



CHF

Australia's
Health Panel

RESULTS

Results of Australia's Health Panel survey on vegetable consumption and food waste

September 2022

Consumers Health Forum of Australia (2022) *Results of Australia's Health Panel survey on vegetable consumption and food waste*, Canberra, Australia

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Introduction

If anything, COVID and food shortages etc have made me more of a healthy eater. It is more difficult with food costs rising and living on a pension income!

– AHP Panellist

In 2022 the Consumers Health Forum of Australia partnered with Nutrition Australia's [Fruit and Vegetable Consortium](#) for the *Eating for Better Health* project. This project is a partnership committed to improving the health of all Australians, by increasing their vegetable consumption, supported by KPMG, the Medibank Foundation, and other organisations.

As part of this project CHF was commissioned to conduct a research and engagement project to identify incentives, barriers, and messages to increase vegetable consumption.

So, for the May/June 2022 Australia's Health Panel survey we asked the panel about the impacts of COVID-19 on their individual and family's personal vegetable consumption, as well as food waste habits.

To learn more about the *Eating for Better Health* project visit the CHF website at chf.org.au/projects/eating-better-health

It is a sad reflection on our society when junk food is cheaper than fresh meat and vegetables. The constant advertising on TV, radio and online of junk food and food delivery services focusing on junk food needs to be countermanded by nutritional information with links to simple and cheap recipes and places where you can buy good quality fruit and veg.

Woolworths is to be commended for introducing free plant seedlings as a bonus for shopping - much better than a piece of plastic junk - let's hope people are inspired to grow their own veggies. However, Woolworths could make a lot better effort with less packaging and of course lower prices.

– AHP Panellist

Demographics

For this survey 151 panellists participated, of which 81% identified as female. A minority (18%) were under 50 years old, with most aged 50-69 (54%) or 70+ (28%). Panellists came from across every state and territory (see Figure 1) but generally lived in the capital cities (64%, excluding Darwin and Hobart).

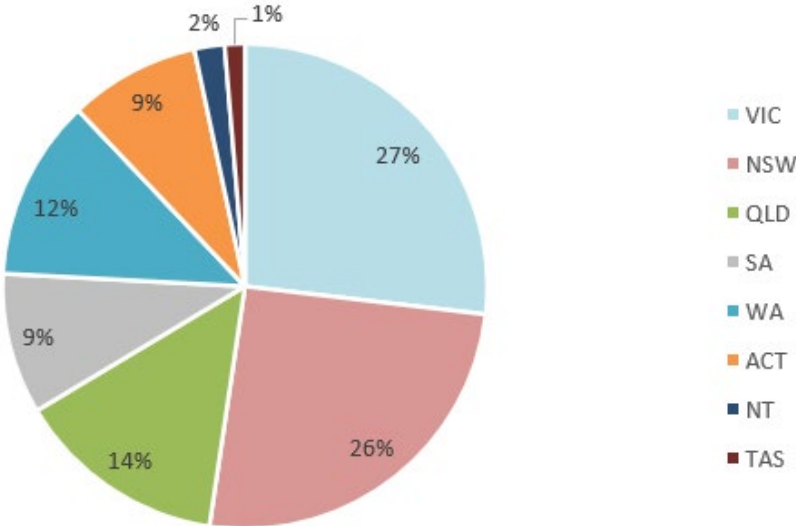


Figure 1- State of residence of participating panellists

Panellists had a broad range of incomes (see Figure 2) and most (73%) were living in a single, dual, or shared household with no children (person under 18).

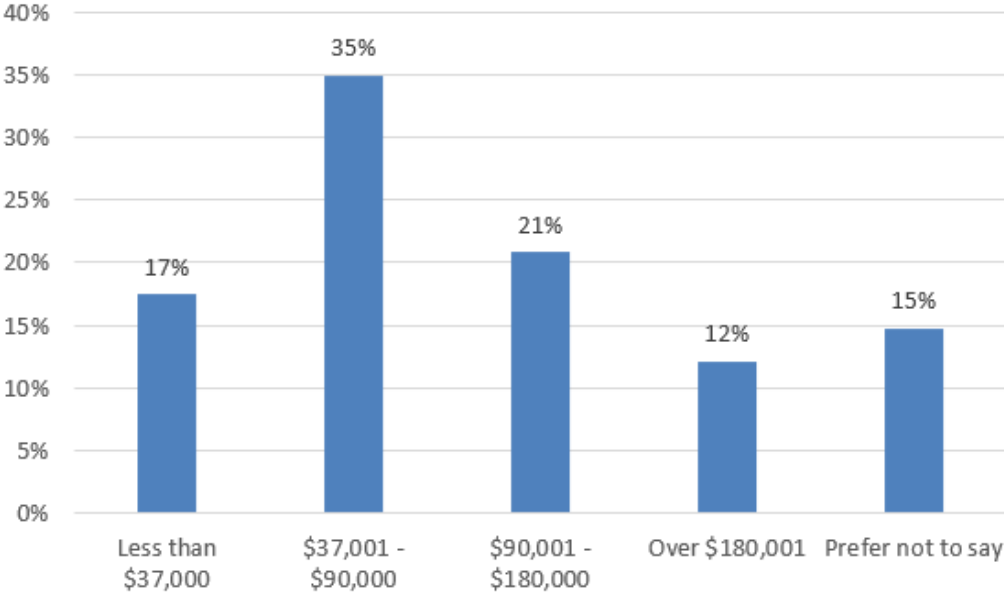


Figure 2- Income levels of participating panellists

44% of panellists reported that their household contained a member with a permanent or long-term disability or impairment, 10% reported that they spoke languages other than English at home and 1% report being a First Nations person.

43% of them had either had COVID-19 themselves or a family member had had it since the start of the pandemic.

Regarding grocery shopping habits and decision-making, nearly all participants (98%) were involved with the shopping and food decision making, with a majority (60%) being the main shopper and decision maker in their household. 25% were the main shopper but shared decision making and the remaining 15% shared both shopping and decision making. The majority (75%) of panellists reported mostly doing their grocery and food shopping in person, with only a minority (7%) doing it online and the remainder (17%) doing a mix of both.

COVID Impacts

Just under half (49%) of panellists reported that the COVID-19 pandemic had no effect on their physical health, however nearly as many (43%) reported that the pandemic had a negative effect on their physical health. The remaining 8% reported the pandemic had a positive effect on their physical health.

An outright majority (58%) reported the pandemic had a negative effect on their mental health, with only 36% saying their mental health was not impacted and 6% saying there'd been a positive effect.

These results indicate that Australian consumers generally believe that the COVID-19 pandemic has had a negative effect on their overall health status considering both physical health and mental health.

When asked how COVID had specifically impacted their eating habits, the plurality of panellists (45%) reported that they felt there had been no change to how healthy their eating habits or diet was during the COVID-19 pandemic. A large minority (34%) reported that their habits had become less healthy, while the remaining 21% reported that their eating habits had become healthier.

Despite so many self-reporting no change or a positive change to their eating habits, two thirds of panellists (66%) also self-reported that they had experienced at least one of the negative impacts from this list of potential effects (see Figure 3). Of these, the two most common effects were negative ones- more emotional eating attributed to stress and anxiety (30%) and more snacking or eating whilst working from home (26%). These indicate that the general external effect of COVID on people's diet and eating was a negative one even if not perceived as such by individuals.

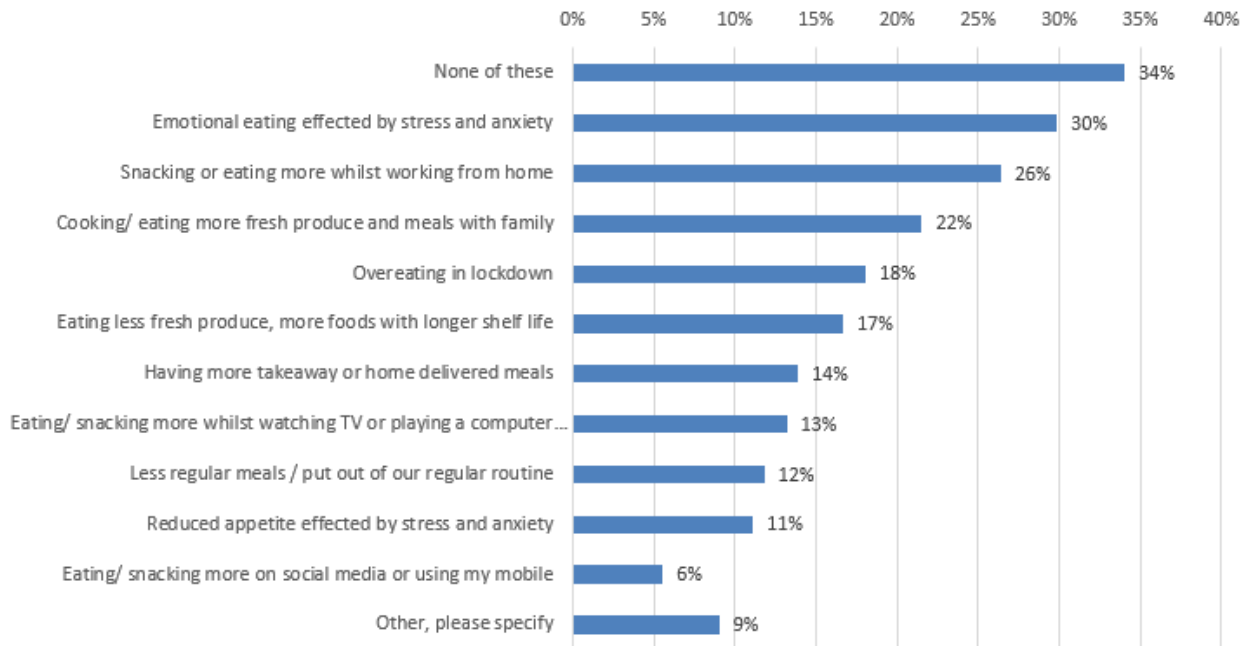


Figure 3- Responses to question "Did you experience any of the following effects on your diet and eating habits as a result of the COVID-19 pandemic?"

When asked about whether they had tried to make any specific changes to their diet and eating habits, only a slight majority (54%) reported that they had (see Figure 4). However, the most common specific change, eating more vegetables, only had a quarter (25%) of panellists reporting they tried or made that change.

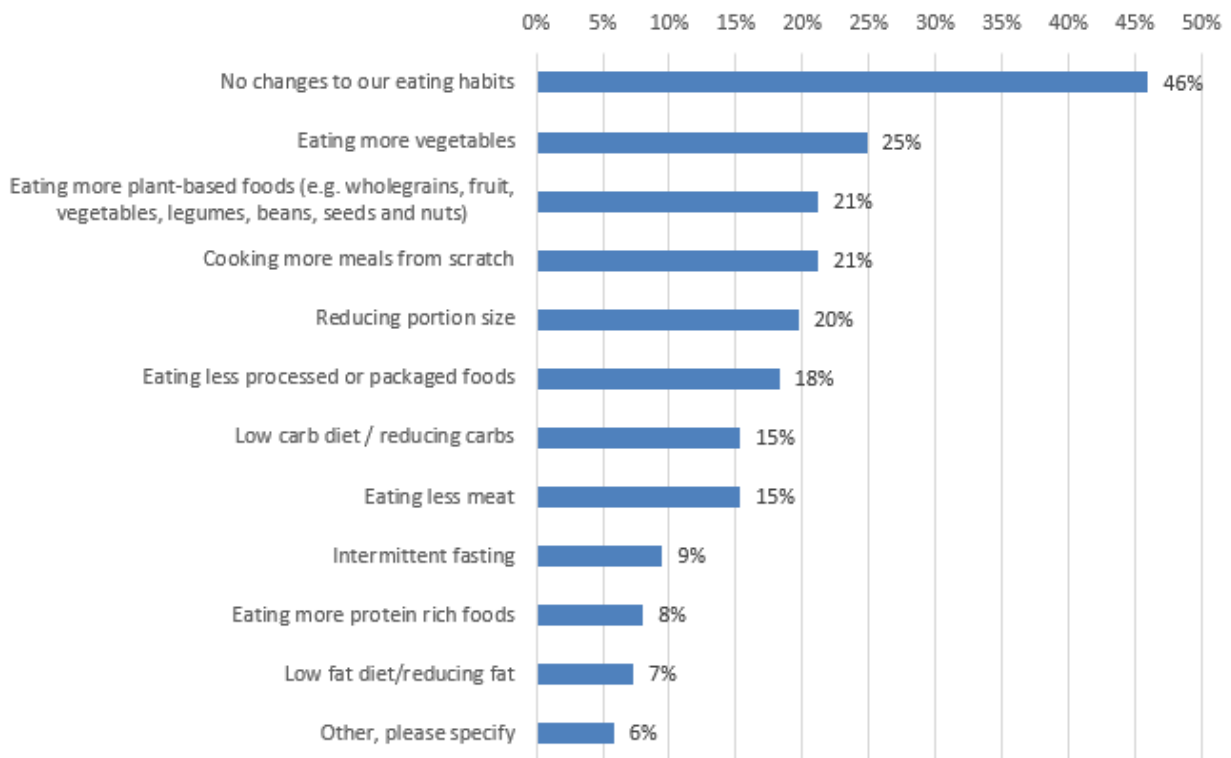


Figure 4- Responses to question "Have you tried or made any changes to your diet and eating habits during the COVID-19 pandemic?"

Panellist responses suggest that the impact of the COVID-19 pandemic on Australian's diet and eating habits is complex. Consumers report that in broad terms, COVID had a mostly negative effect on their diets and eating habits while at the same time they report making or trying to make positive changes to those same diets and habits. While the plurality of panellists thought that there was no change to how healthy their eating habits were, overall there was a net negative effect across all panellists. Given the strong link between diet and health, this indicates that further research investigating these indirect health effects of COVID is warranted.

Due to COVID I was often really busy at work (home and office), so I just grabbed easy food.

– AHP Panellist

I used my time procrastinating on other things by becoming more creative in the kitchen, experimenting and cooking more gourmet meals because I had the time during lockdown and isolation

– AHP Panellist

Vegetable Consumption

Most panellists (65%) reported that they were eating the same amount of vegetables now compared to before the COVID-19 pandemic, with near equal amounts reporting they were now eating more (18%) or less (17%). Suggesting that overall, the effects of COVID-19 on vegetable consumption are likely to be minimal.

Higher vegetable consumption

When those who were eating more vegetables were asked *why*, some emergent themes from open text responses included:

- A conscious, deliberate or forced change to eat "healthier" due to the health status or change in health status of them or a loved one e.g., a diabetes diagnosis, gut issues etc.
- Additional time at home due to COVID-19 gave them more time to prepare home cooked meals including vegetables and less need to 'eat out' or eat unhealthy meals.
- Increased access to vegetables, often through personal social changes such as joining a community garden or going to local farmer stalls.

Regarding *what* they were eating less off, meat was the most common food type noted in open text responses, particularly red meats. Followed by high carb foods such as bread or pasta and sweets/surgery foods.

Lower vegetable consumption

When those who were eating *less* vegetables were asked why, by far the most common reason was rising costs. Both of vegetables directly but also the general costs-of-living increases. Some other reasons included:

- Changes in life circumstances affecting home cooking- such as children moving out, living by themselves or family member deaths leading to less healthy food choices.
- Reduced access to vegetables, such as losing access to vegetable gardens or shopping less frequently for fresh food specifically.
- Perceived reduction in the quality of vegetables available, including their shelf lives.

Regarding *what* they were eating more of in place of vegetables, responses were mixed e.g., fruit, meat, nuts, 'take out' but no consensus most common food types.

Overall vegetable consumption

Despite most (79%) consumers knowing that the recommended intake for healthy adults is 5 vegetables per day, only a minority (26%) reported eating five or more servings of vegetables each day. Additionally, a majority (79%) of panellists reported that they were aware that most Australians only eat half of that recommended daily intake.

Panellists showed that they are both aware of the recommended level of consumption and aware that most people don't meet this level but are still not meeting the recommended level themselves. This suggests that there are barriers other than awareness preventing people from consuming the recommended amount of vegetables each day.

Vegetable consumption influences

Panellists were presented with a list of potential reasons developed by the *Fruit and Vegetable Consortium* why people in general might not be eating the recommended number of vegetables per day and asked if any influenced them personally.

Only two reasons had most panellists agree that they influenced the amount of vegetables people ate- the increased general cost of living (78%) and the increased cost of vegetables specifically (70%). For every other suggested reason, more panellists disagreed than agreed that it influenced the amount of vegetables they ate. Of particular note, concerns about COVID contamination was the least popular reason that panellists indicated was influencing their vegetable consumption (6%).

| To what extent do you agree or disagree the below reasons influence the amount of vegetables you eat? | Disagree | Neither agree nor disagree | Agree |
|---|----------|----------------------------|-------|
| The 'cost of living' in general has become more expensive | 14% | 9% | 78% |
| The cost of vegetables have become more expensive | 17% | 12% | 70% |
| Vegetables don't always get eaten and they go to waste | 49% | 15% | 36% |
| I get bored preparing vegetables / lack of inspiration | 50% | 19% | 31% |
| Concerns about pesticides and chemicals used in growing vegetables or to preserve them for longer | 56% | 15% | 29% |
| Takes time to prepare vegetables / there are more convenient food options | 61% | 12% | 27% |

| | | | |
|--|-----|-----|-----|
| I look for foods with longer shelf life | 52% | 26% | 22% |
| Not many practical ways to prepare vegetables for snacks or lunchboxes | 51% | 32% | 17% |
| No easy nutritional information on different vegetables to measure carbs or vitamins | 57% | 27% | 16% |
| I don't like the taste / prefer other foods | 76% | 10% | 14% |
| Ordering online more, so I don't order as many vegetables | 70% | 18% | 12% |
| I'm not sure how to cook vegetables | 79% | 12% | 9% |
| I'm not sure which types of vegetables are healthier | 80% | 13% | 7% |
| Concerns about COVID germs from food handling and transport | 81% | 13% | 6% |

Although cost is the biggest factor influencing vegetable consumption, only five of the suggested reasons had panellists strongly disagreeing. This suggests that there are many smaller factors that individually affect a sizeable minority of people and collectively this could form a significant barrier to the whole population eating the recommended amount of vegetables.

Increasing vegetable consumption

Panellists were presented with a list developed by the *Fruit and Vegetable Consortium* of potential measures that could be adopted to increase vegetable consumption. The two most popular were "less packaging, more sustainable and recyclable packaging" and "better labelling where vegetables are sourced from, to support Australian farmers", with these both having around three quarters of panellists agreeing they would motivate people to eat more vegetables. The next most supported was simply "more affordable vegetables" with 70% of panellists agreeing it would motivate them.

In fact, there was general support for most of the measures suggested, with nine of the 17 options presented having a majority of panellists agreeing they would be personally motivating. While of the remaining, none of them had a majority of panellists disagreeing they would be a motivator to increase vegetable consumption. Instead, they were all quite mixed with sizeable proportions of panellists unsure how motivating they would or wouldn't be.

| Do you agree or disagree the following would motivate you to eat more vegetables each day? | Disagree | Neither agree nor disagree | Agree |
|---|-----------------|-----------------------------------|--------------|
| Less packaging on vegetables, more sustainable & recyclable | 12% | 13% | 76% |
| Better labelling where vegetables are sourced to support Australian farmers | 13% | 14% | 74% |
| More affordable vegetables | 12% | 18% | 70% |
| Reducing pesticides and chemicals used in vegetable growing | 16% | 15% | 69% |
| General reduction on 'cost of living' pressure(s) | 13% | 19% | 68% |
| Better sustainability in vegetable production | 13% | 19% | 67% |
| Better in-store quality | 16% | 18% | 66% |
| Ways to help reduce food waste | 13% | 23% | 64% |
| Better range of vegetables available | 21% | 25% | 54% |
| Snacking formats of vegetables suitable for snacks and lunch boxes | 29% | 24% | 46% |

| | | | |
|---|-----|-----|-----|
| More information on cooking techniques and recipe ideas | 26% | 28% | 46% |
| More information about how vegetables reduce risks of diseases like diabetes | 39% | 20% | 41% |
| Nutritional information panel at point of sale | 33% | 27% | 40% |
| Longer shelf-life | 39% | 23% | 37% |
| Incentives like reward points, discounts | 32% | 32% | 37% |
| More information about how vegetables are good for physical and mental health | 40% | 27% | 33% |
| Pre-cut ready to eat vegetable packs and salad packs | 43% | 25% | 32% |
| Other, please specify | 25% | 55% | 20% |

This suggests that there are many potential pathways to increasing Australians vegetable consumption that are likely to have some level of success if further pursued, particularly around improving labelling and reducing or improving packaging.

Can only buy what is the lowest price and freshest. Would like to see recycling for packaging. And phasing out of chemicals used for farming.

- AHP Panellist

Food Waste

I am appalled at wastage through consumers not understanding that most use by or best by dates does not mean the food has gone bad or contaminated. I know of many that will throw away good food because it "expires" the next day. Limp vegetables are still edible.

Some lessons need to be taught on this safety feature.

- AHP Panellist

When asked how much food waste their household produces, where "food waste" was defined as food that was thrown away rather than being eaten or otherwise used (e.g., as compost), most panellists reported that they wasted either a small amount (47%) or none/almost none (31%). Less than 2% reported that their household has a large amount of food waste.

| How much do you think you waste of the following food types? | A large amount | A moderate amount | A small amount | None or almost none | Don't know |
|---|----------------|-------------------|----------------|---------------------|------------|
| Bread (Includes whole loaves and sliced bread, bread rolls etc.) | 3% | 13% | 29% | 54% | 1% |
| Fresh fruits (Includes fresh bananas, oranges, berries, apples etc.) | 1% | 13% | 36% | 47% | 3% |
| Food prepared at home (Includes meals and components prepared at home such as spaghetti bolognese, cooked rice, cooked vegetables, salads etc.) | 1% | 12% | 28% | 59% | 1% |
| Bakery products (Includes cakes, desserts, confectionaries, chips, biscuits, nuts, pastries, pies, muffins, donuts etc.) | 1% | 7% | 19% | 66% | 8% |
| Takeaway and home delivery meals (Includes takeaway meals consumed at home and home deliveries eaten at home) | 1% | 6% | 18% | 69% | 6% |
| Drink (Includes tea, coffee, juices, soft drinks etc.) | 1% | 2% | 10% | 83% | 5% |
| Fresh vegetables (Includes salads, fresh herbs e.g. lettuce, avocado, tomato etc.) | 0% | 22% | 40% | 37% | 1% |
| Meat and seafood (Includes chicken, beef, pork, fish, prawns, sausages, processed meats etc.) | 0% | 6% | 20% | 73% | 2% |
| Meat and seafood (Includes chicken, beef, pork, fish, prawns, sausages, processed meats etc.) | 0% | 6% | 14% | 77% | 4% |
| Staples (Includes uncooked rice, pasta, cereals, oats, noodles, lentils etc.) | 0% | 6% | 13% | 78% | 3% |
| Frozen/canned/dried vegetables (Includes frozen potatoes, canned beetroot, dried mushrooms etc.) | 0% | 4% | 9% | 79% | 7% |
| Dairy (Includes milk, yogurt, cheese, butter etc.) | 0% | 4% | 21% | 73% | 2% |
| Frozen/canned/dried fruit (Includes frozen blue berries, tinned peaches, dried sultanas etc.) | 0% | 2% | 11% | 77% | 9% |
| Other (Includes sauces, dried herbs, spices, spreads, oils etc. or anything else not previously covered) | 0% | 5% | 22% | 74% | 0% |

Most panellists (67%) reported that they wasted the same amount of food now as before the COVID-19 pandemics, however a sizeable minority (24%) reported that they were wasting less.

| How much do you think you waste of the following food types? | We waste around the same amount | We waste less | We waste more | Don't know |
|---|---------------------------------|---------------|---------------|------------|
| Fresh vegetables (Includes salads, fresh herbs e.g. lettuce, avocado, tomato etc.) | 73% | 17% | 9% | 1% |
| Fresh fruits (Includes fresh bananas, oranges, berries, apples etc.) | 77% | 15% | 7% | 1% |
| Bread (Includes whole loaves and sliced bread, bread rolls etc.) | 82% | 11% | 7% | 1% |
| Food prepared at home (Includes meals and components prepared at home such as spaghetti bolognese, cooked rice, cooked vegetables, salads etc.) | 77% | 14% | 5% | 3% |
| Meat and seafood (Includes chicken, beef, pork, fish, prawns, sausages, processed meats etc.) | 82% | 11% | 5% | 2% |
| Takeaway and home delivery meals (Includes takeaway meals consumed at home and home deliveries eaten at home) | 77% | 13% | 4% | 6% |
| Dairy (Includes milk, yogurt, cheese, butter etc.) | 83% | 12% | 4% | 1% |
| Staples (Includes uncooked rice, pasta, cereals, oats, noodles, lentils etc.) | 86% | 10% | 4% | 1% |
| Meat and seafood (Includes chicken, beef, pork, fish, prawns, sausages, processed meats etc.) | 83% | 11% | 3% | 2% |
| Bakery products (Includes cakes, desserts, confectionaries, chips, biscuits, nuts, pastries, pies, muffins, donuts etc.) | 83% | 12% | 2% | 3% |
| Drink (Includes tea, coffee, juices, soft drinks etc.) | 84% | 14% | 2% | 0% |
| Frozen/canned/dried vegetables (Includes frozen potatoes, canned beetroot, dried mushrooms etc.) | 81% | 13% | 2% | 5% |
| Frozen/canned/dried fruit (Includes frozen blue berries, tinned peaches, dried sultanas etc.) | 82% | 14% | 2% | 3% |
| Other (Includes sauces, dried herbs, spices, spreads, oils etc. or anything else not previously covered) | 84% | 12% | 2% | 2% |

When asked what the reasons for the change in their food wastage were, the subset of panellists reported the following:

| What are the reasons for your change in the amount of food waste? | % selected |
|---|------------|
| More chances to use leftovers | 40% |
| Higher cost of groceries – eating less fresh produce | 35% |
| Less regular home cooked meals / put out of our regular routine | 20% |
| Buying more in case of shortages | 20% |
| Ordering groceries online has helped me to plan better | 18% |

| | |
|---|-----|
| Having more takeaway or home delivered meals | 13% |
| Overeating in lockdown | 10% |
| Cook extra food as there are more people eating at home | 10% |
| Using meal kits or meal plans | 10% |
| Other (please specify) | 15% |
| None of the above | 13% |

Given the small percentage of panellists who reported a change to their food wastage, the above responses were not able to be disaggregated between increased wastage and decreased wastage. As such, limited insights could be observed from the data. However, given that no singular reason was dominant, this suggests the COVID-19 pandemic has a complex impact on food and food waste habits. Further research into this may be warranted but is beyond the scope of Australia's Health Panel.

It is dependent on so many things, sharing food with family is harder when you can't invite them over or take them meals because they might worry about cross-infection during more and lingering tendency to isolate. Friends might still leave their homegrown at the door but not to the same extent. Also with waste, we make compost and cook /bake with fruit or food that is aging e.g., banana bread with black bananas, or sauce with tomatoes etc with only the mouldy oldest going in compost. A dog helps with waste also but not with cooked meals because of the onion for instance that might have been used.

– AHP Panellist

Conclusion

In summary, this Australia's Health Panel survey found that the COVID-19 pandemic had a complex effect on the overall health of Australians, particularly their mental health. Part of this effect was through changes to food consumption, with consumers reporting counteractive behaviours such as an increase in negative diet and eating behaviours whilst also making or trying to make positive changes to their diets and eating habits. While the plurality of panellists thought that there was no change to how healthy their eating habits were, overall, there appeared to be a net negative effect across all panellists.

Few of these changes were related to changing vegetable consumption, with most consumers (65%) reporting that they were eating the same amount of vegetables now compared to before the COVID-19 pandemic. Similar proportions of panellists reported they were now eating more (18%) or less (17%) vegetables. This was despite consumers not only knowing what the recommended daily intake was, but also being aware that they were not meeting that recommended daily intake level. The most common barrier for vegetable consumption was the increasing cost of vegetables and the 'cost of living' in general. However, consumers appear to be supportive of a range of initiatives to increase vegetable consumption, not just ones that

address cost and affordability such as improved labelling around sourcing, improved vegetable quality/range and reduced chemical/pesticide usage. Panellists were also supportive of any measures to reduce wastage and improve sustainability, not only of vegetables themselves but also throughout the larger food system such as reduced packaging.

That being said, this survey found that generally consumers self-report that their household waste is minimal and that COVID-19 had caused their levels of food wastage to go down.

The results of this research will inform our advocacy and partnerships on health system affordability, in particular with the Department of Health following the 2022 Federal Election such as through the recently announced Strengthening Medicare Taskforce. This will then contribute to the larger project as we develop policy recommendations for a broad range of health areas including diet, nutrition and exercise.

The Consumers Health Forum of Australia would like to thank all panellists for giving up their time to participate in this survey. Any questions about this survey and its findings can be directed to info@chf.org.au.

Difficulty is cooking for one, since my spouse died. He was the main cook. Most food items are packaged for 4 or more....hard to find smaller packaging, and its more expensive. 25% of households, I believe are single households but shopping items, especially in supermarkets are designed for 4 or more.... it's far more expensive to shop for 1.

– AHP Panellist

Food needs to be of high quality and fresh. Most of our wastage comes because we bite into fruit and find it tasteless or it moulds quickly. We had to use online during COVID and found we got poor quality. So pleased we could return to farmers markets.

– AHP Panellist