



Russell/Herder



Hennepin County Environment and Energy Department

Consumer Behavior Research:
*Engaging Residents to Reduce
Food Waste*

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Background



Each year, millions of tons of food are wasted in the U.S., at least two-thirds of which are considered potentially edible. More than 80 percent of such waste originates in homes and at businesses that sell food directly to consumers. In fact, a [USDA economic research report](#) found that the average U.S. consumer wastes about 238 pounds of food each year, which amounts to \$1,800. Much of that waste, according to the report, comes from three main categories: meat, produce and dairy. As the organizations dedicated to reducing this form of waste point out, many factors that contribute to this issue — including spoiled food, overbuying and label confusion, among others — can be avoided by educating consumers.

A 2016 study conducted by Hennepin County revealed that food comprised 19 percent of all trash by weight, meaning there is still room for progress on this critical topic, which has generated much discussion and helped focus efforts.

Hennepin County has developed and implemented numerous strategies to address this issue in the past five years. While much has been accomplished, more has been identified as needing to be done.

Russell Herder was retained in late 2020 to undertake a research initiative designed to understand current awareness, perceptions and behaviors regarding food waste within Hennepin County. Findings from this research were intended to provide insight into effective messaging and distribution tactics to inform the next phase of this important effort, an awareness campaign.

Specifically, the project was targeted to address the following objectives:

- Engage Hennepin County residents in a valid, thoughtful research process that allows participants to quantify and reflect on why food is being wasted.

- Successfully and seamlessly design and manage highly effective research, recruitment and implementation processes.

- Provide thorough strategic planning and research materials that define a clear project pathway, align with County objectives, keep the planning team continuously updated, and recap end results in a thorough, meaningful format.

- Design and test optimal messaging strategies to help residents overcome barriers to preventing wasted food.

- Lay the groundwork for longer-term community engagement that will ultimately affect change.

Initiatives



A series of key efforts were undertaken to address the project objectives.

SECONDARY RESEARCH

Current trends, campaigns, and research regarding food waste initiatives within Minnesota and from around the U.S. were reviewed to gain insights and synthesize meaningful learnings about this topic. Predictive information such as statistical trends and forecasts, demographic insights and attitudinal perceptions of the issue, and successful messaging and outreach strategies employed by others were analyzed and used to facilitate focus group discussions.

Information from this secondary research was used throughout the process to inform materials and educate participants on the issue of food waste. Prior to sharing with focus groups, all information to be shared was presented to the Hennepin County team for review and approval.

CONSUMER QUALITATIVE RESEARCH

Consumer research was conducted over a five-week period to further understand County resident behavior and perceptions around the topic of food waste, effective messaging, and optimal distribution methods to positively change behavior.

Focus groups were the methodology utilized to gain qualitative insights. All focus groups were conducted virtually to allow for ease of participant accessibility while maintaining social-distancing protocols.

Parameters were defined to reflect both the target audiences and Hennepin County population distribution. Three cohorts participated in this initiative and encompassed diversity in race/ethnicity, age, gender, income and household status. [See Appendix for full demographic recap.]

Based on findings from previous research, the target groups for this study included young professionals, families with young children, and older adults with no children in their household. To ensure findings were representative of each of these audiences, each cohort included at least two young professionals, at least three adults with young children, and at least two adults with children no longer in the home.

It was also determined to be critical that research participants accurately represent the diverse population within the county. Race and ethnicity were therefore captured in the screener and participants were selected to ensure an accurate depiction of county demographics. Because one-third of Hennepin County residents are people of color, each cohort included a minimum of four participants who identified as a race/ethnicity other than Caucasian.

According to Minnesota Compass, about 56 percent of Hennepin County residents fall within the age range of 25-64. This range is also inclusive of a large number of the aforementioned target groups. Therefore, recruitment efforts were focused on reaching Hennepin County residents within this age range. Furthermore, each cohort included at least three people who identified as men and at least three who identified as women to ensure both were well represented.

Lastly, given the topic of this research, it was deemed necessary to capture information from residents at various income levels. Household incomes were included in the recruitment screener and participants selected across the spectrum of the various income brackets within the county. Minnesota Compass reports that roughly 40 percent (the highest percentage concentration) of Hennepin County residents have an annual household income of \$100,000 or more, therefore this bracket had strong representation among focus group participants. A minimum of at least one participant from each of the remaining income brackets was included in each of the cohorts to ensure all were represented.

Each cohort met a total of three times on a bi-weekly basis throughout the duration of the study, and intentionally received differing levels of communication throughout the process, as detailed below. The purpose of the latter was to assess whether varying levels of consumer engagement had any impact on issue perception and projected behavior change.

Cohort 1: Control – Participants received initial education and awareness training, were provided a means of tracking their household food waste and were asked to report such on a daily/weekly basis utilizing the structured tracking methodology. Beyond reminders for the bi-weekly focus groups and tracking surveys, no further educational contact was made with this cohort.

Cohort 2: Information and Awareness – This group also received initial education and awareness training and was provided with the same structured methodology to track their household food waste. However, they received ongoing outreach communications via email and text messaging to further their understanding of the issue and motivate them to change their current behaviors.

Cohort 3: Gamification – This group again received initial education and awareness training and was asked to track their household food waste. They also, however, engaged in weekly virtual games designed to increase engagement, enhance learning, and provide a sense of reward as their knowledge increased and behaviors improved. This was in the form of weekly trivia, with results shared with the group along the way and the ultimate winner receiving a cash prize of \$150 in addition to the participatory incentive.

All members received compensation for their time and were asked to sign a letter of understanding detailing expectations, roles, and responsibilities. RH supervised administration of recruitment, commitment, and payment. To increase the likelihood of participants remaining engaged through the entirety of the study, a small addition to the established incentive was applied at the end of the study for those who completed the program.

FOCUS GROUP CONTENT

Session One

In the first focus group, members of all three cohorts received education about food waste to acquaint them with the issue and understand their perceptions. Program methodology was explained, and tracking materials were shared and discussed to ensure participant engagement throughout the duration of the study.

Session Two

In the second session with each cohort, members were asked to share their progress, experiences, behavior changes and issue observations. Food waste behaviors were discussed, and participants explored possible factors that were impacting their habits within the previous weeks of tracking. In Cohorts 2 and 3, the impact of the materials presented intermittently during the tracking period was also discussed.

In addition to behavior discussions, sample messaging utilized by other programs around the U.S. was tested among all three cohorts to gain early conceptual feedback. Topics such as effectiveness of the message and types of information that participants felt could modify their behavior were covered. These insights were used to inform final messaging concepts and recommendations.

Session Three

In the third session, focus group members viewed their collective results, as well as discussed behavior changes and final observations. Participants were also asked to share their insights and feedback regarding food waste and their behaviors throughout the duration of the study. Within Cohort 1, topics explored included what type of information and/or materials participants felt could change their food waste behaviors in the future. Questions regarding awareness levels and new perceptions were discussed to determine changes that occurred over the span of the study within the control group, establishing a baseline to which the other cohorts were compared.

Cohorts 2 and 3 discussed what they felt made the most significant impact on their behavior over the tracking periods. Topics such as effectiveness of information presented and format of distribution of materials were discussed.

Draft messaging for a prospective Hennepin County food waste reduction outreach campaign was tested along with potential methodologies for reaching residents both online and offline. These messages were shared and discussed among all three cohorts.

OUTREACH BETWEEN GROUP SESSIONS

All cohorts were provided with a document to keep track of their food waste behaviors throughout the week. At the end of each week, a survey link was distributed via email to participants asking them to report on their food waste behaviors that week.

As previously mentioned, participants within Cohort 1 did not receive contact (unless needed) between focus groups aside from their food waste tracking and reporting. Cohort 2 received intermittent outreach communications with information regarding food waste and the impact of such in addition to tracking their food waste between focus groups. Communications were distributed in the form of emails and text messages. The intention of this approach was to determine if periodic contact with participants impacted their behavior beyond the baseline awareness established by Cohort 1. Cohort 3 received trivia questions via email each week between focus groups.

Findings



Findings from all components of the research were analyzed and are being shared in this comprehensive report along with recommendations for Hennepin County to consider.

The following represents observations related to each of the study's core components.

Food Waste Tracking



Throughout the study, participants in all three cohorts were asked to complete surveys each week to provide an overview of their food waste. The surveys revealed information about the categories of food in which each cohort produced the most waste, the estimated cost of wasted items and why they discarded them.

The week-over-week results from these surveys showed that members of all three cohorts consistently threw out more produce, dairy and leftovers, compared to other categories of food. Overall, the data showed that spoiled food was the most common reason for waste week-over-week for each cohort. For Cohorts 1 and 2, buying or preparing too much food, followed by clearing space in the refrigerator were also among the most common reasons for waste each week. Meanwhile, during the first week, Cohort 3 reported buying and preparing too much as the second most common reason for food waste. By week four, however, the percentage of Cohort 3 respondents who tossed food because they bought or prepared too much decreased significantly compared to week one.

Among the three cohorts, the total estimated cost of the food thrown out each week varied. However, most respondents in each cohort consistently reported throwing out either less than \$5 worth of food or an estimated \$5-10 worth of food each week. This is particularly notable because the final survey revealed that, while each cohort's motivations for reducing food waste differed slightly, saving money was consistently considered very important across all three cohorts and the range of income brackets.

In addition to listing what foods were wasted and why, the weekly surveys also asked participants to identify how they could avoid that waste in the future. Cohort 1 respondents consistently selected making or buying less food as the number one way to avoid this waste in the future. Meanwhile, in Cohorts 2 and 3, which received supplemental food waste education, the data indicated a shift in how participants thought about reducing or avoiding waste. During the first few weeks, Cohort 2 selected eating food more quickly and making or buying less as the best ways to reduce waste, but by the final week, the majority of participants also identified being more mindful about items purchased as an effective strategy. Similarly, during the first week, most of Cohort 3 initially said eating food more quickly and being more mindful about items purchased could reduce waste in the future. However, by the final week, the majority of participants in this cohort also said making and buying less could serve as an effective strategy.

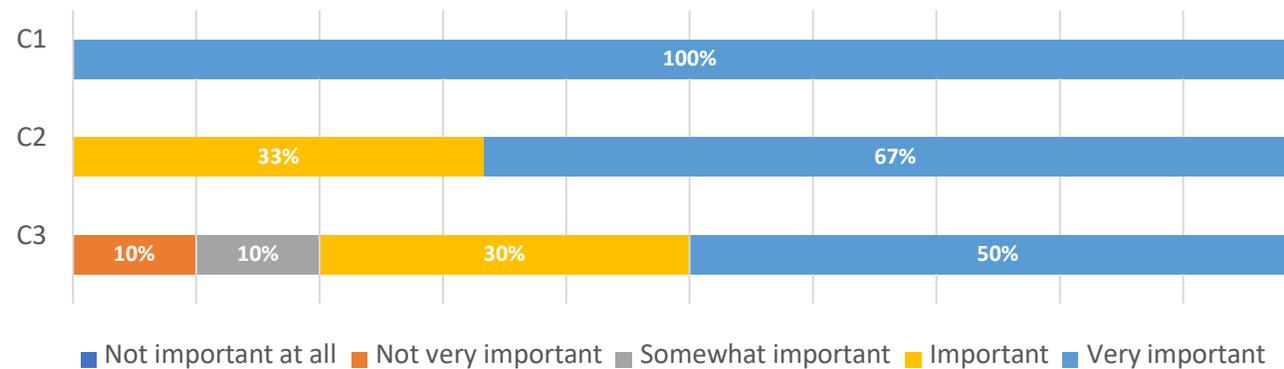
[For the full report and week-over-week analysis of these findings, please see the Appendix.]

Interim Communications Outreach



As previously mentioned, there were varying levels of communication for each cohort throughout the process to evaluate whether that would impact their perception of food waste, as well as their behavior. Participants from all three cohorts were asked to gauge how informed they were about food waste prior to the study and after completing it. Before participating in this study, nearly half the members of Cohort 1 said they were either not at all informed or not very informed about food waste. Slightly more than half of Cohort 2 reported being moderately informed before the study, while 70 percent of Cohort 3 felt they were not very informed. After participating in this study, 100 percent of respondents said they now feel either moderately or very informed about the subject of food waste. The majority of participants in each cohort indicated that the study definitely made them more aware of how they use and store food in their homes and changed the way they buy and handle food.

How important do you feel it is for Hennepin County to help increase awareness of this issue among local residents?



Ninety-three percent of the respondents said they feel it's important for Hennepin County to increase awareness of this issue among residents. To better understand the effectiveness of the different types of educational outreach, Cohorts 2 and 3 were also asked to evaluate the usefulness of the additional educational materials.

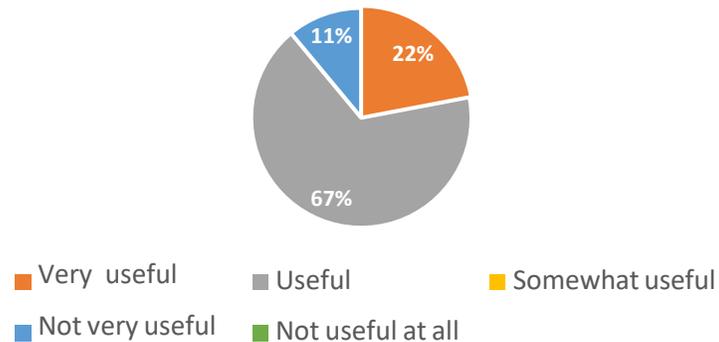
Most people in Cohort 2 agreed that receiving food waste information by email and text message was either very useful (22%) or useful (67%) in increasing their knowledge and engagement on this topic. While this cohort did have a higher percentage of people who felt somewhat knowledgeable about the subject before the study, the information they received was also more comprehensive. For example, one email asked, "Did you know properly storing food can extend the shelf life?" and was accompanied by Save the Food's kitchen display cards, which provide storage tips for keeping food fresh for as long as possible. Another email to Cohort 2 offered strategies for successfully buying only the essentials during their next shopping trip. In the final survey, at least 78 percent of Cohort 2 participants said they always or often plan meals before going grocery shopping, check to see what's in their kitchen before doing so, use a shopping list, and store food properly to get maximum shelf life.

Seventy percent of people in Cohort 3 agreed that participating in the trivia contest was either very useful (30%) or useful (40%) in increasing their food waste knowledge and engagement. Before participating in this survey, 70 percent of Cohort 3 said they weren't very knowledgeable about food waste, so there was more room to increase awareness using the gamification technique. This cohort's trivia questions covered similar topics, such as explaining how storing food properly can increase its shelf life. However, unlike Cohort 2, they did not receive additional links or display cards to further their knowledge of the subject and possibly provide them with a strategy to change their behaviors. Instead, Cohort 3 participants answered eight trivia questions and received supplemental information about the correct answer.

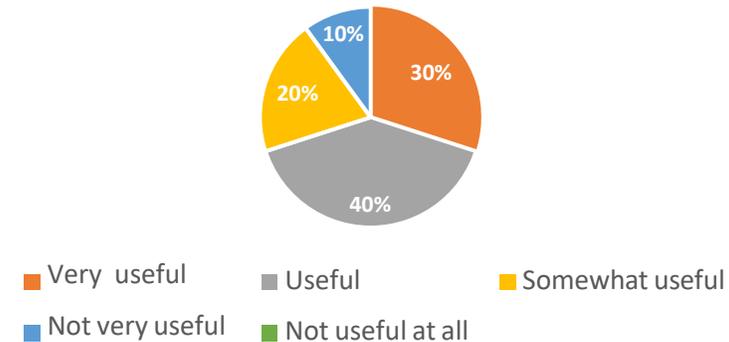
The explanations included tips that could prompt an individual to do more research on the topic, such as, "Storing food properly can extend the shelf life, giving you more time to use it before it goes bad." However, unlike Cohort 2, these participants weren't directed to more resources. In the final survey, 80 percent of Cohort 3 still said storing food properly at home is very important, while 100 percent said they felt it's very important to be more thoughtful when purchasing food to reduce waste.

Despite this mindset change, only 10 percent of Cohort 3 said they always or often plan meals before going grocery shopping. Sixty percent, however, said they always or often check to see what's in their kitchen before shopping, use a grocery list and store food properly to get the maximum shelf life.

Cohort 2: How useful did you feel receiving food waste information by email and text message was in increasing your knowledge and engagement about this topic?



Cohort 3: How useful did you feel participation in the trivia contest was in increasing your knowledge and engagement about this topic?



[For the full report and final survey analysis, please see the Appendix.]

Focus Groups



REASONS FOR WASTE

Focus group participants, across the board, indicated that there were multiple reasons for food waste within their homes. Specifically, produce was a common loss. Other items were cited as well.

“You’ll get a bunch of cilantro, you’ll use, like, three sprigs of it, and then you’ll have 50 sprigs that you don’t use. So, they end up spoiling. Maybe the packaged amount needs to be reassessed.” (Cohort 1)

“I find that a lot of the soft produce that’s bundled together rots faster. So, green onions – they always come in a stalk and they touch each other, so if one goes bad, they’re all touching each other and then they all get soft and floppy. Dill, parsley, things like that, and lettuce as well.” (Cohort 2)

“I purchased four nectarines from the grocery store and when I bit into them, they’re inedible, they’re bad, so I threw them away. They weren’t rotten, they just were inedible, and I’m wondering is that my waste?” (Cohort 3)

“A really good friend was in charge of a large luncheon in Minneapolis schools, and they couldn’t take the food that was eaten and give it to a food shelf. They had to throw it away. They couldn’t give it anywhere. The most magnificent apples, but you couldn’t bring them home, and she couldn’t give them to anyone. And she couldn’t give them to a food shop. And I would watch her throw tons of food away around that time, hundreds of pounds of food sometimes, and it would break my heart. And I don’t understand why it couldn’t go to a food shop. They were pre-packaged meals. They were amazing pieces of fruit.” (Cohort 3)

“I think one of the things we threw out was something we had made too much of, and it just wasn’t something that would hold for more than a day. We just ended up throwing it out.” (Cohort 1)

“We recently threw out quite a bit of the produce that we bought that we never got a chance to use. For instance, we just threw out half a bag of potatoes that was kind of rotten. And a whole entire head of lettuce.” (Cohort 1)

“For dairy, we usually do a smell and taste test if it’s past expiration. But meat, once it starts to turn and it’s expired, I feel like I’m playing with fire with that.”
(Cohort 1)

“I’m in the process of cleaning out everything that’s in our freezer, and we have something frozen that we bought when we couldn’t find any other vegetables in the store. It was turnip greens. We would never eat that. I don’t know why we bought it. And it had freezer burn. It went in the compost, but it still went.”
(Cohort 2)

“I didn’t cover a sandwich that my son didn’t eat and so it went bad after basically a day in the refrigerator. So, I threw that out. I know now to be sure to cover everything. I was just in a hurry.” (Cohort 2)

Also, there was concern that some food gets discarded because it spoils quickly and it’s important to be safe.

“We have been noticing that since I go shopping once a week, the food that we buy does not last longer than a week. By the time we got to use it [produce], it kind of went bad.” (Cohort 1)

“There’s not enough time to eat it because stuff keeps spoiling in the refrigerator.” (Cohort 1)

“One day of mold growth is not going to kill your whole loaf of bread, but people see that mold and think the whole loaf is spent, it’s inedible at this point, and I think that’s a bad way to look at it.” (Cohort 2)

“I think there’s a lot of things you can’t smell when it’s gone bad – like if you’ve got a bad potato in a potato salad. We can’t tell by the senses.” (Cohort 3)

“I know some people are rigid about expiration dates. And I’ve had this argument with my roommate a few times. He doesn’t seem to get it that a sell-by date is not an absolute eat-by date. And so sometimes stuff that is obviously still good, he insists on throwing away.” (Cohort 3)

A number of participants admitted that their shopping habits could benefit from greater planning.

“For my household, we kind of overindulge.” (Cohort 1)

“If something's on sale, I'll be, like, ‘Oh yeah, we could use this,’ and then we have two or three at home already.” (Cohort 2)

“Starting at the grocery store, everything is always so full, so you think, ‘Oh, I can just buy a bunch and take it home, and then if it goes bad, there's going to be more where I found it.” (Cohort 3)

“If all you really need is one stalk of celery for something, you need to buy a whole bunch of it. It's likely to go to waste.” (Cohort 1)

“We sometimes misjudge how much we need when we shop.” (Cohort 3)

“Sometimes things are packaged so that you get more than you want. You can't buy a couple of eggs – you've got to get at least six in a package.” (Cohort 3)

“We also impulse buy. ‘Oh, that looks really good right now!’ But then it sits in the refrigerator and then it never gets eaten.” (Cohort 3)

“I've got a couple of apples sitting in my crisper that I'm thinking I need to do something with. I was going to a supermarket that I don't usually go to. They have a phenomenal number of buy-one, get-one specials. If you're getting cans of soup or something, I guess that's one thing. I wanted to get a bag of salad. It's buy-one, get-one, so now I've got two bags of salad. Unless I want to have salad for breakfast, lunch, and dinner for three straight days, some of that is going to go to waste. I just don't want the salad that much, but I take the second bag because it's free.” (Cohort 3)

Another observation made was that better planning during the preparation process could be advantageous.

“It's just my wife and myself, so if you make a roast, you can only eat so much. Then you have it several days and then either freeze it or you throw it out.” (Cohort 2)

“I'm a millennial but I'm not a cooking person. Some people my age are cooking people – it depends on your taste. I don't know if it's generational, though, because I know some people who are my age who love to cook. They eat their food; they eat their leftovers. I just think it depends on your preference.” (Cohort 2)

Loss also occurs when food is frozen – either for too long or because it was not adequately protected.

“Even some of the stuff you put in the freezer, when it comes out after a while, you think, ‘I don't know why I saved that.’” (Cohort 2)

“Sometimes I'll make something and freeze it, and then when I take it out to use, it hasn't weathered well in the freezer.” (Cohort 2)

Participants noted that in today's culture, while an abundance of options can be good, it also can lead to overbuying and tossing what isn't used.

“There are a lot of options, there are a lot of ingredients – maybe I wanted to eat that this day, I don't want to eat that today.” (Cohort 2)

“I can tell you that if I clean out my refrigerator, I'm going to show more food waste than if I don't clean out my refrigerator. That's my biggest part of food waste, because stuff gets shoved to the back of the refrigerator at the bottom shelf and you simply forget about it or you don't open that ricotta cheese until you're like, ‘Oh, I forgot about that.’ You open it and it's clearly not good. So, if I clean out my refrigerator, I'll be a leader of the pack, I think.” (Cohort 3)

“I think we've become a throwaway society, where it's just a different mindset. We try and eat everything that we can. If we make it, we try to make sure that we plan around it, but I think sometimes it's just easier to throw some stuff and go on to something else.” (Cohort 2)

“My husband and I waste very little food, but right now my adult son's living with us, and so I see a whole different side of it, because he doesn't always finish things.” (Cohort 3)

“I think we waste so much food because we have such easy access to it. The store's just down the street. We can always get more. It's selfish. We have a really good lifestyle. We have access to food. Even people who don't have access to a lot of food, like at the food shelters – you still get a lot of different kinds of food when you go there. So, you can try different things and if you don't like it, try something else.” (Cohort 3)

“I think we're programmed to throw away some food stuff anyway. We throw away eggshells, we throw away banana peels, we throw away mango seeds, we throw away coffee grounds, we throw away corn husks. We throw away so much stuff that maybe we just have a hard time distinguishing that we're throwing away edible food. It's different depending on which category we're talking about.” (Cohort 3)

The pandemic appears to have impacted food waste in that people have been eating at home more often and, for many reasons, ending up wasting more as well.

“It [food waste] got worse during the pandemic because most of us are buying groceries. At least in my household, we're trying different recipes because at some point the same thing gets old and tired.” (Cohort 1)

“We make a point of being conscientious of what we buy, but the problem is that when we make meals, there's only two of us. So, we tend to have a little extra. Once you put it back in the refrigerator, it's not going to be eaten again. That, and we notice that we are purchasing more and more during the pandemic period now, so half the time we're just not able to use those products that we purchase.” (Cohort 1)

“I think it would be less food waste now, because while we're eating out a lot less, we pretty much do all our cooking at home, we do plan our meals, and if we don't eat it right away, it goes in the freezer and then that will be leftover for a lunch.” (Cohort 3)

“I think it's worse now, during the pandemic. More people at home buying more stuff, wasting more stuff.” (Cohort 3)

Group participants also felt certain types of businesses are major contributors to food waste, particularly restaurants and food service.

“The overall waste from restaurants – there's a lot. I've seen the trash overflowing outside of fast food and stuff.” (Cohort 2)

“I worked at a school also – an elementary school – for 20 years, and so I saw a lot of wasted food every single day.” (Cohort 3)

AWARENESS OF FOOD WASTE/FACTS

Overall, participants were largely unaware of how significant food waste is in today's society. When group members were presented with awareness-building facts, they were concerned both on a personal household level and for society at large.

"I think it takes a lot of money and energy to produce grass seed, fruit, etc. There's trade production cost and a quarter of that is going to waste. We have to think about a community that could get that food that's not getting it, and also our economic state, as well. We're going further into a hole on that end, so maybe there's a way to manage those situations better." (Cohort 1)

"These numbers are just fascinating because it looks like a fifth of all of our food production goes straight to the garbage. And then if we look at 40% of food waste is created by households – so 8% or something like that of my food purchases are going straight to the landfill." (Cohort 1)

"I think the numbers indicate that there's strong need with the economy the way it is, so it's very important to try to save food and use it to help as many people as possible." (Cohort 2)

"When it's sour milk, it doesn't bother me, but . . . well, it does bother me. It bothers me that I let it go that long, but I can't think of another food item that I throw away. I grew up in a big family, we were dirt poor, you had to use everything, so that's really the way I fashion my whole life. I hate the idea of wasting anything. It feels bad to not utilize something to its fullest extent." (Cohort 2)

"I was one of 10 growing up. So, if you had an apple, you'd finish that apple because there wasn't going to be another apple. I just think food waste is absolutely terrible and totally unacceptable." (Cohort 3)

"One of my goals was to grow some vegetables this summer to see how that changes how I feel about tossing something I put labor into. I agree, it is sad to throw \$40 of \$100 worth of food away." (Cohort 3)

"I have watched a lot and write a lot about a society of commercialization and abundance, like when you look at fast food and portion sizes are huge and unrealistic. No pun intended – we're just fed a lot of information about more and more and more, and I think that it's having a lot of health consequences for society, including a lot of diseases." (Cohort 3)

"Dairy products like milk, butter, and yogurt tend to have a shorter shelf life than canned goods – things like that generally have a shorter expiration period. We do pay closer attention to those." (Cohort 1)

"I think it's bad planning when you waste food." (Cohort 3)

Group members quickly called for action, expressing concern that people are not taking the subject of food waste seriously.

***"Why isn't this [food waste] more widespread and well-known? I'm in awe here. This just needs to be posted all over the place, so those who are more conscientious about it can be more familiar and can share that information."** (Cohort 1)*

"I hate to judge people, because you don't know where they're coming from, but I think it's educational. I think people have to be taught, and they have to know the consequences and know their options, and then maybe they would change." (Cohort 2)

"I would say knowing what's in your refrigerator is important and knowing what has to be used first, like if there's fresh asparagus or fresh lettuce, that's not going to last as long as an apple or something." (Cohort 2)

"There needs to be more education on it [food waste] maybe, and start when people are younger." (Cohort 2)

***"Creating awareness is important. It's pretty easy to get caught up in your day-to-day life and not stop and think about what you're really doing."** (Cohort 2)*

“One issue is that I live in an apartment building, so our landlords have composts and I’m wondering if there’s been any outreach to landlords to encourage them to offer that at their buildings. The previous building I lived in didn’t even have recycling until the city finally pushed it on them. I think there really needs to be more outreach to landlords.” (Cohort 3)

“The more we educate ourselves about food waste, the better.” (Cohort 1)

“I think it's about education, because too many people just don't care about where things come from or what goes into it. All they care is that they can go to the grocery store, buy it, and use it if they want it or not if they don't. So much education is needed.” (Cohort 2)

“The difference between a good cucumber and a bad cucumber is just wrapping it. You can extend the shelf life a little bit longer. It is just a little step. Because if everybody takes one little step, it adds up to a lot of steps.” (Cohort 2)

“Just put your brain in there. Take a small step – it makes a big difference.” (Cohort 3)

DEMOGRAPHICS AND FOOD WASTE

Hennepin County residents interviewed felt that children should be considered a high priority in addressing this issue. They indicated that not only were kids often a reason for waste, they also could be part of the solution.

“It's got to start with kids in school, because they're the ones who are going to make the change. I think some people just aren't willing to change, but I think we have to educate everybody and hope, with some of those facts, that we'll make them want to change.” (Cohort 2)

“I have a pre-teen boy, so we're trying to figure out how much to buy because his appetite changes on a weekly basis, on a daily basis sometimes. It's just constantly going up, so you don't want to run out of food. But you also don't want to buy so much that it spoils.” (Cohort 1)

“I have kids and I think that kids are a big waste of food. Some days, they're interested in eating what you have on the plate, everything, and you can serve the same thing a week later and they just want two bites of it.” (Cohort 1)

“I've got three kids, and kids will say, ‘Oh, I'm done,’ and just throw it away without a second glance. They go and grab stuff they don't even want and mess over it, and then you've got to throw it away because their hands are dirty.” (Cohort 3)

“I send my kids to my mom's so they can waste over there.” (Cohort 3)

“I have shared custody, so it depends on if the kids are going to be here and if they're actually going to eat. I typically try to cook just the right amount, or I'll be the only one eating the leftovers.” (Cohort 2)

“When I worked at the school and I was in the lunchroom, I would say definitely 40 percent of all the food in schools was thrown away, whether it came from the school lunch or from their home lunch. It really didn't make any difference – they just want to go outside, they want to play with their friends, they want to talk, whatever. They're kids.” (Cohort 3)

“At school, the kids are made to take food that they know they're not going to eat when they go through the lunch line.” (Cohort 3)

“Also, most schools have lunch and then recess. There’s been a study that shows that having recess before lunch usually means more of the food is actually eaten, instead of the kids rushing through lunch because they want to get outside as fast as possible.” (Cohort 3)

“I think it would be a good idea to get the message to the kids. When it’s Earth Day, my kids don’t run the water when they brush their teeth. Whatever they pick up on, they’ll do it. So, if we get it out to the kids, then they can help as you’re making changes.” (Cohort 3)

“I have two young kids in my house, and I like to set an example with a lot of things, but they’re not involved in the food prep or the management of food. I prepare the food and decide what we’re having for the meal, so I am a little surprised by that. I would prioritize a number of these over setting an example.” (Cohort 3)

“We talked about children setting an example for us – teaching the kids so they can come and teach us not to waste food.” (Cohort 3)

“I know a lot of families, especially during quarantine, are having their children do the meal prep now. I don’t know that they’re learning not to waste food. They are maybe reluctantly learning to cook for their future. I do like the idea of setting an example for children at school, because they come home and say, ‘Don’t waste that. Compost that.’” (Cohort 3)

There was also concern that older adults could benefit from awareness about this issue.

“My parents, they don’t ever eat anything twice. It just really boggles my mind. We talked about trying to figure out a way to split a meal, lessen their portions. I don’t understand it. I like leftovers and I think it’s a personal choice because I don’t think food should go to waste, but that’s again, personal choice.” (Cohort 1)

“My wife and I are empty nesters, so it’s just the two of us, and we’re pretty careful about what we buy, and we do feel guilty when something goes bad, we didn’t finish it.” (Cohort 1)

“I see my parents wasting a lot of food, but part of it is because it's just them, and then part of it's because I think my mom likes to cook.” (Cohort 2)

“My wife and I are of a generation that, whatever food is there has to be eaten. We're not going to throw away anything. So, we're now empty nesters, that's how we operate. I remember in the last six months pouring out about a cup and a half of milk that had turned sour, and that's the only food I can think of that we haven't consumed. We make sure that we eat every single thing.” (Cohort 2)

“My dad is 93 years old, and he wastes a lot. Everything that I have that saves food, I've given to him. He absolutely loves it, so at 93, he's totally self-sufficient. He'll say, ‘You know that thing you gave me? That is really good.’ I think when you have a testimonial about it, and of course can see the product, someone will say, ‘Where'd you get that?’” (Cohort 1)

“I feel like older people don't throw much away. You've had years to learn. I think a lot of young people and single people living on their own might throw more away – it's harder to use it up.” (Cohort 3)

Likewise, those living alone may be vulnerable to generating food waste.

“For a one-person household when things are sold in such large quantities, it's hard not to have waste.” (Cohort 1)

“I need ways of how to save food instead of having to throw. It's hard if it's just two of you, or if you're a single person or the other person has passed away.” (Cohort 3)

“As a person who lives alone and only cooks for myself, I throw a lot of food away.” (Cohort 3)

IMPACT OF FOOD WASTE

Food insecurity has been a topic of growing interest for many. Therefore, concern that food waste is also a missed opportunity to help others was quickly raised.

“I think there are a lot of people that still go hungry. There’s certainly a huge need for food, and it’s being wasted. There’s a lot that we could have done in earlier steps in the process to be able to get food to people who really could use it. So, I definitely think that from a food insecurity standpoint, there’s a huge need in the community for people to get more food, especially right now in the pandemic.” (Cohort 1)

“When you were looking at the farmers who had to throw out tons and tons of milk and all kinds of things during the pandemic, I was wondering why there wasn’t some system in place so that people could line up and take advantage of what was being thrown out.” (Cohort 1)

“I think we have a really big humanitarian streak and a lot of volunteerism in this state. We do think about famine and starving children and less fortunate places. We’re quite good at giving back, but maybe the flip side is that we’re also wasting quite a bit in our own homes.” (Cohort 2)

There was also concern that wasting food creates climate and environmental issues.

“When I think of food waste, I think of something that’s very easily biodegradable and isn’t contributing to the landfills like plastic or Styrofoam or something like that.” (Cohort 1)

“I think there’s a false sense of security when you’re separating your trash into compost or recyclables. I think you feel like, ‘Okay, I’m doing this right for our climate,’ but what happens after it leaves my apartment, my home? I don’t know. I’m assuming people are going to do exactly what I expect.” (Cohort 1)

“Environmentally, I hate putting food waste in the garbage. I really don’t like to do that.” (Cohort 2)

“I would love to think that it’s global warming. I just think there’s so many people who don’t look at that, and it’s scary.” (Cohort 2)

“I know the impact of the food waste, and knowing where recycling generally ends up, I think I can be more impactful towards our environment by reducing our food waste.” (Cohort 1)

“I’m an old woman with a young daughter. My daughter has a lot of friends and they’re very conscious about waste and how perilous things are with this planet. I agree with getting social media influencers and stores to be a part of helping with climate change and other social issues – that would be a good idea because this would make it look like the store is socially responsible. That would mean a lot to the young people that I know who really want to improve the world and want to be more socially conscious and responsible.” (Cohort 3)

“It’s when you drill carbon out of the earth and then release it – that’s climate change. So, it doesn’t matter how much food I waste because all that carbon was captured from the surface into the plant. That’s zero carbon. So, it doesn’t matter how much I throw away, that’s net zero.” (Cohort 3)

“What we really need is more infrastructure changes. That food is getting transported whether I eat it or not. It’s victim shaming. It’s putting it on us. Instead of saying, ‘Well, you’re the ones who are bringing all this food in,’ why don’t you say, ‘You’re in Minnesota. You just don’t get apples right now because they have to come from Argentina.’ We don’t say that to people. We don’t tell them, ‘You can’t have that.’” (Cohort 3)

“It’s very important to talk about the environmental effect, because that is the future of our children and grandchildren. I don’t think people realize that. I didn’t realize quite as much until this. So, I think that’s so important to teach about that.” (Cohort 2)

Also, of significant concern – once facts were shared – was the financial impact of wasting food that could otherwise have been eaten through better planning, shopping and preserving.

“I don’t think about it in terms of food waste. I think about it in terms of I spent x amount of money on this food that’s going in the garbage or going into the compost pile.” (Cohort 1)

“An important thing that people would recognize is how much we waste and how much we could save. That’s the immediate reinforcement right there. Global warming is still really, really scary, but that’s something that I could look at today – money in hand.” (Cohort 2)

“It’s a lot of money. Damn, that’s a lot of money.” (Cohort 3)

“I think if it had more of a significant financial impact, it would be more on the front of my mind. You’re more aware of things.” (Cohort 1)

“How much money could I save by conserving, by not throwing things out? I think a lot of us see money as being the bottom line, for better or for worse.” (Cohort 2)

STRATEGIES TO REDUCE WASTE

While focus group participants shared multiple concerns about the degree of food waste in today's society, they also quickly cited strategies to mitigate the problem, such as better use of leftovers.

"When we're going to the office, we'll prep one meal a day and then have leftovers the next day for lunch or grab a bite to eat." (Cohort 1)

"If I cook more than we need, then I'll call one of my kids and say, 'Hey, can I drop something off?' Just so that it all gets used." (Cohort 2)

"My husband usually travels a lot so he's not a big fan of leftovers, but I throw them in the freezer in one- or two-serving quantities, and then I pull them out when he's gone, and then I don't have to cook while he's away. Now he's hardly ever away, so I have all this frozen stuff that he doesn't want to eat." (Cohort 2)

"I definitely have more leftovers from home that I eat. We don't eat as many leftovers with take-out, so I feel like more of that food would be wasted for us, versus home-cooked food." (Cohort 2)

"I think one of the challenges for people is a lack of knowledge about what to do with leftover food that's not going to be eaten. If you have leftover food, who could you give it to?" (Cohort 3)

"It's also helpful if you know how to do things. I just bought a whole box of bananas which is 40 or 50 bananas. So, I just eat a banana a day – I had one today. But then you peel them and freeze them, and then my husband uses them when he makes his smoothie. Or blueberries also – I buy 10 kinds of blueberries and wash them and freeze them. Or strawberries, or from your garden you can your tomatoes and you freeze your green beans, and you just need to have a freezer space. Your bananas – you just peel your banana, break it in half and put it in a Ziploc bag in the freezer, and then you take it out and you put in your smoothie. Your kids will go crazy for it. They're phenomenal." (Cohort 3)

"We have vacuums known as dogs so there's not a lot of food waste." (Cohort 1)

"Sometimes when I'm making something that's using vegetables, it's easier to make extra. Then you're getting the vegetables cooked and you could eat them as leftovers rather than letting them go bad." (Cohort 2)

"There's just two of us, but when I make a soup, I make a very large soup and we freeze it and have lots of leftovers. That's a very typical thing. Or spaghetti sauce – we'll make spaghetti sauce, and we'll eat that for several meals." (Cohort 2)

“I think it also has to do with leftovers, which are not as good. So, it’s also about quality. As the leftovers sit there, you think, ‘Well, that’s a week old now. It’s going to be a low-quality meal and I’d rather have a fresh, high-quality meal.’” (Cohort 3)

“When I have a large group of people over, we tend to have more food. You like to have people get seconds. We have a million take-out containers. So, at the end of the dinner party, we know which people like to take leftovers home. We’ll keep some for ourselves, but I don’t feel like we waste food.” (Cohort 3)

It was recognized that composting could be an important strategy, if not to save food but to more thoughtfully dispose of it.

“I don’t feel bad about it from a waste perspective just because we’re really diligent about composting things, so we don’t think about it from a landfill perspective.” (Cohort 1)

“I have this little pamphlet from Hennepin County that told me what can go in my compost and what can go in my recycling. I kept that thing. I’ve had it for years just sitting in my junk drawer. I reference it to see, ‘Can this food container go in here?’” (Cohort 1)

Participants felt that modifying shopping habits would be a good strategy to reduce food waste. By purchasing less and doing so more thoughtfully, they felt money could be saved as well.

“We used to buy more and then more would go to waste. I think we kind of realized, especially since the pandemic started, we’ve been more conscious about what our spending habits and our money. We only buy a certain amount of stuff to let us eat it before it goes bad.” (Cohort 1)

“It’s easy to over-buy because you think you’re going to eat more than what you buy.” (Cohort 1)

“I feel very happy when I go to the store and I walk out with just the things that’re on my list. I’m, like, ‘Successful.’” (Cohort 1)

“We are empty nesters. Two days a week, we eat out of the refrigerator. Whatever is in there, no cooking until the leftovers are gone. We’ve become very frugal.” (Cohort 1)

“I go grocery shopping once a week. Whatever we have in the refrigerator, that’s what we’re going to be using. We notice that we are wasting a lot more money because we don’t use the products that we were buying. So, we tried not to let things go to waste, but it doesn’t work.” (Cohort 1)

“When something goes bad, it goes bad – you can't eat it. But the best way to fix that is to buy less in smaller portions.” (Cohort 1)

“I think it's definitely going to the grocery store with a list, because last time I went without a list, I got some eggs and then I had a whole carton of eggs in the refrigerator already. (Cohort 2)

“I think people over-buy, or they go to Sam's Club or Costco and they buy bulk, and then they don't plan their meals and it goes bad, or they're tired of it or didn't like it.” (Cohort 3)

“The biggest problem around here is over-buying. I hardly ever go to the store myself. And I order stuff for delivery. There really isn't that much impulse purchasing on a computer screen.” (Cohort 3)

“Now I'm paying more attention at the store. I have a good-sized pantry and I never used to pay attention to canned goods as much as I do now. I moved all the closest date to the front and then the newer ones to the back. Yes, I am paying close attention.” (Cohort 1)

“I'm noticing more and more that when I buy milk, they've put the freshest date in the back and so I make sure I go to the back because that's the newer product that they put back there. Instead of just grabbing a jug of milk, I'm really looking at those dates.” (Cohort 1)

“I'd say we're tending to buy smaller portions when they're available. It's just my wife and I – our kids have moved out – so when we can buy a smaller head of lettuce or a smaller bag of carrots, we're doing it now because we're more aware of wasting food.” (Cohort 1)

“I've been checking more carefully what I have in my fridge, so I don't double-buy stuff, especially vegetables. We don't go through it that much, I guess. Then it doesn't spoil as quickly. I've just been checking on what I have before I go buy more.” (Cohort 1)

“If I buy something for myself, I also buy it for my daughter and say, ‘You need to try this.’ I've gotten her to cook for two or three days on Sundays, and then if you put it in the saver-type things, not only will they last but you can do bulk shopping and save money that way and still preserve the food.” (Cohort 1)

Meal planning is another juncture at which waste could be reduced through better planning.

"I food prep a lot. It's just me in my household, I don't have children or parents to account for, but after four days of the same meal sometimes, they get to be a little bit too much. I know produce, for instance, does go quickly, but I usually end up freezing things. A lot of people don't want to freeze and reheat. I tend to." (Cohort 1)

"We actually sit down on the weekend and create a meal plan for the week, so we know exactly what groceries to buy. That helps us cut down on the amount of food we waste. The only difference between in-office working and at-home working is we tend to focus on meals that hold in the fridge, because we try to do some leftovers as well as sandwiches and stuff for lunch. But by and large, we do the meal plan and then we do take out once a week." (Cohort 1)

"I recently retired so I've been cooking. I have to say, it's been a learning curve from having two high school/college kids at home to just my husband and I. My plan is to not have leftovers, so I divide recipes to not make so much, because it's hard." (Cohort 2)

"I've been selecting three new recipes a week to try, and then I do the grocery shopping for that, so we have a cabinet of staples, beans and rice and those kinds of things, so it's just the fresh fruit and vegetables. We have meat in the freezer, so we're trying to get rid of all that." (Cohort 2)

"I think the internet is a wonderful thing. When I have stuff that I'm not sure what to do with, I just type it into Google. In pre-internet days, if you couldn't find that recipe in your cookbook, you were lost." (Cohort 3)

MESSAGING FEEDBACK

There is a spectrum of messaging that could be utilized to increase awareness and issue understanding among consumers. Several statements were tested within the group discussions to determine resonance.

Food expiration dates have nothing to do with safety and are only loosely related to quality.

"It says, 'expiration,' so regardless of if I understand the statement on the screen or not, the word 'expiration' means essentially it's expired." (Cohort 2)

Small steps make a big difference.**Use it before you lose it.****Food: Too good to waste.**

"That really resonates with me, too – that small steps make a big difference, because it's also very practical and doable as well. And 'Use it before you lose it' and 'Food: Too good to waste' – those are very catchy, too." (Cohort 2)

"I think with the right visuals, these messages can be very effective and really make you stop and think." (Cohort 2)

In Hennepin County, we throw away enough edible food each year to fill Target Field 1.5 times.

"This fact is appalling. It's absolutely appalling." (Cohort 2)

"I have had to throw away very little in the last few weeks, but it's been minimal because I've been really conscious. It would take a lot to fill Target Field, which means everybody's wasting more often." (Cohort 2)

"I think a lot of people are going to have a hard time conceptualizing how much 116 pounds is. Whereas, if you frame it as Target Field – or an Olympic swimming pool or football field – that strikes more powerfully." (Cohort 2)

"It's disturbing, but it also makes you really think, 'Wow, how am I contributing to this?'" (Cohort 3)

In Hennepin County, we waste 116 pounds of edible food per person in a single year.

“That’s shockingly high.” (Cohort 1)

“That’s a lot of food.” (Cohort 1)

In Hennepin County, we each waste 9½ pounds of food per month.

“I think the larger numbers are more impactful, at least for me. Nine and a half pounds of food in a month, that doesn’t seem like much, but 116 pounds, that’s what an entire person weighs. To me, that makes more of an impact.” (Cohort 1)

“I would go with the more startling statistics. I’d be more likely to share the big figures.” (Cohort 1)

“I think we have to show the big picture rather than the small picture. It’s not as impactful if you showed nine and a half pounds, but if you multiply that by how many people in Hennepin County – that’s appalling.” (Cohort 2)

“It looks impactful when it’s an advertisement on the side of a bus – that’s going to catch somebody’s attention. This is just nine and a half pounds. I’m just not even going to think about that. But if I see something like Target Field filled with food, I think, ‘Oh, that’s crazy. What are they talking about?’” (Cohort 2)

Roughly 97 meals are wasted per person each year in Hennepin County.

“That gets me because of the homeless population; 97 meals – that’s three months’ worth of food that someone could be getting. It’s startling.” (Cohort 1)

“If you had a visual of all the people, or of how many people we could be feeding with what we’re throwing out – that’s a good point.” (Cohort 2)

“I just packed kidney beans at the food group for two hours. And per person, we packed 88 meals each. That statistic makes me think, ‘Well, there went my two hours of volunteer time wasted.’ It’s a slap in the face, really. I don’t need those beans, but there are people in this community who do. And it’s pretty sad.” (Cohort 2)

“What if we showed examples of what could be done with the food waste for the hungry people? I don’t think it’s enough for a whole campaign, but I think you could show the right example, like, ‘Hey, these people are hungry, but we threw away this much food.’” (Cohort 2)

“I think about going hungry that many times each year. That hits.” (Cohort 3)

Freezing, storing, or using leftovers puts money in your pocket, not the trash.

"I think this is helpful because this might be a way of suggesting how you would decrease those numbers, rather than just a tagline. Maybe you start with an impactful number like filling Target Field. We all live in Hennepin County – that's a landmark we could visualize. And then offer a way to lower that, rather than using this as the main statement, which isn't as powerful." (Cohort 1)

Small changes could make a big difference.

"I think it's good to let people know. 'Hey, just a little at a time – you don't have to change your whole life.' If you make a few small changes and then just keep building up, that's still making a difference." (Cohort 2)

When you cut food waste, you put money in your pocket, not the trash.

"This gets back to the more positive approach of dealing with something. Instead of saying, 'I'm wasting this,' saying, 'I could be putting this in my pocket.' That's more of a plus." (Cohort 2)

Think before you throw.

"I think the thinking has to be done before you throw. I mean, you should have already thought. I think that 'before you throw' is too late." (Cohort 2)

"I would say the thinking has to be way before the throwing. The thinking has to be done before the food even goes bad." (Cohort 3)

We just can't afford food waste.

"Don't tell me what I can or can't afford. I don't like it – it doesn't catch me as specific about wasting food." (Cohort 2)

We all pay for wasted food.

"I think using the word 'we' brings a sense of community that the others did not. For some people, that will be more important. For many people, it may not be, but it does change the message from, 'This is just me saving money for my family,' to 'We are all in this together.'" (Cohort 2)

CREATIVE EXAMPLES



"I see a banana smoothie. There are ways to upcycle or recycle your product, rather than trash it." (Cohort 2)

"I think the smoothie idea is great, especially with kids. They like smoothies. You might not even think about it, but realizing, 'Oh, yeah. Let's make smoothies.' – now you're not wasting this food that you've bought." (Cohort 3)



"This is a good idea. I love asparagus, and it does tend to go bad really quickly. And I love flowers, but I wasn't expecting that asparagus to be treated like flowers. I thought, 'Oh!'" (Cohort 2)



“It was very useful to see how to prolong the shelf life of the various fruits. I recall there were apples on there, there may have been bananas as well. That’s very useful information.” (Cohort 2)

“I have tried to educate people not to store bananas by apples. Over and over again, people don’t believe me, but the bananas will ripen too fast. So, include that, please, that it’ll cause the bananas to ripen too fast. That would be helpful.” (Cohort 3)

“The signs that you’re showing here – bananas and basil – they could be a little placard set right next to the bananas or right next to the herbs. I mean, that wouldn’t be hard.” (Cohort 2)

“I have two daughters – one lives in D.C. and one lives in New York. They’re both members of CSAs and they get food waste prevention tips – all of the stuff that they get, that’s included in their boxes.” (Cohort 2)

“I think that if you send out paper, then you expect people to keep it, and to go back and look at it again is unrealistic because we get so much stuff, and you get these piles of mail or other things. I’m going to go back and look at that, sometimes, but you never do because you’ve got new stuff coming in all the time. I think, somehow, you have to keep it in front of people. Maybe digital is the way to do it with groceries. And I think you have to keep the message pretty simple, like the bananas or the basil thing. Those are great. You can do those; you can apply them.” (Cohort 2)



"When I went to the store, impulse just went crazy. We came back and we had to empty the freezer, because there wasn't room for the stuff we bought plus the stuff in there. And then when you pull it out, it's expired. So, it's 'best if used' is a good thing for me to see." (Cohort 1)

"I think it's clear, simple, and drives the point home." (Cohort 3)

"It's straightforward and it hits them in the money belt." (Cohort 3)



"It's practical. It delivers the message on the refrigerator where you keep food and it's directly applicable. Something about the visuals there, I think it gives you a quick message – one that you can internalize easily." (Cohort 2)

"If you found the right slogan and you had a refrigerator magnet, that's a really good idea, because your hand goes to the refrigerator right there." (Cohort 3)

"I feel like I receive way too much paper. I would much prefer a form or even a magnet – something you could stick on your refrigerator. Because I still get a lot of wasteful paper." (Cohort 2)

NEW TEST CREATIVE



**Wasted food
is wasted money.**

Did you know that in Hennepin County, we each waste an average of 116 pounds of edible food a year? But being smart can save you hundreds of dollars!

- Avoid impulse shopping**
- Buy only what you need**
- Freeze, store, or use leftovers**

**Think before
you throw** 

“It sounds like your parents are talking to you.” (Cohort 3)

“It says, ‘Wasted food is wasted money.’ So, tell me how much money I’m wasting. I think that’s really helpful. That would stay on people’s minds.” (Cohort 1)

“Those bullet points toward the bottom – your eye is drawn to specific things that you can do to reduce waste. I like that.” (Cohort 2)

“Even if it was a pamphlet handed out, my kids would read it and then bother me, saying, ‘Mom, look. This thing says wasted food is wasted money.’ Even different ways of getting different ads out in the community could possibly start that train.” (Cohort 3)

**REDUCING FOOD WASTE
SAVES A TON.**



Every year, we throw away enough edible food to fill Target Field 1.5 times.
For you, that's hundreds of dollars, in the trash.
So buy what you need, and freeze, store, or use leftovers.

**Think before
you throw** 

"A picture is worth a thousand words." (Cohort 1)



**USING IT COULD
SAVE YOU A BUNCH.**

Did you know that in Hennepin County, we each waste an average of
116 pounds of edible food a year?
For you, that's hundreds of dollars, in the trash.
So buy what you need, and freeze, store, or use leftovers.

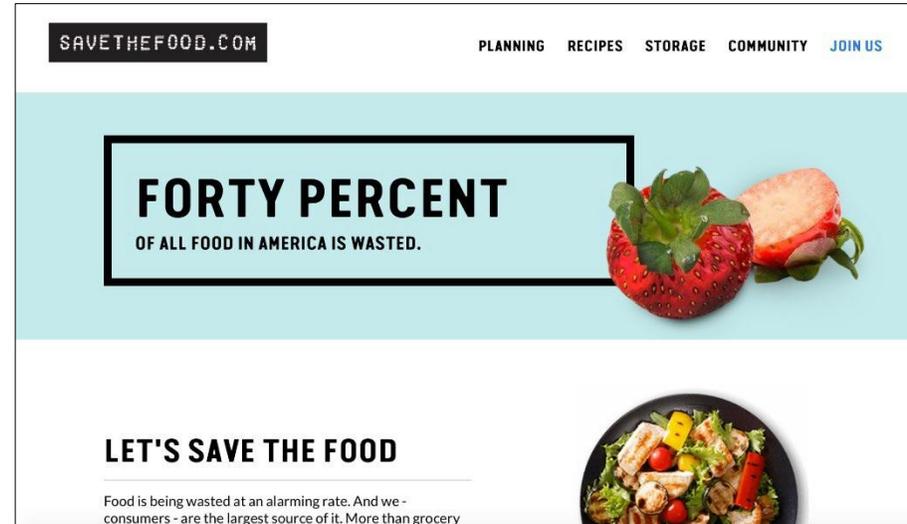
**Think before
you throw** 

"People need clear direction." (Cohort 3)

"Give people suggestions, but not on more and more pages. It'd be great if all in this, I can gather everything here, at least a couple of tips." (Cohort 1)

TOOLS

The idea of having a website with food waste information was discussed.



“I like to look stuff up anyway, so I would definitely go to the website and see what it’s about.” (Cohort 2)

“It kind of depends on what’s going on in your life at the time. The food waste message is competing with all the other things that are happening – if it was the right day and I saw that, I might go to the website, but if it’s another day where I’ve got some other item that’s competing for my time, I might just go and buy my food.” (Cohort 2)

“If I wasn’t shopping with my kid, maybe I would visit that website.” (Cohort 2)

“They’ve aggregated a lot of information that is out there, put it in one place. People in general are inclined to want to use that.” (Cohort 2)

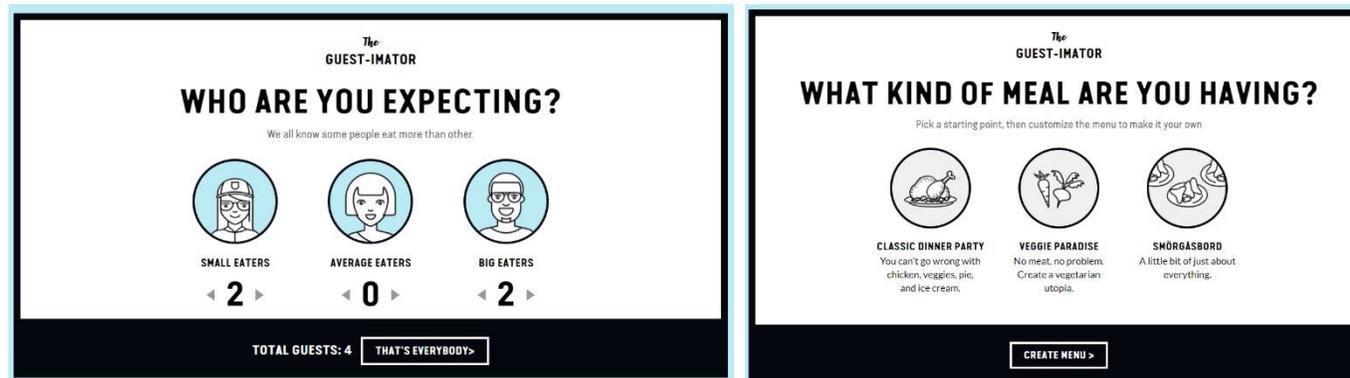
“I saw a fantastic commercial that started with a strawberry field. It started from the inception all the way to the truck and the airplane to get to the grocery store. Then, it got to where the little girl was so excited to get this container of strawberries. Then a couple of days later, they went to get it out and they’d molded. That was impactful. I don’t even watch commercials, but it grabbed me. It made me go to savethefood.com.” (Cohort 1)

“I don’t know that I want to have my free time be spent on the internet. I’m just thinking about the fatigue and the world we’re in right now – I don’t know that I’m going to spend more time on the internet these days. I might go once or twice, but you might want to just think about people being tired of the internet, as well.” (Cohort 1)

“If this shows up on the bus or on a billboard, I may actually go to the website, savethefood.com, just because I’m curious. I’m not so sure if I would just see it and remember it, and then go back online and look at it. I like the fact that something like this has that value.” (Cohort 1)

“Maybe if there was a QR code – when you capture it with your phone and go directly to the website. But I don’t think it’s a great way to reach people. It’s the people who are already interested who would go to that website, but maybe not the people who need to be educated.” (Cohort 2)

Also, a meal planning tool was discussed.



“I think it would be a good tool, but right now, you could probably Google that information. I’ve done it – ‘What is the average serving size for boneless, skinless chicken or for roast beef?’ So, the information is available.” (Cohort 2)

“I think when I was younger, I would’ve used it a lot.” (Cohort 3)

“You really have to drive people to the planner. You have to express the benefits of the planner. Otherwise, I don’t think people are going to visit the website to use the food planner.” (Cohort 3)

“I think it would be really effective for a social media influencer who has lots of local Minnesota followers to say, ‘Hey, I’m hosting this gathering and used this handy-dandy food planner, and it helped me.’” (Cohort 3)

Potential tools were suggested as a means of addressing food waste.

17 Tools You Need for a Waste-Free Kitchen

Here's how to clean up your act and use all your groceries

By [Megan Soll](#) | April 22, 2020

Each product we feature has been independently selected and reviewed by our editorial team. If you make a purchase using the links included, we may earn commission.



Brita Pitcher

If your tap water isn't viable, a filtered pitcher is an essential part of a waste-free kitchen. Avoid the plastic bottles, beloved.

[Brita 10-Cup Pitcher, \\$35 at amazon.com](#)



Credit: Target



Credit: Bloomingdales

Reusable Straws

For iced coffee, shakes, or smoothies, reusable straws are a great move for kids and adults alike. GIR makes a great set that's dishwasher and sturdy, and silicone won't bother your teeth like metal or glass options.

"I find that very helpful. I love these kinds of hacks and tips on ways to reduce my waste in the kitchen, how to up-cycle things, how to reuse. I would follow all of it. I may even cut those out into cards and put them on the fridge just to remind myself that I'm proceeding like that with my food packaging." (Cohort 2)

"I would look at the comments or the ratings if I'm going to buy something. Let's say these saver bags – I would look at the bad comments and the good comments, and just see how many of each there are and what they have to say about it." (Cohort 1)

"I think a testimonial is really helpful because a lot of times you see products and you don't know if they're actually going to work. To hear other people say that it does work and it saves them money, then the investment may be worth it to get the special bags or the freezer, whatever the product is. I think if you hear other people saying how it works, that can be impactful." (Cohort 1)

METHODOLOGIES

In-Store Advertising at Point of Purchase



“I’m really surprised they put signs in the grocery store like that, because it could prevent shoppers from spending any money, I think. But then again, I think it would make some kind of difference. But it doesn’t make any difference for me because actually I just cleaned out my freezer and a lot of food got wasted because of freezer burn – over \$200 worth of food.” (Cohort 1)

“What about having the information at the source? Right at the grocery store where you’re buying your bananas that you are trying to keep one per day for the next week or whatever. I mean, that would be really helpful.” (Cohort 2)

“Maybe put messages in the areas where there’s produce – are there a few tips that I can use to make it last even one day longer, so I can buy it on Sunday and have it on Wednesday? Instead of, ‘I have to have it on Sunday or Monday, or it goes bad.’ I mean, right where you purchase those items. I’m a reader. I read everything.” (Cohort 2)

“I think the biggest places are produce, dairy, and bakery, in terms of shortest shelf life. I think if people don’t use meat, they either freeze it or use it, but the other places are really important points.” (Cohort 2)



"The shopping cart is going to be the best [place for messages] because that's where and when you're making your decisions on what to buy and how much to spend. That's a good place to remind people." (Cohort 1)

"When I go to the store, I always grab a cart and wipe it down. It's right there and I'd probably see it because it's literally right in front of my face." (Cohort 3)

"I think it should be part of the curriculum at school – if they start it there and parents reinforced it, or vice versa. I'd also like to see it in the grocery store parking lot. Because once you add two or three things to your cart, you've covered up that sign. Maybe you didn't pay attention to it when you first got there. I would, because I'm just so interested in that." (Cohort 1)

"Maybe stores would think that it wouldn't really be effective, so it would be good publicity. It's like how the electric company has these ads that say, 'Save energy.' Of course, they don't really want you to save energy, but it makes them look like good citizens." (Cohort 3)

"I think that would show a lot of brand transparency and honesty, which would be really good in terms of driving loyalty with the customer. I just see a lot of obstacles in terms of getting that type of marketing in supermarkets." (Cohort 3)



"I think if it's on the bag, it's too late. Maybe not too late, but I think you want a message getting across while you're shopping, not when you're done because you've already got everything." (Cohort 2)

"Put these messages on the grocery bags, the paper bags that you get from the grocery store or the back of the receipt. Instead of a carwash coupon on the back of the receipt, maybe the County can spend money to be able to advertise on that receipt regarding food." (Cohort 2)

Social Media



EASY STEPS

40% of all food in the U.S. is never consumed. There are easy steps you can take to reduce food waste.

#SaveTheFood at SaveTheFood.com

"I think maybe social media might be another place to have that statement flash back into your mind. If you have repetition, something is going to stick eventually." (Cohort 1)

Media Coverage



“I think it would be great to see something like a public service announcement in the morning, first thing in the morning – we tend to have a pot of coffee before we go to work, and we tend to watch the news. I think if you see something like this, first thing in the morning, it will totally stick in your head.” (Cohort 1)

“When I do watch the news, I pay attention to the stats. I think this is a good thing to talk about, besides just what is going on in the world. I know it’s not a lighter topic, but I guess besides the shootings and all that, it would be refreshing to just talk about something completely different. I would definitely listen to it and believe what’s said about all this.” (Cohort 1)

Outreach Advertising



“On the bus, you’ve got a captive audience. They’re sitting there and looking at whatever the posters are, inside or outside the bus – who doesn’t stop alongside a bus or behind a bus? Companies are doing their advertisements there.” (Cohort 1)

Partnerships

Developing partnerships was considered another excellent way to share messages with consumers.

“Could you develop partnerships with food delivery? Like Instacart and Shipt? And maybe you could stick a little banner ad on top, as just a public service announcement. Because like the previous person said, we don't do our primary grocery shopping in the store anymore. Everything is Instacart or Target, and then when I go into Target something like this wouldn't get my attention because I have very specific things that I'm picking up.” (Cohort 1)

“I shop at Byerlys and I use my Byerlys Extra, so they know what I bought. Could we connect that to send a text from them saying ‘Hey, you bought bananas today. Here's how to store them.’ They already know all my information.” (Cohort 2)

“A lot of people are doing grocery delivery nowadays with Instacart and Amazon Prime. I think it would be useful if, in your bags, there were little leaflets, or something stapled to the outside of the bag that said ‘Here are some food waste prevention tips. Here's how to keep your food alive longer.’ There are many different ways you can approach the consumer.” (Cohort 2)

“Not everyone has an extra freezer. Maybe there could be some partnership with the appliance places that says, ‘If you sell this freezer, you'll help people preserve.’ There are a lot of things people don't have space for. Your refrigerator can only hold so much, but if you have a separate freezer and food savers, you can avoid freezer burn and prevent waste.” (Cohort 1)

“With partnerships, you can reach so many more people. If you've got a buy-in from somebody big, people pay more attention. Who doesn't shop for appliances? Homeowners typically do, for sure. That's a really big opportunity. Sooner or later, you're going to shop for them, and you'll start looking at tips that certain appliances will be helpful. I think partnerships are big.” (Cohort 1)

“Possibly government programs that also deal with food, or colleges.” (Cohort 1)

“In the doctor's or dentist's office while you're waiting – you're already there for your health, you've got magazines, there are usually pamphlets. That would be a great spot.” (Cohort 1)

“Put it as many places as you can, like buses, grocery stores, doctor's offices – everywhere, because different people go to different places. To reach the most people, you have to put it in more places.” (Cohort 2)

“From my human services perspective, we're talking about food stamps – there is a lot of food wasted. I think the County office would be a great place for posters or flyers, where people are getting their food stamp supply in the office. Sometimes, people consider that free money.” (Cohort 2)

Coupons

Since money saving was considered a highly motivating message, use of placing awareness builders in ads or near coupons was felt to be wise.

“I assume the people who are looking through all of the ads and the coupons are also going to want to be saving money. So, that would be good visibility for that target market to think about.” (Cohort 3)

“Maybe coupons for products that you could purchase to help you decrease the amount of food waste.” (Cohort 2)

Direct Mail

Sending information by mail was also a strategy suggested, though there was concern that it could simply generate a greater need to recycle.

“Mail that comes to my house comes right to me. Maybe you weren’t even aware of this food waste problem, but now the information has come right to you. Some people will probably throw that piece of paper away – or hopefully recycle it – but somebody like me, I take notice of that and start to think about that more consciously.” (Cohort 1)

“Maybe even just some information that comes to people, like a hard piece of paper to actually reference and read may be helpful as well. At least, that’s what I like from the recycling.” (Cohort 1)

“When you see something that says, ‘Ever throw away this food? Well, here’s a way to save that.’ A reference thing that people can repeatedly check – I look at that recycling flyer every week, at least. I’ve got it right there in the kitchen for when I question, ‘Is this recyclable? Or compostable?’” (Cohort 1)

“I would like a sheet that you can keep – maybe it would be given to you when you’re checking out and actually purchasing something and paying for it. ‘Hey, I could be wasting all this money I’m spending at the moment.’” (Cohort 1)

“Are we just creating more paper and more waste by using flyers?” (Cohort 2)

“Anyone under 40 is not even opening a paper. It sounds like we’re saying a lot of younger people are probably wasting more. YouTube videos, Instagram influencers – you’d have to get somebody to make a viral video.” (Cohort 3)

“Don’t do handouts or flyers, because then you’re just creating a different type of waste. You have to be cognizant of that. Don’t do billboards, but try to think of all types of waste – just because you’re not wasting food, you’re still causing environmental issues.” (Cohort 2)

Emails and Text Messages

Additionally, emails and text messages were also considered a good strategy to be considered as long as frequency did not become an issue.

“If you're sending out a general email blast, some people would say, ‘Get out of my face. I don't want to hear about this.’ But if you primed the situation, I think it would be very, very helpful.” (Cohort 2)

“If you send things out via email, you can't do it too often or it becomes, ‘Oh, here's another email. I'm not going to read it.’ Some of the advertising that you get from various companies – you might be interested in the first couple, and after that, your interest kind of starts to wane.” (Cohort 2)

“Receiving the emails was a reminder that we're trying to be more mindful. In addition to facts about food, it's another reminder to be very intentional about what I'm buying and what I'm preparing.” (Cohort 3)

“I just think about millennials, including myself – I like receiving text messages. Digital education, social media, digital age.” (Cohort 2)

Other Feedback

“I'd rather hear these messages from a mother or a father or an everyday person, rather than a political official or somebody representing a business.” (Cohort 1)

“Have something you can scan with your cell phone – the UPC code. You can scan that and get information.” (Cohort 2)

“I just love Instagram because Facebook is not as big a deal anymore.” (Cohort 3)

“There are going to be different people using different avenues to learn or gain access to information. I think attaching this information on social media will help promote the cause.” (Cohort 1)

“Grocery stores, large social gathering places, sports games are great places for messages to be, for sure. I think it's important to hit multiple avenues, because not everyone has a TV, not everyone has the internet, not everyone is going into the grocery store, a lot of people are getting deliveries.” (Cohort 1)

VALUE OF STUDY PARTICIPATION

Lastly, study participants commented on the value simply participating in this study held for them in terms of increasing their awareness.

“Tracking is a great idea to figure out what we actually toss.” (Cohort 1)

“I found [through tracking] that we're probably not wasting as much as we otherwise would have, just because we're more aware of it. By keeping track, it seemed like we were a little bit more conscious about wasting food.” (Cohort 1)

“It seems like a lot of us didn't really realize how much food waste consumers really produce. Because I was tracking, I now realize. I don't think the average consumer is aware of how much, or cares right now, without this information.” (Cohort 1)

“Right before the study started, I had to throw away a bag of those small cucumbers, so when I saw in the email the tip for storing the cucumbers, I put it to use because it was top of mind.” (Cohort 2)

“I told my husband that we're going to be strict. Let's see if we can do better for just for two weeks, and we did it. I just adjusted some things.” (Cohort 1)

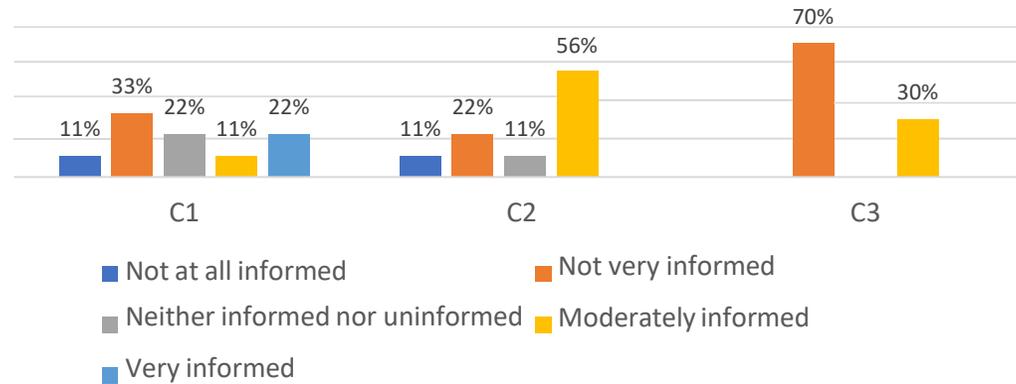
“I just think it's making us aware. Sometimes, we just go along and everything is so mundane. But when you've put a spotlight on it, there's awareness. I'm thinking about it.” (Cohort 1)

“This study really opens my eyes. It makes you think. It definitely does.” (Cohort 1)

FINAL PARTICIPANT SURVEY RESULTS

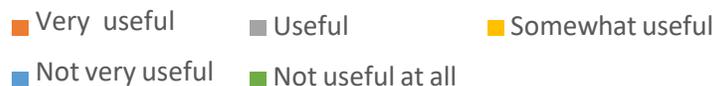
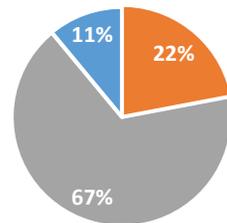
Before participating in this study 44 percent of Cohort 1, 33 percent of Cohort 2 and 70 percent of Cohort 3 said they were either not at all informed or not very informed about the subject of food waste, but **afterward, 100 percent of each cohort reported feeling moderately or very informed.**

Prior to being a part of this study, how informed do you feel you were about the subject of food waste?

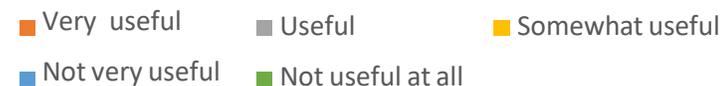
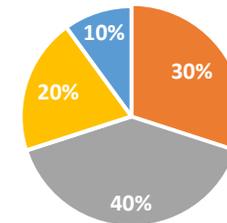


Eighty-nine percent of Cohort 2 said they found it useful or very useful to receive food waste information by email and text message, while 70 percent of Cohort 3 said participating in the trivia contest was either useful or very useful in increasing their knowledge and engagement on this topic. This indicates that consumers are interested in receiving supplemental information that can help guide them when making food-planning, purchasing, preparation and preservation decisions.

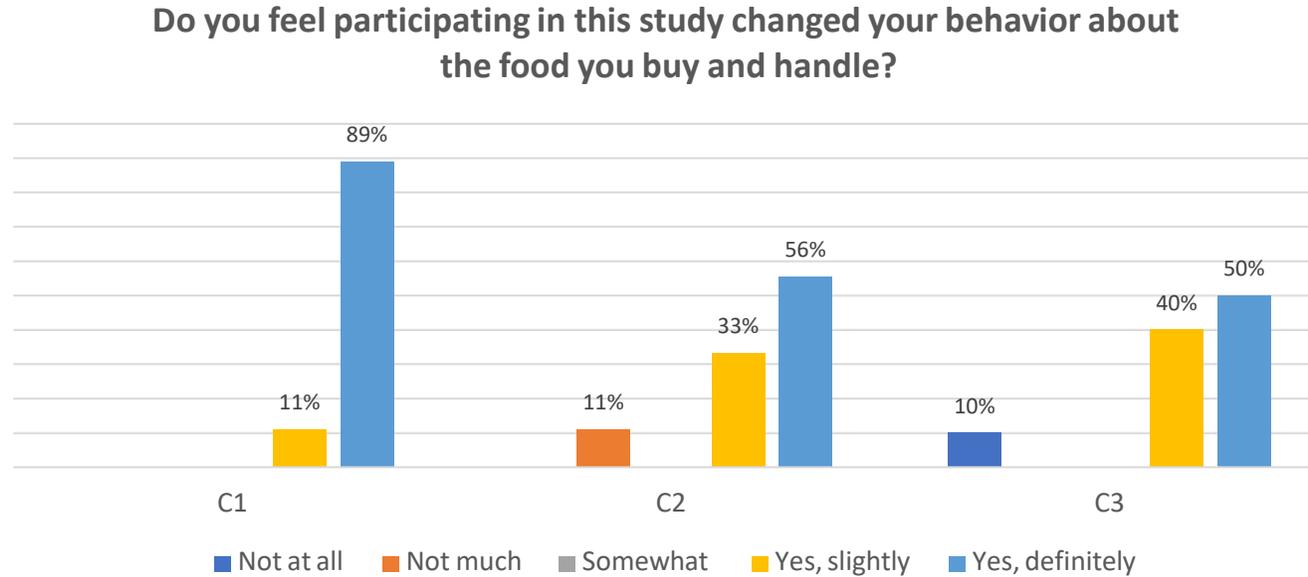
Cohort 2: How useful did you feel receiving food waste information by email and text message was in increasing your knowledge and engagement about this topic?



Cohort 3: How useful did you feel participation in the trivia contest was in increasing your knowledge and engagement about this topic?

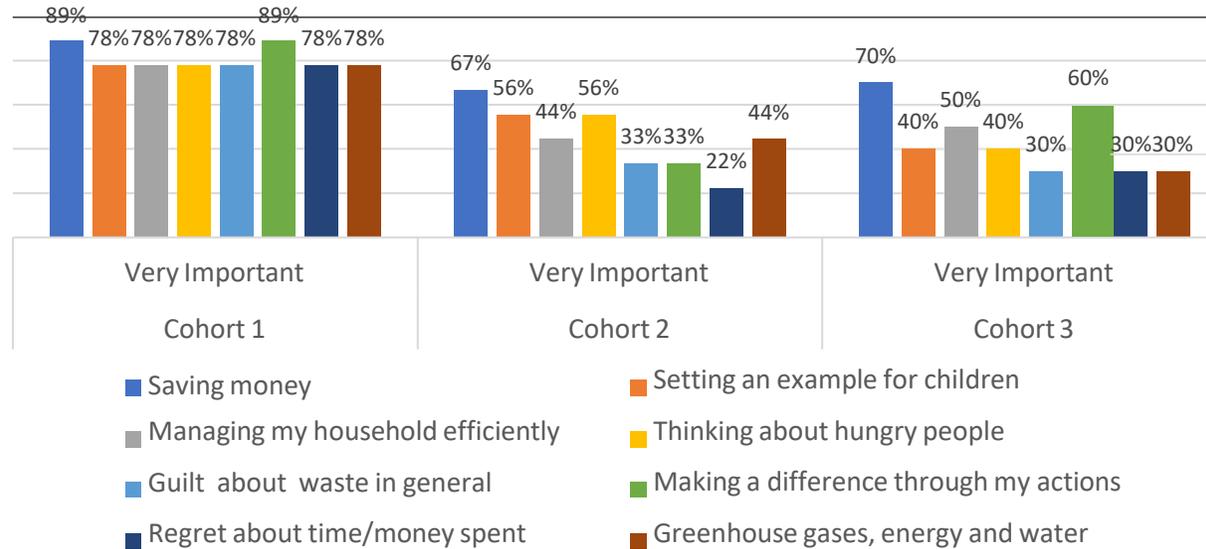


More than half of all participants in each cohort also said the study either slightly or definitely made them more aware of how they use and store food, and changed their behavior about the food they buy and handle. Fifty-six percent of Cohort 2, which received additional food waste information via text or email and had the fewest number of participants who felt uninformed about the subject prior to the study, said it definitely changed the way they buy and handle food. In Cohort 3, which received trivia questions and had the highest percentage of respondents who considered themselves uninformed about food waste at the beginning, 50 percent said this study definitely changed their behavior.



While each cohort’s motivations for reducing food waste varied slightly, across all three groups and the range of income brackets, saving money was consistently considered very important. In fact, more than half of each cohort indicated saving money was very important.

Most important reasons to reduce food waste by cohort



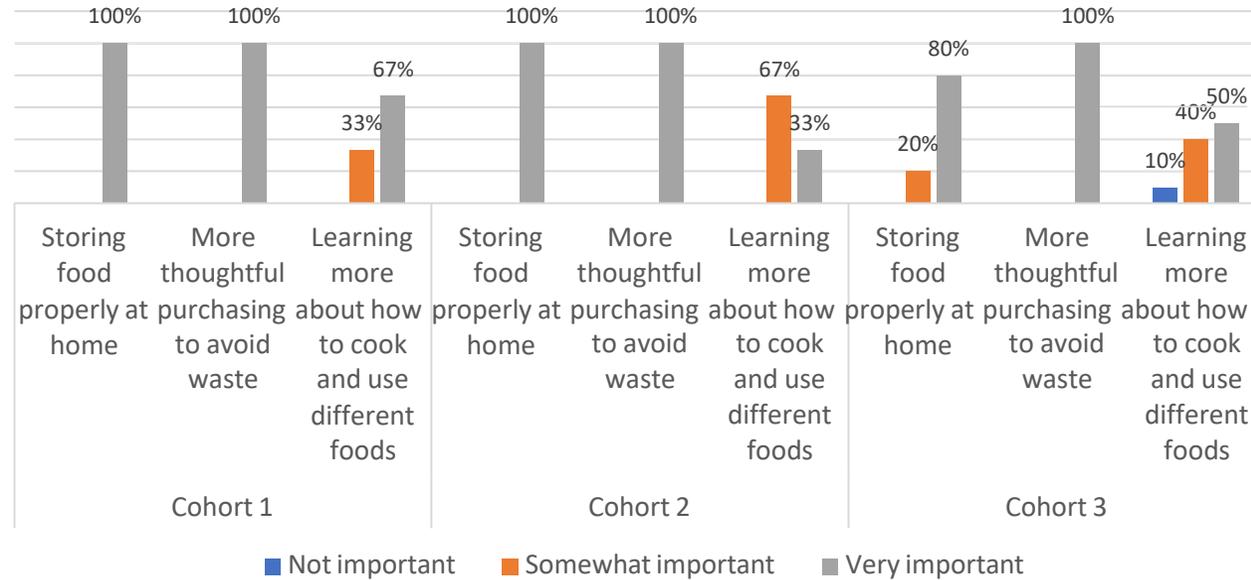
In Cohort 1, which only received information during focus groups, 89 percent of respondents said saving money was a very important reason to reduce food waste. Seventy- eight percent of respondents in this cohort indicated six different reasons for reducing food waste were very important, while the other two groups that received supplemental information were far more selective.

All of Cohort 2 indicated saving money was either an important (33%) or very important (67%) reason to reduce waste. This cohort also received a saving-specific email during the study that highlighted strategies consumers can use while shopping to save money and prevent food waste. Similarly, of Cohort 3 respondents, who received a trivia question related to this topic, the majority (90%) identified saving money as an important or very important reason to reduce food waste.

While the survey results indicate saving money and managing one’s household efficiently is important or very important, half the individuals in Cohorts 3 didn’t that feel regret about time and money spent were as important reasons to reduce food waste. In general, Cohort 3 also responded less positively toward guilt-motivated reasons for reducing food waste.

After participating in the study, 80 percent or more of the members of each cohort said they felt that storing food properly at home and more thoughtful purchasing were very important to reducing food waste.

How important do you feel the following are as they relate to food waste?

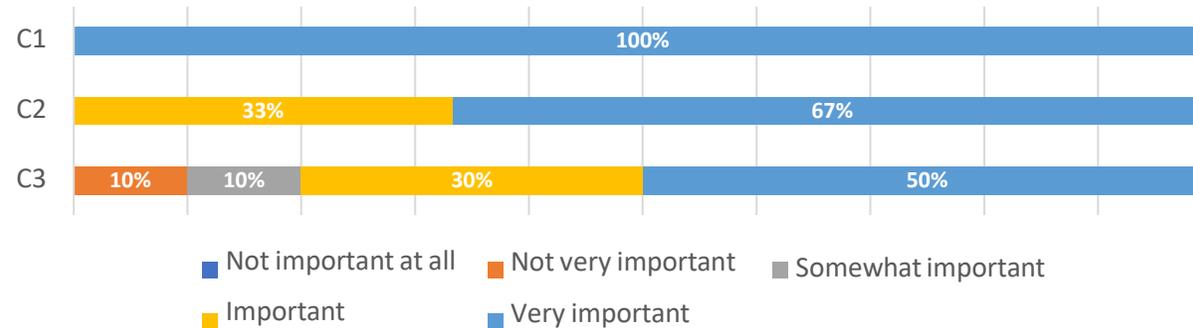


Seventy-eight percent of respondents in Cohorts 1 and 2 and 60 percent of Cohort 3 said they either always or often store food properly to get maximum shelf life. More than half of Cohorts 1 and 2 also indicated they either always or often freeze food if they don't think they can eat it in time. It's worth noting that Cohort 2 received an email explaining how properly storing food can help extend shelf life, while Cohort 3 also had a trivia question about how proper food storage can reduce waste.

In terms of thoughtful purchasing habits, half or more of the participants in each cohort indicated they always or often use a shopping list and check to see what's in their kitchen before going to the store. Seventy-eight percent of Cohorts 1 and 2 also said they either always or often plan meals before grocery shopping. Overall, careful planning and storage messaging appear to be an effective way of helping budget-conscious consumers reduce waste.

Eighty percent or more of the participants in each cohort indicated they feel it's important or very important for Hennepin County to increase awareness of this issue among residents. In terms of increasing awareness about food waste, all three cohorts agreed that in-store signage and materials would be either effective or very effective. Social media was also largely regarded as either an effective or very effective tool for increasing awareness.

How important do you feel it is for Hennepin County to help increase awareness of this issue among local residents?



Much like other consumer awareness campaigns, more than half of all participants agreed that providing information for children in schools would be either an effective or very effective way to inform the greater community about food waste. All of Cohorts 1 and 2, and 40 percent of Cohort 3 indicated they feel it's either important or very important to reduce food waste to set a good example for children. It's worth noting that 33 percent of Cohort 1, 56 percent of Cohort 2 and 50 percent of Cohort 3 have children currently living in the home.

Each cohort's view of what tools would be least effective varied. Eleven percent of Cohort 1 identified ads on billboards, TV or radio stations, news reports, and a website with facts and tips as not very effective. Of Cohort 2, 22 percent said information at medical clinics or dentist offices would not be very effective, while 11 percent viewed ads on billboards, TV or radio stations, information in the mail, and a website with facts and tips the same way. Cohort 3 was more divided, with 40 percent indicating information in the mail would be not at all or not very effective, followed by 30 percent saying the same of news reports and information at medical clinics and dental offices.

[For the full report and final survey analysis, please see the Appendix.]

Recommendations



Much was learned during the planning, research and evaluation stages of this initiative both in terms of gauging Hennepin County resident issue awareness and receptivity to behavior change, and the messages and methodologies that hold the greatest potential for future outreach success. The following are key recommendations for planning and implementation consideration:

Target Markets

Develop campaign content that appeals to specific demographic groups such as families, singles, older adults, young adults.

Create a well-planned campaign targeting children, to be delivered via schools and parents; such a technique has been significantly successful relative to other public service topics and resonated well with the recent focus group participants.

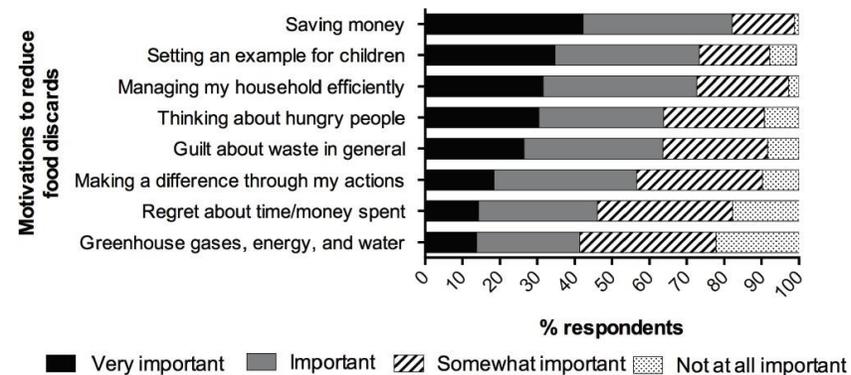
Create and test campaign dimensions relative to a few key sectors such as elementary, secondary and higher education institutions; grocery stores; employers; hospitals and other food service entities.

Outreach Messaging

Messaging must be simple, clear, and quick to read.

Focus on reaching consumers with messaging specificity during “teachable moments.”

Emphasize money savings as a key motivator – something referenced frequently in national research (see below) and by focus group participants.



Neff, R.A., M.L. Spiker, and P.L. Truant. 2015. Wasted food: U.S. Consumers' reported awareness, attitudes, and behaviors. *PLoS ONE* 10(6).

Use positive messaging – this was far preferred vs. what participants termed as “shaming” messages.

Be sure to include non-meat options in creative materials to appeal to a broad spectrum of preferences.

Be visually inclusive when it comes to ethnicity.

Use monetary info over percentages.

Utilize visuals that “short cut” the message (e.g., Target Field example to illustrate scope of the problem).

Participants found large numbers – annualized figures, versus daily or weekly, for example – to be most impactful.

Using QR codes in out-of-home media was suggested as a convenient tool for accessing more information.

Changing behavior requires addressing *multiple* behaviors in four specific phases:

Planning

Key message: *Think about each week’s meals.*

Purchase

Key message: *Shopping smart saves money.*

Preparation

Key message: *Make what you need, use what you can.*

Preservation

Key message: *Cook it. Store it. Share it. Freeze it.*

Methodology Considerations

Provide resources and easy, everyday tips for reducing food waste.

Ensure outreach focuses on frequency with actionable ideas and reminders.

Make use of a variety of both traditional and new media.

Identify and encourage social media influencers to amplify messages.

Provide message placement in locations that will reach consumers at each stage of the decision-making progressions (e.g., planning, food acquisition, consumption, disposal).

Definitely include a media relations component to the campaign to increase public awareness and the rationale for behavior change.

Cultivate key partnerships such as local grocery stores to enlist their support in sharing campaign messaging.

Evaluation

Include rigorous evaluation of effectiveness through deep outreach campaign analytics and adjust schedules, spend and methodologies based on what is learned.

Consider a quantitative survey of County residents to provide valuable data points to utilize with media and partner cultivation.



Appendix



PROFILE 3

Job: 2231MN21 Job Name: [REDACTED] Date: Monday, March 01, 2021 Time: 12:00 PM Length: 1 hr Project Manager: [REDACTED] Client: [REDACTED]
 Date: Monday, March 15, 2021
 Date: Monday, March 22, 2021
 Date: Monday, March 29, 2021
 Session Notes:

Disc Cohort 1

FULL NAME	MAILING ADDRESS	EMAIL	PHONE #	#	Discussion #1		Discussion #2		Discussion #3		Name	Gender	Household Relationship	Kids in Household	Type of Home	C4 Conferencing Capabilities			C5 Age	C7 Ethnicity	C8 HH Income	C9 City	Respondent agrees to...	
					Streaming	M/4	Streaming	M/4	Streaming	M/4						Internet	Computer	Webcam					Participate for all 5 weeks of the study	Attend all 3 online group discussions
				1	Monday 3/1/21		Monday 3/15/21		Monday 3/22/21		Female	Partnered	None	Single-Family	yes	yes	yes	25-35	White	100k+	Brooklyn Park	yes	yes	
				2	Monday 3/1/21		Monday 3/15/21		Monday 3/22/21		Female	Single	None	Multi-Family	yes	yes	yes	25-35	White	75-100k	Minneapolis	yes	yes	
				3	Monday 3/1/21		Monday 3/15/21		Monday 3/22/21		Male	Married	Currently	Multi-Family	yes	yes	yes	36-45	African American	LT 25k	Minneapolis	yes	yes	
				4	Monday 3/1/21		Monday 3/15/21		Monday 3/22/21		Female	Married	Currently	Single-Family	yes	yes	yes	36-45	African American	100k+	Minneapolis	yes	yes	
				5	Monday 3/1/21	shirley.wood@woods4ad.com	Monday 3/15/21	shirley.wood@woods4ad.com	Monday 3/22/21	shirley.wood@woods4ad.com	Any	Female	Married	None	Single-Family	yes	yes	yes	46-55	Asian	75-100k	Minneapolis	yes	yes
				6	Monday 3/1/21	shirley.wood@woods4ad.com	Monday 3/15/21	shirley.wood@woods4ad.com	Monday 3/22/21	shirley.wood@woods4ad.com	Sub	Female	Single	None	Multi-Family	Yes	Yes	Yes	25-35	Multi-racial	51-75k	Minneapolis	yes	yes
				7	Monday 3/1/21		Monday 3/15/21		Monday 3/22/21		Female	Married	No kids	Single-Family	Yes	Yes	Yes	66+	African American	51-75k	Minneapolis	yes	yes	
				8	Monday 3/1/21		Monday 3/15/21		Monday 3/22/21		Male	Married	No kids	Single-Family	Yes	Yes	Yes	36-45	White	100k+	Edin Prairie	Yes	Yes	
				9	Monday 3/1/21		Monday 3/15/21		Monday 3/22/21		Male	Married	Currently	Single-Family	Yes	Yes	Yes	36-45	Asian	75-100k	Minneapolis	yes	yes	

Page 1

Gender	Goal	Household Relationship	Goal	Kids in Household	Goal	Type of Home	Goal	MUST have access to all	Age	Goal	Ethnicity	Goal	HH Income	Goal	City	Goal	Participate for all 5	Goal	Attend all 3	Goal		
Male	4	MN 3	Single	2	MN 1	Currently	3	MN 3	Single-Family	6	MN 3	25-35	3	MN 3	African American	3	LT 25k	1	MN 1	Minneapolis	7	MN 7
Female	5	MN 5	Married	6	MN 6	None	6	MN 6	Multi-Family	3	MN 3	36-45	2	MN 2	Asian	2	36-50k	1	MN 1	MAX 2 per city per group (from Non-MPLS)		
Non-binary			Engaged	1		No kids	1					46-55	1	MN 1	Black		51-75k	2	MN 2			
												36-45	2	MN 2	Hispanic/Latino		75-100k	3	MN 3			
												66+	1	MN 1	Native American		100k+	1	MN 1			
															Pacific Islander							
															Multi-racial	1						
															Other							

Cohort 1

PROFILES

Job: Z231MN21 Job Name: [REDACTED] Date: Tuesday, March 02, 2021 Time: 12:00 PM Length: 1 hr Project Manager: [REDACTED] Client: [REDACTED]
 Disc Cohort 2 Session Notes: Tuesday, March 16, 2021 Tuesday, March 30, 2021

FULL NAME	MAILING ADDRESS	EMAIL	PHONE #	#	Discussion #1		Discussion #2		Discussion #3		Name	Gender	Household Relationship	Kids in Household	Type of Home	Conferencing Capabilities			Age	Ethnicity	HH Income	City	Respondent agrees to...	
					Screening	MI/4	Screening	MI/4	Screening	MI/4						Internet	Computer	Webcam					Participate for all 3 weeks of the study	Attend all 3 online group discussions
				1	Tuesday 3/2/21		Tuesday 3/16/21		Tuesday 3/30/21		Male	Partnered	None	Single-Family	Yes	Yes	Yes	35-45	Multi-racial	100k+	Minneapolis	Yes	Yes	
				2	Tuesday 3/2/21		Tuesday 3/16/21		Tuesday 3/30/21		Male	Single	Currently	Multi-Family	Yes	Yes	Yes	35-45	Hispanic/Latino	55-75k	Minneapolis	Yes	Yes	
				3	Tuesday 3/2/21		Tuesday 3/16/21		Tuesday 3/30/21		Female	Partnered	Currently	Multi-Family	Yes	Yes	Yes	25-35	Multi-racial	100k+	Stourington	Yes	Yes	
				4	Tuesday 3/2/21	shirley@work4u.com	Tuesday 3/16/21	shirley@work4u.com	Tuesday 3/30/21	shirley@work4u.com	Shirley M	Female	Single	Currently	Multi-Family	Yes	Yes	Yes	35-45	African American	55-75k	Minneapolis	Yes	Yes
				5	Tuesday 3/2/21	shirley@work4u.com	Tuesday 3/16/21	shirley@work4u.com	Tuesday 3/30/21	shirley@work4u.com	Shirley G	Female	Single	Currently	Multi-Family	Yes	Yes	Yes	35-45	Native American	LT 25k	Minneapolis	Yes	Yes
				6	Tuesday 3/2/21	shirley@work4u.com	Tuesday 3/16/21	shirley@work4u.com	Tuesday 3/30/21	shirley@work4u.com		Female	Married	No longer	Single-Family	Yes	Yes	Yes	55-65	White	100k+	Maple Grove	Yes	Yes
				7	Tuesday 3/2/21		Tuesday 3/16/21		Tuesday 3/30/21		Male	Married	No longer	Single-Family	Yes	Yes	Yes	60+	White	75-100k	Minneapolis	Yes	Yes	
				8	Tuesday 3/2/21		Tuesday 3/16/21		Tuesday 3/30/21		Male	Married	No longer	Single-Family	Yes	Yes	Yes	60+	White	100k+	Plymouth	Yes	Yes	
				9	Tuesday 3/2/21		Tuesday 3/16/21		Tuesday 3/30/21		Female	Single	No longer	Multi-Family	Yes	Yes	Yes	35-45	White	100k+	Minnetonka	Yes	Yes	

Gender	Goal	Household Relationship	Goal	Kids in Household	Goal	Type of Home	Goal	MUST have access to all	Age	Goal	Ethnicity	Goal	HH Income	Goal	City	Goal	Participate for all 3	Goal	Attend all 3	Goal
Male	4	Single	4	Currently	4	Single-Family	4		25-35	1	African American	1	LT 25k	1	Minneapolis	1				
Female	5	Married	3	None	1	Multi-Family	5		35-45	4	Asian		35-50k							
									45-55	2	Black		55-75k	2						
									35-45	2	Hispanic/Latino	1	75-100k	1						
									60+	2	Native American	1	100k+	3						
											Multi-racial	2								
											Other	2								

Cohort 2

PROFILES

Job: ZZ31MNZ1 Job Name: [Redacted] Date: Wednesday, March 03, 2021 Time: 12:00 PM Length: 1 hr Project Manager: [Redacted] Client: [Redacted]
 Dear Cohort 3: Wednesday, March 17, 2021
 Wednesday, March 31, 2021 Season Notes:

FULL NAME	MAILING ADDRESS	EMAIL	PHONE #	#	Discussion #1		Discussion #2		Discussion #3		Name	Gender	G1 Household Relationship	G2 Role in Household	G3 Type of Home	G4 Conferencing Capabilities			G6 Age	G7 Ethnicity	G8 HH Income	G9 City	Respondent agree to...	
					Streaming	M/4	Streaming	M/4	Streaming	M/4						Internet	Computer	Webcam					Participate for all 3	Attend all 3
				1	Wednesday 3/3/21		Wednesday 3/17/21		Wednesday 3/31/21			Female	Married	currently	single-family	yes	yes	yes	35-45	white	100k+	Minnetonka	yes	yes
				2	Wednesday 3/3/21		Wednesday 3/17/21		Wednesday 3/31/21			Female	Married	No longer	Single-family	Yes	Yes	Yes	55-65	White	LT 35k	Brooklyn Park	Yes	Yes
				3	Wednesday 3/3/21		Wednesday 3/17/21		Wednesday 3/31/21			Female	Single	currently	Multi-family	yes	yes	yes	25-35	Black	LT 35k	Minneapolis	yes	yes
				4	Wednesday 3/3/21	https://t.me/40605476	Wednesday 3/17/21	https://t.me/40605476	Wednesday 3/31/21	https://t.me/40605476		Female	Single	None	Multi-family	Yes	Yes	Yes	60+	Native American	35-50k	Minneapolis	Yes	Yes
				5	Wednesday 3/3/21	https://t.me/40605476	Wednesday 3/17/21	https://t.me/40605476	Wednesday 3/31/21	https://t.me/40605476		Male	Married	Currently	Single-family	Yes	Yes	Yes	25-35	Hispanic/Latino	100k+	Maple Grove	Yes	Yes
				6	Wednesday 3/3/21	https://t.me/40605476	Wednesday 3/17/21	https://t.me/40605476	Wednesday 3/31/21	https://t.me/40605476		Male	Single	None	Multi-family	Yes	Yes	Yes	45-55	Multi-racial	51-75k	Minneapolis	Yes	Yes
				7	Wednesday 3/3/21	https://t.me/40605476	Wednesday 3/17/21	https://t.me/40605476	Wednesday 3/31/21	https://t.me/40605476		Male	Married	Currently	Single-family	yes	yes	yes	35-45	Asian	100k+	Minneapolis	yes	yes
				8	Wednesday 3/3/21		Wednesday 3/17/21		Wednesday 3/31/21			Female	Married	No longer	Single-family	Yes	Yes	Yes	60+	White	75-100k	Brooklyn Park	Yes	Yes
				9	Wednesday 3/3/21		Wednesday 3/17/21		Wednesday 3/31/21			Female	Single	None	Multi-family	Yes	yes	yes	25-35	Multi-racial	35-50k	Minneapolis	Yes	Yes
				10	Wednesday 3/3/21		Wednesday 3/17/21		Wednesday 3/31/21			Male	Married	No longer	Single-family	Yes	Yes	Yes	55-65	White	75-100k	Minneapolis	Yes	Yes

Page 1

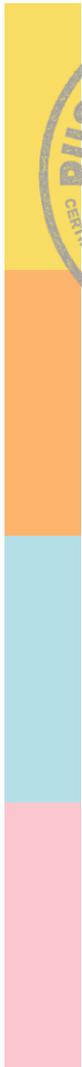
Gender	Goal	Household Relationship	Goal	Role in Household	Goal	Type of Home	Goal	MUST have access to all	Age	Goal	Ethnicity	Goal	HH Income	Goal	City	Goal	Participate for all 3	Goal	Attend all 3	Goal
Male	4	Single	4	Currently	4	Single-family	5		25-35	3	African American	1	LT 35k	2	Minneapolis	1				
Female	5	Married	5	None	3	Multi-family	4		35-45	2	Asian	1	35-50k	2	Brooklyn Park	1				
Female	5	Married	5	None	3	Multi-family	4		45-55	1	Black	1	51-75k	1	Minneapolis	1				
Female	2	Single	2	None	3	Multi-family	4		55-65	2	Hispanic/Latino	1	75-100k	2	Minneapolis	1				
Female	2	Single	2	None	3	Multi-family	4		60+	2	Native American	1	100k+	3	Minneapolis	1				
Female	2	Single	2	None	3	Multi-family	4		60+	2	Multi-racial	2	51-75k	2	Minneapolis	1				

Cohort 3

Track what you toss

Find out what food is wasted at home and why!

Date tossed	What was it?	Why did I toss it?	Price	What could I have done differently to not throw this item away?



FOOD TRACKING WEEK-OVER-WEEK ANALYSIS

Hennepin County

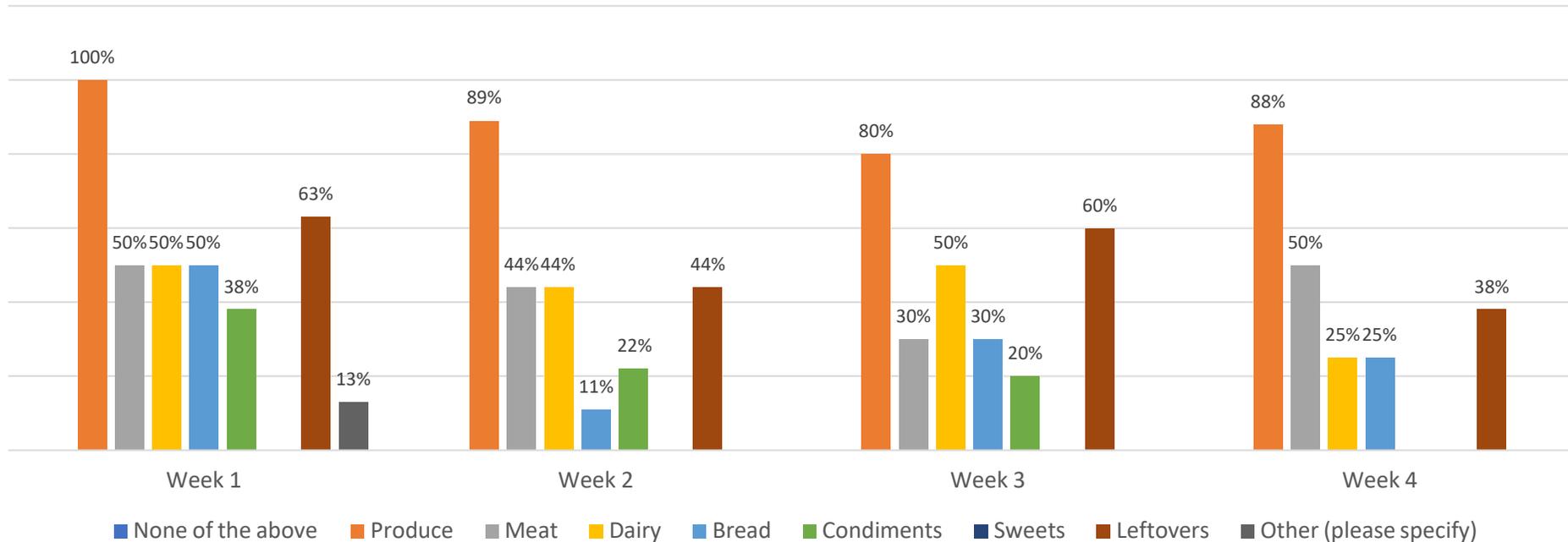
04.12.21

Week-Over-Week Analysis

Cohort 1

Each week, most of the food waste produced by Cohort 1 consisted of produce. There was a decrease in the amount of produce wasted from week one (100%) to week three (80%), but a slight increase during week four (88%). Leftovers and dairy products were also among the foods Cohort 1 reported wasting the most of over the four-week period. There was, however, a downward trend in the amount of dairy products thrown out by Cohort 1 from week one to week four.

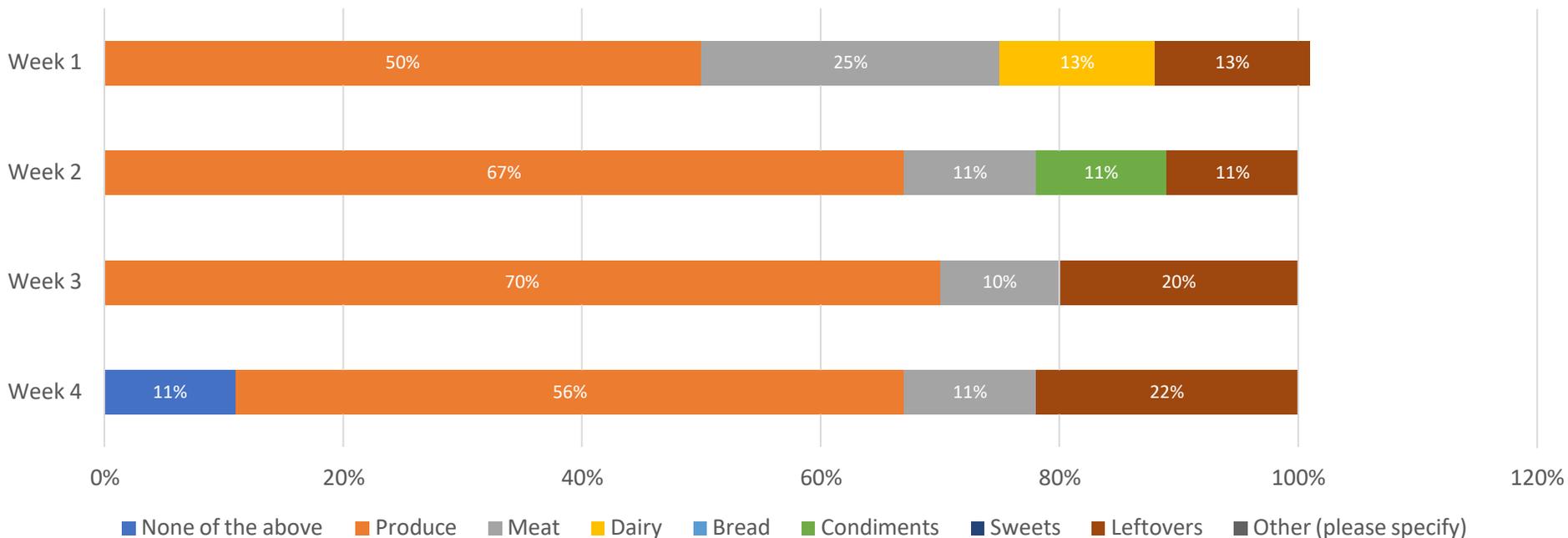
From which of the following categories of food did you throw out this week? (select all that apply)





Throughout the four-week tracking period, Cohort 1 consistently reported throwing out produce the most each week, with 50 percent tossed the first week, 67 percent the second week, 70 percent the third week and 56 percent the fourth week. Leftovers were among the second-most wasted foods, with 13 percent tossed the first week, 11 percent the second week, 20 percent the third week and 22 percent the fourth week.

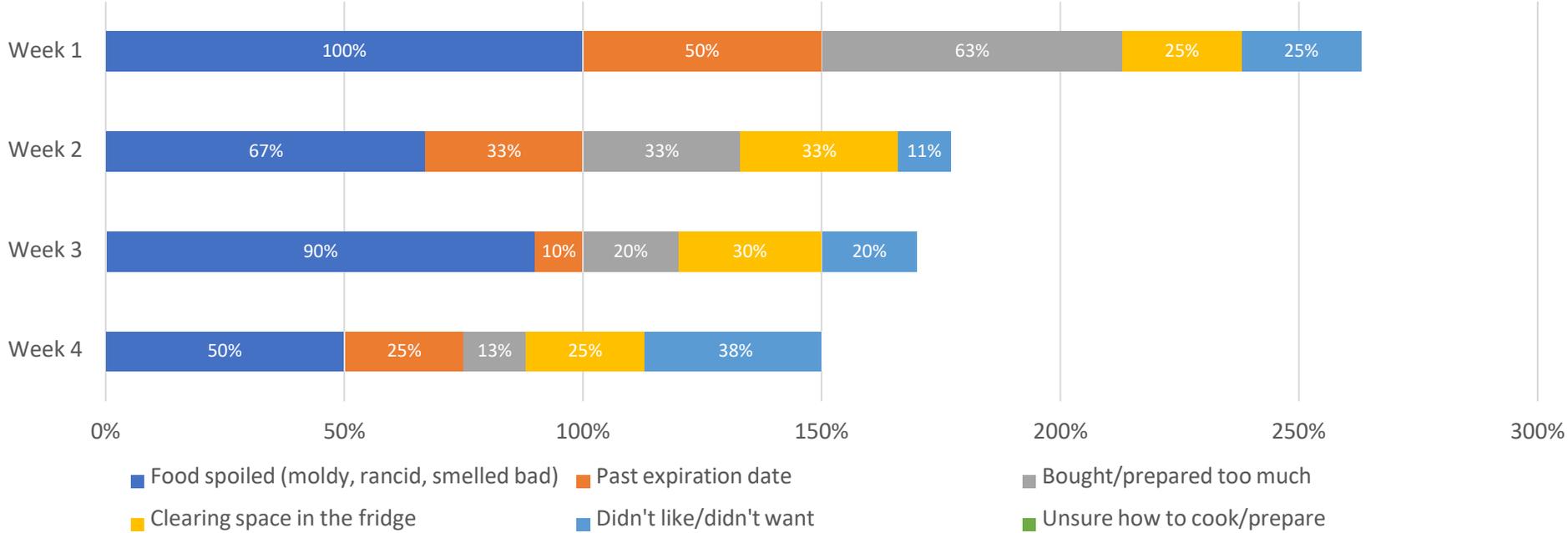
From which of the following categories of food did you throw out the MOST this week?





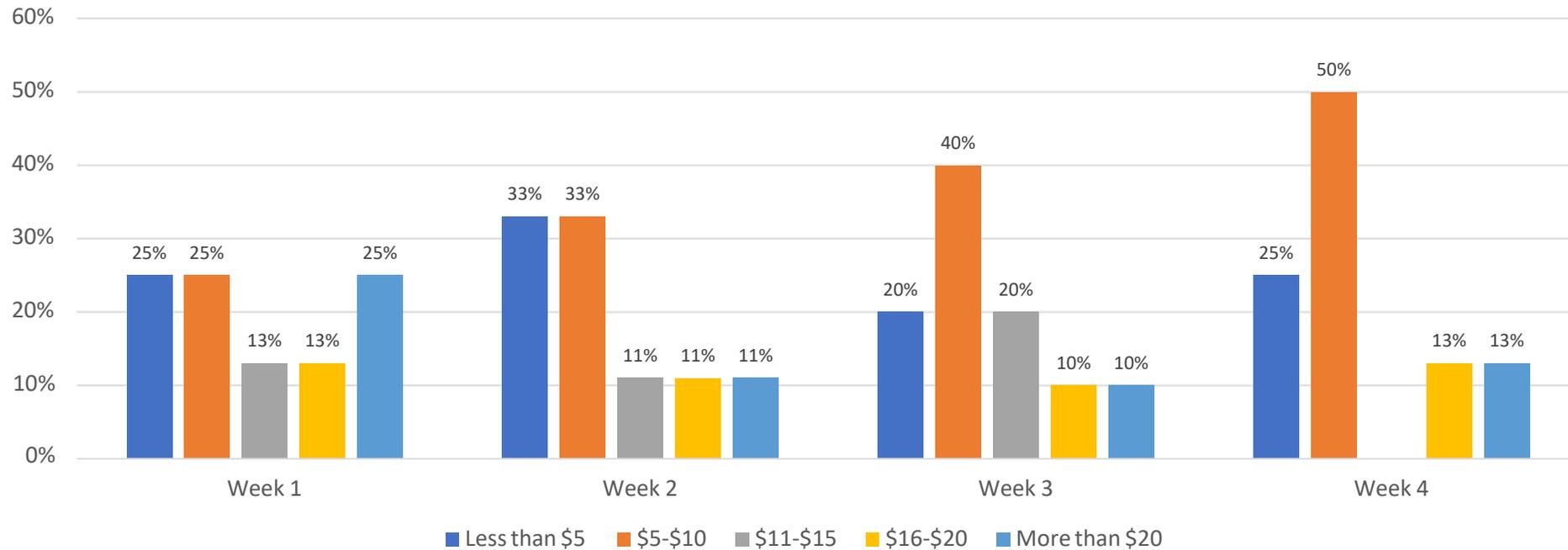
Spoiled food was consistently Cohort 1's most common reason for food waste throughout the four-week tracking period, followed by buying and/or preparing too much. Throughout the tracking period, the number of people who bought and/or prepared too much gradually decreased from 63 percent during week one to 13 percent during the final week. While clearing space in the fridge wasn't one of the top reasons for food waste, each week a few respondents reported this as a reason for food waste. Twenty-five percent of respondents said they wasted food to clear space in the fridge the first week, followed 33 percent the second week, 30 percent the third week and 25 percent the fourth week.

What were the reasons for food waste this week? (check all that apply)



Most respondents in Cohort 1 consistently said the food they threw out each week was worth an estimated \$5-10. Wasting less than \$5 worth of food each week was the second most-common response. However, it's worth noting that throughout the tracking period 10-13 percent of respondents consistently reported wasting \$16-20 worth of food each week.

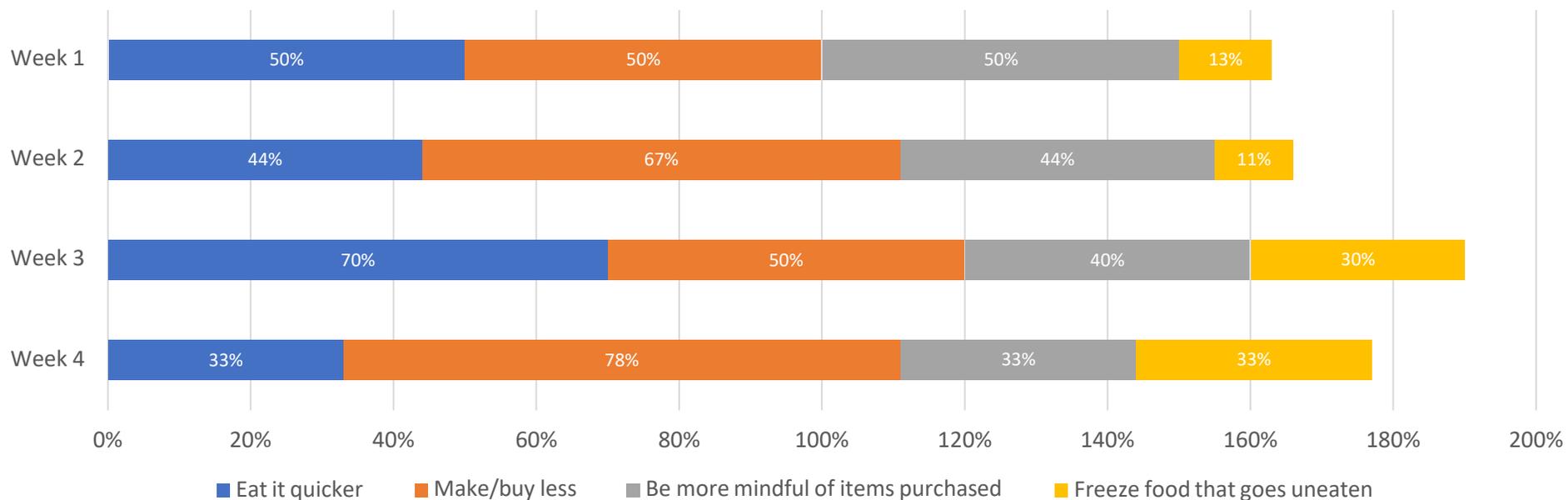
What is the total estimated cost of your food thrown out this week?





During the first week of tracking, Cohort 1 said eating food more quickly before it expires (50%), making and/or buying less (50%), being more mindful of items purchased (50%) and freezing food that goes uneaten (13%) were all viable strategies for avoiding future food waste. From week one to week four, the number of respondents who identified freezing food as a strategy for avoiding food waste in the future increased from 13 percent to 33 percent. Throughout the four-week period, respondents consistently selected making and/or buying less food as the number one way to avoid this waste in the future.

How do you feel this waste could be avoided in the future? (check all that apply)

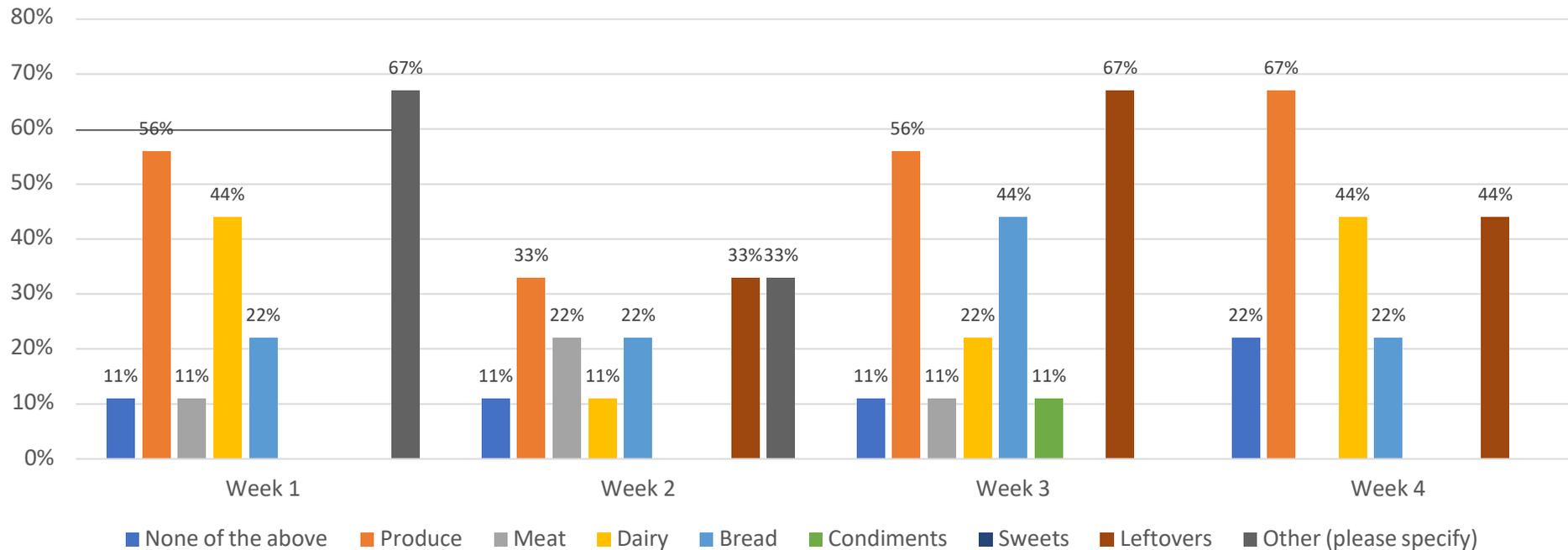


Week-Over-Week Analysis

Cohort 2

Week-over-week, Cohort 2 threw out produce most consistently compared to all the other categories of food. Fifty-six percent of respondents said they tossed produce during week one, 33 percent during week two, 56 percent during week three and 67 percent during week four. Dairy products, leftovers and bread were among the other most tossed foods throughout the four-week tracking period. The amount of dairy products discarded decreased from week one to week two, but then steadily increased from weeks three to four. This is consistent with the findings from Cohort 1's tracking data, with produce and dairy, respectively, among the categories of food respondents reported consistently discarding.

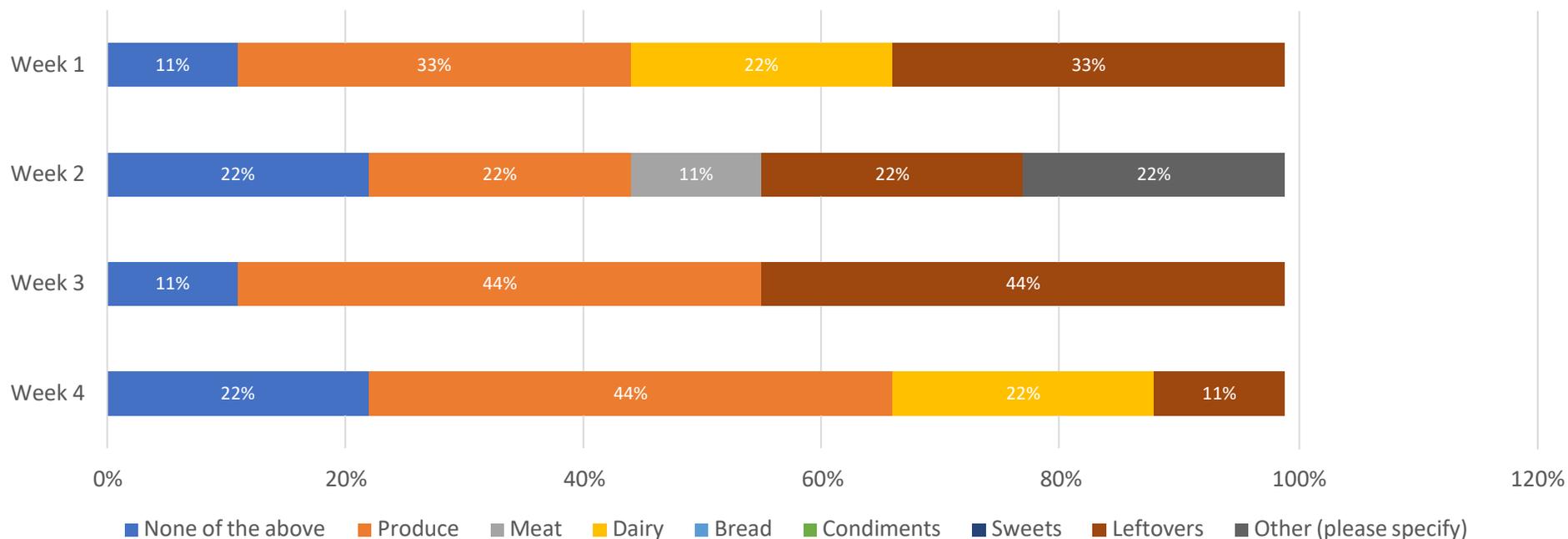
From which of the following categories of food did you throw out this week? (select all that apply)





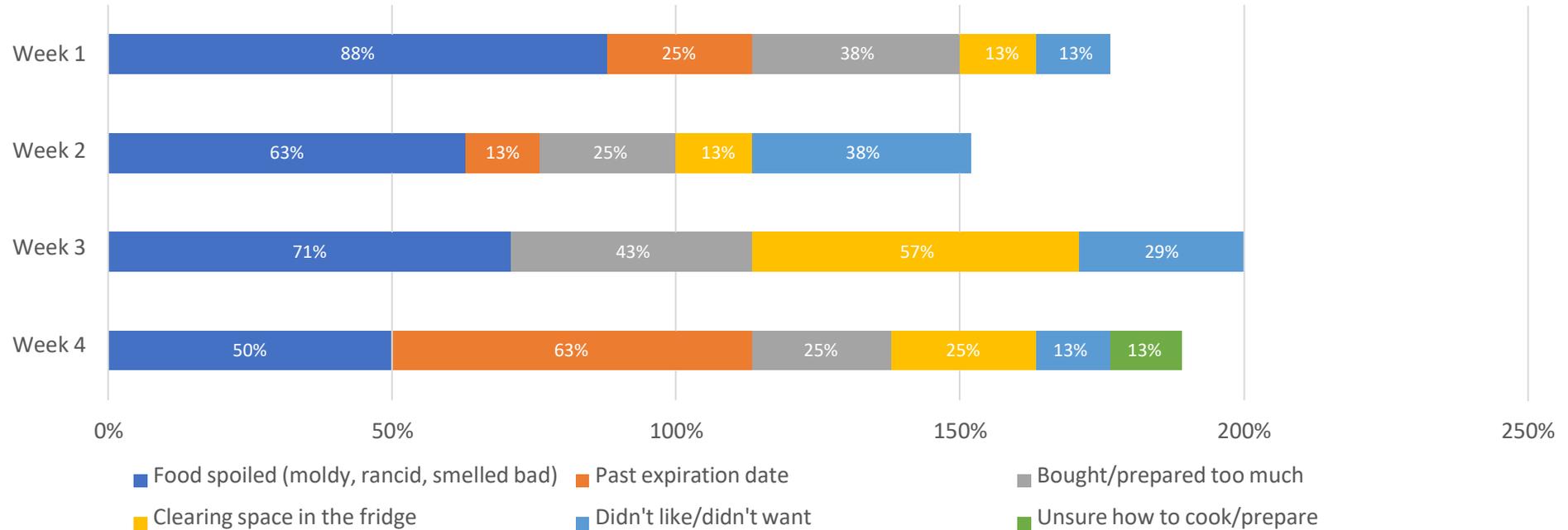
Each week, Cohort 2 consistently reported throwing out either produce or leftovers the most. During week one, the most thrown out food was evenly split with 33 percent tossing produce the most and the same percentage discarding leftovers. Forty-four percent of respondents reported throwing out items from the produce category the most during weeks three and four. During week three, 44 percent of those in Cohort 2 said they tossed leftovers the most, but in week four, that declined to 11 percent. It is worth noting that at least one person reported not wasting any food each week.

From which of the following categories of food did you throw out the MOST this week?



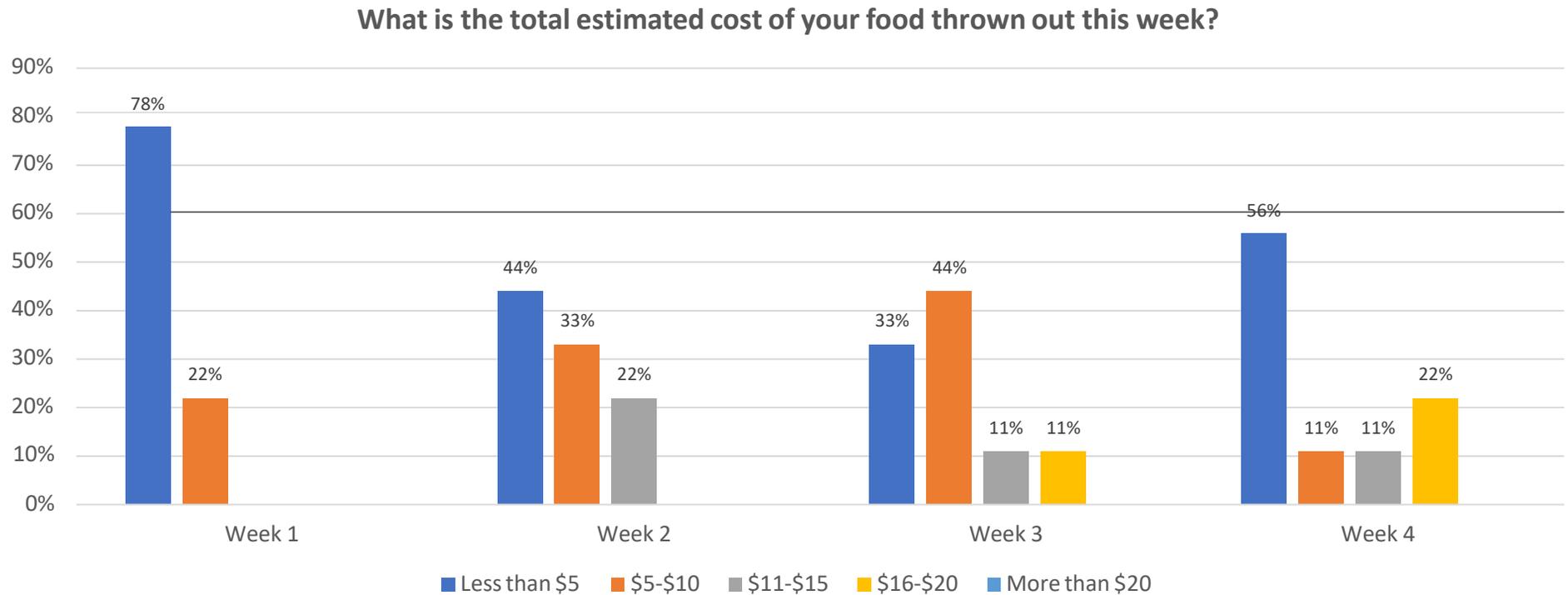
Throughout the four-week tracking period, at least half or more of Cohort 2 respondents reported spoiled food as a reason they wasted food, with 88 percent selecting that option during week one, 63 percent during week two, 71 percent during week three and 50 percent during week four. Much like Cohort 1, buying and/or preparing too much food, followed by clearing space in the fridge, were among the most common reasons for waste each week.

What were the reasons for food waste this week? (check all that apply)





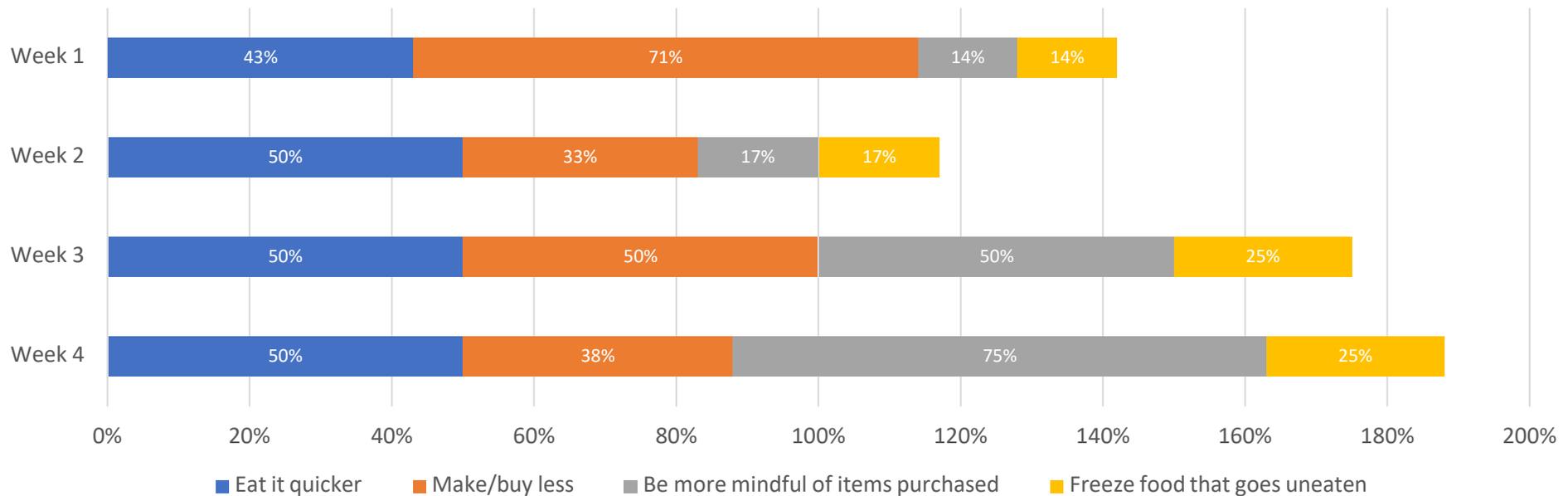
During weeks one, two and four, most Cohort 2 respondents estimated the total cost of the food they threw out was worth less than \$5. Week three was the exception, when 44 percent of respondents said the food they tossed was worth an estimated \$5-10. Cohort 2 respondents only reported throwing out \$16-20 worth of food in weeks three and four.





Throughout the four-week tracking period, Cohort 2 received a combination of texts and emails about food waste, and there's a clear shift in how respondents felt it could be avoided in the future. During week one, respondents said eating the food quicker (43%); making and/or buying less (71%); being more mindful of items purchased (14%) and freezing food that goes uneaten (14%) could help them avoid waste in the future. During weeks three and four, there was a notable increase in the percentage of respondents who recognized that being more mindful of items purchased could reduce future food waste.

How do you feel this waste could be avoided in the future?

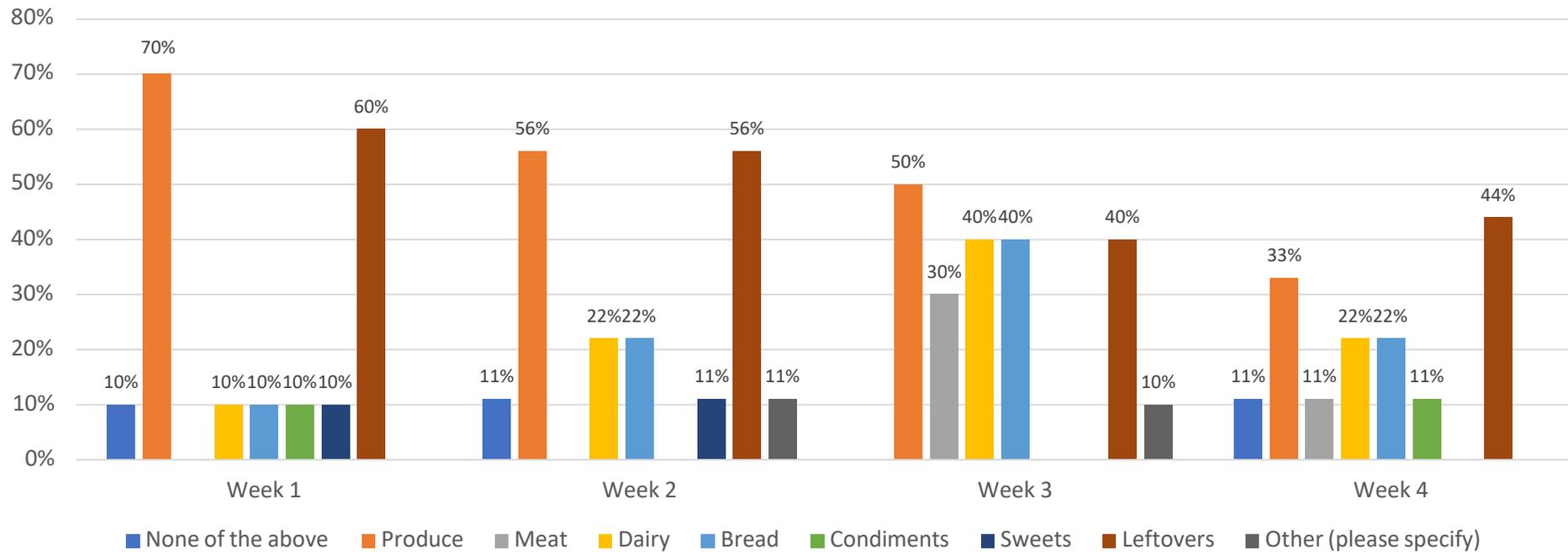


Week-Over-Week Analysis

Cohort 3

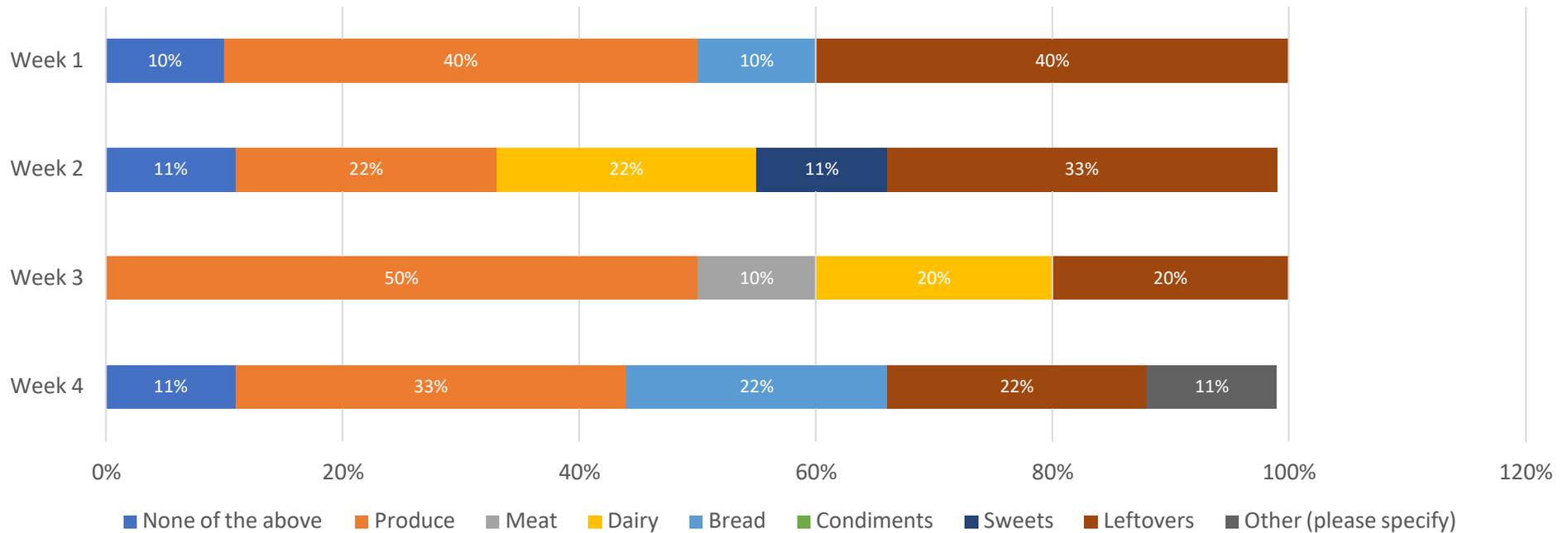
In addition to completing a tracking survey each week, this cohort received trivia questions about food waste. During the four-week tracking period, Cohort 3 consistently threw out items from the produce and leftovers categories, but there is a noticeable downward trend in the food tossed from each. Seventy percent of Cohort 3 respondents reported tossing produce in week one, however that declined beginning in week two to 56 percent, 50 percent in week three and 33 percent in week four. The leftovers category also saw a decline, with 60 percent throwing out something from this category during week one, 56 percent during week two, 40 percent during week three and 44 percent during week four. During weeks one, two and four, at least one participant reported not wasting any food.

From which of the following categories of food did you throw out this week? (select all that apply)



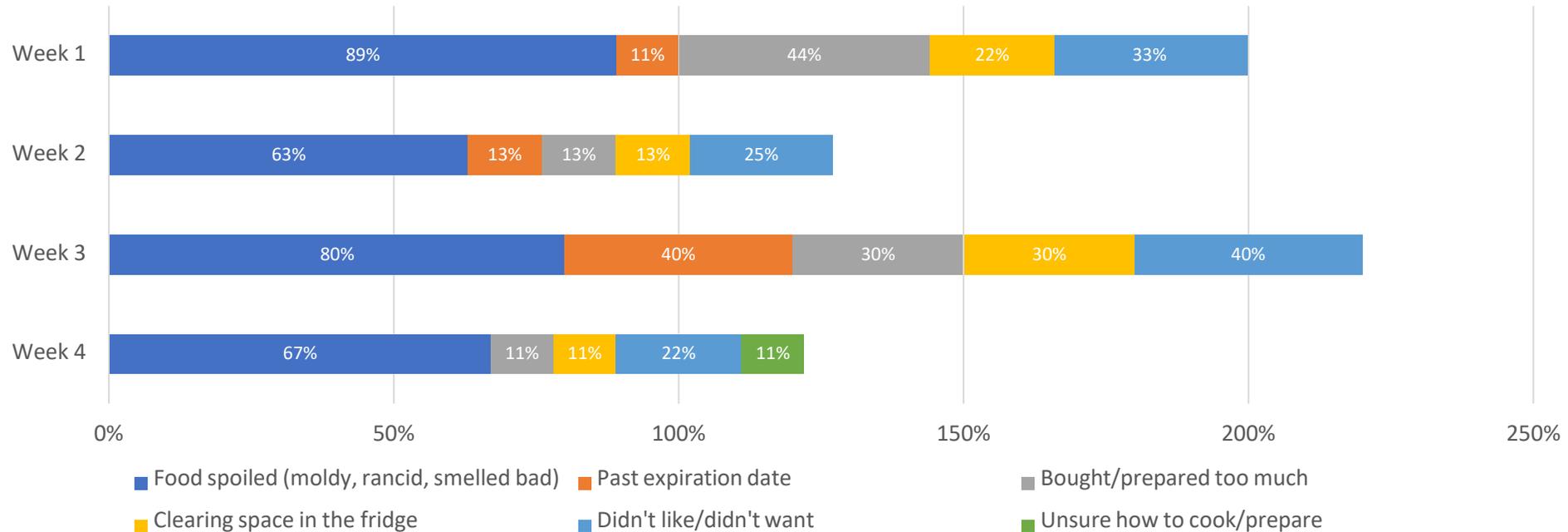
Much like the other cohorts, Cohort 3 also consistently threw out produce and leftovers the most out of all the categories. During week one, produce and leftovers were tied for the category with the most-wasted food — 40 percent of respondents selected these categories. In week two, Cohort 3 still identified leftovers (33%) as the food they tossed the most of, while produce and dairy were both tied with 22 percent each. During week three, 50 percent of respondents said they tossed the most food from the produce category, followed by dairy and leftovers (20%). Week four showed much of the same with 33 percent tossing produce the most, and 22 percent tossing both bread and leftovers. It is worth noting that at least one person during weeks one, two and four didn't report wasting any food.

From which of the following categories of food did you throw out the MOST this week?



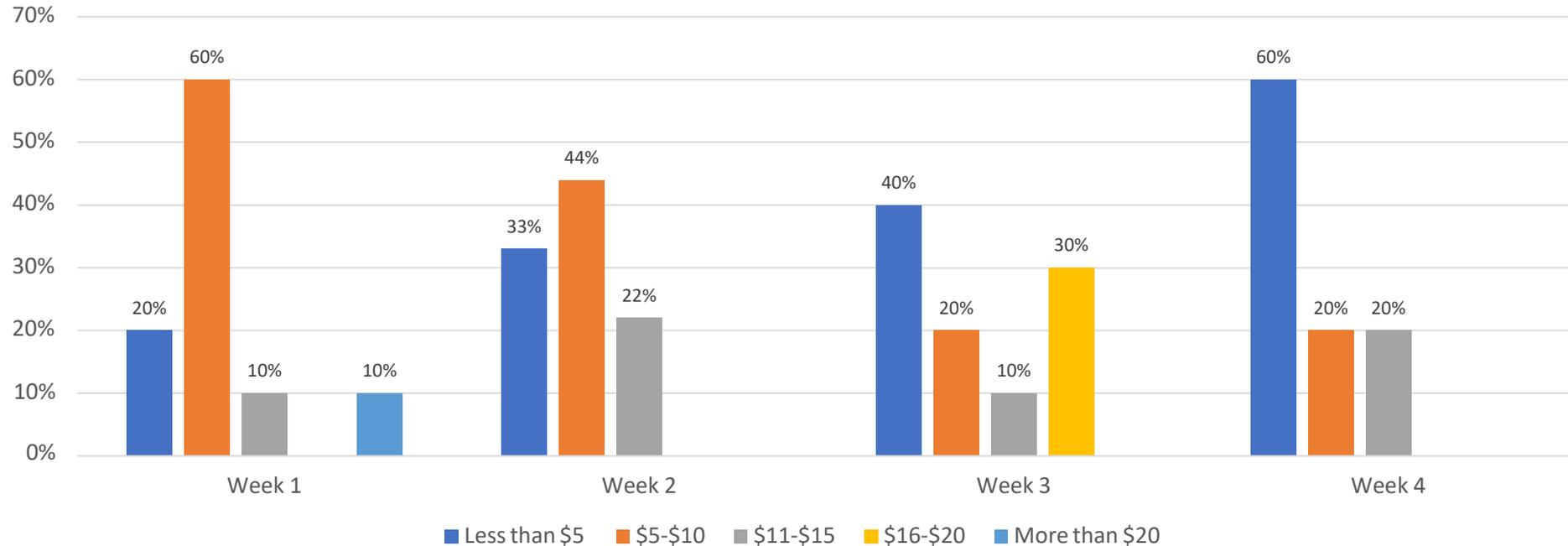
Week-over-week, Cohort 3 reported spoiled food as the most common reason for food waste, with 89 percent selecting this during week one, 63 percent during week two, 80 percent during week three and 67 percent during week four. During the food tracking period, the percentage of respondents who selected bought and/or prepared too much generally decreased with 44 percent selecting this as a reason during week one, 13 percent during week two, 30 percent during week three and 11 percent during week four.

What were the reasons for food waste this week? (check all that apply)



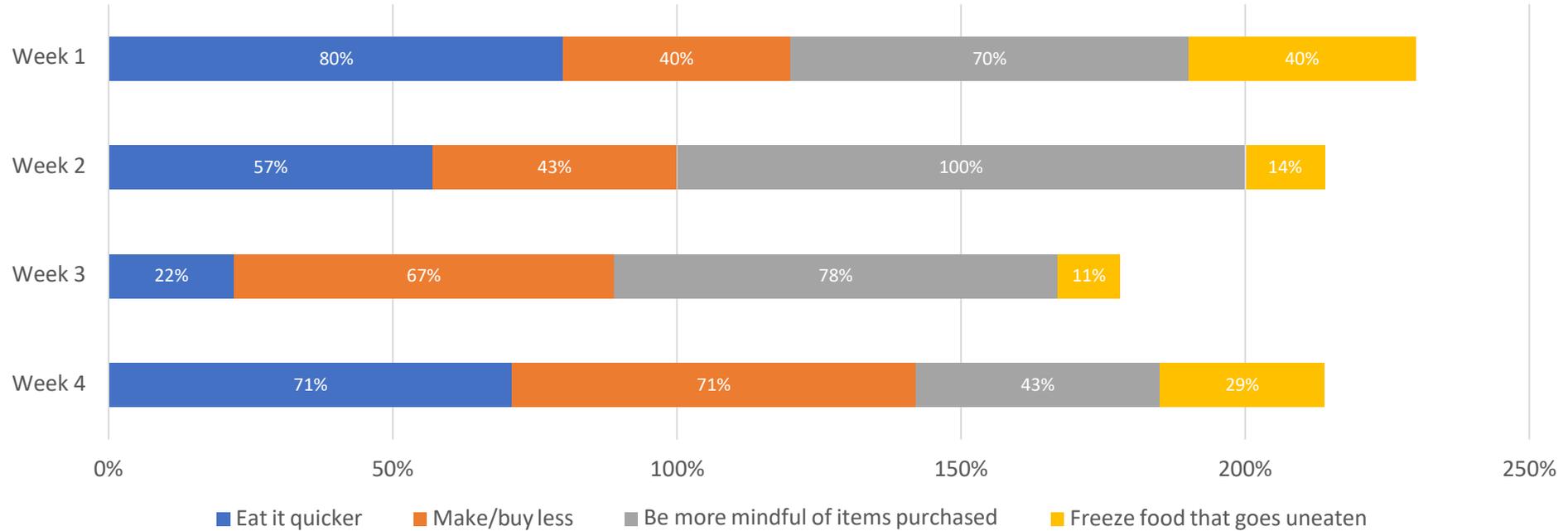
During the four-week tracking period, there's a clear decrease in the number of respondents who estimated they threw out \$5-10 worth of food each week and an increase in the number of people who wasted less than \$5 worth of food. For example, during week one, 60 percent of respondents estimated their wasted food cost them \$5-10 and 20 percent said they wasted less than \$5 worth. By week four, those percentages were reversed, with 60 percent estimating they wasted less than \$5 worth of food and 20 percent noting they wasted approximately \$5-10 worth.

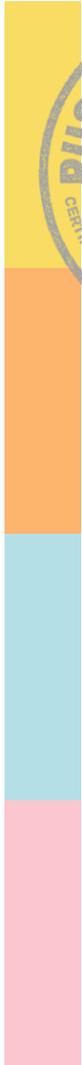
What is the total estimated cost of your food thrown out this week?



During week one of tracking, Cohort 3 respondents said their weekly waste could have been avoided by eating food more quickly (80%); being more mindful of items purchased (70%); making and/or buying less (40%) and freezing uneaten food (40%). From weeks one to four, the most significant trend was members of Cohort 3 increasingly realizing they could have avoided food waste by making and/or buying less. By week four, 71 percent of Cohort 3 respondents selected making and/or buying less as a strategy for avoiding future waste.

How do you feel this waste could be avoided in the future?





FINAL SURVEY ANALYSIS

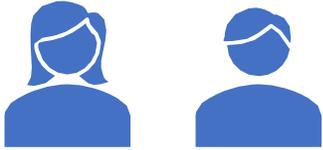
Hennepin County

04.20.21

Demographics

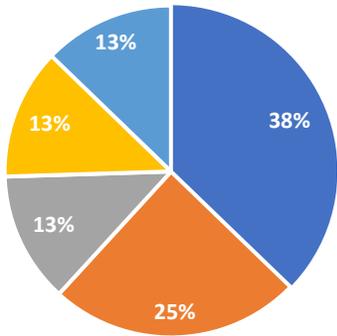


Cohort 1



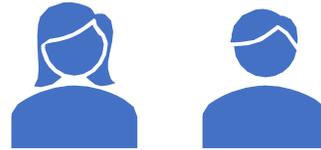
Female 56%
Male 44%

Age Groups Cohort 1



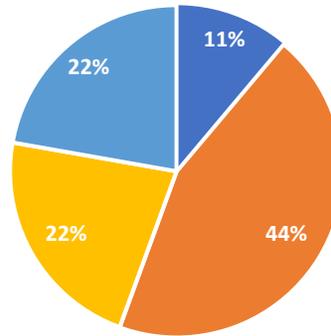
■ 25-35 ■ 36-45 ■ 46-55 ■ 56-65 ■ 65+

Cohort 2



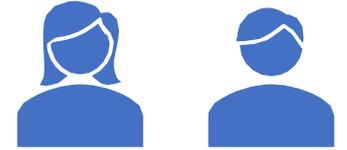
Female 56%
Male 44%

Age Groups Cohort 2



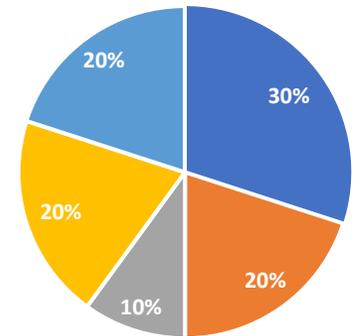
■ 25-35 ■ 36-45 ■ 46-55 ■ 56-65 ■ 65+

Cohort 3



Female 60%
Male 40%

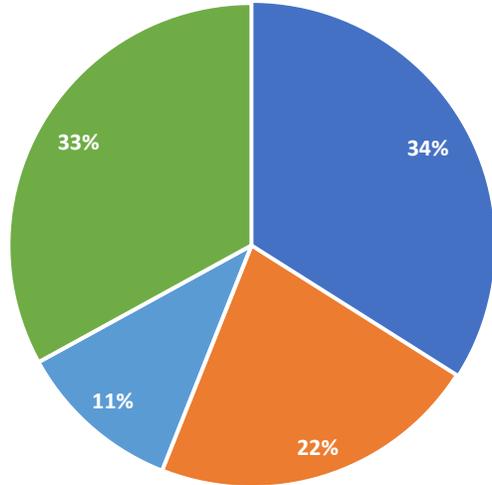
Age Groups Cohort 3



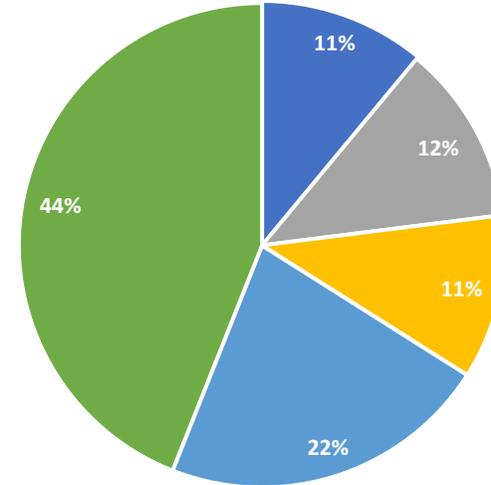
■ 25-35 ■ 36-45 ■ 46-55 ■ 56-65 ■ 65+



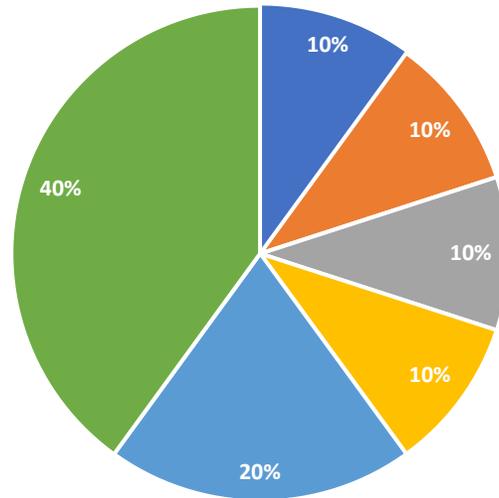
**Cohort 1
Race/Ethnicity**



**Cohort 2
Race/Ethnicity**



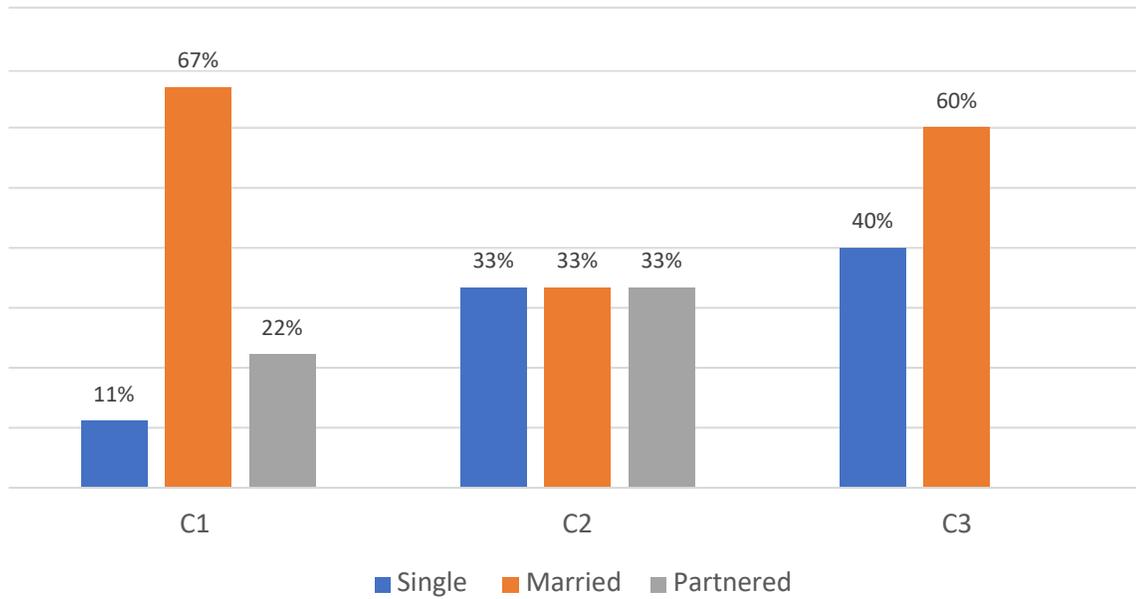
**Cohort 3
Race/Ethnicity**



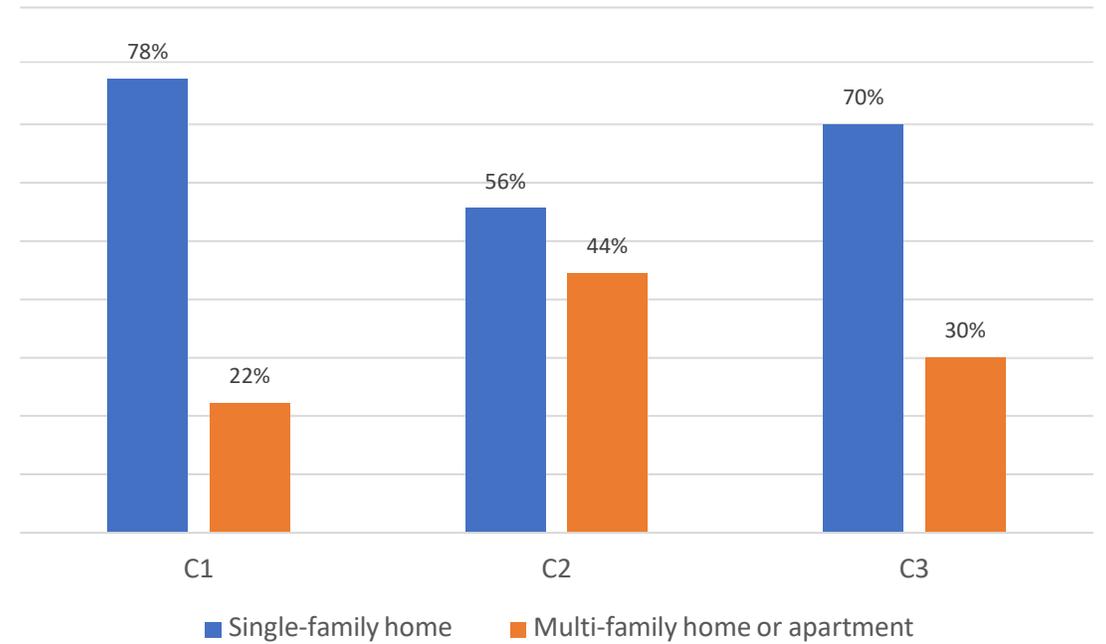
- African American/Black
- Asian
- American Indian/Alaska Native
- Hispanic/Latinx
- Multiracial
- White



Which of the following best describes your household relationship status?

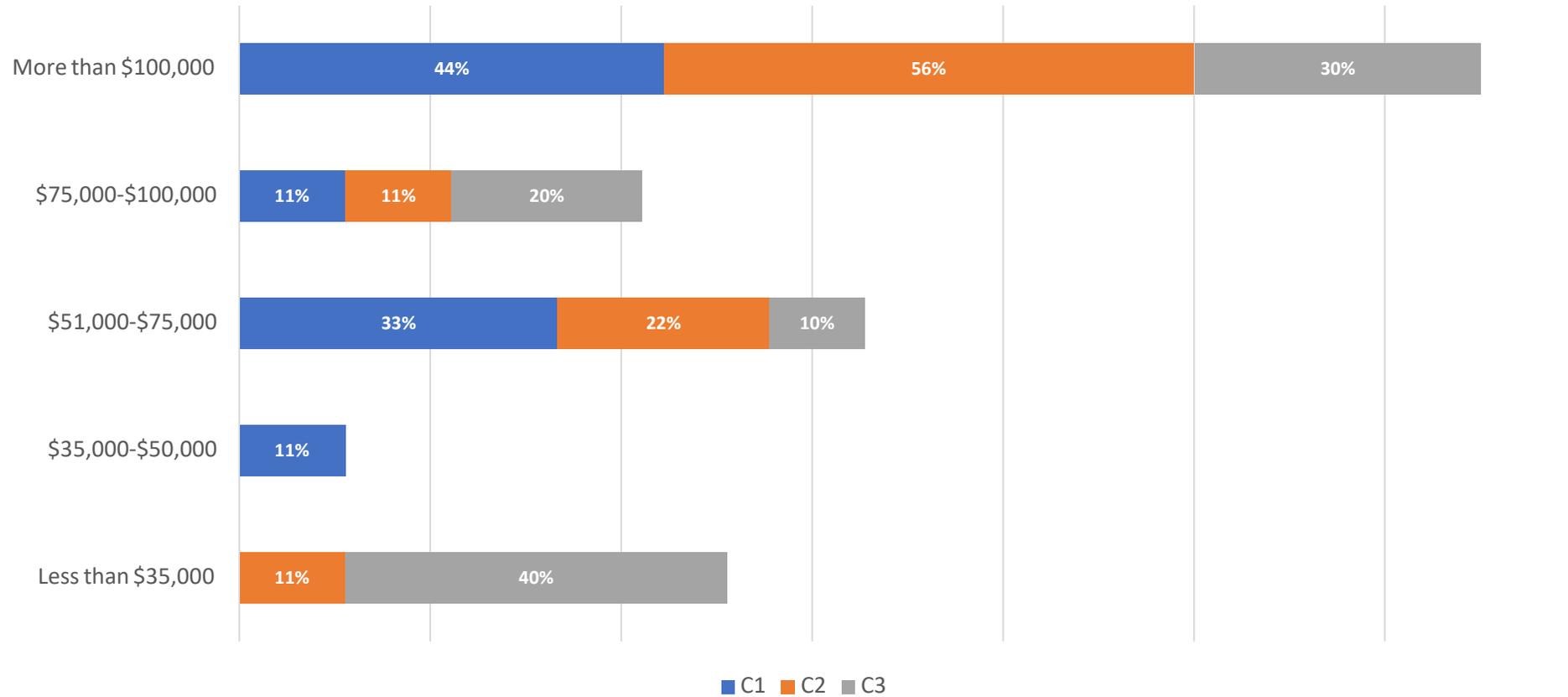


Which type of home do you live in?



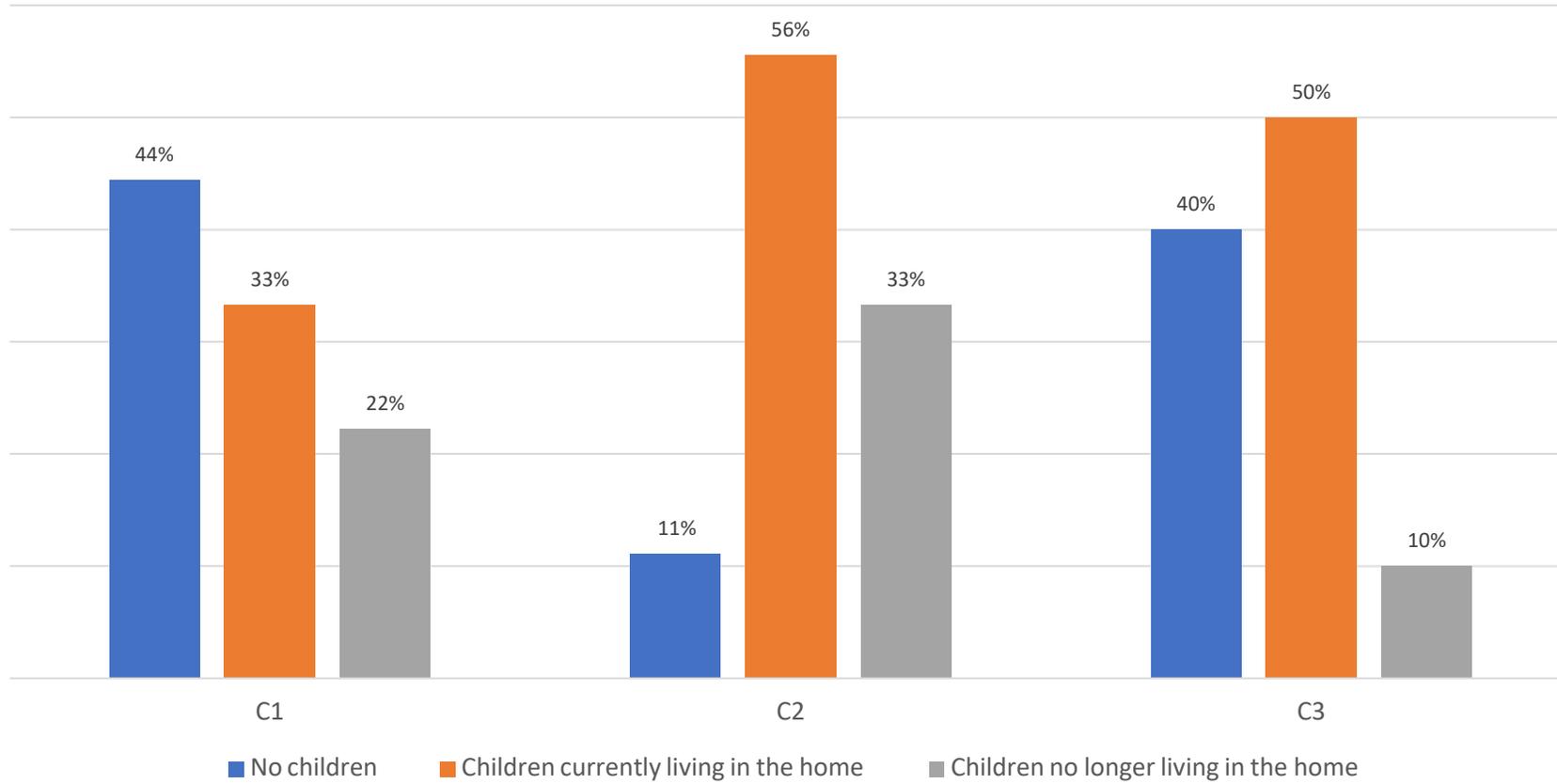


Which of the following best represents your annual household income?





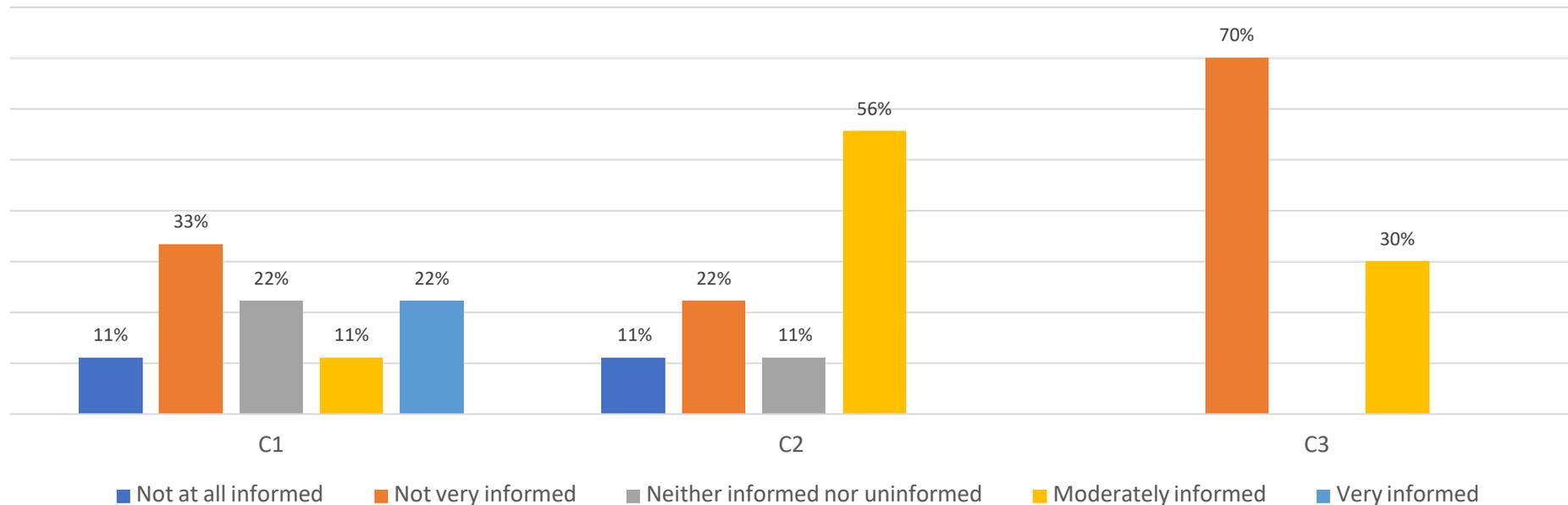
Which of the following best describes your household?



Findings

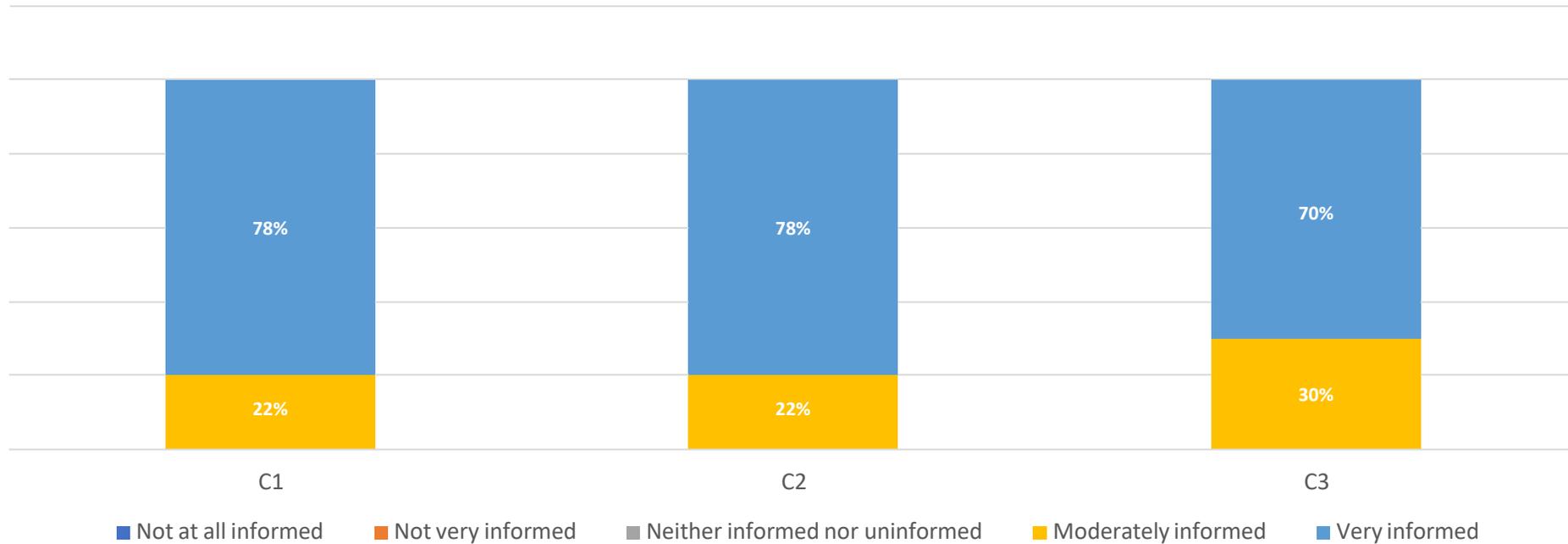


Prior to being a part of this study, how informed do you feel you were about the subject of food waste?



Prior to participating in this study, members of Cohort 1 (44%) said they were either not at all informed or not very informed about food waste. Meanwhile, 70 percent of Cohort 3 reported not being very informed about the subject. Cohort 2 had the highest number of respondents (56%) who felt they were moderately informed about food waste prior to participating in the study, followed by 30 percent in Cohort 3 and 11 percent in Cohort 1. Throughout the study, Cohorts 2 and 3 received supplemental information — with the former getting texts and emails with food waste facts and the latter participating in a weekly trivia contest related to the subject.

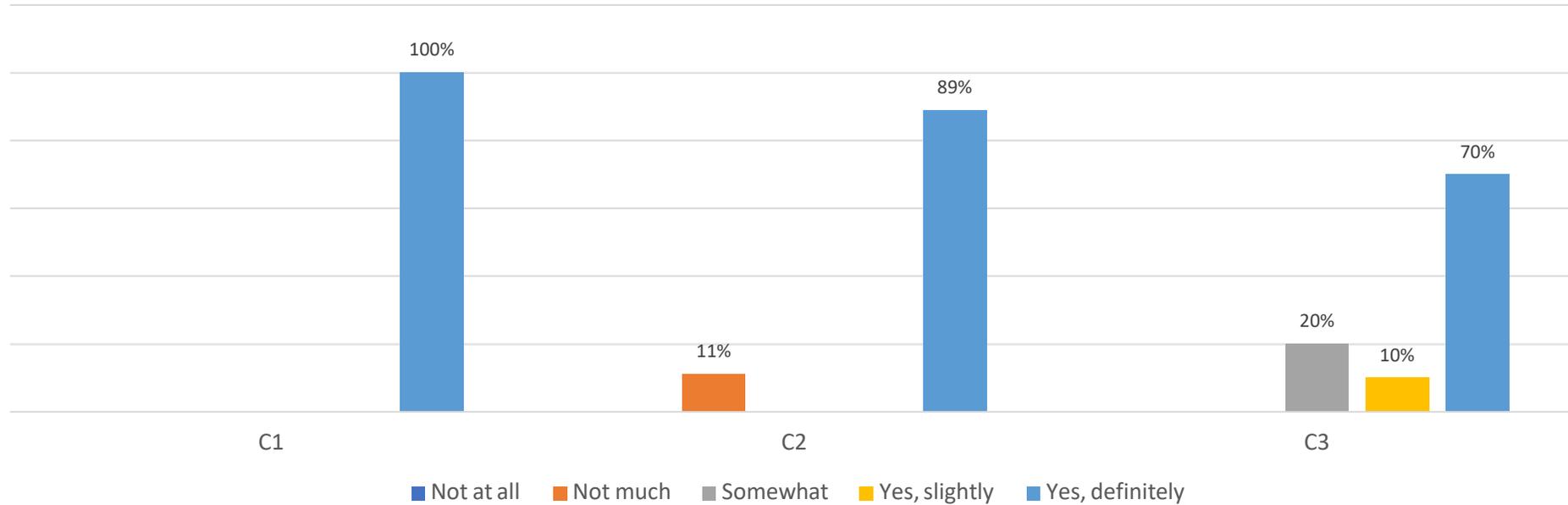
How informed do you feel you are now about this subject?



After participating in this study, 100 percent of respondents said they now feel either moderately or very informed about the subject of food waste. While Cohort 2 received weekly text and email messages with food waste facts and Cohort 1 did not, 22 percent of both focus groups said they now feel moderately informed and 78 percent reported feeling very informed about the subject. Meanwhile, Cohort 3, which received weekly trivia questions, had a slightly higher percentage of respondents who said they feel only moderately informed (30%) about food waste.



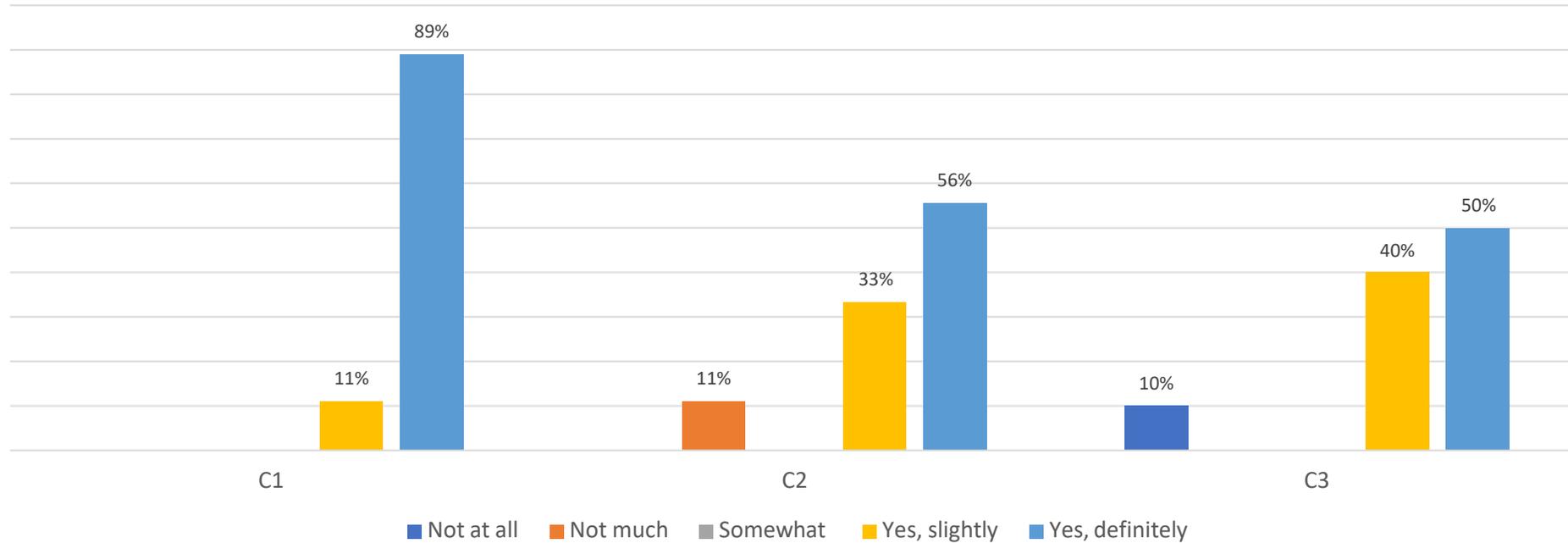
Do you feel participating in this study made you more aware of how you use and store food in your home?



After participating in the study, most respondents in all three cohorts said they felt more aware of how they use and store food in their homes. One hundred percent of the respondents in Cohort 1, 89 percent of Cohort 2 and 70 percent of Cohort 3 selected “yes, definitely,” indicating the study made them more aware of how they use and store food in the home. Only 11 percent of Cohort 2 selected “not much.” Meanwhile, of the members of Cohort 3, 20 percent selected “somewhat” and 10 percent chose “yes, slightly.”



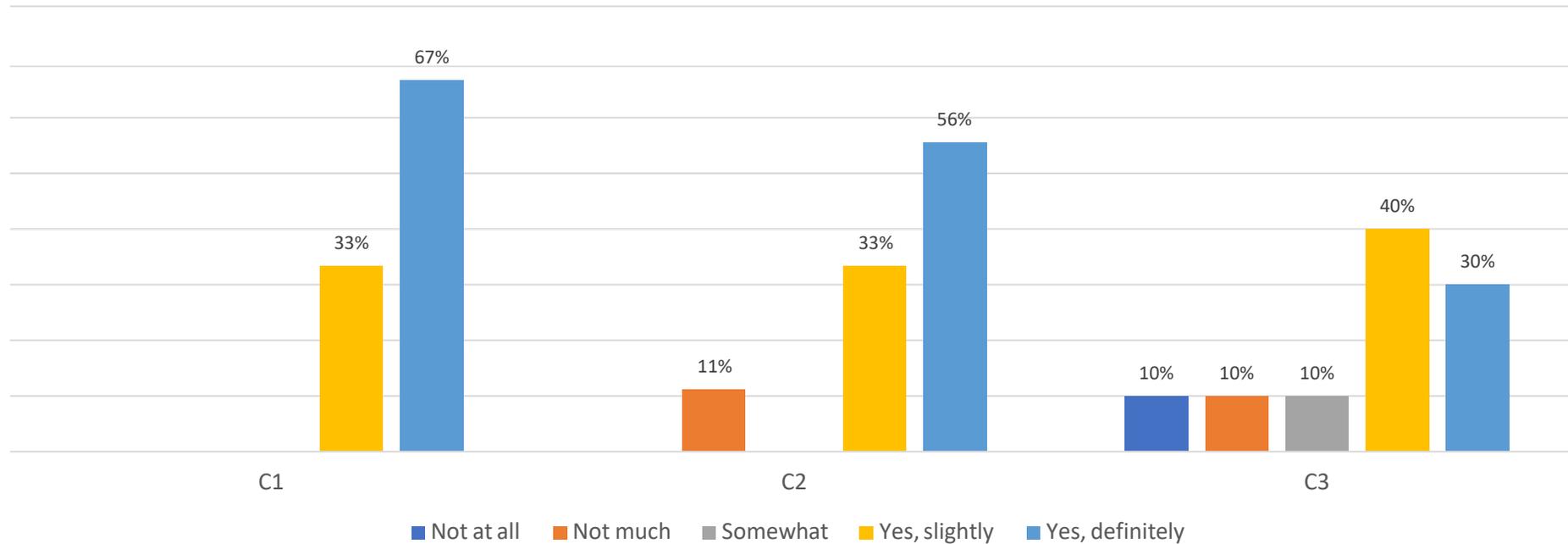
Do you feel participating in this study changed your behavior about the food you buy and handle?



Half or more of the members of each cohort selected “yes, definitely” when asked whether participating in the study changed their behavior about the food they buy and handle. Forty percent of Cohort 3, 33 percent of Cohort 2 and 11 percent of Cohort 1 indicated that the study slightly changed their behavior. Only 11 percent of Cohort 2 said the study didn’t change their behavior. Prior to the study, 56 percent of Cohort 2 — which received weekly food waste facts via text and email — said they felt moderately informed about the subject of food waste, and afterward, 89 percent said their participation either slightly or definitely changed their behavior about the food they buy and handle. Similarly, 30 percent of Cohort 3 — which completed weekly trivia questions — considered themselves moderately informed prior to the study, and by the end 90 percent said they felt participating in the study either slightly or definitely changed their behavior.



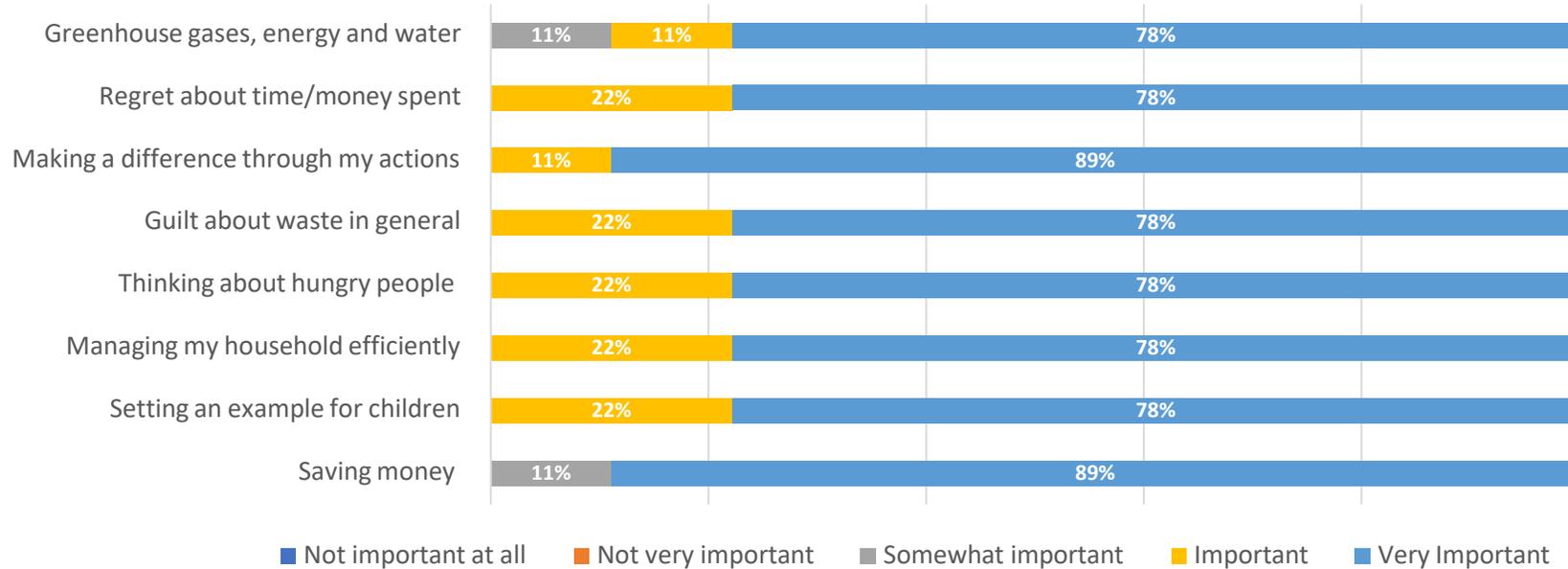
Do you feel participating in this study encouraged you to talk to others about this subject?



Most respondents from each cohort selected “yes, slightly” or “yes, definitely” when asked whether this study encouraged them to talk to others about food waste. Only 11 percent of respondents from Cohort 2 and 10 percent of respondents from Cohort 3 selected “not much,” indicating that the study didn’t encourage them to talk to others about this subject. Meanwhile, only 10 percent of Cohort 3 participants said the study didn’t encourage them to do so at all.

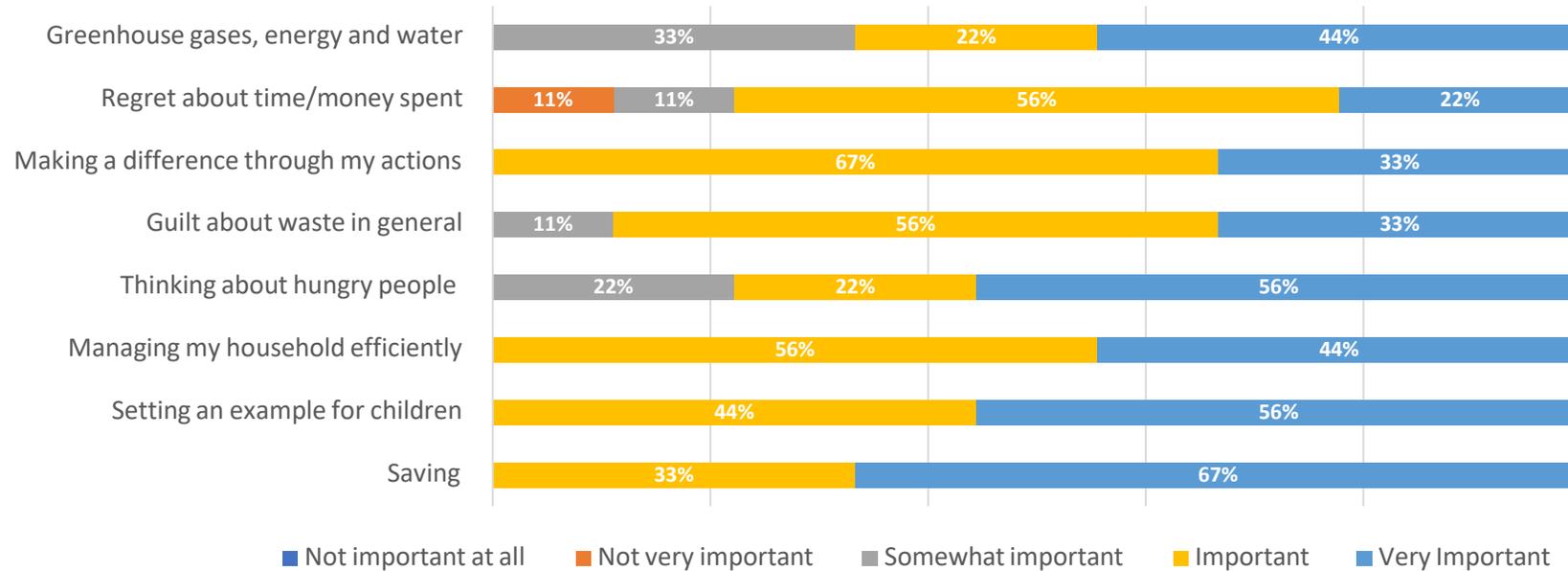


Cohort 1: How important do you feel each of these are in terms of being reasons to reduce food waste?



Eighty-nine percent of Cohort 1 said both “saving money” and “making a difference through my actions” were very important reasons to reduce food waste. Meanwhile, 100 percent of respondents from Cohort 1 said regret about time and/or money spent, guilt about waste in general, thinking about hungry people, managing their household efficiently and setting an example for children are either very important or important reasons to reduce food waste. While most respondents indicated they feel saving money, as well as greenhouse gases, energy and water are important or very important reasons to reduce food waste, 11 percent said both were only somewhat important.

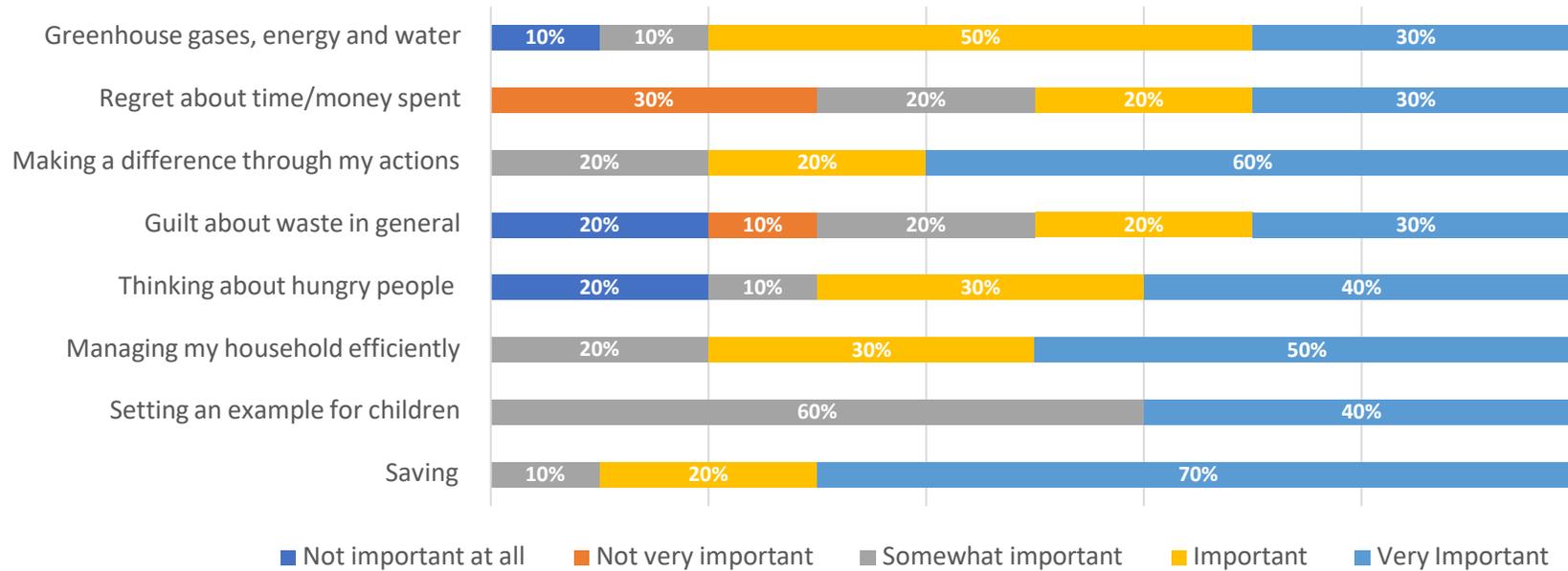
Cohort 2: How important do you feel each of these are in terms of being reasons to reduce food waste?



Members of Cohort 2, all of whom received weekly food waste facts, identified making a difference through their actions, managing their household efficiently, setting an example for children and saving as either important or very important reasons to reduce food waste. While most respondents (66%) felt greenhouse gases, energy and water were important or very important reasons to reduce food waste, 33 percent said these were only somewhat important. Similarly, 78 percent of Cohort 2 said feeling guilty about waste in general was either an important or very important reason to reduce food waste, while 22 percent said it was somewhat important. Although most of Cohort 2 said regret about time and/or money spent was a very important (22%), important (56%), or somewhat important (11%) reason to reduce food waste, 11 percent indicated it's not very important.



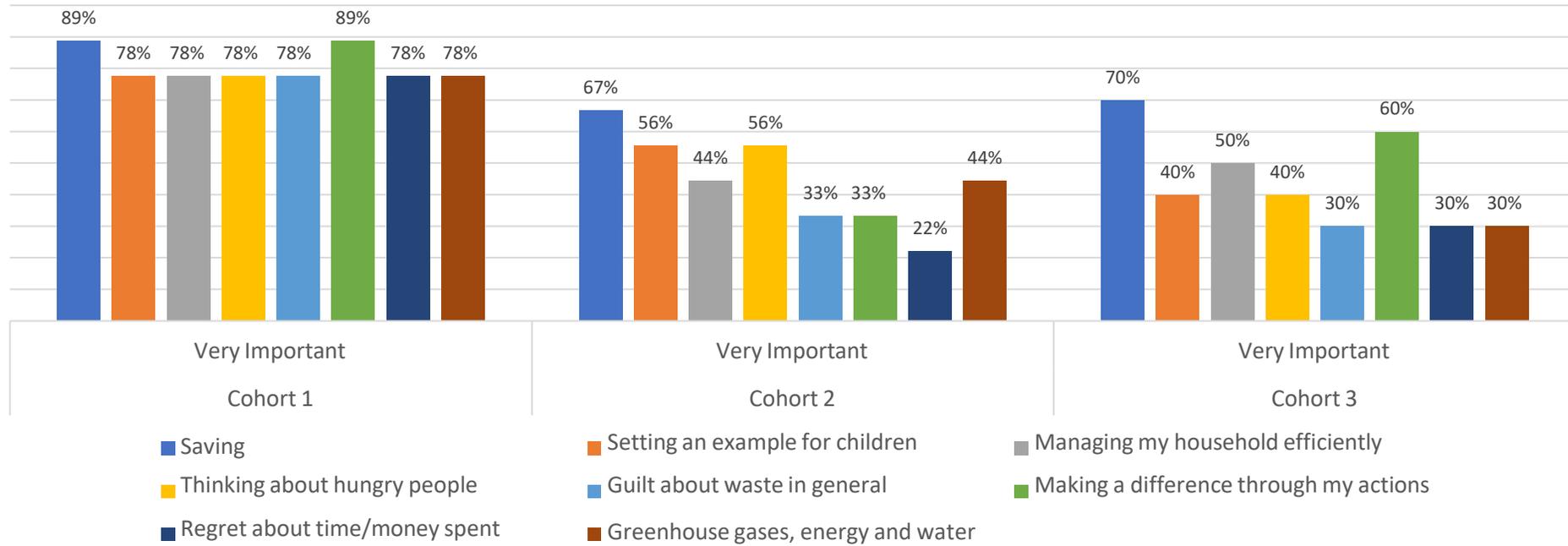
Cohort 3: How important do you feel each of these are in terms of being reasons to reduce food waste?



Compared to Cohorts 1 and 2, Cohort 3 was much more selective in terms of classifying reasons for reducing food waste as “important” or “very important.” Ninety percent of Cohort 3 indicated saving was either an important or very important reason, while 80 percent agreed making a difference through their actions and managing their household efficiently were important or very important motives for reducing food waste. Twenty percent said thinking about hungry people and guilt about waste in general were not important reasons at all for reducing food waste, while 10 percent said the same about greenhouse gases, energy and water. It’s also worth noting that 60 percent said setting an example for children was a somewhat important reason to reduce food waste.

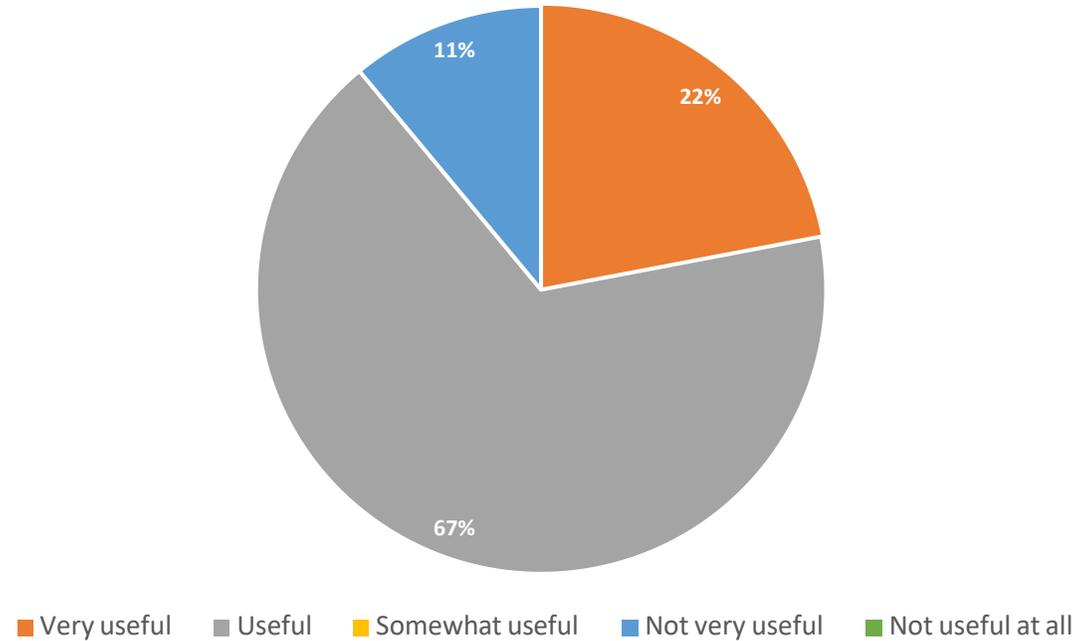


Most important reasons to reduce food waste by cohort





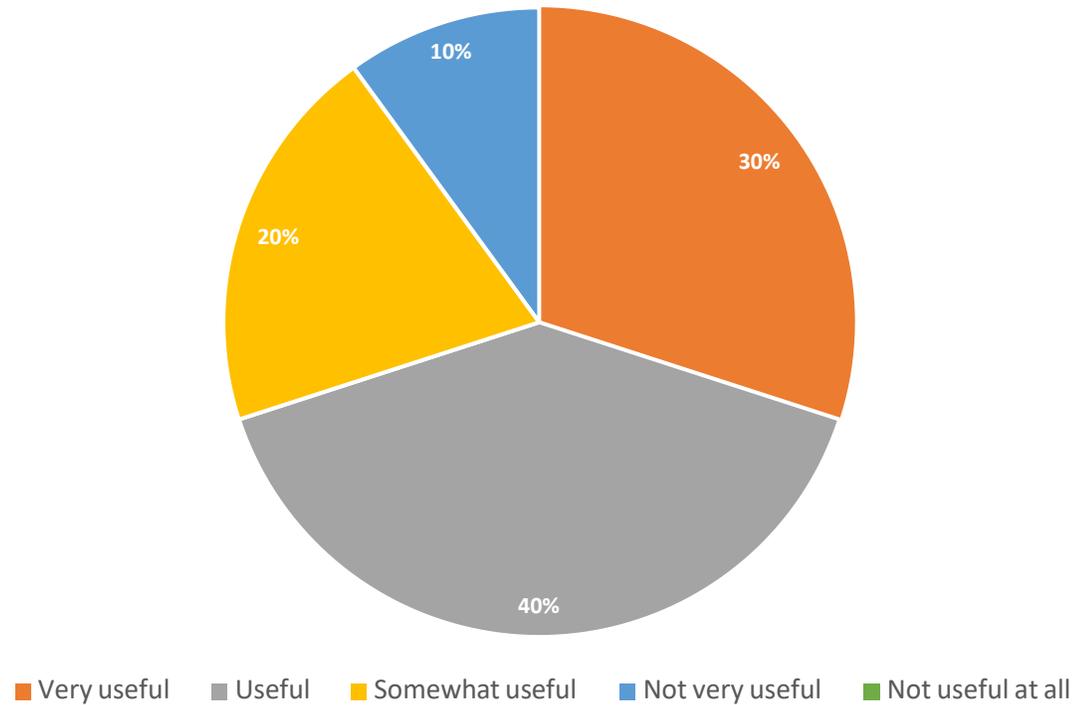
Cohort 2: How useful did you feel receiving food waste information by email and text message was in increasing your knowledge and engagement about this topic?



Most people in Cohort 2 agreed that receiving food waste information by email and text message was either very useful (22%) or useful (67%) in increasing their knowledge and engagement on this topic.

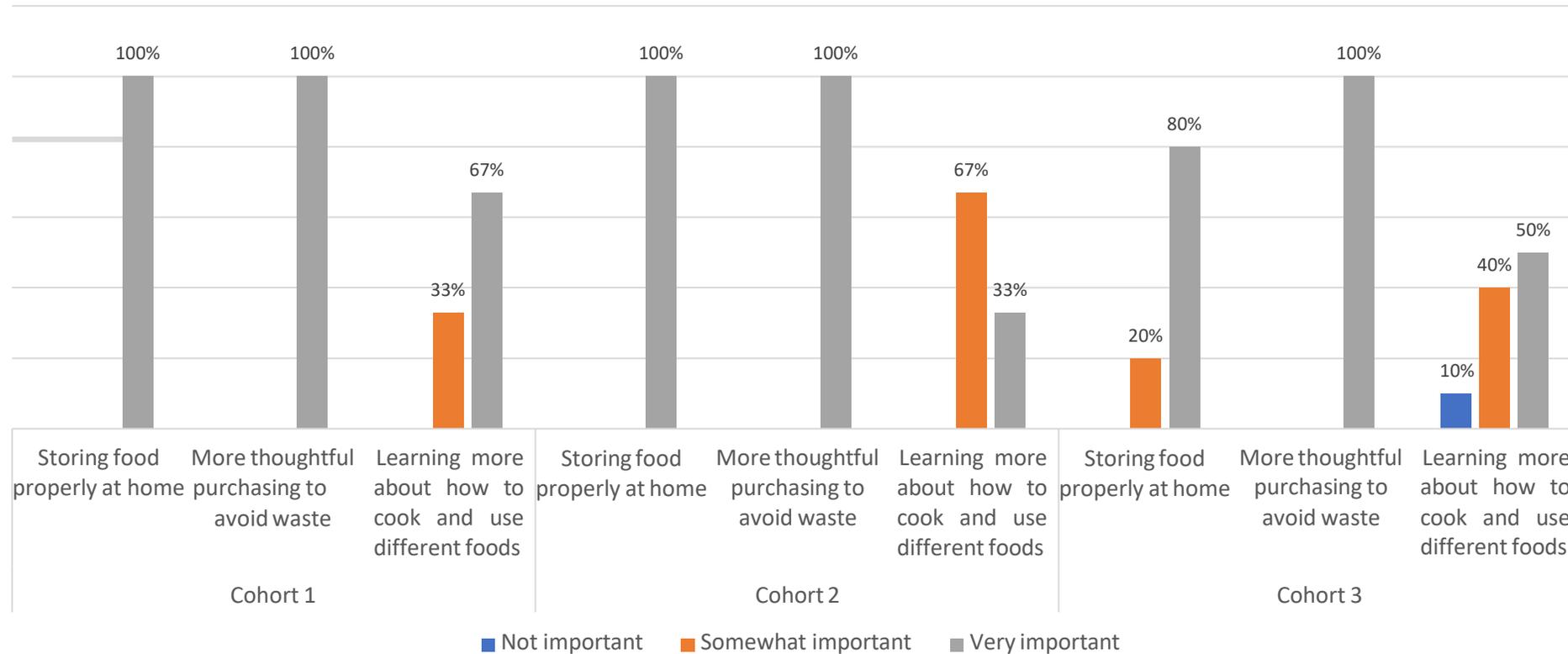


Cohort 3: How useful did you feel participation in the trivia contest was in increasing your knowledge and engagement about this topic?



Seventy percent of people in Cohort 3 agreed that participating in the trivia contest was either very useful (30%) or useful (40%) in increasing their knowledge and engagement on this topic. Meanwhile, 20 percent indicated the trivia contest was somewhat useful, while 10 percent said it was not very useful.

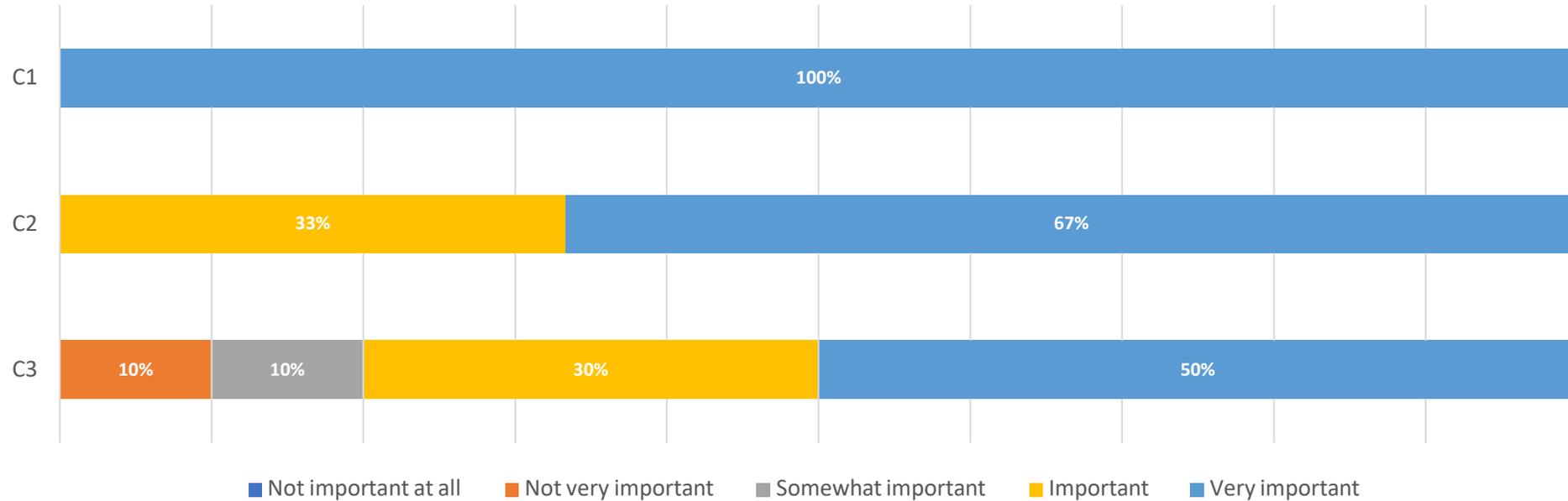
How important do you feel the following are as they relate to food waste?



All three cohorts unanimously agreed that more thoughtful purchasing is very important to avoiding food waste. One-hundred percent of Cohorts 1 and 2, and 80 percent of Cohort 3 identified storing food properly at home as a very important measure to reduce food waste. The remainder of Cohort 3 (20%) said storing food properly at home is somewhat important. Each cohort's response varied more when asked how important they felt learning more about how to cook and use different foods is to reducing food waste. In Cohort 1, 67 percent of respondents said it was very important, while 33 percent said it was somewhat important. A higher percentage of Cohort 2 viewed learning more about how to cook and use different foods as somewhat important (67%), while 33 percent said it was very important. Cohort 3 was further divided with 50 percent saying it is very important, 40 percent indicating it's somewhat important and 10 percent marking it not important.

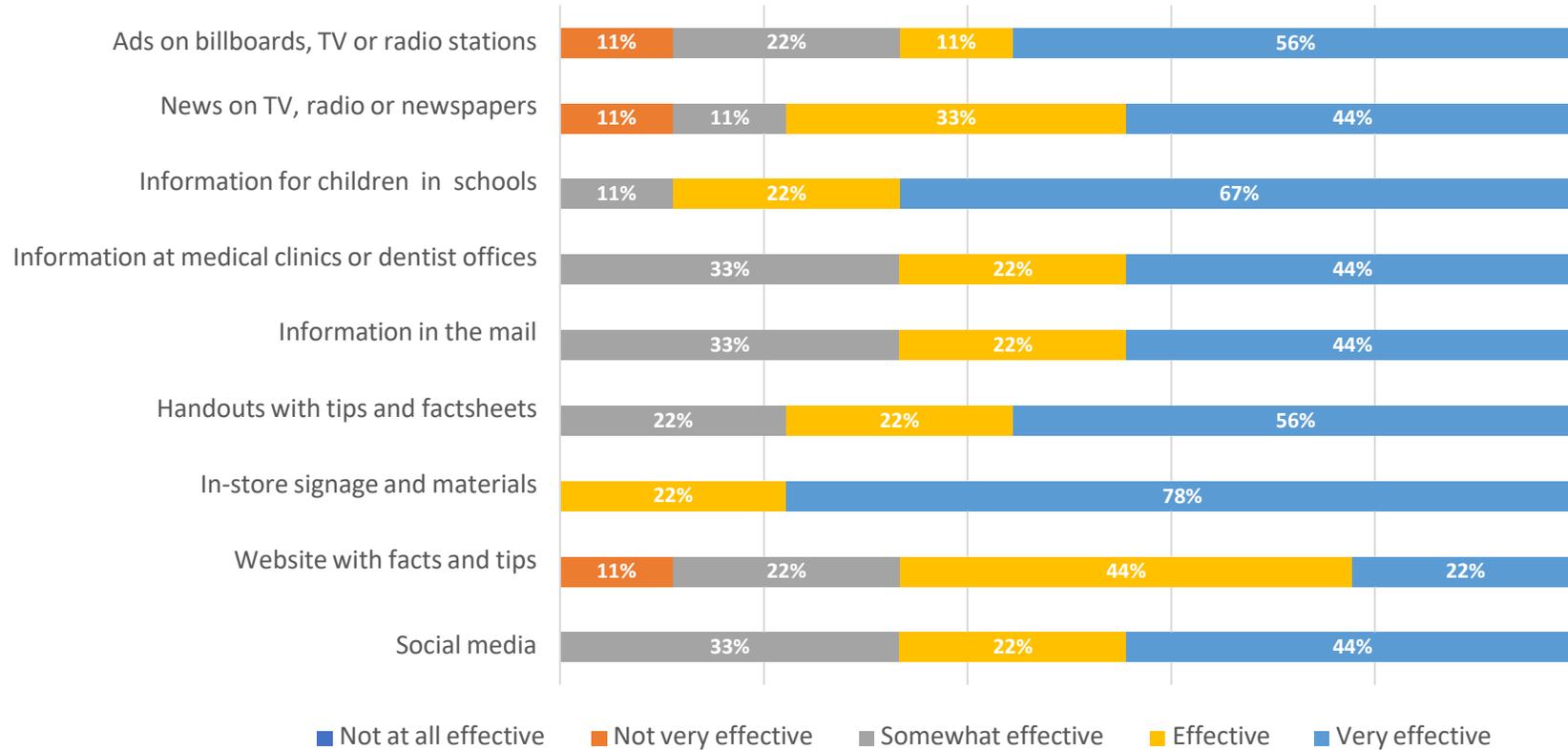


How important do you feel it is for Hennepin County to help increase awareness of this issue among local residents?



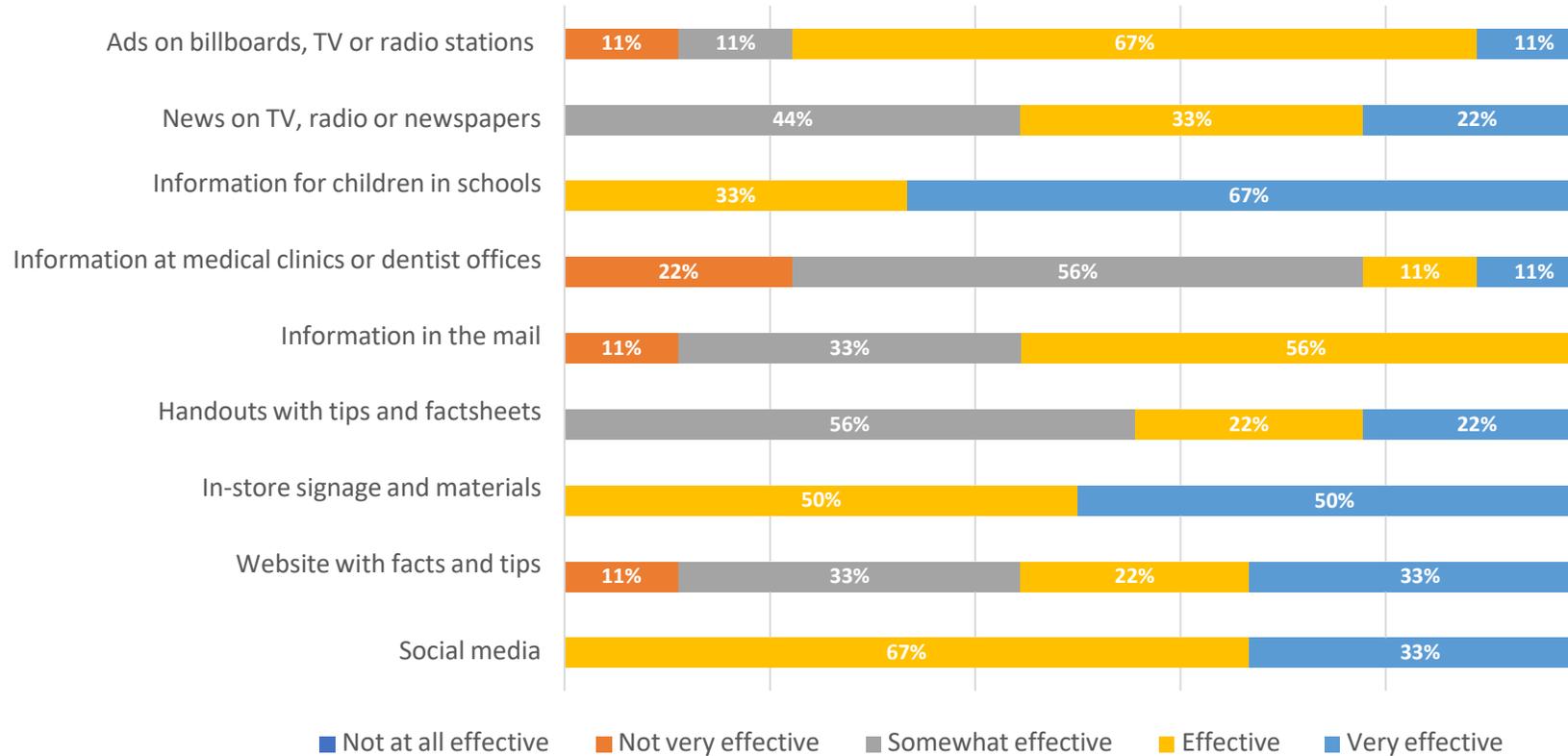
One hundred percent of respondents in Cohorts 1 and 2, and 80 percent of respondents in Cohort 3 said they feel it’s either important or very important for Hennepin County to help increase awareness of food waste among residents. Of Cohort 3 respondents, 10 percent said they felt it’s somewhat important and another 10 percent selected “not very important.”

Cohort 1: Please rate how effective you think the following would be in increasing awareness about food waste in your greater community



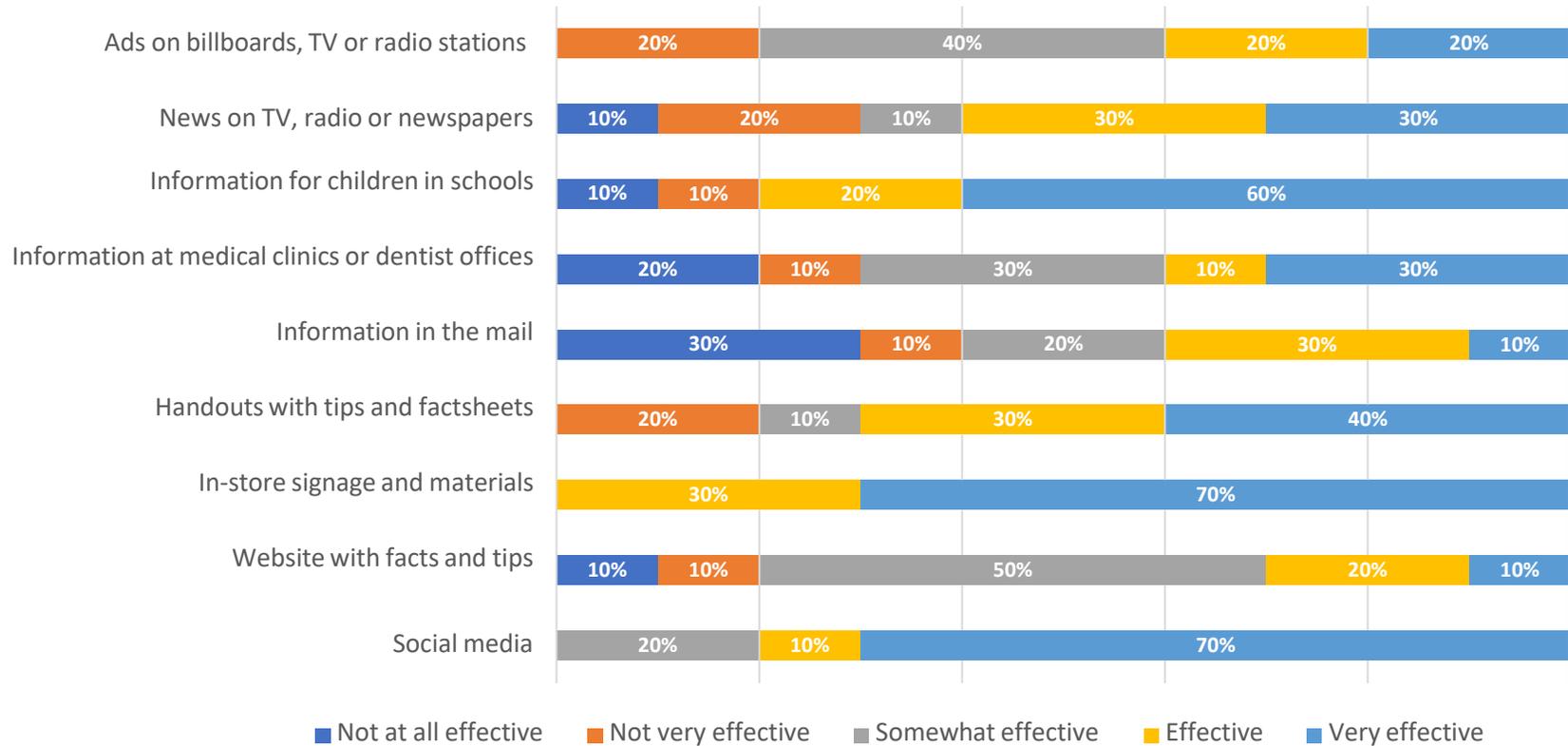
Members of Cohort 1 said in-store signage and materials would be effective (22%) or very effective (78%) in increasing awareness about food waste in the greater community. Sixty-six percent of respondents from this cohort agreed that providing information on social media, in the mail, and at medical offices or dentist offices would be effective or very effective.

Cohort 2: Please rate how effective you think the following would be in increasing awareness about food waste in your greater community



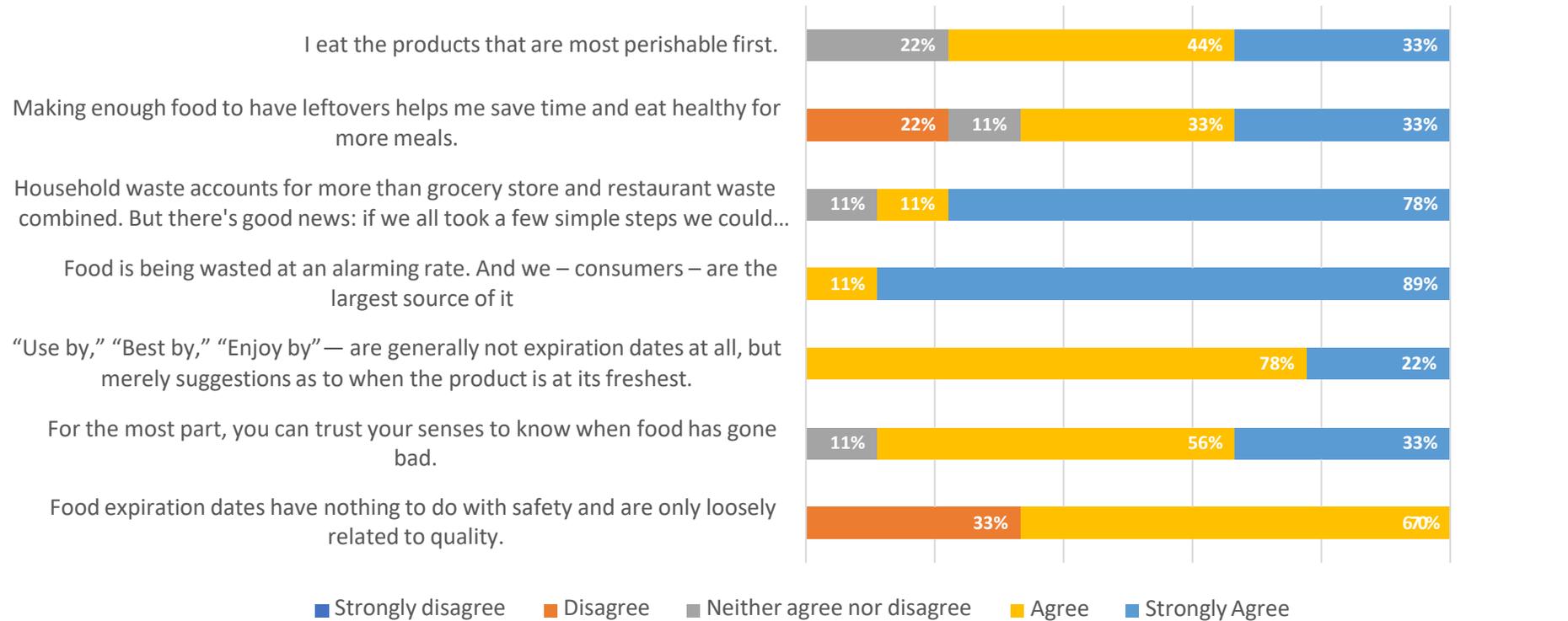
Cohort 2 respondents said providing information about food waste for children in school would be an effective (33%) or very effective (67%) way to increase awareness of the issue in the community. In-store signage and social media were also popular forms of increasing awareness, with 100 percent of the cohort saying these methods would be effective or very effective.

Cohort 3: Please rate how effective you think the following would be in increasing awareness about food waste in your greater community



Compared to Cohorts 1 and 2, Cohort 3 was much more divided on which approach would best increase awareness about food waste in the greater community. Much like the other cohorts, respondents in Cohort 3 agreed that in-store signage and materials would be either effective (30%) or very effective (70%). Meanwhile, social media and providing information for children in schools also ranked highly among participants with 80 percent saying these would be effective or very effective ways to increase awareness.

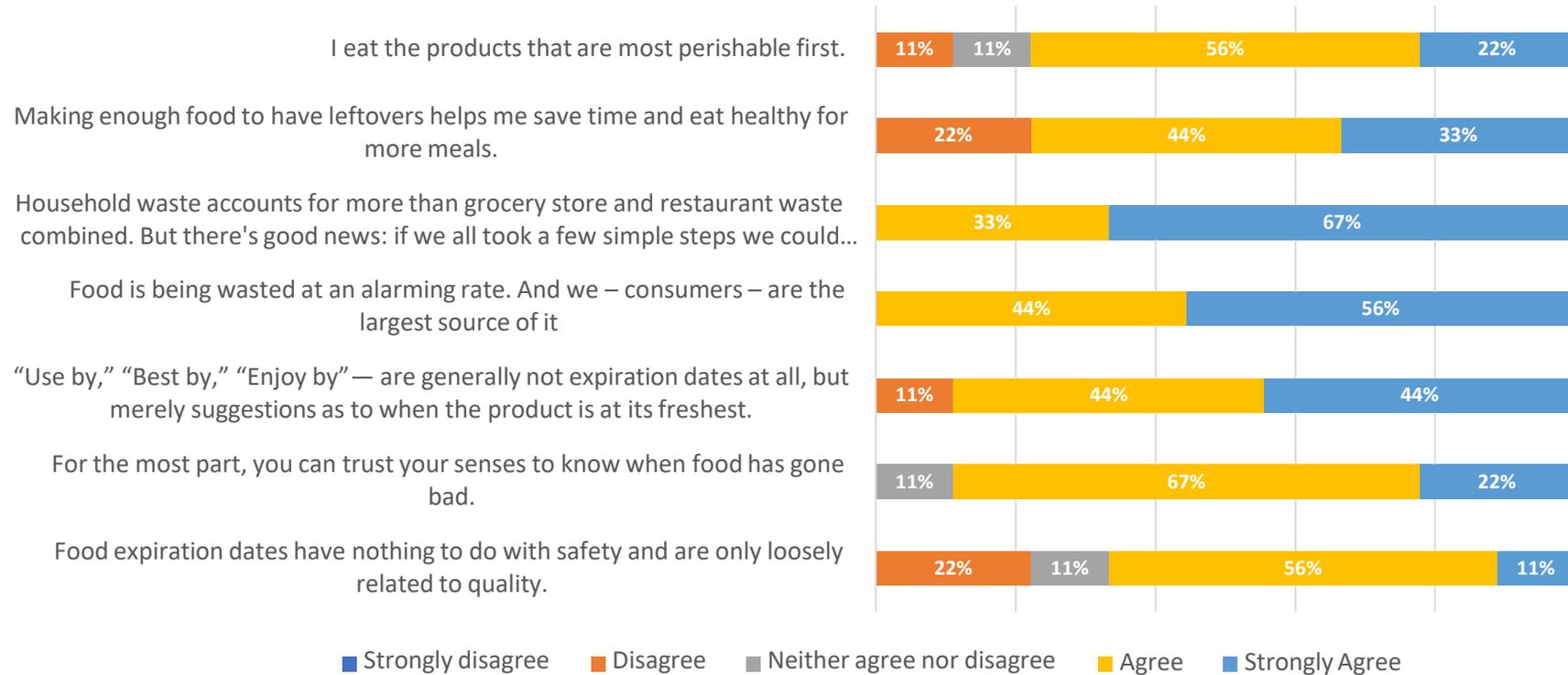
Cohort 1: How much do you agree or disagree with the following statements?



All Cohort 1 respondents either agreed (11%) or strongly agreed (89%) with the statement, “Food is being wasted at an alarming rate. And we — consumers — are the largest source of it.” While all respondents also either agreed or strongly agreed that “use by,” “best by,” and “enjoy by” are generally not expiration dates at all, but merely suggestions as to when the product is at its freshest, 33 percent said they disagreed that food expiration dates have nothing to do with safety and are only loosely related to quality. This finding is notable, as it indicates that there is a window of time after the “best by” or “use by” date where consumers may need to rely upon prior knowledge or their senses to determine whether their food is safe to eat. Nearly all Cohort 2 respondents agreed or strongly agreed that they can trust their senses to determine when food had gone bad.



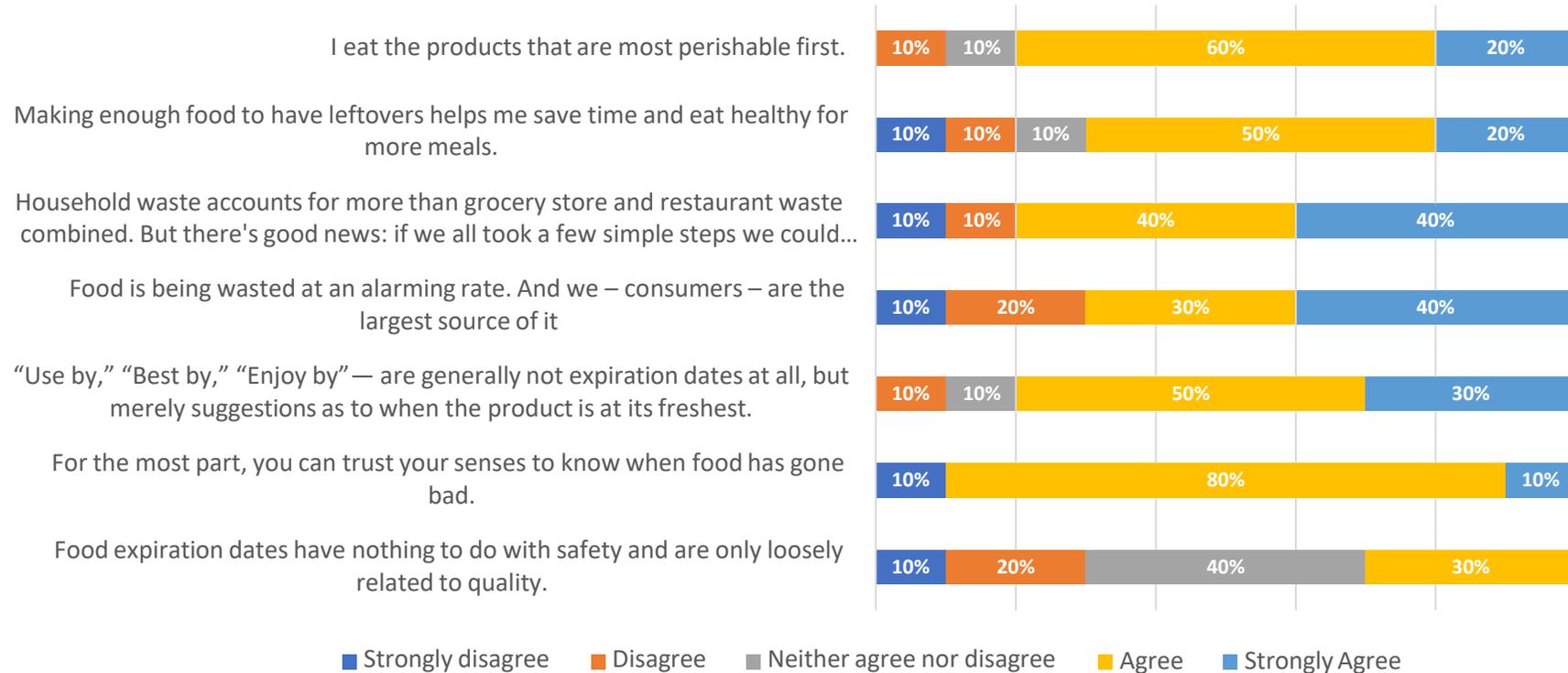
Cohort 2: How much do you agree or disagree with the following statements?



Similar to Cohort 1, all Cohort 2 respondents agreed or strongly agreed that food is being wasted at an alarming rate and household waste accounts for more than grocery store and restaurant waste combined. Eighty-four percent either agreed or strongly agreed that “use by,” “best by,” and “enjoy by” are generally not expiration dates and 89 percent agreed or strongly agreed that you can trust your senses to know when food has gone bad.



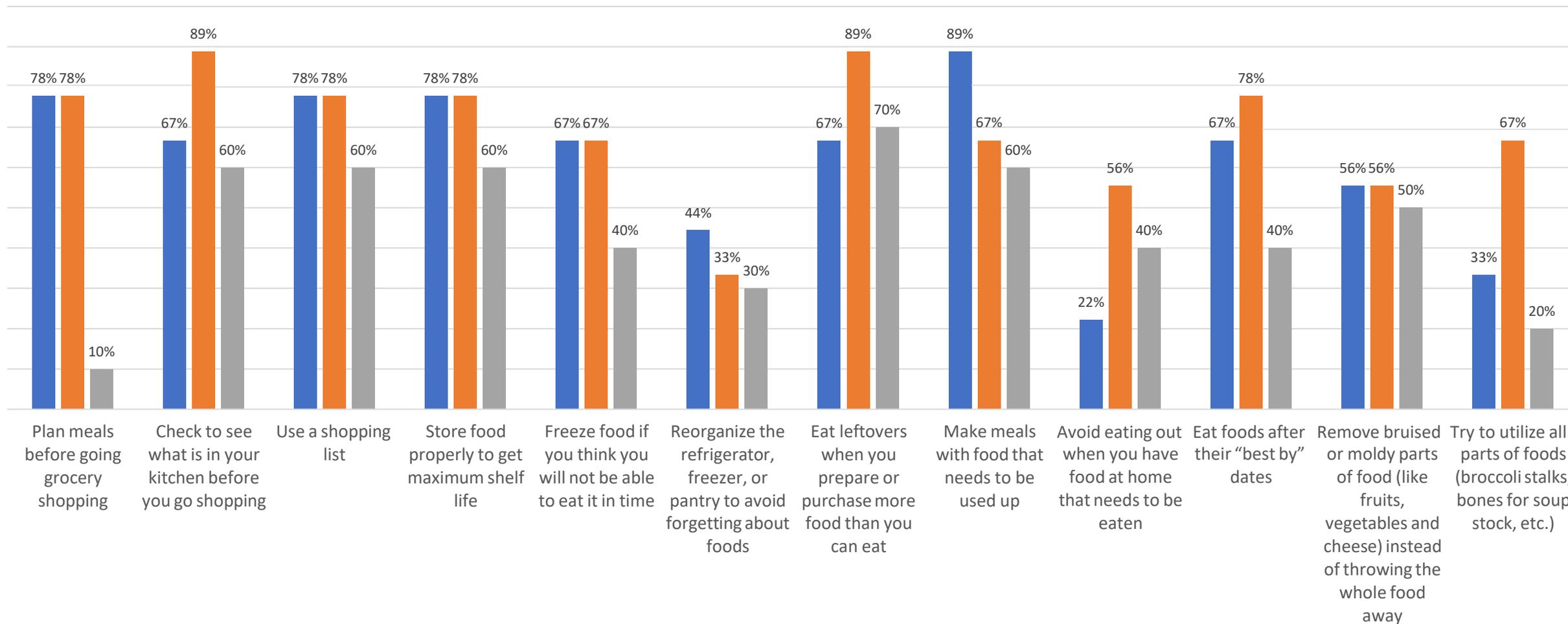
Cohort 3: How much do you agree or disagree with the following statements?



Ninety percent of Cohort 3 participants agreed or strongly agreed that, for the most part, you can trust your senses to know when food has gone bad. Meanwhile, 40 percent said they neither agree nor disagree with the statement, “Food expiration dates have nothing to do with safety and are only loosely related to quality.” Still, this finding indicates that while these consumers do look at the expiration date, they also rely on their senses to determine when food has gone bad. Eighty percent of this cohort also indicated that they either agree or strongly agree that they eat the most perishable products first.

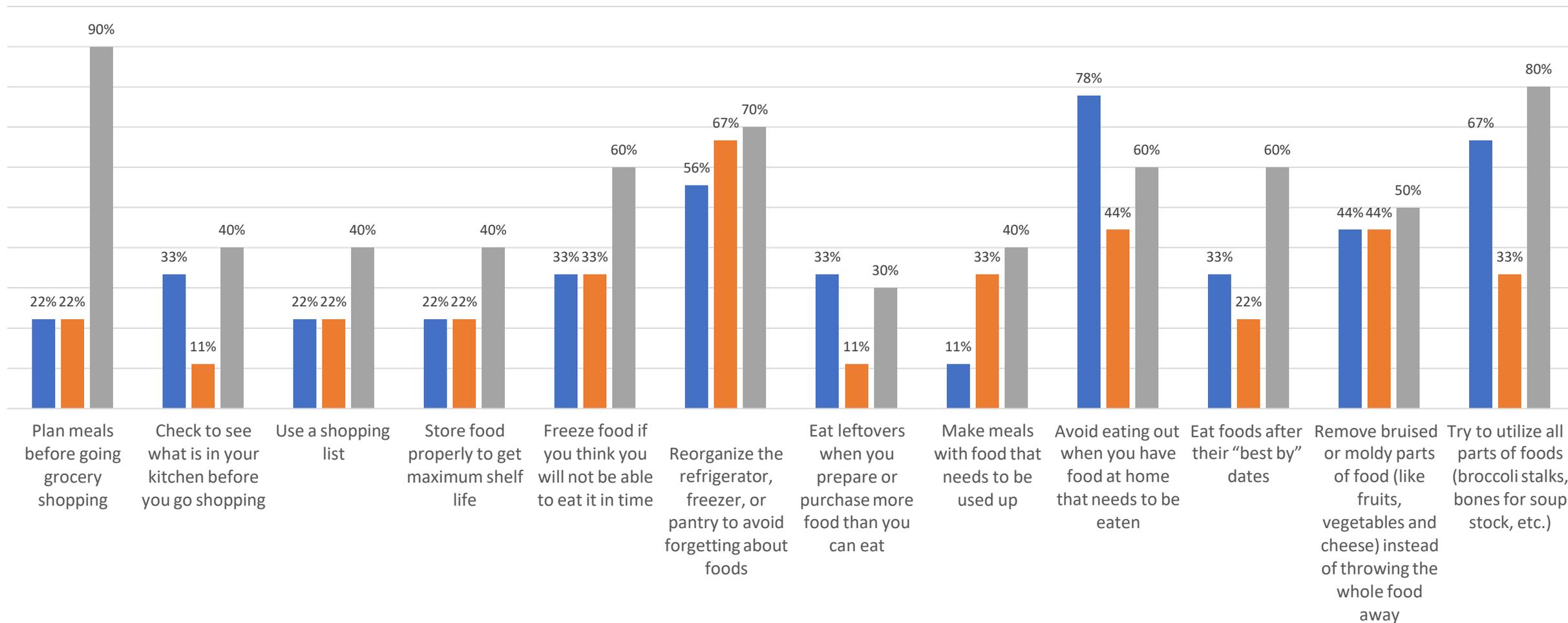
How often do you and/or your household members take the following actions?

■ Cohort 1 Always or most of the time ■ Cohort 2 Always or most of the time ■ Cohort 3 Always or most of the time



How often do you and/or your household members take the following actions?

■ Cohort 1 Never/Rarely/Sometimes ■ Cohort 2 Never/Rarely/Sometimes ■ Cohort 3 Never/Rarely/Sometimes



Analysis



Before participating in this study, 44 percent of Cohort 1, 33 percent of Cohort 2 and 70 percent of Cohort 3 said they were either not at all informed or not very informed about the subject of food waste, but afterward, 100 percent of each cohort reported feeling moderately or very informed.

Eighty-nine percent of Cohort 2 said they found it useful or very useful to receive food waste information by email and text message, while 70 percent of Cohort 3 said participating in the trivia contest was either useful or very useful in increasing their knowledge and engagement on this topic. This indicates that consumers are interested in receiving supplemental information that can help guide them when making food purchasing, storing and consumption decisions.

More than half of all participants in each cohort also said the study either slightly or definitely made them more aware of how they use and store food, and changed their behavior about the food they buy and handle. Fifty-six percent of Cohort 2, which received additional food waste information via text and email and had the fewest number of participants who felt uninformed about the subject prior to the study, responded that the study definitely increased their awareness and promoted positive behavior changes. In Cohort 3, which received trivia questions and had the highest percentage of respondents who considered themselves uninformed about food waste at the beginning, 50 percent said this study definitely increased their awareness and changed their behavior.



While each cohort's motivations for reducing food waste varied slightly, across all three cohorts and the range of income brackets, saving money was consistently considered very important. In fact, more than half of each cohort indicated saving was very important. In Cohort 1, which only received information during focus groups, 89 percent of respondents said saving was a very important reason to reduce food waste. Seventy-eight percent of respondents in this cohort indicated six different reasons for reducing food waste were very important, while the other two cohorts, which received supplemental information, were far more selective.

All of Cohort 2 indicated saving was either an important (33%) or very important (67%) reason to reduce waste. This cohort also received a saving-specific email during the study that highlighted strategies consumers can use to save money and prevent food waste while shopping. Similarly, of Cohort 3 respondents, which received a trivia question related to this topic, the majority (90%) identified saving as an important or very important reason to reduce food waste.

While the survey results indicate both saving money and managing one's household efficiently were important or very important, half the individuals in Cohorts 3 didn't feel that regret about time and/or money spent were as important reasons to reduce food waste. In general, Cohort 3 also responded less positively toward guilt-motivated reasons for reducing food waste.



After participating in the study, 80 percent percent or more of the members of each cohort said they feel storing food properly at home and more thoughtful purchasing were very important to reducing food waste.

Seventy-eight percent of respondents in Cohorts 1 and 2, and 60 percent of Cohort 3, said they either always or often store food properly to get maximum shelf life. More than half of Cohorts 1 and 2 also indicated they either always or often freeze food if they don't think they can eat it in time. It's worth noting that Cohort 2 received an email explaining how properly storing food can help extend shelf life, while Cohort 3 also had a trivia question about how proper food storage can reduce waste.

In terms of thoughtful purchasing habits, half or more of the participants in each cohort indicated they always or often use a shopping list and check to see what's in their kitchen before going to the store. Seventy-eight percent of Cohorts 1 and 2 also said they either always or often plan meals before grocery shopping.

Overall, careful planning and storage messaging appear to be an effective way of helping budget-conscious consumers reduce waste.



Ninety-three percent of participants indicated they feel it's important or very important for Hennepin County to increase awareness of this issue among residents. In terms of increasing awareness about food waste, all three cohorts agreed that in-store signage and materials would be either effective or very effective. Social media was also largely regarded as either an effective or very effective tool for increasing awareness.

Much like other consumer awareness campaigns, more than half of all participants agreed that providing information for children in schools would be either an effective or very effective way to inform the greater community about food waste. All of Cohorts 1 and 2, and 40 percent of Cohort 3 indicated they feel it's either important or very important to reduce food waste to set a good example for children. It's worth noting that 33 percent of Cohort 1, 56 percent of Cohort 2 and 50 percent of Cohort 3 have children currently living in the home.

Each cohort's view of what tools would be least effective varied. Eleven percent of Cohort 1 identified ads on billboards, TV or radio stations, news reports, and a website with facts and tips as not very effective. Of Cohort 2, 22 percent said information at medical clinics or dentist offices would not be very effective, while 11 percent viewed ads on billboards, TV or radio stations, information in the mail, and a website with facts and tips the same way. Cohort 3 was more divided, with 40 percent indicating information in the mail would be not at all or not very effective, followed by 30 percent saying the same of news reports and information at medical clinics and dental offices.

Work that matters.

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