’ (64% versus the state average of 70%) and to mostly use food getting close to its use-by date (68% versus 72%). Nineteen percent of families with children rarely consider how much each person is likely to eat when serving (20% State average) and 38% aim for no leftovers on the plate (State average 45%).

Twelve percent of NSW households (11% nationally) found it challenging to prepare a meal from leftover ingredients. Given that 11% of NSW households reported food left in the fridge or freezer for too long is one main reason for wasted food (same nationally), skills to use up leftover ingredients are critical to reducing food waste.

NSW households were divided on whether to mostly measure ingredients when cooking (35% in NSW versus 37% nationally) while 41% both did this rarely.

NSW families with children (17% versus 12% NSW average) were more likely to find it difficult to prepare a meal from leftover ingredients or food most times/every time and 18% found it hard half the time.

### **How do people store food?**

The survey results showed that most NSW households (67% and the same nationally) say they mostly attempt to store food to keep it as fresh as possible. The same proportion is using storage tools to do this. Only 16% of household (same nationally) are making little attempt to store food or only doing this half the time and another 16% rarely/sometimes (same nationally).

The majority of NSW (59%) said they were freezing food (whole foods and/or leftovers) most of the time to extend its shelf life (61% nationally) but 19% of NSW households (18% nationally) were only doing this about half the time and 21% in NSW (20% nationally) rarely or never. Education in this area would assist the decision-making of those reluctant to freeze food to extend its life.

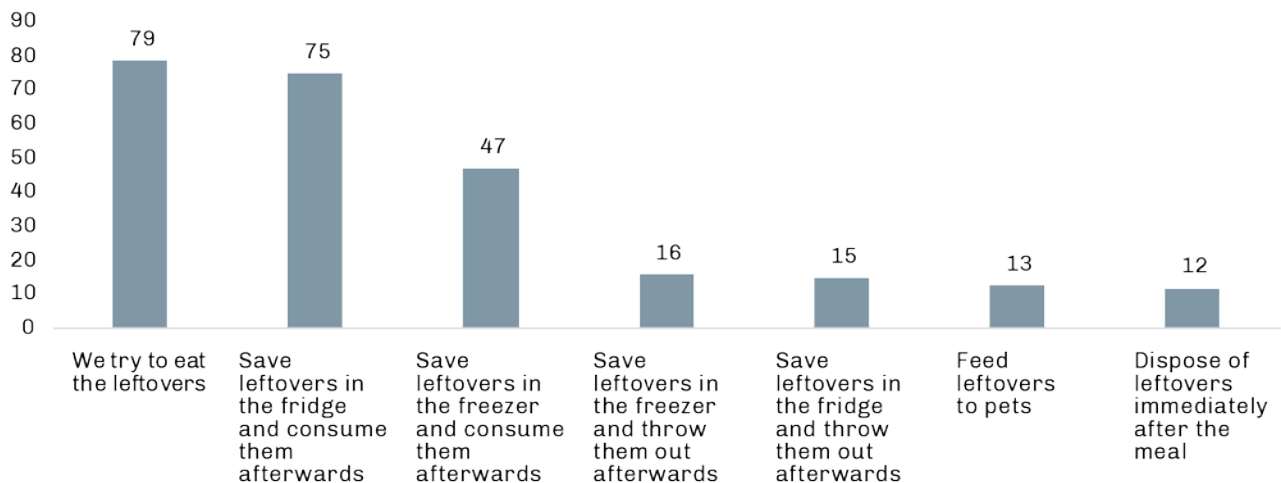
NSW families with children were also less likely to store food to keep it as fresh as possible. Sixty-three percent claimed doing so mostly compared with the 67% state average. A further 18% of these families do it half the time and 19% rarely. Sixty-six percent of NSW families are likely to use storage tools (67% in NSW). While families with children in NSW are more organised about food planning and purchasing, once the food arrives home the challenges arise, including using up leftovers, considering portion size and storage to extend the food's shelf life.

The survey found that NSW households were not wholeheartedly adopting several other positive storage habits. Only 42% of NSW households (53% nationally) said they rotated food to ensure the oldest food is at the front, 18% (16% nationally) reported only doing this half the time and 27% (28% nationally) rarely. This habit is crucial in avoiding food left in the fridge or freezer for too long, which is the third leading reason why food is wasted.

NSW families with adult children (16+) were less likely to rotate fridge items (51% mostly, compared to the state average of 54%), can't see what is in the fridge/freezer (10% compared to 11% statewide) and families with children mostly struggle with the fridge/freezer being overfull (21% compared to 18% statewide).

### **How do people manage leftovers?**

Nearly half (49%) of NSW households claimed that they try to eat leftovers most of the time (15% do so half the time and 36% rarely): see Figure 8. A sizable minority of NSW households (9%) were found to save the leftovers in the fridge and then mostly throw them out later (7% nationally) and 11% of NSW households (10% nationally) do this about half the time (Figure 10).

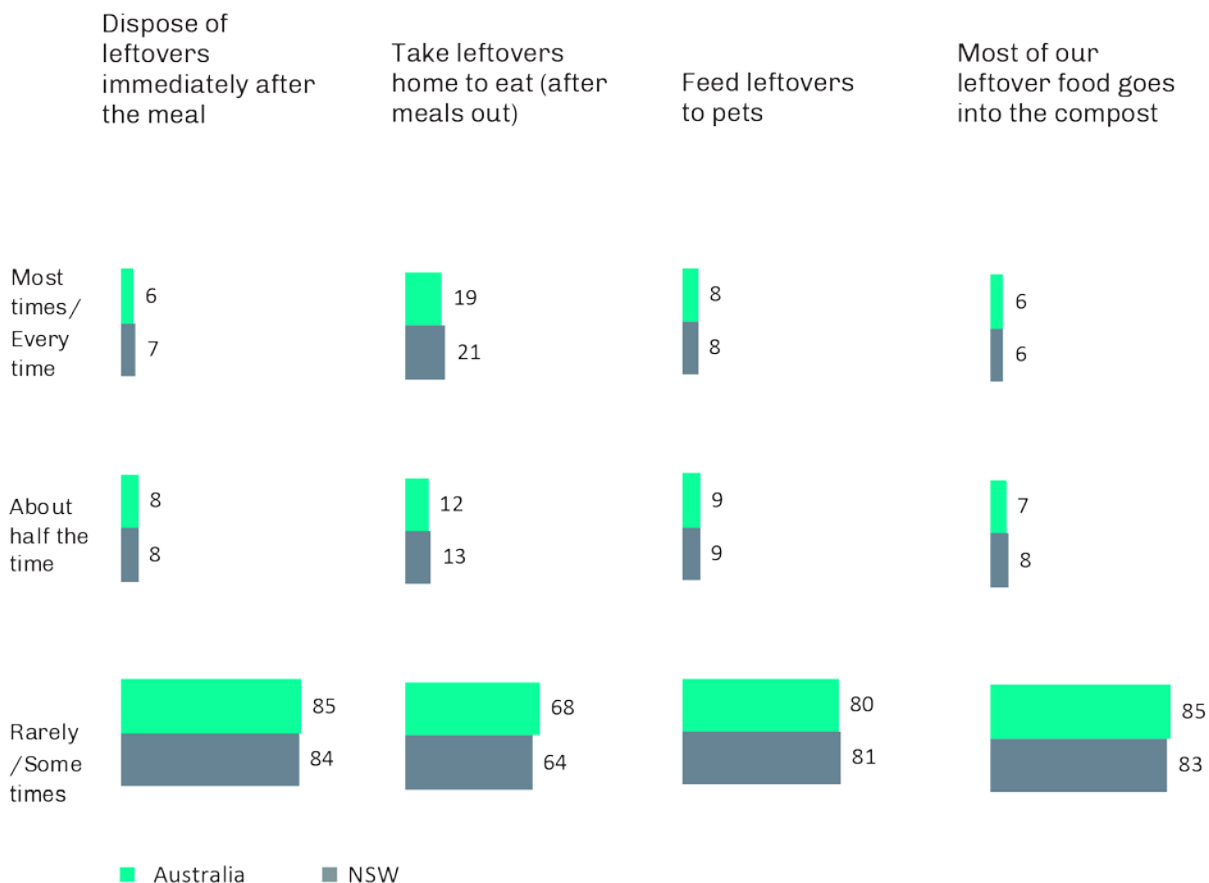


**B5.** When there are leftovers in your household about how often do you or your household do the following?  
**Base:** NSW households who mostly take leftover home (n=308).

Figure 10 Leftover interactions – NSW and nationally

Positively, 49% of families with children were more likely to try to eat the leftovers, with 18% doing it about half the time (14% statewide). While families, in general, were slightly more likely to save leftovers and eat them later usually (49% compared to the statewide average of 47%), they are also more likely to end up throwing them away (11% compared to 9% statewide).

Only 7% of NSW households (6% nationally) reported immediately disposing of leftover food with a further 8% (same as the national average) claiming to do this half the time. In fact, 84% said that immediate disposal was rarely/never done (85% nationally). This behaviour suggests a reluctance to waste food. Interestingly, only 21% of NSW households will take leftovers home to eat when dining out (19% nationally) and 64% rarely do this (68% nationally): see Figure 11.



**B5. When there are leftovers in your household about how often do you or your household do the following?**  
**Base:** Total sample (n=5272), NSW (n=1476)

Figure 11 Leftover disposal – NSW and nationally

Of the 21% of NSW households who mostly take leftovers home, 75% save them in the fridge and consume them afterwards. Only 15% save leftovers in the fridge and then throw them out later.

A higher percentage of NSW families with children take leftovers home after a meal out with 27% claiming to do this most times compared with the 21% state average. This group were also more likely to feed leftovers to pets (10% mostly versus the 8% average and 12% about half the time versus the 9% average).

## Does the community understand food labels?

### Key points

1. Only 50% of the NSW households surveyed understood the meaning of both food date labels.
2. Sixty-nine percent of those in NSW correctly understood the meaning of best-before (that food is still safe to be eaten as long as it is not damaged, deteriorated or perished in any way).
3. Seventy-five percent of NSW respondents also understood the correct meaning of the use-by label (that food should not be eaten after this date as it may be unsafe).



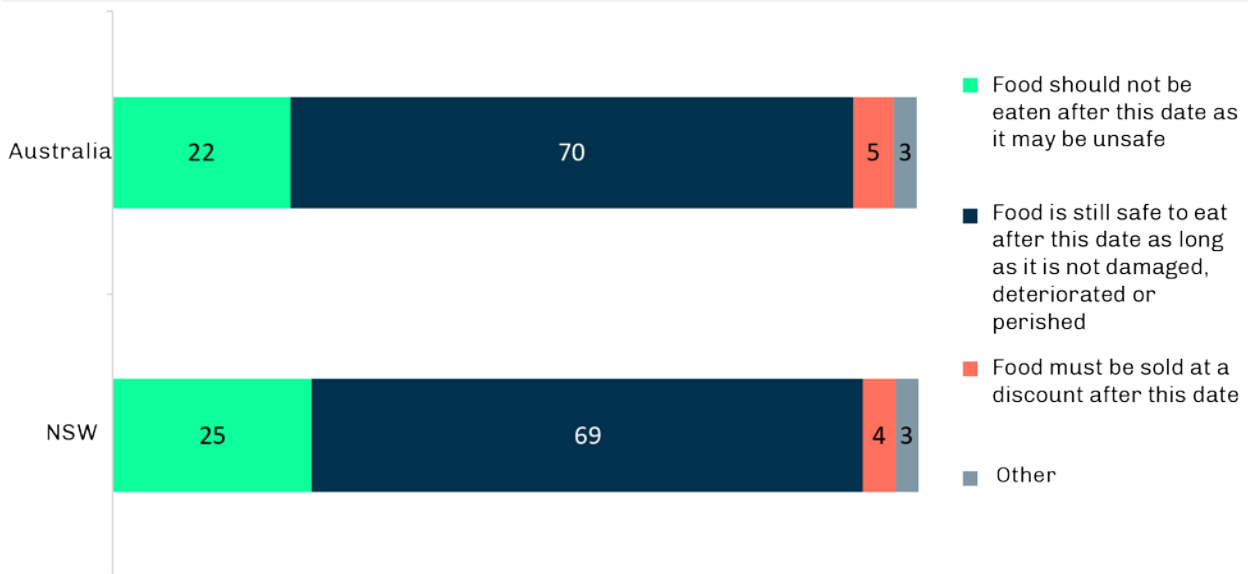
4. Understanding of the two labels varied: older people in NSW (77%) were more likely to understand best-before and less likely to understand use-by (68%) while for younger people the reverse was the case – 58% understood best-before and 81% use-by.

### Understanding of best-before and use-by dates

There is still confusion within the community about best-before and use-by dates for food.

Sixty-nine percent of NSW households (70% national average) correctly understood that the meaning of best-before is that food is still safe to be eaten as long as it is not damaged, deteriorated or perished in any way: see Figure 12.

Majority of the states believe that food information stickers indicate that the food is still safe to eat after the date listed, if it is not damaged, deteriorated or perished – ACT is the least knowledgeable.

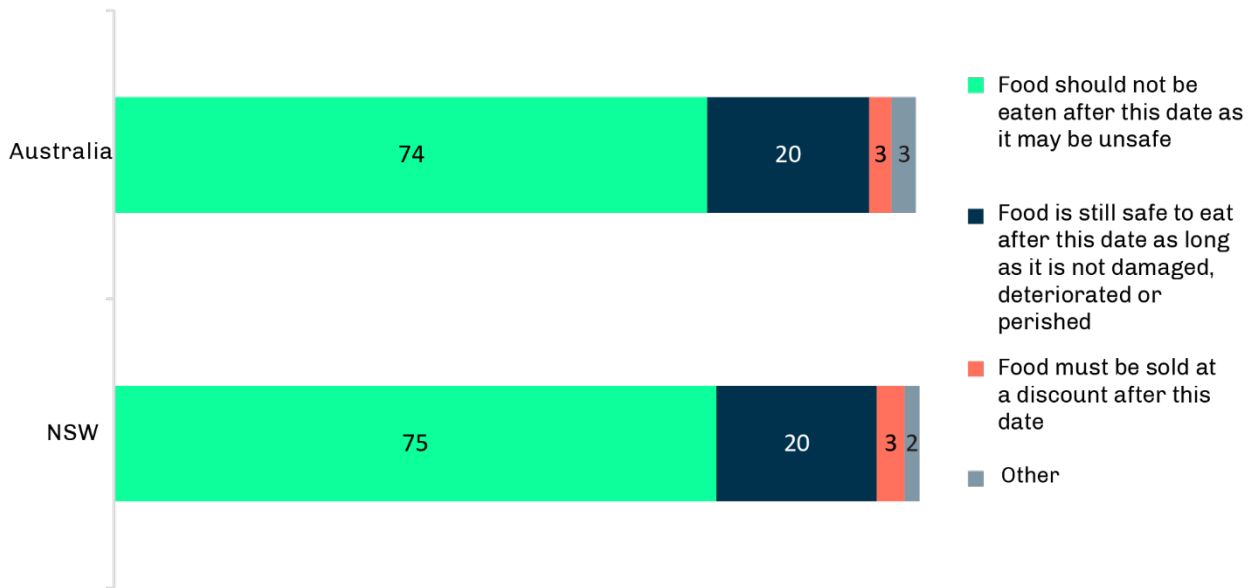


**C2. What is meant by the 'best before' date as it relates to food and drinks?**  
**Base:** Total sample (n=5272), NSW (n=1476)

Figure 12 Understanding of best-before – NSW and nationally

Meanwhile, 75% of NSW households (74% nationally) correctly understood the use-by label to mean food should not be eaten after this date as it may be unsafe (Figure 13).

No significant differences by state in terms of understanding of 'Use by' date.



**C2. What is meant by the 'use by' date as it relates to food and drinks?**

**Base:** Total sample (n=5272), NSW (n=1476)

Figure 13 Understanding of use-by – NSW and nationally

While there were no significant differences in understanding the meaning of best-before labels between family groups and non-family groups, families with children were more likely to understand use-by labels than average (81% were right compared with 74% for the national average).

However, only 50% of NSW households (51% national average) understood the meaning of both food date labels.

Understanding of the two labels in NSW varied by age: older people (77%) were more likely to understand best-before and less likely to understand use-by (68%) while the reverse was true for younger people (58% for best-before and 81% for use-by).

## Eating out-of-home

### Key points

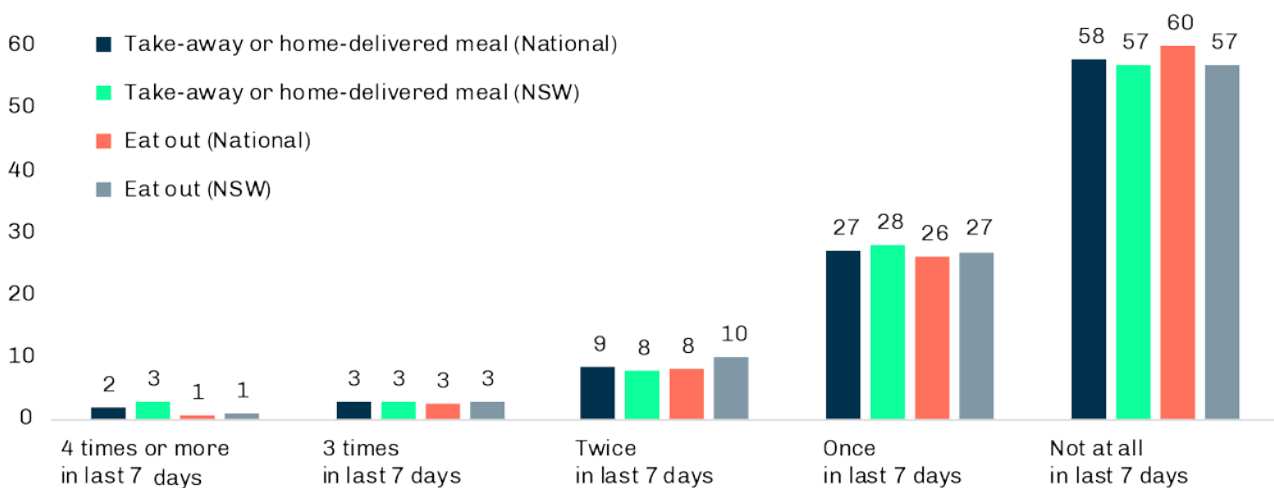
1. Fifty-seven percent of NSW households did not order a takeaway/home delivery in the week before the survey (58% nationally).
2. Forty-two percent of NSW respondents (41% nationally) ordered takeaway/home delivery over the same period – 28% ordered one meal and 14% two or more (nationally 27% and 14%, respectively).
3. Forty-one percent of NSW households had a meal out – 27% had one meal out and 14% had two or more meals out (nationally 26% and 12%, respectively).
4. In NSW, 57% of households did not have a meal out in the previous seven days (60% nationally).
5. Looking at both forms of consuming food prepared out of the home, 60% of NSW households sourced a meal from at least one of the channels surveyed.

6. Families were more likely to dine out and have takeaways and home-delivered food as well as make last-minute dining decisions.

Households reported moderate levels of consumption of takeaway and home-delivered meals in the seven days before the survey. In fact, 57% of NSW households (58% nationally) didn't order a takeaway or home-delivered meal over that time (Figure 40). Only 28% of NSW households (27% nationally) ordered one meal and 14% (same nationally) ordered two or more.

Similarly, 57% of NSW households (60% nationally) claimed they did not eat out of the home at a café, restaurant or someone else's house in the previous seven days (Figure 14).

58 of the total sample claimed that they did not consume a take-away or home-delivered meal for dinner, and 60 also claimed that they did not eat out for dinner in the last seven days. Of those, 47 of them claimed that this decision was a last-minute one. 27 of the total sample claimed that they consumed one take-away or home-delivered meal for dinner, and 26 of them eat out once over the last seven days. Of those, 37 of them claimed that this decision was a last-minute one.



**A4.** How many times in the last 7 days did you order a **take-away or home delivered meal** for dinner, if at all.  
**5a.** How many times in the last 7 days did you 'eat out' for dinner - including dinners at cafes, restaurants or at someone else's home?  
**Base:** Total sample (n=5272), NSW (n=1476)

Figure 14 Meals not cooked – NSW and nationally

Fifty-seven percent of NSW households (48% nationally) reported there were no last-minute decisions to order takeaway, home delivery or eat out in the week before the survey.

Nationally, families were more likely to have eaten out than non-families: 53% had at least one takeaway or home-delivered meal in the prior seven days (35% for non-families) and slightly more likely to have dined out at least once in the last seven days (40% compared with non-families at 38%).

Only thirty-nine percent of NSW households said they had not eaten or ordered takeaway in the previous seven days (40% nationally) while 24% reported dining out or ordering takeaway twice or more over that period (same as the national average): see Table 1.

**Table 1 Takeaway and home deliveries and eating out for dinner – NSW and nationally**

How many times in the last 7 days did you eat out for dinner or order takeaway?	Total n = 5272 %	NSW n = 1476 %
Every day	1	1
6 times in last 7 days	1	1
5 times in last 7 days	1	1
4 times in last 7 days	2	1
3 times in last 7 days	5	5
Twice in last 7 days	14	15
Once in last 7 days	37	36
Not at all in last 7 days	40	39
Don't know	1	1

**A4.** How many times in the last 7 days did you order a **take-away or home delivered meal** for dinner, if at all. **Combined with A5a.** How many times in the last 7 days did you **'eat out'** for dinner - including dinners at cafes, restaurants or at someone else's home?  
**Base:** Total sample (n=5272); NSW (n=1476)

In NSW, 47% of households reported eating out or ordering takeaway were last-minute decisions in the period covered by the survey (same nationally).

NSW families were more likely to have made a last-minute decision to not cook at home with 55% deciding at the last minute to eat out one or more times compared with 46% of non-families.

## How does the community shop for food?

### Key points

1. Seventy-six percent of NSW households do a weekly grocery shop, followed by a top-up (the same nationally).
2. As a result, almost all household food managers in NSW do a top-up shop of some kind – 88% in NSW and nationally.
3. The most common frequency of the main grocery shop is once a week – 60% in NSW and 61% nationally.
4. The main reasons for shoppers' chosen store revolved around:
  - convenience of location (usually first)
  - easy parking
  - good prices
  - products they like.
5. Thirteen percent of NSW respondents reported using online shopping to purchase groceries in the seven days prior to the survey (12% nationally).

## How do households shop?

Seventy-six percent of NSW households do a weekly grocery shop (the same as nationally), with 12% doing only one shop and 12% shopping as they need food without a main grocery shop. However, NSW families were more likely to do a main grocery shop and top-up shopping as needed – 85% of families with children did so compared with the state average of 76%.

The main grocery shop was undertaken once a week for a majority of NSW households (60% versus 61% nationally) – see Table 2.

**Table 2 Frequency of main food shop – NSW and nationally**

How often does your household usually do the main grocery shopping?	Total n = 5272 %	NSW n = 1476 %
Every day	1	1
6 times a week	1	1
5 times a week	1	1
4 times a week	2	2
3 times a week	5	4
Twice a week	12	15
Once a week	61	60
2–3 times a month	15	15
Less than 2 times a month	2	1

**A1b.** How often does your household usually do the main grocery shopping?  
*Base: Total sample (n=5272) ; NSW sample (n=1476)*

As mentioned, almost all NSW households (88%) do top-up grocery shopping (Table 7) where 12% do no top-up shopping. The most common frequency for doing a grocery top-up shop is once to twice a week in NSW (59% and the same nationally).

The regular shopping patterns should provide opportunities for households to shop for just the food they need. When NSW households go grocery shopping, the key reasons they choose particular retailers include:

- convenience of location
- stocking products consumers like
- reasonable prices
- appealing loyalty programs
- support for local businesses

Online shopping has achieved significant in-roads as a retail channel with 13% of NSW households using it in the week before the survey (same nationally): see Table 3.

NSW families with children are more likely than other life stage groups to shop online – 18% versus the state average of 13%.

**Table 3 Online grocery buying – NSW and nationally**

Did you personally shop online for groceries (excluding alcohol) in the last 7 days?	Total n = 5272 %	NSW n = 1476 %
Yes	12	13
No	87	87

## Segmentation of the national study

### Key points

The mind-sets that underpin the attitudes and behaviours fall into the following five segments:

1. 'Disciples' (19%) – those motivated to reduce food waste and taking action to do so
2. 'Family spectators' (23%) – those motivated to reduce food waste but taking few actions to do so
3. 'Non-family spectators' (34%) – those motivated to reduce food waste but taking few actions to do so
4. 'Wasters' (20%) – those unmotivated to reduce food waste and taking few actions to do so
5. 'Know what I'm doing' (4%) – those unmotivated to reduce food waste because they think they know what they are doing

A psychographic segmentation was added that showed four distinct groups based on food behaviours:

1. 'Disorganised' (18%) – those lacking experience with food planning and who throw away the most food
2. 'Basic planners' (19%) – those who find it difficult to predict the amount of food that will be consumed and throw away a considerable amount
3. 'Extravagant nurturers' (23%) – those confident with the food they buy and meal preparation and who believe they are already reducing waste
4. 'Frugalists' (41%) – those who believe they are effectively managing their food waste and who throw away less than average

The challenge for reducing wasteful food behaviours is that households have a range of different mind-sets as a result of their life stages, socio-economic status, cultural attitudes to food and knowledge and experience of food preparation. The market analysis looked at the segmentation in two different ways, using a positive and negative attitudes and behaviours approach and a psychographic segmentation approach derived through factor and cluster analysis.

### Attitude and behaviour segmentation

This analysis allowed the sample to be segmented based on motivation to reduce the food they waste and the food waste avoidance behaviours they already exhibit. It reveals the four segments mentioned above dominated by a large group called the 'Spectators' who say they are motivated to reduce food waste but exhibit behaviours that don't support this. The analysis sub-segmented this group into 'Family spectators' and 'Non-family spectators' because this provided more in-depth insight into the challenges and potential solutions.

The mind-sets below fell naturally from the data using factor and cluster analysis. This was a data-driven segmentation solution linking attitudes and behaviours towards food waste.

#### Disciples – 19%

Barriers – Already believe they are effectively managing their food waste.

Enablers – Help them manage their own waste through household and community composting schemes, tips on how to extend the life of fresh food and how to select fresh food in the first place.

#### Spectators (families) – 23%

Barriers – Confident with the food they buy and meal preparation but know there will always be waste.



Enablers – Very open to minimising waste; need to show how reducing food waste can help save time and money, provide education tools for family members. They need more information on how long to keep different types of food in the fridge/freezer and tips on buying the best fresh produce.

### **Spectators (non-families) – 34%**

Barriers – Confident with the food they buy and meal preparation but know there will always be some waste.

Enablers – Open to minimising waste, but there is a need to show them how to reduce their food waste and that reducing food waste can help save time and money. They need more education around how long to keep different types of food in the fridge/freezer and help to manage their own household/community composting scheme.

### **Wasters – 20%**

Barriers – Lack of confidence and experience with meal ideas and anxious about keeping food for too long in case it might be unsafe for the family to eat.

Enablers – Help with meal planning, quick and easy recipes, creative use of leftovers, education around how to store fresh food in the fridge/freezer, buying fresh, seasonal food and educational materials for children on the importance of reducing food waste.

### **Know what I'm doing – 4%**

Barriers – They don't believe they are wasting food so are unlikely to attend to information about food waste.

Enablers – Education around how long it is safe to keep different types of food in the fridge/freezer and more knowledge on the meaning of best-before dates are likely to fill knowledge gaps. Also, ways they can save money by reducing food waste are the messages most likely to reach them.

## **Breakdown of behaviours**

Fifty-seven percent fall into the 'Spectators' segment, which indicates that more than half of NSW households are motivated to make a change to reduce their household food waste.

The in-house interviews conducted to inform the survey design suggested that households would find it easier to conceptualise food waste by thinking about a variety of types of food waste and using a volume measure consistent with that food waster.

Inedible food waste topped the list of food thrown away by households in the week preceding the survey. This was followed by bread and bakery items, fresh vegetables and herbs and meal leftovers. Wasters and Spectators wasted more food than the other segments.

The results were similar when looking at the food wasted by individuals over the week before the survey except analysis by individuals revealed that Non-family Spectators (per person) produced the most significant amount of food waste followed by the Wasters.

# Disciples 19% - of those responsible for food

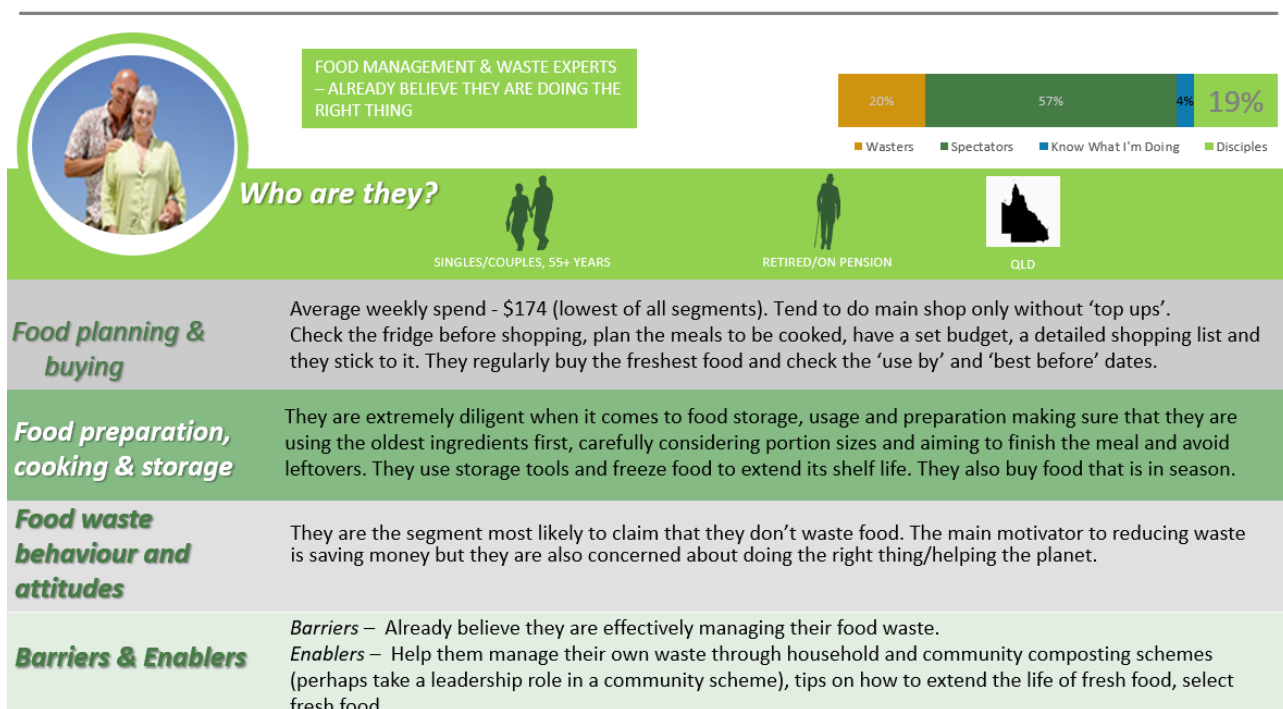


Figure 15 Disciples segmentation

# Spectator Families – 23% of those responsible for food

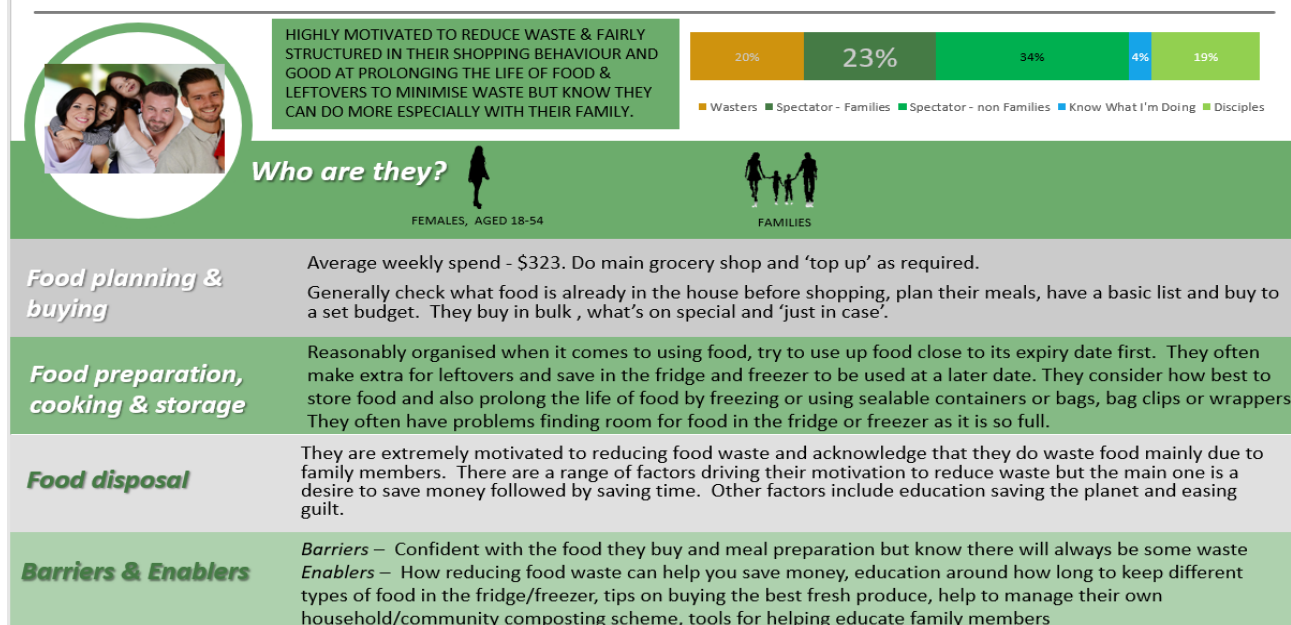


Figure 16 Spectator Families segmentation

## Spectator Non-Families – 34% of those responsible for food



Figure 17 Spectator Non-Families segmentation

## Wasters – 20% of those responsible for food

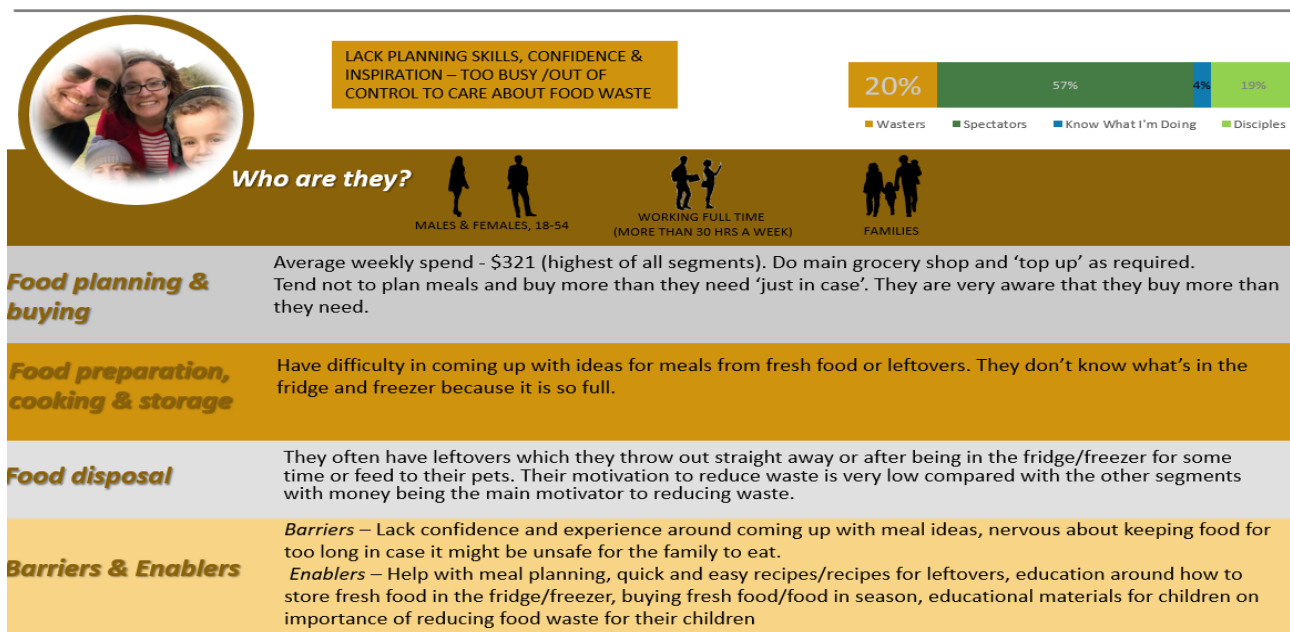


Figure 18 Wasters segmentation

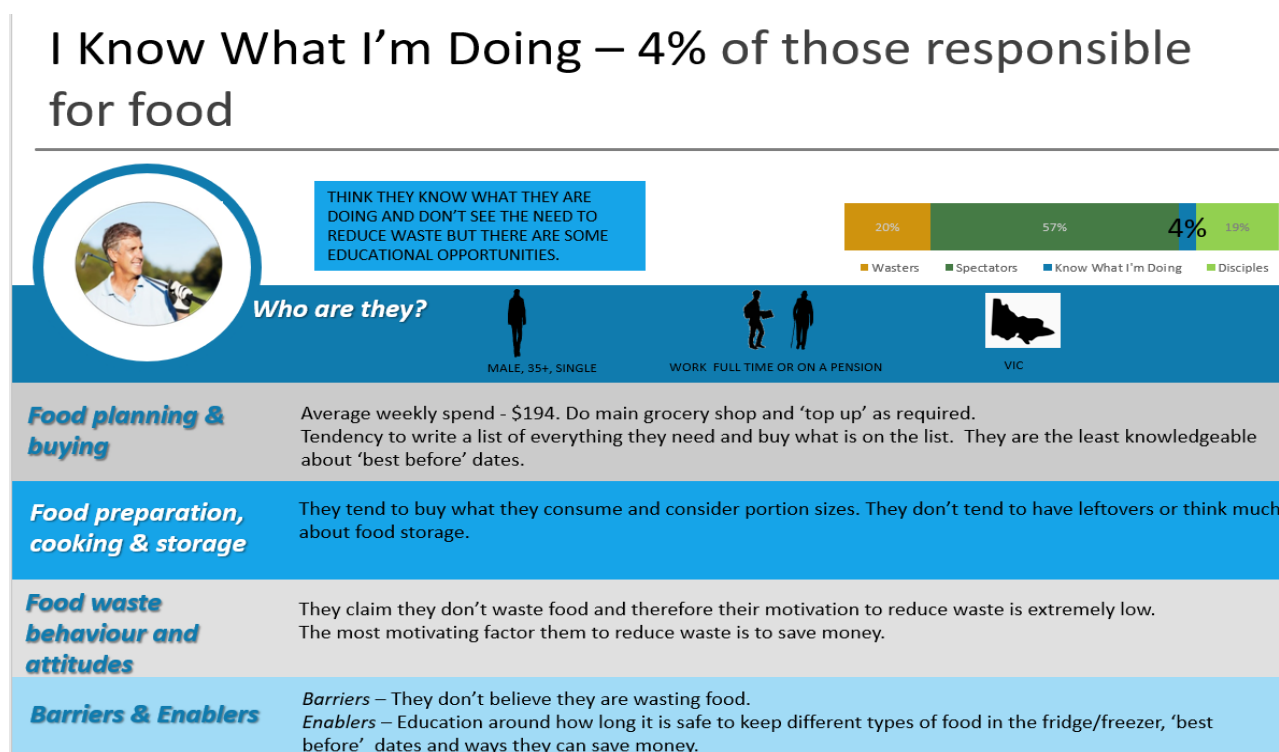


Figure 19 I Know What I'm Doing segmentation

## Analysis against past tracking studies

### Key points

Since 2009, the Love Food Hate Waste program has evaluated its performance through analysis based on the number of positive food waste avoidance behaviours always or mostly practiced by NSW households. The tracking studies measure 20 behaviours and groups individuals into five segments for those adopting:

- 16+ behaviours – 12% of NSW households met this, the same as nationally
- 11–15 behaviours – 45% in NSW compared with 44% nationally
- 6–10 behaviours – 30% in NSW compared with 31% nationally
- 1–5 behaviours – 12% in NSW compared with 10% nationally
- No behaviours – 2% in NSW, the same as nationally.

Since 2009, the Love Food Hate Waste (LFHW) program has tracked a number of specific food waste avoidance behaviours and the proportion of the NSW community using them. In order to maintain the series when the survey transitioned to the national benchmark, additional questions were asked in NSW that allowed LFHW to compare the established food waste avoidance behaviours with the 20 new ones and calibrate scores for them. This will allow future studies to be compared to past LFHW tracking research.

The challenge for LFHW is to increase the behaviours by NSW households that are likely to reduce food waste. The 2019 study benchmarked the following 20 behaviours covering food planning, shopping, storage, cooking, preparation and disposal.

### **Food planning behaviour – before shopping**

1. Plan the meals to be cooked in the next few days
2. Write a list of basic essentials

### **Food shopping behaviour – while shopping**

3. Buy food according to a set budget
4. Check the use-by or best-before dates before purchasing food items
5. Only buy what is on the list
6. Check the packaging for portion size information

### **Food storage behaviour**

7. Consider the best way to store food to keep it as fresh as possible
8. Use storage tools like sealable containers or bags, bag clips or wrappers to prolong the life of food
9. Freeze food to extend its shelf life where possible
10. Move the oldest food items to the front or top so that they can be used or eaten first

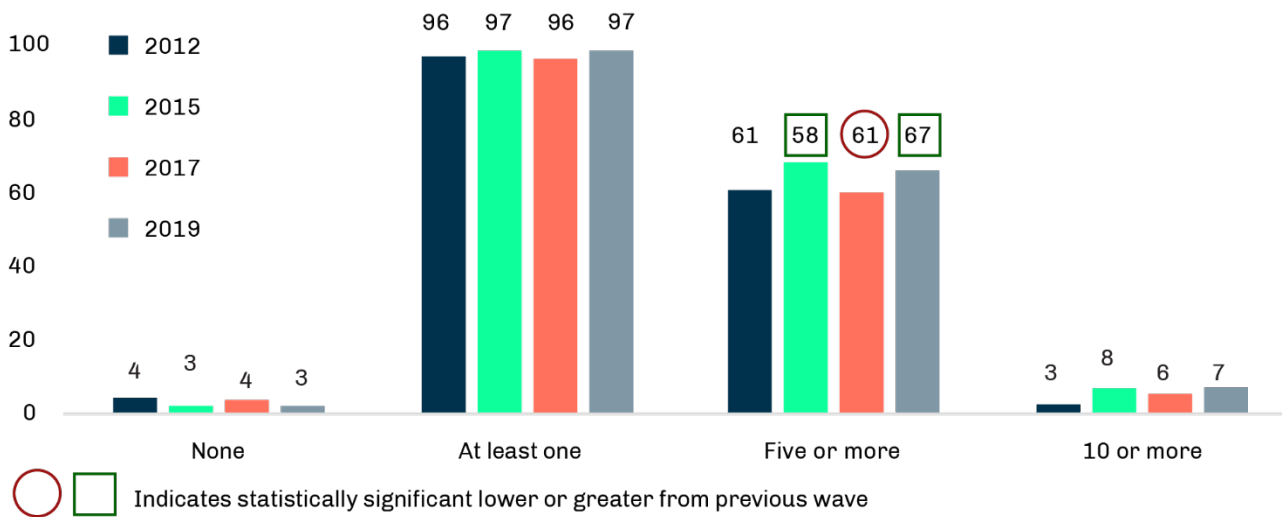
### **Food cooking and preparation behaviour**

11. Consider portion sizes and only make as much as you need
12. Try to use up the oldest food first
13. Try to use food that's getting close to its use-by date
14. Aim to finish eating the meal to avoid leftovers
15. Consider how much each person is likely to eat when serving onto dinner plates
16. Measure ingredients while cooking

### **Food disposal behaviour**

17. Try to eat leftovers
18. Save leftovers in the fridge and consume them afterwards
19. Save leftovers in the freezer and consume them afterwards
20. When eating out, take leftovers home to consume later on

Since the LFHW program began in NSW in 2009, households have been segmented according to the number of positive food waste behaviours they engage in always or most of the time. In 2019, NSW households reporting five or more positive food waste avoidance behaviours increased from 61% in 2012 to 67%.



**Base:** Total sample 2022 (n=1360), 2015 (n=1337), 2017 (n=1389), 2019 (n=523),

Figure 20 Positive food waste behaviours adopted by NSW respondents to LFHW tracking studies

In 2019, two-thirds of household (66%) agreed that the NSW Government should have a role in assisting the people of NSW to reduce the amount of food they waste. Over the last decade, support for government help in this task diminished slightly from 73% in 2009 to 66% in 2019. However, this proportion has remained the same since 2017 when 66% of NSW residents also agreed that governments should assist the people of NSW to reduce their food waste.